

World Economic and Financial Surveys

Regional Economic Outlook

Western Hemisphere **Stronger Fundamentals Pay Off**

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Preface

This May 2009 issue of the *Regional Economic Outlook: Western Hemisphere* (REO) was prepared by a team led by Steven Phillips and Ana Corbacho under the direction of David Robinson and Nicolás Eyzaguirre. This report reflects developments as of May 1, 2009. The team included Jorge Iván Canales-Kriljenko, Roberto Garcia-Saltos, Herman Kamil, Leandro Medina, Carolina Saizar, and Bennett Sutton. Specific contributions were made by Gabriel Di Bella, Bernhard Fritz-Krockow, Ewa Gradzka, Charles Kramer, Koshy Mathai, Kulwant Rai, Yan Sun and Chris Walker. Leandro Medina, Kulwant Rai, Bennett Sutton, Carolina Saizar, Cristina Barbosa, Carolina Griffiths, Joy Villacorte and Carolina Worthington provided research and production assistance.

Executive Summary

The global economy has fallen into recession, and faces a difficult outlook. Problems that originated in financial sectors of the United States and other advanced economies erupted into a full-blown crisis in the latter part of 2008. Almost immediately this triggered a steep drop in demand and a tightening of financial conditions worldwide. Policies have responded, but can only contain the damage, and the world economy is projected to contract by more than 1 percent in 2009, with the advanced economies performing the worst. Especially key to world recovery will be action to repair broken balance sheets of the financial system. (See the *World Economic Outlook* and *Global Financial Stability Report*).

In that context, this Regional Economic Outlook highlights a contest now playing out in the LAC region, as a constellation of adverse external shocks tests the region's progress in developing resilience.

The external shocks hitting the region are wide-ranging and severe—but differ in strength across LAC countries. All have sustained a loss of external demand, and many also have suffered terms of trade losses, as commodity export prices plunged. Countries with relatively larger manufacturing sectors have been especially hard hit. Income from remittances and tourism sources is also sinking. And external financing has become more costly for all, with some borrowers cut off from financing.

Against all this, the region has accumulated many sources of strength and resilience during this decade—though again in varying degrees. As analyzed previously in the *Regional Economic Outlook*, countries have made strides in strengthening fiscal positions and public debt structures, solidifying financial systems and their regulation, anchoring inflation expectations, and building more credible policy frameworks. And many more countries can count on more flexible exchange rates as part of their adjustment process.

As a consequence of these preparations—and for the first time—many countries of the region have been able to respond to the external crisis with active policies to boost output and employment. This is in marked contrast to the past, when home-grown vulnerabilities often forced policies to react defensively, to avoid a spiral into crisis.

Such preparations point to a better outlook for the LAC region: while spillovers of the global crisis have caused activity to contract, a return to growth is expected within the course of 2009, ahead of the recovery in advanced economies. Growth performance also will be favorable relative to past global downturn episodes, when the region typically performed substantially below the world average.

The message emerging from the LAC region is that policy preparations pay important dividends when external conditions deteriorate. Such preparations serve to dampen shocks, but also largely determine the room for near-term policy responses to support output and employment.

Given the severity of the global financial crisis, this *Regional Economic Outlook* analyzes the conditions facing the region's financial system and the role played by global banks. After discussing the global economic outlook, including for the United States and Canada, we analyze the economic outlook for the LAC region, putting special emphasis on the transmission channels from the global crisis and the policy options available. In Chapter 3, we discuss the potential impact from the crisis on the region's banking system, and identify potential stress in the loan portfolio as the main risk going forward. In Chapter 4, we analyze whether the global banks operating in the region could exacerbate, in the domestic market, the credit crunch observed worldwide. We document the role played by worsening global financial conditions in the contraction of credit from parent banks. Credit from local subsidiaries, which is more important in terms of size, has also been affected, but to a much lesser extent.

I. Global, U.S., and Canadian Outlook

Global and U.S. Outlook

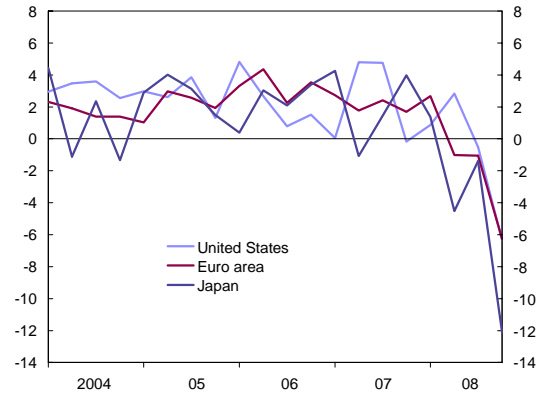
Just two years ago, things were completely different. Growth was strong, house prices and equity markets soared, the world was awash with liquidity, and the global search for yield squeezed interest rates and credit spreads. Along the way, financial institutions and households alike became too heavily leveraged. Meanwhile, financial innovation—especially the creation of exotic securities that were both highly rated and high yielding—exploited cracks in the regulatory framework, and the prevailing light regulatory touch failed to identify or to forestall the buildup of vulnerabilities. The system seemed to promote a virtuous circle, as long as asset prices rose and growth continued apace (Box 1.1).

But when asset prices and growth faltered, highly leveraged banks and households came under pressure, spinning into a vicious circle that in late 2008 culminated in a level of financial turbulence unseen in the postwar period, with major internationally active financial institutions failing or being intervened, and segments of capital markets freezing. In the wake of the financial turbulence, economic activity, employment, and trade all collapsed. Major economies underwent their sharpest declines in decades, with real GDP in the euro area and the United States falling by over 6 percent in the fourth quarter of 2008, and in Japan by over 12 percent (quarter-on-quarter, at a seasonally adjusted annualized rate).

While financial market conditions have improved from the stress levels reached in late 2008, strains remain pronounced. As a result, the near-term outlook for world growth is weaker than at any other time since the Great Depression. With financial markets in turmoil, firms and individuals

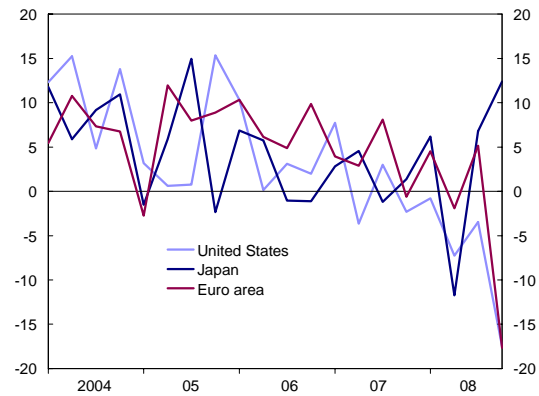
Note: This chapter was prepared by Charles Kramer and Koshy Mathai.

Real GDP Growth in Advanced Economies
(Quarterly percent change, seasonally adjusted, annualized)



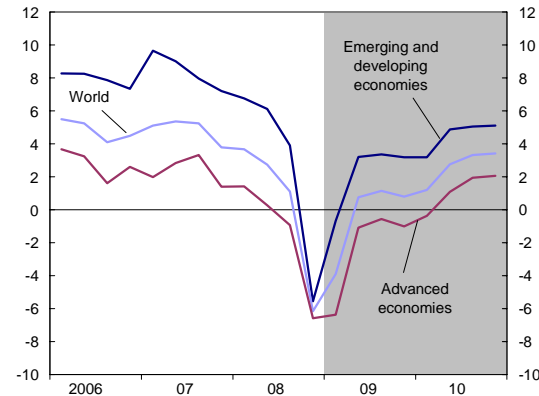
Source: Haver Analytics.

Growth of Real Imports
(Quarterly percent change, seasonally adjusted, annualized)



Source: Haver Analytics.

Real GDP Growth
(Quarterly percent change, seasonally adjusted, annualized)



Source: IMF staff calculations.

Box 1.1. Lessons from the Crisis and the Regulatory Reform Agenda

Excessive leverage and risk taking were at the root of the current crisis, bred by a long period of low real interest rates, high growth, and policy failures. Serious shortcomings in the approach to financial regulation were exposed. Regulators failed to stem excessive risk-taking, partly because links between tightly regulated and less-regulated institutions were inadequately assessed. Policy responses were also hampered by fragmented regulatory structures, inadequate disclosure of risks, and weaknesses in crisis management and bank resolution frameworks.

This has led to a global debate on the reforms needed to close the gaps in financial supervision and prevent the recurrence of problems that led to the current crisis. Five key areas arise as priorities for reforms:

- *Expanding the perimeter of regulation by reevaluating what is considered a systemic institution, which would require strong regulation.* A fatal flaw in supervision was lax oversight of nonbank financial institutions.
- *Making consolidated supervision more effective.* This would entail resolving shortcomings in legal frameworks and creating mechanisms that institutionalize information sharing and cooperation. In advanced countries, supervisors often lacked the information and capacity to see the links between different types of financial institutions and instruments within a country, as well as links among financial institutions across countries.
- *Adapting existing regulatory and institutional practices to reduce procyclicality.* The excessive credit growth prior to the crisis, as well as the rapid deleveraging currently under way, may have been exacerbated by procyclical features of regulatory frameworks.
- *Strengthening public disclosure practices for systemic financial institutions and markets.* The crisis revealed extensive gaps in financial data disclosure and the understanding of underlying risks. Financial activities expanded in areas with few or no disclosure requirements, leaving regulators ill-equipped to assess risk concentrations.
- *Giving central banks a broader mandate for financial stability.* Under the broader mandate, safeguarding financial stability would mean that central banks should try to arrest excessive credit expansion and sharp runups in asset prices, which might have helped avoid the loose credit conditions in advanced economies that contributed to the current crisis.

Note: This box was prepared by Jorge Ivan Canales-Kriljenko, based on Rennhack and others (forthcoming) and IMF (2009).

starved of credit, and consumer confidence dropping amid rising unemployment and declining equity and housing wealth, IMF staff expect the world economy to contract by around 1½ percent in 2009 and grow only modestly in 2010. Trade volumes will be hit even more sharply, given widespread import compression and difficulties in trade finance, and capital flows into emerging markets will continue to fall substantially. What started as turbulence in advanced markets has now become a fully synchronous global recession, with

advanced economies, emerging markets, and low-income countries all entering severe downturns.

The United States has been the epicenter of the global turbulence. While the U.S. economy has officially been in recession since December 2007, there has been a particularly sharp downturn in most activity indicators since last fall. In the fourth quarter, real GDP shrank at one of the fastest rates of the postwar period, and the first quarter of 2009 is likely to be nearly as bad. More than 600,000 jobs were lost in each of the past 4 months, and the

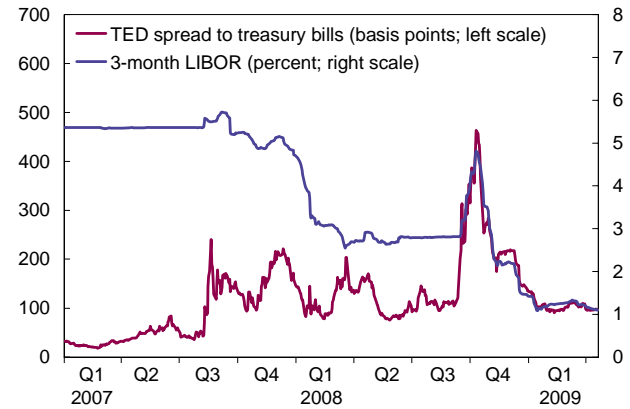
unemployment rate is now up to 8.5 percent, a 25-year high. Consumer confidence has hit new lows, and—some unexpected strength in January and February notwithstanding—real spending remains on a declining trend. Business fixed investment is plummeting, and a massive housing inventory overhang continues to weigh on residential construction, as well as prices. Collapsing foreign demand and dollar appreciation driven by flight-to-quality have led to a sharp drop in exports, compounding these difficulties. As a result, industrial production has fallen considerably, putting capacity utilization at new lows. This economic slack, in turn, has dampened price pressures and raised the specter of deflation.

Financial markets have endured dizzying gyrations since the last REO and remain considerably stressed. The bankruptcy of Lehman Brothers in September 2008 led to a period of remarkable turmoil, with liquidity drying up, money market, credit default swap (CDS), and corporate spreads spiking, and equities falling sharply. This turbulence prompted policy interventions—including the introduction of the \$700 billion Troubled Asset Relief Program in October as well as a variety of new Federal Reserve facilities aimed at private credit markets—that forestalled a systemic collapse but have not yet returned financial conditions to normal. Equity prices continued to drop through early March, particularly for financial institutions, and remain far below pre-Lehman levels. Financial spreads are still elevated and bank lending standards are still tight.

But successive expansions of the policy framework hold out the hope that financial stability can be reestablished. The Federal Reserve appropriately cut the policy rate target to near zero in December, committed to keeping it there for a long period, and has aggressively used both the size and composition of its balance sheet to unblock key credit markets. Congress in record time passed a multiyear fiscal stimulus package worth more than 5 percent of GDP. The U.S. Administration has put forward a housing plan with a number of new measures to limit preventable foreclosures and

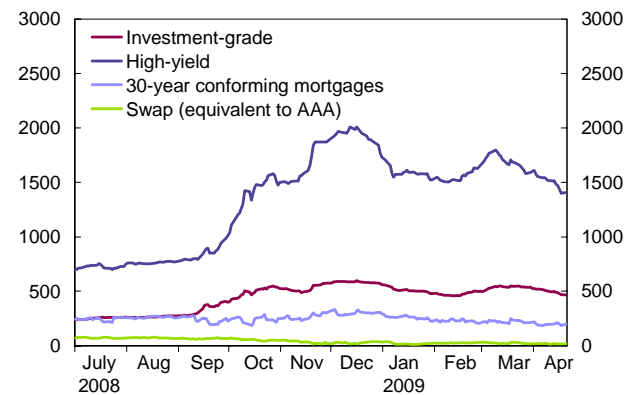
Selected Financial Market Indicators

Money Market Spreads



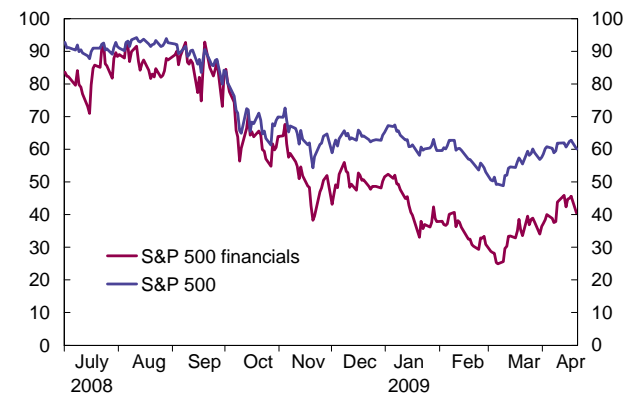
Corporate and Other Spreads

(Spread to 10-year treasury bills; basis points)



Equity Prices

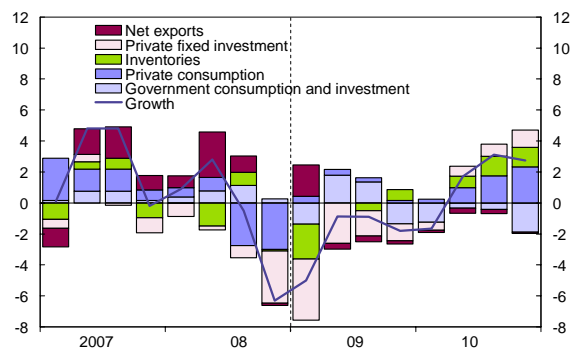
(July 1, 2008 = 100)



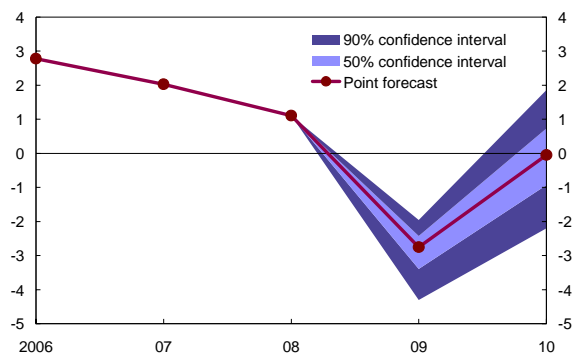
Sources: Bloomberg, L.P.; and IMF staff calculations.

