

## CHAPTER 2

# How much adjustment? How much financing?

The more vulnerable among the financially integrated ECA countries face two big risks: that maturing external debt might not be rolled over, and that new money to finance large current account deficits might not be available.

The global recession has also reduced exports and remittances for most ECA countries, with remittances being particularly important for some low income countries.

### Questions

- What is the role of official financing in country adjustment to the global financial and economic crisis?
- Has the international response to the crisis in the financially integrated countries been adequate, and does it need modification?
- Does the crisis in the poorer CIS countries, affected mainly by the collapse in export demand and the decline in remittances, call for a stronger and sustained international policy response?
- What is the exposure of parent banks to the financially integrated ECA countries? And what are the determinants of rollovers by creditors?

### Findings

- International collective action has so far managed to keep an orderly draw-down of excessive exposures.
- For the financially integrated countries, more official financing is likely to be needed, particularly because it has a short repayment horizon, and the global recovery is expected to be weak and prolonged. Sustained official financing will be needed for the poorer CIS countries.
- Parent-bank exposure to the financially integrated ECA countries, while large, varies significantly across countries. It is much less than is frequently cited.
- Rollover risks depend on the liability and asset structures of banks in the region. Rollover rates for wholesale funding are low, but parent-bank funding of their ECA subsidiaries—though declining—has so far been a stabilizing force.

In its quest for convergence toward Western European living standards, the stereotypical ECA country relied on debt-creating external financing. Indeed, in some cases, external imbalances as a percentage of GDP rose into double

digits. Not surprisingly, when the global crisis erupted in advanced country financial markets, the risk that many creditors would be unwilling to roll over their exposures to the ECA region, let alone continue to extend new financing for consumption and investment, came to the fore. In an extreme, no new external financing and 100 percent rollover imply a balanced current account. A less-than-100 percent rollover would then require the current account to be in surplus by the amount of maturing debt that creditors do not roll over. Reality lies in between these two cases: there is less-than-100 percent rollover but there is also some new money. Official financing can soften the pain of this adjustment, as will be seen later.

It is thus not surprising that external adjustment is proving to be quite sharp in many ECA countries—despite the effectiveness so far of international coordination efforts. Also, as discussed in Chapter 1, ECA as an integrated region is also affected through other channels; from sharp declines in exports given the slowdown in the world economy to the effect of a decline in remittances.

### **Different shocks for different countries**

The 2008 global crisis affected financially integrated ECA countries in two ways—and through an additional third channel for the oil exporters among them. First, global deleveraging made creditors unwilling to continue financing large current account deficits. But deleveraging was also due to the unwinding of real estate booms in some host countries.

Second, the deep world recession led to a downturn in exports to Western Europe, translating almost immediately into lower output and employment. This effect is particularly strong in small open economies—such as the Czech Republic, Estonia, Hungary, and the Slovak Republic, where exports in 2008 accounted for 70–80 percent of GDP—and somewhat less in larger economies such as Poland and Romania (30–40 percent). Furthermore, economies in Central Europe and the Baltic states—which depend heavily on exports of motor vehicles and auto parts as well as engineering products such as machinery, electrical goods, and transport equipment—can expect to see a particularly severe downturn due to falling investment demand and a shortage of credit.<sup>1</sup> In contrast to East Asia in 1997, the Russian Federation in 1998, and Latin America in the second half of the 1990s and the turn of the century, the current combination of a seizure in advanced country financial markets and the deepest global downturn since the Great Depression makes a quick export-driven recovery more challenging.

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1. Landesmann 2009.

Third, a sharp decline of around 40 percent in oil prices between 2008 and 2009 had an adverse impact on oil-exporting countries, because these account for nearly a fifth of the Russian Federation's exports and a third of Kazakhstan's.

The first shock is what is typically referred to as a capital account crisis,<sup>2</sup> marked by an abrupt and massive reversal of capital flows to a country and carrying the potential of a loss of confidence. Creditors head for the exits. The currency comes under intense pressure. And the banking system experiences a deterioration of its assets as borrowers face financial difficulties, a drying up of wholesale and interbank funding, and, as in the Russian Federation and Ukraine, a withdrawal of deposits.

Countries with floating exchange rates have already seen major depreciations of their currencies. In relation to the euro, the Hungarian forint lost 20 percent of its value between October 2008 and February 2009, the Romanian leu 20 percent between August 2008 and February 2009, the Serbian dinar more than 20 percent between September and December 2008, and the Ukrainian hryvnia 35 percent between September 2008 and June 2009. A country with a currency peg, such as Latvia, lost a fifth of its reserves over the past year as the central bank defended the peg. Earlier capital account crises suggest the following:

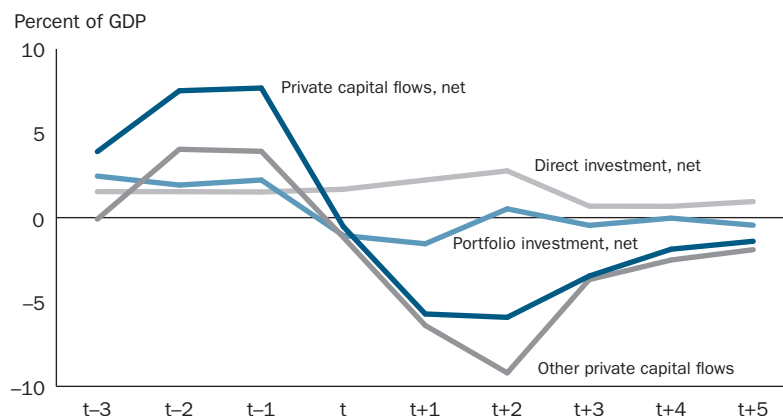
- In the crisis year (year  $t$ ) private capital flows sharply reverse (figure 2.1). While foreign direct investment and portfolio flows tend to be more stable, the reversal in bank and corporate financing is substantial, lasting several years, particularly in East Asia.
- The banking sector is distressed by worsening asset quality and the effect of currency depreciations on unhedged borrowers that contracted loans in foreign currency. The deterioration in bank balance sheets can be substantial. For example, nonperforming loans as a proportion of the total peaked at about 20 percent in Thailand during the East Asian crisis and in Argentina in 2002; at 30 percent or slightly more in Indonesia, Korea, and Malaysia; and at around 40 percent in Ecuador and Uruguay.
- In the year following the crisis, private investment plummets. Between 1997 and 1998, it fell from 32 percent of GDP to 16 percent in Malaysia and from 22 percent to 11 percent in Thailand—a reaction to overinvestment in the boom years and the decline in asset prices that follows the reversal of capital flows. Early data suggest that such a collapse in private investment has taken place in the Russian Federation and Ukraine. Similarly, the slowdown in growth in

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2. For a discussion on what criteria need to be met to classify an event as a capital account crisis, see Ramakrishnan and Zalduendo 2006.

FIGURE 2.1

**Mean private capital flows during the East Asian capital account crisis**



Source: IMF *World Economic Outlook*, World Bank *World Development Indicators*, and authors' calculations.

Estonia and Latvia brought the overheating in real estate markets to an abrupt end—pushing investment down more than 10 percentage points of GDP.

The second shock is a collapse in export demand, requiring an even deeper contraction in imports, intensifying the negative impact on consumption. And in small open economies, where imports are large as a proportion of GDP, government revenues fall steeply. In Bulgaria and Latvia, for example, revenues from such indirect taxes as the value-added tax have fallen sharply.

The third shock adds the decline in oil prices to the fall in export demand for oil exporters, with the loss divided between private and public income, depending on oil taxes.<sup>3</sup> It can further compress imports over what is required to equilibrate the balance of payments in response to the other shocks.<sup>4</sup>

**Sharing the burden: private and public, domestic and external**

Maturing debt in some ECA countries is high relative to foreign exchange reserves. Short-term private capital flows have financed a good part of the current account deficits in ECA. The ratio of maturing debt to the country's foreign exchange reserves, an indication of liquidity pressures, is quite high: more than three times for Estonia and Latvia and 1.5 times in other ECA countries.

3. An average for Kazakhstan and the Russian Federation yields an export tax of roughly 25 percent.

4. The oil price decrease benefits oil importers, an effect that is not taken into account here.

Compare that with a median of 1.8 times reserves in capital account crisis countries from East Asia in 1997 and 2.4 times elsewhere.

A coordinated rollover of the bulk of external debt coming due can restore investor confidence in a capital account crisis. A sizable share of capital inflows to ECA countries is external finance from Western European banks, both to their subsidiaries in the ECA countries and directly to borrowers. So, generous official financing to support policy reform, coordinated with full rollover of a major component of private debt, could assure the markets while allowing the least committed creditors an orderly exit. Indeed, the European Bank Coordination Initiative provides a forum for the parties to discuss these rollover matters (box 2.1). A large official financing package would reduce the risk of a country's imposing a standstill on its payments, which would transform a temporary liquidity squeeze into a worse situation of violating its debt-service commitments.

Reforms covering fiscal policy, bank restructuring and resolution, and better bank regulation and supervision, together with corporate and household debt restructuring (chapter 3), could ease concerns about solvency and persuade creditors with claims on the country not to withdraw. The evidence that markets have become more discriminating in judging country risk (annex 1.1 in chapter 1) supports the presumption that a rollover is more likely to be forthcoming in the context of domestic policy reform.<sup>5</sup> Indeed, generous official financing and a rollover of short-term debt by major creditors can increase the likelihood of policy reform, since the program can bridge the time for the reforms to take effect.

#### *How difficult could it get?*

Since the possible adjustment path for some country groups is meant only as an illustration, it is limited to two of the financially integrated country groups described in chapter 1—Groups 1 and 4—as well as the special case of two oil exporters, the Russian Federation and Kazakhstan (table 2.1).

Group 1, Estonia and Latvia, ran an average current account deficit of more than 11 percent of GDP in 2008 and had external debt maturing in 2009 of nearly 70 percent of GDP. Group 4 had an average current account deficit of 5 percent of GDP in 2008 and significantly less external debt maturing in 2009—25 percent of GDP. Initial fiscal deficits were moderate for both groups at 2–3 percent of GDP. Thus, the current account deficit—the sum of the excess of spending over income of the private sector, or net private dissavings, and the

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5. IMF Independent Evaluation Office 2003.

BOX 2.1

**Sticking together through thick and thin: the European Bank  
Coordination (Vienna) Initiative**

As the first IMF-supported programs among the new EU member states were put together in late 2008, it became clear that the sustainability of these programs depended heavily on the ability to ensure that Western European banks would remain engaged in host countries. They were, after all, at the center of the buildup of vulnerabilities in transition countries. In the context of international financing packages, the IMF, the EC, and other international financial institutions (as well as the banking regulators of the home and host countries), engaged in discussions with parent banks of subsidiaries aimed at ensuring high rollover rates in the exposure of these banks in each of the countries requiring IMF financial support. Another goal was to ensure that these programs would not be perceived as a private sector bailout.

How has the process worked in practice? So far the coordination has been useful and has provided a forum for discussion among the key parties. For Hungary, banks committed in October 2008 to support their subsidiaries and did so, case-by-case, in discussions with the central bank and banking supervision authorities. But the IMF arrangements in Romania and Serbia aimed at specifying further these commitments. In late March 2009, in both countries, the main parent banks gave a general declaration on maintaining their overall exposure in the host country and on adequately capitalizing their banks following stress tests carried out by the central bank. The aim was to ensure pre-emptive increases in capital given that nonperforming loans were expected to pick up in line with the slowdown in economic activity. Later in May, the nature of the voluntary commitment was discussed in Brussels for Romania, clarifying further how overall exposures are defined, how large pre-emptive capital increases should be, and the mechanisms to re-assess the adequacy of these commitments as economic activity slows. A letter similar to the one signed in March was signed for Hungary in mid-May.

Although the initiative is justified given the nature of a crisis that has unfolded with differing timeframes across the ECA region, it has limitations as to what it can accomplish.

First, the exposure decisions by parent banks can only to a degree be seen as a country-specific commitment. For the parent bank, the exposure decision has a regional dimension. In an extreme, a 100 percent rollover in the countries that first face external financing difficulties would in effect imply deleveraging (a likely scenario) in the less vulnerable countries (an unlikely scenario).

