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Regional Economic Outlook

Europe

Fostering Sustainability

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MAY 10

I N T E R N A T I O N A L M O N E T A R Y F U N D

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This *Regional Economic Outlook: Europe—Fostering Sustainability* was written by Xavier Debrun, Johan Mathisen, and Srobona Mitra under the guidance of Helge Berger, Luc Everaert, Ajai Chopra, and Marek Belka, with contributions from Jaromir Benes, Wim Fonteyne, David Hoffman, Florence Jaumotte, Piyabha Kongsamut, Julie Kozack, Andrzej Raczko, Piyaporn Sodsriwiboon, and Daria Zakharova. This *Regional Economic Outlook: Europe* was coordinated by the EU Policies and Regional Studies Division of the IMF’s European Department. Pavel Lukyantsau, Amara Myaing, and Gregg Forte provided research, administrative, and editorial assistance, respectively. Sean Culhane and Joanne Blake of the External Relations Department oversaw the production. The report is based on data available as of April 12, 2010. The views expressed in this report are those of the IMF staff and should not be attributed to Executive Directors or their national authorities.

Executive Summary

A moderate and uneven recovery is taking shape across Europe, supported by the rebound in global trade and policy stimulus. Europe's performance remains weak compared with the recoveries underway in other parts of the world; these differences largely reflect the legacy of the economic and financial crisis, which affected Europe more than other regions. The varying speed of recovery in advanced Europe, where many southern European economies continue to struggle, is closely linked to the degree of overheating and credit expansion going into the crisis. The even more varied speed of recovery in the economies of emerging Europe reflects country-specific vulnerabilities, external financing difficulties, and variations in their reliance on export demand. Inflationary pressures are subdued in advanced economies; but in emerging Europe, with its greater differences in exchange rate regimes and economic structures, the picture is again more mixed.

Unprecedented and often synchronized policy actions helped prevent a financial and economic meltdown and continue to support the upswing. Fiscal policy protected aggregate demand and private consumption from the full impact of the shock through discretionary stimulus and automatic stabilizers. An array of emergency monetary and financial measures averted a cascade of bank failures and contained systemic financial risk. In the most vulnerable and hard hit countries in emerging Europe, coordinated assistance from the IMF, the European Union (EU), and other multilateral institutions eased the inevitable adjustment to considerably tighter constraints on external financing. Large and front-loaded official financing measures allowed for more gradual corrections in the current account and smoother policy adjustments than would have been possible otherwise.

Growth is expected to pick up during 2010–11, but the traditional drivers of the recovery are likely to be weaker than usual. In the near term, growth will continue to benefit from exports, fiscal support (including from lagged stimulus measures such as infrastructure investment), and an upswing in inventories. Improvements in investor and consumer confidence should raise domestic demand. However, with unemployment expected to increase, and with lingering difficulties in the banking sector likely to restrain credit supply, consumption and investment will remain lackluster.

Risks to the overall outlook appear broadly balanced. On the downside, market concerns about sovereign liquidity and solvency in Greece, if unchecked, could turn into a larger sovereign debt crisis, potentially leading to some contagion. Another downside risk is a commodity price shock that could lead central banks to raise interest rates sooner than expected. In emerging Europe, where investors increasingly differentiate between countries, some might see healthy capital flows returning later than expected, while others could face a destabilizing surge of inflows. On the upside, growth could be significantly higher across all of Europe if the continued dynamism of activity in the United States and in Asian and Latin American emerging economies boosts trade.

Although supportive macroeconomic policies are still needed to secure a self-sustaining recovery, the costs and limits of many crisis interventions are of growing concern. Such concerns are most prominent on the fiscal side, but they exist as well for monetary and financial policies. Aiming to stabilize public debt in the short run is neither feasible nor desirable, given the risk of a relapse into recession and the magnitude of the required fiscal retrenchment. However, sustainability indicators are flashing warning signs about the public debt in most countries, and sizable consolidation efforts are needed in the medium term. Although the required adjustments are not necessarily unprecedented, they often exceed current fiscal adjustment plans. For countries with already low fiscal credibility, more immediate consolidation is a must. In the monetary and financial areas, the onset of exit from crisis support reflects preestablished sunset clauses and normalized market conditions, which reduce the attractiveness of many emergency facilities. However, the persistence of blanket crisis measures in the financial sector still allows some banks to postpone restructuring and thereby prolongs underlying fragilities. Blanket guarantees and liquidity support must be gradually replaced by specific interventions in individual institutions.

Spillovers across policy areas and countries require the coordination and sequencing of the exit from crisis policies—particularly in the EU and the euro area. Without a coordinated approach, the withdrawal of enhanced deposit guarantees would trigger opportunistic capital flows in the EU's tightly integrated markets. Across policy areas, eliminating remaining banking sector problems will help normalize credit conditions, enhance the effectiveness of monetary policy, and aid the fiscal exit. The need for coordination is particularly great in the euro area, where cross-border and cross-policy spillovers are intertwined. Here, existing frameworks like the Excessive Deficit Procedure and the Stability and Growth Pact can be helpful, for example by serving as common anchors to medium-term plans for adjustment and exit in line with the principles endorsed by the G-20. However, the Greek crisis is a powerful reminder of long-standing gaps in the area's fiscal architecture. Filling those gaps will require a substantial strengthening of fiscal discipline in good times and the introduction of procedures to manage crises.

For emerging Europe, the key policy challenge will be attracting and harnessing healthy capital inflows to restore economic growth (Chapter 2). After a long period of relatively large and seemingly unstoppable inflows, the region saw capital inflows decelerate as the crisis took hold. The differential impact of the crisis across countries reflected variations in the factors that attracted excessive foreign capital before the crisis. In general, the countries hit the most had precrisis inflows that were the most in excess of what can be explained by structural factors, such as the degree of income convergence or the size and structure of their economies. Their economies often had features that tended to create the illusion of fiscal space—heavily managed exchange rates, booming credit markets, and overheated growth. As policymakers became increasingly worried about vulnerabilities associated with

the surge of flows, they often resorted to prudential policies that were somewhat effective in moderating the size and composition of those flows.

These precrisis trends provide a number of important policy lessons. For countries that are already seeing a resumption of inflows, responsive macroeconomic policies will be critical to stemming an excessive surge. For countries with pegged exchange rates, the best response to inflows in excess of those driven by structural factors is to tighten fiscal policies. For countries without pegged exchange rates, the most effective response could be to let the currency appreciate. A freely floating exchange rate is also helpful in preventing excessive inflows and the accumulation of financial fragilities.

These macroeconomic policies should be accompanied by improvements in the financial stability of the increasingly integrated financial system in the region. Prudential tools such as capital requirements on foreign borrowing help to lower excessive inflows and related risks in banks. Higher risk weights on loans to certain sectors help build buffers in the banking system and prevent overheating of certain sectors. To sustain the resilience of the financial system, these tools need supportive macroeconomic policies and effective cross-border financial supervision.

Where capital inflows conducive to income convergence have yet to resume, policymakers will need to reorient the sources of economic growth toward the tradables sector. While this transformation would take place in the private sector, it will require support from policies to restore a balance between the nontradables and tradables sectors, improve intersectoral labor mobility, reduce skill mismatches, and address country-specific infrastructure bottlenecks.

1.Outlook: Getting the Exit Right

Across Europe, unprecedented policy actions are shoring up a moderate and uneven recovery. In the very near term, policies must push to establish a firm recovery. However, in some countries, fiscal stimulus has already collided with sustainability concerns. In any case, the tasks ahead include a large medium-term fiscal consolidation. Equally crucial is the quick return to normal financial intermediation that will come through rapid restructuring and recapitalization of vulnerable institutions, clarification of the regulatory environment, and moving away from blanket support to the financial sector. Such normalization should allow monetary policy to regain traction. Many countries need to boost competitiveness and rebalance their sources of growth. For emerging economies, the challenges are more varied. Reforms encouraging healthy capital inflows would help restart the convergence of real incomes.

Recovery in Low Gear

A Moderate and Uneven Pickup in Activity

In the global multispeed recovery, European growth overall remains in low gear, and a number of countries were still mired in recession at the beginning of 2010, including Greece, Latvia, Romania, and Spain. This weak performance relative to the rebound in other parts of the world reflects to a significant extent the legacy of the crisis, which affected Europe more than other regions. Heightened insecurity among households, impaired financial intermediation, and the gradual deleveraging of private balance sheets are likely to weigh on private demand for some time.

The particularly large impact of the crisis on Europe relative to other regions not only revealed the strength of the financial linkages between the United States and Europe but also the reliance of Europe's key economies—particularly Germany—

on external demand as the engine of growth. The interconnectedness of European economies led to a rapid transmission of the collapse in global trade and capital flows. In a number of countries, the effect of the external shock was magnified by homegrown vulnerabilities, including real estate bubbles, credit booms (for instance, in Ireland, Latvia, Russia, Spain, and the United Kingdom), and excessive government borrowing (as in Greece and Hungary).

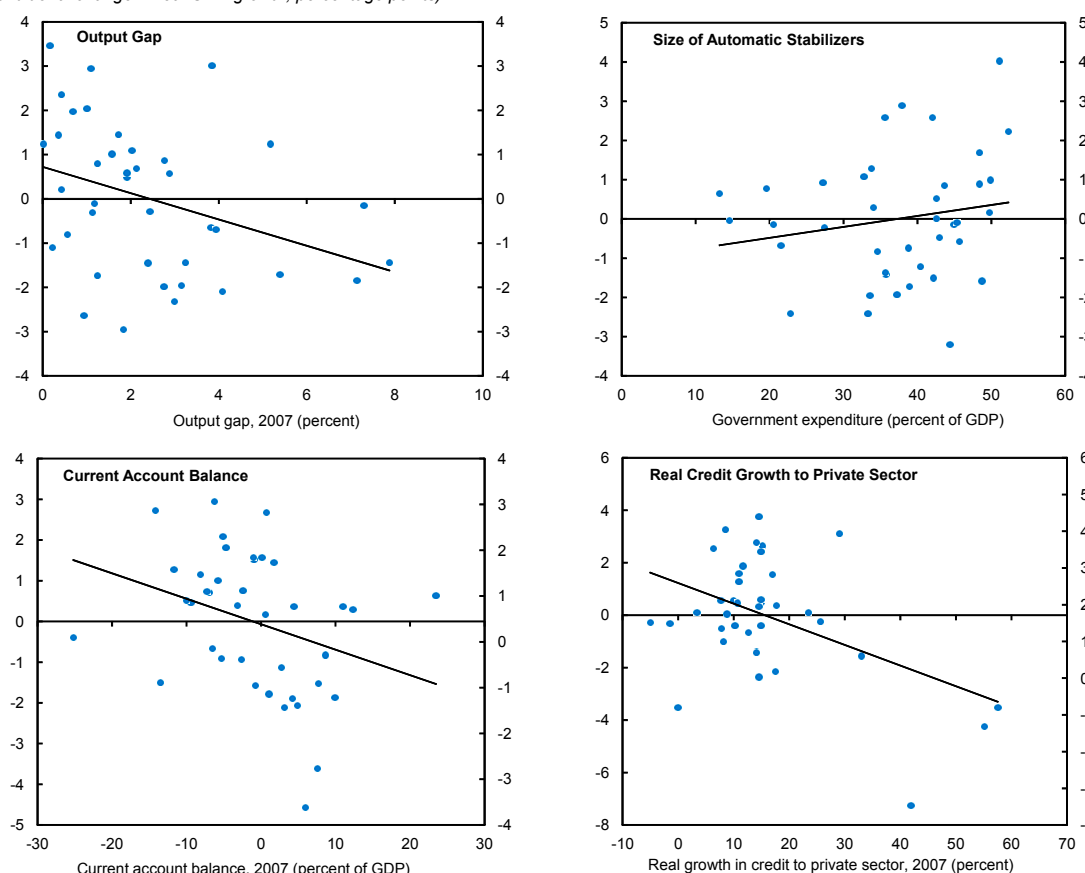
Three factors at play before the crisis seem to have determined the magnitude of the growth collapse in 2009 across a broad sample of European and non-European countries: (1) a rapid expansion of credit to the private sector; (2) above-trend output (signaling overheating); and (3) current account imbalances, with surplus countries being affected more than deficit countries, everything else equal (Figure 1).¹ These factors suggest that the sharpness of the contraction reflected either internal imbalances—unsustainable domestic growth fed by credit booms—or external ones—reliance on exports as a source of growth. One important moderating factor at work during the crisis was automatic fiscal stabilizers. As tax payments fell with national income, the existence of social safety nets shielded disposable income, and thereby consumption, from the full effects of the shock. The size of automatic stabilizers in Europe is typically larger than elsewhere.² Moreover, significant and timely discretionary stimulus in countries that had a relatively strong fiscal position prior to the crisis helped smooth the downswing.

Signs of recovery emerged in the second half of 2009 (Figure 2). In the euro area, higher net exports

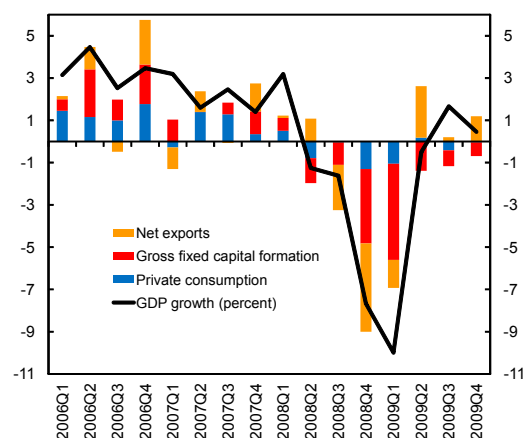
¹ Of course, many countries with large current account deficits were hard hit, but an econometric analysis suggests that the growth shock in those cases was primarily due to credit booms and overheating rather than the external deficit as such.

² See Dolls, Fuest, and Peichl (2009), Fatàs and Mihov (2009), and Debrun and Kapoor (forthcoming) for recent analyses.

Note: The main author of this chapter is Xavier Debrun.

Figure 1. The Great Contraction: What Drives Cross-Country Differences*(Conditional change in real GDP growth, percentage points)*Source: IMF, *World Economic Outlook*; and IMF staff calculations.

Note: Conditional correlations based on a cross-country econometric regression that explains the change in real GDP growth between 2008 and 2009 by the change in growth between 2007 and 2008, the output gap in 2007, real GDP growth in 2007, the current account balance in 2007, the change on the current account balance between 2007 and 2008, the real growth in bank credit to the private sector in 2007, the stock of bank credit to the private sector in 2007, the semi-elasticity of the budget balance to the output gap (automatic stabilizers), the ratio of public debt to GDP in 2007, the ratio of trade flows to GDP in 2007, and dummy variables capturing subgroups of countries (advanced EU, emerging EU, and emerging non-EU). All conditional correlations displayed are statistically significant at the 5 percent threshold. See also Mody (2010) for a related exercise.

Figure 2. Euro Area: Contribution to Growth, 2006–09*(Quarter-on-quarter annualized growth rate, percentage points)*

Source: Eurostat; and IMF staff calculations.

and public spending, combined with the stabilization of inventories, produced a moderate increase in real GDP. The gain ended an unprecedented series of five consecutive quarters of declining output. However, the rebound remains dependent on temporary factors, including restocking and policy measures. For instance, the 2009 withdrawal of car scrapping subsidies in Germany (August) and Italy (December) and the planned winding down of them in France and Spain through 2010 dampened already lackluster consumption. And investment continued to fall.

Emerging Europe is subject to broadly similar developments, albeit with a much greater diversity reflecting a varying degree of reliance on external demand and country-specific vulnerabilities that led

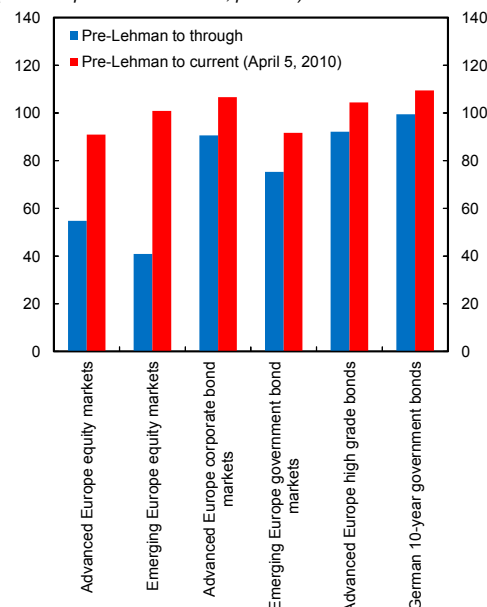
to uneven policy responses. In particular, the legacy of external financing difficulties and the associated restrictive macroeconomic policies continue to affect domestic demand in Hungary, Latvia, and Romania, where output is barely starting to pick up or is still contracting. In contrast, Estonia, the Slovak Republic, and Turkey are rebounding vigorously, partly because their strong policy performance before the crisis gave them greater room for maneuver. And Poland appears to have escaped recession altogether. In Russia, the rise in net exports resulting from import compression helped put an end to the sharp contraction in real GDP by the second quarter of 2009, while expansionary macroeconomic policies provided support in the second half. Ukraine's GDP bottomed out in the second quarter of 2009 after a particularly acute contraction, but a clear trend in activity remains to be established there.

The improving economic fundamentals and a return of risk appetite among investors are visible in the strong and broad-based rebound in financial markets from their troughs in early 2009 (Figure 3). The improvement is particularly sharp in emerging Europe. Equity prices there recouped their crisis-induced losses; and a recovery in government bond prices, in line with high-grade equivalents in advanced Europe, sent yields down. In the euro area, stock prices have also gone a long way toward recouping their losses in the wake of the Lehman Brothers bankruptcy; yield curves have continued to steepen; and the functioning of money markets has improved, with interbank rates in the euro area now within the corridor delimited by the lending and deposit facilities of the European Central Bank (ECB) (Figure 4). The steady narrowing of spreads of corporate bond rates over monetary policy rates since the second quarter of 2009 is improving the prospect for nonbank financing of larger creditworthy companies, which typically have easier access to market financing.

However, concerns about sovereign solvency and liquidity in Greece grew rapidly early this year, raising fears of contagion to other vulnerable euro

Figure 3. Asset Prices Compared with Pre-Lehman Levels

(Share of pre-Lehman values, percent)



Source: Datastream; and IMF staff calculations.

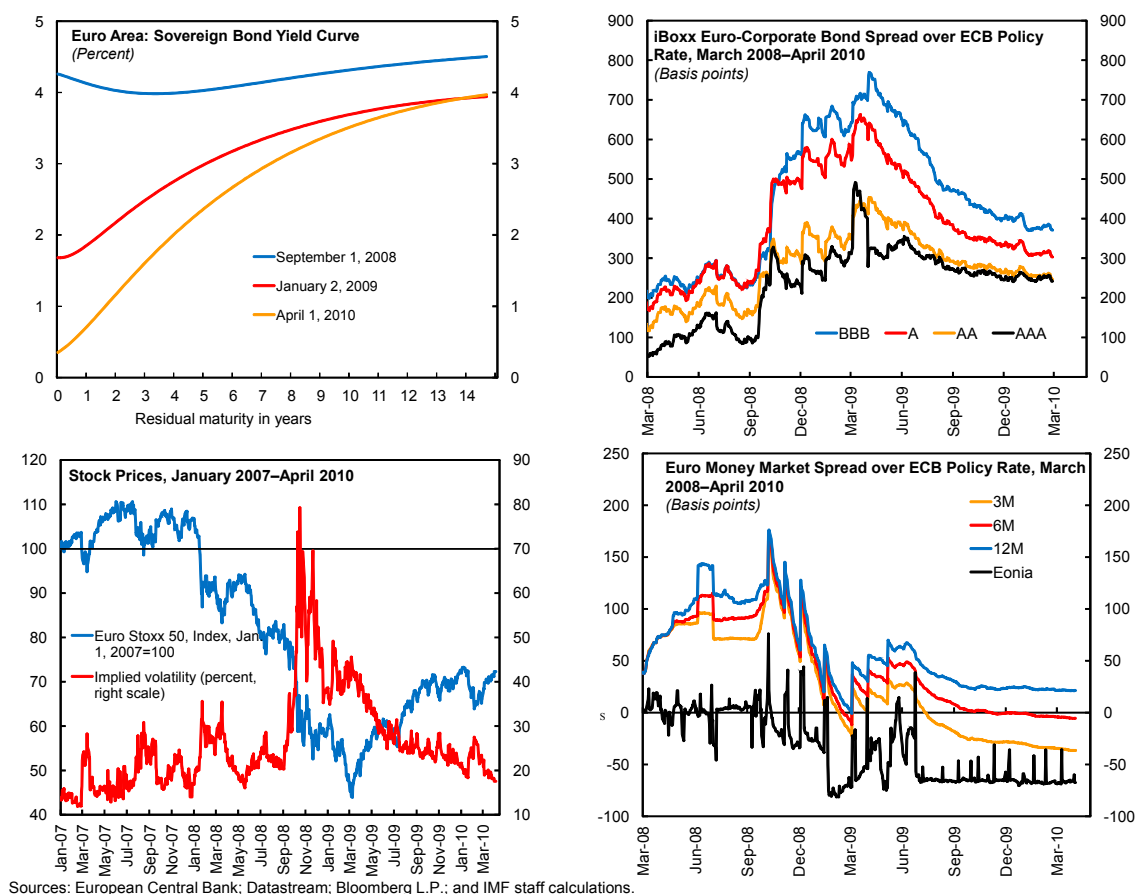
Note: "Pre-Lehman" refers to the period before September 15, 2008, the date on which Lehman Brothers declared bankruptcy

area sovereigns. These concerns have dented investors' appetite for the government bonds of these countries, for shares of exposed banks, and potentially for broader risk taking. As a result, stock prices softened and sovereign spreads for euro area countries of concern edged higher; for Greece, sovereign spreads shot up dramatically for 10-year bonds and even more so for shorter maturities.³ These developments and the related shift toward a mix of tight fiscal policy and easy monetary policy sent the euro down sharply vis-à-vis the U.S. dollar and other major currencies.

The Traditional Drivers of Recovery Are Likely to Be Weaker than Usual

Against this background, the central forecast envisages a moderate and uneven pickup in activity in 2010, with more significant growth momentum in 2011 (Table 1). In the euro area, forecasted real GDP growth reaches 1 percent in 2010 and 1.5 percent in 2011, with the 2011 performance led

³ The higher spreads on shorter maturities may signal greater fears of an immediate crisis.

Figure 4. Euro Area: Bond, Equity, and Money Markets

by France (1.8 percent) and Germany (1.7 percent). Other large euro-area economies are set to emerge more slowly from the recession, notably Italy; and Spain is seen as still contracting in 2010. Outside the euro area, the United Kingdom, Sweden, and Denmark follow a pattern similar to that in the overall euro-area forecast, although with somewhat stronger momentum. Russia and other non-EU emerging economies are expected to sustain the strong upturn initiated in the second half of 2009, but growth in emerging EU countries is tempered by the moderate pace of recovery in advanced economies and the legacy of the crisis in the most affected countries. By 2011, however, a more dynamic growth pattern and a resumption of convergence in real incomes should emerge in the wake of financial market normalization, a gradual return of healthy capital flows (see Chapter 2),

improved confidence, and greater room for maneuver on the policy side.