United States: Forecasts for Growth and Inflation

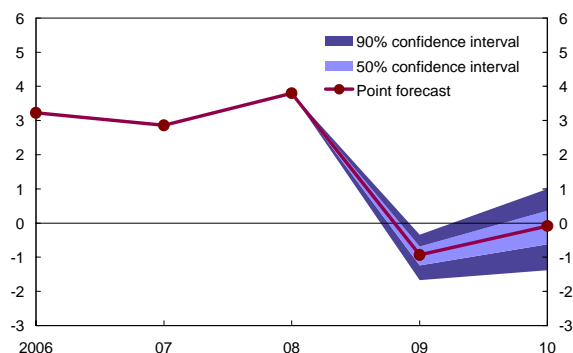
Contributions to Growth
(Percentage points)



Growth Forecast: Balance of Risks
(Percent)



Inflation Forecast: Balance of Risks
(Percent)



Sources: Haver Analytics; and IMF staff calculations.

stabilize home prices. And most important, it laid out in February a sensible Financial Stability Plan that includes conducting forward-looking stress tests of the largest banks, recapitalizing them as needed, and leveraging private capital to clean toxic assets from bank balance sheets under a Public-Private Investment Fund, whose details were further fleshed out in March.

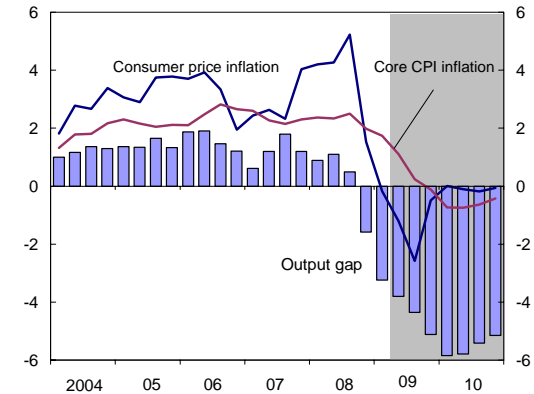
Some important aspects of the financial sector strategy, however, have yet to be announced, and implementation seems likely to take time. Clarity is still lacking on the strategy regarding possible government ownership of banks and on procedures for dealing with any nonviable but systemic banks. With stress test results not yet announced (as of May 3), and resolution likely to take some time beyond that, IMF staff expect financial conditions to remain at their current stressed levels through the first half of the year, starting to normalize only in the third quarter. Our earlier research, detailed in the November 2008 REO, suggests that macrofinancial linkages take up to two years to play out fully, and our projected trajectory of financial conditions implies a significant and protracted drag on growth.

IMF staff have thus marked growth down substantially to -2.8 percent in 2009 and to zero in 2010. The revision is justified mostly by financial conditions but also by weak incoming data, diminished export prospects, and a smaller and more backloaded stimulus package than was earlier assumed. Following steep declines in 2008Q4 and 2009Q1, according to IMF projections, the economy would start to benefit from fiscal stimulus. The impact of earlier financial shocks would continue to be felt, however, and growth would only get back to potential by the second quarter of 2010. The economy would have undergone nearly two years of subpar growth. Moreover, the unemployment rate would continue rising for several quarters more, peaking above 10 percent, and the output gap would close only by the end of 2014. All told, this would be the longest postwar recession as well as the most costly in terms of forgone output.

Slow growth in the revised forecast manifests itself in high unemployment, low and, for a while, even negative, inflation, and sharply decreasing imports. Given large projected output gaps, even growth in the recovery phase fails to put substantial pressure on wages and prices. Indeed, 12-month core CPI inflation is expected to be modestly negative through the end of 2010. Effective Federal Reserve communications are expected to anchor long-term inflation expectations—which currently remain at 2.4 percent—and prevent the onset of a deflationary spiral. With domestic demand shrinking, substantial import compression is forecasted, with volumes recovering only slightly in 2010. Moreover, while the rate of import growth is projected to eventually recover, the level of imports fails to rebound to its previous path. Exports are marked down even more severely than imports, however, and with the additional impact of higher oil prices, the current account deficit is wider than in the previous forecast, narrowing only to around 3 percent of GDP by 2014.

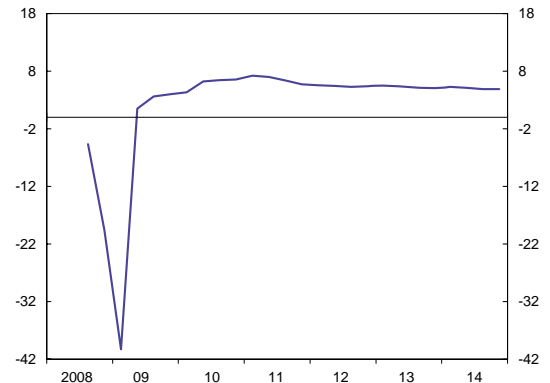
The forecast is substantially more pessimistic than consensus for 2010, but IMF staff nonetheless consider risks around the baseline to be tilted to the downside. The most recent Consensus Forecast envisages a -2.8 percent contraction in 2009, in line with our projection, but then a rapid rebound in 2010, with growth at +1.7 percent. While a V-shaped pattern was indeed characteristic of past U.S. business cycles, this seems unlikely this time, given delays in fixing the financial system and long-lasting impacts of financial shocks on growth. With our forecast so far to the left of Consensus, it is natural to consider upside risks, and indeed, a positive scenario would have the U.S. Administration quickly fleshing out and implementing a plan for cleaning up the banks, confidence quickly being restored, and growth recovering relatively rapidly. Given political constraints and heightened global uncertainty, however, Fund staff see as more likely an adverse scenario in which consensus on a financial rescue takes substantially longer to achieve, financial conditions continue to worsen, and real activity remains depressed for several years.

Consumer Price Inflation and Output Gap
(12-month percent change for inflation rates; percent of potential GDP for output gap)



Sources: Haver Analytics; and IMF staff calculations.

U.S. Import Volumes
(Quarterly percent change, seasonally adjusted, annualized)



Source: IMF staff calculations.

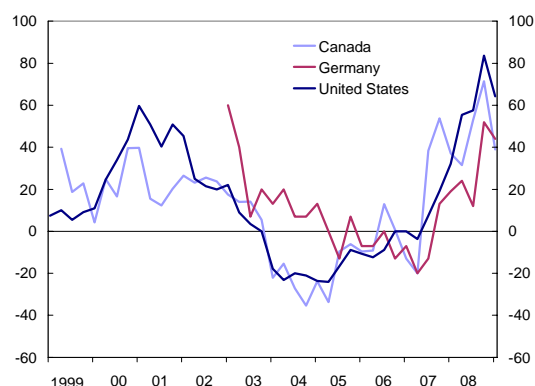
Canadian Outlook

The U.S. turmoil will have a pronounced effect on industrial countries across the globe, and perhaps none is more exposed than Canada. About three-fourths of Canadian exports are bound for the United States, and about one-fourth of Canadian corporate finance is sourced there, leaving Canada well open to spillovers. And indeed, the traces of such spillovers quickly became evident in 2008. Money and credit spreads widened, stocks plummeted in tandem with U.S. shares, and bank lending standards tightened as segments of capital markets dried up. Combined with the long slide in commodities prices, ebbing global demand and tighter financial conditions prompted GDP to contract by 3.4 percent in the fourth quarter, and indicators point to a much deeper contraction in early 2009.

The IMF staff's baseline scenario is for a sharp contraction in early 2009—the worst since 1981 when GDP plunged by 2.9 percent—followed by a return to positive growth over time as the full effects of accommodative monetary and fiscal policies are felt. The recession and weak commodity prices will continue to depress inflation, with core inflation at low levels. Downside risks prevail as larger negative spillovers would occur if U.S. real and financial conditions are worse than the staff's current forecast, entailing risks of weaker growth, as well as more prolonged low inflation or deflation (a tail risk under the baseline).

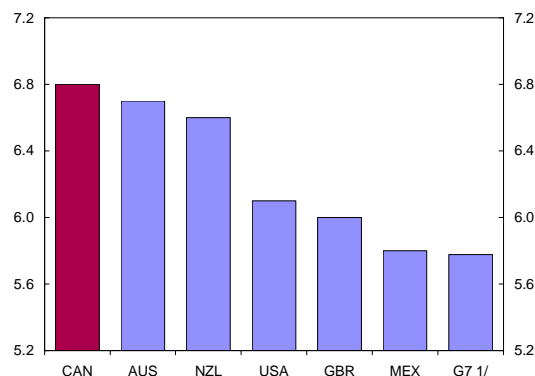
But despite its high exposure to U.S. economic activity and financial markets, Canada is well positioned to weather the downturn. A sound macroeconomic framework resulted in a decade of fiscal surpluses and price stability. In turn, this has left room for aggressive policy responses, in the form of a large fiscal stimulus and cuts in policy rates to record lows. And importantly, a strong regulatory framework, along with conservative banking practices, has preserved financial stability in a turbulent world. While nonbanks have taken a significant hit from the equity market rout, in stark contrast to major banking systems elsewhere, no

Banks' Nonprice Lending Conditions for Corporations
(Share of respondents that reported tighter lending standards)



Source: Haver Analytics.

Soundness of Selected Banking Systems, 2008–09
(Score between 1 and 7)



Source: Global Competitiveness Report 2008–09.
1/ Based on quarterly instead of monthly data.

Canadian bank has needed public capital injections and none have used public guarantees.

That said, Canadian banks face a challenging credit cycle, with output set to contract further before the effects of policy stimulus in train are fully felt. In particular, record-high household debt in combination with falling incomes, rising unemployment, and wealth erosion from equity and housing price deflation, are already squeezing household balance sheets and spurring a rise in defaults. The structure of Canada's financial system will mitigate these risks—about half of mortgages

are guaranteed, the remainder have low loan-to-value ratios, and underwriting standards overall are stronger than in the U.S. market—but asset quality will weaken and credit costs will rise. Fortunately, the authorities have proactively augmented their toolkit for dealing with financial instability, including capital injections if needed, while taking steps to prop up sagging segments of securities markets. Looking ahead, the main tasks for policies will be to remain watchful and ready to respond further if downside risks materialize.

II. Latin American and Caribbean Outlook

The region is now feeling a “double squeeze” from external shocks to the capital and current accounts of the balance of payments. In tandem with worsening external conditions, the growth outlook has deteriorated considerably, and the expansionary cycle has ended abruptly. However, improved policy frameworks and balance sheets provide some cushion for many countries in the region. Key challenges ahead include managing an orderly adjustment to these external shocks, while minimizing real sector-financial sector feedback loops, and the associated output and employment losses. Room for countercyclical policies to support the outlook for countries of the Latin American and Caribbean (LAC) region depends in part on the extent of their past preparation in terms of building policy frameworks and buffers.

A “Double Squeeze” on the Balance of Payments

Downside risks highlighted in the previous REO have fully materialized. Global financial stress has turned out to be much stronger and more protracted than previously anticipated. Global trade and industrial production collapsed in late 2008, with the global economy projected to contract by around 1½ percent in 2009, the weakest performance in 60 years. Moreover, the process of deleveraging in advanced economies has continued, now with significant spillover to emerging markets. At the same time, commodity prices have fallen sharply from record highs in mid-2008.

Global shocks are working their way through the LAC region through several channels: (i) a tightening of external financing conditions, (ii) lower demand for regional exports, (iii) a severe drop in the terms of trade, and (iv) weaker

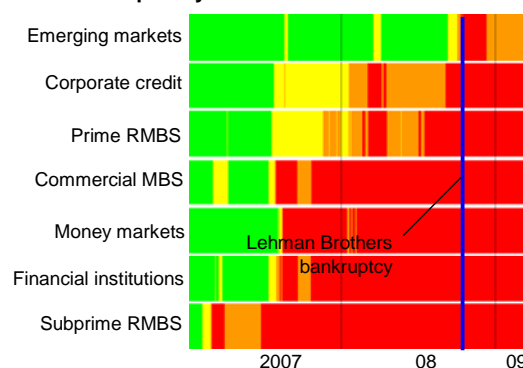
remittances and tourism prospects. These shocks combined amount to a double squeeze in the capital and current accounts of the balance of payments.

As presented in the previous REO, we consider three main subgroups of countries to analyze the LAC outlook: (i) net commodity importers, (ii) inflation-targeting commodity exporters, and (iii) other commodity exporters. These groups of countries differ not only in their exposure to commodity shocks but also in their policy frameworks and other characteristics (Box 2.1).

Tight external financial conditions

The global financial crisis has undoubtedly spilled over to emerging markets. As illustrated in the global financial “heat map,” the first indications of financial stress in advanced markets appeared in mortgage-backed securities in early 2007, but quickly spread to other financial institutions.¹ By late 2008, global financial shocks visibly affected emerging markets. A heat map

Global Heat Map of Systemic Asset Classes



Source: IMF, *Global Financial and Stability Report*.

Note: This chapter was prepared by Ana Corbacho, Roberto Garcia-Saltos, Steven Phillips, Jorge Iván Canales-Kriljenko, Herman Kamil, Gabriel Di Bella, Leandro Medina, Carolina Saizar, and Bennett Sutton.

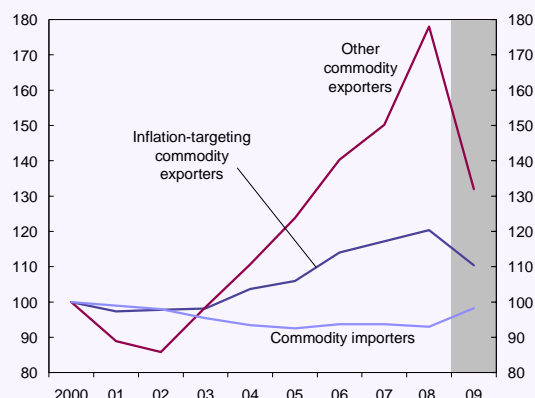
¹ Heat maps measure deviations both in the level and volatility of spreads, prices, and total returns from their precrisis levels (average in 2004–06). Color bands of green, yellow, orange, and red indicate increasing levels of market stress in each market.

Box 2.1. LAC Country Groupings

In analyzing the outlook, we group the countries in the region to capture their different exposure to terms-of-trade shocks. The first distinction is made between net commodity importers and net commodity exporters. Among the net commodity exporters, we also distinguish between those that have implemented inflation-targeting regimes and those that have not.