Second, although the agreements with parent banks (even if legally non-binding) are nondiscriminatory (the treatment of domestically owned and foreign-owned banks is the same), central banks of the countries interested in reaching these agreements might at times provide financial incentives (such

*(continued)*

BOX 2.1 (CONTINUED)

**Sticking together through thick and thin: the European Bank  
Coordination (Vienna) Initiative**

as different reserve requirements on new financing flows). These incentives are in compliance with EU regulations, but over time could potentially distort resource allocation across the region.

Third, a key aspect of the initiative is capitalizing banks (foreign or domestic) for what promises to be a period of increasing nonperforming loans. But the differences across the regulations and accounting practices in the region are pronounced. For instance, some countries follow international financial accounting standards and others follow national accounting standards. Thus, different countries might end up with varying degrees of capital adequacy ratios. What matters more, however, is not the strength of the subsidiary but the financial health of the bank as a group. Yet the standards for such comparisons are far from agreed with several initiatives being followed—both at the country level and at the group level—and substantial differences of opinion exist as to how to assess the health of Europe’s banking system.

Notwithstanding these caveats, international coordination has proved a useful undertaking and, at least so far, the region has avoided the rapid deleveraging observed in past capital account crises events.

excess of spending over income of the public sector, or net public dissavings—mainly reflected net private dissavings in Group 1, less so in Group 4. The contribution of net private dissavings to the current account deficit ranged from 60 to 75 percent in these groups, confirming that ECA’s imbalances had predominantly private origins. The oil exporters had an average current account surplus of 6 percent of GDP and maturing debt of 12 percent of GDP. Their average fiscal surplus was nearly 3 percent of GDP, and both had oil funds and large foreign exchange reserves.

Without official financing, the partial rollover of maturing debt will require a sharp cut in private spending—and a sharp fiscal contraction. The adjustment brings the current account, net of what FDI can finance, into surplus by the amount needed to service that proportion of maturing debt not rolled over.<sup>6</sup> Because FDI is the only new money assumed to be available, the current account deficit would have needed to shrink to this level of FDI if maturing debt had been fully rolled over. Even this would be a major adjustment for Group 1 countries because they were running double-digit current account deficits before the crisis.

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6. Empirical evidence suggests that a reduction in the flow of credit by 1 percent of income increases private saving rates by 0.32 percentage points (Loayza, Schmidt-Hebbel, and Serven 2000).

TABLE 2.1

**Savings–investment balances, adjustment without official financing  
(percent of GDP)**

Item	Group 1	Group 4	Oil-rich middle-income CIS economies (Russian Federation and Kazakhstan)
Macroeconomic data, 2008			
Current account balance	–11.2	–5.0	6.2
Public sector savings– investment balance	–2.9	–2.1	2.7
Private sector savings– investment balance	–8.4	–2.9	3.5
Foreign direct investment	4.4	3.2	4.6
Short-term debt, remaining maturity <sup>a</sup>	68.9	24.6	12.4
Assumptions for external adjustment scenarios			
Share private sector debt	0.9	0.9	0.9
Rollover rate	0.75	0.75	0.50
Foreign direct investment (half the 2008 value)	2.2	1.6	2.3
Scenario for 2009 without official financing			
Estimated current account balance	15.0	4.6	3.9
Estimated public sector savings–investment balance <sup>b</sup>	1.7	0.6	0.6
Estimated private sector savings–investment balance <sup>c</sup>	13.3	3.9	3.3

Note: The table presents the assumptions underlying the adjustment scenarios. *First*, in line with the experience of previous capital account crisis cases, external private creditors are willing to roll over 75 percent of debts coming due for Groups 1 and 4 and 50 percent for oil producers. Although rollover rates in capital account crisis cases of a private origin are typically lower (65 percent during the East Asia crisis), the higher figure for Groups 1 and 4 is justified in recognition of the fact that the parent-subsidiary relationship is likely to be more conducive to a higher rollover rate in those ECA countries where this covers a substantial proportion of banking sector assets, an argument which will be developed later in the chapter. By the same token, the lower rollover rate for oil exporters reflects the lower share of banking sector assets owned by parent banks in these countries. *Second*, although there is some variation across groups, it is assumed as a simplification that 90 percent of maturing debt in all groups is owed by the private sector, which thus has to service 90 percent of what is not rolled over. *Third*, the ratio of foreign direct investment (FDI) to GDP, which remained stable at pre-crisis levels in earlier crises, is assumed to be halved—to reflect the ongoing recession in originating countries. *Fourth*, FDI is also assumed to accrue entirely to the private sector, adding to its savings or financing projects that would have been undertaken in any event. The assumption has the effect of making FDI fully fungible and thus, perhaps optimistically, available to finance maturing debt. *Fifth*, because portfolio flows have typically hovered around zero in earlier capital account crises, they are assumed to be zero.

a. Includes short-term debt falling due in 2009 and medium- and long-term debt falling due in the same year.

b. Calculated as  $[1 - (\text{rollover rate})] \times \text{maturing external debt (2009)} \times (1 - \text{share of private sector debt})$ .

c. Calculated as  $[1 - (\text{rollover rate})] \times \text{maturing external debt (2009)} \times (\text{share of private sector debt}) - \text{foreign direct investment}$ .

Source: IMF *World Economic Outlook*, World Bank *World Development Indicators*, and authors' calculations.

That is not all. A further adjustment is required to bring the current account balance into a surplus equal to that proportion of maturing debt not rolled over. Recall that maturing debt is nearly 70 percent of GDP for Group 1 in 2009, compared with about 25 percent for Group 4. So, the former requires a very large external adjustment. Group 4 also needs to adjust, though the magnitudes are lower. And because the bulk of debt repayment falls to the private sector, the change in net private savings is much larger than that in net public savings.

Figures 2.2 and 2.3 illustrate these scenarios. Net private saving as a share of GDP (measured horizontally in the figures) and net public savings as a share of GDP (measured vertically) make up a given current account balance. An *iso-current account balance* (iso-CAB) line is a negatively sloped 45-degree line whose intersection with either the vertical or the horizontal axis reflects the total current account balance. Deterioration in either the private or the public balance needs to be compensated for by improvement in the other balance to remain on the same iso-CAB line. For reference, the iso-CAB that passes through the origin connects all combinations of private sector and public sector savings that yield a current account balance of zero. All lines to the northeast of the reference line represent a current account surplus, and those to the southwest a current account deficit. Not surprisingly, the iso-CAB lines for Groups 1 and 4 before the crisis are all located in the southwest quadrant (figure 2.2), because all the balances are negative. The iso-CAB line for

FIGURE 2.2  
**Crisis, adjustment, and financing in financially integrated Europe and Central Asia economies (percent of GDP)**

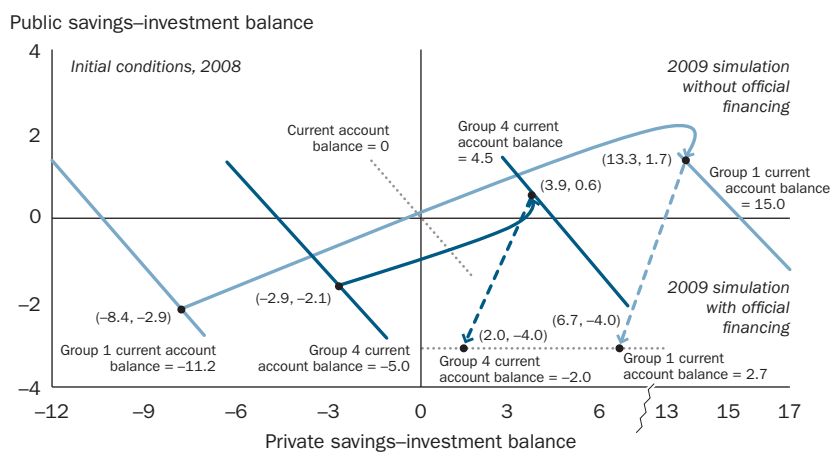
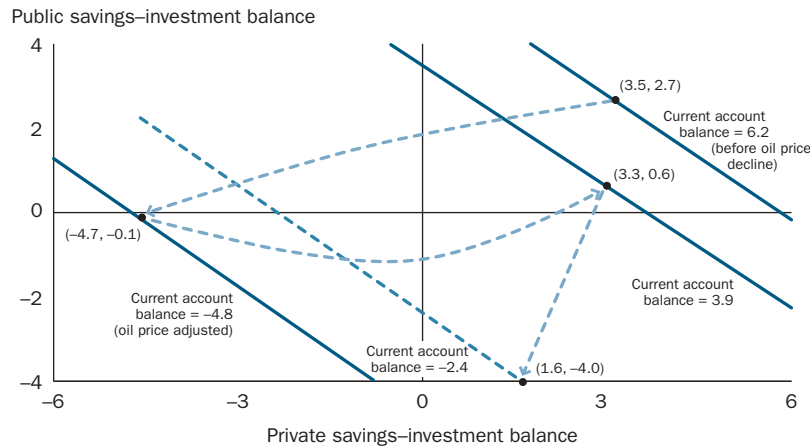


FIGURE 2.3

**Crisis, adjustment, and financing in financially integrated oil-exporting Europe and Central Asia economies (percent of GDP)**



oil producers (figure 2.3) is in the northeast quadrant, reflecting positive net private and public savings.

More precisely, the iso-CAB line for Group 1 is farther to the southwest, reflecting a current account deficit that is more than twice that for Group 4 (figure 2.2). Finally, the dominance of net private dissaving in this deficit is represented by the greater horizontal distance of the Group 1 equilibrium in 2008 from the vertical axis compared with that from the horizontal axis.

The iso-CAB lines for each group for 2009 are consistent with a partial rollover of maturing debt and no new money other than some FDI, which is assumed to flow entirely to the private sector and be available for financing debt repayment. Both iso-CAB lines move to the northeast quadrant, but the shift for Group 1 is much larger. Indeed, the current account surplus is 15 percent of GDP for Group 1—a shift of more than 26 percentage points of GDP! In contrast, Group 4 undergoes a smaller, yet still large, shift of just less than 10 percentage points of GDP. Why? Because its initial current account deficit as a share of GDP was lower, requiring a smaller adjustment, and because less is needed to service the group’s relatively modest maturing debt that is not rolled over.

For oil producers, the developments in the iso-CAB line are a little more complicated owing to the parallel effects of changes in oil prices. The iso-CAB line moves to the southwest quadrant of figure 2.3, showing a shift of 11 percentage points of GDP because of the fall in oil prices, reflecting a worsening of both

private and public net savings.<sup>7</sup> But the need to service the part of the maturing debt that is not rolled over then requires a current account surplus of just less than 4 percent of GDP, a shift of some 9 percentage points of GDP. This change is smaller than in Group 4 because of the lower share of maturing debt in GDP.

#### *Government steps in . . .*

The compression of private spending in response to new money equaling only half of 2008 FDI and the partial rollover of maturing external debt is very large. Government policy can lessen the adjustment, but official action has other justifications. Paralleling past capital account crises, the current episode is accompanied by systemic bank and corporate distress (box 2.2). And for some ECA countries, the adverse impact on households may not allow governments to stand back. Banks are experiencing distress as their loan portfolio deteriorates on account of households and firms not being able to service debts. Banks will need to be recapitalized by private shareholders, and in some cases governments might need to step in.

The fiscal costs are likely to be significant. Gross fiscal costs over the five years following the start of the capital account crisis in East Asia in 1997–98 were 57 percent of GDP in Indonesia, 31 percent in Korea, 16 percent in Malaysia, and 44 percent in Thailand. In Latin America, gross fiscal costs are estimated to have been 10 percent of GDP in Argentina, 22 percent in Ecuador, and 20 percent in Uruguay.<sup>8</sup> The largest part of these costs is using public funds to recapitalize banks. Some of these costs were eventually recovered, but the recovery rate ranged from around a quarter in East Asia to between a third and a half in Latin America.<sup>9</sup> Although these numbers provide a benchmark, the recapitalization of subsidiaries will likely be by parent banks, as in Latvia and Romania, where the authorities are seeking such support. So, there could be a call on public funds in partnership with the private sector to recapitalize domestically owned banks that are deemed viable and are of systemic importance and where private shareholders cannot raise enough capital.