The unevenness of the recovery reflects country-specific legacies of the crisis, including its disparate effects on financial sectors, and the varying responsiveness of individual economies to external demand. A systematic look reveals that several important factors are shaping the pattern of real GDP growth for 2010 (Figure 5). The first is the inherent dynamics of stabilization, which imply that the sharp growth decelerations in 2009 will tend to be followed by a stronger expected pickup (or a slower decline) in 2010. But external demand also plays a key role in the early stages of a recovery. Specifically, countries that exhibited a current account surplus in 2007—pointing to strong export performance—on average seem better positioned to

Table 1. European Countries: Real GDP Growth and CPI Inflation, 2007–11
(Percent)

	Real GDP Growth					CPI Inflation				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Europe 1/	3.9	1.6	-4.5	1.6	2.2	3.6	5.7	2.7	2.7	2.3
Advanced European economies 1/	2.9	0.7	-4.0	1.0	1.7	2.1	3.4	0.7	1.5	1.4
Emerging European economies 1/	6.8	4.3	-6.1	3.3	3.4	7.8	12.0	8.5	6.3	4.9
European Union 1/	3.1	0.9	-4.1	1.0	1.8	2.4	3.7	0.9	1.5	1.5
Euro area	2.8	0.6	-4.1	1.0	1.5	2.1	3.3	0.3	1.1	1.3
Austria	3.5	2.0	-3.6	1.3	1.7	2.2	3.2	0.4	1.3	1.5
Belgium	2.8	0.8	-3.0	1.2	1.3	1.8	4.5	-0.2	1.6	1.5
Cyprus	5.1	3.6	-1.7	-0.7	1.9	2.2	4.4	0.2	2.7	2.3
Finland	4.9	1.2	-7.8	1.2	2.2	1.6	3.9	1.6	1.1	1.4
France	2.3	0.3	-2.2	1.5	1.8	1.6	3.2	0.1	1.2	1.5
Germany	2.5	1.2	-5.0	1.2	1.7	2.3	2.8	0.1	0.9	1.0
Greece	4.5	2.0	-2.0	-2.0	-1.1	3.0	4.2	1.4	1.9	1.0
Ireland	6.0	-3.0	-7.1	-1.5	1.9	2.9	3.1	-1.7	-2.0	-0.6
Italy	1.5	-1.3	-5.0	0.8	1.2	2.0	3.5	0.8	1.4	1.7
Luxembourg	6.5	0.0	-4.2	2.1	2.4	2.3	3.4	0.8	1.0	1.3
Malta	3.8	2.1	-1.9	0.5	1.5	0.7	4.7	1.8	2.0	2.1
Netherlands	3.6	2.0	-4.0	1.3	1.3	1.6	2.2	1.0	1.1	1.3
Portugal	1.9	0.0	-2.7	0.3	0.7	2.4	2.7	-0.9	0.8	1.1
Slovak Republic	10.6	6.2	-4.7	4.1	4.5	1.9	3.9	0.9	0.8	2.0
Slovenia	6.8	3.5	-7.3	1.1	2.0	3.6	5.7	0.8	1.5	2.3
Spain	3.6	0.9	-3.6	-0.4	0.9	2.8	4.1	-0.3	1.2	1.0
Other EU advanced economies										
Czech Republic	6.1	2.5	-4.3	1.7	2.6	2.9	6.3	1.0	1.6	2.0
Denmark	1.7	-0.9	-5.1	1.2	1.6	1.7	3.4	1.3	2.0	2.0
Sweden	2.6	-0.2	-4.4	1.2	2.5	1.7	3.3	2.2	2.4	2.1
United Kingdom	2.6	0.5	-4.9	1.3	2.5	2.3	3.6	2.2	2.7	1.6
EU emerging economies 1/	6.0	4.4	-3.0	1.4	3.5	4.6	6.5	3.9	2.6	2.4
Bulgaria	6.2	6.0	-5.0	0.2	2.0	7.6	12.0	2.5	2.2	2.9
Estonia	7.2	-3.6	-14.1	0.8	3.6	6.6	10.4	-0.1	0.8	1.1
Hungary	1.0	0.6	-6.3	-0.2	3.2	7.9	6.1	4.2	4.3	2.5
Latvia	10.0	-4.6	-18.0	-4.0	2.7	10.1	15.3	3.3	-3.7	-2.5
Lithuania	9.8	2.8	-15.0	-1.6	3.2	5.8	11.1	4.2	-1.2	-1.0
Poland	6.8	5.0	1.7	2.7	3.2	2.5	4.2	3.5	2.3	2.4
Romania	6.3	7.3	-7.1	0.8	5.1	4.8	7.8	5.6	4.0	3.1
Non-EU advanced economies										
Iceland	6.0	1.0	-6.5	-3.0	2.3	5.0	12.4	12.0	6.2	3.8
Israel	5.2	4.0	0.7	3.2	3.5	0.5	4.6	3.3	2.3	2.6
Norway	2.7	1.8	-1.5	1.1	1.8	0.7	3.8	2.2	2.5	1.8
Switzerland	3.6	1.8	-1.5	1.5	1.8	0.7	2.4	-0.4	0.7	1.0
Other emerging economies										
Albania	6.0	7.8	2.8	2.3	3.2	2.9	3.4	2.2	3.5	2.9
Belarus	8.6	10.0	0.2	2.4	4.6	8.4	14.8	13.0	7.3	6.2
Bosnia and Herzegovina	6.5	5.4	-3.4	0.5	4.0	1.5	7.4	-0.4	1.6	1.9
Croatia	5.5	2.4	-5.8	0.2	2.5	2.9	6.1	2.4	2.3	2.8
Macedonia, FYR	5.9	4.8	-0.7	2.0	3.0	2.3	8.3	-0.8	1.9	3.0
Moldova	3.0	7.8	-6.5	2.5	3.6	12.4	12.7	0.0	7.7	5.7
Montenegro	10.7	6.9	-7.0	-1.7	4.6	3.5	9.0	3.6	-0.6	3.0
Russia	8.1	5.6	-7.9	4.0	3.3	9.0	14.1	11.7	7.0	5.7
Serbia	6.9	5.5	-2.9	2.0	3.0	6.5	12.4	8.1	4.8	4.8
Turkey	4.7	0.7	-4.7	5.2	3.4	8.8	10.4	6.3	9.7	5.7
Ukraine	7.9	2.1	-15.1	3.7	4.1	12.8	25.2	15.9	9.2	8.9

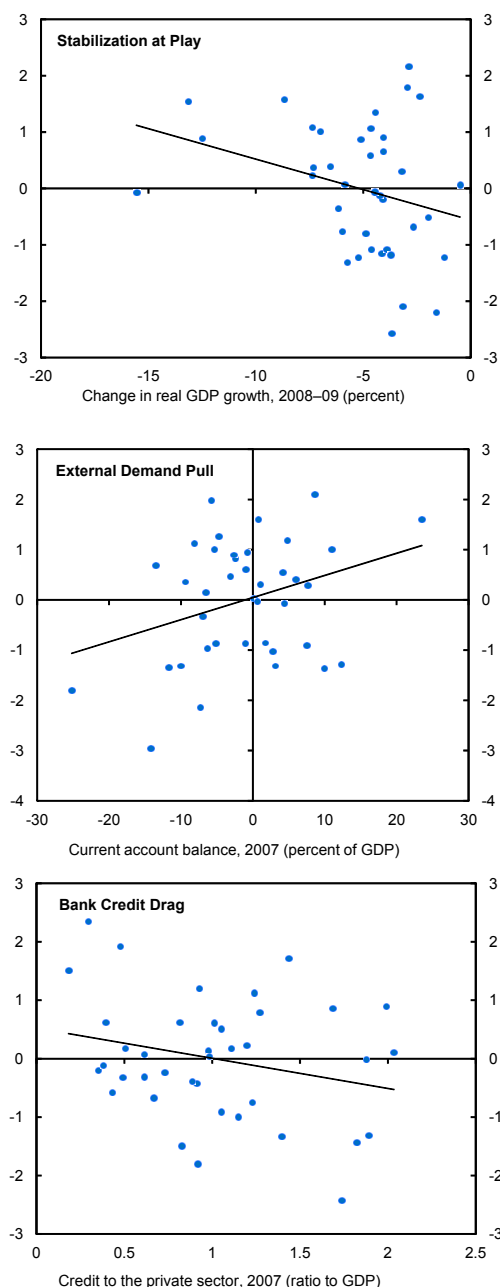
Source: IMF, *World Economic Outlook*.
1/ Average weighted by PPP GDP.

grow than do countries that recorded a deficit and relied more on domestic demand for growth. Finally, the relative importance of bank credit appears to be a moderating force on short-term growth prospects. Two underlying developments are

likely to be at work behind that result: binding constraints on credit supply, which tend to affect countries to the degree that they rely on bank financing; and a more forceful deleveraging in economies that experienced a boom in bank credit

Figure 5. Key Drivers of the Expected Recovery, 2009–10

(Conditional change in real GDP growth, percentage points)



Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

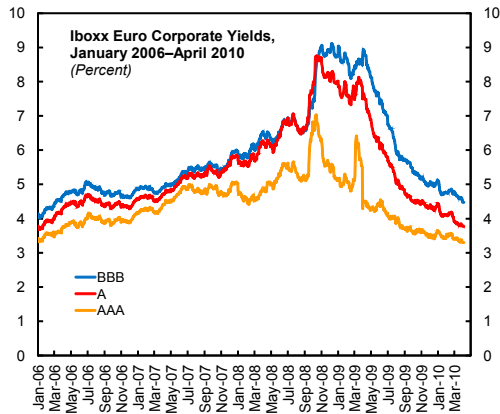
Note: Conditional correlations based on a cross-country econometric regression that explains the expected change in real GDP growth between 2009 and 2010 by the change in growth between 2008 and 2009, the output gap in 2007, real GDP growth in 2007, the current account balance in 2007, the change on the current account balance between 2007 and 2008, the real growth in bank credit to the private sector in 2007, the stock of bank credit to the private sector in 2007, the semi-elasticity of the budget balance to the output gap (automatic stabilizers), the ratio of public debt to GDP in 2007, the ratio of trade flows to GDP in 2007, and dummy variables capturing subgroups of countries (advanced EU, emerging EU, and emerging non-EU). All conditional correlations displayed are statistically significant at the 5 percent threshold.

prior to the crisis. The negative correlation between bank credit and expected growth is consistent with the historical pattern in which the upturn after an acute financial crisis—especially if the crisis was globally synchronized—tends to be more moderate than the rebound after a typical recession (IMF, 2009d).

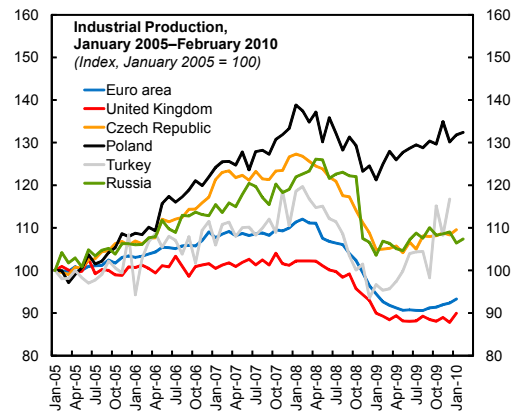
One implication is that the recovery is likely to hinge on global demand. In the near term, growth could still benefit from an upswing in inventories and from the lagged impact of specific fiscal stimulus measures such as infrastructure investment. High-frequency indicators of economic activity (Figure 6) currently support the projection of a moderate expansion at an annual pace of 1½ percent in the euro area, with the typically outward-oriented manufacturing sector showing greater dynamism than the typically inward-oriented service sector. The dichotomy in growth prospects between these sectors is another indication that the recovery still largely depends on external demand and that domestic sources of growth remain subdued. While that dichotomy is not unusual in the early stages of European recoveries, a rise in confidence among investors and consumers will need to be sustained if domestic spending is to play its role as the main engine of growth. In the assumptions of the baseline scenario, investment rebounds from exceptionally low levels (Figure 7), while private consumption growth initially remains subdued.

Another factor influencing the speed of the recovery is credit growth. Although the current weakness in credit growth results from a combination of demand and supply factors, supply-side factors become more binding as the recovery firms up (Figure 8). Already, anecdotal and survey-based evidence of credit rationing (especially for small and medium-sized enterprises) and emerging signs of disintermediation in corporate financing in the euro area make it difficult to completely rule out

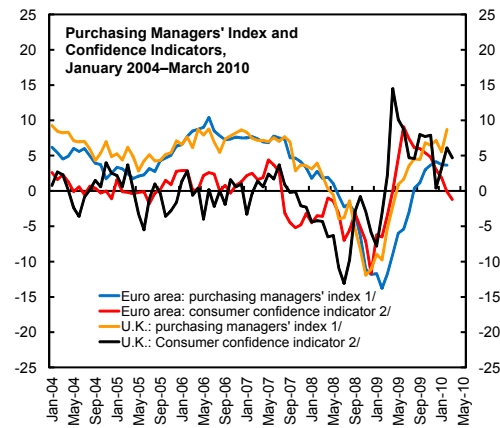
Figure 6. Selected European Countries: Key Short-Term Indicators



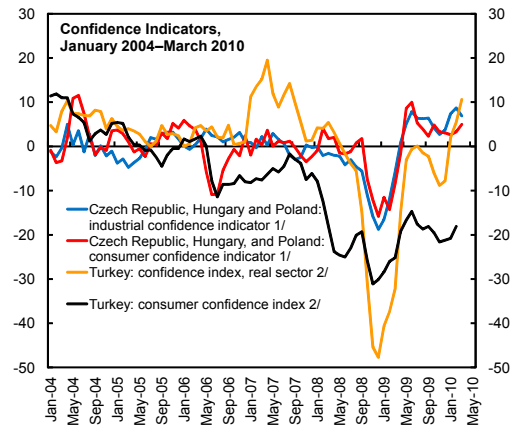
Source: Datastream.



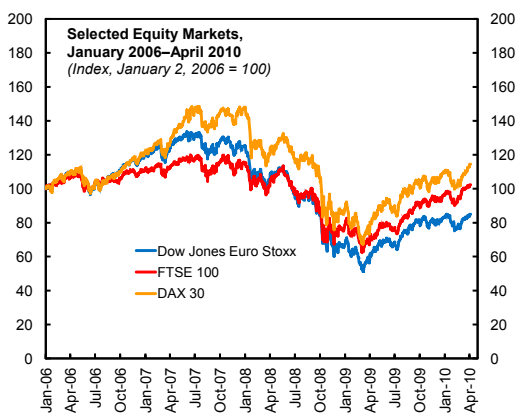
Source: Eurostat; Haver Analytics; and IMF staff calculations.



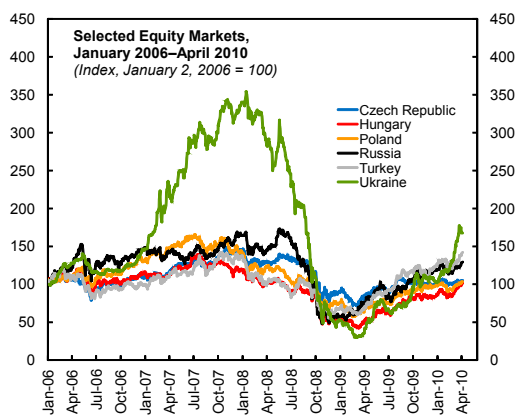
Sources: Eurostat, European Commission Business and Consumer Surveys; Haver Analytics; and IMF staff calculations.
1/ Seasonally adjusted; deviations from an index value of 50.
2/ Percentage balance; difference from the value three months earlier.



Sources: Haver Analytics; and IMF staff calculations.
1/ Averaged percentage balance; difference from the value three months earlier.
2/ Difference from an index value of 100.

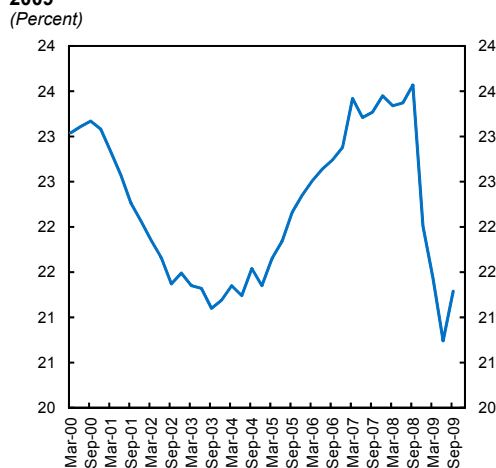


Source: Datastream.



Source: Datastream.

Figure 7. Euro Area: Gross Investment Ratio of Nonfinancial Corporations, March 2000–September 2009
(Percent)



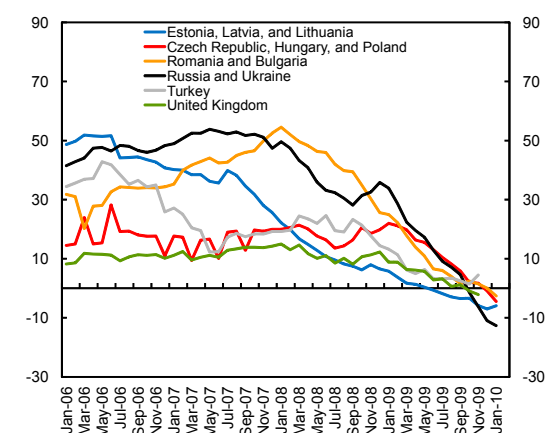
Sources: Haver Analytics; and Eurostat.

a credit crunch. Such evidence reflects the ongoing deleveraging process, with banks diverting resources from normal lending to build liquidity buffers and prepare for the expected tightening of regulatory capital requirements. Moreover, many banks face additional write-downs from impaired assets and loan losses linked to the deep recession. As a consequence, limited credit supply is likely to constrain the expected pickup in investment and durables' consumption, thereby preventing a more dynamic recovery. The argument is particularly relevant for two groups of countries: those in which nonbank financing is traditionally less developed; and those in which significant segments of the banking sector are still ailing (for example, Germany's *Landesbanken* and Spain's *Cajas*) and likely to remain heavily dependent on public assistance until adequate restructuring, consolidation, and recapitalization are completed. Also, continued weakness in house prices could hold back consumption and further constrain credit growth.

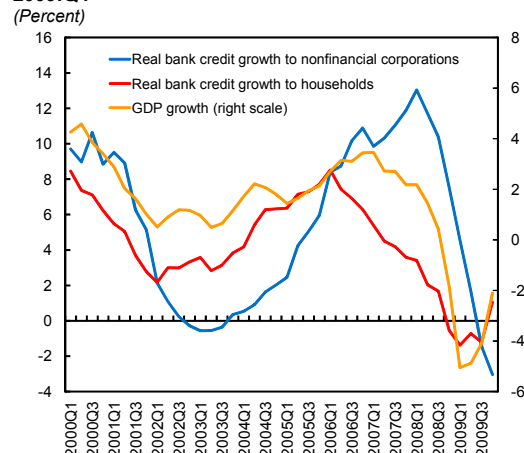
Indeed, a “creditless” recovery of the kind documented by Claessens, Kose, and Terrones (2009) and by Abiad, Dell’Ariccia, and Li (forthcoming) appears unlikely in the current European context. Such recoveries typically feature an early pickup in private consumption that offsets the negative effect of scarce credit on investment. That scenario presupposes a rapid liquidation of

Figure 8. Europe: Credit Indicators

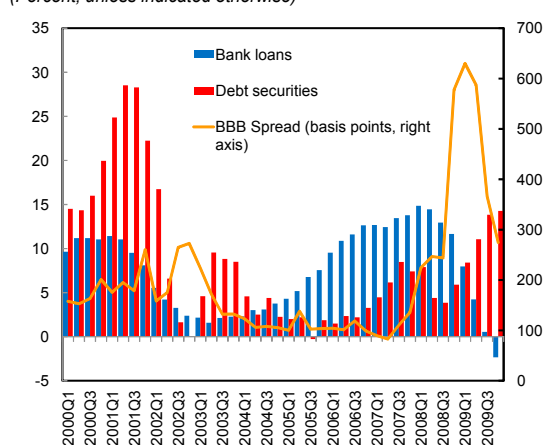
Selected European Countries: Growth of Real Credit to Private Sector, January 2006–January 2009 1/
(Percent)



Euro Area: Real Bank Credit and GDP Growth, 2000:Q1–2009:Q4
(Percent)

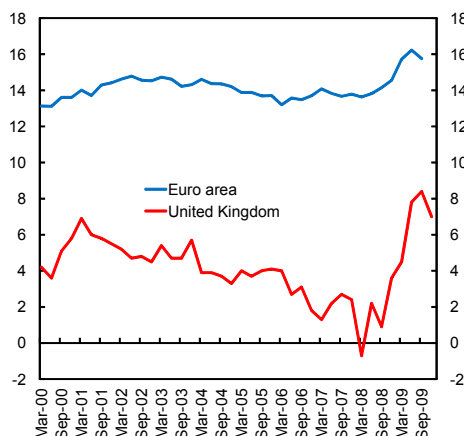


Euro Area: Bank Loans and Bond Issuance, 2000:Q1–2009:Q4 1/
(Percent; unless indicated otherwise)



Sources: Eurostat; European Central Bank; Haver Analytics; IMF, *International Financial Statistics*; and IMF staff calculations.
1/ Unweighted averages of annual growth rates.

Figure 9. Selected European Economies: Gross Household Savings Ratio, March 2000–September 2009
(Percent of disposable income)

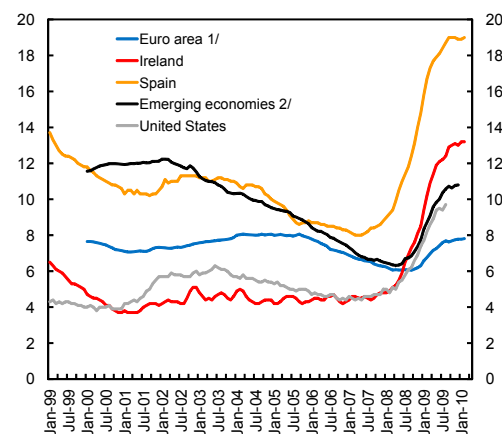


Sources: Haver Analytics; Eurostat; and IMF staff calculations.

households' precautionary buffers (Figure 9) that current conditions do not encourage. Specifically, the prospect of rising or persistent unemployment increases insecurity among those currently employed and signals poor prospects for the unemployed (Figure 10). Unfavorable conditions prevail across widely different labor markets, including dynamic settings like the United Kingdom's; dual structures like Spain's; and more rigid environments like Germany's, where substantial labor hoarding—subsidized or voluntary—could either unwind or depress job creation (see IMF, 2009b, Box 1). In addition, households' disposable income and their propensity to spend will be affected by large fiscal adjustments with some combination of higher taxes, lower transfers, and possible adjustments in expected future income from entitlement reforms (for example, lowered pension payments).⁴ And where unsustainable credit booms occurred, deleveraging will boost savings rates for the foreseeable future. Finally, persistent uncertainty as to how these factors will ultimately play out can only

⁴ Of course, the power of that argument depends on the composition of the fiscal adjustment and on the specific design of entitlement reforms. For instance, raising the retirement age boosts individual lifetime income, with a positive effect on today's consumption, whereas cutting future benefits or raising contribution rates would depress consumption.

Figure 10. Selected European Countries and the United States: Unemployment, February 1999–January 2010
(Percent)



Sources: Eurostat; Haver Analytics; and IMF staff calculations.

1/ Excluding Ireland and Spain.

2/ Bulgaria, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Turkey, and Ukraine.

encourage sizable precautionary saving (Mody and Ohnsorge, 2010).

Inflation Has Stabilized at Low Levels

Headline inflation in advanced economies bottomed out in the second half of 2009 on the heels of rising energy prices and, in some cases, a depreciating currency (for example, the United Kingdom) (Table 2). Core inflation has moved sideways at slightly above 1 percent in the euro area and below 2 percent in the United Kingdom. Inflationary pressures are expected to remain subdued, as large spare capacity combined with a slow-paced recovery should effectively contain firms' pricing power for the foreseeable future (Figure 11).

In emerging Europe, the picture is much more diverse because of the variation in exchange rate regimes, economic structures, and country-specific effects of the global shock. Countries with a fixed peg to the euro saw a continued decline in both core and headline inflation, which mainly reflected the strong domestic adjustments required to correct external imbalances. Inflation in some countries with floating exchange rates seems to have stabilized in the last quarter of 2009 as monetary accommodation and the stabilization of activity moderated downward pressures on prices.

Table 2. European Countries: External and Fiscal Balances, 2006–10

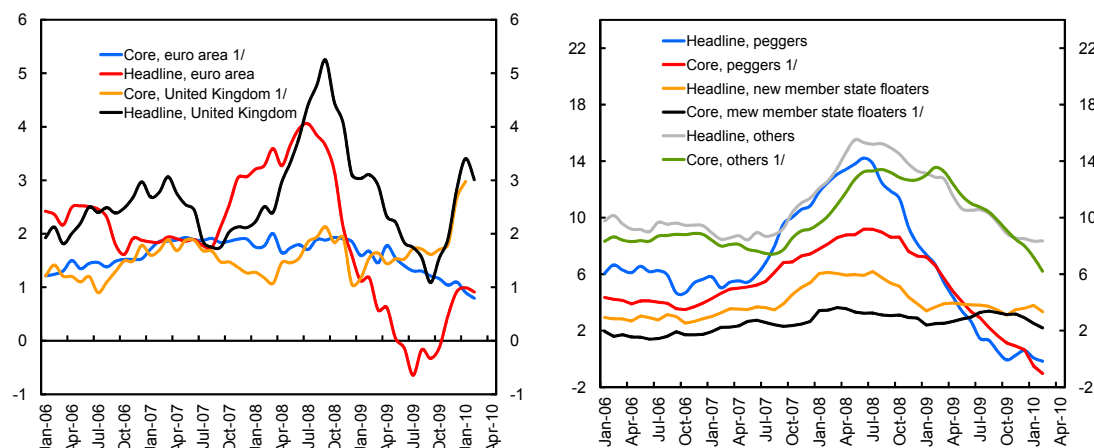
(Percent)