- **Net commodity-importing countries**, primarily in Central America and the Caribbean. These countries had suffered from the run-up in fuel and food commodity prices in recent years—and more recently benefited from declines in those prices. Their external financial linkages are generally limited.
- **Net commodity exporters with inflation-targeting regimes** (Brazil, Chile, Colombia, Mexico, and Peru, which account for two-thirds of the region's GDP). These countries more generally follow rules based macroeconomic policies, but will be referred to as inflation-targeting countries for simplicity. These five countries had experienced sizable—though not extreme—terms of trade gains until mid-2008, but since then have been exposed to the commodity price fall. They also tend to have more developed capital markets and are more linked to global financial markets, with access to those markets on relatively favorable terms. For example, just prior to the global financial turmoil that erupted in September 2008, sovereign spreads in these countries were only about 225 basis points, on average.
- **Other net commodity exporters without inflation-targeting regimes**, primarily the energy exporting countries. These countries had experienced very large terms of trade gains over the past five years, and correspondingly have experienced the most significant drop in the terms of trade since mid-2008, driven especially by falling fuel prices. Even so, their terms of trade are expected to remain much better than earlier in this decade. In general, these countries are less integrated with global financial markets.

Terms of Trade 1/
(Index 2000=100)



Source: IMF staff calculations.
1/ PPP-GDP weighted average.

for the major economies in the LAC region points to financial stress in all asset classes starting in the third quarter of 2008, and particularly acute stress for currencies, corporate spreads, and sovereign credit default swap (CDS) spreads.

LAC sovereign spreads shot up in October 2008 and have remained elevated since then. Volatility has also increased significantly. The movement of spreads has been quite similar to that of other regions; our statistical analysis suggests that global financial developments explain most of this rise (Annex 2.1). At the same time, the strong precrisis differentiation of spreads across countries has been preserved—in fact the dispersion of spreads has widened substantially.

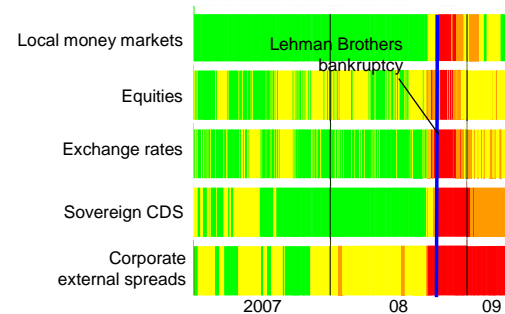
Still, since the global financial crisis began in 2007, Latin sovereigns have broadly managed to satisfy their borrowing needs, though the reliance on foreign bond markets has at times been replaced by domestic bonds, a return to foreign bank borrowing, and lending from multilateral institutions. There was some resumption of external issuances by a few of the higher-rated sovereigns in the region in early 2009: Brazil, Colombia, Mexico, Panama, and Peru were able to tap global capital markets at manageable rates, helped by the low yield on long-term U.S. bonds.

The impact of the crisis on private firms' financing has been more severe. LAC firms' external bond spreads have roughly doubled since October, also driven mainly by external developments. With the onset of the U.S. housing finance crisis, issuances by firms in the form of syndicated loans and bonds placed abroad started to decline (Annex 2.2). And by the end of 2008, foreign bond markets were effectively closed to Latin American firms, an apparent "sudden stop." In early 2009, some investment grade corporations regained access to international markets.

Lower external demand overall

While the LAC region is not as reliant on foreign trade as other regions, trade linkages are now an important channel of transmission of the

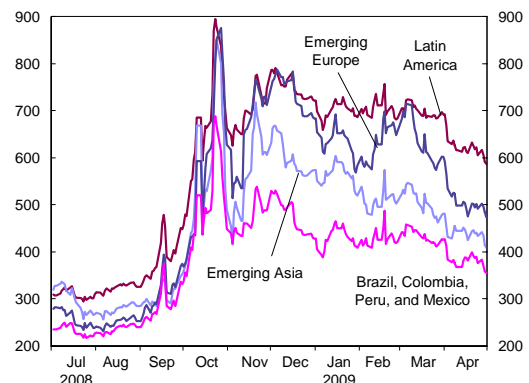
Heat Map of Major Financial Markets in Latin America



Sources: Bloomberg, L.P.; and IMF staff calculations.

EMBI+ Sovereign Spreads

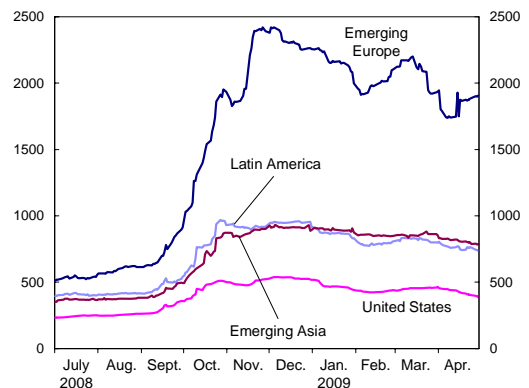
(Basis points)



Sources: JPMorgan; and IMF staff calculations.

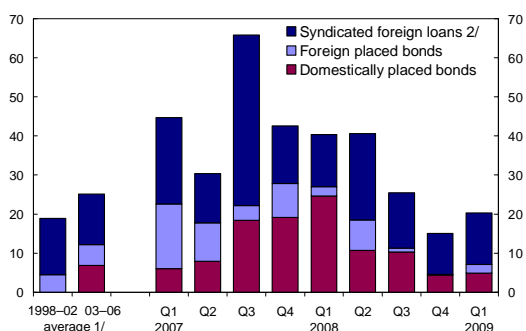
Corporate Spreads

(All asset classes, basis points)



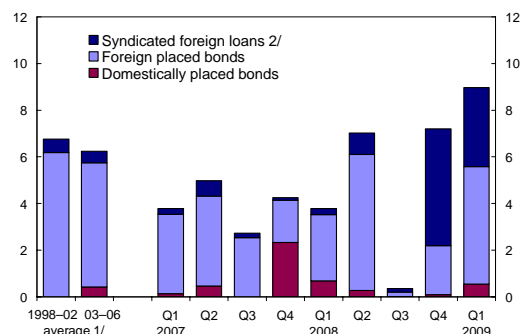
Source: Credit Suisse.

Private and Quasi-Sovereign Corporate Financing
(Billions of U.S. dollars)



Sources: Dealogic; and IMF staff calculations.
1/ Averages over 1998Q1–2002Q4 and 2003Q1–06Q4.
2/ Includes bonds issued domestically and abroad. Values converted to U.S. dollars at exchange rates prevailing at time of issuance.

Sovereign Financing
(Billions of U.S. dollars)



Sources: Dealogic; and IMF staff calculations.
1/ Averages over 1998Q1–2002Q4 and 2003Q1–06Q4.

global recession to the region; the recent drop in global trade has been severe and is affecting all LAC countries trading partners. The region as a whole continues to be most strongly exposed to trade shocks through linkages to the United States, notwithstanding an increase in trade within the region, and also with Europe and China over the past few years (Annex 2.3). However, amid a global downturn, even those countries with more diversified export destinations—such as Brazil—are feeling the pinch.

Reversal of the commodity boom

Commodity prices have declined sharply from their peaks in mid-2008. Oil, aluminum, and copper prices have experienced the largest drops. Food commodity prices have also gone down by an important margin. Overall, the commodity prices that are relevant for the LAC region’s net exports are expected to drop in 2009, by over 33 percent compared with 2008, and to recover by only about 3 percent in 2010.²

The fall in commodity prices constitutes a considerable terms of trade loss for the region as a whole. As discussed later, this has significant implications for fiscal and external positions. However, there is heterogeneous impact within the region, with nearly all countries in Central America and the Caribbean in fact benefiting from falling commodity prices.

Weak remittances and tourism prospects

In line with the deceleration in advanced economies, there has been a notable decline in remittances and tourism receipts, two important sources of foreign exchange income for many countries in the region.

² Commodity prices relevant for the LAC region are calculated as an export-weighted index of international commodity prices. Projections are based on futures markets prices.

Remittances to the LAC region grew at an average of more than 15 percent per year since 2000, but started to decelerate in mid-2006. As the global downturn deepened, the deceleration became even more drastic (Annex 2.4).

Remittances to several countries are already contracting. In some cases (e.g., Colombia, Mexico), large currency depreciations in late 2008 have cushioned or offset the decline in the dollar value of remittances, although this gain is being eroded by the ongoing decline in dollar inflows.

The severe and protracted recession in the United States represents a serious risk to the outlook for remittances, given that about 80 percent of the total come from the United States. Other economies that are important sources of remittances—e.g., Spain, for remittances to Bolivia and Ecuador—are also slowing. Countries in Central America are particularly affected, as remittances account for a significant share of GDP.

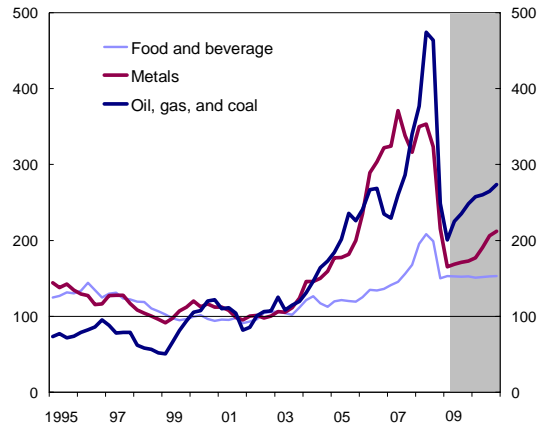
Tourism has also been affected by the global crisis, weighing down on economic prospects for the Caribbean countries in particular. After an uptick in the first half of 2008, tourist visits to the Caribbean are estimated to have fallen by about 5 percent during the second half of the year. It is expected that tourism receipts will decline substantially more in 2009, also leading to a significant drop in tourism-related construction, and weakening employment and growth. This will exert pressure on fiscal positions in many Caribbean countries and reduce foreign exchange inflows (Annex 2.5).

Ongoing Adjustment

The effect of the global shocks on the region's economic activity has been sudden and significant. Growth was resilient through the third quarter of 2008, but decelerated rapidly by end-2008 as the global financial crisis spread to the region. On a quarter-on-quarter basis, growth was negative in

Commodity Prices

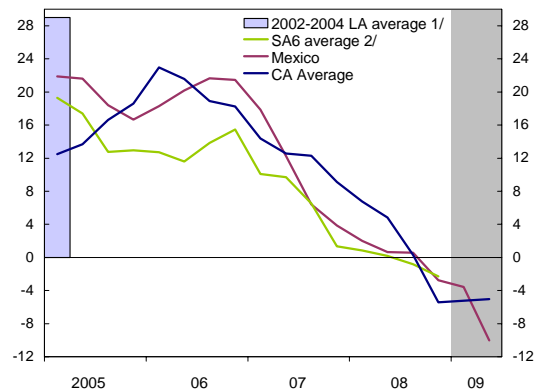
(Index 2002=100 of prices in U.S. dollars)



Sources: Bloomberg, L.P.; and IMF staff calculations.

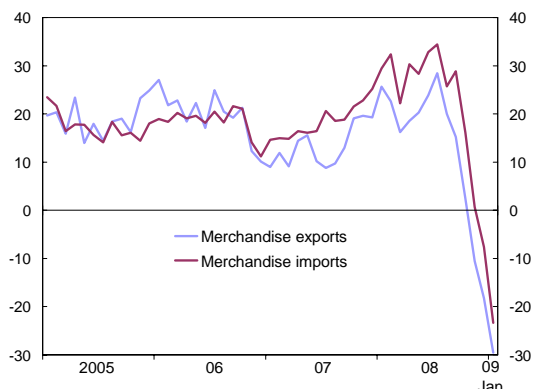
Remittances to Latin America

(Year average on year average percent change)



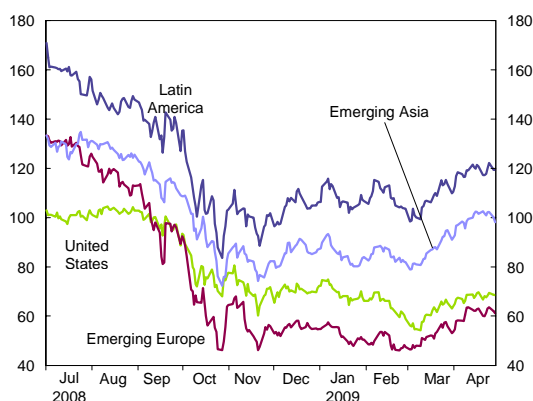
Sources: Haver Analytics; national authorities; and IMF staff estimates.
 1/ Includes Argentina, Brazil, Colombia, Ecuador, Mexico, Peru, Uruguay, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Dominican Republic.
 2/ Includes Argentina, Brazil, Colombia, Ecuador, Peru, and Uruguay.

Export and Import Values in LA6 Countries 1/
(12-month percent change)



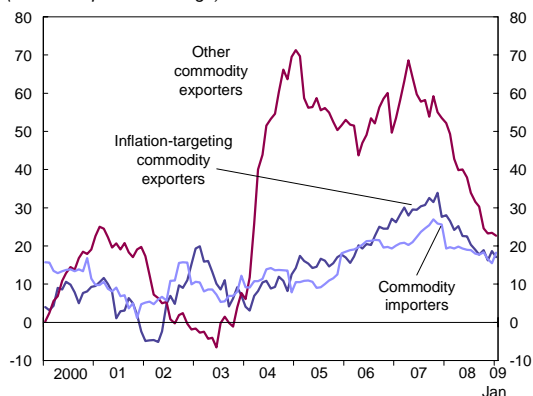
Source: Haver Analytics.
1/ Includes Argentina, Brazil, Chile, Colombia, Mexico and Peru.

Stock Prices
(January 2, 2006=100)



Source: Bloomberg, L.P.

Credit to the Private Sector 1/
(12-month percent change)



Sources: IMF, *International Financial Statistics*; and IMF staff calculations.
1/ PPP-GDP weighted average.

several countries by end-2008, with annualized rates of decline in the double digits in some cases (e.g., Brazil, Mexico). Both external and domestic demand showed substantial contractions. Available indicators for early 2009 suggest that the downturn is continuing. Industrial production growth, already in negative territory for many countries in 2008, has contracted further. There has also been a sharp drop in exports and imports.

Weakening growth prospects have been reflected in equity markets. In close synchronization with other regions, the bulk of losses in stock prices in the LAC region occurred abruptly, in September–October of 2008. Still, the region shows a cumulative outperformance over other regions, with equity prices somewhat above January 2006 levels.

This has been accompanied by a continued slowdown in credit growth to the private sector, reflecting both a reduction in the supply and the demand for credit given the uncertain macroeconomic environment. Anecdotal evidence in several countries (Dominican Republic, Brazil, Chile, Mexico) suggests that with more difficult access to foreign financing, domestic banks have been called on to provide additional funding to better-rated firms. Were this to become a generalized trend, the deleveraging process would more seriously affect smaller firms and, possibly, households. Moreover, Bank for International Settlements (BIS) data available up to end-2008 already shows a slowdown in total lending growth to the region by foreign banks— especially cross-border financing from parent banks located in advanced economies, as well as lending by their local affiliates in the region. This reflects, in part, liquidity strains in global interbank markets and financial stress in banks' balance sheets in their home markets.