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7. Energy exports in dollars for both countries are projected to decline by 44 percent from 2008 to 2009, slightly more than the projected decline in world prices (39 percent). In 2008, energy exports were 18 percent and 32 percent of GDP in the Russian Federation and Kazakhstan, respectively; thus the decline of energy exports as a percent of 2008 GDP is 8 percent in the Russian Federation and 14 percent in Kazakhstan. The average of these two figures (11 percent) yields the impact of the oil price decline on the current account balance. This resulting current account balance is –4.8 percent of GDP—the 2008 actual current account balance of 6.2 percent of GDP minus the 11 percent adjustment.

8. Laeven and Valencia 2008.

9. The exception in East Asia was Malaysia, where the recovery rate was two-thirds; the exception in Latin America was Argentina, where nothing was recovered.

BOX 2.2

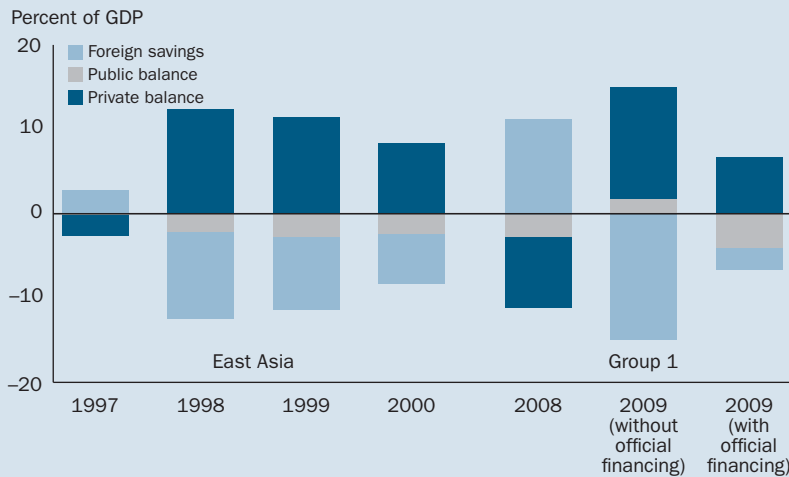
**From Bangkok to Budapest: ECA's adjustment compared with East Asia's**

Reflecting lessons from earlier emerging market crises, official financing in the affected ECA countries has been significantly more generous than in the East Asian crisis. The projected increase in net private savings and the swing from deficit to surplus in the current account in East Asia were broadly comparable to those in Group 1, the hardest hit ECA countries. The box figure shows net private savings and the fiscal deficit in 1997 through 2000 in Indonesia, Korea, Malaysia, and Thailand (mean values). The changes in net private savings and in the fiscal surplus were 15 percentage points of GDP and a worsening by more than 2 percentage points of GDP respectively, while the current account swing from deficit to surplus was 13 percentage points of GDP. This can be compared with a change in net private savings and the fiscal surplus of 15 percentage points of GDP and a worsening by over 1 percentage point of GDP respectively in Group 1 between 2008 and 2009, and a corresponding improvement in the current account deficit of just under 14 percentage points of GDP in the equilibrium with official financing. The latter amounted to more than 12 percentage points of GDP. Of course, the external adjustment would have been much sharper if external financing had not been available.

A first difference with the current crisis is the larger deterioration in East Asia's fiscal balance in the aftermath of the shock than that of Group 1, which East Asia could cover thanks to its stronger fiscal position—one of virtual

BOX FIGURE 1

**Public and private sector balances, developing East Asia economies and Europe and Central Asia Group 1 economies**



Source: IMF *World Economic Outlook*, World Bank *World Development Indicators*, and authors' calculations.

(continued)

BOX 2.2 (CONTINUED)

**From Bangkok to Budapest: ECA's adjustment compared with East Asia's**

balance—going into the crisis. Even so, the fiscal deficit in East Asia was just above 2 percent of GDP in the year after the crisis. Current IMF-supported programs in Central and Eastern Europe incorporate official financing in the range of 8 to 12 percent of GDP and have allowed more recently for a recession-induced deterioration of fiscal balances through its effects on automatic stabilizers.

A second major difference relates to the circumstances in the world economy. The pattern of adjustment in East Asia in the five years after the crisis was one of declining current account surpluses from double-digit percentages of GDP as capital flows, especially bank and corporate financing, which had turned negative for a few years, gradually resumed. This allowed net private savings to fall, also from double-digit percentages of GDP. Indeed, the restoration of confidence implied by declining current account surpluses occurred against a backdrop of rapidly expanding exports to the rest of the world. Growing exports and declining current account surpluses allowed imports to expand *pari passu* with the recovery in private consumption and investment.

Finally, fiscal imbalances, which were allowed to deteriorate by more than 2.5 percent of GDP as countries switched to expansionary demand policies to offset the recession after the shock, were reined in as the recovery took hold.

Fiscal policy can also help countries adjust to both the capital account crisis and the trade contraction. First, the public sector has to service that part of non-rolled over maturing debt for which it is responsible. Second, as discussed, fiscal space will need to be found to recapitalize domestically owned banks that are deemed viable but undercapitalized, jointly with shareholders of those banks, with the injection of public funds being accompanied by government representation in decision making. Third, the recession triggers automatic stabilizers. It causes tax revenues to decline, for example due to severe import contraction, and public spending to increase on items such as unemployment benefits and targeted social safety nets. This additional deficit needs to be financed.

Fourth, countries with exchange rate pegs will need to undertake a deeper fiscal consolidation, accompanied by incomes policy, to reduce real wages—in order to bring about the relative price changes needed to switch resources toward tradables and demand toward nontradables. The few ECA countries that entered the crisis with strong fiscal positions have implemented countercyclical fiscal policy to alleviate the recession (box 2.3). Households that have contracted mortgage and other consumer debt in foreign exchange might not be able to service these debts as a result of currency depreciation, putting pressure on the

## BOX 2.3

**Countercyclical fiscal policy in financially integrated countries:  
Kazakhstan and the Russian Federation**

Taking advantage of the reserves accumulated during the period of high oil prices, Kazakhstan and the Russian Federation have quickly introduced some countercyclical fiscal measures to cushion the impact of the crisis.

The composition and timing of the fiscal response in the Russian Federation is summarized in box table 1. The fiscal measures implemented in 2008 and announced by mid-2009 are about 2.6 percent and 4.1 percent of GDP, respectively. The initial focus was stabilizing the financial sector, particularly through injecting liquidity and recapitalizing banks. In 2009, the focus has moved to supporting the real economy with an emphasis on reducing the tax burden on large firms. So far the support to vulnerable households has been limited. The recent announcement by Rosstat that the number of people below the poverty line rose by one-third during the first quarter of 2009, however, raises the issue of whether an increasing share of the fiscal stimulus should not be devoted instead to protecting these households.

The fiscal stimulus announced by Kazakhstan, about 90 percent of which is financed by the National Oil Fund, is relatively large, amounting to about

BOX TABLE 1

**Summary of fiscal anti-crisis measures—introduced in 2008 and  
announced for 2009**

Measure	Billions of rubles			Total % of GDP	Distribution of each policy measure as percentage of total		
	2008	2009	Total		2008	2009	Total
Strengthening the financial sector	785.0	625.0	1,410.0	3.3	72.1	34.1	48.2
Supporting the real economy	304.0	798.3	1,102.3	2.5	27.9	43.5	37.7
Protecting the vulnerable	—	111.5	111.5	0.3	—	6.1	3.8
Transfers to regions	—	300.0	300.0	0.7	—	16.4	10.3
<b>Total</b>	<b>1,089.0</b>	<b>1,834.8</b>	<b>2,923.8</b>	<b>6.7</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
% of GDP	2.6	4.1	6.7				

— is not applicable.

Note: Excludes quasi-fiscal and monetary measures, state guarantees in the amount of 300 billion rubles planned for 2009, and measures planned before the crisis, such as increasing the minimum wage and indexing pensions, as well as external crisis-related lending to CIS countries and Mongolia.

Source: World Bank staff estimates, Government of the Russian Federation.

(continued)

BOX 2.3 (CONTINUED)

**Countercyclical fiscal policy in financially integrated countries:  
Kazakhstan and the Russian Federation**

8 percent of GDP. Nearly 60 percent had been disbursed as of mid-2009. As in the Russian Federation the majority of the initially disbursed funds (about 60 percent) were directed to recapitalize the banks and stabilize the financial sector. The remaining disbursements have been directed toward supporting small and medium enterprises, mortgage refinancing, agriculture, and construction. But should future allocations include some expansion of safety nets for vulnerable households instead? Although Kazakhstan's spending on a safety net as a share of GDP is low compared with other ECA countries, it has a well targeted means-tested social assistance program worth expanding. At present the program is quite small: though 70 percent of the beneficiaries are in the poorest quintile, only about 2 percent of households in that quintile are being covered (figures 4.5 and 4.6).

Source: Bogetic et al. 2009 and World Bank 2009a.

government to provide relief. This should be agreed to only after careful examination, informed by appropriate burden sharing and accountability to limit moral hazard and avoid the diversion of scarce public money from better uses.

*. . . with a little help from its friends*

There are limits to accommodating the tax and public spending consequences of the crisis within an unchanged fiscal envelope, highlighting the need for official financing. Such financing from international and regional financial institutions will be required to support the new fiscal needs. It can also help reverse some of the currency depreciation following the outbreak of a capital account crisis.

The case for official financing will be even stronger if the fiscal consequences of crisis and recession are accommodated through reallocations away from lower priority public spending and through greater efficiency in pensions and health spending. This is especially important in countries such as Hungary, Ukraine, and Serbia, where public spending as a share of GDP is already very high in relation to per capita income—just below 50 percent in the first two countries and 45 percent in the third. Indeed, the crisis may provide an opportunity to enact reforms that might have eluded the authorities in normal circumstances. Notwithstanding the short-run increase in spending financed from official sources, the structural fiscal balance should be on a path that ensures debt sustainability especially where the burden of external public debt was high before the crisis.

Indeed, official financing from supranational and international financial institutions—and the use of oil funds by oil exporters—can reduce the intensity of the private sector adjustment and provide room for a fiscal deficit. For instance, the official financing in figure 2.2 (and resort to oil funds in figure 2.3) illustrates what is required to halve the substantial net private savings in the equilibrium without official financing and to increase fiscal space in order to allow the three country groups to have net public dissaving equaling 4 percent of GDP. It moves all the iso-CAB lines in a southwesterly direction. Using Group 1 as an illustration, official financing is equal to maturing debt that is not rolled over (17.2 percent of GDP) less the sum of the current account balance (the sum of net private savings of 6.7 percent of GDP and net public dissaving of –4 percent) and FDI of 2.2 percent of GDP (table 2.2). So, the required official financing is 12.4 percent of GDP. Financing needs in the other two groups are about 6 percent of GDP, with the additional financing in the oil-exporting countries assumed to come from their oil funds. Financing of 6 percent of GDP allows the current account balance to change from a

TABLE 2.2

**Savings–investment balances, adjustment with official financing (percent of GDP)**

Item	Group 1	Group 4	Oil-rich middle-income CIS economies (Russian Federation and Kazakhstan)
Scenario for 2009 with official financing (or use of foreign exchange reserves) and a reduction in the external adjustment <sup>a</sup>			
Estimated current account balance	2.7	–2.0	–2.4
Estimated public sector savings–investment balance <sup>b</sup>	–4.0	–4.0	–4.0
Estimated private sector savings–investment balance <sup>c</sup>	6.7	2.0	1.6
Official financing (or foreign exchange reserve use)	12.4	6.6	6.3
Effect of an increase in rollover rates <sup>d</sup>			
Extra financing	3.4	1.2	0.6
Effect on private surplus	Reduced by half	Reduced by half	Reduced by a third

a. The goals are to allow room for fiscal impulse and to reduce the private sector balance (surplus) by half.

b. Set at –4 percent of GDP.

c. Arbitrarily set at half the surplus level identified in the projections that assume no official financing.

d. Scenario in which rollover is assumed to be raised to 0.80 for Groups 1 and 4, and 0.55 for Kazakhstan and the Russian Federation.