	Current Account Balance to GDP					General Government Balance to GDP				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Europe 1/	0.5	-0.3	-0.9	0.1	0.2	-0.1	0.2	-1.3	-6.3	-6.2
Advanced European economies 1/	0.5	0.3	-0.5	0.1	0.3	-1.0	-0.3	-1.8	-6.5	-7.0
Emerging European economies 1/	0.4	-1.9	-2.0	0.0	0.0	2.6	1.9	0.3	-5.9	-4.0
European Union 1/	-0.8	-1.0	-1.6	-0.5	-0.5	-1.5	-0.8	-2.4	-6.9	-7.4
Euro area	-0.1	0.1	-1.5	-0.6	-0.3	-1.3	-0.6	-2.0	-6.3	-6.8
Austria	2.8	3.1	3.5	1.4	1.8	-1.7	-0.7	-0.5	-3.6	-4.8
Belgium	2.0	2.2	-2.5	-0.3	-0.5	0.3	-0.2	-1.2	-5.8	-5.1
Cyprus	-7.0	-11.7	-17.7	-9.3	-11.4	-1.2	3.4	0.9	-6.1	-7.5
Finland	4.6	4.2	3.0	1.4	2.0	4.0	5.2	4.2	-2.4	-4.1
France	-0.5	-1.0	-2.3	-1.5	-1.9	-2.3	-2.7	-3.4	-7.9	-8.2
Germany	6.5	7.6	6.7	4.8	5.5	-1.6	0.2	0.0	-3.3	-5.7
Greece	-11.3	-14.4	-14.6	-11.2	-9.7	-3.1	-3.7	-7.8	-12.9	-8.7
Ireland	-3.6	-5.3	-5.2	-2.9	0.4	2.9	0.1	-7.2	-11.4	-12.2
Italy	-2.6	-2.4	-3.4	-3.4	-2.8	-3.3	-1.5	-2.7	-5.3	-5.2
Luxembourg	10.3	9.7	5.3	5.7	11.2	1.3	3.7	2.5	-1.1	-3.8
Malta	-9.2	-6.2	-5.4	-3.9	-5.1	-2.6	-2.2	-4.7	-4.0	-4.8
Netherlands	9.3	8.7	4.8	5.2	5.0	0.6	0.3	0.7	-4.9	-5.9
Portugal	-10.0	-9.4	-12.1	-10.1	-9.0	-3.9	-2.7	-2.8	-9.4	-8.8
Slovak Republic	-7.8	-5.3	-6.5	-3.2	-1.8	-3.5	-1.9	-2.3	-6.3	-5.8
Slovenia	-2.5	-4.8	-6.2	-0.3	-1.5	-0.8	0.3	-0.3	-6.1	-6.1
Spain	-9.0	-10.0	-9.6	-5.1	-5.3	2.0	1.9	-4.1	-11.4	-10.4
Other EU advanced economies										
Czech Republic	-2.6	-3.1	-3.1	-1.0	-1.7	-2.6	-0.7	-2.0	-6.0	-5.1
Denmark	3.0	1.5	2.2	4.0	3.1	4.9	4.7	4.5	-3.0	-5.4
Sweden	8.6	8.6	7.8	6.4	5.4	2.4	3.8	2.5	-2.2	-3.3
United Kingdom	-3.3	-2.7	-1.5	-1.3	-1.7	-2.6	-2.7	-4.8	-10.9	-11.4
EU emerging economies 1/	-7.3	-9.5	-8.8	-1.8	-2.6	-3.2	-2.0	-3.5	-6.3	-6.5
Bulgaria	-18.4	-26.9	-24.2	-9.5	-6.3	3.5	3.5	3.0	-0.8	-1.8
Estonia	-16.9	-17.8	-9.4	4.6	4.7	3.3	2.9	-2.3	-2.1	-2.4
Hungary	-7.5	-6.8	-7.2	0.4	-0.4	-9.3	-4.9	-3.7	-3.9	-3.8
Latvia	-22.5	-22.3	-13.0	9.4	7.0	-0.5	0.6	-7.5	-7.7	-12.9
Lithuania	-10.7	-14.6	-11.9	3.8	2.7	-0.4	-1.0	-3.3	-8.9	-8.6
Poland	-2.7	-4.8	-5.1	-1.6	-2.8	-3.6	-1.9	-3.7	-7.2	-7.5
Romania	-10.4	-13.4	-12.2	-4.4	-5.5	-1.4	-3.1	-4.8	-7.4	-6.5
Non-EU advanced economies										
Iceland	-25.6	-16.3	-15.8	3.8	5.4	6.3	5.4	-0.5	-12.4	-9.4
Israel	5.1	2.9	0.7	3.7	3.9	-1.2	-0.2	-1.9	-5.4	-4.4
Norway	17.2	14.1	18.6	13.8	16.8	18.5	17.7	19.1	9.7	10.8
Switzerland	15.2	10.0	2.4	8.7	9.5	1.4	2.1	0.8	1.4	-1.0
Other emerging economies										
Albania	-5.6	-10.4	-15.2	-14.0	-12.6	-3.3	-3.6	-5.1	-6.9	-5.6
Belarus	-3.9	-6.7	-8.6	-12.9	-10.4	1.4	0.4	1.4	-0.7	-2.4
Bosnia and Herzegovina	-8.4	-12.6	-14.9	-7.5	-7.2	2.2	-0.1	-5.0	-5.5	-5.0
Croatia	-6.7	-7.6	-9.2	-5.6	-6.3	-1.8	-1.2	-0.9	-3.2	-2.7
Macedonia, FYR	-0.9	-7.2	-13.1	-7.3	-6.0	-0.5	0.6	-1.0	-2.8	-2.5
Moldova	-11.4	-15.3	-16.3	-7.9	-9.7	-0.1	-0.3	-1.1	-6.9	-5.9
Montenegro	-24.1	-39.5	-52.4	-27.2	-17.0	2.6	6.3	1.5	-4.5	-7.2
Russia	9.5	6.0	6.2	3.9	5.1	8.3	6.8	4.3	-6.2	-2.9
Serbia	-10.1	-15.6	-17.5	-5.7	-8.2	-1.6	-1.9	-2.6	-4.1	-4.0
Turkey	-6.0	-5.8	-5.7	-2.3	-4.0	0.1	-1.7	-2.4	-5.6	-3.4
Ukraine	-1.5	-3.7	-7.1	-1.7	-2.3	-1.3	-1.8	-2.9	-6.1	-3.1

Source: IMF, *World Economic Outlook*.

1/ Weighted average. Government balance weighted by PPP GDP; external account balance, by U.S. dollar-weighted GDP.

Figure 11. Selected European Countries: Headline and Core Inflation, January 2006–February 2009
(Percent)



Sources: Eurostat; Haver Analytics; national authorities; and IMF staff calculations.

Notes: Peggers: Bulgaria, Estonia, Latvia, and Lithuania; new member state floaters: the Czech Republic, Hungary, Poland, and Romania; Others: Russia, Turkey, and Ukraine.

1/ Harmonized index of consumer price inflation (excluding energy, food, alcohol, and tobacco) excluding Russia and Ukraine, for which national definition was used.

The likely stabilization of inflation somewhat below official targets highlights the balance of risks surrounding the central forecast for prices. Upside concerns are that the considerable expansion in central bank balance sheets could produce a monetary overhang threatening price stability. On the downside, the magnitude of the shock could persistently work to suppress prices; that outcome is illustrated by recent euro-area wage bargaining implying wage increases below official inflation targets in some of the better-off countries and nominal wage cuts in some of the worst hit.

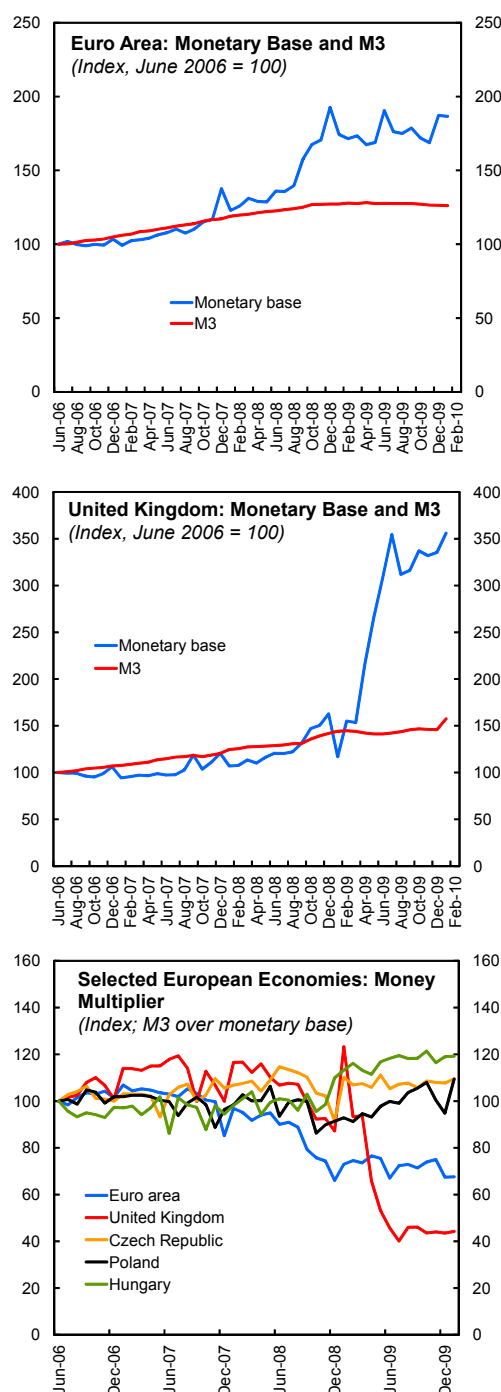
So far, survey-based measures of inflation expectations remain well anchored around official objectives (ECB, 2010; and Bank of England, 2010), suggesting that neither the fears of deflation nor the exceptionally accommodative policies have altered the credibility of monetary authorities.⁵ Additional insights on the balance of risks can be read from monetary aggregates. These have remained broadly

stable as banks hoarded cash to self-insure against disruptions in the interbank market or other risks. The looser link between banks' cash reserves and credit indeed led to a reduction in money multipliers, insulating monetary aggregates from the sharp increase in the monetary base (von Hagen, 2009; and Figure 12). The variation in the evolution of money multipliers between the United Kingdom, the euro area, and selected emerging economies explains to a large extent the substantial differences in central bank attitudes toward liquidity injections and quantitative easing. Although the empirical link between money growth and inflation appears to have weakened in the past two decades relative to the 1970s and 1980s (Berger and Österholm, 2008), the behavior of monetary aggregates is consistent with the view that inflation risks are broadly balanced.

Important but Broadly Balanced Risks

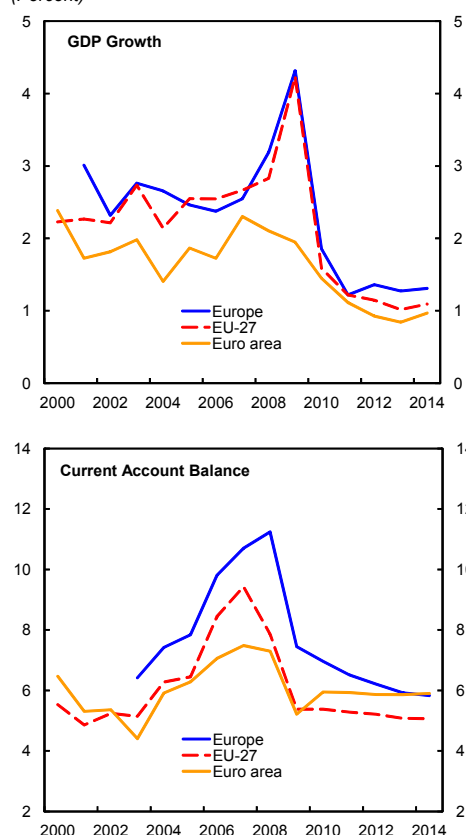
Risks to the outlook remain important but are seen as broadly balanced despite risks related to market concerns about sovereign balance sheets. On the positive side, the continued dynamism of activity in the United States and emerging economies in Asia and Latin America could boost global trade; the effect of these brighter prospects might encourage

⁵ Market-based measures of inflation expectations—based on the difference in yield between inflation-indexed and conventional bonds of identical maturity and risk—have tended to be higher and much more volatile than survey-based measures, a reflection, in part, of liquidity premia and inherent volatility in the underlying markets (ECB, 2010).

Figure 12. Selected European Economies: Monetary Aggregates and Multipliers, June 2006–February 2010

Sources: IMF, *International Financial Statistics*; Haver Analytics; and IMF staff calculations.

consumers in Europe to reduce their precautionary buffers and firms to return to more normal investment levels and stabilize payrolls. The restoration of a more sustainable constellation of current account balances in the euro area could

Figure 13. European Economies: Cross-Country Standard Deviation of GDP Growth and Current Account Balance, 2000–14
(Percent)

Sources: IMF, *World Economic Outlook*; and IMF staff calculations.

support confidence in more stable growth patterns in the region (Figure 13).

On the downside, market concerns about Greece, if unchecked, could turn into a larger debt crisis with possible repercussions for other sovereigns and the banking sector (IMF, 2010a). Other important risks are policy failures and shocks that would force an untimely exit from certain crisis policies. Among the unwelcome shocks would be a stronger pickup in commodity prices. That could incite central banks to raise interest rates sooner than expected, which in turn would undermine the effectiveness of the macroeconomic stimulus still in the pipeline and delay the normalization of credit conditions. In emerging Europe, a decrease in investors' risk appetite could discourage further monetary easing, while accelerated deleveraging and tighter credit conditions could depress domestic demand more than expected.

Regarding policies, the failure to address sovereign concerns with credible fiscal adjustments and to develop a contingency plan for a full-blown sovereign liquidity crisis would raise borrowing costs and require undesirably aggressive fiscal tightening in countries fearing contagion. Contagion could be triggered by similarities in debt dynamics, asset sales related to hedging activities, and the potential for spillovers through the banking system,⁶ any of which could reignite fears of financial instability. Also, the crisis-induced increase in public debt and shortening of maturities has dramatically expanded refinancing needs that, given still-conservative lending standards, could crowd out investment in dynamic sectors.

Normalizing Policies

The powerful and often synchronized policy responses to the crisis prevented a global financial meltdown that could have produced a worldwide depression. In countries that had some fiscal room for maneuver, discretionary stimulus and the work of automatic stabilizers bolstered aggregate demand and private consumption. A cascade of bank runs and failures were averted by exceptional liquidity support provided by a number of emergency monetary and financial measures: substituting for key market segments shut down by the crisis, extending guarantees on deposits and interbank liabilities to re-instill confidence, recapitalizing ailing institutions, and purchasing impaired assets. In the most vulnerable or hard hit countries in emerging Europe, the inevitable adjustment to considerably tighter external financing was eased by coordinated assistance from the IMF, the EU, and other multilateral institutions. Large, front-loaded official financing packages allowed for less abrupt current account corrections and smoother policy

adjustments than would have been possible otherwise.

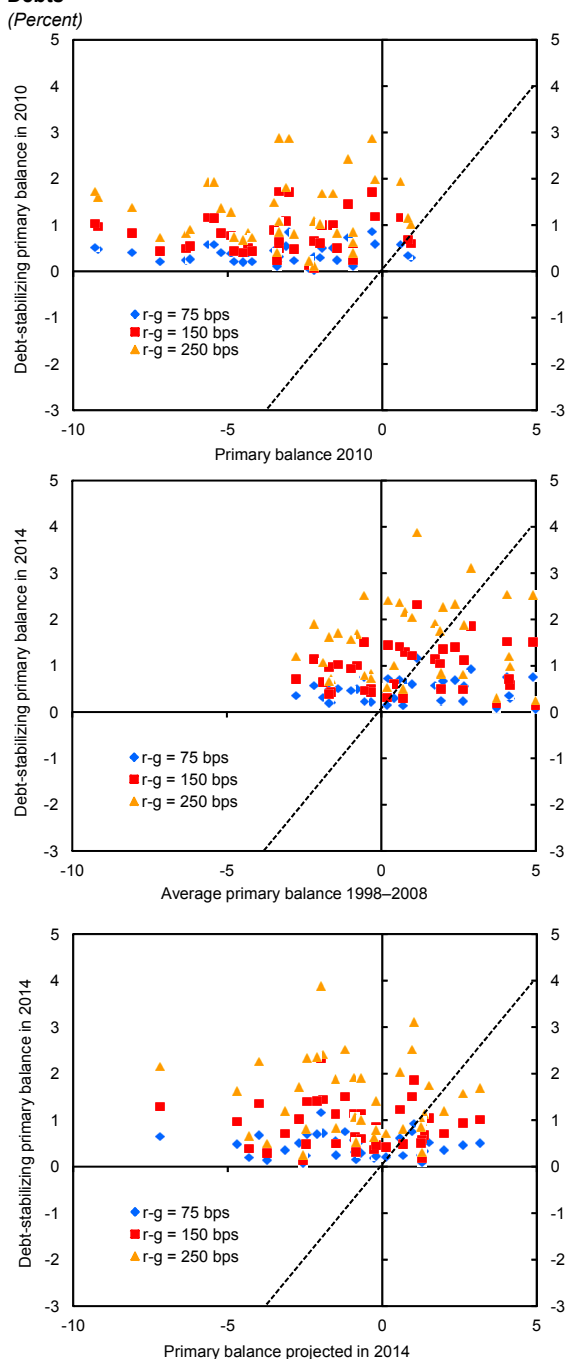
The Side Effects of Crisis Policies . . .

With the recovery under way, the need to maintain policies in emergency mode is less pressing. Instead, concerns about the costs and the limits of many crisis intervention measures are growing. These costs and limits are most visible in the fiscal realm, where sizable fiscal stimulus and direct support to vulnerable financial institutions has massively increased public debt. Commonly used indicators show that restoring sustainable debt dynamics over the medium term will be a formidable task (IMF, 2009c). Markets are therefore likely to more intensively scrutinize fiscal vulnerabilities, particularly debt dynamics. Those concerns are reflected in government bond yields, which have become more sensitive to fiscal fundamentals in the course of the crisis (Sgherri and Zoli, 2009) and are strongly related to the additional fiscal adjustment required to secure solvency over the next few years. Ultimately, governments must make a credible commitment to fiscal consolidation. Losing fiscal credibility could indeed trigger the sudden and painful elimination of the national debt overhang that the transfer of private risks and obligations to public balance sheets was supposed to avoid. It would also undermine the effectiveness of fiscal stimulus measures still in the pipeline by limiting central banks' capacity to maintain policy rates at exceptionally low levels (Corsetti and others, forthcoming).

A simple and conventional way to assess debt sustainability is to compare the actual or projected primary budget balance (that is, excluding interest payments) with the level required to stabilize the ratio of public debt to GDP (Figure 14).⁷ Three main messages emerge from that analysis. The first is that aiming to stabilize public debt in the short

⁶ These spillovers are related to a variety of factors, including the limited ability of a credit-constrained government to continue supporting and recapitalizing vulnerable domestic institutions, the pressure sovereign spreads exert on banks' funding costs (and the related difficulty of funding their foreign subsidiaries), and the direct exposure of foreign banks to troubled assets.

⁷ The debt-stabilizing primary balance is approximately equal to the *permanent* primary surplus needed over the indefinite future to cover outstanding liabilities, which is precisely the minimum requirement for long-term solvency (see IMF, 2003).

Figure 14. European Economies: Stabilizing Public Debts

Sources: IMF, *World Economic Outlook*; and IMF staff calculations.

Notes: Staff considered three alternative hypotheses about the difference between real interest rate and real growth rate: 75 basis points, 150 basis points, and 250 basis points. For example, the growth-interest differential measured recently for Germany is around 90 basis points. Clearly, many countries, particularly in emerging Europe, have experienced protracted periods during which real growth was consistently above the real cost of government borrowing, undermining incentives to generate primary surpluses. Observations located above the 45-degree line are consistent with rising debt-to-GDP ratios.

run would be unrealistic (and undesirable) for many countries because the magnitude of the required fiscal retrenchment would create significant risks of relapsing into deep recession (Figure 14, top panel). The immediate implication, and the second message, is that public debts will keep rising in the near future for a wide range of countries, which is appropriate as long as it comes with credible plans to gradually move to sufficiently high primary surpluses. Of course, countries in which fiscal credibility is clearly at risk will inevitably have to front-load fiscal consolidation (as Hungary and Latvia had to do in 2009, for example). For Greece there is an acute need to stabilize and ultimately reduce public debt. Ireland, Portugal, and Spain, which have stronger fiscal starting positions and credibility, will need to follow through with existing plans for consolidation.

The third message is that the fiscal efforts needed to bring debt dynamics under control are sizable but not unprecedented (Figure 14, middle and bottom panels). Some countries will have to significantly shift their fiscal behavior—in many cases, currently projected fiscal efforts over the medium term remain insufficient. But in the recent past, many countries have sustained primary balances capable of firmly putting the ratio of public debt to GDP on a declining path. In any case, fiscal efforts will be complicated by the growing pressure of population aging on health and pensions outlays, suggesting that to be successful, fiscal adjustments should combine long overdue entitlement reductions with permanent savings in other primary expenditure items.

The costs and limits of crisis interventions are also becoming visible in the financial sphere. The stabilization measures that prevented a financial sector meltdown allowed some banks to postpone restructuring. Fragile banks depending on exceptional liquidity support and government guarantees remain a threat to financial stability. In addition, they can distort normal financial intermediation by using access to abundant liquidity at low cost to roll over the debt of overleveraged companies, thereby avoiding or delaying loan losses. If maintained for too long, blanket guarantees and liquidity support could undermine competition in

the credit market and induce moral hazard. For example, the guarantees and support have prompted banks to seek immediate—but unsustainable—profits through purchases of government bonds and carry trade operations to reconstitute capital and create liquidity buffers. However, such recapitalization strategies create significant risks from a possible repricing of government bonds and increased exchange rate volatility.

... Call for a Cautious and Coordinated Exit

The costs of sustaining crisis policies for too long have led policymakers to begin thinking about normalization. In the fiscal area, many countries announced fiscal consolidation plans aimed at stabilizing public debt over the medium-term, though specific measures have not been identified in most cases. Where greater room for maneuver is available—most notably Germany—additional stimulus is being implemented in 2010.

In the monetary and financial areas, the withdrawal of emergency support has either been automatic—because the level of support is demand-driven and diminishes along with the normalization of market conditions—or has followed preestablished sunset clauses. For instance, the ECB conducted its final one-year maturity refinancing operation in December 2009, injecting €96.9 billion, barely more than one-fifth the amount allotted in a similar operation in June 2009. Similarly, it has confirmed the end of its six-month maturity operations and a gradual normalization of tender procedures for the three-month and weekly liquidity operations. Likewise, in Russia and other emerging markets, central banks have already largely normalized liquidity provision, although challenges remain in dealing with weak banks. Many temporary enhancements of deposit insurance schemes are scheduled to expire in 2010 and 2011. Government guarantees for financial institutions generally include either preset fee increases or the option for policymakers to raise fees as market conditions improve. For instance, issuance of government-

guaranteed bank debt has declined markedly in the euro area from an estimated monthly average of €35 billion in the first quarter of 2009 to less than €5 billion in the third quarter (Financial Stability Board, 2009). Official capital injections and purchases of impaired assets have also been falling, as banks could raise capital elsewhere. Finally, some countries benefiting from multilateral assistance have either kept the arrangement precautionary (Poland) or opted to decide about drawdowns on a review-by-review basis (Hungary) as they maintained or regained access to market financing under competitive conditions (see Box 1).

An important dimension of exit strategies is the existence of significant spillovers and the corresponding need for coordination and adequate sequencing. These spillovers operate across countries through trade and through financial cross-border flows. However, they also occur across policy areas, reflecting the interdependence among key policy objectives (macroeconomic stability, financial stability, and fiscal sustainability). For example, exiting from systemic support of the financial sector to focus on restructuring has repercussions elsewhere because it modifies the degree of competition in a given national market. At the same time, it helps normalize credit conditions, enhancing monetary policy traction on the economy and ultimately facilitating the fiscal exit. The need for coordination is even greater in the euro area, where cross-border and cross-policy spillovers are intertwined.

In the EU, coordination has so far been orchestrated through existing procedures and common policies. On the fiscal side, the Excessive Deficit Procedure (EDP)—which now concerns 20 member states, including almost all euro-area members—together with the broader Stability and Growth Pact (SGP) serves as a common institutional anchor to medium-term adjustment plans. The implementation of the EDP has fully exploited the flexibility built into the 2005 reform of the SGP to extend deadlines for correction of excessive deficits and, in some cases, to permit a late

Box 1. IMF-Supported Programs and External Adjustment

Large trade and financial spillovers from advanced economies exposed fiscal and financial vulnerabilities in emerging Europe and exacerbated home grown imbalances. In a number of countries, the synchronized collapse in trade and capital inflows put an abrupt end to growth trajectories that had been fed by credit booms and asset price bubbles and created substantial external financing gaps. Large, front-loaded financial assistance packages from the IMF, in close cooperation with the EU and other multilateral institutions, cushioned the impact of the collapse and smoothed the required policy adjustments. The design of the underlying economic programs in each country reflected its circumstances—the amount of fiscal space available and the nature of the exchange rate regime—and the preferences of its authorities.

Compared with previous crisis programs supported by the IMF, recent programs differ in a number of key features:

- Financing has generally been larger and more front-loaded, allowing countries to maintain supportive macroeconomic policies whenever possible. When early policy adjustment was inevitable, programs sought to strike a better balance between stabilization concerns and the need to restore policy credibility. For example, fiscal policy targets were in general adjusted more rapidly to changing conditions, but at the same time, programs sought to bolster structural fiscal reforms to preserve the medium-term objective of stabilizing or reducing public debts.
- Program conditionality has been considerably streamlined, focusing more on measures addressing the vulnerabilities that magnified the impact of the shock. For example, improvements in financial supervision, enhanced macroprudential regulation, and structural or entitlement reforms with a durable impact on public finances figured prominently in many programs.
- Preservation or enhancement of social safety nets to protect the poor and vulnerable has been given specific attention.
- Because front-loaded financial assistance has helped stabilize market expectations more quickly, it generally has lowered exchange rate volatility—or supported the maintenance of currency pegs—and allowed a smoother adjustment. The avoidance of such dislocations in turn has helped prevent disruptive balance sheet effects, especially in those countries with large currency mismatches (see IMF, 2009b, Box 3).
- Full-blown banking crises have generally been avoided despite the fact that the crisis hit particularly hard in countries that had experienced a credit boom. This resiliency reflected, in part, the top priority that programs gave to financial sector stabilization, including guarantee schemes backed by IMF resources, initiatives to enhance bank supervision, and emergency liquidity support (table).

The stabilization of economic and financial conditions following IMF-supported programs has allowed several countries (most notably Hungary) to regain or enhance access to market financing, putting a smooth exit from IMF programs clearly on the horizon. However, specific constraints and developments may complicate the exit for some, including the legacy of punitive external obligations (Iceland), the strictures of the currency regime (Latvia), and ongoing political uncertainty (Iceland, Romania, and Ukraine).

Note: The main author of this box is Xavier Debrun.