Importantly, in contrast to other regions, there have been no widespread episodes of distress in LAC financial systems so far. Aggregate financial soundness indicators suggest that Latin American banks are on average solvent and profitable, with

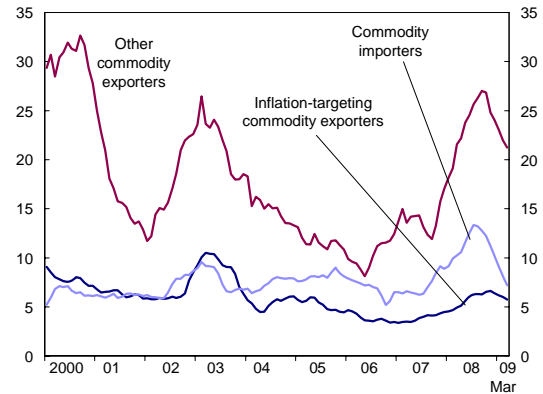
systemwide capital and liquidity cushions that will help them weather some financial turmoil. Moreover, although funding costs shot up in a number of countries' interbank markets in the fourth quarter of 2008, they have declined since then. Major strains did emerge in the case of two financial institutions in the Caribbean,³ in one case leading to contagion in neighboring countries.

Financial systems in the LAC region may face further stresses, as financial shocks continue to play out and borrowers experience the full effects of real shocks. Chapter 3 explores the sources of financial stress arising from the worsening international environment, highlighting the implied policy and regulatory challenges. Chapter 4 considers whether the international banks that are active in the LAC region could transmit the credit crunch in advanced countries to the region.

Amid slowing demand and the reversal of global shocks to commodity prices, inflation pressures are subsiding in most countries in the region. Annual LAC inflation peaked in October 2008 at 8.9 percent and had declined to around 7½ percent by March. Two of the officially dollarized countries (El Salvador and Panama) showed the fastest pace of disinflation, in line with trends in the United States. In the inflation-targeting countries, where inflation rates have been the lowest, inflation declined by about 1 percentage point through March,

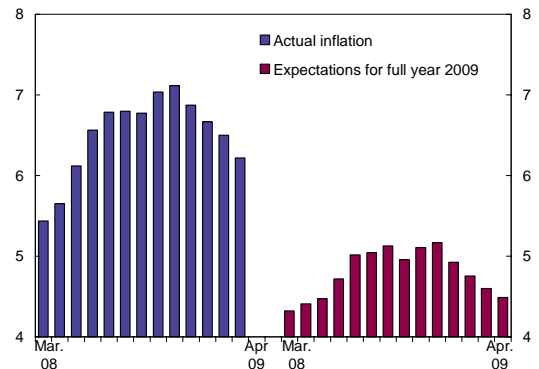
³ In Trinidad and Tobago, the government intervened the insurance company CLICO in January 2009, part of a large conglomerate (CL Financial) that owns other financial intermediaries in the Caribbean. Developing problems in subsidiaries in the rest of the Caribbean forced the authorities to provide financial support (Barbados) or intervene the institutions (The Bahamas and Guyana). Strains underscored the lack of adequate financial supervision in the insurance sector. In Antigua and Barbuda, problems arose in the Antigua-based Stanford International Bank, an offshore bank, in February 2009, following charges by the U.S. Securities and Exchange Commission of a multibillion-dollar fraud. This led to a deposit run on the Stanford-owned Bank of Antigua, an onshore bank and, ultimately, its intervention by the Eastern Caribbean Central Bank.

Inflation in Latin America 1/
(12-month percent change)



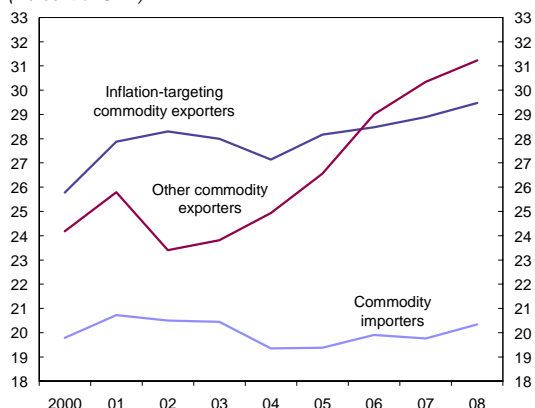
Source: Haver Analytics; national authorities and IMF staff calculations.
1/ PPP-GDP weighted average.

Inflation-Targeting Countries: Actual and Expected Inflation 1/
(12-month percent change)



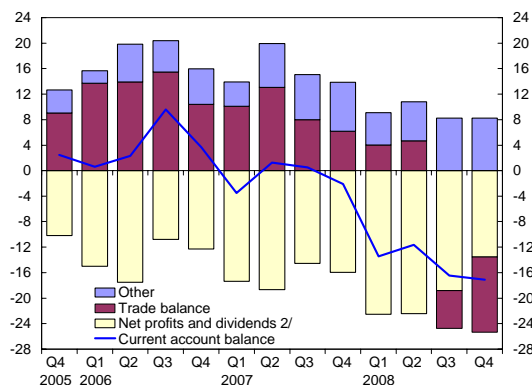
Sources: Consensus Economics, Consensus Forecast; Haver Analytics; and IMF staff calculations.
1/ PPP-GDP weighted average for Brazil, Chile, Colombia, Mexico, and Peru.

Primary Expenditure 1/
(Percent of GDP)



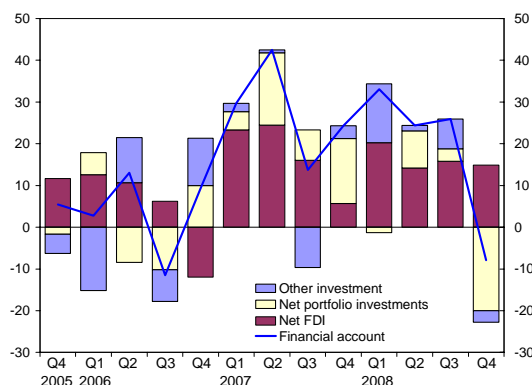
Source: IMF staff calculations.
1/ PPP-GDP weighted average.

Decomposition of Aggregate Current Account 1/
(Billions of U.S. dollars)



Source: IMF staff calculations.
1/ Countries included are Brazil, Chile, Colombia, Mexico and Peru.
2/ Includes reinvested earnings as well as repatriated amounts.

Decomposition of Aggregate Financial Account 1/
(Billions of U.S. dollars)



Source: IMF staff calculations.
1/ Countries included are Brazil, Chile, Colombia, Mexico and Peru.

and in commodity-importing countries by 5 percent.

The abrupt worsening of the external environment has also affected government revenues. In general, tax revenues are stagnating or declining given the slowdown in economic activity. In some countries, the fall in commodity export prices has also sharply reduced fiscal revenues (with strong direct effects in countries with state ownership of exporting companies, but also where tax revenues are heavily dependent on commodities). For some governments, however, the fiscal revenue loss has been tempered by substantial depreciations of the real exchange rate.

These effects are squeezing government balances at a time of more difficult financing possibilities. The loss of external revenue is particularly troublesome; unlike a cut in domestic taxes, this loss plays no countercyclical role. Moreover, many LAC economies had grown accustomed in the commodity boom years to a strong fiscal impulse, with rapid growth rates of primary government expenditure. In the group of other commodity exporters, for example, primary expenditures jumped from about 26 percent of GDP in 2005 to 32 percent of GDP in 2008.

The adjustment in external current accounts has been very heterogeneous within the region:

- In the inflation-targeting commodity exporters, previous trends had continued through mid-2008: external current accounts weakened further, on account of declining trade balances, but also due to rising profit and dividend repatriation by foreign firms. However, trends were broken in the second half of 2008: after years of strong growth, trade surpluses turned into deficits (in part from lower commodity prices, but also in line with the global decline in export demand). There was also a slowdown in profit and dividend repatriation. Overall, current account balances in these countries deteriorated moderately, but with a very different composition than previously. In early

2009, there were signs that trade balances were improving in several countries.

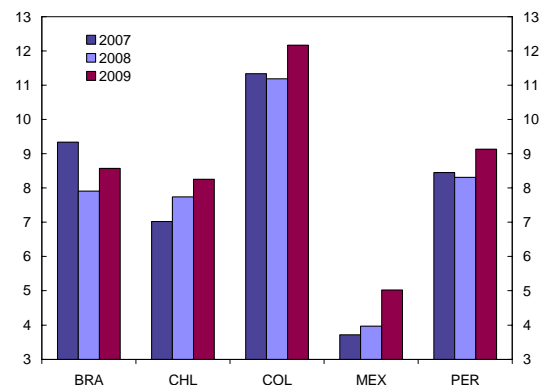
- Reflecting the much larger terms-of-trade loss, current account surpluses have fallen sharply, or vanished, for the non-inflation-targeting commodity exporters.
- Commodity importers, in contrast, have seen improvements in their external current account balances, especially from reduced energy import bills. So far, this gain has offset the drop in remittances and tourism receipts.

The region experienced net financial outflows in the last quarter of 2008, with some loss of international reserves. FDI inflows held steady, but there was a marked reversal of non-FDI inflows. In Brazil, Chile, and Mexico, such inflows had kept coming through the third quarter, but in the final quarter, foreigners began exiting such investments, in sizable amounts. This was not the whole story, however: residents of Brazil, Chile, and Mexico also stopped accumulating assets abroad, and brought funds back home, helping to cushion the large external financing shock.

The social impact of the global crisis is becoming visible. Following an extended period of decline, unemployment has started to rise in several countries, with record employment losses in late 2008 in some cases. The effect has been likely more prominent in informal labor markets. Unemployment benefit schemes have low coverage in many LAC countries, leaving many households unprotected when employment is being cut. (This also limits the automatic effects of rising unemployment on public expenditures.) Elevated food prices, until the third quarter of 2008, coupled with the slowdown in economic activity by the end of the year, have also held back the pace of poverty reduction. Regarding the “inflation tax” more broadly—which tends to fall hardest on the poor—there has been some decline in the past two quarters, but inflation rates remain quite elevated in a number of countries. Finally, because remittances are especially important to

low-income households, the decline in remittances will likely have adverse consequences on poverty.

Unemployment Rate 1/
(Annual average in percent)



Source: Emerging Markets Economic Data (EMED).
1/ Definitions of unemployment may differ substantially across countries. For 2009, average of available period.

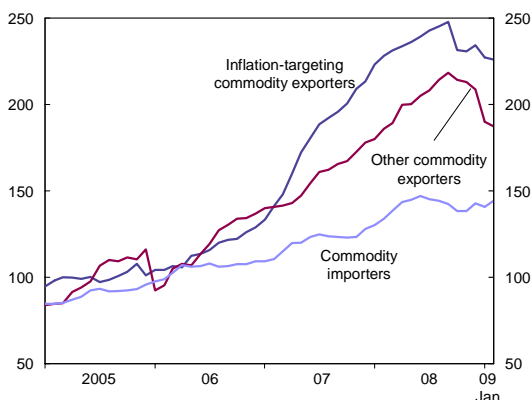
Policy Responses Thus Far

Governments throughout the region have reacted quickly to external developments, in many cases changing the direction of macroeconomic policies to support economic activity. In contrast to previous episodes, there has been no major effort to defend or support exchange rates by tightening interest rates (except in Jamaica). On the contrary, a number of central banks have started the easing cycle, in some cases quite aggressively.

Liquidity provision

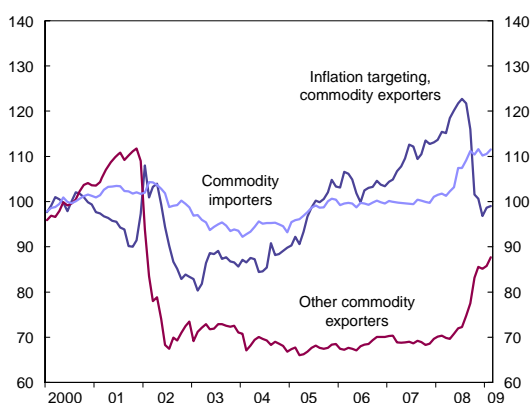
Countries have adopted extraordinary measures to ensure the normal functioning of financial markets. These have included liquidity support to ensure orderly money markets (Argentina, Brazil, Chile, Costa Rica, Colombia, Guatemala, Mexico, Peru); widening the scope of institutions with access to the discount window (Brazil, Costa Rica, Mexico); easing reserve requirements (Argentina, Brazil, Colombia, Dominican Republic, Honduras,

Gross International Reserves 1/
(Index 2005=100)



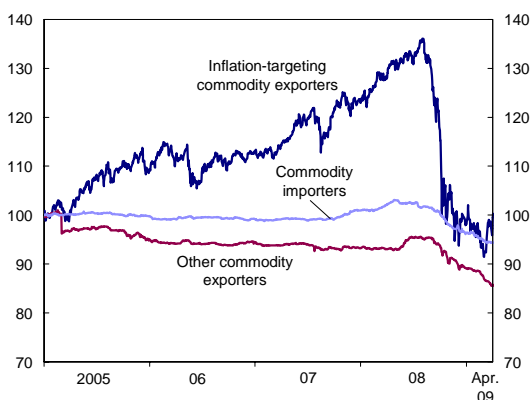
Sources: IMF, *International Financial Statistics*; and IMF staff calculations.
1/ PPP-GDP weighted average.

Real Effective Exchange Rates 1/
(Index 2000=100)



Source: IMF staff calculations.
1/ PPP-GDP weighted average. For each country REER is trade-weighted. An increase (decrease) represents an appreciation (depreciation).

U.S. Dollar/Nominal Currency Exchange Rates 1/
(January 2005=100)



Source: Datastream.
1/ PPP-GDP weighted average.

Paraguay, Peru); and supporting external refinancing needs of the corporate sector through the use of international reserves (Brazil) and access to the Fed swap line (Mexico). For the inflation-targeting countries, these actions have complemented the flexibility cushion provided by movements in the exchange rate.

Flexible exchange rates: key shock absorber in some countries

The global financial shock quickly induced significant depreciation in several currencies. Currencies in the inflation-targeting commodity exporters had appreciated considerably through mid-2008 with respect to the U.S. dollar. This trend quickly reversed in the last quarter of the year, with depreciations that were larger, and more abrupt, than elsewhere in the region (though broadly similar to depreciations seen in other regions). In addition, currencies were allowed to depreciate by some 20 percent in countries such as Argentina and Jamaica, albeit more gradually.

By letting their currencies adjust to changing conditions, these countries did not experience major losses in their international reserves—even as foreign investors sought to withdraw from emerging markets in general, in favor of securities issued by governments of advanced economies. For example, it appears that much of the reduction in foreign investors' portfolios allocated to Brazilian and Mexican assets occurred through large valuation changes, rather than through capital outflows.

Nevertheless, most central banks changed their policies for accumulation of international reserves and foreign exchange market intervention to dampen depreciation pressures and avoid excess currency volatility. After several years of strong buildups, reserves abruptly changed direction. Even Mexico—which had avoided discretionary intervention for a decade—changed course in October 2008. A number of countries also implemented other forms of intervention (e.g.,

Brazil, with forward market and similar operations).

Where large nominal depreciations occurred, these do not seem to have triggered major financial instability. This speaks to the improvement in balance sheets that has taken place in recent years, particularly in the composition of public debt, giving some countries the ability to weather depreciation without major strains. In some countries, the private sector has also reduced its exposure to exchange rate risks. However, some adverse surprises emerged—notably in Brazil and Mexico, where some large firms took undue risks in the foreign exchange derivatives market and experienced large losses (Box 2.2).

