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The global crisis and Latin America: financial impact and policy responses [1]

The financial impact of the global crisis on Latin America has in some respects been less severe than in previous crises. This reflects in part the development of domestic bond markets and improved net balance sheet positions of the economies, which for a period have allowed gross capital inflow reversals to be partially offset by reductions in gross capital outflows. In addition, policy responses have helped to ease both external and domestic financial conditions. Nevertheless, considerable risks remain due to the ongoing economic downturn.

JEL classification: E44, E50, E66, F21, F34, F40, G15, O16.

The financial effects on Latin America of the global crisis which began in summer 2007 were initially limited but intensified after the bankruptcy of Lehman Brothers in mid-September 2008. Global deleveraging in the international banking system and diminished investor risk appetite resulted in falling demand for emerging market assets and a sharp depreciation in the currencies of emerging market economies (EMEs). Gross capital inflows reversed and financing conditions tightened, reducing liquidity in foreign exchange and domestic money markets, and raising bond yields in both international and local currencies.

Episodes of financial stress are not unknown in Latin America.[2] However, some features distinguish the current episode from the crises of the late 1990s (eg the Asian crisis) or the Argentine and Brazilian episodes in the early 2000s. First, the shock originated in the financial sector of advanced economies rather than in Latin America or another emerging market region. Second, the significant reduction of Latin American *public* external debt gave governments more leeway to play a stabilising role for *private* markets, where external debt had remained high. Finally, new kinds of vulnerabilities have surfaced, mainly

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2 The analysis that follows focuses mostly on Brazil, Chile, Colombia, Mexico and Peru. There is some discussion of Argentina and Venezuela, but certain characteristics make their financial systems less comparable with the other five countries.

associated with financial innovation and integration rather than with macroeconomic imbalances or banking sector weaknesses.

Policy responses have also differed this time around, as they sought to smooth the flow of both external and domestic financing. Central banks took steps to provide liquidity in foreign exchange and domestic money markets and facilitate the extension of credit. To supplement their foreign reserves, Brazil and Mexico agreed to open a currency swap line with the US Federal Reserve. More recently, Colombia and Mexico have sought access to the IMF's newly established Flexible Credit Line (FCL). Finally, central banks have been able to adopt a countercyclical monetary policy stance, thanks to flexible exchange rate regimes, a limited exchange rate pass-through to inflation and the greater credibility built up by policymakers.

The rest of the article is structured as follows. In the next section we analyse the impact of global financial shocks on Latin American financial markets, comparing the current crisis with previous shocks and paying particular attention to capital flows, international bank and securities financing, exchange rate adjustment and the cost of foreign and domestic currency financing.[3] In the subsequent section, we focus on the policy responses, examining in particular the provision of foreign currency liquidity as well as measures taken to stablise domestic money and capital markets. The conclusion summarises the key policy lessons to be drawn.

The financial impact of the crisis in Latin America

External financing dries up

A benign external environment at the onset of the crisis …

Up to the onset of the financial turmoil in August 2007, Latin America had experienced an unusually benign external environment. A combination of net capital inflows and current account surpluses had contributed to significant foreign reserve accumulation (Graph 1, left-hand panel). Gross inflows and outflows were at record highs, with foreign direct investment (FDI) as the main source of external financing (BIS (2009), Jara and Tovar (2008)).

However, gross capital inflows to Latin America began to contract significantly in the third quarter of 2008. Over the year as a whole, gross portfolio inflows declined by $76 billion (Graph 1, centre panel).[4] FDI was more stable, but is expected to fall in 2009. Current account surpluses have also declined or turned to moderate deficits. Several factors have contributed to the abrupt reversal in gross capital inflows: the increase in international risk aversion, efforts by financial institutions in developed countries to boost liquidity or shore up their balance sheets, high currency volatility, the terms-off-

… followed by a reversal in gross capital inflows

[3] For a related discussion, see Caruana (2009). For an overview of the impact of the crisis on the real sector in Latin America, see IADB (2009) and IMF (2009b).

[4] Other gross inflows (mainly banking flows) also decreased sharply, especially in Brazil, where they fell by more than $18 billion. As discussed below, however, special factors accounted for much of the decline in Brazil.

Box 1: Derivatives-related exposures in the corporate sector: the case of Mexico and Brazil

In Latin America, on-balance sheet foreign currency mismatches have decreased substantially since the implementation of flexible exchange rate regimes during the 1990s (IMF (2008)). However, the low currency volatility and the nominal appreciation trend observed in several countries before August 2008 led some corporations to increase their off-balance sheet foreign exchange exposure through derivative positions. As a consequence, a number of companies in Brazil and Mexico started betting against the depreciation of their currencies by selling foreign exchange options in the offshore market. These contracts allow corporates to sell US dollars at a favourable rate when the exchange rate rises above a "knock-out" price (ie the domestic currency appreciates), but force them to sell dollars at an unfavourable rate if the exchange rate falls below a "knock-in" price (the domestic currency depreciates), offering financing and currency trades at favourable rates, but with the drawback of having to deliver dollars at a loss if the domestic currency depreciates past a certain threshold.

The sharp currency depreciation observed in Latin America after mid-September 2008 resulted in large losses for some of the top companies in Brazil and Mexico when the exchange rate triggered the "knock-in" provision, forcing them to sell double the amount of US currency at the higher price.[①] In Mexico, derivatives losses reached $4 billion in the fourth quarter of 2008, while in Brazil, where official figures have not been released yet, losses are expected to be as high as $25 billion. A major food retailer (Comercial Mexicana), which sought bankruptcy protection on 9 October 2008, lost up to $1.1 billion on non-deliverable forward (NDF) contracts it had made with international banks.[②]

The complexity of such deals and the fact that they were done privately highlights the lack of transparency in these markets, as many of these companies did not disclose any information on their derivative positions.[③] One result was a review of derivatives exposures across the region as policymakers realised that these exposures could pose systemic risk. Looking forward, policymakers will need to balance financial stability against market development in considering possible regulation of corporate derivatives risk.[④, ⑤]