Table. IMF Support for European Countries Affected by the Global Crisis (As of March 8, 2010)

Country	IMF Loan Size, Approval Date	Key Objectives and Policy Actions	Additional Information 1/
Hungary	\$15.7 billion, November 2008	Address the main pressure points in public finances and the banking sector: • Substantial fiscal adjustment to provide confidence that the government's financing need can be met in the short and medium run. • Up-front bank capital enhancement to ensure that banks are sufficiently strong to weather the imminent economic downturn, both in Hungary and in the region. • Large external financing assistance to minimize the risk of a run on Hungary's debt and currency markets.	In addition to financial assistance from the IMF, the program is supported by \$8.4 billion from the European Union and \$1.3 billion from the World Bank. On completion of the third review in September 2009, the arrangement was extended for 6 months with a rephasing of the undisbursed amount. The fourth review of the program was completed in December 2009. The authorities have announced their intention not to draw additional resources. www.imf.org/external/country/HUN/index.htm
Ukraine	\$16.9 billion, November 2008	• Help the economy adjust to the new economic environment by allowing the exchange rate to float, aim to achieve a balanced budget in 2009, phase in energy tariff increases, and pursue an incomes policy that protects the population while slowing price increases. • Restore confidence and financial stability (recapitalizing viable banks and dealing promptly with banks with difficulties). • Protect vulnerable groups in society (an increase in targeted social spending to shield vulnerable groups).	Since the program's adoption, the marked further deterioration of the global economic environment has hit Ukraine harder than expected and has required a recalibration of economic policies. The second review of the program was completed in July 2009. Disbursements have been suspended, as corrective actions could not be implemented. Resumption of disbursement is conditioned on the adoption of the 2010 budget. www.imf.org/external/country/UKR/index.htm
Iceland	\$2.1 billion, November 2008	• Prevent further sharp króna depreciation by maintaining an appropriately tight monetary policy and temporary restrictions on capital outflows. • Develop a comprehensive and collaborative strategy for bank restructuring by (1) putting in place an efficient organizational structure to facilitate the restructuring process, (2) proceeding promptly with the valuation of banks' assets, (3) maximizing asset recovery in the old banks, (4) ensuring the fair and equitable treatment of depositors and creditors of the restructured banks, and (5) strengthening supervisory practices and the insolvency framework. • Initiating fiscal adjustment to put public debt back on a sustainable track while preserving key social safety nets.	The first review was completed in October 2009. The agreement was extended and rephased to account for delays in implementing key measures, reflecting protracted political fallout of the crisis. Staff-level agreement was reached on the second review in December 2009. www.imf.org/external/country/ISL/index.htm
Latvia	\$2.35 billion, December 2008	• Take immediate measures to stem the loss of bank deposits and international reserves. • Take steps to restore confidence in the banking system in the medium term and to support private debt restructuring. • Adopt fiscal measures to limit the substantial widening in the budget deficit and prepare for early fulfillment of the Maastricht criteria in view of euro adoption. • Implement incomes policies and structural reforms that will rebuild competitiveness under the fixed exchange rate regime.	The second review of the program was completed in February 2010. The arrangement was extended by 9 months, until December 2011. www.imf.org/external/country/LVA/index.htm

...continued

Box 1 (concluded)

Country	IMF Loan Size, Approval Date	Key Objectives and Policy Actions	Additional Information 1/
Belarus	\$2.5 billion, January 2009; augmented to \$3.5 billion in June 2009	• Facilitate an orderly adjustment to external shocks and address pressing vulnerabilities. • Adopt a new exchange rate regime to improve external competitiveness—a steep devaluation of the rubel against the dollar of 20 percent and a simultaneous switch to a currency basket with a trading band of ± 5 percent. • Support policies to strengthen the monetary framework, balance the budget, and impose strict public sector wage restraint.	The third review was completed in December 2009. www.imf.org/external/country/BLR/index.htm
Serbia	\$0.5 billion, January 2009; augmented to \$4.0 billion in May 2009	• Tighten the fiscal stance in 2009–10: limit the 2009 general government deficit to 1¼ percent of GDP and adopt further fiscal consolidation in 2010. The tightening involves strict incomes policies for containing public sector wage and pension growth and a streamlining of nonpriority recurrent spending, which helps create fiscal space to expand infrastructure investment. • Strengthen the inflation-targeting framework while maintaining a managed floating exchange rate regime.	Since the program was designed, Serbia's external and financial environment has deteriorated substantially. In response, the authorities have (1) raised fiscal deficit targets for 2009–10 while taking additional fiscal measures, (2) received commitments from main foreign parent banks that they would roll over their commitments to Serbia and keep their subsidiaries capitalized, and (3) requested additional financial support from international financial institutions and the EU. The second review was completed in December 2009. www.imf.org/external/country/SRB/index.htm
Romania	\$17.1 billion, May 2009	Cushion the effects of the sharp drop in private capital inflows while implementing policy measures to address the external and fiscal imbalances and to strengthen the financial sector: • Strengthen fiscal policy to reduce the government's financing needs and improve long-term fiscal sustainability. • Maintain adequate capitalization of banks and liquidity in domestic financial markets. • Bring inflation within the central bank's target.	Allocations for social programs will be increased and protections strengthened for the most vulnerable pensioners and public sector employees at the lower end of the wage scale. IMF support is coordinated with that of the EU and the World Bank. The second and third reviews were completed in February 2010. www.imf.org/external/country/ROU/index.htm
Poland	\$20.6 billion Flexible Credit Line, May 2009	The Flexible Credit Line (FCL) is an instrument established for IMF member countries with very strong fundamentals, policies, and track records of implementation. Access to the FCL is not conditional on further performance criteria.	The arrangement for Poland, which has been kept precautionary, has helped stabilize financial conditions there, leaving room for accommodative macroeconomic policies and improving access to market financing. www.imf.org/external/country/POL/index.htm
Bosnia and Herzegovina	\$1.57 billion, July 2009	Safeguarding the currency board arrangement by a determined implementation of fiscal, income, and financial sector policies.	Staff-level agreement on the completion of the first review was reached in December 2009. www.imf.org/external/country/BIH/index.htm

1/ More detailed information available at indicated Internet links.

start in the consolidation effort (2011 instead of 2010). On the financial side, the common competition policy has been the main driver for coordinating state assistance to financial institutions, and the EC is using that lever to foster a reorientation from blanket support to restructuring.

That approach is in line with the exit principles endorsed by the G-20 in November 2009, but important gaps remain, notably in coordination. Indeed, the G-20 principles provide no specific guidance on the form or scope of coordination. For instance, the withdrawal of blanket guarantees should be closely coordinated to prevent opportunistic capital flows, which, by putting first movers at a disadvantage, would create an incentive to delay the exit. Coordination would also be vital in defining Europe's new financial stability framework. The failure to harmonize supervisory and regulatory principles—not only within the EU but also globally—could severely distort competition and create new risks.

From Exit to Restructuring

The crisis confronted policymakers with a double challenge. The first, now largely overcome, was to design and implement responsive macroeconomic and financial policies in a context in which the effectiveness of conventional policy could not be taken for granted. The second challenge is very much present—to gradually shift focus from short-term support to addressing the deep and wide-ranging structural weaknesses exposed by the crisis. It is still too early to declare victory over the first challenge; policies must remain supportive until a self-sustaining recovery becomes entrenched. But it is also now time to engage the second task and establish the institutions and policies that will secure more balanced and sustained growth.

Successful Exits: Sequencing and Coordination

A timely withdrawal of the highly distortive systemic support measures requires policymakers to quickly identify fragile financial institutions through

recapitalization, restructuring, and, if necessary, resolution. This implies accelerating the recognition of loan and asset losses and assessing capital needs, including sufficient precautionary buffers. Where warranted, the process could be assisted by programs to purchase impaired assets (such as a “bad bank” scheme). The early recognition of the eventual fiscal costs associated with these operations is all the more important in light of the planned kick in of significant fiscal adjustments in 2011 for many countries.

One difficulty in the EU is the dichotomy between an integrated financial market and national authorities. As commitment and synchronization will be of the essence to avoid unhealthy cross-border capital flows driven by arbitrage opportunities, state-aid rules provide a key lever to coordinated actions, for instance by setting up uniform deadlines for ending various interventions.

A rapid return to normal financial intermediation would secure credit supply and increase the traction of monetary policy, creating the conditions for an orderly normalization of fiscal and monetary conditions. Rising concerns about the short-term risk of a default and the long-lasting consequences of high public debt—especially in the context of the growing pressures from aging populations on public finances—put a premium on fiscal adjustments *preceding* monetary policy normalization. Two other reasons for prioritizing fiscal retrenchment over monetary normalization are the inherent inertia in fiscal policy instruments and the possibility that fiscal policy effectiveness may be eroded by expectations of lower future disposable income due to tax increases and transfer cuts.

Monetary policy can and should remain fully accommodative as long as inflationary pressures remain subdued. Besides, all options should remain open in tackling the realization of negative risks and confronting the related deflationary pressures. In that regard, monetary policy is not constrained by the withdrawal of measures directly aimed at preserving financial stability. To the extent that a prolonged period of very low nominal interest rates

could sow the seeds of new financial excesses and asset price bubbles, the behavior of credit aggregates will need to be carefully monitored. The planned European Systemic Risk Board should play an essential role in fostering macroprudential supervision (see Box 2).

In the European Union, the size of spillovers and the corresponding need for coordination requires that the proposed sequencing of exits be subject to explicit commitments by member states, using existing procedures and common policies to foster the credibility of such commitments. The costs of coordination failures would be large. For instance, delays in implementing fiscal consolidation and plans for the reform of entitlements could re-ignite acute concerns about debt sustainability and undermine the stability of the euro. The result would be a counterproductive mix of tight monetary policy and loose fiscal policy. Also, delays in putting together a full-fledged financial stability framework at the EU level would complicate the withdrawal of systemic support measures at the cost of heightened moral hazard and dysfunctional intermediation.

Restructuring

The success of exit strategies is conditioned on policymakers' ability to design and implement long-term solutions to the structural weaknesses of their economies. In the financial sector, the key objective is to implement a new set of regulatory requirements that will deliver greater stability without impairing an efficient allocation of funds. While progress is being made in various forums such as the Basel Committee on Banking Supervision, lingering uncertainty—about the restrictiveness of the new regulations and, in particular, capital requirements or limits on the size and activities of banks—should be resolved sooner rather than later. In the European Union, this comes along with the need to close the gap between an integrated financial market and fragmented supervision (see Box 2). A natural complement to more unified regulation and supervision of the financial sector is a stronger prudential policy aimed at containing the build-up of financial excesses that preceded the crisis.

The conduct of macroeconomic policies could also be improved with a view to providing greater macroeconomic and financial stability. Macroeconomic frameworks and policy surveillance should incorporate a broader set of variables, including asset prices, credit growth, and current account balances, that were relatively neglected in the run-up to the crisis but shaped country-specific reactions to the global shock. In particular, the crisis has triggered an intense debate on the role that asset prices, balance sheet mismatch, and credit aggregates should play in the conduct of monetary policy. However, while fiscal policy can deploy a variety of instruments to address different objectives, monetary policy is best used to target price stability. Financial excesses that led to the crisis are probably best addressed with targeted prudential regulations. Fiscal surveillance should pay attention to variables reflecting underlying vulnerabilities that may not show up directly in budget figures. In light of recent experience, the current account balance arguably has a role to play among indicators that may indicate a need for preemptive policy action (see Box 3).

The design of fiscal policy would benefit from a more explicit reference to the macroeconomic stabilization function of public finances. Automatic stabilizers must be complemented with provisions that discourage procyclical tendencies. Subjecting budget preparation and execution to the scrutiny of nonpartisan agencies or adopting binding structural budget balance rules (as in Germany, Sweden, and Switzerland) would provide important channels through which fiscal policy could play a heightened stabilizing role. Turkey's planned introduction of a fiscal rule allowing for a simple automatic adjustment to economic conditions is another example of pragmatic approaches to better incorporate the stabilization objective in budget preparation.

In the euro area, the Greek crisis is a powerful reminder that in a monetary union without a centralized fiscal authority, fiscal discipline is a collective responsibility of all members. The crisis exposed long-standing gaps in the area's fiscal architecture, including the failure of EU budgetary

Box 2. Toward a New European Financial System

As they deal with the financial crisis and its consequences, European policymakers must keep a close eye on progress toward financial system reform. Comprehensive reforms are needed to establish a system that is competitive, integrated, sound, innovative but prudent, and independent of contingent taxpayer support. Yet the financial system urgently needs regulatory and legislative clarity if it is to attain a new sort of normalcy and return to its basic intermediation function.

Reforms are proceeding on various fronts. For banks, the Basel Committee on Banking Supervision has proposed important revisions to the Basel II framework.¹ These focus on making banks safer and reducing incentives for risk-taking. They do so by raising the quantity and quality of capital, limiting leverage, introducing a countercyclical element to capital, establishing liquidity buffers, and improving structural liquidity. The introduction of a leverage ratio may require particular adjustments from European banks, which—unlike their U.S. peers—are currently not subject to such a ratio. Implementation, after calibration based on an impact assessment, is planned for end-2012.

Meanwhile, in December 2009 the Economic and Financial Affairs Council (ECOFIN) reached agreement on an overhaul of the EU's prudential framework based on the proposals of the De Larosi re Group.² The agreement would establish a European System of Financial Supervisors (ESFS) for microprudential supervision and a European Systemic Risk Board (ESRB) for macroprudential supervision. The ESFS will comprise the national prudential authorities and three new EU-level European Supervisory Authorities (ESAs).³ The ESAs will be tasked with establishing a single rule book for the financial sector, harmonizing supervisory practices and mediating or settling disagreements between supervisors. The ESRB will issue nonbinding warnings and recommendations on systemic risk to the ESFS and other relevant policymakers. The European Parliament is still considering these proposals and is seeking amendments to strengthen the new institutions.

The European Commission has held broad, public consultations on crisis management and resolution and on the related issue of deposit guarantees.⁴ In parallel, a working group of the Economic and Financial Committee is looking into fiscal burden sharing.⁵ In this context, the IMF's staff has recommended establishing an integrated EU-level framework for crisis management, crisis resolution, and depositor protection. The framework would encompass a European Resolution Authority (ERA) as a "fire brigade" for the banking system that would have the mandate and the tools to deal cost-effectively with failing systemic cross-border

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Note: The main author of this box is Wim Fonteyne.

¹ See BCBS (2009a and 2009b).

² See also IMF (2009a, Box 4).

³ Namely, the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA). These would be based on the current Level 3 committees in the Lamfalussy structure.

⁴ The consultation documents, including the IMF's staff contributions, are available on DG Markt's website: ec.europa.eu/internal_market/bank/crisis_management/index_en.htm#consultation; and ec.europa.eu/internal_market/consultations/2009/deposit_guarantee_schemes_en.htm

⁵ An interim report by this group is available at www.se2009.eu/polopoly_fs/1.21198!menu/standard/file/st15004.en09.pdf

Box 2 (concluded)

banks under specific early intervention and resolution regimes. This ERA would best be twinned or combined with a European Deposit Insurance and Resolution Fund. The system would need fiscal backing, but the focus on cost-effectiveness should minimize the use of it.⁶

The most troubled parts of Europe's banking system are being restructured under the stewardship of the European Commission's competition services, which are responsible for enforcing the EU's rules on state aid. In applying these rules, the Commission has sought to balance the restoration of financial stability and of lending to the economy with the containment of moral hazard, the preservation of competition, and the restoration of sound market functioning. To obtain the Commission's approval, these banks' restructuring plans need to ensure long-term viability and to correct for state-aid-induced distortions to competition through downsizing. It would be useful to build on this experience to establish a durable integration of the EU's competition policies with its financial stability policies.

Regarding specific problems and gaps in regulation outside the banking system, the EU has launched regulatory initiatives to deal with rating agencies, central counterparty clearing systems, and currently unregulated investment vehicles such as hedge funds and private equity funds. These initiatives have pushed the global debate but would be most effective if they resulted in a global consensus producing well-regulated but open markets.

Several other issues remain to be examined in full, including:

- the future of securitization and the potential of covered bonds to serve as a lower-risk alternative,
- ways to improve consumer protection,
- accounting standards,
- options to better discern between good and bad financial innovation,
- systemic risk—optimal ways to detect and address it and the role that monetary policy should play in the process,
- the appropriate role of ratings and certain quantitative approaches (such as Value-at-Risk) in regulation and supervision, and
- conflicts of interest in the financial sector.

Finally and importantly, governance problems across all types of enterprise have been a major factor behind the financial crisis. It is essential that these be addressed at their core.⁷

As the prudential and legislative frameworks evolve, banks will need to adapt their business models. Policymakers will need to take care that banking remains a viable business that is able to attract funding. Cross-border business structures will also need to change to facilitate supervision and resolution and provide a sound basis for effective cross-border financial stability arrangements. Such cross-border adjustments underscore the importance of an integrated EU-level framework for crisis management and resolution. Such a framework is essential for the stability of the single market and to forestall the kind of twin fiscal-financial crises that several member states are now confronting.

⁶ See Strauss-Kahn (2010) and Fonteyne and others (2010).

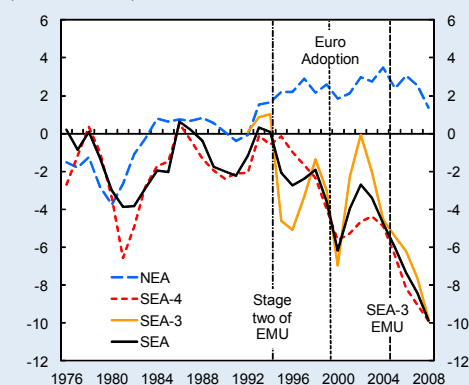
⁷ In this regard, the Basel Committee has launched a consultation on corporate governance (BCBS, 2010).

Box 3. Current Account Imbalances in the Southern Euro Area

Current accounts in the seven countries of the Southern Euro Area (SEA) have deteriorated sharply since the mid-1990s, going from balance in 1994 to an average deficit of 10 percent in 2008 (figure).¹ The downward trend is shared by most SEA countries, although the deficits remained at more moderate levels in Malta and Slovenia and especially in Italy (3 percent of GDP). In contrast, the eight countries of the Northern Euro Area (NEA) accumulated current account surpluses over the same period.²

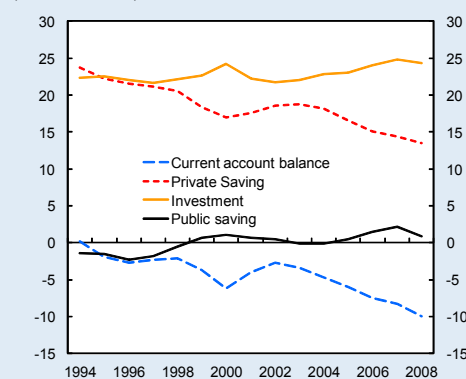
The decline in the current accounts of SEA countries coincided with their joining the European Monetary Union (EMU) and continued after their subsequent adoption of the euro. These facts raise three sets of questions about the large current account deficits in the SEA: (1) Are they connected to the formation of the EMU or to the financial liberalization trend? (2) Are they excessive? (3) Do they matter in a currency union, and, if so, what are the policy choices to help reduce imbalances in the absence of the exchange rate instrument?

Current Account Balance
(Percent of GDP)



Sources: IMF, *International Financial Statistics*; and IMF staff calculations.

SEA Indicators
(Percent of GDP)



Source: IMF, *International Financial Statistics*; and IMF staff calculations.

The evidence supports the notion that the EMU and euro adoption played an important role in the SEA deficits. Over the 1994–2008 period, the deterioration in current accounts coincided with a large decrease in private saving rates and, to a lesser extent, with a rise in investment rates, while public saving actually improved. An econometric analysis shows that the declines in private saving were spurred by the financial liberalization that took place in the early and mid-1990s and by increasing dependency ratios. Yet it was the creation of the EMU and, especially, the introduction of the euro, that drove the declines in current accounts by allowing countries to maintain their investment levels above what could be financed from lower domestic saving. Hence,

...continued

Note: The main authors of this box are Florence Jaumotte and Piyaporn Sodsriviboon.

¹ The SEA consists of Cyprus, Greece, Italy, Malta, Portugal, Slovenia, and Spain. SEA-4 denotes the four largest SEA countries: Greece, Italy, Portugal, and Spain; the latter three joined the EMU in 1994 and the euro area in 1999, and Greece joined the euro area in 2001. The remaining SEA countries, SEA-3 (Cyprus, Malta, and Slovenia) joined the EMU in 2004 and the euro area in 2007–08. Not included in this analysis is Slovakia, which joined the EMU in 2009.

² The NEA comprises Austria, Belgium, Finland, France, Germany, Ireland, Luxembourg, and the Netherlands.

Box 3 (concluded)

economic integration improved access to the international pool of saving, but it did not necessarily make it optimal or sustainable. Even in countries in which an increase in investment played a more important role in the current account deterioration (Spain and Slovenia), most of the increase took place in less productive nontradables sectors, such as construction.

The current account deficits of most SEA countries seemed excessive as of 2008. The deficits substantially exceeded their equilibrium levels as determined by the so-called macrobalance approach—a regression including countries’ fundamentals, such as the net international investment position, fiscal balance, growth prospects, demographic developments, and financial liberalization. A complementary approach, which focuses on external sustainability and calculates the current account deficit that would stabilize the country’s net international investment position, yields similar conclusions and, interestingly enough, similar estimates of the extent of disequilibrium. Other symptoms of the competitiveness problem include a deterioration of growth in some SEA countries following their accession to the EMU (Italy and Portugal) or growth that was accompanied by accumulating debt (Greece). Although the current global financial crisis has forced some reduction in current account deficits, they are expected to remain high in the medium run as a result of the countries’ low productivity and weak competitiveness.

Table. SEA Current Accounts 1/

	Current Accounts (Percent of GDP)
Current accounts in 2008	-9.0
Underlying current account 2/	-8.4
Estimated macrobalance current account 3/	-0.7
Estimated external sustainability current account 4/	-1.5

Source: IMF staff calculations.

1/ All SEA averages are unweighted arithmetic means.

2/ The current account balance that would emerge at zero output gaps both domestically and in partner countries, i.e., the current account adjusted for the presence of output gaps in 2008.

3/ The equilibrium current account as the predicted value of a current account regression including fundamental determinants of saving and investment as of 2008.

4/ The current account balance that would stabilize the NFA-to-GDP ratio at its average level in 2007-2008.

A large current account deficit matters, even in a currency union, for at least three reasons:

- because it may reflect domestic distortions, such as mortgage relief and transitory booms in asset prices (Spain) or excessively rosy expectations about future growth (Portugal in the late 1990s),³
- because gradual adjustment is painful—a current account deficit that results from competitiveness problems or overheating would likely require a protracted period of low growth to recover from them afterward, especially in a currency union in which labor mobility and flexibility are limited, and
- because the longer the imbalances persist and the greater their size, the larger the chance that adjustment may be abrupt rather than gradual.

What policies can be used to improve current account imbalances if the nominal exchange rate is not available? Policy options include fiscal adjustment; “internal devaluation”; productivity-enhancing policies, especially in the nontradables sector; and regulatory financial policies.

- *In the short run, fiscal policy is perhaps the most important macroeconomic policy tool*, especially where monetary policy is centralized. Fiscal consolidation seems particularly appropriate if public saving is too low or monetary policy too lax, which may well have been the case for SEA countries in which real interest rates were below those

³ See, for instance, Blanchard (2007).

in the NEA during 2000–08. Fiscal consolidation will remain crucial for reversing the use of discretionary fiscal stimulus and automatic stabilizers during the crisis, for lowering the public debt, and for reducing domestic demand pressure. Fiscal policy could also play a role in reducing or eliminating policies that may previously have been distorting private saving and investment decisions (for example, mortgage interest relief and the favorable tax treatment of debt).

- *In the medium term, an internal devaluation and structural policies to improve productivity growth are needed to regain competitiveness.* Internal devaluation mimics a real devaluation by reducing labor costs at home relative to those of trading partners. It can be achieved by moderating nominal wages or by cutting employers' social security contributions (in countries with sufficient fiscal space). At the same time, competitiveness and higher standards of living would be fostered by productivity-enhancing policies, including in the nontradables sector (which feeds into the costs of the tradables sector). The impact of appropriate policy adjustments can be large. For instance, it is estimated that if Italy, Portugal, and Spain were to bring their labor productivity growth to the highest levels observed in the NEA (Finland and the Netherlands), their current accounts would improve by 2–2.5 percentage points of GDP.
- *Regulatory financial policies could also be important.* By improving financial supervision and making provisioning more stringent in booms, central banks could, to some degree, limit the growth of private credit and the accumulation of problem loans. The countercyclical loan-loss provisioning system applied by the Bank of Spain has received a lot of attention, as it helped build important provisioning cushions for hard times. Yet, as Spain demonstrates, financial regulation by itself cannot completely protect the financial markets or the economy.

surveillance to extract sufficient restraint in good times, and the absence of crisis management procedures. Filling these gaps will be essential to improve the functioning and resilience of the monetary union. The rules-based fiscal framework should thus be amended to substantially strengthen incentives to maintain fiscal discipline in benign times. While changing EU statutes may take time, an important area of cooperation for euro area member states could be enhancing national fiscal frameworks, including a peer-review process of reform needs at the national level and mutually agreed deadlines for enacting needed reforms. Building centralized capabilities for crisis management would be important for containing market uncertainty and the risk of contagion, but it raises complex legal and practical issues.

On the structural front, long-lasting constraints on growth remain to be addressed. Product market regulations and sectoral subsidies continue to hamper the development

of inward-oriented service sectors, leading to a strong reliance on external demand as an engine of growth in some countries. Labor market rigidities increase the odds that large temporary shocks permanently increase unemployment (Blanchard and Wolfers, 2000), discourage job creation, reduce the labor supply, and impair a smooth reallocation of resources from declining sectors to dynamic ones. For a number of countries, gaining competitiveness is essential: breaking the taboo against nominal wage cuts would greatly expedite the required adjustment.

A better integration of macroeconomic and structural issues in EU surveillance would not only increase the incentive for member states to undertake reforms within their responsibility but would also allow for a more focused and more country-specific approach. For example, stability and convergence programs could address the budgetary impact of structural reforms, particularly when such reforms incur short-term costs but lead to substantial long-term savings. In that sense, stability programs could be crafted

case by case to advance the reforms that are most needed to lift potential growth.