Real effective exchange rates (REERs, which are trade weighted) have diverged strongly across countries, even moving in opposite directions. Since August 2008, some countries have had strong REER depreciations, especially Brazil, Chile, Colombia, Jamaica, and Mexico, reflecting mainly nominal depreciations against the U.S. dollar mentioned earlier. At the same time, some countries experienced REER appreciations, as the currencies of their trading partners depreciated against the U.S. dollar, or as a result of ongoing higher rates of domestic inflation.

Monetary policy easing

As economic activity and inflation pressures began to recede, monetary authorities in many countries shifted into an easing cycle. Policy rates were cut in all the inflation-targeting countries, with Colombia beginning the loosening phase in December 2008 with a 50 basis point (bp) cut, and Chile delivering the largest cut so far (650 bps through April). Monetary conditions were also relaxed in other countries (Dominican Republic, Honduras, Paraguay, Venezuela), though in some cases inflation remains elevated. Monetary conditions have been tightened in only a few countries, owing to their particular macroeconomic circumstances. For instance, in

Jamaica, interest rates and reserve requirements were raised to alleviate pressures on the exchange rate.

In the inflation-targeting countries, sharp exchange rate depreciations and a jump in exchange rate volatility initially raised concerns of potentially large upward effects on inflation and inflation expectations. However, such strong effects have not materialized—in sharp contrast to past experiences with large and abrupt depreciations. Enhanced credibility in maintaining the mandate of low inflation, along with reduced exposure to foreign currency debt, has contributed

Monetary Policy Decisions in Selected LAC Countries 1/

Country	Interest Rate	Reserve Req.	Discount Window	Foreign Exchange	Other
Commodity Importers					
Costa Rica	+	...	TFLC	Widening of band	...
Dominican Republic	-	-
Guatemala	-	Change in intervention rules	...
Honduras	-	-
Jamaica	+	+	TFFC
Inflation Targeting Commodity Exporters					
Brazil	-	-	TFFC, TFLC 2/	Intervention in the spot market	FED SWAP 3/
Chile	-	...	TFFC, TFLC 2/	Suspension of USD purchases	...
Colombia	-	-	...	Suspension of USD purchases	Support to foreign credit lines
Mexico	-	...	TFFC, TFLC 2/	Change in intervention rules	FED SWAP 3/
Peru	-	-	TFLC 2/	Intervention in the spot market	...
Other Commodity Exporters					
Argentina	-	-	Broader access to discount window	Intervention in the spot and forward markets	...
Bolivia	Change in intervention rules	...

Sources: Central banks.

1/ Since October 2008.

2/ TFFC stands for temporary lending facility in foreign currency and TFLC stands for temporary or new lending facility in local currency.

3/ Brazil and Mexico established a U.S. dollar swap facility with the U.S. Federal Reserve for up to US\$30 billion.

Box 2.2. Corporate Sector Exposure to Foreign-Currency Derivative Contracts in Brazil and Mexico

Recent losses on currency derivatives held by firms in Mexico, Brazil, and other emerging markets have been one of the unwelcome surprises of the global financial crisis. Over the past decade, listed

firms in Latin America have in general reduced their vulnerability to exchange rate risk by substantially lowering *on-balance-sheet* currency mismatches (IMF, 2008). However, the financial turbulence in October 2008 revealed substantial *off-balance-sheet* currency exposures associated with speculative derivative positions in a number of large corporations in Brazil and Mexico. In Chile and Colombia, on the other hand, there were no reports of significant corporate losses tied to off-balance-sheet activities during this period.

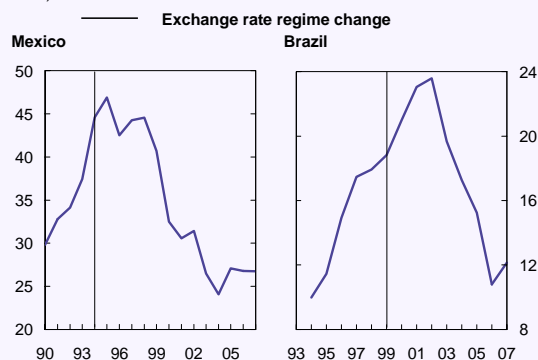
Currency derivative exposures often involved currency options. In Brazil and Mexico, some firms entered into complex option structures, either as an outright bet against depreciation of the domestic currency or to profit from the positive differentials between local interest rates and generally lower U.S. dollar interest rates (similar issues arose in India, Poland, and Korea). Many of the resulting positions had nonlinear payoff structures whereby losses accumulated more rapidly after local currencies depreciated past a certain strike price. While these transactions were profitable when the domestic currency was appreciating, or as long as exchange rates did not fluctuate too much, large losses mounted when the currencies depreciated sharply following the global risk repricing of late 2008.¹

The size of companies' losses is difficult to ascertain, but in Brazil and Mexico it was large enough to prompt a significant response from the central banks. Exposure to currency risk through derivatives led to financial stresses and threatened to trigger a potential amplification of currency depreciation, as firms increased their demand for dollars when asked by their counterparties for additional collateral to cover their mark-to-market losses. For instance, in Mexico, the large losses on currency positions, and resulting extraordinary demand for dollars, prompted the central bank to intervene in a discretionary manner in the foreign exchange market for the first time in a decade, and sell through auction about 10 percent of its international reserves in a three-day period. The special intervention measure was aimed at meeting an exceptional demand for dollars that had resulted from the derivatives losses and the closing out of derivative positions, rather than at trying to prevent a depreciation of the domestic currency. In Brazil, the central bank sold dollar futures contracts to help affected corporations hedge or unwind their positions, and to help reduce market volatility.

The sharp drop in firms' stock prices following their disclosure of derivative losses provides robust evidence that the exposure to derivatives was "news" to the markets. Our results for Mexico, for example, suggest that for most of the firms that reported the biggest derivative losses, the market priced a *positive* stock market exchange rate exposure (i.e., nominal share values have tended to rise with a domestic currency depreciation) before the October crisis.²

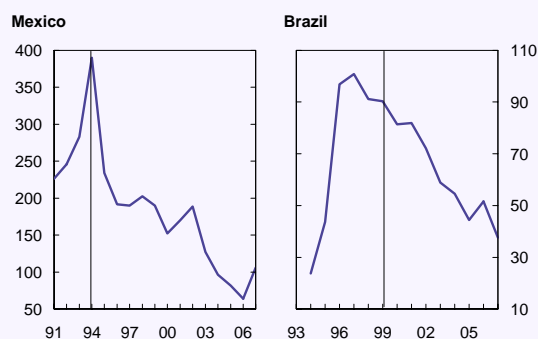
Sharp Decline in Foreign Currency Debt Contracting by Nonfinancial Firms

(Foreign currency liabilities in percent of total liabilities; average across firms)



Better Matching of On-Balance Sheet Foreign Currency Assets and Liabilities 1/

(Foreign currency liabilities in percent of exports plus foreign currency assets; median across firms)



Source: IMF staff calculations.

1/ Excludes net positions from foreign currency derivatives.

Box 2.2 (concluded)

Supervisors as well as the public need more detailed information on the exposures of nonfinancial corporations to derivative positions. The global crisis revealed gaps in financial data disclosure and the understanding of underlying risks. Financial activities by nonfinancial corporations expanded in areas such as offshore derivative contracts with limited disclosure requirements or enforcement, leaving regulators unable to assess risk concentrations. The surprises in the exposure of Brazilian and Mexican firms to currency derivatives, and the reaction of currency markets and the central banks, illustrate the potential macroeconomic consequences of insufficient information on the financial activities of the corporate sector.

The recent episodes in Brazil and Mexico also exposed problems with financial risk management at the firm level. Derivative losses were also caused by varying combinations of governance failures at the firm level (poor risk management) and lack of appropriate disclosure from suppliers of instruments (banks that did advise options buyers of the embedded risk). Authorities should be aware of the skewed incentives generated by low-volatility environments, and the potential for banks and their clients to overreach in tranquil times and take too many risks.

In the future, supervisors in countries with significant over-the-counter (OTC) derivatives markets could improve the transparency and disclosure of information of these operations.

Financial institutions operating in these markets could report these transactions more frequently and include more detailed information on instruments and counterparties. There may also be clear advantages to encouraging exchange trading of derivatives to reduce counterparty risk and enhance transparency. In particular, there may be benefits to requiring nonfinancial publicly traded corporations to report their derivatives exposures undertaken in offshore markets, which in the past have not been monitored systematically by regulators. Such measures would help assess any buildup of systemic risks associated with derivative trading. It would also strengthen market discipline, helping final investors perform some of the due diligence currently outsourced to rating agencies.

Estimated Losses from Foreign Currency Derivative Positions 1/

Firm	In millions of US dollars	In percent of total assets
<i>Mexican firms</i>		
Comerci	2,200	60
Cemex	911	2
Gruma	852	27
Vitro	358	15
Alfa	194	2
GISSA	161	34
<i>Brazilian firms</i>		
Sadia	2400	41
Aracruz Celulose	2100	42
Grupo Votontarin	1000	55

Sources: Bloomberg L.P.; quarterly financial reports for Mexican firms; and Reuters.

1/ Reported in the fourth quarter of 2008. Estimates for Brazilian firms based on press reports.

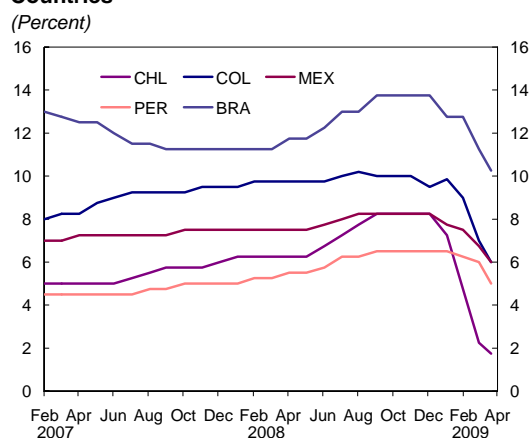
Some country authorities are already moving in this direction. For instance, in Brazil the central clearinghouse for OTC transactions (CETIP) recently announced a project to expand and organize data being collected to allow better analysis and risk monitoring. In addition, the securities regulator (CVM) has requested that large firms submit notes in their financial statements showing derivatives positions, along with scenario analysis of the impact of adverse developments. These are expected to become formal reporting requirements. In Mexico, the monitoring of firms' derivative positions has been substantially strengthened. Supervisors are monitoring onshore OTC derivative trading on a transaction-by-transaction basis and are seeking to broaden the coverage of offshore transactions. The authorities are also considering creating a central credit registry to record all OTC transactions subject to both market and credit risk.

Note: This box was prepared by Herman Kamil and Chris Walker.

¹ Some exporting firms hedged as part of their business operations, but had large losses on their derivative positions given the extraordinary spike in exchange rates.

² To gauge a firm's overall foreign currency exposure as priced by the market, we estimated the contemporaneous impact of exchange rate movements on a firm's stockmarket valuation over the three-year period preceding the financial turmoil in October 2008. If all information is priced efficiently, stock prices' sensitivity to exchange rate fluctuations should, in principle, summarize the multiple channels through which exchange rate fluctuations can affect firms' value.

Policy Rates in Selected Inflation Targeting Countries



Source: Bloomberg, L.P.

Composition of Fiscal Stimulus Packages

Action	Argentina	Brazil	Chile	Mexico	Peru
Expenditure					
Infrastructure investment	T	T	T	S	T
Support to SME and/ or farmers	T	T	T	S	T
Safety nets	T		T		T
Housing/construction sector	T	T	T	S	
Increase in public wage bill					
Other			T		
Revenue					
Corporate Income tax			T	T	T
Personal Income tax	P		T		
Indirect tax		T	T	T	T
Other					
Estimated budget cost for 2009					
(Percent of GDP) 1/	1.5	0.6	2.9	1.5	2.0

Sources: National authorities, and IMF staff calculations.

Note:

T: temporary measures (with explicit sunset provisions or time-bound spending).

S: self-reversing measures (costs are recouped by compensatory measures in future years).

P: permanent measures (with recurrent fiscal costs).

1/ Does not include the cost of support through public banks.

to this outcome. The fast and widespread contraction in demand was also a significant factor, likely reducing markups and countering upside inflation pressures from exchange rate pass-through.

Fiscal policies are also playing a role

In the inflation-targeting countries, the authorities have announced transitory and targeted fiscal stimulus packages, with budget costs in 2009 ranging from 0.6 percent of GDP in Brazil to 2.9 percent of GDP in Chile. Several countries are also implementing stimulus plans through

guarantees and loans to public development banks, which are not classified as government expenditure. In the case of Brazil, these measures amount to 3.5 percent of GDP over 2009–10.

With falling revenues, fiscal balances weakened in most countries in the last two quarters of 2008. Cuts in primary expenditure have been the exception, occurring only in a few countries where financing realities clearly left governments with few options. More typically, governments have begun to actively raise expenditure, with a view to having some countercyclical impact (including in Bolivia, Costa Rica, Paraguay).

A number of countries also have widened the coverage of social programs to ameliorate the effects of rising unemployment. Measures have included widening the coverage of or introducing unemployment insurance (Antigua and Barbuda, Brazil), a subsidy for youth employment (Chile), health benefits for the unemployed (Mexico), and increases in income transfers or targeted cash programs (Antigua and Barbuda, Argentina, The Bahamas, Brazil, Chile, Costa Rica, Dominica, El Salvador, Guatemala, Honduras, St. Lucia).

Relative to some countries in other regions, the overall “cost” of announced policies in response to the economic downturn has been modest. This reflects in part the absence of massive bank bailouts, and the still limited quasifiscal cost from credit guarantees by development banks. It also reflects governments’ assessment of the limits on the availability of financing to pursue fiscal stimulus on a grander scale.

Economic Outlook and Risks

A significant markdown in growth. . .

For 2009, LAC output is expected to contract by 1½ percent, following growth of about 4½ percent in 2008. The slowdown is projected across the board, being more pronounced for the region’s commodity exporters and for economies with the strongest manufacturing ties to global

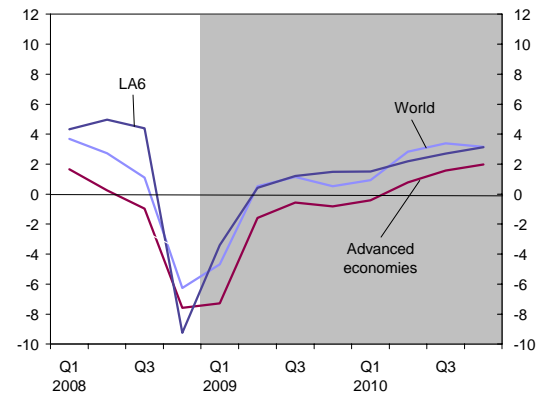
industrial production chains. This is a sharp markdown from the previous forecast in the October 2008 REO, despite new monetary and fiscal stimulus in the pipeline. However, this suggests relatively good performance for the region compared with the past. While in previous global recessions the decline in LAC growth was generally more abrupt than in the rest of the world, this time around LAC growth is expected to decline at the same pace as global growth. This speaks to the improvements in policy frameworks and the buildup of resilience in recent years. Indeed, IMF staff analysis suggests that, absent these improvements, the decline in growth would have been even more significant (Box 2.3).