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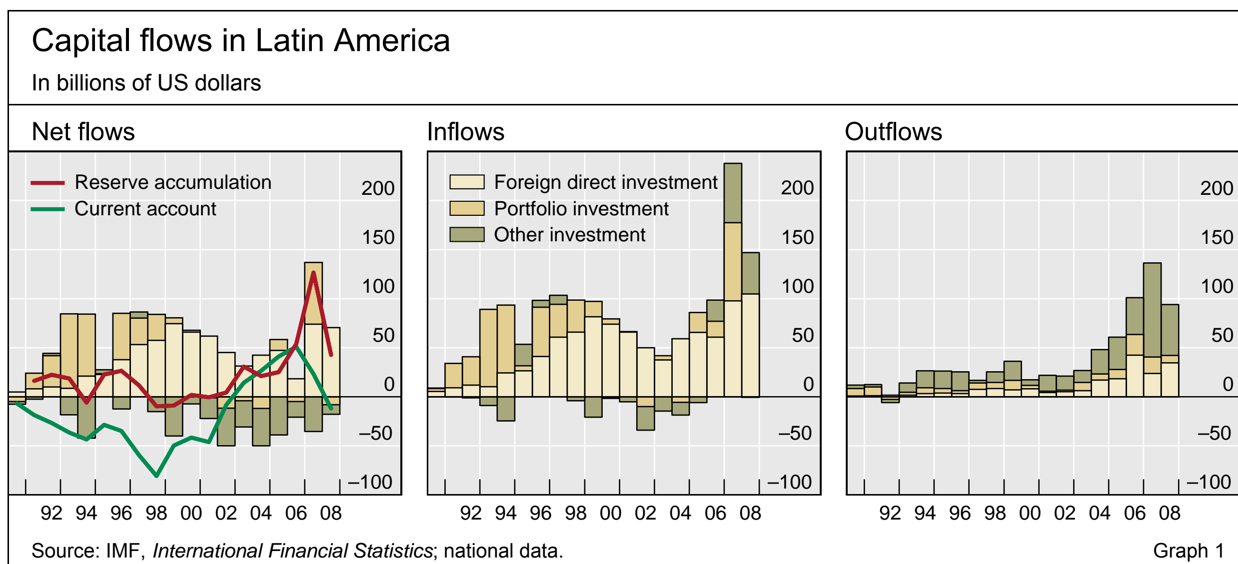
① One month after the Lehman Brothers default, in Mexico and Brazil the currency depreciated by more than 30%. ② Gruma SA, the world's largest maker of corn flour, and Alfa SAB, the world's largest maker of aluminium engine heads and blocks, also suffered from considerable mark to market losses on derivative instruments during this period. On 10 October glass maker Vitro SAB announced that a large part of its $227 million of derivatives losses had come from natural gas forwards. ③ Comercial Mexicana was rated AAA on a local scale when it first filed for bankruptcy. ④ In Colombia, for example, the central bank established in May 2007 a maximum leverage position on forwards over the financial entities' net worth, a measure that was widely criticised but later proved to reduce the impact of the crisis. ⑤ In some cases corporate derivatives have contributed to reducing financial vulnerabilities, as shown by the use of oil price hedge and currency swaps by the Mexican state-owned petroleum company (Pemex), which helped it to stabilise its 2009 budget.

trade collapse and the derivatives exposure of some large corporations in Brazil and Mexico (see Box 1).

One difference in the current situation is that in this decade the region has accumulated large gross (non-reserve) assets invested abroad ($180 billion by end-2007); such assets were almost non-existent in previous crises (Graph 1, right-hand panel).[5] The partial repatriation of those assets during 2008 helped stabilise the external financial position of the region during the current crisis. In 2008, gross outflows decreased by almost $42 billion and net flows amounted to $53 billion (Graph 1, left-hand and right-hand panels).[6]

5 See Jara and Tovar (2008) for a detailed discussion.

6 This largely reflected the repatriation of banking flows into the region. Portfolio decisions of institutional investors may also have played a role. However, some data suggest that repatriation might not have continued in some countries in 2009.



Capital flows in Latin America

In billions of US dollars

Source: IMF, *International Financial Statistics*; national data. Graph 1

Cross-border bank financing and bond issuance

Lower cross-border bank lending …

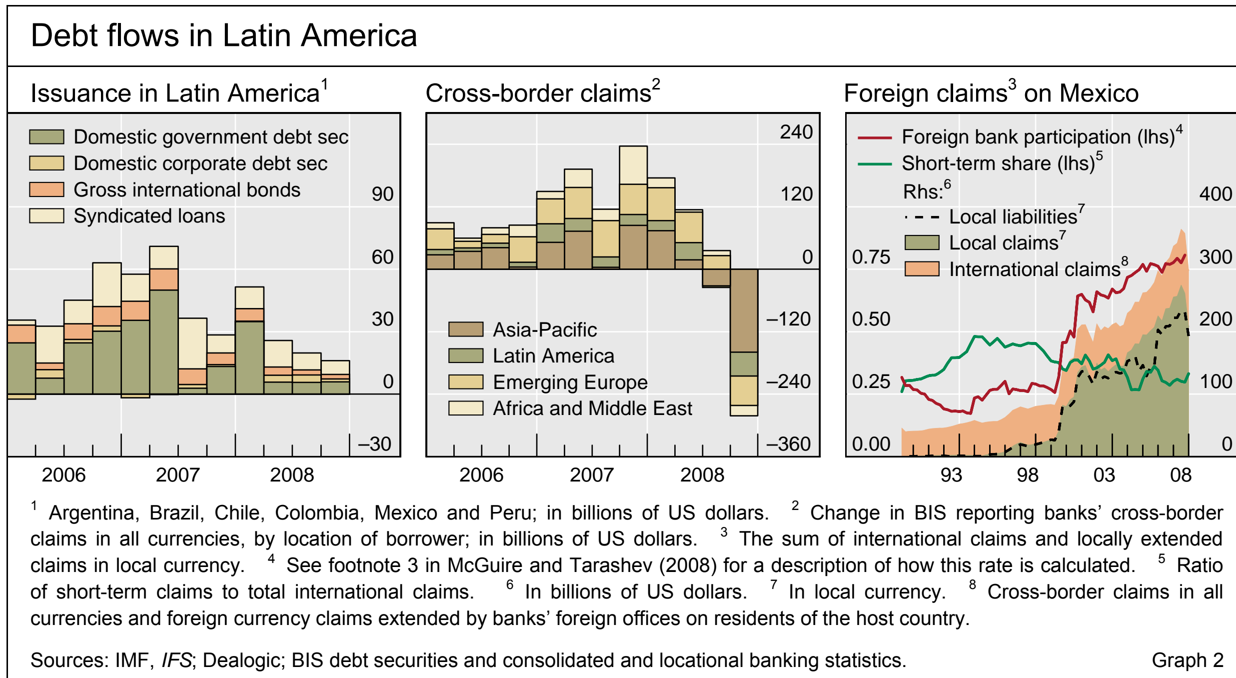
Cross-border bank financing fell after mid-September 2008 as international banks reduced new credit and refused to roll over existing loans. This was reflected in a sharp decline of signings of syndicated loans and cross-border financing in the region (Graph 2, left-hand and centre panels). Cross-border claims on Latin America declined by $46 billion in the fourth quarter, compared to $56 billion for emerging Europe and $160 billion for Asia and the Pacific. In percentage terms, cross-border bank claims on Latin America dropped by 40% on an annualised basis during the fourth quarter, comparable to contractions experienced during previous crises in the region.