Source: IMF *World Economic Outlook*, World Bank *World Development Indicators*, and authors' calculations.

surplus of 3–4 percent of GDP to a deficit of 2–2.5 percent and the fiscal balance to move from a modest surplus to a deficit of 4 percent.

A higher rollover of maturing debt cushions the required reduction in the private sector's imbalance between spending and income. An increase in the rollover rate by 5 percentage points (from 75 to 80 percent for Groups 1 and 4 and from 55 to 60 percent for the oil producers), provided it accrues entirely to the private sector, makes possible a reduction of net private savings of between one-third to one-half from the equilibrium with official financing. Clearly, if maturing debt is large (as in ECA), even a small improvement in rollover rates provides much needed relief in adjustment (table 2.2).

The weakness of the expected recovery from the global recession highlights the importance of sustaining generous official financing. Crisis support from the international financial institutions and the EU has so far been adequate. Parent banks have largely maintained their exposure. The risk that Western European parent banks recapitalized by home governments would focus lending in their home countries has so far been averted. For their part, some hard-hit ECA countries have positive net private savings, while their fiscal balances have deteriorated.

But continuing collective action will be important. Unless replenished by new lending, net transfers from international financial institutions are expected to turn negative in three to four years. A sluggish recovery and high unemployment in Western Europe will test the willingness of home governments to recapitalize banks as their large losses have to be recognized. And financial protectionism could put strains on cooperation between home and host country authorities of cross-border banks.

### **Crisis, adjustment, and financing in low-income and lower middle-income CIS countries**

Because the external borrowing of the low-income and lower middle-income countries of the CIS (Armenia, Georgia, the Kyrgyz Republic, Moldova, and Tajikistan) comes mainly from official sources, they have for the most part not been directly affected by a reversal in capital inflows.<sup>10</sup> Instead, they have been affected by the global economic recession, which has led to a collapse of export demand and, for a number of them, of workers' remittances as well. Foreign direct investment has also declined during 2009 to about half of its 2008 level. The sharp downturn in the Russian Federation has depressed export demand

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10. Georgia is not part of the CIS but is included in the group because its economy shares many features of the other countries.

in Armenia, the Kyrgyz Republic, Moldova, and Tajikistan. The marked deceleration in growth in Kazakhstan following the sudden stop in capital flows in 2007 has hurt the Kyrgyz Republic. And export demand for Georgian goods, for which the CIS countries are not a major destination, is also projected to fall due to recessions in Turkey, the European Union, and the United States.

The fall in workers' remittances from the Russian Federation, Kazakhstan, and the European Union has been significant. Preliminary estimates suggest that remittances had accounted for nearly 35 percent of GDP in Tajikistan, 30 percent in Moldova, and 25 percent in the Kyrgyz Republic in 2008—and fell in the first quarter of 2009 and even more during the course of the year. In Tajikistan it is estimated that a 30 percent decline would cut the consumption of households in the poorest quintile between 17 percent (rural) and 21 percent (urban) and increase headcount poverty from 53 percent to nearly 58 percent (box 2.4).

Terms of trade changes have not been positive for countries that export products intensive in natural resources. For copper in Armenia and Georgia, and aluminum and cotton in Tajikistan, the price prospects are dim. And the difficulties facing Kazakhstani banks as a result of their inability to roll over external debt have the potential to spill into some Central Asian countries, such as the Kyrgyz Republic, where subsidiaries of Kazakhstani banks account for more than a third of banking assets. Parent banks have maintained funding of their Kyrgyz subsidiaries so far.

Without official external financing, a trade-and-remittance shock, together with lower foreign direct investment, will require tight fiscal policy to lower the current account deficit. The effect of fiscal consolidation on output and employment is negative, but this can be partly mitigated by a depreciation of the currency. In the likely event of the depreciation not being passed through fully into domestic price increases during a recession, this facilitates the transfer of factors away from nontradables and toward exportables and import substitutes. As with the financially integrated countries, it can also switch foreign demand toward the country's tradable goods, but this will be more limited for exports than import substitutes because of currency depreciations in competitor countries.

The ability of the low-income and lower middle-income CIS countries to mitigate the contractionary impact of fiscal consolidation has been made more difficult by the Russian ruble's losing an estimated 15 percent of its value relative to a dollar-euro basket since September 2008 and the Kazakhstani tenge's losing 20 percent of its value in February 2009. While several low-income and lower middle-income CIS countries have allowed significant depreciations of their currencies, the depreciation of the ruble and the inflation differentials

BOX 2.4

**Tajikistan's declining remittances can hurt the poor disproportionately**

The inflow of remittances to Tajikistan in 2007 amounted to \$1.4 billion, or about 40 percent of the country's GDP, the highest share worldwide. The Russian Federation is the principal country of origin for such remittances, accounting for about 80 to 90 percent of officially recorded remittances.

The box table shows that low-income households in Tajikistan rely heavily on migrant flows. Almost half of the families in the bottom quintile in the income distribution have an absent migrant abroad. The difference is very sharp relative to the other quintiles. The income dependency seems to be critical for low-income rural households. In the bottom quintile, remittances account for almost 80 percent of rural household consumption in cases where they have a migrant abroad.

Although estimates of the magnitude of the decline in remittances during the crisis vary, a range of a 30–35 percent decline is commonly used. A 30 percent decline will result in a 25 percent decline in the consumption of the poorest rural households and an 18 percent decline for the poorest urban households and increase headcount poverty in Tajikistan from 53 to 58 percent.

BOX TABLE 1

**Share of households with migrants, by preremittance consumption quintile**

Preremittance consumption quintile	Share of households with currently absent migrant	Remittances as a share of total household consumption	
		Urban	Rural
1	46.5	55.9	78.8
2	7.5	35.9	66.5
3	4.9	36.2	65.1
4	4.6	45.0	63.9
5	6.3	44.6	60.1
Average	14.1	39.5	66.4

Note: Quintiles are calculated over yearly total household consumption net of remittances. World Bank estimates using TLSS 2007 data. The analysis uses an absolute poverty line equal to 139 somoni per month while the value of the PPP \$2.15 poverty line used by the World Bank for international comparison is 120 somoni per month.

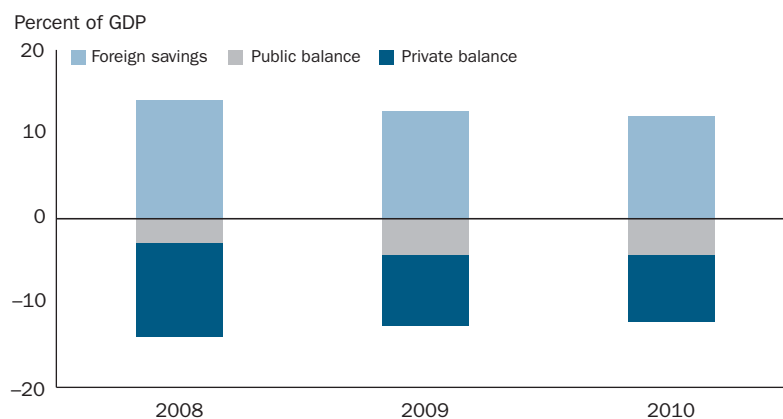
Source: World Bank 2009b.

with other trading partners have resulted in some appreciation of their real effective exchange rates.

As with other groups of countries, GDP growth forecasts for the low-income and lower middle-income CIS countries continue to be revised downward. In general, the reduction in current account deficits projected for 2009 is modest in all countries except Georgia, which had a large current account deficit in 2008 for conflict-related reasons (figure 2.4). Official financing makes

FIGURE 2.4

**Public and private sector balances in low-income and lower middle-income CIS countries, 2008–10**



Source: IMF *World Economic Outlook*, World Bank *World Development Indicators*, and authors' calculations.

it possible for countries to run larger fiscal deficits, which reflect in part the adverse impact, particularly on revenue, of the significant slowdown in growth. This implies that there will be less net private dissavings. Between 2008 and 2009, the current account deficit as a proportion of GDP is broadly unchanged in the Kyrgyz Republic and Moldova and might increase in Armenia.

Official multilateral and bilateral financing from the Russian Federation is being used in both Armenia and the Kyrgyz Republic to fund higher fiscal deficits, reflecting in part the adverse impact of slower growth on revenue, but also increased spending on well targeted social safety nets in both countries. In Moldova, by contrast, the fiscal deficit is expected to balloon because of revenue shortfalls from trade taxes due to the severe import compression and to pre-election increases in wages and pensions, while net private dissavings fall by an offsetting amount. In Tajikistan, the current account deficit as a proportion of GDP is expected to increase, but the fiscal deficit will rise more, with a substantial increase in social spending however being accommodated in the face of revenue shortfalls through cuts in current spending and delays in capital outlays. Georgia is expected to witness a large decline from 2008 in the current account deficit as a proportion of GDP. There will be a reallocation to domestic social and infrastructure spending from other less urgent needs.

Larger official financing will be required if expected levels of foreign direct investment do not materialize. The average current account deficit as a share

of GDP for the five countries is expected to decline over the 2009–10 period, and remain at an average of about 12 percent of GDP (figure 2.4). This will be helped if the official financing now covering about a third of such deficits can be maintained. Although the high historical values for foreign direct investment as a share of GDP are expected to be reduced in 2009, they are still expected to cover about a third of the current account deficits, at par with official financing. If that FDI does not materialize because of a delayed recovery in trade and exports, official financing will need to be stepped up. Most countries are increasing their fiscal deficits because of the fall in revenue and the expansion of social programs. So, private sector imbalances will need to be reduced further.

### **Of parents and offspring: understanding rollover risks in ECA**

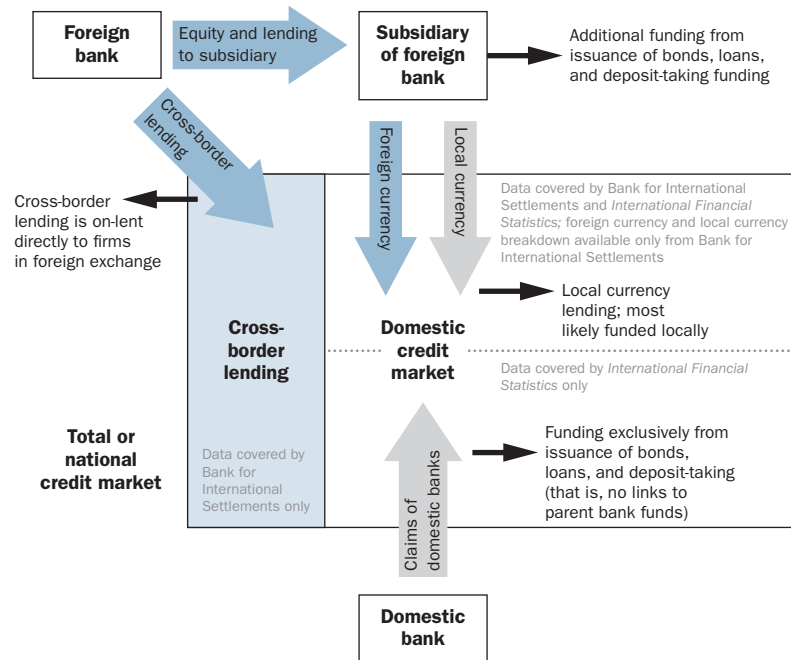
The assumption of a 75 percent rollover, though informed by earlier capital account crises, might not do justice to the particularities of ECA's financial integration. With rollover prospects depending heavily on the behavior of cross-border parent banks, the rollover risks might differ from those in past capital account crises.

Although a few capital account crises linked to private sector imbalances, such as the sudden stops in East Asia, come closest to the current episode in ECA, the comparison cannot be taken very far. In East Asia, the capital flows were not linked to decisions by banks to develop a long-term engagement in the region, so the financing could not be considered to have had FDI-like features. Indeed, the resources flowing to East Asia in the mid-1990s were similar to wholesale funding and the syndicated loans seen in some transition countries over the past few years. But the bulk of bank financing going into ECA countries was loan financing from parent banks to their subsidiaries for an aggressive credit expansion, frequently in foreign currency. The resource flow may have also been triggered by profit opportunities in the region's version of the carry trade, and doing so through the extension of loans—in lieu of equity flows—had accounting and tax advantages. In sum, the resource flow reflects a strategic opening by Western European banks into new markets that were underdeveloped and that turned out to be quite profitable.