Emerging markets are faced with a greater variety of policy challenges, reflecting contrasted strengths and vulnerabilities exposed by the global crisis. In many countries, avoiding procyclical monetary and fiscal policies and preventing boom-bust cycles in credit are top priorities. Stronger macroeconomic frameworks—including rules-based medium-term fiscal frameworks—and well-designed macroprudential regulations would indeed contribute to greater macroeconomic stability, improving the investment climate and lifting potential growth. In some countries, labor market reforms aimed at easing labor flows and increasing nominal wage flexibility would help address the legacy of domestic booms by

facilitating the needed reallocation of resources from nontradables to tradables sectors. More flexible labor markets would thus restore competitiveness and encourage labor participation. An array of regulatory and administrative reforms aimed at improving the overall investment climate would also be critical to boosting potential growth; it would also foster internal rebalancing and diversification by facilitating the movement of resources across sectors. Higher and more stable growth would in turn help alleviate fiscal vulnerabilities, although efforts to contain public spending growth, particularly in countries with extensive entitlement systems, would still be needed. As will be emphasized in Chapter 2, these reforms would help ensure the resumption of healthy capital inflows and restart real income convergence.

2. Managing Capital Flows

For emerging Europe, the key policy challenge will be attracting and harnessing sustainable capital inflows to restore growth. A healthy level of capital inflows requires balancing domestic and external sources of economic growth and avoiding the boom and bust consequences of excessive inflows. For countries that are already seeing a resumption of inflows, responsive macroeconomic policies, including currency appreciation, where possible, and tightening fiscal policies will be critical. Where capital inflows conducive to income convergence are yet to resume, policy efforts should focus on improving productivity in the tradables sector, easing intersectoral labor mobility, narrowing skill mismatches, and addressing country-specific growth constraints in infrastructure. For the region as a whole, improving financial stability will be essential. Prudential policies on banks, especially capital requirements on foreign borrowing, and macroprudential policies, including sectoral risk weights, to stem overheating of certain sectors will help avoid the buildup of financial vulnerabilities.

Emerging Europe's Diverging Policy Challenges

The crisis has had a major impact on capital flows to emerging Europe.⁸ After a long period of ever-increasing inflows, the region saw them slow down as the crisis took hold. The effect has differed across countries, with the difference reflecting the degree of income convergence, the size and structure of their economies, and monetary and exchange rate regimes. However, managing capital inflows remains a crucial challenge across all countries, with policymakers asking how to ensure a healthy level of foreign investment, how to prevent excesses, and how to improve the stability of an increasingly integrated international financial sector.

Note: The main authors of this chapter are Johan Mathisen and Srobona Mitra.

⁸ The Czech Republic and the Slovak Republic are included in the analysis even though they have been recently reclassified as “Advanced” countries.

The precrisis pattern of capital inflows holds a number of important lessons for managing inflows today. Different types of foreign capital investment are linked, directly and indirectly, to different macroeconomic and structural policies. And simulations show how prudential policies interact with financial vulnerabilities connected to bank-related capital inflows. In particular:

- A healthy level of capital inflows requires a balance between domestic and external sources of economic growth. Structural policy efforts to restore a balance between the nontradables and tradables sectors are most successful when focused on improving intersectoral labor mobility, reducing skill mismatches, and addressing country-specific growth bottlenecks in infrastructure.
- Preventing excessive inflows demands responsive macroeconomic policies. For countries with a pegged exchange rate, the best response to inflows in excess of those driven by structural factors is to tighten fiscal policy. For countries without a pegged exchange rate, the most effective response is appreciation. A free-floating exchange rate is also helpful in preventing excessive inflows and a buildup of financial fragilities.
- Prudential policies can support the resilience of the financial sector in the face of inflow pressures. Prudential tools such as capital requirements on foreign borrowing help to lower excessive inflows and related risks in banks. However, the impact tends to be temporary, and depends on the accompanying macroeconomic policies and the effectiveness of cross-border financial supervision.

The policy implications differ across countries according to the impact of the crisis on growth and whether capital inflows have started to resume. Some countries, such as the Baltic states, will need

to rekindle and sustain capital inflows while reorienting the sources of economic growth toward the tradables sector. Although this transformation will take place in the private sector, support by policies to address country-specific constraints in labor markets and infrastructure will be crucial. In other countries, such as Bulgaria, Hungary, Estonia, Poland, and Serbia, there are signs that capital flows are already resuming, and the challenge would be to implement responsive macroeconomic policies to stem any excess. For the region as a whole, the question is how to avoid the buildup of fragile financial conditions that were often associated with recent capital inflows in countries such as the Baltics, Hungary, and Ukraine.

Europe Was Different

Capital inflows were larger in emerging Europe than in other emerging economies (Figure 15). Greater financial integration enabled the region to benefit from “downhill” capital flows from rich to poor nations (Abiad, Leigh, and Mody, 2009). At the peak of inflows in 2007, the average inflow in emerging Europe as a share of GDP (20 percent) was double that in Latin America. Most of the difference is attributable to cross-border loans and deposits from western European parent banks to their affiliates in emerging Europe. Other types of capital inflows in Europe, like direct investment and portfolio debt and equity, were broadly similar to those in other regions.

The large inflows created macroeconomic and financial vulnerabilities for emerging Europe. The region ran current account deficits, experienced higher credit growth, and had worse overall fiscal positions than emerging economies in other regions (Figure 16; IMF, 2007). In addition, foreign currency lending built large currency mismatches in balance sheets, especially among households (Mathisen, forthcoming), which created substantial risks because currency depreciations could increase debt burdens. These vulnerabilities, together with the exposure of externally funded credit growth to the financing difficulties of parent banks when the crisis

struck, constitute one reason for the deeper downturn relative to other emerging economies.⁹

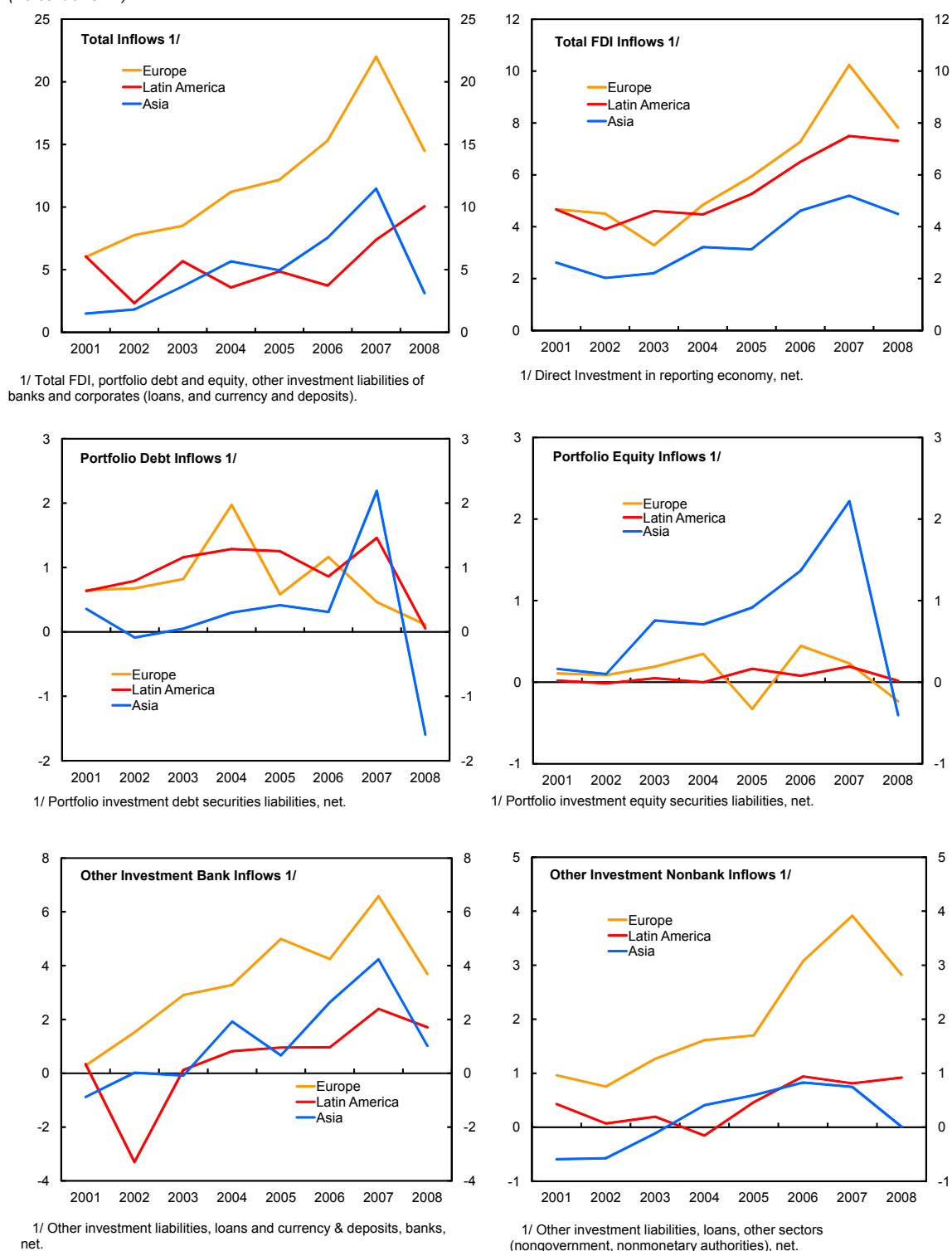
The decline in foreign inflows was particularly abrupt in emerging Europe. Average capital inflows in the central, eastern, and southeastern European (CESE) countries declined sharply, from about 20 percent of GDP in 2007:Q4 to almost none in 2009:Q3. The drop has been particularly abrupt for bank and corporate overseas borrowing, although the European Bank Coordination Initiative helped some countries avoid strong retrenchment in exposures by parent banks.¹⁰ Inflows of foreign direct investment (FDI), especially intercompany debt, declined as well. In contrast, Asian emerging economies saw sharp reversals, mainly in portfolio inflows, while Latin America experienced relatively smaller declines.

The intensity of the sharp drop in inflows varied within emerging Europe. Investors began differentiating emerging European economies according to their fundamentals, macroeconomic policies, and financial fragilities, leading to large differences across the region (IMF, 2009a). The Baltics, which experienced the largest surge in inflows during 2003–07, saw the sharpest reversals (Figure 17). More than other countries, the Baltic states relied on credit growth funded either through the wholesale market or bank parents, and it was this category of inflows (i.e., Other Investment Liabilities) that saw the sharpest decline in the crisis. Inflows to the Czech Republic and Poland neither surged nor declined to the extent that they did in the Baltics. The surge in Hungary and Romania was similar to that in the Baltics, but mainly due to FDI equity inflows that fell sharply during the crisis.

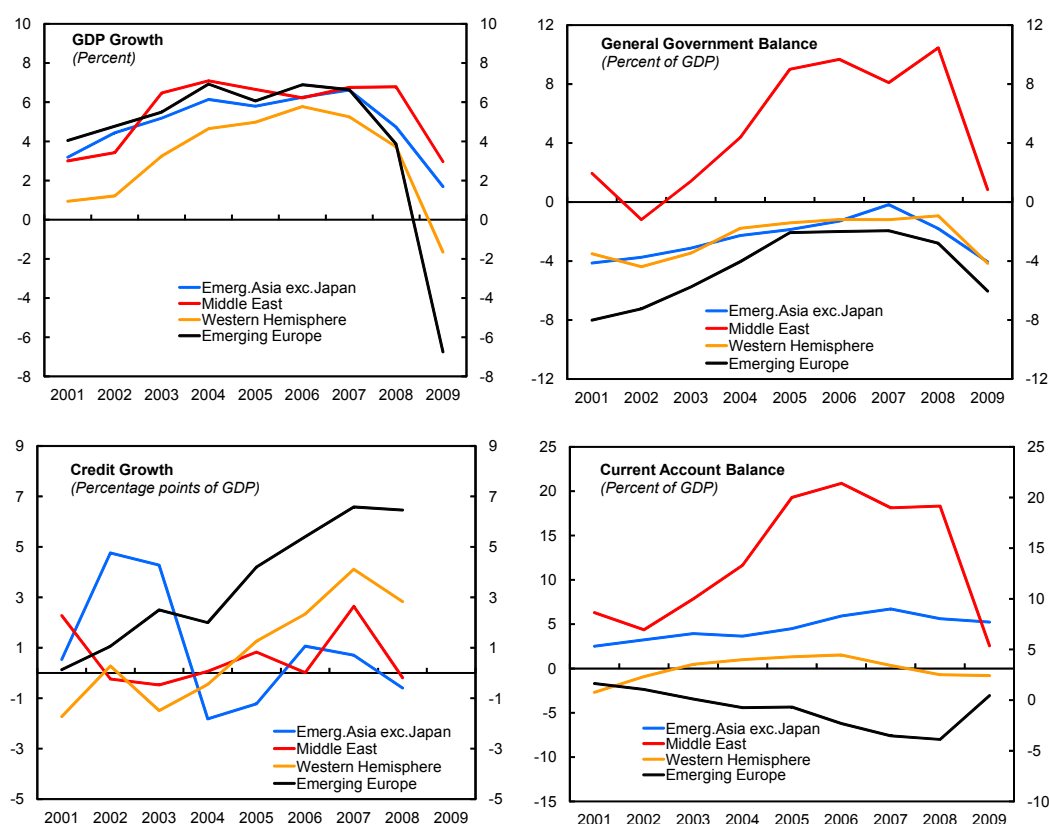
⁹ A large number of studies discussed the macroeconomic and financial sector vulnerabilities that were building up during the boom episodes in European emerging. The list includes, but is not limited to, Schadler and others (2005); Arvai and others (2009); Maechler and Ong (2009); Duenwald and others (2005); and Tamirisa and Igan (2007).

¹⁰ See Camilla Andersen, 2009, “Agreement with Banks Limits Crisis in Emerging Europe.” Available via the Internet: www.imf.org/external/pubs/ft/survey/so/2009/INT102809A.htm.

Figure 15. The Volume and Composition of Capital Inflows, 2001–08: Emerging Europe Was Different
(Percent of GDP)



Sources: IMF, *International Financial Statistics*; and IMF staff calculations.

Figure 16. Emerging European Economies: Macroeconomic Performance by Region, 2001–09

Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

The Motivation for Precrisis Inflows

Capital was attracted to the CESE countries prior to the crisis probably for a very simple reason: the prospect of returns higher than in home markets. Potential growth was high in many countries as income convergence took hold and moved east with the EU enlargement process, boosting returns especially in the nontradables sector, including in banks. Inflows often exceeded the healthy amounts associated with convergence, as macro policies raised returns through currency appreciation, rapid credit growth, and expansionary fiscal budgets. In many countries, the inflows were directly passed on to unhedged clients, which undermined the stability of the financial system.

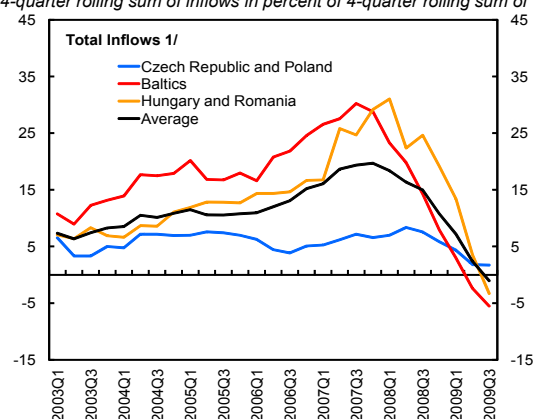
Convergence Factors Help Explain Inflows . . .

Inflows were closely intertwined with the level of income in recipient countries (see Appendix Table 1). FDI inflows were attracted by strong economic growth but tended to slow (as a share of GDP) as the country became richer. Other investment flows, especially cross-border loans, had the opposite relationship with income: as the economies matured and their GDP growth slowed, they attracted more inflows. This seems to fit well with the casual observation that as emerging Europe recovered from the crisis in the late 1990s, many countries grew strongly and attracted large FDI inflows, especially in the banking sector. Once the economies stabilized, they tended to see the other types of capital inflows such as parent-bank funding of the foreign-owned subsidiary.

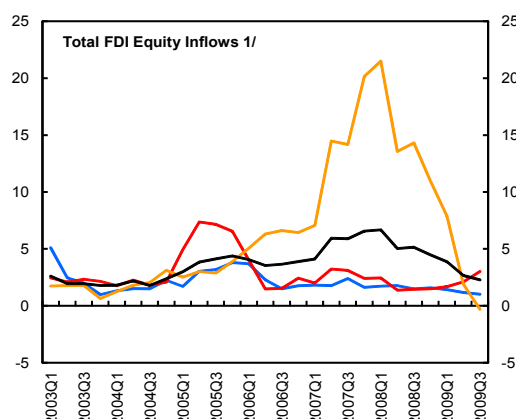
Overall capital flows were also related to increased urbanization and the size of the service

Figure 17. Composition of Capital Inflows in Central, Eastern, and Southeastern Economies (CESE), 2003:Q1–2009:Q3

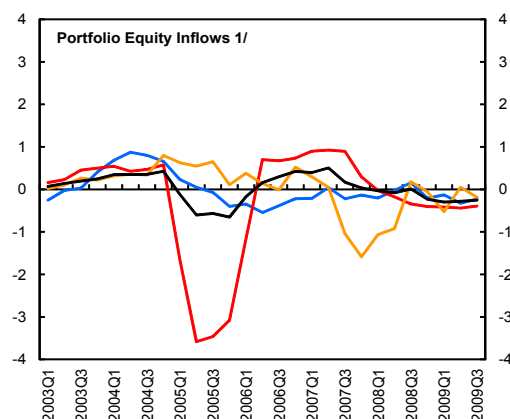
(4-quarter rolling sum of inflows in percent of 4-quarter rolling sum of GDP)



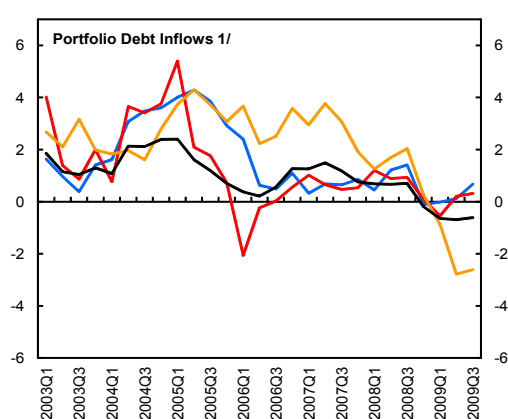
1/ FDI equity, portfolio debt and equity, other investment liabilities of banks and corporates.



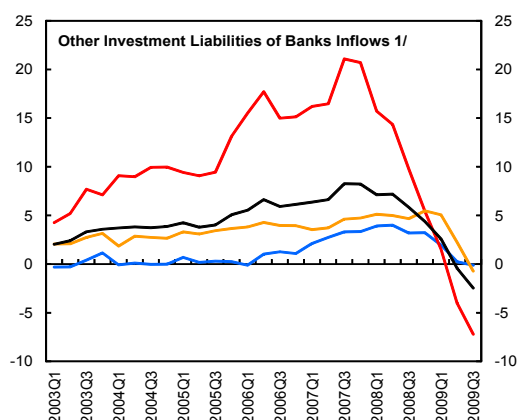
1/ Direct Investment equity capital in reporting economy, net.



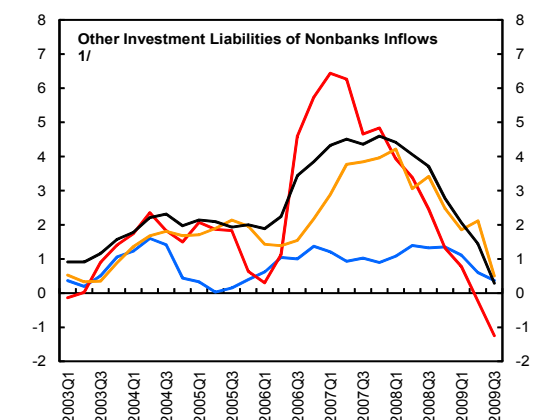
1/ Portfolio investment equity securities liabilities, net.



1/ Portfolio investment debt securities liabilities, net.

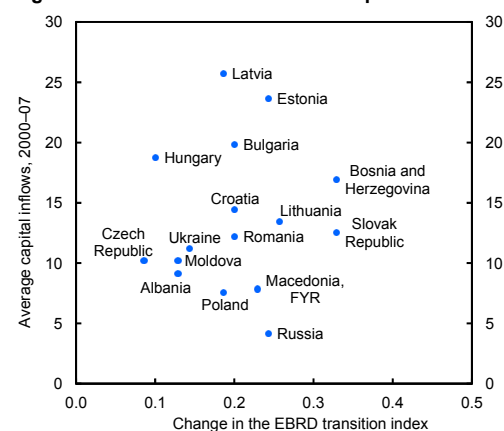


1/ Other investment liabilities, loans and currency & deposits, banks, net.



1/ Other investment liabilities, loans, other sectors (non-government, non-monetary authorities), net.

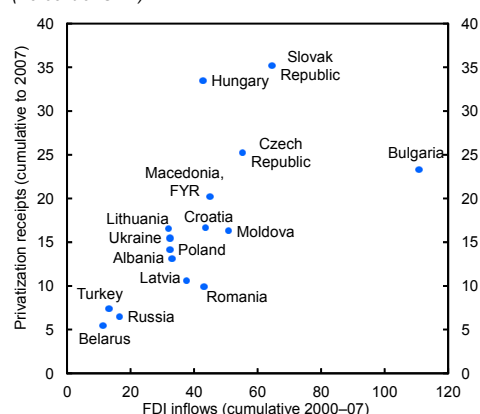
Sources: IMF, *International Financial Statistics*; and IMF staff calculations.

Figure 18. Structural Reforms and Capital Inflows

Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

sector relative to the economy (see Appendix Table 1). However, the motivation for each type of inflow varied somewhat. Increased urbanization tended to attract more FDI, perhaps in companies catering to clients that increasingly lived in cities. The level of services, on the other hand, attracted more of the Other Investment Liabilities inflows. The reason might be that the level of services is a gauge of the development and diversification of the economy: countries that already had a large service sector generally attracted more of the other investments—both bank and nonbank—as foreign investors generally favored a larger established domestic demand.

Reformers were handsomely rewarded with more inflows. With the liberalization of economies and institutional and infrastructure reforms, countries became more attractive to foreign investors (Bakker and Gulde-Wolf, forthcoming). However, countries that started with a high initial level of development (high transition index) had to undertake relatively fewer reforms (Figure 18). Thus, the change in the transition index also reflects the growth potential of countries, which helped draw in foreign capital. Some of the reforms were directly linked to capital inflows (Ötcher-Robe and others, 2007). In fact, a large portion of total FDI in most countries comprised privatization receipts (Figure 19). In many countries the link between FDI and privatization has been directly associated with an

Figure 19. External Privatization Receipts and FDI (Percent of GDP)

Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

increasing share of foreign ownership of the financial system.

... and So Do Macroeconomic Policies

While convergence factors explain a large share of precrisis capital inflows, many countries saw inflows surging in excess of what can be explained by the initially low but growing levels of per capita income, increasing urbanization, the expanding services sector, and the progress in reforms. What drove the surge in inflows in Estonia and Latvia and in Bulgaria, Hungary, and Ukraine (Figure 20)? Empirical analysis shows that much of the exuberance, especially in cross-border loans, can be explained by various concoctions of monetary, fiscal, and exchange rate policies.¹¹

Exchange rates explained a large share of the cross-sectional and temporal pattern of capital inflows:

- Regardless of exchange rate regime, stable exchange rates swayed other investments as well as portfolio inflows (Figure 21). This fact corroborates earlier evidence that capital flows are attracted by stable exchange rates in emerging economies (IMF, 2010a).
- In countries with nonpegged exchange rates, the level of other investment inflows, especially

¹¹ See Appendix Table 1 for detailed results.