A noteworthy development is that a large proportion of foreign banks' operations are now local rather than international. For example, in Mexico there is a large foreign bank presence and most foreign bank credit takes the form of local claims (Graph 2, right-hand panel). By contrast, earlier in this decade Latin America had a relatively large share of international claims. Locally booked claims in the region tend to be funded locally (ie in the borrowing country), and could therefore be more stable than (external) cross-border financing (Moreno and von Kleist (2007), Jara and Tovar (2008), McGuire and Tarashev (2008)).[7] Indeed, recent experience suggests that the shift may have stabilised financing in the region: as noted in the Highlights section in this issue, exchange rate adjusted local claims in local currency have remained relatively stable in many EMEs, including Chile and Mexico, even as international claims have declined sharply.

… and a plunge in international bond financing

As for international bond financing, issuance plummeted (Graph 2, left-hand panel), particularly for borrowers in the corporate sector, which have the

[7] Peek and Rosengren (2000) document great volatility of cross-border flows in the Latin American case before 2000.



Debt flows in Latin America

[1] Argentina, Brazil, Chile, Colombia, Mexico and Peru; in billions of US dollars. [2] Change in BIS reporting banks' cross-border claims in all currencies, by location of borrower; in billions of US dollars. [3] The sum of international claims and locally extended claims in local currency. [4] See footnote 3 in McGuire and Tarashev (2008) for a description of how this rate is calculated. [5] Ratio of short-term claims to total international claims. [6] In billions of US dollars. [7] In local currency. [8] Cross-border claims in all currencies and foreign currency claims extended by banks' foreign offices on residents of the host country.

Sources: IMF, *IFS*; Dealogic; BIS debt securities and consolidated and locational banking statistics. Graph 2

greatest external refinancing needs.[8] However, in some countries, such as Chile and Colombia, there was some continued issuance of local bonds. This is consistent with the view that local capital markets may have to some extent acted as a "spare tyre" during the crisis, reducing vulnerabilities to declines in international bond finance (see Box 2 for further discussion).

Currency depreciation

Sharp currency depreciations …

The significant reversal in capital flows, the collapse in commodity prices and the deterioration of confidence following the Lehman Brothers bankruptcy triggered sharp currency depreciations and higher costs of external financing across the region (Graph 3, left-hand panel). Currency dynamics in Brazil and Mexico were particularly volatile, fuelled by the increased demand for dollars as some large corporations sought to close unhedged foreign currency positions, often incurring large losses as they did so (see Box 1). Depreciation was not quite as steep in countries such as Chile, where firms were not exposed to such losses, or Colombia, where firms were constrained by law in the risks they could take in the foreign exchange derivatives market.

The size of the exchange rate adjustment was very large. However, four features may have dampened any disruptive effects: (i) the widespread use of flexible exchange rate regimes, which reduced incentives for speculative attacks; (ii) the limited exchange rate pass-through to inflation; (iii) lower currency mismatches, as well as the lower levels of dollarisation across the region; and (iv) the greater credibility of central banks, which may also have contributed to curbing destabilising speculation and limiting the exchange rate

[8] External refinancing needs for the corporate sector in Latin America are estimated at 8% of GDP. This compares favourably with Asia (9%) and emerging Europe (23%). See IMF (2009a).

Box 2: Performance of domestic bond markets during the current crisis

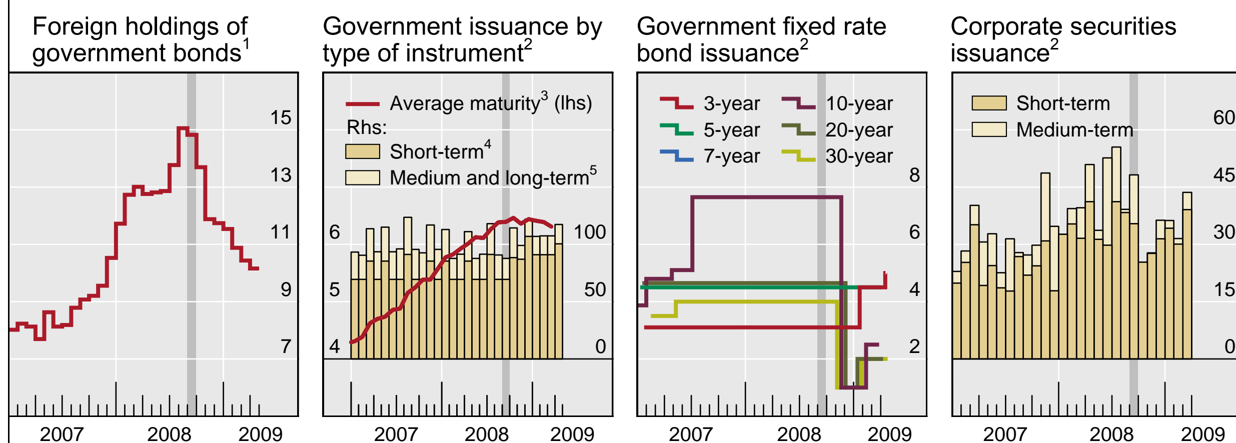
It has been argued that domestic bond markets could provide a "spare tyre" to offset the withdrawal of external financing during periods of financial stress. However, the performance of these markets during the current crisis has been mixed. On the one hand, domestic government bond markets have provided a financing alternative and have exhibited as much resilience as international bond markets. On the other hand, foreign investors have tended to reduce their bond holdings and there has been a shift towards shorter-maturity instruments.[1]

Financing alternative for governments. Although domestic bond issuance in most of the region fell during autumn 2008, it later resumed at lower levels. Most governments have been able to roll over short-term debt, swap maturing for longer-maturity debt, or sell new debt.

Resilience of domestic government bond markets. While domestic bond returns became more volatile during the episode of stress that followed the Lehman episode, their volatility was lower than that for international bonds, and is now at levels comparable to those before the episode. To be sure, recent policy efforts to supply liquidity and to stabilise domestic bond markets may have played a role in the decline in volatility. Such performance suggests that, from the point of view of a Latin American resident whose revenues and expenditures are to a large extent in local currency (eg a government), there are advantages to relying on domestic markets for financing.[2]

Lower foreign investor holdings. This is illustrated by the experience of Mexico, which has one of the most developed and open domestic bond markets in Latin America. The share of foreign holdings of government bonds declined abruptly after the Lehman bankruptcy. The market was disrupted, and there was a sharp increase in bond yields, particularly at longer maturities (Graph A, first panel). To satisfy the demand for short-term instruments and counter the rapidly falling demand for long-term bonds, the Mexican Treasury reduced long-term bond issuance during the fourth quarter of 2008 (both for fixed rate and inflation-indexed instruments) and increased the issuance of shorter-term instruments (Graph A, second and third panels).

Features of domestic government and corporate debt securities in Mexico



The shaded area indicates the month of September 2008.

[1] As a percentage of total government bonds outstanding. [2] In billions of pesos. [3] Of outstanding government securities, in years. [4] Cetes. [5] Bondes-D (variable rate), UDI bonds (inflation-linked) and fixed rate bonds.