Equally important, the resources were on-lent by the subsidiaries to corporates and households, frequently at very long maturities. For instance, mortgages in some Baltic countries have an average maturity of 26 years and are funded by the subsidiary through very short-term borrowing from parent banks. This maturity mismatch is inherent in financial intermediation. Once the long-term loans have been extended, there is little the subsidiary can do

FIGURE 2.5

**Banking sector credit—national and domestic sources**



to improve its liquidity position. In many ways, mortgage lending has a handcuffs nature and limits the drawdown of liquidity that is likely to occur.<sup>11</sup> This is not to say that deleveraging is unlikely, but that the reversal of capital flows is probably not as easy as for investments by institutional investors in emerging markets during previous capital account crisis events.

This raises two questions. First, what is the exposure of parent banks in the region and their behavior so far? Second, what are the liability and asset features that might determine rollover behavior of parent banks and their subsidiaries?

*It's national not domestic: parent bank exposure*

To answer the first question it is necessary to understand the role of parent banks in credit markets. With rollover prospects depending heavily on the behavior of parent banks, it is necessary to cover not only the domestic credit market (akin to the residency concept of gross domestic product), but also the national market (akin to the concept of gross national product)

11. For a discussion see Herzberg, Sugawara, and Zalduendo 2009.

(figure 2.5). A key foreign source of credit is direct or cross-border lending, which lies outside the monitoring orbit of monetary and banking supervision authorities in the recipient (host) country and could be a source of rollover risk in ECA countries at a time of global deleveraging.<sup>12</sup> When parent banks commit to maintain exposures in an IMF-supported program, it is unclear how this extends to cross-border lending because these transactions are in response to decisions by the clients of parent banks that do not reside in the host country.<sup>13</sup> But it is also possible that these are voluntary decisions by parent banks aimed, say, at circumventing regulations that might constrain lending through their subsidiaries. Note the increasing share of cross-border lending in total credit in ECA (table 2.3). But there are also significant differences across ECA: cross-border lending is 44 percent of total credit in Lithuania, but only 11 percent in Belarus and 12 percent in FYR Macedonia.

In addition to *direct* or *cross-border* lending, parent bank groups also provide credit through their subsidiaries to borrowers in the host country, in either *foreign* or *local* currency. The parent can fund these activities directly through the equity and credit lines it extends to its subsidiary or through deposit-taking operations carried out directly by the subsidiary in the host country. The sum of cross-border and foreign currency lending, referred to in the Bank for International Settlements (BIS) data as *international claims*, constitutes the foreign exchange exposure of the parent bank. The local-currency credit extended by the in-country subsidiary, together with the international claims of parent banks, are referred to by the BIS as *foreign claims*. (Annex 2.1 describes in greater detail the data covered in BIS international financial statistics.)

Although credit flows described in figure 2.5 preclude a breakdown of the funding sources of each credit channel, it is reasonable to assume that most of the local currency lending is funded through deposits and wholesale funding that the subsidiary obtains locally.<sup>14</sup> In that event, the foreign exchange risk

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12. The discussion in this section combines the BIS dataset on financial statistics and the IMF's data on banking systems; there are gaps in coverage that are filled in this section through putting forward simplifying assumptions.

13. An example makes this point clearer. A client of Bank X in Austria might request the extension of a credit to Firm Z in Hungary and, later on, instruct for this not to be renewed. In such a case, it is unlikely that the parent bank will maintain this exposure. Direct lending might also be extended at the initiative of the parent to avoid host country regulations. For example, Firm Z in the host country might have requested this cross-border lending and choose not to renew it as economic activity slows down; or, similarly, the parent bank might deliberately slow down the renewal of direct lending. Either way, this credit channel might retrench more rapidly as global deleveraging works its way through the financial markets.

14. See Keller and Maslova 2009 for a discussion of this subject.

TABLE 2.3

**Direct lending as a share of total national credit, by country, 2005–09 (percent)**

Country	2005 Q1	Peak	2008 Q4	2009 Q1
Belarus	2.9	13.5	2008 Q1	11.1
Bulgaria	10.0	28.8	2008 Q1	26.7
Croatia	16.6	46.5	2008 Q1	35.8
Czech Rep.	25.3	31.9	2005 Q2	24.9
Estonia	25.0	57.2	2006 Q1	41.3
Hungary	26.4	38.0	2005 Q3	35.2
Kazakhstan	13.6	22.1	2006 Q4	15.5
Latvia	13.8	35.2	2008 Q1	26.4
Lithuania	21.2	46.8	2006 Q1	41.0
Macedonia, FYR	6.3	14.4	2008 Q4	14.4
Montenegro	..	44.3	2008 Q4	44.3
Poland	20.5	23.6	2005 Q3	17.8
Romania	22.5	46.2	2006 Q4	37.8
Russian Federation	13.0	20.6	2007 Q3	17.0
Serbia	..	47.8	2007 Q4	40.2
Slovak Rep.	22.3	33.3	2005 Q3	26.4
Turkey	13.7	19.1	2007 Q1	17.4
Ukraine	9.9	23.3	2008 Q1	21.9
Average	16.5	32.9		27.5
Median	15.2	32.6		26.4

.. is not available.

Source: BIS and IFS, and authors' calculations.

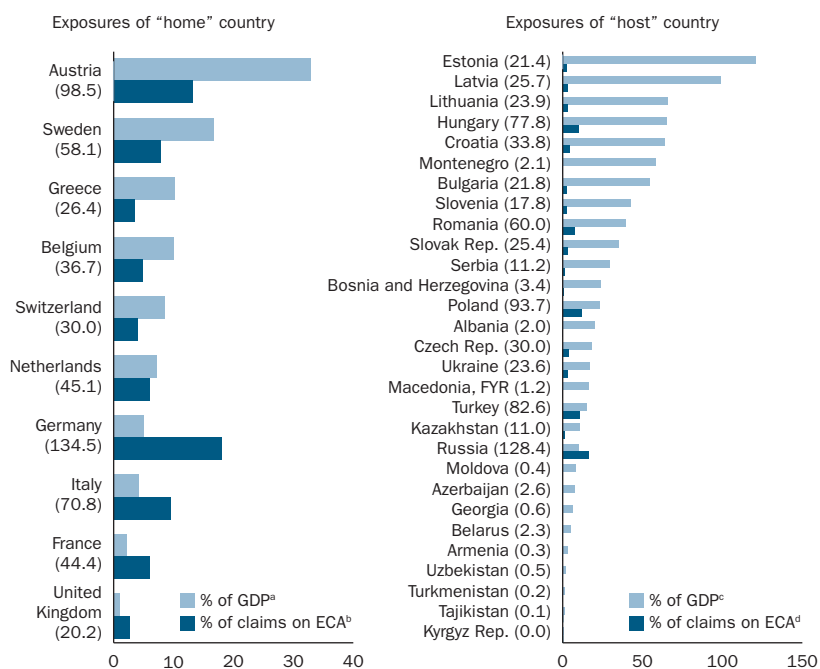
for the parent originating from local currency is limited.<sup>15</sup> Conversely, what has been referred to above as international claims is more likely to be funded directly by the parent bank, although even this might not be fully correct because some foreign exchange lending might be funded by the subsidiary through deposit-taking operations in foreign exchange. If so, the direction of bias is clear: international claims would overestimate the foreign exchange exposure of the banking system to a home country.

Figure 2.6 provides the absolute magnitudes of international claims as of end-2008 and as a share of GDP, as well as of the exposure to ECA countries.<sup>16</sup>

15. Credit operations might take place through two additional channels: claims of domestic banks, which are not linked to parent banks and are not monitored by the BIS, and direct lending that firms might access either through their parent corporate or in domestic and external capital markets. This category is not depicted in figure 2.5.

16. See Árvai, Driessen, and Ötker-Robe 2009 for a discussion of interlinkages and the exposure of parent banks.

FIGURE 2.6  
International claims, end-2008

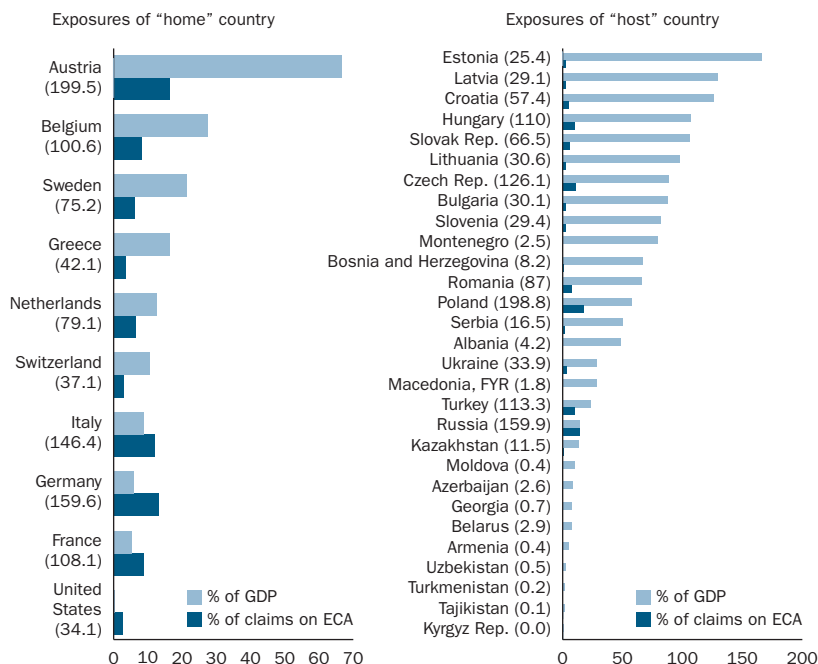


a. Claims of parent banks in any home (originating) country as a percent of their home country GDP.  
 b. Claims of parent banks in any home (originating) country as a percent of total claims of all parent banks in Western Europe on the ECA region.  
 c. Claims of all home country parent banks in any host (recipient) country as a percent of this country's GDP.  
 d. Claims of all home country parent banks in any host (recipient) country as a percent of total claims of all parent banks in Western Europe on the ECA region.  
 Note: Numbers in parentheses are billions of euros.  
 Source: BIS and WEO data, and authors' calculations.

Figure 2.7 provides equivalent information for the concept of foreign claims. As an example, it is worth highlighting that international claims by Austrian banks account for 35 percent of Austria's GDP. What is widely cited instead is that Austria's exposure is 70 percent of its GDP—a number that is twice as large and that reflects the foreign claims on Austria (figure 2.7). But this measure of exposure is somewhat misleading because, as noted earlier, it includes lending in local currency by Austria's subsidiaries in ECA countries. As previously explained, these operations are most likely funded by local deposit-taking operations in the host country. Likewise, it could be that some of the foreign currency lending is also funded locally. In other words, the figure of 35 percent could overestimate Austria's exposure as well. Similarly, while

FIGURE 2.7

Foreign claims, end-2008



Note: Numbers in parentheses are billions of euros. The legends in this chart follow those described in figure 2.6.

Source: BIS and WEO data, and authors' calculations.

international claims account for 135 percent of Estonia's GDP, foreign claims are larger and amount to 180 percent of Estonia's GDP.