We project LAC growth will rebound to about 1½ percent by 2010, in line with global growth but at a faster pace than in advanced economies. This is supported by the absence of systemic banking problems in the region, which would allow LAC economies to resume growth more quickly than in regions where severe problems persist in the financial sector. In addition, the greater scope for countercyclical policies, including to sustain public spending on infrastructure and social safety nets, would support growth going forward. Overall, output losses from the current crisis would amount to several percentage points of the region's GDP over 2009–10.⁴

Still, the current crisis is likely reducing medium-term growth prospects in the LAC region as well as in other regions. Historically, recessions that are highly synchronized across countries, as the current one is, have been longer and deeper than those confined to a single region. Potential growth may also be affected, given the lasting damage on labor markets and the productive capital stock, particularly as supply chains need to be rebuilt. This underscores the importance of advancing the structural reform agenda of the region.

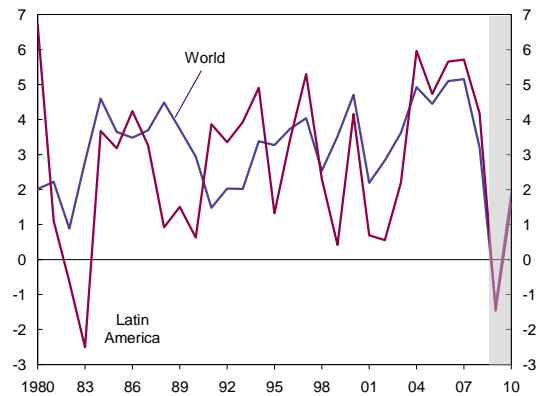
⁴ Calculated as output forgone relative to the April 2008 projection.

Real GDP Growth
(Quarterly percent change, seasonally adjusted, annualized)



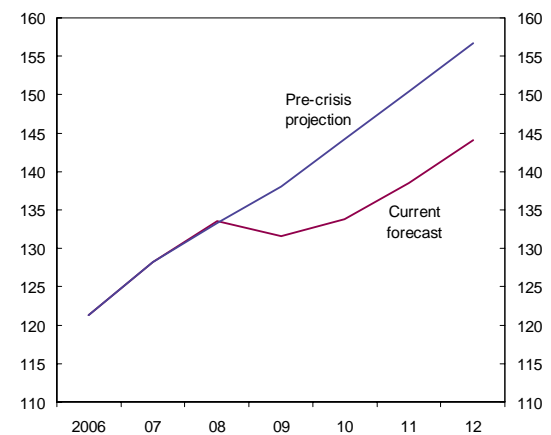
Source: IMF staff calculations.

Real GDP Growth: LAC vs. World
(Percent)



Source: IMF staff calculations.

GDP in Latin America and the Caribbean
(Index 2000=100)



Source: IMF staff calculations.

Box 2.3. Why Do Bad Things Still Happen to Resilient Economies?

In this decade, many LAC countries made important progress in improving their resilience to external shocks. Such progress—in terms of improved policy frameworks and balance sheets, and greater credibility—has been widely recognized, including in previous REOs, and also by financial markets.

The current global crisis represents the first big test of whether this perceived buildup in resilience can bring real benefits. However, assessing this question is not a simple matter of observing whether countries have maintained growth, since the size of the current shocks has been unusually large, and moreover has varied substantially across countries.

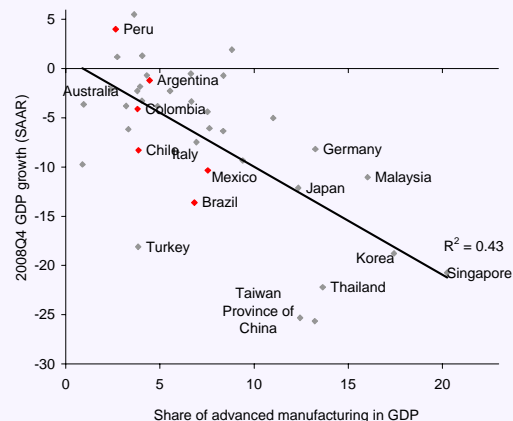
In fact, both the nature and the size of the shocks affecting different economies in the region have varied, with some of the countries that have improved their policy frameworks being hit particularly hard in the current crisis.

First, a key factor has been the degree of a country's capital market development and integration with global financial markets. In particular, the global deleveraging process has hit countries with larger and more liquid markets, such as Brazil and Mexico, more quickly than others. Second, manufacturing has taken a toll worldwide, and economies with larger shares of manufacturing in their production structures tended to show deeper contractions in overall GDP in the last quarter of 2008.¹ In addition countries with stronger ties to the United States have been naturally more exposed. Mexican GDP in particular tends to move closely with industrial production in the United States, which recently has contracted at double-digit rates.² Finally, commodity exporters have suffered more than commodity importers.

The large size of recent external shocks underscores the value of the gains in countries' preparedness and resilience, to mitigate the output losses and prevent a bad situation from becoming much worse. A clear sign—and an important benefit—of those gains has been the steady *relative* improvement in this decade of several countries' external financing conditions. During the 2001 dot-com crisis, sovereign spreads for Brazil, Colombia, Peru, and (to a lesser extent) Mexico tended to follow those of U.S. *high-yield* corporate bonds, which are highly volatile and indeed now exceed 1,500 basis points. However, by the time of the current crisis, these countries had uncoupled from that risky asset class, and their bond spreads moved down, becoming much closer to those of the more stable U.S. *investment grade* bonds, and recently even below that level.

Thus, while all EM countries—and private companies, around the world— suffered tighter financing

Share of Advanced Manufacturing and 2008Q4 GDP Growth (Percent)



Sources: UNIDO database; Haver Analytics; and analysis by staff of IMF Asia and Pacific Department.

Note: This box was prepared by Herman Kamil and Steve Phillips.

¹ In a worldwide sample of about 40 countries, the share of advanced manufacturing in GDP can explain almost half of the variation in GDP growth performance in 2008Q4 (see *Asian and Pacific Regional Economic Outlook*, May 2009).

² See Sosa (2008) for a detailed analysis of Mexico's comovements with the U.S. real sector. Chiquiar and Ramos-Francia (2005) have documented an increase in the degree of synchronization of Mexican and U.S. cycles.

Box 2.3 (continued)

conditions after the Lehman Brothers' event, the shock to Brazil, Colombia, Mexico, and Peru was much less than it would have been if they had not achieved fundamental improvements in the credibility of their policy frameworks. (A number of other LAC countries also achieved important degrees of uncoupling in recent years; in the case of Chile, sovereign spreads already had uncoupled from "high yield" spreads by the time of the 2001 crisis.) In turn, such gains in credibility have made feasible the implementation of countercyclical policies in the current episode.

More broadly, if these countries had not reduced vulnerabilities and strengthened policy frameworks over the years, it is very likely that the impact of global shocks on their output growth would have been more severe than has been the case. To illustrate

this point, we estimated the BVAR model for the five countries mentioned above (the LAC5) on different time periods: 1994–2002 and 1994–2008. During the first subperiod, these countries were still in the process of implementing key macroeconomic reforms, whereas the longer sample period is able to capture more of the buildup of resilience in this decade. The exercise highlights two essential points. First, recent external shocks indeed have been larger in the most recent period than in the past. Second, the sensitivity of these countries' output to external shocks has diminished in recent years. For example, while a shock to world demand of 1 percent would have led to a reduction of almost 2 percent in LAC5 growth during the "pre-resilience" period, the same shock would be expected to reduce growth by significantly less today. The same kind of result is found also for shocks to external financial conditions and for shocks to commodity prices.

In sum, a number of countries in the region that have built resilience have been hit hard during the current global financial crisis as a result of their external shocks being especially severe. However, absent the significant improvements in policy frameworks, balance sheets, and credibility, these economies likely would have faced larger output losses.

Size of External Shocks 1/

(Quarterly percent change, except where noted)

	1994–02	1994–08
World demand	0.39	0.45
U.S. high-yield spread (basis points)	73.81	108.20
Commodity prices	3.86	5.46

Source: Merrill Lynch and IMF staff calculations.

1/ Standard deviation of residuals in BVAR model

Response of LAC-5 Output to a One Percent Negative Shock to External Variables 1/

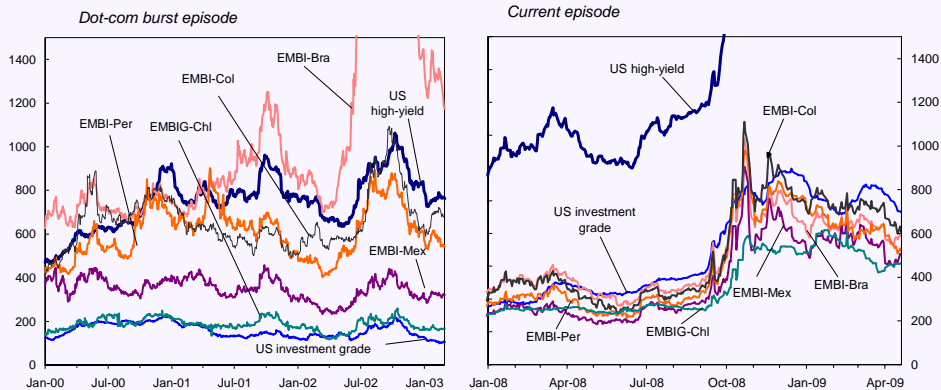
(Year-on-year growth rate four quarters after the shock)

	1994–02	1994–08
Shock to:		
World demand	-1.87	-1.52
U.S. high-yield spread (basis points)	-1.19	-0.84
Commodity prices	-0.85	-0.68

Sources: Merrill Lynch and IMF staff calculations.

1/ Except for commodity prices, where a 10 percent shock is assumed. Countries include Brazil, Chile, Colombia, Mexico, and Peru.

LA Sovereign Spreads vs. US High-Yield and Investment-Grade Spreads
(Basis points)



Sources: Datastream, Bloomberg L.P.; and IMF staff calculations.

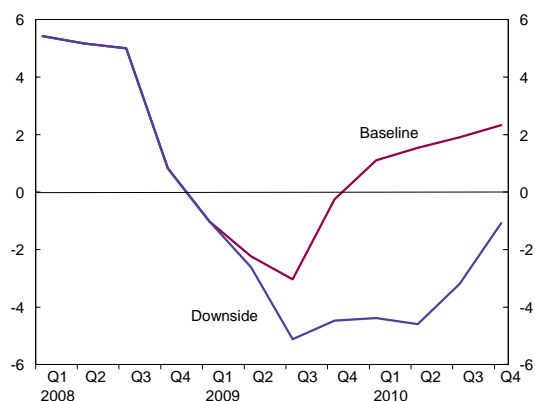
...still with downside risks...

The global crisis represents an unprecedented combination of negative shocks for the LAC region since the 1930s. To assess the impact of external shocks, the regional BVAR model for the LA6 countries was updated.⁵ The model captures real and financial linkages with the global economy, and allows a quantification of shocks to international financial conditions, external demand, and commodity prices. In the past, these external factors have been able to explain about 50–60 percent of the medium-term variance in growth of the LA6 economies.

As rules of thumb, the model suggests that a shock to trade partner growth of 1 percent reduces regional growth by about 1½ percent, including lagged effects after four quarters; a 10 percent drop in commodity prices reduces regional growth by about 0.7 percentage point; and tighter external financial conditions, proxied by a 100 bp increase in the U.S. high-yield spread, are estimated to reduce growth by about 0.8 percentage point.

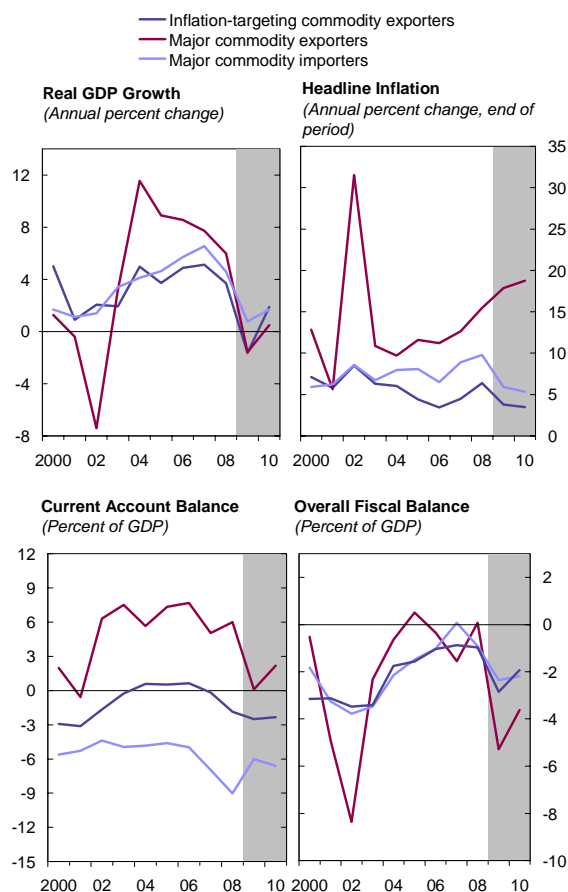
Overall, downside risks continue to be important in the global and LAC growth outlooks. Upside risks to global growth are possible, but concern remains that policies may be insufficient to break the negative feedback loop between real activity and financial conditions. In this context, the WEO considers a downside scenario for the world economy, with growth being –1.7 percent lower than in the baseline. Conditioning the region’s forecast on this lower global growth, LA6 growth in 2009 would decline to –3 percent, compared with –1.5 percent in the baseline. This alternative scenario incorporates the impact of lower global growth on commodity prices and on international and domestic financial conditions.

Output Growth in LA6
(Annual percent change)



Source: IMF staff estimates

Macro Outlook 1/



Source: IMF staff calculations.
1/ PPP-GDP weighted average.

⁵ The model used is the Bayesian VAR growth model (see the November 2007 *Regional Economic Outlook: Western Hemisphere*, Chapter 3) for the LA6 countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru), which together account for about 80 percent of regional output.

...and inflation declining further

The widening output gap and falling commodity prices will help ease inflation pressures throughout the region, and in most countries inflation will decline. For the region as a whole, inflation in the baseline scenario is projected to fall by about 2 percentage points, to about 6 percent in 2009. In a majority of countries, inflation is expected to reach the authorities' objectives by the end of 2009. However, in some cases, inflation is still expected to remain well in the double digits and even to accelerate further.

Fiscal positions and external balances likely to weaken

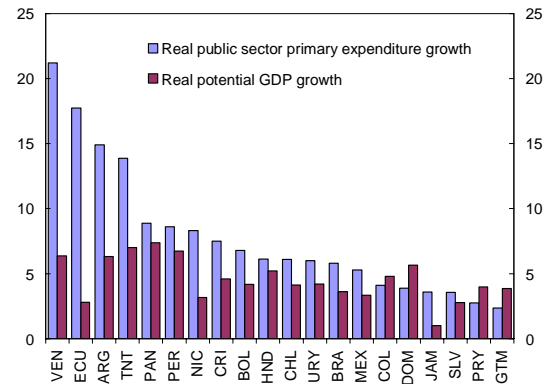
Sharply decelerating economic activity, trade volumes, and much-reduced commodity prices are taking a toll on LAC fiscal revenues. Coupled with a pickup in discretionary spending in some countries, this will weaken the primary fiscal surplus of the region, from around 3 percent of GDP in 2008 to about 0 percent in 2009 (with much of this decline coming from the revenue side, especially in commodity-exporting countries).

But there will be major differences within the region. For some countries, real expenditure is expected to grow in excess of potential output, providing stimulus to demand. This group includes Chile, for example, where real primary government expenditure is projected to grow by over 15 percent in 2009, supported by drawdown of wealth funds that were accumulated during the commodity boom years. At the other end of the spectrum, real expenditures are projected to be cut in Ecuador and Venezuela by about 10 percent.