Source: Bank of Mexico. Graph A

Shift towards shorter maturity instruments. In Mexico, private domestic issuance (financial and non-financial) was disrupted. No medium-term bond issues were made during October and November (Graph A, fourth panel). The issuance of short-term securities also declined, but remained at levels comparable to those seen during 2007. Across the region there have been some exceptions in which highly rated corporates placed new debt at relatively long maturities. For instance, this is the case of private banks in Colombia (eg Bancolombia and Davivienda).

Overall, the performance of local currency bond markets as an alternative to international bond financing during this crisis has been mixed. This may reflect a less advanced stage of development

and the severity of the global shock. An important issue for policy is that local currency funding for the government appears to have been more stable than funding for corporations.

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[1] Over the past decade bond markets in the region have deepened, becoming the main source of debt financing. In 2008, outstanding domestic debt securities reached an average of 37% of GDP, compared to 9.6% for international debt securities. For an overview of the development of these markets, see Tovar and Quispe-Agnoli (2008), Jeanneau and Tovar (2006, 2008), BIS (2007) and Scatigna and Tovar (2007). [2] The comparison may not be entirely fair because efforts to supply liquidity and to stabilise domestic bond markets may have helped reduce volatility in domestic bond markets.

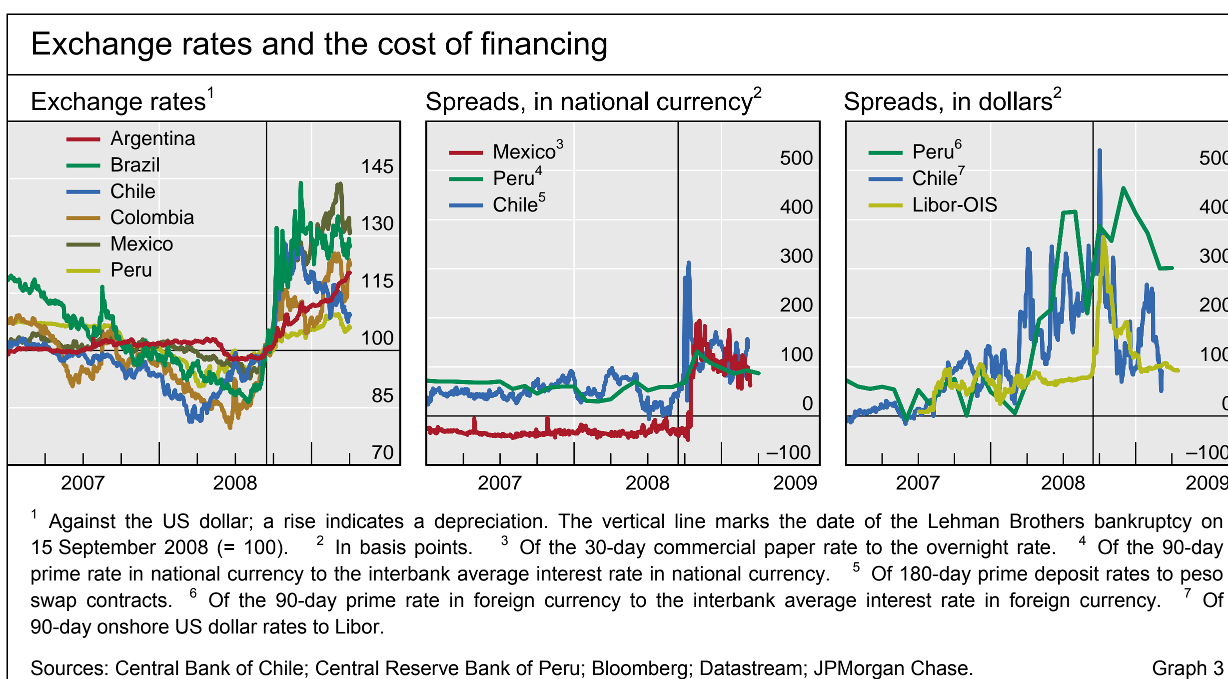
pass-through to inflation. These factors facilitated the policy responses discussed below.

Higher costs of foreign currency financing

… and tighter financing conditions

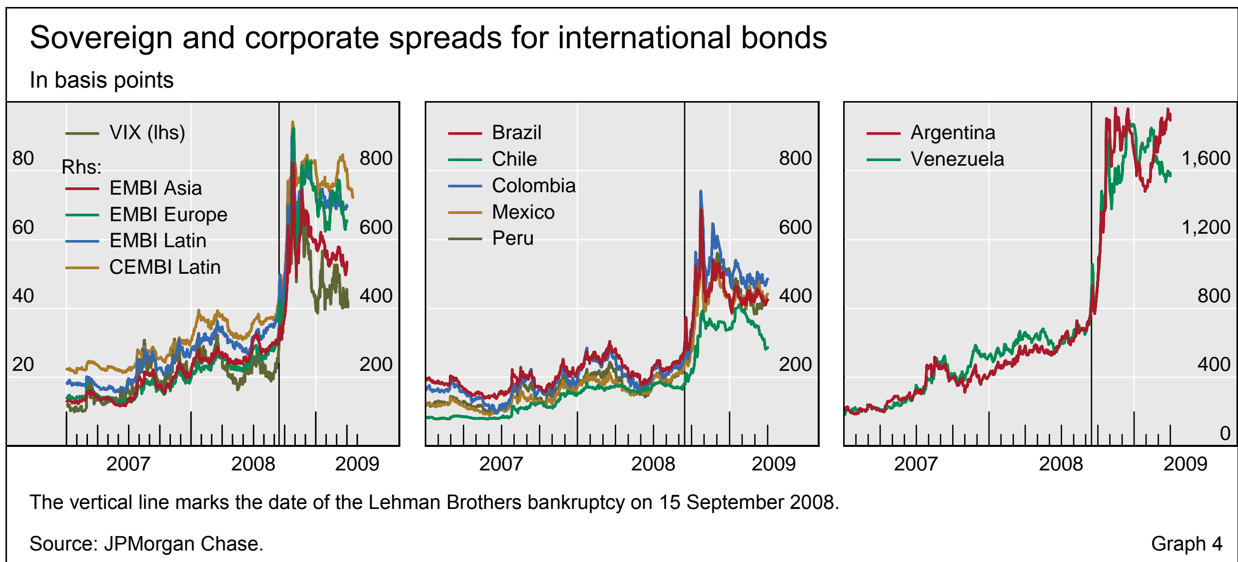
The increase in the cost of external financing – usually denominated in US dollars – took several forms. For example, in Peru, the 90-day prime rate in foreign currency rose relative to the interbank average interest rate in foreign currency (Graph 3, right-hand panel). In Chile, the spread between the US dollar rates implied by the foreign exchange swap market rose sharply, reaching over 500 basis points above Libor. This reflected disruptions in the FX swap markets. Furthermore, dollar-denominated liquidity lines that small banks used to onlend to exporter clients dried up or became too expensive.