What has been so far the rollover experience in ECA countries? The evidence suggests that the exposure, measured by international claims, has declined (table 2.4). Foreign banks' positions were the highest at the end of 2008 in only six countries, having peaked earlier elsewhere. There are exceptions; for example, Bulgaria peaked in March 2009. More generally, most countries peaked in early 2008, with a decline in exposure after the collapse of Lehman. The countries where parent banks had committed earlier to maintaining exposure in IMF-supported programs, as in Hungary and Latvia, had stable international claims at end-2008, but exposure in Ukraine and (less so) in Serbia, also a country participating in the Vienna initiative), has declined. Even in countries with IMF-supported programs, there was some decline in the first quarter of 2009. And yet perhaps the most striking result is the decline in the Russian Federation, Croatia, Turkey, Kazakhstan, and the

TABLE 2.4

## International claims, by country, 2000–09 (billions of euros)

Country	2000 Q4	Peak	2008 Q2	2008 Q3	2008 Q4	2009 Q1	Change from peak
Albania	0.2	2.2 2009 Q1	1.9	2.0	2.0	2.2	0.0
Armenia	0.1	0.4 2009 Q1	0.2	0.2	0.3	0.4	0.0
Azerbaijan	0.3	2.9 2008 Q3	2.2	2.9	2.6	2.6	-0.3
Belarus	0.3	2.3 2008 Q4	2.0	2.2	2.3	2.2	-0.1
Bosnia and Herzegovina	0.2	4.7 2008 Q1	4.3	4.4	3.4	3.6	-1.1
Bulgaria	1.5	22.2 2009 Q1	20.7	21.9	21.7	22.2	0.0
Croatia	7.8	42.1 2008 Q1	34.9	34.1	33.8	33.8	-8.3
Czech Rep.	12.3	33.1 2008 Q2	33.1	32.8	29.8	28.6	-4.6
Estonia	3.1	21.6 2008 Q3	21.0	21.6	18.7	19.3	-2.4
Georgia	0.2	0.6 2008 Q4	0.6	0.6	0.6	0.6	0.0
Hungary	18.1	76.3 2008 Q4	67.6	73.3	76.3	74.2	-2.0
Kazakhstan	0.8	15.0 2007 Q4	12.0	11.7	10.9	11.3	-3.8
Kyrgyz Rep.	0.2	0.4 2007 Q2	0.0	0.1	0.0	0.0	-0.4
Latvia	1.0	26.0 2008 Q3	25.0	26.0	22.4	21.4	-4.7
Lithuania	2.1	23.3 2008 Q3	22.3	23.3	21.3	22.5	-0.8
Macedonia, FYR	0.2	1.2 2008 Q4	0.9	1.1	1.2	1.1	0.0
Moldova	0.1	0.5 2008 Q3	0.4	0.5	0.4	0.4	0.0
Montenegro	..	2.2 2008 Q3	1.9	2.2	2.1	2.0	-0.3
Poland	26.2	93.9 2008 Q4	81.0	88.6	93.9	88.5	-5.4
Romania	3.3	62.4 2007 Q4	54.2	58.0	60.0	58.9	-3.5
Russian Federation	42.6	143.6 2008 Q3	133.9	143.6	129.9	131.7	-11.9
Serbia	..	11.7 2008 Q1	10.9	11.2	11.3	10.7	-1.0
Slovak Rep.	4.1	25.6 2008 Q4	19.3	22.3	25.6	11.5 <sup>a</sup>	-14.1
Slovenia	4.0	18.6 2008 Q1	18.4	18.4	17.6	17.7	-0.9
Tajikistan	0.1	0.2 2001 Q2	0.1	0.1	0.0	0.0	-0.1
Turkey	46.9	87.1 2008 Q3	81.3	87.1	81.7	84.7	-2.4
Turkmenistan	1.7	1.7 2000 Q4	0.2	0.2	0.2	0.2	-1.5
Ukraine	0.9	25.6 2008 Q3	24.3	25.6	24.0	22.7	-2.9
Uzbekistan	1.9	2.0 2001 Q2	0.5	0.6	0.5	0.5	-1.5

.. is not available.

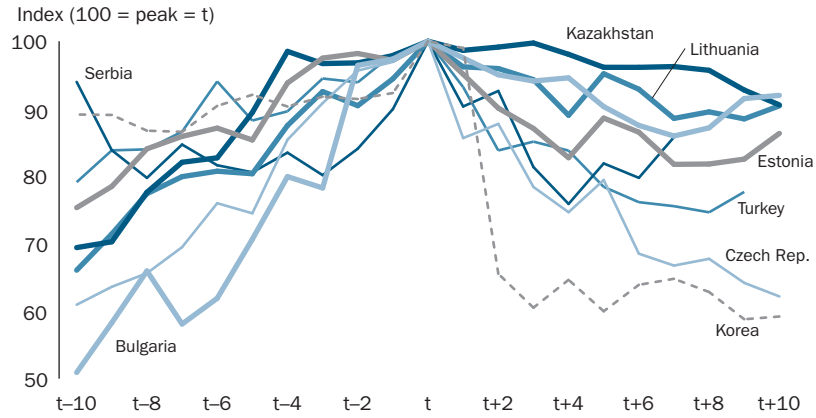
a. The Slovak Republic's decline in international claims might in part reflect the adoption of the euro on January 1, 2009. This means that euro-denominated local claims by subsidiaries were excluded from international claims and treated as local-currency-denominated claims. However, it is worth noting that foreign claims also recorded a decline.

Source: BIS and authors' calculations.

Czech and Slovak Republics. Yet, on a more positive note, the sharp decline in foreign exchange liabilities seen in South Korea has so far not occurred in ECA. Indeed, figures 2.8a and 2.8b present the profile of foreign exchange

FIGURE 2.8A

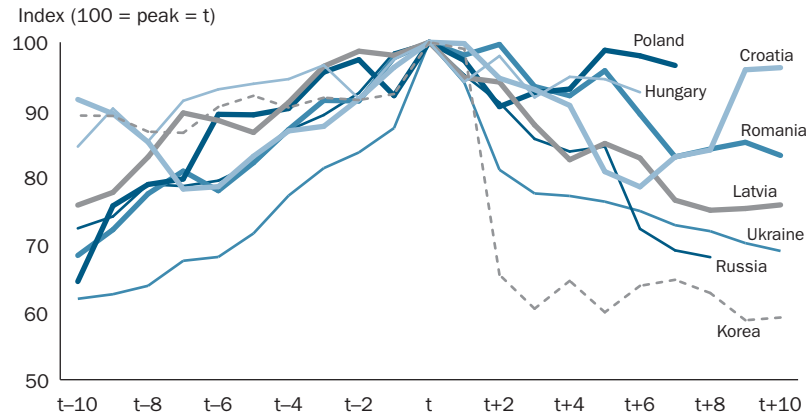
Foreign exchange liabilities, Republic of Korea and financially integrated ECA countries (monthly data; t for the peak of each country—during 1997 for South Korea, 2007 for Kazakhstan, and 2008 for other ECA countries)



Note: The crisis year is represented by t, and t-i and t+i denote the i<sup>th</sup> month before or after the crisis.  
Source: IMF, International Financial Statistics.

FIGURE 2.8B

Foreign exchange liabilities, Republic of Korea and financially integrated ECA countries (monthly data; t for the peak of each country—during 1997 for South Korea and 2008 for other ECA countries)



Note: The crisis year is represented by t, and t-i and t+i denote the i<sup>th</sup> month before or after the crisis.  
Source: IMF, International Financial Statistics.

liabilities centered on the peak for the East Asian countries and a select group of financially integrated countries. The evidence so far is that the declines in foreign exchange liabilities for South Korea were substantially sharper than those observed in most ECA countries.

*Time to redeem promises made in Vienna: determinants of rollover*

Rollover rates will dictate the economic adjustment of ECA countries but should not be seen as an aggregate concept. Instead, rollover rates depend on the economic prospects of debtors and on the factors affecting decisions of individual creditors. In the case of ECA countries, a significant share of rollover risk lies in the banking system, and the different funding sources for banks identified in table 2.5 all have different stability features. This section looks in greater detail at the liability structure of the banking system and the particularities of the asset structure of banks that might affect their rollover decisions.

The decision by a parent bank to roll over credit lines to a subsidiary depends on the expected return or loss at the time of the decision, the uncertainty about future returns, and the willingness to bear this uncertainty. If the investment of the parent is a small share of total funding and the subsidiary is liquid, the parent may choose not to roll over because of the certainty that the subsidiary can accommodate this with little consequence. The alternative of waiting would expose the parent to uncertainty about future payoffs, especially if conditions deteriorate and the liquidity and solvency of the subsidiary are called into question. If, by contrast, the subsidiary is not liquid but well capitalized, the parent bank may choose to roll over its credit lines in view of the bankruptcy costs that are likely to be incurred otherwise.

But considerations of solvency and liquidity are not all. If the parent bank accounts for a large share not only of the subsidiary's funding but also of economy-wide funding, it is likely that withdrawal would lead to a country

TABLE 2.5  
**Stability of funding sources**

Source	Degree of stability
<b>Residents</b>	
Retail deposits	High/medium
Wholesale funding	Low
<b>Nonresidents</b>	
Retail deposits	Medium/low
Wholesale funding	Low
Parent bank funding	Medium
Equity	High

default. Given the systemic impact of the parent bank, its withdrawal will also affect recovery rates and have a substantive impact on macroeconomic performance.

In contrast, the presence of many investors and the inherent maturity mismatch between bank assets and liabilities also affect wholesale funding and nonresident deposits during periods of turmoil. Investors fear who might exit first. Debt might not be rolled over because less informed investors interpret a collapse in a bank's share price as signaling that shareholders who control the bank—and thus should be knowledgeable—have lost confidence in the bank's earning prospects.

Small and uninformed depositors are particularly prone to runs, though typically with a lag. While this has motivated deposit insurance schemes, retail runs may still occur if the schemes are not seen as credible. There can also be some special situations: for example, bank runs can occur when retail depositors wish to transfer their resources from domestically owned banks to foreign-owned banks perceived as more stable.<sup>17</sup>

#### *Not all funding sources are equally stable . . .*

The relative stability of the sources of funding for banks can be assessed by looking at the evolution of their liability structures.<sup>18</sup> The conclusions from such assessment are revealing. Shortages of liquidity brought on by the turmoil in global financial markets have substantially restricted the availability of wholesale funding. In Bulgaria, Croatia, Estonia, FYR Macedonia, and Lithuania, wholesale funding has declined (figure 2.9). In contrast, domestic deposits held up much better. Even though they declined in the fourth quarter of 2008 and the first quarter of 2009, they were still higher at the end of the first quarter of 2009 than at the beginning of 2008 (figure 2.10).<sup>19</sup> Interestingly, parent bank funding has held well, reflecting the success so far of international coordination efforts (figure 2.11). In fact, parent bank funding has been used to offset declines in other types of funding. And yet it is fair

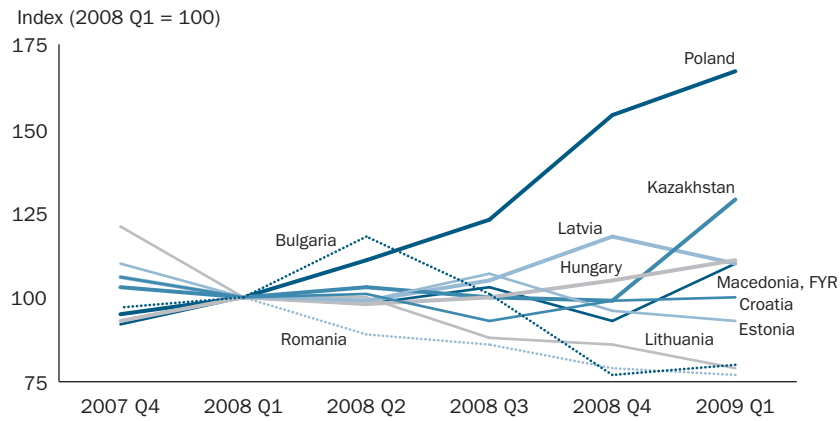
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17. This happened in Latvia in 2008, when deposits were transferred from domestically-owned banks to the foreign-owned subsidiaries of Swedish banks following announcements by the Swedish government of support for those banks.

18. The discussion is based on data that was requested from central bank and banking supervision authorities for 12 countries in the region. The data distinguish between alternative funding sources and the maturity, sectoral, and currency composition of the loan portfolio. The authors wish to thank these authorities for this information.