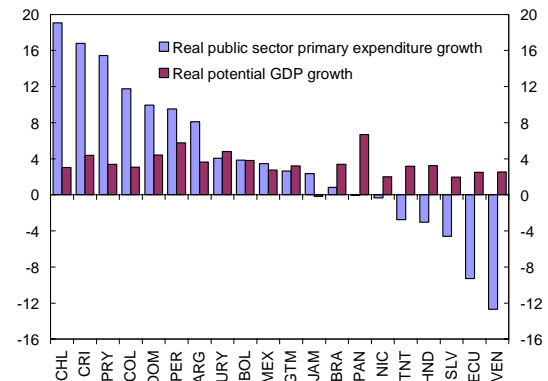
The external current account balance for the region is also expected to weaken. The decline will be particularly pronounced in the other exporting countries, where current account surpluses are projected to shrink significantly, and in some cases shift into deficits. In the current global environment, the financing of such deficits is not

LAC: Primary Fiscal Expenditure and Potential GDP
(Percent change)

Average 2004–08

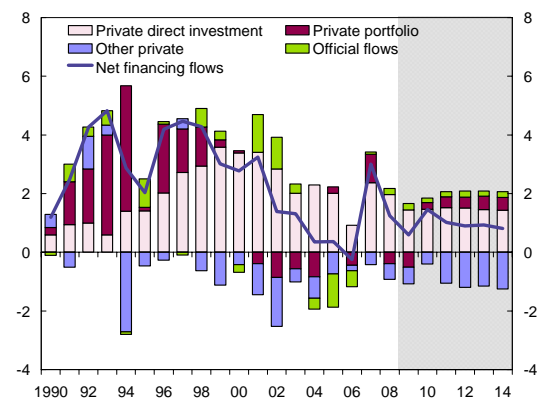


2009



Source: IMF staff calculations.

Balance of Payments Financing: Latin America and the Caribbean
(Percent of GDP)



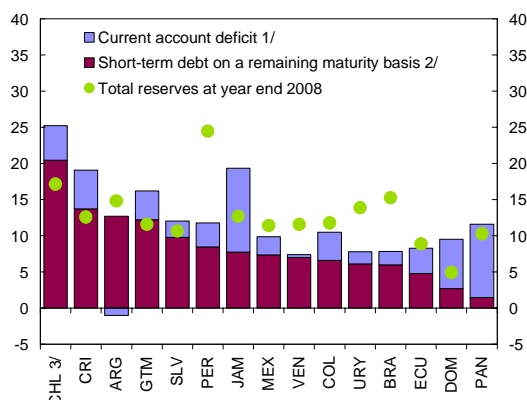
Source: IMF staff calculations.

assured and in the short-term may require the use of international reserves on a large scale.

External balances in the inflation-targeting commodity exporters are estimated to remain broadly unchanged from 2008—with an important expenditure-switching role played by the currency depreciations already seen. Finally, current account balances are projected to improve in most of the net commodity importers, particularly due to lower oil import bills, even with declining remittances and tourism receipts.

Net financing flows for the region are expected to decline markedly in 2009, but still remain around levels seen at the beginning of the decade. Tighter credit conditions and scarce bank capital in mature markets are expected to reduce trade finance to the corporate sector. Foreign direct investment is also projected to decline, given less favorable conditions in commodity sectors going forward. In contrast, financing from official sources, including multilaterals, is expected to pick up.

Coverage of Aggregate External Financing Requirements for 2009
(Percent of 2009 GDP)

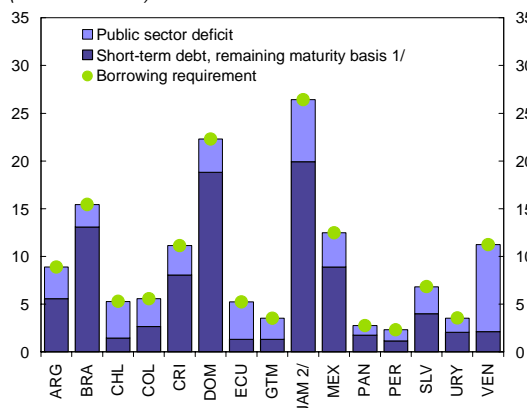


Source: IMF staff calculations.
1/ Projected 2009 current account deficit (positive values indicate deficit).
2/ Stock of short-term debt including amortization of medium and long term debt projected to come due in 2009.
3/ Official reserves do not include sovereign wealth funds. In the case of Chile, such funds amount to 13 percent of GDP at end-2008.

The region is better prepared but vulnerabilities remain

The region has built up resilience to external shocks over recent years (Figure 2.1). External vulnerabilities have declined, and large foreign reserves were accumulated throughout much of 2008. Public debt has fallen, along with improvements in its composition, and fiscal policy has become more credible in many countries. Monetary policy frameworks have also been strengthened, with flexible exchange rates acting as a key shock absorber in several cases. Balance sheet exposures to currency depreciation have been reduced. The financial sector remains well capitalized and profitable, and important progress has been made to improve supervision and regulation. Notwithstanding these substantial buffers, the external shocks buffeting the region are deeper, more widespread, and longer lasting than ever seen before.

Public Sector Financing Requirements
(Percent of GDP)

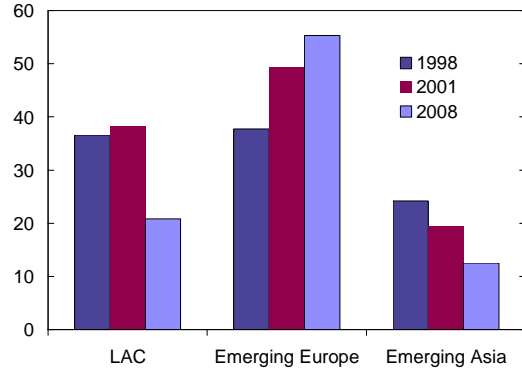


Source: IMF staff calculations.
1/ Stock of short-term debt including amortization of medium and long term debt projected to come due in 2009.
2/ Includes central government only.

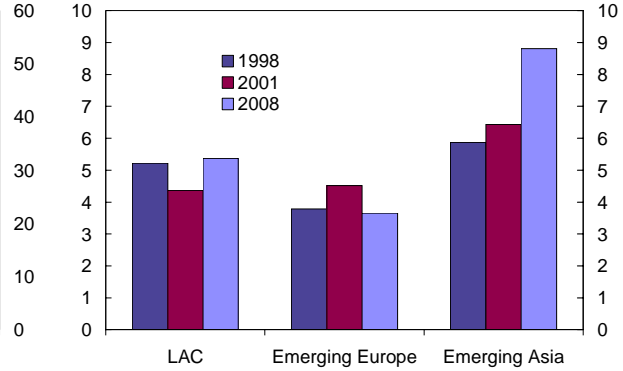
Figure 2.1. Latin America and the Caribbean: Sources of Resilience

Macro prudential indicators in the region improved since the global slowdown of 2001-02. External debt has fallen, while reserve coverage is at more comfortable levels. The strengthening of policy frameworks contributed to lower fiscal deficits and inflation, and higher growth. In the private sector, both financial institutions and nonfinancial corporates have reduced their on balance sheet exposure to exchange rate shocks.

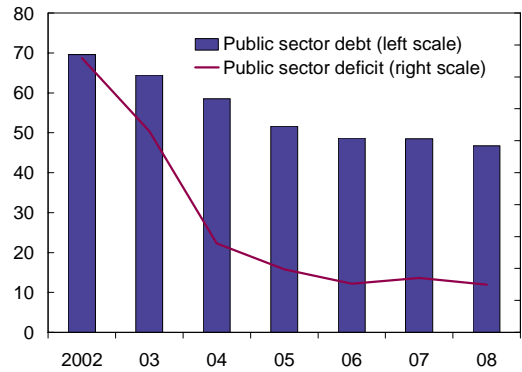
Total External Debt
(Percent of GDP)



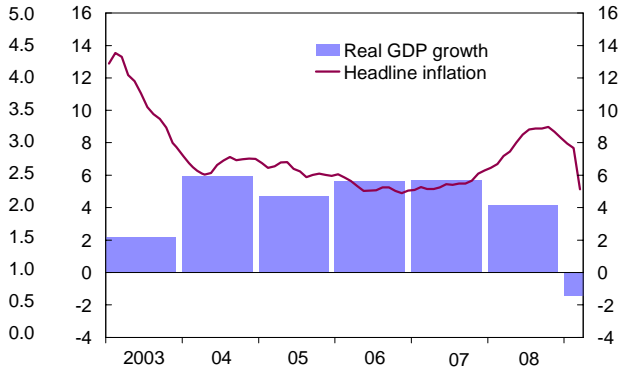
Reserves
(Months of imports)



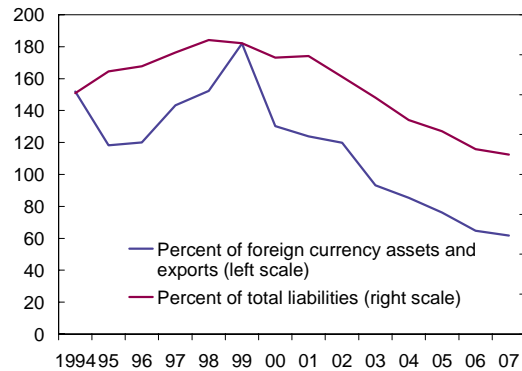
Fiscal Indicators
(Percent of GDP)



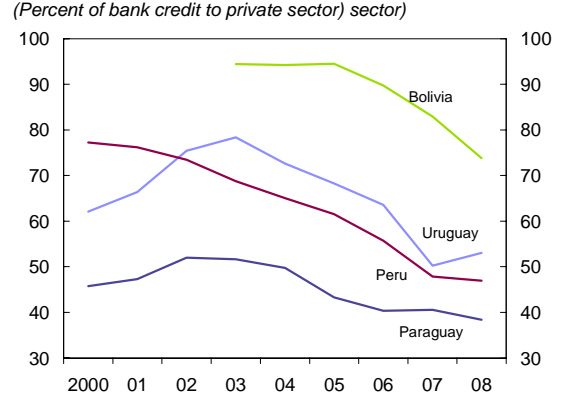
Inflation and Growth
(12 month percent change)



Corporate Foreign Currency Liabilities



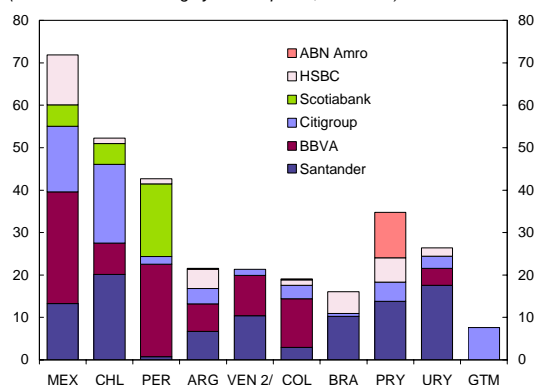
Credit Dollarization



Sources: National authorities and IMF staff calculations.

Share of Deposits Held in Subsidiaries or Branches of Large Foreign Banks 1/

(Percent of total banking system deposits, end-2008)



Sources: National authorities; Bankscope; and IMF staff calculations.

1/ Included in the calculations are the six main foreign banks with global presence. In some countries, the actual share of foreign bank ownership could be higher due to the presence of other international and regional banks.

2/ Foreign-owned banks' liabilities in percent of total banking system liabilities.

Amid tight external financing conditions, rising current account deficits and declining foreign asset positions need to be carefully monitored. At end-2008, international reserves surpassed 10 percent of GDP in many countries, and also matched or exceeded short-term external debt coming due in 2009. These ratios are well above those at the time of the previous episodes of external shocks, including the Asian crisis and the bursting of the dot-com bubble. But in a number of countries, reserves are below total external financing requirements (i.e., current account deficits plus short-term debt). In addition, such economy-wide calculations of reserve coverage can mask differences between the public and private sectors, with most foreign exchange liquidity being held by the public sector, whereas external financing and rollover needs may be concentrated in the private sector. In fact, firms in several countries face larger rollover needs in 2009 than in 2008.

Funding concerns also arise in a number of countries with still significant public sector borrowing requirements. Overall, the public sector is now more protected against an external shock than in the past. For example, the inflation-targeting countries have strongly reduced the

exposure of public debt to foreign exchange risks, and some public sectors stand to benefit from currency depreciation. However, this development has sometimes taken place at the cost of a shortening of debt maturities, increasing rollover risks. For example, public sector borrowing needs are particularly high in Brazil, Jamaica, the Dominican Republic, and the members of Eastern Caribbean Currency Union.

Moreover, fiscal risks arise given the dependence of several countries on commodity revenues. IMF staff analysis suggests that the sensitivity of fiscal revenues to commodity price swings has intensified in several countries during the recent boom. This would expose commodity exporters to substantial revenue losses if commodity prices were to fall further, adding pressures to borrowing requirements or forcing a rapid contraction of public expenditure or drawdown of financial assets (Box 2.4).

Regarding the financial system, the LAC region has weathered the external shocks reasonably well so far, but challenges lie ahead (Chapter 3). Exposure to subprime-related, structured financial vehicles, or other toxic assets has been limited. Yet the quickly deteriorating macroeconomic environment represents a significant stress test for banking systems, increasing credit risks.

Moreover, global banks are important players in LAC financial systems. As their losses accumulate, foreign banks may reassess their cross-border positions and retrench from emerging markets, which could create additional liquidity strains in the LAC region. It should be noted, however, that foreign banks operating in LAC countries have relied primarily on domestic deposits to fund domestic credit. This is in contrast to the situation in emerging Europe, for example, where bank funding has increasingly relied on foreign inflows. In addition, prudential regulations in many countries have limited banks' direct exposure to currency depreciation and

Box 2.4. Saving for a Rainy Day? Sensitivity of LAC Fiscal Positions to Commodity Prices

The steep reversal in commodity prices in recent months has raised concerns about the impact on LAC fiscal positions.

For almost five years, rising commodity prices boosted tax revenues, foreign direct investment, and overall economic activity in many countries in Latin America. While some governments in the region saved a large portion of buoyant revenues and accumulated financial assets, others used revenue windfalls to fuel growing government spending. However, the recent plunge in commodity prices and global trade has hammered net commodity-producing countries. As a result, government finances have come under pressure in many countries in the region.

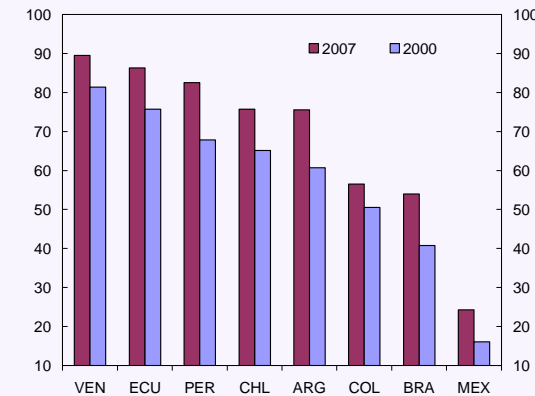
This box provides estimates of the sensitivity of fiscal indicators to commodity price fluctuations for a group of net commodity-exporting countries.