Spreads on Latin American sovereign external debt widened to a peak of 914 basis points after the Lehman bankruptcy, an increase of 135%, and have remained at decade-high levels since (Graph 4). The widening in spreads was highly synchronised across emerging markets and appeared to be correlated with fluctuations in the VIX index, a widely used proxy for risk aversion. However, country-specific factors also played a role. Spreads widened the most in Argentina and Venezuela, two economies which followed heterodox economic policies during the boom years (Graph 4, right-hand panel).



[1] Against the US dollar; a rise indicates a depreciation. The vertical line marks the date of the Lehman Brothers bankruptcy on 15 September 2008 (= 100). [2] In basis points. [3] Of the 30-day commercial paper rate to the overnight rate. [4] Of the 90-day prime rate in national currency to the interbank average interest rate in national currency. [5] Of 180-day prime deposit rates to peso swap contracts. [6] Of the 90-day prime rate in foreign currency to the interbank average interest rate in foreign currency. [7] Of 90-day onshore US dollar rates to Libor.

Sources: Central Bank of Chile; Central Reserve Bank of Peru; Bloomberg; Datastream; JPMorgan Chase. Graph 3



Sovereign and corporate spreads for international bonds

In basis points

The vertical line marks the date of the Lehman Brothers bankruptcy on 15 September 2008.

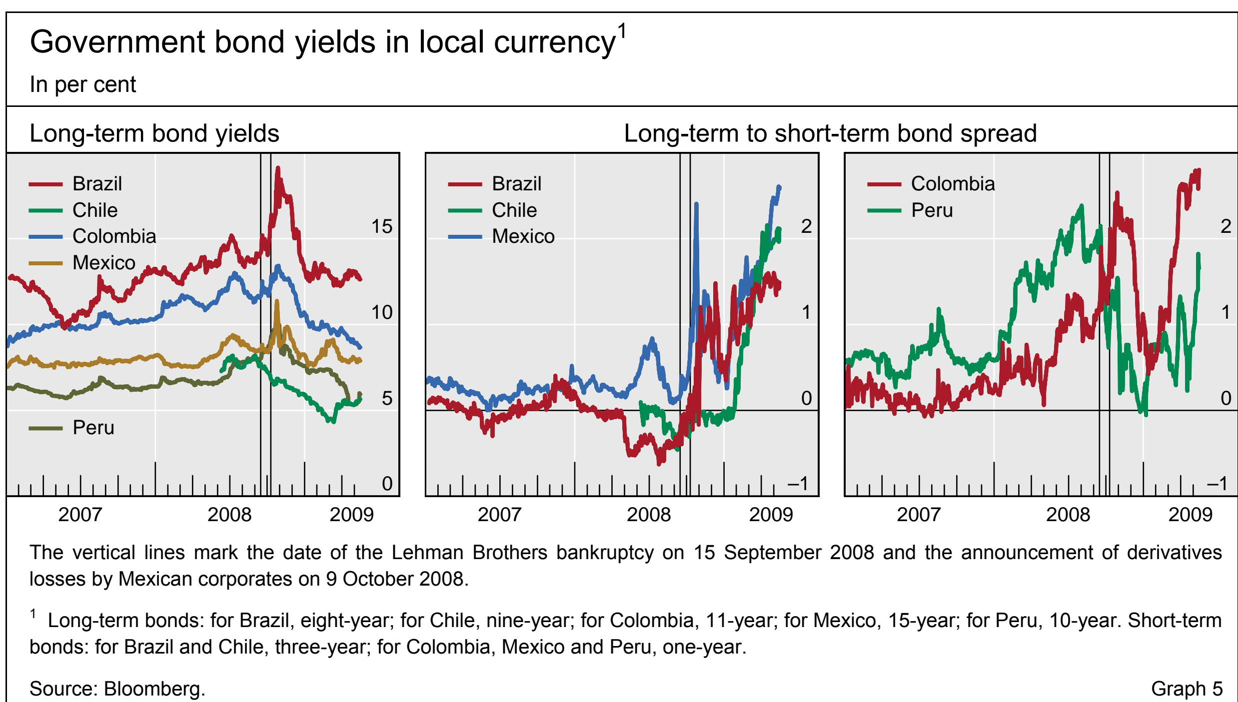
Source: JPMorgan Chase. Graph 4

Furthermore, as might be expected, countries with lower sovereign ratings experienced larger increases in spreads.

Tightening in domestic funding markets

Domestic financing costs increase

Domestic funding markets were greatly affected by the crisis as well. In Argentina, the three month interbank-overnight spread widened. In Mexico, there were sharp increases in commercial paper rates, reflecting a drying-up of financing in that market segment. In Chile, local peso money markets were subject to significant pressure, as seen in the widening spread between prime deposit rates and the implicit interbank term rate in swap contracts (Graph 3, centre panel).[9] In Brazil, domestic interest rates for small and medium-sized



Government bond yields in local currency[1]

In per cent

The vertical lines mark the date of the Lehman Brothers bankruptcy on 15 September 2008 and the announcement of derivatives losses by Mexican corporates on 9 October 2008.

[1] Long-term bonds: for Brazil, eight-year; for Chile, nine-year; for Colombia, 11-year; for Mexico, 15-year; for Peru, 10-year. Short-term bonds: for Brazil and Chile, three-year; for Colombia, Mexico and Peru, one-year.

Source: Bloomberg. Graph 5

[9] See García (2009) for a detailed account of this episode.

banks increased as local asset managers moved their deposits to larger banks in search of higher-quality deposits. More recently, funding markets have remained strained, notwithstanding some reductions in rates at short maturities.

Longer-term government bond yields also increased for all maturities (Chile being the main exception). In Brazil, Colombia and Mexico yields rose sharply, particularly at the long end of the curve, reflecting the fact that investors felt more secure in shorter-dated securities. However, bond yields then fell across the region starting in late 2008, largely in response to expectations of monetary easing, which were driving the short end of the curve. Thus, domestic market interest rates are currently well below the levels they reached ahead of the Lehman failure (Graph 5, left-hand panel). In spite of these declines, the spreads between long-term and short-term bond yields have risen (Graph 5, centre and right-and panels).

Policy responses and issues

Policymakers provided liquidity …

As they entered the current crisis, many Latin American sovereigns had reduced or stabilised their external debt, but private external borrowing had either increased or remained high. Central banks thus sought to provide foreign currency liquidity to the private sector, to ensure both the continued operation of foreign exchange markets and the continued availability of external financing, including trade finance. Central banks also intervened to counteract tighter financial conditions in domestic funding and credit markets.