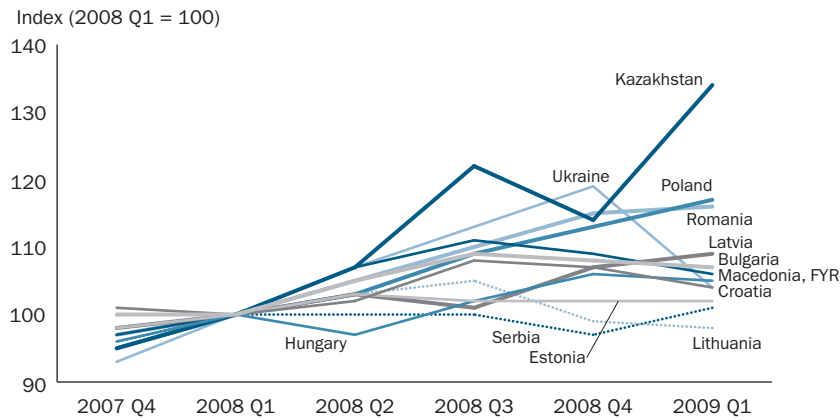
19. The higher stability of retail funding compared with wholesale funding in such cases echoes the case of Northern Rock in the United Kingdom, where wholesale funding rollover needs dried up one month before queues of depositors formed outside the bank's own branches.

FIGURE 2.9  
**Wholesale funding, by country, 2007-09**



Source: Central banks and authors' calculations.

FIGURE 2.10  
**Resident retail deposits, by country, 2007-09**

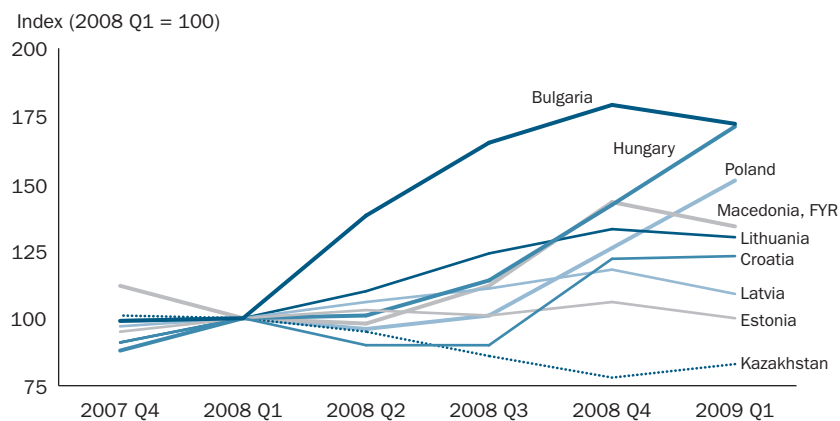


Source: Central banks and authors' calculations.

to say that the growth in parent funding in the past few years is no longer present. The exception is Kazakhstan, though here it has been declining since 2007 Q4 (figure 2.11). Note that foreign ownership and funding structures are quite independent of each other. Some parent banks rely heavily on domestic deposit-taking operation by their subsidiaries, even though the banking system is foreign owned (box 2.5).

FIGURE 2.11

Parent bank funding, by country, 2007–09



Source: Central banks and authors' calculations.

*... while some components of the loan portfolio fasten “golden handcuffs” on lenders*

The stability of parent bank funding and thus the prospect for a rollover depend also on the composition of assets on the balance sheets of subsidiaries. Indeed, it may have been optimal for some parent banks to secure their claims immediately, particularly where liquidity positions were strong, as in Serbia, where 35 percent of bank assets were held in cash, as opposed to in Estonia and Lithuania, where the corresponding ratio was 10 percent (figure 2.12). In this context, low liquidity buffers in Estonia and Lithuania may have encouraged dominant parent banks to maintain funding in these countries. For instance, one-day funding of parent banks in Lithuania accounts for 25 percent of available cash of local banks. So, nonrenewals would strain an already circumscribed liquidity position.

More generally, bank loan portfolios in ECA countries frequently comprise nonmarketable loans with very long maturities. Of all loans, 60 percent have a contract maturity of more than five years in Lithuania and more than 70 percent in Estonia, reflecting the dominance of long-term mortgage lending. As noted earlier, the average maturity of mortgage loans is 26 years in some Baltic states, and these make up close to 50 percent of the loan portfolio. In contrast, loans with a maturity of more than five years account for only 30 percent of loans in Serbia and Ukraine (figure 2.13). Indeed, while credit to households accounts for about 50 percent of total assets in Estonia

BOX 2.5

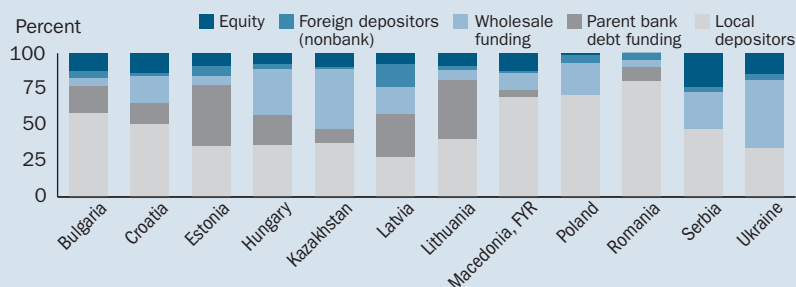
**Foreign ownership and funding sources**

Ownership has little to do with the banking system’s funding structure. An examination of the liability structure of the consolidated banking system in 12 financially integrated ECA countries shows considerable variation. In Lithuania, where 90 percent of the banking sector is foreign owned, liabilities are dominated by parent bank credit lines and domestic deposits (box figures 1 and 2). In Estonia, where the banking sector is almost fully foreign owned, the dependence on parent bank funding is similar.

But ownership does not necessarily determine the relative importance of different funding sources. In FYR Macedonia, where 85 percent of the banking sector is foreign owned, the liability side of the balance sheet is less diverse, and funding by parents is substantially less important. Croatia, where the banking sector is more than 90 percent foreign owned, presents a more mixed case—it has similar shares of parent and wholesale funding and a large resident deposit base.

BOX FIGURE 1

**Liability structure of banking sector balance sheets, by country, March 2009**



Note: For Serbia and Ukraine there is no distinction between parent funding and wholesale funding in the data provided by the central bank; the figure combines both sources and refers to it as wholesale funding.

Source: Central banks and authors’ calculations.

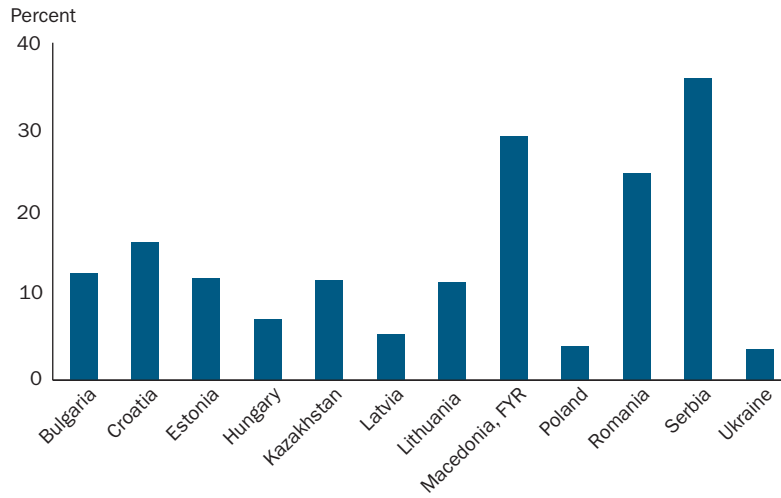
BOX FIGURE 2

**Foreign ownership of banks, by country, 2007**



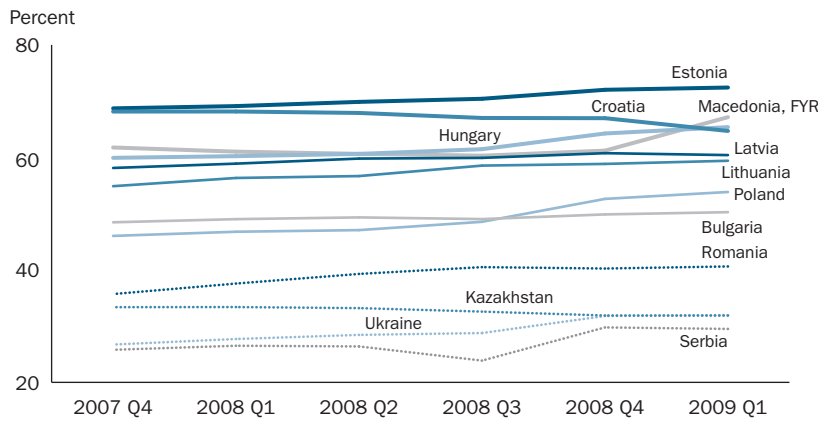
Source: EBRD 2007.

FIGURE 2.12  
**Ratio of liquid assets to total assets, by country, March 2009**



Source: Central banks and authors' calculations.

FIGURE 2.13  
**Loans with a maturity of five years or more, by country, 2007-09**

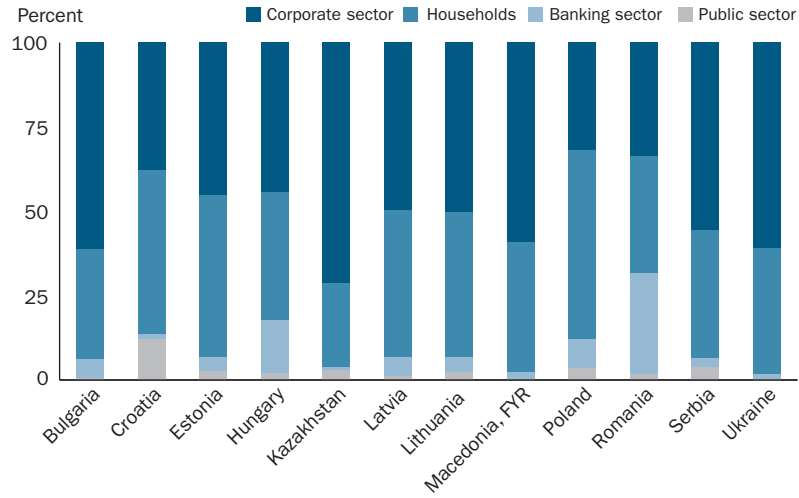


Source: Central banks and authors' calculations.

and Lithuania, it accounts for a much lower share—about 35 percent—in FYR Macedonia, Kazakhstan, and Serbia (figure 2.14)—and in many countries the vast majority of the lending was in foreign currency (figure 2.15). This illiquid asset position associated with long-term mortgage lending may

FIGURE 2.14

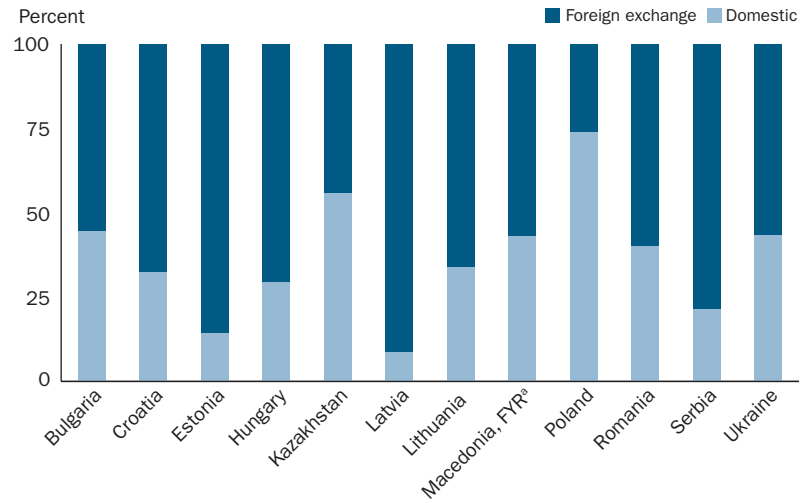
**Sectoral composition of loans, by country, March 2009**



Source: Central banks and authors' calculations.

FIGURE 2.15

**Currency composition, by country, March 2009**



a. Data for foreign exchange include foreign exchange loans and loans in denars with foreign exchange adjustment clauses.

Source: Central banks and authors' calculations.

underpin the stability of debt exposures of large parent banks in some ECA countries. In sum, the potential for debt investors to realize assets at little or no cost is lower in the Baltic states than in Serbia and Ukraine. The long maturities in Estonia and Lithuania will encourage parent banks to maintain exposure, while the comfortable liquidity position in Serbia might provide an incentive to cut back on exposure in the knowledge that liquid and marketable assets are available to pay debt investors back without much distress.