Figure 20. Countries Received Capital Inflows in Excess of Convergence Reasons 1/
(Percent of GDP)

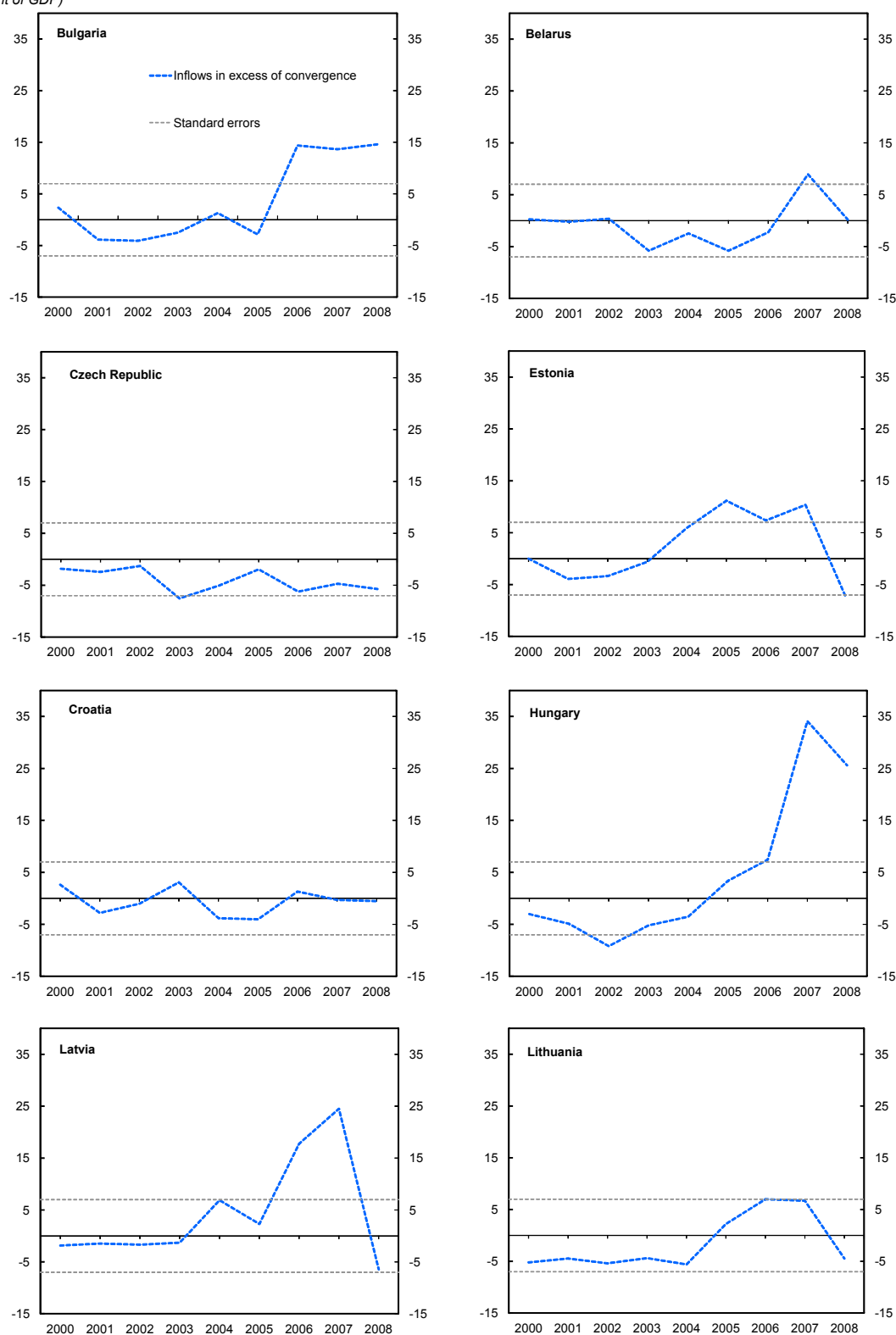
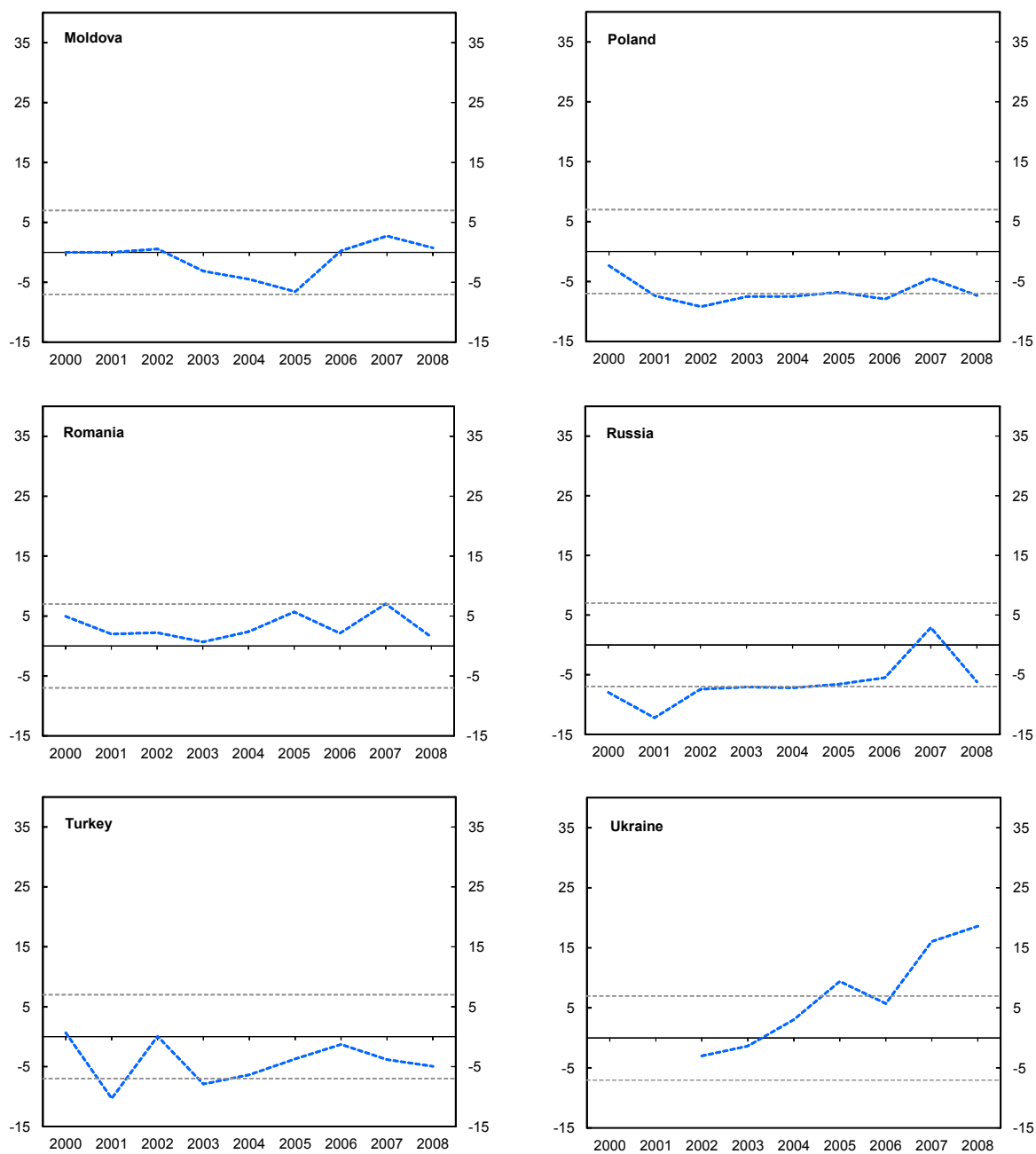
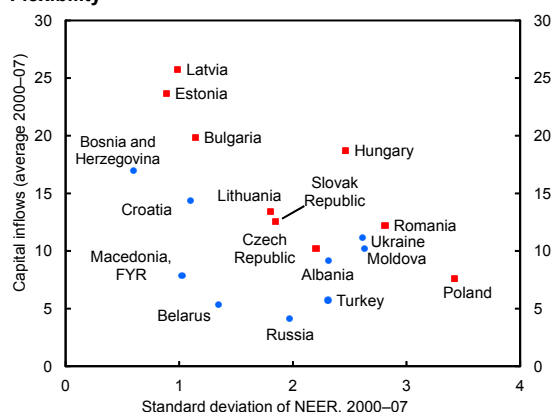


Figure 20. (concluded)

Sources: IMF staff calculations.

1/ The residuals are derived from a regression of overall inflows on convergence-related factors—growth in real per capital income, urbanization, size of the service sector, progress on reforms, and privatization revenue. See Table 1 in the Appendix. An excess is defined by capital inflows above the upper standard error band.

Figure 21. Capital Inflows and Nominal Exchange Rate Flexibility

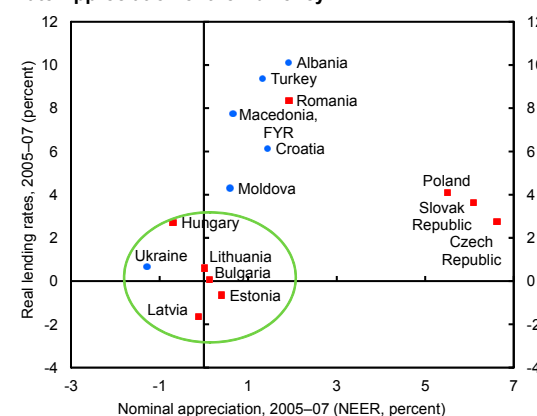
Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

during 2004–08, depended on how freely the exchange rate was floating. Nominal appreciation tended to slow inflows either due to tightened monetary conditions and the associated lowering of inflation and growth expectations or by prospective lowering of returns by removing expectations of appreciation.

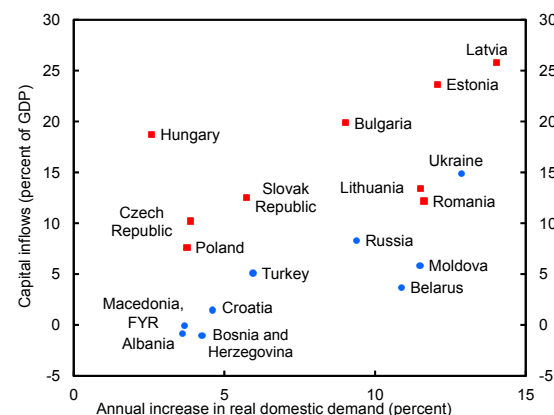
- Countries with a fixed exchange rate attracted more other investment inflows as their nominal effective exchange rate appreciated. The phenomenon could be related to carry-trade opportunities for nonresidents: as trading partners' currencies depreciate, the inflows into pegged exchange rate regimes increase because of higher nominal returns.

Credit markets interacted with exchange rates regimes and fiscal policies to draw in capital as well:

- Countries with heavily managed or pegged exchange rates tended to have low or even negative real lending rates. These countries also had the most rapid credit growth and received the highest level of total inflows (Figure 22).
- Higher credit growth attracted more inflows into banks and lowered portfolio debt inflows (as the private sector substituted bank debt for foreign debt). This latter relationship was even stronger if the government was running higher balances (so as to lower the financing needs of the public sector).

Figure 22. Real Lending Rates and Nominal Exchange Rate Appreciation of the Currency

Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

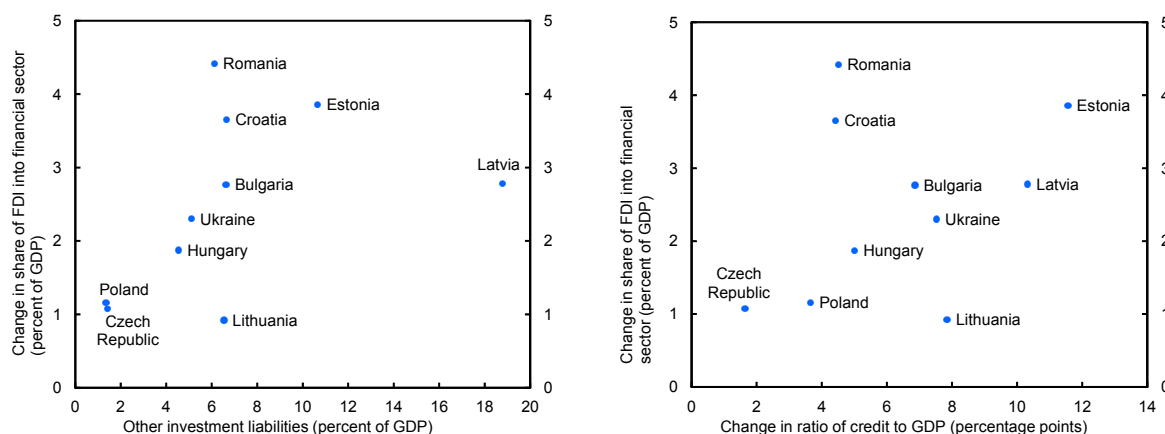
Figure 23. Capital Flows and Real Domestic Demand 1/

Sources: IMF, *Balance of Payment Statistics*; and IMF staff calculations.
1/ Average for 2000–07 for EU members, 2004–07 for non-EU members.

The improved fiscal stance also attracted capital:

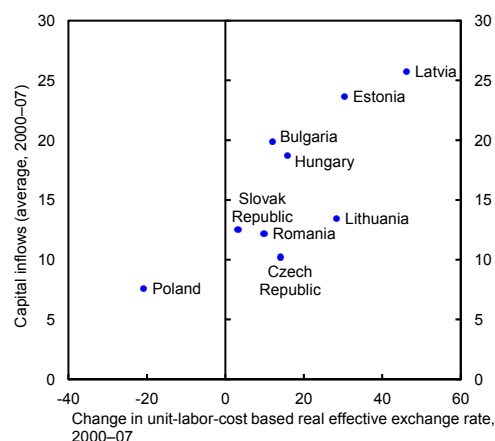
- A higher fiscal balance increased overall inflows and other inflows, but lowered debt inflows (as the financing needs of the government fell). However, in fixed exchange rate regimes, higher government deficits were associated with higher inflows. Overall, most CESE countries ran deficits during 2005–07, and almost all ran structural deficits.
- In countries whose improvements in government balances were associated with credit booms, capital inflows were even stronger, especially other investment inflows. This could imply that capital inflows and the growth in domestic demand reinforced each other (Figure 23). Countries that saw a rising share of

Figure 24. Rising Share of FDI into the Financial Sector Was Associated with Higher Cross-Border Loans to Banks and Corporates and Credit Growth
(Average 2000–07)



Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

Figure 25. Capital Inflows and Competitiveness



Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

FDI into the financial sector also experienced higher volumes of cross-border loans into banks and corporates (Figure 24). This sowed the seed of credit booms in many countries. For instance, in Bulgaria, the Baltic states, and Ukraine, the ratio of credit to GDP increased annually by more than 10 percentage points during 2005–07, substantially boosting domestic demand.

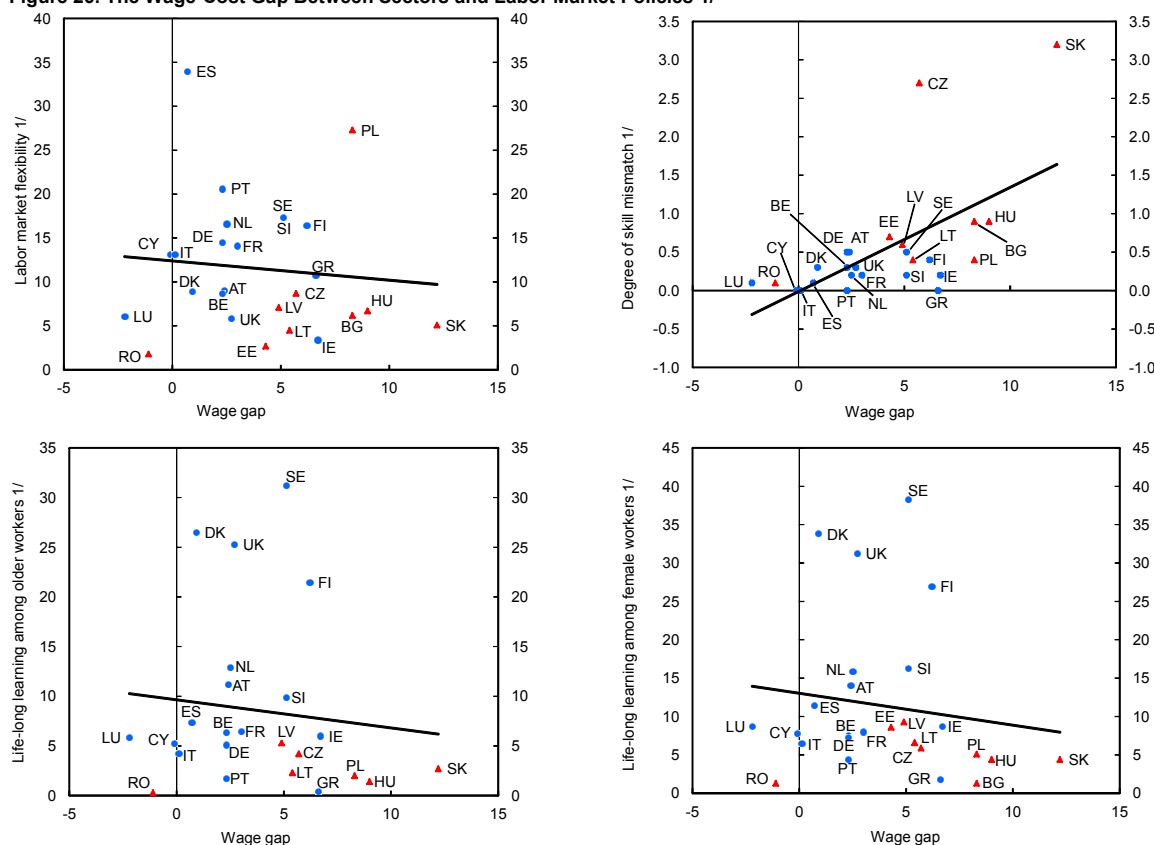
Capital inflows were associated with a loss of competitiveness, increased wage pressures, and a weakening link to domestic investment:

- The surge in capital inflows put pressure on the real effective exchange rate, potentially undermining competitiveness. With the rapid growth of the nontradables sector in many

countries, the wage-cost gaps (the percentage point difference in wage-cost growth) between the service and the manufacturing sectors were large, especially in countries with fixed exchange rates (Figure 25). Earlier evidence (Goretti, 2008) on wage-setting behavior in the new member states points to tight labor market conditions (due to strong labor demand and loose—mainly public sector—wage policies) as another factor contributing to a loss of competitiveness. This evidence matches the observation that lower labor market flexibility and greater skill mismatches are associated with higher wage-cost gaps in the EU (Figure 26).

- The link between capital inflows and domestic investment weakened (Figure 27), as capital inflows spilled over to other countries, thereby relieving some of the overheating pressures. Capital criss-crossed borders in unprecedented volumes, and about half the inflows to Estonia, Hungary, and Ukraine, for example, went out again as investments abroad (Table 3). This might simply be part of financial integration,¹² but it could also reflect the relationship between inflows and precipitous consumption booms in several countries.

¹² Risk diversification helps explain both inflows and outflows in emerging economies in general (Mody and Murshid, 2005).

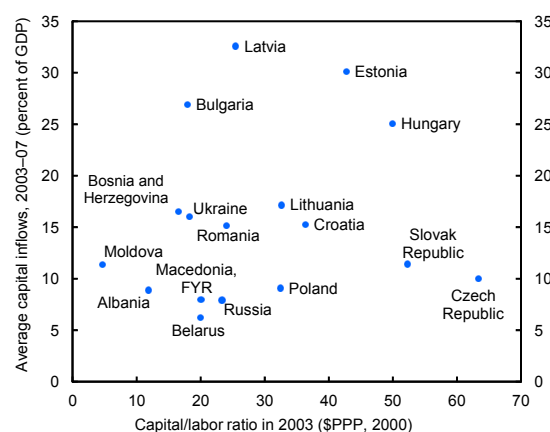
Figure 26. The Wage-Cost Gap Between Sectors and Labor Market Policies 1/

Source: Mitra and Perez Ruiz (forthcoming).

1/ The wage gap is the difference between the average percentage point change in nominal wages in the service sector and the manufacturing sector, 2000–06; labor market flexibility is the percentage of employees on temporary contract; skill mismatch is the variance of the relative unemployment rate by educational attainment (higher = more mismatch); life-long learning is the participation of the older and female population in education and training (in percent of the population in the respective age groups).

Note: Country names are abbreviated according to the ISO standard codes.

The impact of macroeconomic policies on capital inflows was amplified by persistently low country-risk premiums. Many investors seemed oblivious to the risks of overheating and financial fragilities and considered the exchange rate risk to be low. And while vulnerabilities differed, neither the market nor rating agencies differentiated between countries until the crisis hit. As a consequence, risk-adjusted interest rates in some countries looked more attractive than they should have and continued to attract foreign investors. The phenomenon extended into the banking sector. Foreign subsidiaries borrowed money either from the parent bank or from the wholesale market at low interest rates, as traditional indicators of bank stability reinforced the sense that risks were manageable. High capitalization and profitability provided comfortable cushions for banks, increasing their indicators of stability in the run-up to the crisis (Figure 28). That was precisely

Figure 27. Capital Inflows Did Not Seem to Respond to Capital Scarcity

Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

the period when they should have been creating additional buffers, for instance by provisioning for future losses or by setting aside capital through

Table 3. Uses of Capital Inflows, 2000–07
(Annual averages, percent of GDP)

Country	Capital and Financial Inflows	Use of Inflows			
		Current Account Balance	Acquisition of Financial Assets Abroad	Net Errors and Omissions	Change in Reserves
Albania	9.2	-7.0	-1.8	2.1	-2.5
Belarus	5.4	-3.2	-1.1	0.3	-1.3
Bosnia and Herzegovina	17.0	-13.6	-0.5	0.0	-4.4
Bulgaria	19.9	-10.2	-2.5	-2.3	-4.9
Croatia	14.4	-5.5	-3.4	-2.6	-2.9
Czech Republic	10.2	-4.3	-3.6	-0.1	-2.2
Estonia	23.7	-11.1	-11.2	0.2	-1.6
Hungary	18.7	-7.4	-9.4	-1.0	-0.9
Latvia	25.8	-12.2	-10.2	-0.5	-3.0
Lithuania	13.5	-7.8	-3.6	0.4	-2.5
Macedonia, FYR	7.9	-4.8	-0.3	0.1	-2.8
Moldova	10.2	-6.7	-1.5	0.0	0.0
Poland	7.6	-3.4	-2.7	-0.5	-1.0
Romania	12.2	-7.4	-0.6	0.2	-4.5
Russian Federation	4.2	10.3	-6.0	-1.6	-6.9
Slovak Republic	12.5	-5.8	-2.4	0.4	-4.7
Turkey	5.7	-3.1	-1.5	0.0	-1.1
Ukraine	11.2	3.8	-10.0	-0.5	-4.5

Sources: IMF, *International Financial Statistics*; IMF, *World Economic Outlook*; and IMF staff calculations.

higher risk weights on loans to certain sectors (IMF, 2009a). In the absence of proper risk adjustment, the return on assets that foreign banks received from funding their emerging European affiliates looked highly attractive, in particular when returns in advanced economies were low (Figure 29).

Macprudential Policies Influenced the Composition of Inflows and Associated Risks

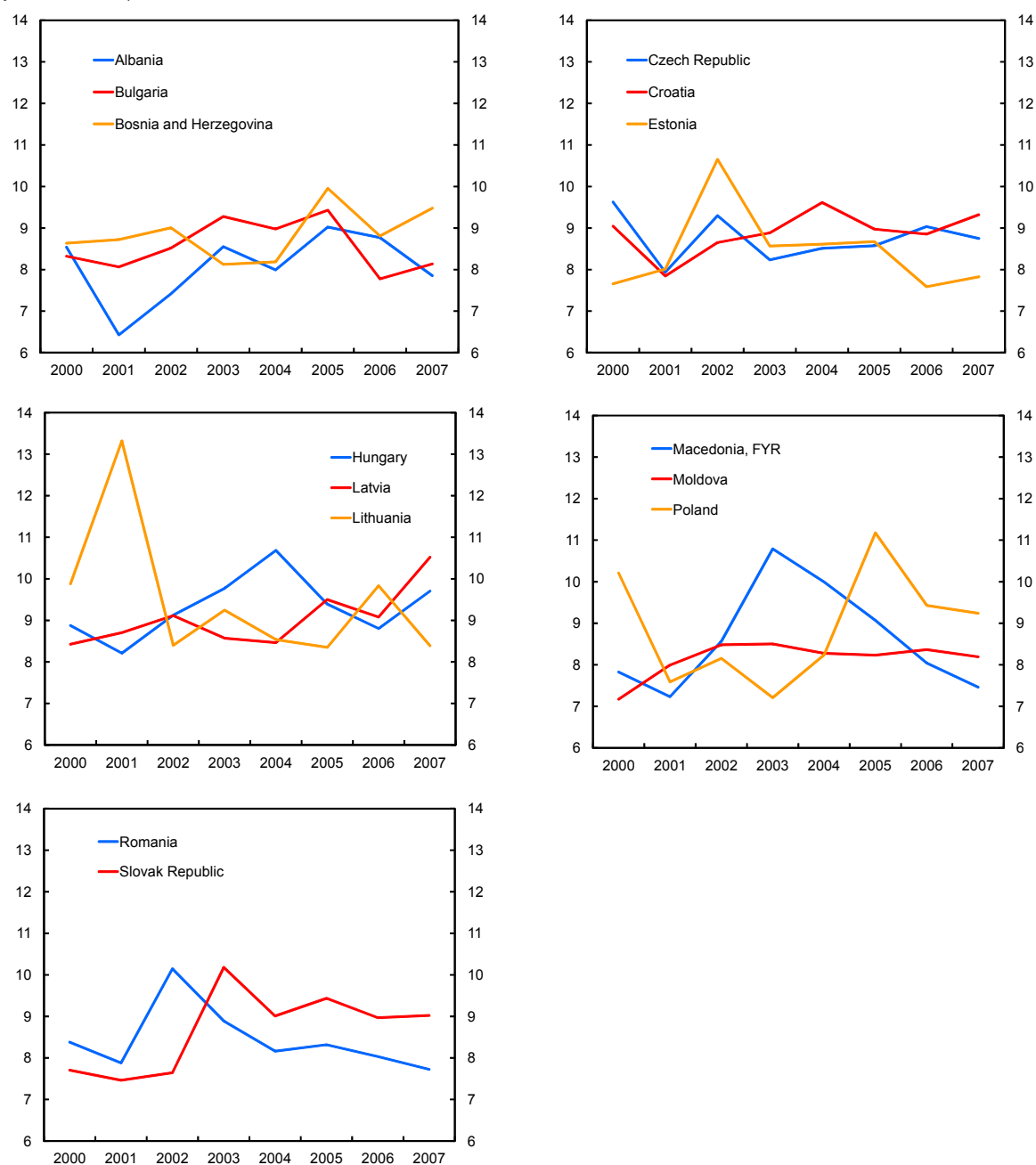
As worries about both macroeconomic and financial vulnerabilities mounted, policymakers attempted to stem capital inflows, including through prudential tools (Box 4). The buildup in financial fragilities was most prevalent in countries that experienced a surge in inflows during 2004–07 (Figure 30) and seemed to correlate with the presence of fixed or heavily managed exchange rates (Mathisen, forthcoming). In the Baltic states, for example, the combination of exchange rate stability, prospects for euro adoption (Rosenberg and Tirpak, 2008), and interest rate differentials encouraged savings in domestic currency deposits and borrowings in foreign currency. In some flexible

exchange rate regimes, households and corporations took advantage of the stable nominal appreciation and increasingly switched to foreign currency borrowing and domestic currency saving (IMF, 2009b). The only countries that avoided building up major financial imbalances were those with freely floating exchange rates and those that prohibited foreign currency lending to households.