Foreign currency liquidity and external financing

… using a variety of instruments

Most central banks in the region supplied foreign currency liquidity through intervention or operations in the foreign exchange market, including foreign exchange spot, repo and swap transactions. In some cases, reserve requirements on foreign currency deposits were lowered.[10] The Central Bank of Brazil set up facilities to provide trade finance and also to help companies roll over their foreign debt.[11]

Foreign exchange market intervention has been an important way of providing foreign currency liquidity, although it has generally been scaled back in 2009 as foreign exchange markets stabilised (Graph 6). There was some variation in intervention tactics. For example, some countries focused on operations in the spot market, while Brazil and Chile implemented a large number of operations in the swap market. One explanation for the latter is that foreign exchange swap markets are active in Brazil and Chile. Another

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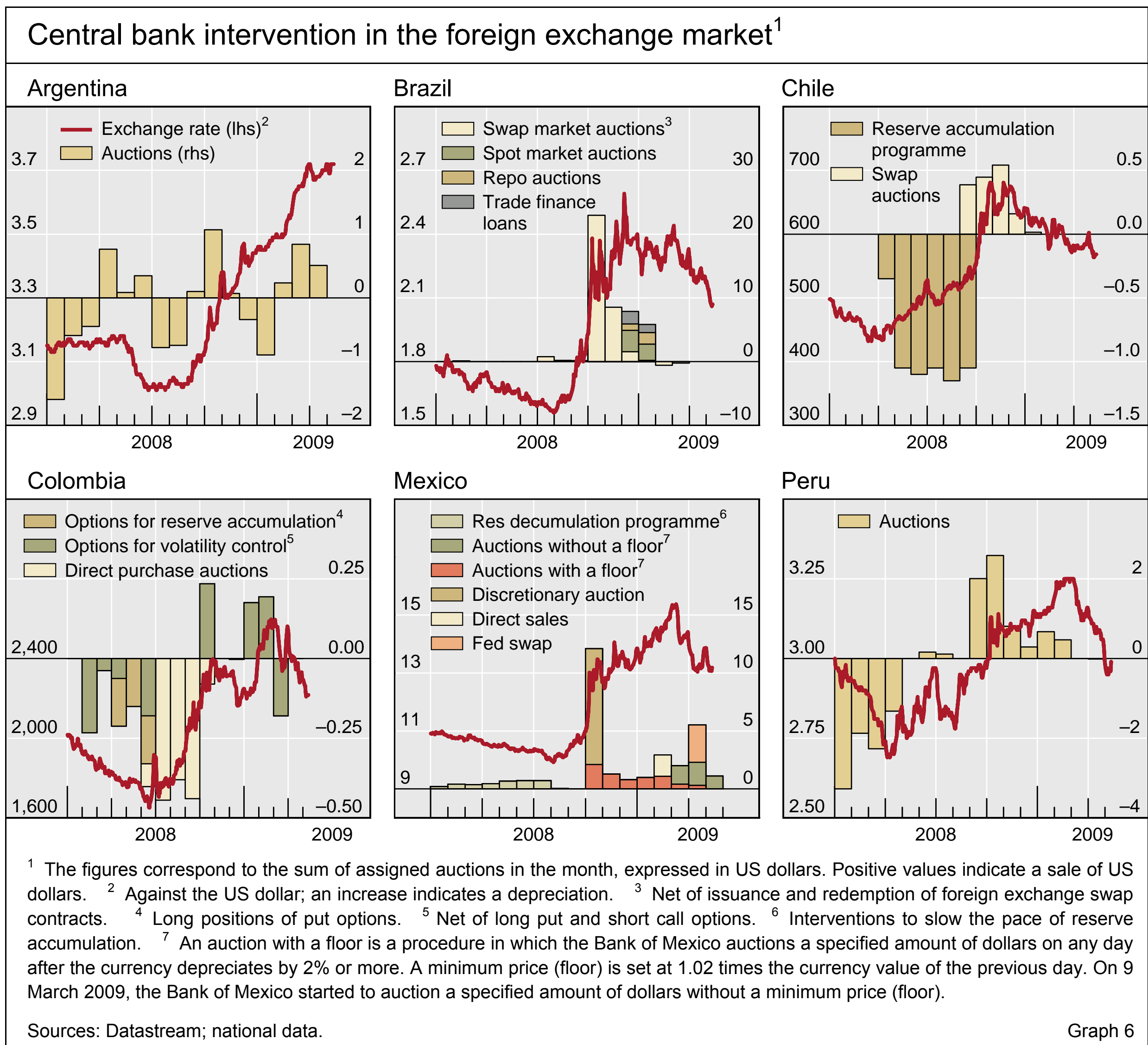
[10] For example, the Central Reserve Bank of Peru lowered the marginal reserve requirement on foreign currency from 49% in October to 30% in December 2008. In December, the legal reserve requirement on foreign currency was lowered from 9.0% to 7.5% and in March 2009 from 6.5% to 6.0%.

[11] Foreign currency trade finance in the region has also been supported by international organisations. For example, between July 2008 and March 2009 the International Finance Corporation increased trade finance guarantees in Latin America and the Caribbean by 86% over a year earlier, to $520 million.



Central bank intervention in the foreign exchange market[1]

[1] The figures correspond to the sum of assigned auctions in the month, expressed in US dollars. Positive values indicate a sale of US dollars. [2] Against the US dollar; an increase indicates a depreciation. [3] Net of issuance and redemption of foreign exchange swap contracts. [4] Long positions of put options. [5] Net of long put and short call options. [6] Interventions to slow the pace of reserve accumulation. [7] An auction with a floor is a procedure in which the Bank of Mexico auctions a specified amount of dollars on any day after the currency depreciates by 2% or more. A minimum price (floor) is set at 1.02 times the currency value of the previous day. On 9 March 2009, the Bank of Mexico started to auction a specified amount of dollars without a minimum price (floor).

Sources: Datastream; national data. Graph 6

explanation is that in contrast to spot transactions, swaps do not deplete foreign reserves as they involve the reversal of the foreign currency sale by the central bank at some future date.

Dampening FX volatility rather than targeting a level

Some of the foreign exchange market intervention was non-discretionary, to underscore that central banks were not targeting an exchange rate level, which past experience has shown can trigger speculative attacks. For example, in October 2008, Mexico adopted a rule according to which the central bank would auction $400 million (lowered in March 2009 to $300 million) on any day after the exchange rate depreciated by 2% or more. A minimum price or floor was set at 1.02 times the average currency value of the previous day. Colombia also followed a rule in which large exchange rate movements triggered auctions of so-called volatility "call" options (giving market participants the option to buy foreign currency from the central bank). This mechanism was triggered in October 2008, and in the first two months of 2009.[12] More recently, the Central Bank of Mexico implemented two important

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[12] The Colombian central bank sold $235 million in October 2008 and $369 million in the first two months of 2009.

changes to its intervention procedures. The first was to conduct daily auctions with no price floor (in recent weeks these have accounted for a large part of the daily auctions), and the second was direct sales in its foreign exchange market operations.

Foreign reserves exceed adequacy thresholds ...