#### *Does “home country” concentration matter? . . .*

The extent to which a banking system relies on parent banks from a few countries, or many, is also relevant in assessing the stability of parent funding. The underlying assumption is that higher concentration in one home country is likely to result in more stable links, because withdrawing support to the subsidiary could prove costly. Indeed, it is even likely in such cases that home country supervisors would look at home country exposure, as opposed to individual bank exposure: the Nordic countries’ willingness to participate in the IMF-supported program in Latvia with substantial official financing (€1.8 billion, in addition to the support provided for Swedish bank recapitalizations) is consistent with this hypothesis. Moreover, if a bank stays involved, it can capture high profits once the economy returns to some degree of normalcy owing to its likely importance in market share. Indeed, though home country concentration is not equivalent to monopoly power, there is a correlation.

How can the degree of home country concentration be assessed? Through an index of home country concentration of foreign banks’ international claims. A large index number indicates high concentration and thus, potentially, higher funding stability (table 2.6).<sup>20</sup> The Baltic states and some Western Balkan countries had high concentration scores. In contrast, Kazakhstan, the Russian Federation, Turkey, and Ukraine had low concentration scores, while countries in Central Europe such as the Czech Republic, Poland, and the Slovak Republic, together with Bulgaria, were in between. In general, the concentration scores for South Korea, Malaysia, Thailand, Philippines, and Indonesia are lower than those observed in some ECA countries, though by no means all.

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20. It is akin to the Herfindahl index and is defined as the sum of the squares of the market shares. This is summed over all international claims of foreign banks with claims in a country. The index lies between zero and one. Increases in the index indicate a decrease in competition and an increase of market power originating in one country, while decreases indicate the opposite.

TABLE 2.6

## Index of home country concentration of parent bank exposure, international claims

Country	2000 Q4	2008 Q4	2009 Q1
<b>Europe and Central Asia</b>			
Albania	0.35	0.28	0.35
Armenia	0.72	0.33	0.24
Azerbaijan	0.29	0.17	0.18
Belarus	0.50	0.29	0.28
Bosnia & Herzegovina	0.55	0.39	0.40
Bulgaria	0.14	0.16	0.16
Croatia	0.38	0.26	0.26
Czech Rep.	0.28	0.19	0.20
Estonia	0.76	0.83	0.84
Georgia	0.45	0.27	0.29
Hungary	0.14	0.21	0.21
Kazakhstan	0.15	0.11	0.10
Kyrgyz Rep.	0.27	0.25	0.24
Latvia	0.52	0.58	0.58
Lithuania	0.41	0.64	0.64
Macedonia, FYR	0.27	0.46	0.50
Moldova	0.26	0.47	0.44
Montenegro	..	0.59	0.56
Poland	0.17	0.16	0.15
Romania	0.21	0.18	0.18
Russian Federation	0.13	0.12	0.11
Serbia	..	0.18	0.18
Serbia <sup>a</sup>	0.18	..	..
Slovak Rep.	0.14	0.19	0.22
Slovenia	0.31	0.28	0.27
Tajikistan	0.46	0.32	0.33
Turkey	0.13	0.12	0.12
Turkmenistan	0.28	0.71	0.70
Ukraine	0.17	0.14	0.15
Uzbekistan	0.24	0.24	0.24
<i>Mean</i>	0.32	0.31	0.31
<i>Median</i>	0.28	0.26	0.24
<b>East Asia</b>			
	Peak date for claims	Index	
Indonesia	1997 Q4	0.27	
Korea, Rep. of	1997 Q2	0.21	
Malaysia	1997 Q2	0.30	
Philippines	1997 Q4	0.14	
Thailand	1996 Q4	0.44	
<i>Mean</i>		0.27	
<i>Median</i>		0.27	

.. is not available.

a. Includes Montenegro.

Source: BIS and authors' calculations.

TABLE 2.7

**Importance of lending in foreign exchange among parent-subsidiary banks  
(foreign exchange lending by parent-subsidiary bank as a percentage of total  
group lending)**

Country	2005 Q1	Peak	2008 Q4	2009 Q1	
Belarus	1.00	1.00	2005 Q1	0.79	0.82
Bulgaria	0.68	0.76	2006 Q1	0.72	0.74
Croatia	0.65	0.65	2005 Q1	0.59	0.60
Czech Rep.	0.26	0.31	2006 Q2	0.25	0.24
Estonia	0.83	0.85	2006 Q1	0.82	0.85
Hungary	0.67	0.71	2009 Q1	0.70	0.71
Kazakhstan	0.89	0.96	2009 Q1	0.95	0.96
Latvia	0.79	0.90	2008 Q3	0.87	0.88
Lithuania	0.77	0.84	2005 Q4	0.76	0.79
Macedonia, FYR	0.77	0.77	2005 Q1	0.66	0.68
Montenegro	..	0.85	2008 Q4	0.85	0.78
Poland	0.41	0.53	2006 Q1	0.48	0.48
Romania	0.73	0.76	2005 Q2	0.69	0.68
Russian Federation	0.91	0.93	2006 Q1	0.79	0.82
Serbia	..	0.68	2008 Q4	0.68	0.67
Slovak Rep.	0.42	0.42	2005 Q1	0.38	0.23
Turkey	0.93	0.93	2005 Q1	0.73	0.74
Ukraine	0.89	0.89	2005 Q1	0.70	0.69
Average	0.72	0.76		0.69	0.69
Median	0.77	0.80		0.71	0.72

.. is not available.

Source: BIS and IFS, and authors' calculations.

### *... yes, but demand matters as well*

Home country concentration is a supply-side factor associated with maintaining exposure to host countries, but the demand for international claims in the host country is also important. This is revealed to some extent in a bank's foreign exchange lending. International claims as a share of total parent-subsidiary lending had remained broadly constant at the end of March 2009. On average, two-thirds of lending in the parent-subsidiary group was in foreign currency and one-third in local currency (table 2.7).

The average masks substantial variation. International claims accounted for only 24 percent of total parent-subsidiary lending in the Czech Republic and 23 percent in the Slovak Republic—but 83 percent in the Baltic states. As noted earlier, foreign ownership does not determine lending. The

determinants must be sought instead in the relative attractiveness of borrowing in foreign exchange over borrowing in local currency from the perspective of the borrower (box 1.3).

### **Three concluding arguments—three caveats**

Some deleveraging due to pressures in advanced country financial markets is likely. It is also to a degree needed as rollover gives way to restructuring of bank, household, and corporate debt. But collective action involving regional and international financial institutions, supranational authorities, parent banks and their subsidiaries, and home and host governments—and ECA's unique rollover determinants—can keep this process orderly. Although parent bank funding has for the most part continued, external financing is unlikely to recover its prominent role. Still, rollover in ECA is more probable than it was in previous capital account crises. These factors support this assessment.

First, high home country concentration of parent bank exposure to the host country is likely to create incentives to remain engaged in some countries—though not all ECA countries face the same circumstances. Indeed, where home concentration is low, the incentives to sustain exposure might not be as strong. Estonia and Kazakhstan illustrate opposite cases of the broadly positive association between home country concentration and ease of rollover. But it must be recognized that there are exceptions, such as Ukraine, where home country concentration is low, but rollover has been reasonably secured.

Second, the more illiquid and nonmarketable are the assets held by subsidiary banks, the less likely is the withdrawal of those resources at short notice. Indeed, doing so is in many ways self-destructive, equivalent to a fire sale of assets (housing prices have already halved in some crisis countries). Thus, the commitment of parent banks also depends on their asset structure, particularly the maturity structure and sectoral composition of the loan portfolio.

Third, it is likely that renewing external financing in wholesale funding, syndicated loans, or nonresident deposits will be more difficult—and has so far been the case. In fact, some banks are facing severe difficulties. This is a systemic threat only in some countries, though individual banks in many may falter.

These three arguments, which support a gradual and orderly reduction of exposure, are subject to three caveats. First, subsidiaries are strong partners only to the extent their parents are financially healthy. A faster deleveraging in asset classes viewed as high risk could occur if parent banks face difficulties at home. Some ECA countries—though clearly not all—might be less attractive than less vulnerable emerging markets around the world.

Second, parent banks seem committed to gradually recapitalizing their subsidiaries, assuming that nonperforming loans accumulate gradually. But the foreign exchange exposure of subsidiaries to unhedged borrowers could accelerate the process of recognizing losses in the event of a currency crisis. In such cases, parent bank commitment to their subsidiaries is less clear, and little guidance can be offered from past banking crises.

Third, collective action and the rapid response by the international community has so far prevented contagion, but this also depends on continuing success in restoring countries to sustainable development paths. The risk remains that the adjustment is so large that it could weaken political resolve and popular support. This can be eased only by rollover rates that are higher than were anticipated at the end of 2008 when the crisis first struck. It may need to be complemented by large official financing flows—and for a longer period—to slow down and soften the pain of the adjustment.

## Annex 2.1

### Description of the Bank for International Settlements (BIS) Dataset

The banking statistics published by the BIS can be divided into two sets: locational (tables 1 to 8 in the statistical annex of the BIS Quarterly Review) and consolidated (table 9 of the same annex) statistics on claims and liabilities. The locational dataset is based on the location of each banking unit. Although this classification is similar to that in national statistics, such as balance of payments, the data are on a gross basis. Therefore, the locational statistics contain the positions against their own affiliates in other countries. The consolidated dataset is based on the nationality of the head office; in particular, it has all inter-bank positions (businesses between different units of the same bank group) on a net basis. These statistics show the risk exposures of banking systems of countries where the head offices are located and are provided in two different ways: immediate borrower (contractual) basis (tables 9a and 9b of the dataset) and ultimate risk basis (tables 9c and 9d of the dataset).

Annex table 2.1.1 summarizes the information on “claims” available in the BIS banking data. It should be noted that the sectoral breakdown is defined differently in each of the two sets of statistics, as shown in annex table 2.1.2. The difference between these stems from where the default risk reside.

ANNEX TABLE 2.1.1

#### Comparison of information on claims in BIS data

	Locational (gross)	Consolidated (net)	
		Immediate borrower	Ultimate risk
Type of claims			
Foreign claims (FC = IC + LL)		✓	✓
International claims (IC = XB + LF)		✓	
Cross-border claims (XB)	✓		✓
Local claims in foreign currency (LF)			✓
Local claims in local currency (LL)		✓	
Composition of claims		(IC)	(FC)
By currency	✓		
By maturity		✓	
By sector	✓	✓	✓
Starting date of quarterly series	Dec. 1977	Dec. 1999*	Mar. 2005
Number of reporting countries (Dec. 2008)	41	30	24

\*Semiannual data available from December 1983 onwards.  
Source: BIS 2003, 2005, and 2009; Maechler and Ong 2009.

ANNEX TABLE 2.1.2

**Sectoral breakdown in BIS data**

	Claims on		
	Banks	Nonbanks	Public sector
Locational	<ul style="list-style-type: none"> <li>• Commercial banks</li> <li>• Monetary authorities</li> <li>• International organizations</li> </ul>	<ul style="list-style-type: none"> <li>• General governments</li> <li>• Public corporations</li> <li>• Nonbank private sector</li> </ul>	
Consolidated	<ul style="list-style-type: none"> <li>• Commercial banks</li> </ul>	<ul style="list-style-type: none"> <li>• Public corporations</li> <li>• Nonbank private sector</li> </ul>	<ul style="list-style-type: none"> <li>• General governments</li> <li>• Monetary authorities</li> <li>• International organizations</li> </ul>

Source: BIS 2008a,b.

Numbers on immediate borrower basis capture claims to the country where the original risk lies. This is based on the residence (nationality) of the head office of reporting banks and their claims to nonresidents. Claims are on ultimate risk basis when it takes into account banks' own internal risk management systems and the difference in risk exposures brought by risk mitigation with, for instance, collateral and credit derivatives. Ultimate risk claims are the ones extended to the country where the final risk lies or the country where the guarantor of a claim resides. In other words, claims are allocated to the country where the counterparty that has the final responsibility of repaying them is located. The difference between the two series is captured by net risk transfers (differences between inward and outward risk transfers). The positive transfers indicate that banks' risk exposure to the country is increased and, therefore, the country is a holder of an ultimate responsibility for the repayment of the claim. The country risk exposures can be more appropriately captured by the ultimate risk basis, but the series is available only from 2005, and fewer countries report on this basis.