Although country experiences varied, prudential tools seem to have temporarily slowed capital inflows into banks and changed the composition of inflows. Restrictions on capital outflows can hinder the repatriation of profits (Ostry and others, 2010).¹³ Stricter controls on inflows are associated with lower portfolio debt inflows (see Appendix Table 1). Prudential measures also diverted inflows into less-supervised channels. An example is the bank-by-bank credit ceilings introduced during 2005–06

¹³ Restrictions on nonresidents' ability to withdraw their funds should, strictly speaking, be classified as a control on inflows, because the lowering of nonresident restrictions on capital outflows makes a country a more attractive destination for inflows by providing greater assurance that capital can be repatriated.

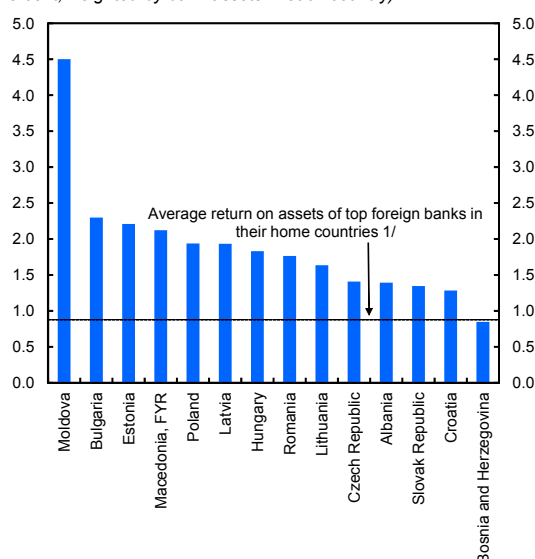
Figure 28. Banking Indicators Displayed Systemic Stability 1/
(Systemic z-indices)



Sources: Bankscope; and IMF staff calculations.

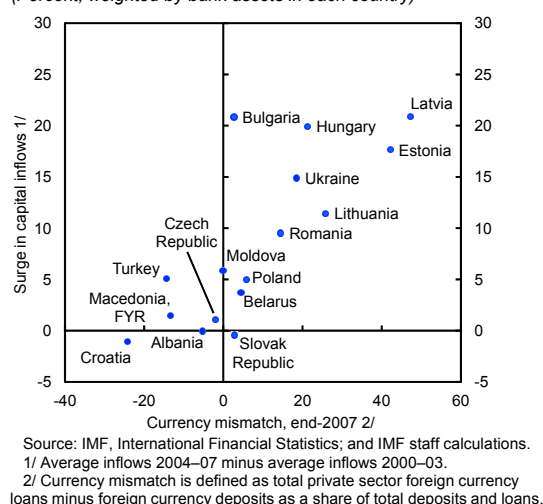
1/ The z-index is defined bank by bank, year by year as (return on assets + equity on assets)/(mean deviation of return on assets by bank). The systemic z is the asset-weighted average of z-indices of different banks in a country by year. A higher z indicates higher stability (lower risk).

Figure 29. Return on Assets, 2007
(Percent, weighted by bank assets in each country)



Source: Bankscope; and IMF staff calculations
1/ Unweighted average of return on assets of Unicredit, Raiffeisen, Société Générale, KBC, Erste, San Paolo IMI, BNP Paribas, as reported in unconsolidated statements of 2007.

Figure 30. Currency Mismatch and Capital Inflows, 2007
(Percent, weighted by bank assets in each country)



Source: IMF, International Financial Statistics; and IMF staff calculations.
1/ Average inflows 2004–07 minus average inflows 2000–03.
2/ Currency mismatch is defined as total private sector foreign currency loans minus foreign currency deposits as a share of total deposits and loans.

Box 4. Prudential Measures to Stem the Tide of Capital Inflows in Emerging Europe

In the run-up to the crisis, many countries in emerging Europe adopted a wide range of measures to manage large capital inflows (Appendix Table 2). They met, however, with only mixed success (Ötler-Robe and others, 2007; and Hilbers and others, 2005).

The adopted measures focused on the following areas: (1) macroeconomic policy; (2) prudential requirements (capital requirements, asset classification, provisioning rules); (3) administrative (reserve requirements, capital controls); (4) supervision and monitoring (greater disclosure, cooperation with home supervisors); (5) promoting better understanding of risks (both for banks and the general public, also including moral suasion); and (6) developing the market (develop foreign currency hedging markets, create or strengthen credit registry).

Many of the governments of the eight states joining the EU in 2004 preferred to strengthen supervisory and monitoring measures and limited their use of administrative and prudential measures. In some respects, they were constrained in their policy options by their commitments to the EU and others. For example, new EU member states that applied for OECD membership committed themselves to liberalizing capital outflows, and that seemed to have helped ease some pressure in the Czech Republic and Poland. At the same time, Poland found that caution in liberalizing inflows was helpful.

In contrast, some countries in southern Europe (including Croatia and Serbia) and the two states that joined the EU in 2007 (Bulgaria and Romania) took a more interventionist stance by imposing a range of administrative and prudential measures. They enhanced their reserve requirements, often differentiating them by currency and broadening them beyond deposits to include some foreign exchange liabilities. In some cases, reserve requirements applied to short-term deposits and foreign borrowing were raised to very high levels, reaching, at their peak, 30 percent in Romania and 45 percent in Serbia. On top of their existing reserve requirements, Bulgaria and Croatia imposed marginal reserve requirements on credit in excess of an

Note: The main author of this box and Appendix Table 2 is Piyabha Kongsamut.

allowed ceiling (Bulgaria) and on new foreign borrowing (Croatia). The two countries also adopted many prudential measures, such as higher capital requirements, tighter asset classification and provisioning, and rules specific to foreign currency borrowing and lending. Some of these rules became quite complex (such as allowing exemptions or adjustments according to collateral values). At the same time, central bank monitoring was improved, along with campaigns to promote better understanding of risks.

Debt management measures in Bulgaria, Croatia, Hungary, Poland, and Turkey were aimed at shifting public borrowing from international to domestic markets.

Taken together, however, the above measures were not sufficient to stem the tide of capital inflows. Although the effectiveness of individual measures is difficult to assess, here are some broad, tentative conclusions:

- Prudential and administrative measures seem to have slowed credit growth at least temporarily; and in some cases they created liquidity and capital buffers and fostered resilience in the banking systems where they were applied. At the same time, the measures generated some circumvention by market participants: (1) diverting capital inflows to other channels such as less-regulated nonbanks (such as leasing companies); (2) using accounting tricks such as booking loans offshore; and (3) borrowing directly from abroad rather than from banks (as the combined impact of all the policy measures increased banks' cost of funds). Thus, while the expansion in the assets of the banking sector may have been reduced, external credit flows to these countries remained strong.
- Some breathing room was gained through liberalization of capital outflows and through delays in liberalizing inflows.
- Reserve requirements to limit credit growth may have helped by creating a liquidity buffer available for release when needed. Many countries have reduced reserve requirements during the crisis.
- Debt management measures seem to have played a role in reducing countries' vulnerability to foreign currency rollover and in developing domestic bond markets.
- Cooperation with home supervisors improved information flows and opened communication lines, all of which was useful in the downturn.

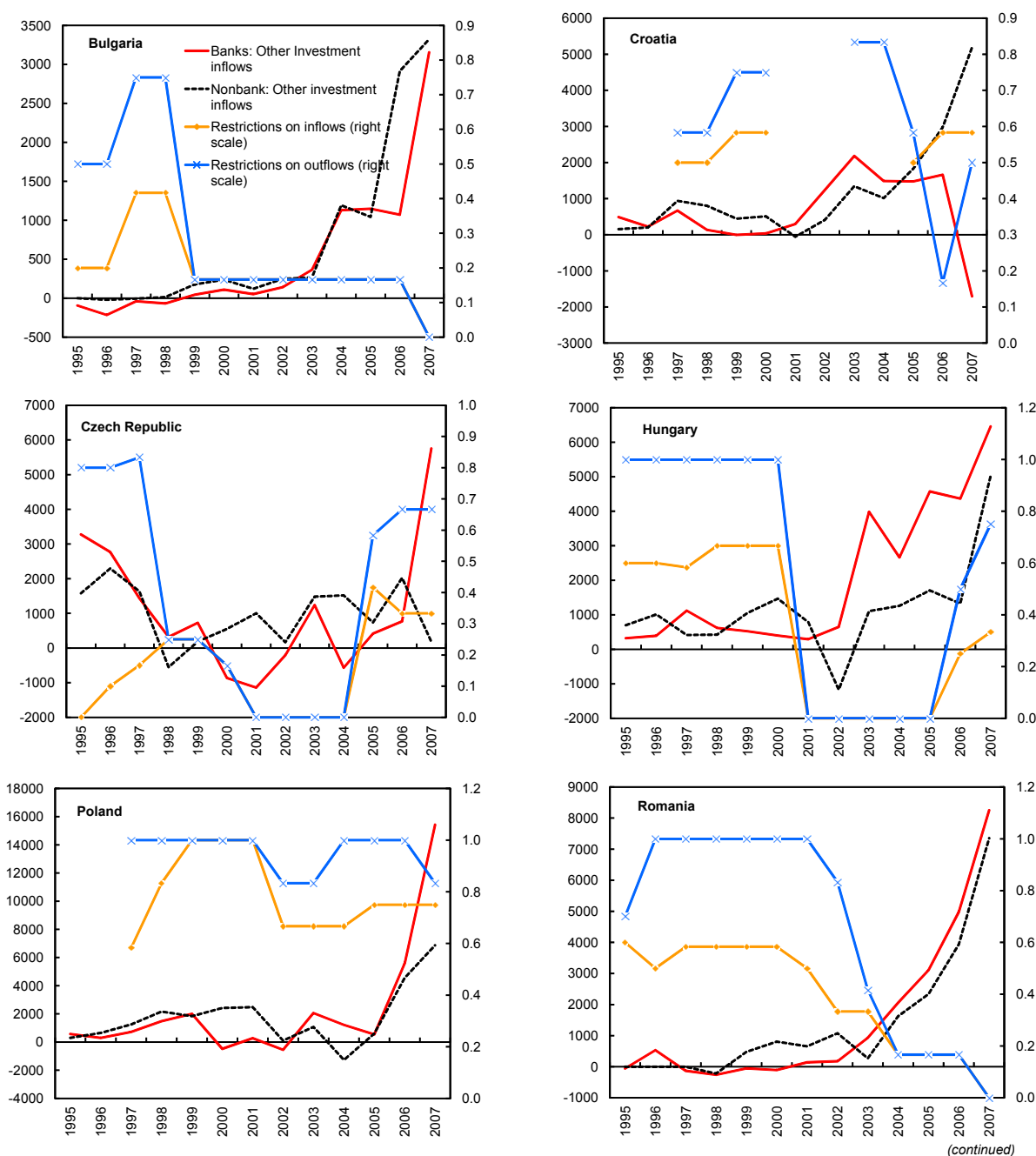
in Bulgaria, where bank borrowing leveled off while direct cross-border borrowing by corporates accelerated (Figure 31). Similarly, in Turkey in 2005 and Croatia in 2007, corporate external borrowing took off with a downturn in bank inflows when restrictions increased. The impact of prudential measures on capital inflows and credit growth were stymied by the comfortable profit levels in banks, their motivation to expand market share at the expense of profitability, and a high degree of financial integration. Banks used their profit cushion to bear the higher costs of the prudential regulations or supplied credit to the corporate sector directly from parent banks.

Simulations reveal that the variation in the impact of prudential regulations has a lot to do with the

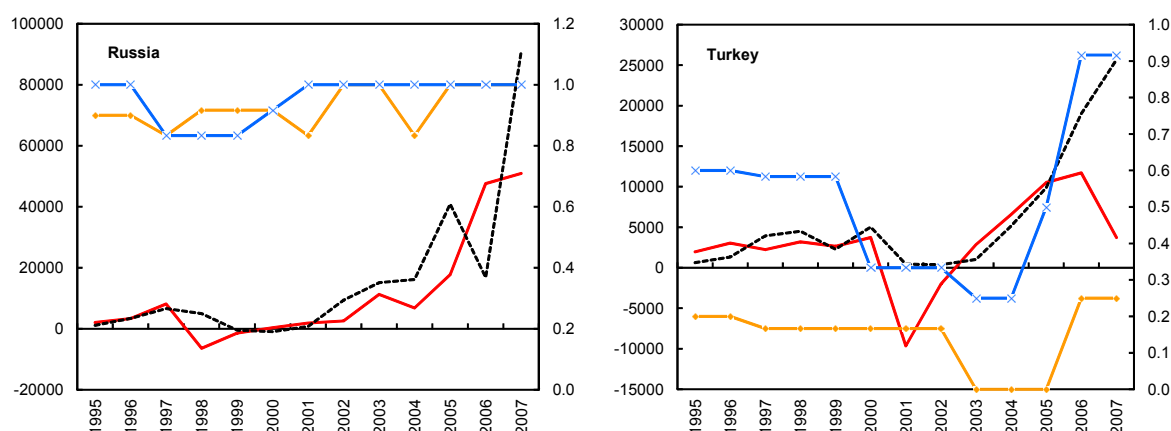
type of instruments used, the monetary or exchange rate regime prevailing, and the form of cross-border liabilities of the banks (Box 5). Focusing on the capital requirements (CRs) on banks' foreign borrowing and "tax type" marginal reserve requirements (MRRs) on banks' foreign liabilities, the simulations show that prudential tools can reduce foreign borrowing and credit growth temporarily.¹⁴ Although their effect on overall credit

¹⁴ The additional capital requirement in a CR could be formed by subordinated debt with a clause of "contingent convertibility" into the equity capital, with the convertibility ranging from 0 to 100 percent. See IMF (2010a, Chapter 3, Box 4) for a discussion on contingent capital. The advantage of this measure is that a bank's capital position will be improved precisely when a bank needs it. Issues about the determinants of

(continued)

Figure 31. Capital Inflows and Restrictions on Capital Flows, 1995–2007 1/

the trigger conditions for convertibility and the rate and types of conversion are open issues.



Sources: IMF, *International Financial Statistics*; Schindler (2009); and IMF staff calculations.
 1/ Restrictions on inflows and outflows are based on extending the dataset in Schindler (2009), and ranges from 0 –1, increasing with restrictions. See www.palgrave-journals.com/imfsp/journal/v56/n1/extend/imfsp200828x1.xls.

Box 5. Which Prudential Tool Is Best at Managing the Financial Stability Risks of Capital Inflows? Answers from Model Simulations

Model simulations were used to measure the effectiveness of two types of prudential tools aimed at reducing foreign borrowing and lowering liquidity risks in banks: a “tax type” marginal reserve requirement (MRR) on banks’ foreign liabilities and a capital requirement (CR). The simulation used a medium-sized dynamic stochastic general equilibrium model of a small, open, emerging market economy.¹ The model’s real sector is standard. The banking sector’s assets consist of risky loans extended to local households and businesses plus required and excess reserves. Banking liabilities consist of domestic deposits, foreign borrowing, and bank capital. The banks face convex costs of falling below the minimum regulatory capital adequacy ratio, cannot easily raise fresh capital when needed from their owners (or by issuing new equity), and face maturity mismatches from financing long-term loans with short-term foreign borrowing. The model includes 50 percent liability-euroization in the private sector. The MRR and CR are simulated on two types of policy regimes: an exchange rate peg and a flexible exchange rate with inflation targeting (IT). Because of currency mismatches in the private sector’s balance sheets, the inflation-targeting central bank also considers the exchange rate.

The MRR is imposed on short-term foreign borrowing in excess of a certain threshold level. It acts like a direct cost (tax) on bank funds. For the MRR to raise the marginal cost of banks—the point at which banks no longer find it worthwhile to dig into their profit cushions—it needs to be at a level high enough for banks to reduce foreign borrowing. The MRR helps, in some degree and temporarily, to distribute the foreign borrowing over time (first figure). The effects are quickly reversed after the MRR is abolished. During the time that the MRR is in place, the level of GDP drops more in a fixed exchange rate regime than

... continued

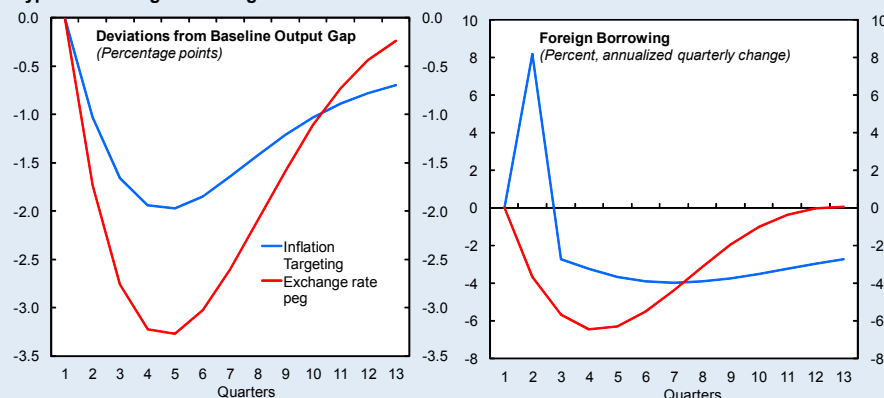
Note: The main author of this box is Jaromir Benes.

¹ The description of the model is found in Benes, Mathisen, and Mitra (forthcoming).

Box 5 (concluded)

in a flexible-exchange rate IT regime. The effect on GDP occurs via lower credit growth, as banks transmit the higher cost of funds to lending rates. The effect of the MRR does not depend on whether the bank is foreign-owned.

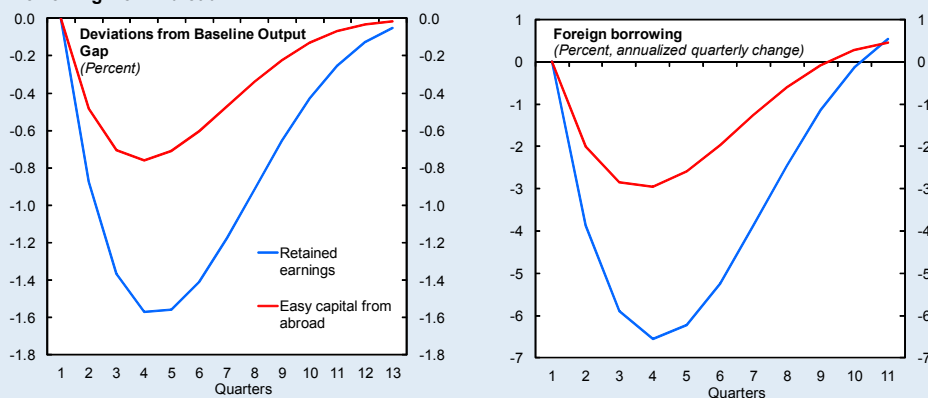
Marginal Reserve Requirement: Simulation of Effects, by Type of Exchange Rate Regime



Source: IMF staff calculations.

Alternatively, through a CR, banks could be required to hold additional capital against short-term foreign borrowing. The idea is to create a capital buffer to ensure that liquidity risks do not translate into solvency risks during crises. The simulations indicate that the CR is effective in lowering foreign borrowing and credit growth temporarily; to the extent that banks are close to the regulatory minimum capital ratio, they actively substitute domestic deposits for foreign borrowing and continue to lend (second figure). Since the cost of the CR is contingent on penalties if the regulatory minimum capital adequacy ratio is violated, lending rates do not go up. But to the extent that banks' foreign borrowing goes down, banks generate lesser credit growth unless domestic deposits go up. The restructuring of the banks' funding sources and the extra capital under a CR reduce risks to financial stability. The effects of the CR on the level of GDP vary only marginally between fixed and flexible exchange rate regimes. However, the GDP level declines more in countries in which banks are using retained earnings instead of accessing the deep pockets of parents.

Capital Requirement: Simulation of Effects, by Ease of Borrowing from Abroad



Source: IMF staff calculations.

growth can be limited, they give banks an incentive to restructure funding toward domestic deposits and increase their capitalization levels, both of which reduce financial stability risks. Moreover, CRs impact the output gap less than MRRs, especially in a fixed exchange rate regime, and the adverse real effects of CRs are considerably reduced if banks can raise fresh capital easily from parents.¹⁵ That said, MRRs are generally easier to implement, and they lead to a welcome buildup of liquid assets. Of course, opportunities for circumvention or regulatory arbitrage would reduce the effectiveness of either of these measures considerably.

Policy Implications

The lessons from the experience of precrisis capital inflows differ greatly across economies. Some countries will need to focus on policies to restore and sustain capital inflows while shifting the sources of economic growth toward the tradables sector. Others are increasingly faced with the challenge of implementing responsive macroeconomic policies to stem excessive inflows. For the region as a whole, the question is how to improve its financial stability in the midst of an ever more integrated international financial system.

Resuming Convergence-Related Flows

For the countries looking to resume convergence by attracting capital inflows, the challenge is to enhance the scope for productive investments in the tradables sector. A number of measures can contribute. The most effective policies will likely be those that address country-specific private sector growth bottlenecks in labor markets and infrastructure. In particular, recent business surveys indicate that for poorer emerging European countries, constraints in access to energy, water, and land are most important, while labor and transport constraints top the list for richer countries (Mitra,

Selowsky, and Zalduendo, 2009).¹⁶ To resume convergence-related inflows, especially FDI, addressing such country-specific growth bottlenecks seems particularly important, as the traditional pull from “the superior endowment of infrastructure and labor skills with which countries started transition is now gone” (Mitra, Selowsky, and Zalduendo, 2009).

Privatizations and enterprise reform could help attract required private resources to facilitate the move from nontradables to tradables. Because privatizations tend to be associated with higher capital inflows, additional efforts in this direction will help increase additional capital inflows. While the scope for such reforms might be increasingly narrow in EU countries, there might be substantial room in other emerging European countries to consolidate their portfolio of state-owned enterprises (EBRD, 2009).

In addition, increasing labor market flexibility will help reallocate resources and workers from the nontradables to the tradables sector and support competitiveness. The fact that labor market flexibility in emerging Europe recently deteriorated vis-à-vis the advanced countries indicates that substantial room for reforms exist in this area (EBRD, 2009). The wage gap between the nontradables and tradables sector is large, even though lower growth in nontradables in the next few years might help reduce relative nontradables wages and moderate pressures on real appreciation. Moreover, firms in emerging Europe often lack flexibility as they generally have few workers on part-time or fixed-term contracts. A final obstacle is employment legislation, which is more rigid in emerging Europe than in the advanced countries in Europe (EBRD, 2009).

Finally, investment in human capital and R&D will help attract foreign capital in the manufacturing sector. Continuous upgrading or reorienting of skills

¹⁵ The Croatian experience with an MRR illustrates the same point. The MRR rate was moved up from 24 percent to 55 percent over 2004–06 but still had no significant effect on capital inflows or on credit growth.

¹⁶ Again, large variations exist across countries: firms in Hungary report not being affected by transport or labor constraints; labor constraints are particularly important in Belarus and Estonia; and Belarus, Moldova, Russia, and Ukraine are affected by land constraints.

(through education and training) facilitates the flow of labor between sectors and helps alleviate the problem of unbalanced growth of services relative to manufacturing. Moreover, manufacturing in emerging economies in the EU tends to focus on products that are of relatively low quality when compared with those from more advanced neighbors. Moving up the product quality ladder through higher expenditures on R&D and innovation would also ease competitiveness problems (IMF, 2010b).

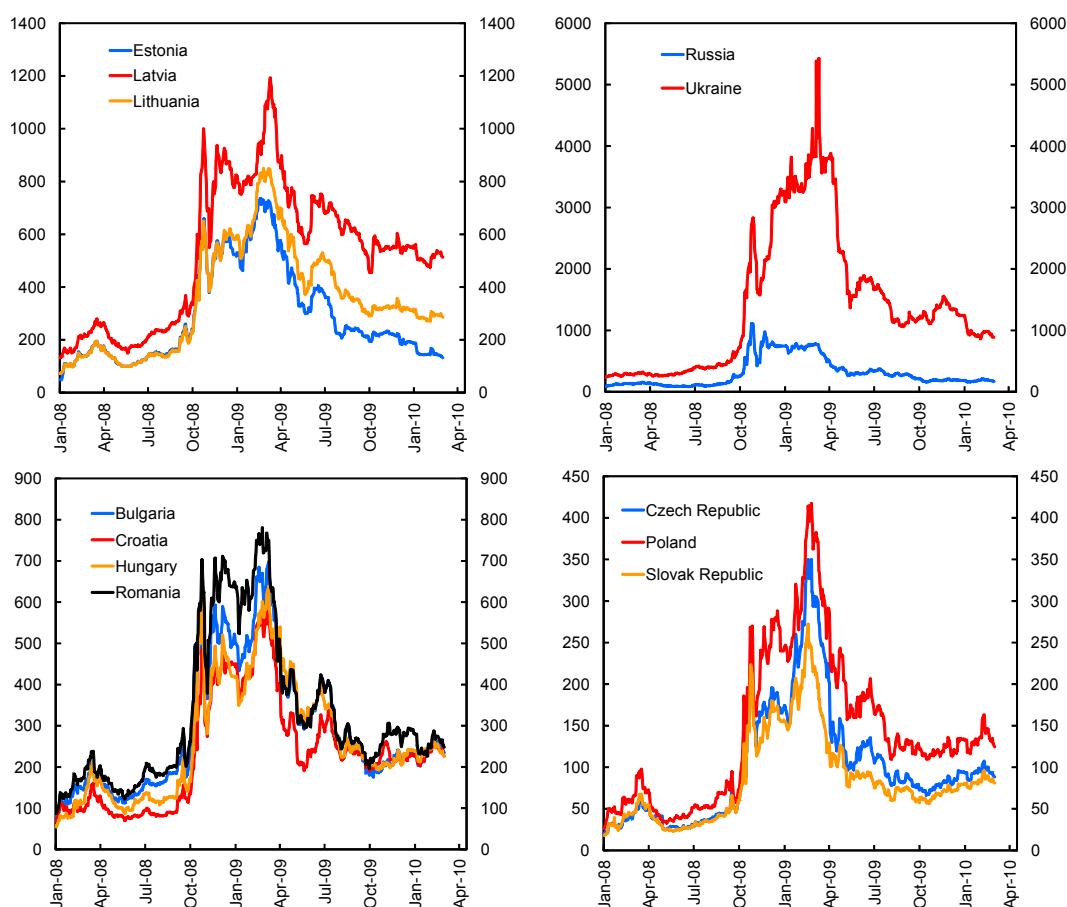
Responsive Macroeconomic Policies

Among the lessons from the precrisis period is that macroeconomic policies are important determinants of capital flows—and the crisis has amplified the policy impact. In the aftermath of the

crisis, investors are increasingly differentiating among countries according to fundamentals and soundness of policies (Figure 32; IMF, 2009b). This tendency may become especially important, as postcrisis investors could be more risk conscious while facing lower returns.