Though intervention in foreign exchange markets was in some cases associated with depletions of foreign exchange reserves – as much as 15% compared to mid-2008 levels in Peru and 7% in Brazil – conventional indicators suggest that reserve holdings are still ample (Table 1). Foreign reserves in Latin American economies on balance increased in 2008, and were much larger than in 1996, prior to the Asian crisis. Indicators of foreign reserve adequacy are generally well above conventional thresholds of 100% (ie one year's cover) relative to short-term external debt or 25–50% (three to six months' foreign exchange cover) relative to imports.

At the same time, foreign reserve adequacy depends in part on other characteristics of the economy not captured by conventional indicators. For example, despite comparatively low reserves and falling export revenues, Chile's foreign reserves have been remarkably stable. One explanation is that both the government (through its sovereign wealth fund) and households (through pension funds) have very large holdings of foreign assets, which has contributed to reassuring markets. Reserves have also been stable in Colombia; in this case, government regulations limiting domestic US dollar

Foreign reserve adequacy[1]

Outstanding year-end reserves position

	In billions of US dollars				As a percentage of:								
					GDP	Short-term external debt[2]				Imports			
	96	07	08	09	08	96	07	08	09	96	07	08	09
Argentina	18	44	44	44	14	60	200	279	274	75	99	77	84
Brazil	58	179	193	186	12	111	292	342	329	109	149	111	115
Chile	16	17	23	24	14	201	86	113	114	89	38	40	47
Colombia	9	20	23	23	9	142	201	390	352	69	61	58	57
Mexico	19	86	94	84	9	60	256	241	218	21	31	30	29
Peru	11	27	30	30	24	166	284	248	243	135	137	106	111
Venezuela	11	24	33	19	10	273	347	972	569	125	57	72	42
Memo:													
Latin America[3]	*142*	*397*	*440*	*410*	*13*	*145*	*238*	*369*	*300*	*89*	*82*	*71*	*69*
Asia[4]	*246*	*2,327*	*2,685*	*2,712*	*40*	*284*	*624*	*889*	*908*	*60*	*120*	*106*	*120*
Southeast Asia[5]	*91*	*270*	*283*	*289*	*27*	*119*	*431*	*500*	*498*	*39*	*64*	*54*	*60*
Central Europe[6]	*40*	*124*	*133*	*138*	*17*	*383*	*177*	*169*	*175*	*49*	*31*	*29*	*33*
Other[7]	*29*	*569*	*513*	*465*	*15*	*59*	*260*	*279*	*254*	*19*	*96*	*70*	*70*
Total EME's[8]	*548*	*3,688*	*4,054*	*4,015*	*22*	*188*	*343*	*452*	*429*	*58*	*80*	*68*	*72*

[1] For the outstanding year-end position, regional aggregates are the sum of the economies listed; for percentages, simple averages. For 2009, latest available data. [2] Consolidated cross-border claims to all BIS reporting banks on countries outside the reporting area with a maturity up to one year plus international debt securities outstanding with a maturity of up to one year. [3] Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. [4] China, Chinese Taipei, India and Korea. [5] Indonesia, Malaysia, the Philippines and Thailand. [6] The Czech Republic, Hungary and Poland. [7] Russia, South Africa and Turkey. [8] Sum of the regions listed.

Sources: IMF; Thomson Reuters; national data. Table 1

interbank loans and foreign exchange counterparty risk appear to have played a role. More generally, it has been argued that the commitment of international reserves in response to the crisis has been lower in Latin America than in some other EMEs (eg Korea and Russia). This could reflect lower perceived exposures to external refinancing risk or to currency mismatches in Latin America.[13]

… with EMEs now also supported by external resources

External resources have provided significant additional support to Latin American EMEs during the current crisis. In October 2008 large reciprocal currency arrangements were established by the central banks of Brazil and Mexico with the US Federal Reserve, totalling $30 billion each (these arrangements will expire on 30 October 2009).[14] More recently, G20 initiatives have increased resources for international financial institutions. In particular, at its 2 April 2009 summit the G20 called for a tripling of IMF resources to $750 billion, a new SDR allocation (which would increase the availability of foreign reserves) of $250 billion, $100 billion of additional lending by multilateral development banks and the allocation of $250 billion for trade financing. In the meantime, as part of its efforts to enhance the scope and effectiveness of its crisis-related operations, the IMF has created the FCL aimed at countries with sound fundamentals. Two Latin American economies, Colombia and Mexico, have obtained access to the FCL. The financing is for one year, and amounts to $47 billion for Mexico and $10.5 billion for Colombia.

Stabilising domestic markets

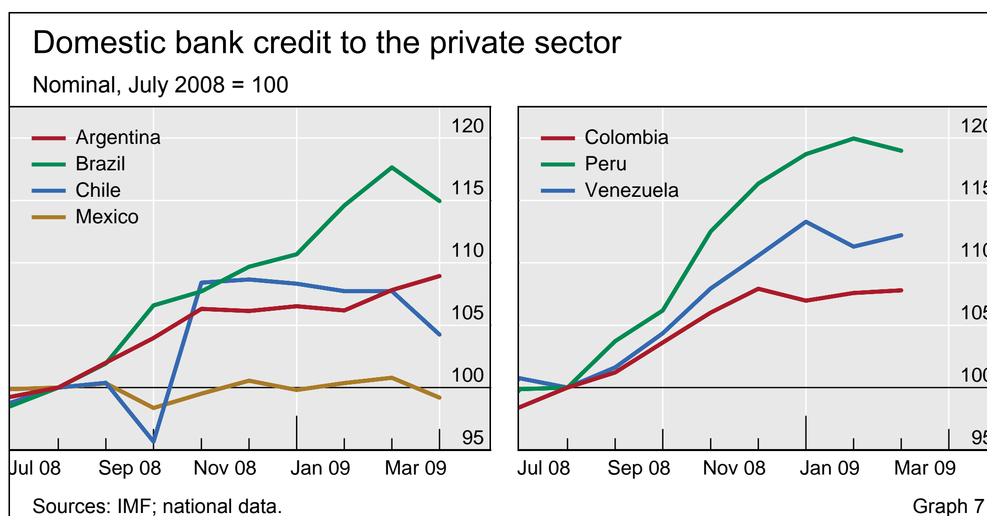
Interest rates lowered with a lag …

As discussed above, the crisis was also associated with tighter financial conditions in domestic markets, and authorities responded with a variety of policy measures. There was no immediate systematic effort to offset tighter financing conditions by lowering policy rates. Central banks delayed lowering rates until late 2008 or early 2009, after much of the initial market turbulence following the Lehman bankruptcy had subsided. This reflected continuing concerns about inflationary pressures and the potential impact of any additional exchange rate depreciation that might accompany lower rates. Since late 2008, however, rates have fallen sharply in Brazil, Chile and Colombia as the focus shifted to the impact of slowing growth. In contrast, in Mexico and Peru policy rates have declined much more gradually.

Central banks also modified their operating procedures. Apart from implementing open market operations to dampen volatility in short-term interest rates, some central banks also increased the range of assets accepted as collateral to improve access to short-term funding (eg Argentina, Brazil, Mexico and Peru).

[13] See Aizenman (2009).

[14] The provision of Federal Reserve swap lines for Brazil and Mexico is unprecedented. Whether this signals a new approach to interacting with emerging market central banks or is a temporary response to the global crisis remains uncertain. The drawdown of these resources has been relatively recent and comparatively limited. On 21 April 2009 the Bank of Mexico auctioned $4 billion out of this swap line to support the rollover of maturing debt in the Mexican corporate sector. However, only $3.2 billion was placed.



Domestic bank credit to the private sector

Nominal, July 2008 = 100

Sources: IMF; national data. Graph 7

… and reserve requirements reduced

Many central banks also relied heavily on lower domestic currency reserve requirements: in Peru, for example, marginal reserve requirements were lowered from 25% in September 2008 to 7.5% in December 2008 and to 6% by March 2009. Brazil's reserve requirements were also lowered significantly from much higher levels, and in Colombia reserve requirements were lowered and marginal reserve requirements removed.

Steps were also taken to maintain the flow of credit to offset the possible impairment of the transmission mechanism of monetary policy. For example, to improve funding conditions in the commercial paper market, the Mexican government extended guarantees to issuance by some corporations. In October 2008, state-owned development banks in Mexico offered partial guarantees to facilitate the rollover of short-term domestic debt. Measures were also taken to support the operation of banks. For example, in Brazil, state-owned financial institutions were authorised to buy shares in banks facing difficulties. Government institutions were also authorised to purchase the assets of local banks (particularly small and mid-sized banks).

Policies apparently effective

The effectiveness of measures to support domestic interbank and credit markets may be assessed in two ways. One is the extent to which interbank rates at longer maturities have stabilised. As noted above, spreads of rates at longer maturities to overnight rates have fallen from their peaks, suggesting a certain degree of normalisation. Another is the growth in domestic credit to the private sector. Here there appear to be wide variations in performance across countries. Credit has broadly remained on a rising trend in Brazil, Peru and Venezuela but has flattened in Argentina and Colombia (Graph 7). In contrast, in Chile and Mexico credit dropped in September 2008 but recovered thereafter, with particularly sharp swings in Chile. Nevertheless, while a collapse in bank credit of the kind observed in previous crises has so far been avoided, the risk remains high that credit will fall sharply due to the ongoing economic downturn.

Conclusions

The world economy is experiencing a severe economic and financial crisis. Despite initial signs of decoupling, Latin America was strongly affected after the Lehman Brothers bankruptcy, as were other EME regions. Nevertheless, compared to previous crises, the disruption to the functioning of domestic financial markets has so far been less severe. The unprecedented (non-reserve) foreign asset accumulation by residents in some countries and the progress made in developing domestic debt markets (particularly in government securities) appear to have played important roles. Furthermore, policy responses across the region were significant, and in many cases pre-emptive. Nevertheless, new vulnerabilities became apparent, such as the corporate foreign currency exposures from derivatives transactions that led to bankruptcies of leading firms, and which contributed to foreign exchange or domestic market instability in Brazil and Mexico.

The recent experience with the crisis offers a number of policy lessons. First, there is a need to ensure that risks assumed in financial markets are well understood by market participants and policymakers. This could help prevent bankruptcies of large and otherwise economically viable firms and disruptions to local funding markets of the kind observed in the region during the current crisis.

Second, while local currency bond markets could play a “spare tyre” role and effectively substitute for foreign currency financing, in Latin America more work is needed to deepen these markets and to develop a liquid and diversified investor and issuer base. Financing problems in the corporate sector also indicate that the development of corporate bond markets remains a priority.

Third, public sector efforts to reduce external vulnerability over the past decade have enhanced the ability to respond to crises. In particular, the recent crisis illustrates the importance of having large foreign currency resources available to cope with external shocks. Central banks have drawn on international reserves to stabilise foreign exchange markets and to support the flow of foreign currency financing. Greater credibility has also given them some scope to inject domestic liquidity and lower interest rates countercyclically. However, the crisis has revealed that a stronger public sector could not completely offset private sector vulnerabilities.

Finally, recent initiatives have significantly increased the amount of external foreign currency resources available to EMEs and broken new ground in how such resources are provided (eg through the Federal Reserve’s reciprocal currency arrangements or the IMF’s FCL). An important question is whether these arrangements will be seen as sufficiently large and durable as to provide an alternative to costly self-insurance via reserve accumulation in EMEs.

References

Aizenman, J (2009): “Reserves and the crisis: a re-assessment”, *Central Banking*, vol 19, no 3.

Bank for International Settlements (2007): “Financial stability and local currency bond markets”, *CGFS Papers*, no 28, June.

——— (2009): “Capital flows and emerging market economies”, *CGFS Papers*, no 33, January.

Caruana, Jaime (2009): "Financial globalisation, the crisis and Latin America", speech at the XLVI Meeting of Central Bank Governors of the American Continent and LXXXVII Meeting of Central Bank Governors of Latin America and Spain, Punta Cana, Dominican Republic, 14 May.

García, P (2009): “Financial turmoil, illiquidity and the policy responses. The case of Chile”, *Economic Policy Papers*, no 29, Central Bank of Chile.

Inter-American Development Bank (2009): *Policy tradeoffs for unprecedented times: confronting the global crisis in Latin America and the Caribbean*.

International Monetary Fund (2009a): *Global Financial Stability Report: responding to the financial crisis and measuring systemic risk*, Washington, DC, April.

——— (2009b): *Regional Economic Outlook, Western Hemisphere: stronger fundamentals pay off*, Washington, DC, May.

Jara, A and C E Tovar (2008): “Monetary and financial stability implications of capital flows in Latin America and the Caribbean”, *BIS Papers*, no 43, November.

Jeanneau, S and C E Tovar (2006): “Domestic bond markets in Latin America: achievements and challenges”, *BIS Quarterly Review*, June, pp 51–64.

——— (2008): “Financial stability implications of local currency bond markets: an overview of the risks”, *BIS Papers*, no 36, February, pp 65–87.

McGuire, P and N Tarashev (2008): “Bank health and lending to emerging markets”, *BIS Quarterly Review*, December.

Moreno, R and K von Kleist (2007): “What can BIS statistics tell us about the risks of crises in emerging markets?”, in “Research on global financial stability: the use of BIS international financial statistics”, *CGFS Papers*, no 29, December.

Peek, J and E Rosengren (2000): “Implications of the globalization of the banking sector: the Latin American experience“, *New England Economic Review*, September/October.

Scatigna, M and C E Tovar (2007): “Securitisation in Latin America”, *BIS Quarterly Review*, September, pp 71–82.

Tovar, C E and M Quispe-Agnoli (2008): "New financing trends in Latin America: an overview of selected issues and policy challenges", *Economic Review*, no 3, pp 1–14.