The postcrisis stance of investors has important implications for fiscal and exchange rate policies, although the implications differ according to whether capital inflows have started to resume and the type of exchange rate regime. For countries that have yet to see a return of inflows, the ongoing repricing of risks implies that monetary, fiscal, and exchange rate policies should focus on reducing uncertainty. For flexible exchange rate countries, allowing a freely floating exchange rate might be most appropriate, for instance through the

Figure 32. Credit Default Swap Spreads, January 2008–March 2010
(Basis points)



Source: Datastream; Bloomberg L.P.; and IMF staff calculations.

explicit—and de facto—subordination of exchange rate policies to the inflation objective, as in the Czech Republic. For any exchange rate framework, a rules-based fiscal policy approach would help clarify the expected financing needs of the government, reduce the long-term interest rate and spreads, and, in turn, increase capital inflows (IMF, 2009b).

For countries to which capital flows are already resuming, the challenge is to implement responsive macroeconomic policies to prevent the inflows from becoming excessive. For pegged exchange rate regimes, the tightening of fiscal policies is essential. For flexible exchange rate regimes, empirical analysis indicates that allowing the exchange rate to float freely might be the most effective macroeconomic policy tool to stem excessive inflows. Greater exchange rate flexibility helps mitigate the pressures on domestic demand as well as credit growth and thus lowers risk profiles. It also reduces the perceptions of low exchange rate risks that could encourage unhedged foreign currency positions. However, the lag in implementing fiscal policies might be too long to effectively manage capital inflows in the short run.

Prudential Policies to Improve Financial Stability

Improving the financial stability framework in emerging Europe to strengthen the resilience of the financial system can help manage capital inflows. Prudential policies focused on capital inflows can reduce the buildup of risks. Macroprudential regulation such as higher (capital) risk weights on mortgage loans could have the benefit of steering resources away from the nontradables sector. Reforms of the financial regulatory architecture to ensure adequate oversight and regulation of cross-border financial institutions would support financial stability.

This Would Minimize Financial Fragilities . . .

Prudential regulations can help reduce financial fragilities by influencing the composition and—to a smaller degree—the volume of inflows, while

building buffers in banks. Residency-based restrictions on the movement of capital across countries can have similar effects.¹⁷ As the analysis shows, certain types of prudential regulations under certain circumstances are more effective than others in changing the mix of inflows (also see Binici, Hutchison, and Schindler, 2009):

- Capital requirements (CRs) on short-term foreign liabilities may be more effective in lowering financial stability risks than tax-type controls such as marginal reserve requirements (MRRs) on foreign liabilities. CRs can help create a buffer of “contingent capital” that reduces the risk of a liquidity crisis turning into a solvency crisis; CRs also have less adverse effects on the output gap and are less sensitive to the type of exchange rate regime in force. However, MRRs might be easier to implement and help create liquidity buffers. Both CRs and MRRs can induce a more stable funding structure. Their impact on credit growth is limited, however.
- A certain degree of coordination of monetary and macroprudential policies is necessary. For instance, the real effects associated with MRRs are more pronounced under fixed exchange rates, as there is no monetary policy tool to cushion the downturn. On the other hand, the monetary policy response under flexible rates could work to reverse attempts to reduce the growth of foreign borrowing through prudential policies.
- Capital controls on flows to all sectors could be an option in countries that are grappling with surging capital inflows and competitiveness problems (Box 6). This is so especially in the non-EU emerging economies where foreign exchange interventions against appreciation pressures are counteracting monetary policy objectives, and in particular when inflation is

¹⁷ Use of capital controls is constrained by EU, OECD, and WTO regulations (see Epstein and others, forthcoming). Also see Ostry and others (2010).

Box 6. Russia's Capital Flows: Experience and Challenges

Russia experienced large capital inflows in the run-up to the global financial crisis. Steadily increasing oil prices, combined with a prudent policy of taxing and saving most of its oil revenue, had significantly strengthened Russia's external position. By August 2008, international reserves had increased to almost \$600 billion and were the third highest in the world. This apparent stellar performance—combined with a very favorable outlook for oil prices—made Russia an attractive destination for foreign capital.

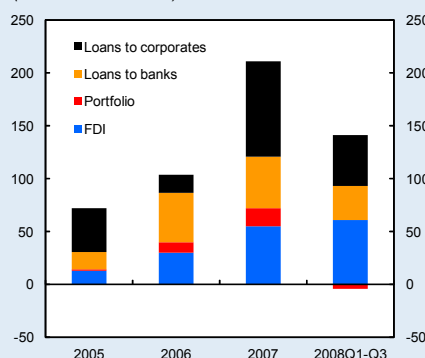
Comparison with the Rest of Emerging Europe

Russia shared many of the experiences of other emerging European economies. Private capital inflows came largely in the form of loans to corporates and commercial banks (first text figure). Fiscal policy was procyclical. And monetary policy was increasingly geared toward limiting exchange rate appreciation pressures, which encouraged one-way currency bets and speculative inflows, contributing to negative real interest rates and high, entrenched inflation. Also, long-standing weaknesses in banking supervision and regulation, together with negative real interest rates, allowed rapid credit expansion and the buildup of large unhedged foreign exchange exposures in the run-up to the crisis (second text figure). Nevertheless, Russia is distinct from the rest of emerging Europe in three key areas: First, as an oil exporter, Russia's capital inflows came on top of very large current account surpluses. Second, nearly all of the foreign borrowing by banks and nonfinancial corporates was in the form of wholesale financing (syndicated loans and bonds) rather than transactions between parent banks and their subsidiaries, owing to a low degree of foreign ownership of the banking sector. Third, flows to large nonfinancial corporates, mainly in foreign currencies, were much more important in Russia than in other emerging European economies (third text figure). Indeed, in Russia, it is the corporate sector—rather than the household sector—that has become heavily indebted.

The Crisis

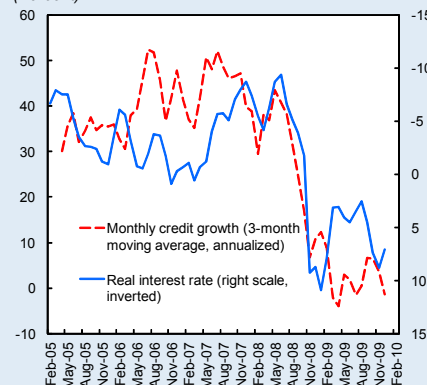
The crisis hit Russia with particular virulence. The dual shock of collapsing oil prices and a reversal of capital flows put the heavily managed exchange rate under pressure. Given large bank and corporate exposures in foreign currency, the authorities allowed a controlled depreciation of the ruble while providing significant ruble liquidity. The economy sank into a deep recession. One year later, however, oil prices were roughly

Private Capital Inflows, 2005–08:Q3
(Billions of U.S. dollars)



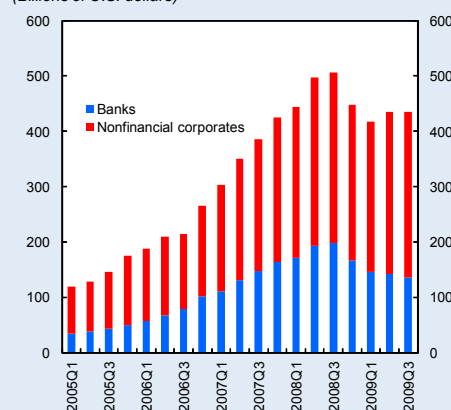
Sources: Central Bank of Russia; IMF, *BEL database*; and IMF staff calculations.

Credit Growth and Real Interest Rates, 2005–December 2010
(Percent)



Sources: Central Bank of Russia; and IMF staff calculations.

Private Sector External Debt, 2005–09:Q3
(Billions of U.S. dollars)



Sources: Central Bank of Russia; and IMF staff calculations.

Note: The main authors of this box are Julie Kozack, David Hofman, and Daria Zakharova.

double their trough levels, the economy had begun to grow again, the ruble was appreciating, and capital was flowing back.

Policy Challenges

Managing capital inflows is one of the key policy challenges facing the Russian authorities. For Russia, all lines of defense against excessive inflows—macroeconomic and prudential policies as well as capital controls—should be considered.

Macroeconomic policies will need to be geared to containing domestic demand once the economy recovers. Fiscal policy should be the main tool for mitigating pressures on the real exchange rate in the face of rising oil prices. The authorities are rightly beginning to withdraw fiscal stimulus, but this process will need to intensify and continue over the medium term to ensure that the non-oil deficit is brought to a sustainable level and that fiscal policy does not once again become procyclical. Risks in this regard would be heightened if the large expenditures during the crisis became entrenched. Monetary policy should be squarely aimed at keeping inflation low by allowing greater flexibility in the exchange rate, which would also discourage speculative capital flows.

But there are limits to the ability of macroeconomic policies to manage large capital inflows. For example, allowing the ruble to appreciate to prevent excessive inflows could cause an overvaluation of the real exchange rate and damage competitiveness. However, reserve accumulation through intervention can be costly and may lead to high inflation. Thus, complementary policies will also be needed:

- Prudential regulations must be shored up to limit the risks of credit booms. Such efforts could include countercyclical capital requirements, restrictions on foreign currency lending, and differentiated reserve requirements to reduce currency and maturity risks. Some of these prudential measures may actually have more “bite” in Russia, given banks’ reliance on wholesale funding and lack of recourse to parents for additional funding. The Russian authorities are considering a number of these measures.
- But prudential measures may not be enough. Capital controls may also be needed as part of a broader policy package, especially because nonfinancial corporates borrowed excessively in the precrisis years and are beyond the reach of prudential tools. Of course, capital controls are not a panacea—they can be difficult to enforce (especially outside the banking system), they can be circumvented, and their effectiveness may vary. But Russia should keep an open mind on capital controls, at least as a temporary measure should large inflows once again become a threat to macroeconomic and financial stability.

high and rising and sterilized interventions are costly.¹⁸

... but Require Regulating and Supervising Cross-Border Financial Institutions Effectively

The limits to prudential efforts at the national level suggest the need to establish effective cross-border means of financial regulation and

supervision. The recent EU advances in integrating national frameworks are promising in this regard (see Box 7 and Box 2 in Chapter 1). Non-EU countries should adjust their regulatory frameworks to the ongoing EU-wide effort to reduce the scope of regulatory arbitrage. Moreover, mechanisms are needed for clear and effective communication with home supervisors of foreign-owned financial institutions. One way to proceed would be to create risk-based clusters of home-host supervisors. The structures could build around the European Bank Coordination Initiative that brought together parent banks and home and host authorities, along with the IMF as a neutral observer, to ensure that the parent

¹⁸ See Ostry and others (2010) for a general discussion, and Epstein and others (forthcoming) for a discussion of how, in Poland, the economic cycle and adequacy of reserves matter for considering foreign exchange interventions to stem appreciation pressures.

Box 7. Financial Reform: An Opportunity for the New Member States

The financial crisis highlighted the difficulties of establishing effective cross-border oversight and supervisory cooperation under a harmonized set of rules. Clearly, avoiding future crises requires effective prudential control over cross-border operations and the ability to use this control to address risks affecting individual countries. At the same time, however, financial stability arrangements need to support the development of the EU's single financial market, which has expanded access to financial resources for new member states (NMS). The planned reforms of the EU supervisory framework (see also Chapter 1, Box 3) offer the potential to reconcile the goal of developing effective cross-border oversight with the enhancement of a single EU financial market:

- The European Systemic Risk Board (ESRB) will monitor the stability of the EU financial system and has a mandate to look into country-level risks. It can issue risk warnings and recommendations, to which supervisors and other relevant policymakers will need to respond under a “comply or explain” rule. These capabilities should enable the ESRB to organize an EU-wide response to a problem using the most appropriate policy tools. The ESRB can also investigate the soundness of financial instruments and risks related to, for example, foreign currency lending and recommend remedies.
- The European System of Financial Supervisors (ESFS) is mandated to develop a single rule book and harmonize supervisory practices, which should greatly reduce the scope for regulatory arbitrage. The ESFS will enhance the ability of supervisors to discuss problems, learn from each other, and move toward best practices. This greater cooperation ought to improve the quality of supervision and strengthen supervisors in their engagement with the institutions they oversee. The European Supervisory Authorities (ESAs) will be able to issue binding technical standards as well as guidelines subject to “comply or explain.” Those powers should help the ESAs formulate effective responses to ESRB risk warnings and recommendations.
- Cross-border financial institutions will be supervised by cross-border colleges of supervisors, overseen by the ESAs. The ESAs will seek to standardize the functioning of these colleges, and they will have a mandate to mediate and, if needed, settle conflicts among the members of a college. This should greatly enhance the dialogue and cooperation between home and host countries, including in crisis situations.

These new financial stability arrangements will be successful if all EU supervisory authorities accept joint responsibility and accountability for financial stability, not only in the EU as a whole but also in each member state. In essence, EU prudential authorities will have to fundamentally reorient their mindset toward the use of European rather than national tools to address risks to financial stability—even when those risks are local. Such an orientation promises a much more effective approach to financial stability: the focus can shift from the location of institutions to the location of risks, which eliminates much of the scope for circumvention and regulatory arbitrage. However, it requires a new method of operation. For the NMS, it will be especially important that they seek effective influence in the European rule-setting processes.

Many reforms are under consideration in the current wave of re-regulation. Proposals in several areas have particular relevance for the NMS:

- The European Commission is considering raising capital requirements on foreign-currency-denominated mortgage loans granted to unhedged borrowers. The change would help the NMS in several ways: it would remove an important risk to their financial stability, improve consumer protection, promote the development of domestic financial markets, and help avoid excessive house price inflation. A broader approach, for instance through consumer protection law, may be warranted to discourage all foreign-currency lending to borrowers that do not have sufficient assets or income in foreign exchange to safely service such loans.

Note: The main authors of this box are Wim Fonteyne and Andrzej Raczko.

- On the basis of proposals by the Basel Committee on Banking Supervision, the European Commission is seeking to reduce the risk of boom-bust cycles of the kind the NMS have experienced. The proposals seek to make the regulatory framework less procyclical by introducing through-the-cycle expected loss provisioning and cyclically adjusted capital requirements. These moves would require banks to build a sufficient capital buffer in good times and would reduce the risk of financial excess building upon itself through rising asset prices and low realized losses.
- The EU is seeking to introduce harmonized liquidity standards based on recent proposals of the Basel Committee. These would include a 30-day Liquidity Coverage Requirement and a longer-term Net Stable Funding Requirement. These proposals should make NMS banks less vulnerable to variations in the availability of funding, notably potentially unstable foreign funding, but they may also impact the availability and cost of credit.

The NMS could facilitate the transformation to and effectiveness of the new environment by building their own macroprudential frameworks, identifying systemic risks, and conducting the necessary analysis to work effectively with the ESRB and ESFS. The NMS authorities should bring the risks they identify to the attention of the ESRB with a request for corrective action and be prepared to implement the recommendations of the ESRB and the guidelines of the ESAs. And the NMS supervisors need to organize themselves to function effectively within the colleges of supervisors. Separately, the NMS authorities could establish a regular dialogue with the home authorities of the foreign institutions active in their market concerning local risks to financial stability. This could take the form of periodic meetings that bring together all these supervisors, as well as representatives of the ESAs and ESRB, into a sort of national college of supervisors for the country. Such collaboration would also be of great benefit to the home country authorities, as it would help them understand the risks to which their institutions are exposed.

banks remained engaged in the region during the crisis. A regular dialogue between these bodies—which could include representatives of the European Systemic Risk Board—would facilitate information-sharing and could provide the basis for joint analysis of common concerns and the formulation of effective responses. Over time, a formal international institutional framework encompassing both EU and non-EU countries on a voluntary basis should be established.

Conclusions

Managing capital flows in emerging Europe entails policy challenges that vary by country; the variations reflect the degree to which the crisis affected the country's growth and whether capital inflows have started to resume. Some countries will need to restart and sustain capital inflows while shifting the sources of economic growth toward the tradables sector. The transformation will take place in the private sector. But it must be supported by policies

to restore a balance between the nontradables and tradables sectors; such policies will improve intersectoral labor mobility, reduce skill mismatches, and address country-specific growth bottlenecks in infrastructure. Other countries are already seeing capital inflows resuming and are faced with the challenge of how to implement responsive macroeconomic policies to stem excessive inflows. For countries with a pegged exchange rate, the best response to inflows in excess of those driven by structural factors is to tighten fiscal policy. For countries with non-pegged exchange rates, the most effective response to a surge is appreciation. A free-floating exchange rate is also helpful in preventing excessive inflows and the spread of financial vulnerabilities. For the region as a whole, the financial system's defenses against excessive inflows can be supported by prudential policies. Prudential tools such as capital requirements on foreign borrowing help to temporarily lower excessive inflows and related risks in banks. However, the effectiveness of these interventions tends to be

temporary, depend on the accompanying macroeconomic policies and the effectiveness of cross-border financial supervision.

Appendix Tables

Table 1. Capital Inflows Panel Regression

Dependent variable: Gross Capital Inflows in percent of GDP (standard errors in parenthesis)

Explanatory Variables	All inflows		FDI		Other inflows		Portfolio Investment: Debt		Portfolio Investment: Equity	
	FE	FE	FE	FE	FE	FE	FE	FE	FE	FE
Structural factors										
Change in GDP per capita (lagged)	0.006 (0.065)	-0.421 (0.420)	-0.654 * (0.361)	-0.684 * (0.362)	0.035 (0.085)	0.364 (0.311)	-0.066 (0.093)	-0.059 (0.089)	0.013 (0.058)	0.148 ** (0.043)
Change in GDP per capita, squared (lagged)	-0.198 (0.204)	0.504 (0.865)	1.072 (0.71)	1.112 (0.716)	-0.109 (0.122)	-0.958 (0.872)	0.169 (0.192)	0.104 (0.202)	-0.004 (0.021)	-0.221 ** (0.083)
Service sector as share of GDP (lagged)	0.005 ** (0.002)	0.006 ** (0.003)	0.001 (0.001)	0.001 (0.002)	0.003 * (0.001)	0.004 (0.003)	0.001 ** (0.001)	0.002 ** (0.001)	0.000 (0.000)	0.000 (0.000)
Urbanization (lagged)	0.022 * (0.013)	0.068 ** (0.03)	0.053 ** (0.014)	0.058 *** (0.014)	-0.001 (0.008)	0.020 (0.022)	-0.001 (0.006)	-0.002 (0.006)	0.000 (0.002)	0.001 (0.003)
Progress on combined reform index	-0.037 (0.038)	0.140 (0.099)	0.072 * (0.041)	0.074 * (0.042)	-0.008 (0.021)	0.072 (0.071)	-0.008 (0.019)	-0.034 ** (0.016)	-0.005 (0.003)	-0.006 (0.007)
Change in privatization revenue	0.006 (0.004)	0.002 (0.006)	0.005 * (0.003)	0.007 * (0.004)	-0.001 (0.003)	0.000 (0.005)	-0.002 (0.001)	-0.002 (0.002)	0.000 (0.000)	0.000 (0.001)
Policy variables										
Appreciation of the nominal exchange rate	0.000 * (0.001)	0.000 * (0.001)	0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Appreciation of the nominal exchange rate (pegged exchange rates)	0.008 * (0.004)	0.008 * (0.005)	-0.003 (0.003)	-0.003 (0.004)	0.004 (0.003)	0.006 (0.004)	0.004 ** (0.002)	0.003 * (0.002)	0.000 (0.001)	0.000 (0.001)
Appreciation of the real effective exchange rate	0.284 (0.159)	0.202 (0.169)	0.266 ** (0.113)	0.281 ** (0.107)	0.153 (0.121)	0.128 (0.143)	-0.002 (0.042)	-0.018 (0.039)	-0.028 (0.025)	-0.021 (0.025)
Government balance as share of GDP (pegged exchange rate) 1/	-1.768 ** (1.686)	-3.141 ** (1.512)	0.671 (0.89)	0.263 (1.043)	-0.513 ** (0.136)	-0.888 ** (1.390)	-0.002 ** (0.320)	-0.200 ** (0.343)	0.200 (0.142)	0.223 (0.174)
Government balance as share of GDP (lagged) 1/	0.191 (0.76)	0.487 ** (0.653)	-0.027 (0.443)	0.228 (0.373)	0.060 ** (0.051)	0.239 ** (0.54)	-0.055 ** (0.163)	-0.092 ** (0.15)	0.037 (0.079)	0.043 (0.089)
Government balance/GDP* Change in credit/GDP (lagged) 1/	13.947 ** (4.791)	14.077 ** (5.291)	-5.507 (3.866)	-4.915 (4.164)	9.159 ** (3.49)	8.630 ** (4.252)	-4.071 ** (1.253)	-3.625 ** (1.321)	-0.543 (0.801)	-0.353 (0.82)
Change in credit as share of GDP (lagged) 1/	0.682 ** (0.286)	0.594 * (0.319)	-0.894 (0.11)	-0.100 (0.104)	0.836 ** (0.227)	0.817 ** (0.252)	-0.181 ** (0.07)	-0.211 ** (0.078)	0.040 (0.033)	0.051 (0.037)
Increase in lending rates	0.005 (0.005)	0.003 (0.006)	-0.001 (0.003)	-0.002 (0.003)	0.006 * (0.004)	0.006 (0.004)	-0.001 (0.001)	-0.001 (0.001)	0.000 (0.001)	0.000 (0.001)
Change in standard deviation in NEER (lagged)	-0.007 (0.006)	-0.006 (0.005)	0.000 (0.002)	0.001 (0.003)	0.000 (0.005)	0.000 (0.005)	-0.002 (0.001)	-0.001 (0.001)	0.000 (0.001)	0.000 (0.001)
Change in overall capital control index on inflows (lagged)		0.024 (0.082)		0.032 (0.037)		0.007 (0.064)		-0.027 * (0.015)		-0.005 (0.008)
Change in overall capital control index on outflows (lagged)		-0.005 (0.073)		0.012 (0.037)		0.021 (0.06)		0.000 (0.012)		-0.007 (0.007)
Number of observations	113	70	74	65	117	81	117	74	116	74
Number of countries	13	12	12	12	13	12	13	12	13	12
Adjusted R ²	0.59	0.72	0.53	0.56	0.62	0.73	0.39	0.72	-0.10	0.15

Note: The panel consists of annual data (1995–2008) for 14 countries. Heteroskedasticity and country-specific autocorrelation-consistent t-statistics are reported by levels of significance indicated by asterisks: *** 1 percent, ** 5 percent, * 10 percent. An intercept term is included in each regression and the specification includes both country- and period-fixed effects.

1. Wald tests show that the coefficients for overall inflows, other inflows, and portfolio debt inflows are jointly significant.

Table 2. Policy Responses to Capital Inflows, 1993–2007 1/

	NMS Czech Rep.	NMS Estonia	NMS Hungary	NMS Latvia	NMS Lithuania	NMS Poland	SEE Albania	SEE Bosnia & Herz.	SEE Croatia	SEE Serbia	NMS2 Bulgaria	NMS2 Romania	OE Turkey
Macroeconomic policy measures													
Fiscal tightening									X			X	
Monetary measures													
Reserve requirements (see below)													
Raised liquidity requirements													
Sterilization operations	X		X			X						X	
Exchange rate policy response	X		X			X				X		X	
Interest rate response	X		X									X	
Prudential measures													
Increase capital requirements 2/		X			X			X					
Tighten asset classification rules										X		X	
Tighten provisioning rules						X				X		X	
Targeted measures													
FX borrowing/lending								X					
Targeting unhedged borrowers									X				
Tighten net open position limits						X							
Lending to households	X												
Loan to value related requirements		X									X		
Limits on eligibility based on income levels										X			
Administrative measures													
Credit ceilings													
Capital controls 3/	L (out)		C			C, L (out)			X		X		
Reserve requirement measures													
Adjust the required level	X			X									
Marginal reserve requirements													
Differentiated by currency													
Differentiated by type of deposit							X						X
Broaden the reserve base		X		X				X					
Supervisory/monitoring measures													
Improved monitoring tools by supervisors													
Stress testing			X	X	X	X							
Increase cooperation with home supervisors				X	X								
Tighten supervision on non banks		X											
Promotion of better understanding of risks													
Consumer protection measures													
Moral suasion/Threat of stricter measures to come		X		X	X	X							
Strengthened risk management and awareness			X	X	X	X							
Market development measures													
FX market liberalization/development						X							
Debt management measures			X			X							X
Strengthen credit registry					X								

Sources: Hilbers and others (2005); Ötker Robe and others (2007); and IMF (2010a), staff databases, and central bank websites.

1/ Some measures were rescinded during the 2008 crisis; some new measures were announced which are not included in the table.

2/ Includes those implied due to adjustments such as risk weights, limits on lending to certain sectors relative to capital, etc.

3/ L = liberalization, N = new controls imposed, C = caution/delays in liberalization, (out) indicates liberalization of outflows.

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