The analysis is based on quarterly fiscal indicators during 1995–2008. The data also include country-specific commodity export price indices, which combine international prices of 44 commodities and commodity export shares by country. To estimate the effect of commodity prices on fiscal variables, year-on-year changes in fiscal revenues and primary expenditures were regressed against changes in commodity prices, controlling for changes in GDP.¹ As such, these regressions only measure the direct effect of commodity price changes, i.e., they do not capture their indirect impact through their (likely) effect on real GDP. To allow for adjustments in fiscal responses over time (because, for instance, to changes in the tax structure or the implementation of fiscal rules), rolling regressions were estimated, each spanning 20 quarters five years). The scatter plots below report such country-specific estimated coefficients for the periods ending in December 2005 and December 2008. Higher values indicate more sensitivity of fiscal revenues and/or expenditures to commodity price changes. The charts allow for comparisons between countries, and for country-specific comparisons over time.

The empirical evidence suggests the following:

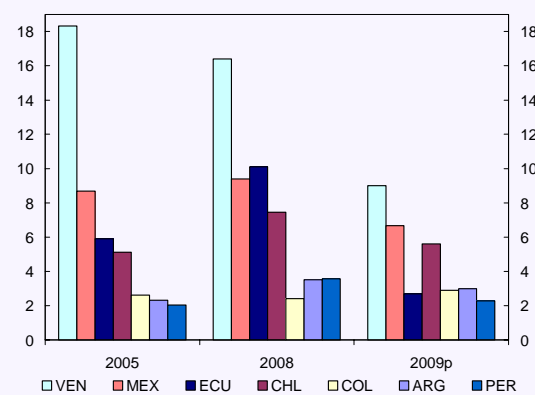
- Changes in commodity prices have an especially strong impact on fiscal revenues in Chile, Ecuador, Peru, and Venezuela, in line with the large weight of extractive sectors in these economies. Commodity-related fiscal revenues are especially large in Venezuela and Ecuador—where oil companies are fully state owned and hydrocarbon resources constitute a large share of exports and GDP. In Chile, a significant proportion of the copper produced is still mined by a state-owned company. The sensitivity of fiscal revenues in Argentina,

Share of Commodity Exports Has Increased
(Percent of the value of exports of goods and services)



Source: IMF staff calculations.

Commodity-Related Fiscal Revenues
(Percent of GDP)



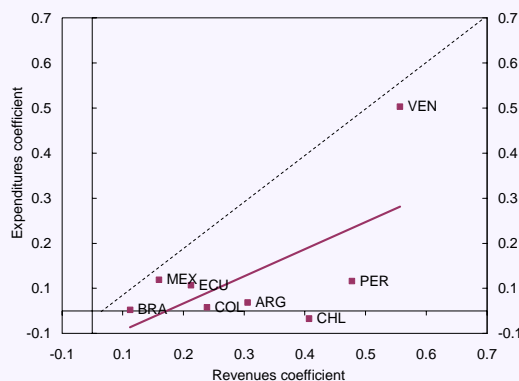
Source: IMF staff calculations.

Box 2.4 (continued)

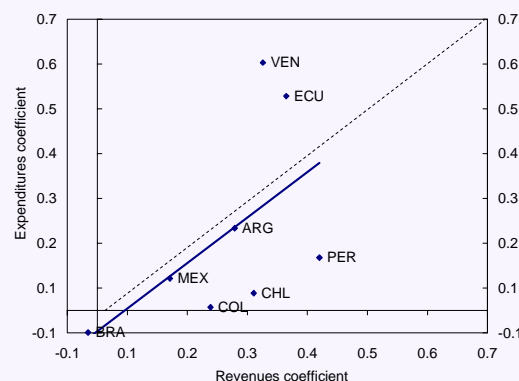
Colombia, and Mexico is in a middle range, with Argentina at the top and Mexico at the bottom. In the case of Argentina, the larger revenue sensitivity in the most recent period may reflect policy changes that increased the tax intake on the export sector, as well as larger production volumes of soybeans. In the case of Mexico, although oil-related fiscal revenues are relatively high, most are linked to domestic sales at administered prices, so these revenues are less sensitive to changes in international prices. The lower sensitivity could also be due to policies to hedge against volatility in oil prices. Fiscal revenues in Brazil show the lowest sensitivity, reflecting a more diversified export base and relatively more stable country-specific commodity prices.

- The sensitivity of changes in primary fiscal expenditures to changes in commodity prices also differs significantly across countries. Cross-country differences were mostly underpinned by the implementation (or lack thereof) of fiscal rules (both formally and informally), though different levels of budgetary rigidities, as well as diverse public financial management systems, have also likely had a bearing.
- Interestingly, there seems to be a correspondence between the size of sensitivities for expenditures and for revenues. Moreover, this correspondence has become stronger in the more recent period (i.e., points in the scatter plot got closer to the 45 degree line), in particular in Argentina, Ecuador, and Venezuela. In the two latter countries, expenditure sensitivity even surpassed revenue sensitivity in 2008. Chile is a notable exception, with fairly high revenue sensitivity but quite low expenditure sensitivity—reflecting the effect of the fiscal rule that has resulted in a large proportion of the commodity price windfall being saved. Expenditure sensitivity is also lower than revenue sensitivity in Colombia and Peru. The low expenditure sensitivity in Brazil is consistent with lower revenue sensitivity, but may also suggest that the effect of commodity prices feeds into revenues and expenditures indirectly, i.e., through their effect on GDP.

Past procyclical behavior may constrain future policy options. Given the temporary nature of the increases in revenues caused by the spike in commodity prices in the recent period, countries where commodity-linked revenues are sizable and that pursued more procyclical fiscal policies during the boom, would be in a relatively more precarious position to implement countercyclical fiscal policies now that commodity prices have declined. Primary balances could rapidly turn into deficits if spending growth continues unabated and the cyclical tax buoyancy disappears. The inability to implement countercyclical policies would be compounded by lack of access to international markets and tighter conditions in domestic markets.

Revenue and Expenditure Sensitivity to Commodity Price Changes*(Annual coefficient, 2005)*

Source: IMF staff calculations.

Revenue and Expenditure Sensitivity to Commodity Price Changes*(Annual coefficient, 2008)*

Source: IMF staff calculations.

Box 2.4 (concluded)

The large fluctuations in commodity prices underscore the need for sound management of commodity-related windfalls. To mitigate the impact of terms-of-trade-linked fluctuations on fiscal balances, budgets should be formulated within a medium- to long-term framework that uses long-term commodity price estimates. This would help avoid spending pressures during boom periods, since political economy considerations can make it difficult to rein in expenditures once prices retreat. Stabilization funds integrated with the budget process (like those in place in Chile and Mexico) can be useful to manage the windfalls, which should be invested according to conservative principles and in currencies that provide a natural hedge against commodity price fluctuations. The results also illustrate the benefits of well-designed and effective fiscal rules that can make public finances less vulnerable to global price swings, as in Chile. International experience suggests that expenditure rules can be helpful but need to be supported by broad political consensus, consistent revenue policies, and, in some cases, expenditure reforms.

Note: This box was prepared by Gabriel Di Bella, Herman Kamil, and Leandro Medina.

¹ All variables are expressed in real, domestic currency terms. Both explanatory variables are lagged one period. The estimated coefficients capture net effects; for example, the Mexican government imports hydrocarbons as well as exporting them.

indirect exposure to borrowers' currency mismatches.⁶

Policy Challenges: Orderly Adjustment with Limited Output Losses

It is expected that the process of deleveraging will continue for some time, and in a selective way, with advanced economy financial institutions tending to reduce their claims on emerging market countries more than proportionately. This process may not be smooth, and another wave of financial pressures could hit emerging markets.

The challenges for LAC policymakers will be to manage an orderly adjustment, by limiting feedback loops between the real and financial sectors, and minimizing associated output and employment losses. The rebuilding of balance sheets has proved key for resilience, and the

slowdown will be less pronounced if confidence in policy frameworks is maintained.

Compared with advanced economies, countries in the region face tighter constraints in applying countercyclical macroeconomic policies. These are not "reserve currency" countries and lack the same perception of long-run credibility. The region's better-prepared economies have more policy room than others, but even they are constrained to a degree.

In this context, there is a crucial role to be played by international financial institutions. In particular, the IMF can help coordinate the macroeconomic response to the global crisis to avoid adverse spillovers from national actions. IMF financing can aid in cushioning the social and economic costs of the global shocks, especially if assistance is requested early on. It can also ease pressures on the external sector, providing more scope for monetary easing.

The IMF has an array of instruments that can be tailored to countries' needs and circumstances. For instance, several countries in Central America

⁶ However, as mentioned, some companies in Brazil and Mexico experienced significant losses due to off-balance-sheet unhedged derivative positions in late 2008.

(Costa Rica, El Salvador, Guatemala) have large precautionary arrangements with the IMF to reduce uncertainty and bolster confidence. In the Caribbean, several countries have requested IMF financing or augmented existing arrangements (see Annex 2.5). Finally, the IMF has invited strong-performing countries that may face difficulties in financial markets to use the newly created Flexible Credit Line to underscore international confidence. Mexico and Colombia have responded to this invitation and the IMF Board has approved or will consider shortly arrangements under this facility.

Financial stability policies

LAC financial systems have weathered the global crisis relatively well so far, given their limited direct exposure to structured finance and toxic assets. This resilience also reflects strengthened policy and supervisory frameworks. However, financial spillovers from the global crisis and the worsening macroeconomic outlook entail a significant stress test for LAC financial systems. A major challenge going forward will be to limit the feedback between the real and financial sectors.

The immediate focus should be on close supervision of high-frequency developments and early-warning systems to detect and correct problems in financial institutions that could become systemic. It will be important to make progress on contingency planning, financial safety nets, and bank resolution frameworks. This may involve strengthening crisis management strategies and identifying necessary improvements to the legal and regulatory arrangements. Granting supervisors legal power to act on behalf of the financial stability of the country is arguably at the top of the agenda in some Latin American countries. Supervisory authorities may also need access to a broader information set, including off-balance-sheet operations of banks, household indebtedness, firms' derivatives exposures, real estate prices, and other collateral values.

Monetary and exchange rate policy

Monetary policy, and central bank policies more broadly, has been geared to maintaining orderly conditions in financial markets and supporting economic activity, including through foreign exchange credit lines to offset cutbacks in external credit. Aided by the buildup of stronger credentials to fight inflation, the authorities in the inflation-targeting countries appropriately relaxed monetary conditions once it became clear that the slowdown in economic activity and the drop in food and fuel prices would eventually exert important downward pressure on inflation and inflation expectations. In these countries, flexible exchange rates also have been crucial elements in cushioning the effects from external shocks.

Going forward, room for further easing will depend in large part on the extent of policy credibility that has been accumulated over the years. Further monetary easing in some countries could be warranted, provided exchange rate flexibility is maintained and inflation expectations remain anchored. Central banks' efforts to unclog financial markets can continue to take a wide range of forms, tailored to the financial structure and other circumstances of each country. In general, it is best that such unconventional operations be conducted in a neutral manner, that is, rather than favoring certain economic sectors or companies.

In contrast, room for monetary easing is much lower in countries where inflation remains high, or where exchange rates are pegged or balance sheets are ill prepared for currency depreciation. In these countries, care should be taken to avoid excessively expansionary monetary policies that might undermine confidence.

Fiscal policy

The global crisis has major implications for public finances. Fiscal revenues are declining across the board in the LAC region, owing to the slowdown in activity and the drop in commodity and asset prices. At the same time, many countries

are planning expansionary expenditure policies, further weakening fiscal balances in the coming years.

A countercyclical fiscal policy response is desirable to mitigate the risk of a prolonged economic slowdown. However, the scope for fiscal stimulus varies, and key trade-offs need to be carefully considered. Financing conditions for emerging markets will remain tight, and could deteriorate even further, limiting the scope for fiscal expansion. In addition, if fiscal stimulus is perceived to threaten sustainability, it can trigger an adverse market reaction that could undermine stability and complicate the growth outlook. Close coordination between monetary and fiscal policy is also important (Box 2.5).

Countries in the LAC region face different constraints in this regard. Fiscal room is evidently larger in countries that have strengthened their fiscal frameworks in recent years, built credibility during the commodity boom, and reduced fiscal vulnerabilities. Markets indeed have differentiated across countries, with sovereign spreads rising less for countries that built buffers during the upswing of the economic cycle. However, even for these countries, financing conditions have tightened, and carry heightened uncertainty going forward. Thus, some countries may need to moderate their stimulus efforts this year, saving more room for sustaining stimulus in 2010.

To ensure fiscal solvency and avoid an adverse and counterproductive market reaction, three considerations would be particularly important: (i) fiscal stimulus needs to be credibly temporary and well targeted; (ii) medium-term fiscal frameworks must underscore the government's commitment to fiscal correction once economic conditions improve; and (iii) structural reforms need to be implemented to enhance growth, and thus, medium-term revenue prospects.

Some countries in the region face severe constraints on financing fiscal stimulus in a sustainable manner. Some countries, particularly in the Caribbean, are already grappling with high

public debt levels. In many of the non-inflation-targeting commodity exporters, revenue losses due to the fall in commodity prices are expected to be sizable, with fiscal balances projected to deteriorate by a significant margin over 2009–10. These countries are also facing much more difficult financing conditions. In the immediate term, a drawdown of international reserves may fill the financing gap, and this approach is being taken by some countries on a large scale. But the sustainability of such a strategy is doubtful, particularly if the economic slowdown and terms-of-trade loss prove to be protracted. Other ad hoc financing strategies may exacerbate credibility problems and threaten further fiscal sustainability. In some of these countries, circumstances may require that expenditures be curtailed and even cut significantly, notwithstanding the undesirable effect on domestic demand.

Social policies

The global crisis and its impact on the region are already taking a toll on the most vulnerable. Weak remittances and tourism prospects are disproportionately affecting the low-income countries in the region. In addition, the widespread decline in economic activity is being reflected in rising unemployment and job shedding and a switch from formal to informal employment. Slower growth and rising inequality, coupled with high food prices throughout much of last year, may set back some of the hard-won reductions in poverty in the region.

It is encouraging that many countries have already taken steps to strengthen unemployment insurance schemes. These steps aid in limiting feedback from the real to the financial sector. However, in many countries, unemployment insurance schemes have limited coverage and do not reach the poorer households, as these generally participate in informal labor markets. In this context, it is as important as ever to protect priority and targeted poverty spending during the downturn. And the expected sluggish

Box 2.5. Countercyclical Fiscal Policy under Alternative Monetary Policy Frameworks

The IMF has recommended that countries use fiscal policy to try to smooth the effects of the global recession, to the extent that each country has room to do so successfully. Because fiscal easing has the potential to mitigate output and employment losses, many countries have been exploring the feasibility and effectiveness of this option. Active countercyclical fiscal policy efforts are under way in many of the advanced economies and in Latin America as well.

Much analysis has been done on the feasibility of countercyclical fiscal policy and the possibility that fiscal easing would be ineffective or even counterproductive in some circumstances. Feasibility in each country will depend on the preexisting fiscal balance position, public debt level and rollover needs, and financing possibilities, which vary widely across Latin American countries. It also depends on perceptions of governments' credibility in terms of a sustainable fiscal policy. Indeed, fiscal easing could be counterproductive during a recession in highly indebted countries or countries that lack policy credibility. Relaxing the fiscal stance during an economic downturn requires tightening it during a boom; a commitment to do so may suffice to maintain confidence in a recession in countries with a good track record of policy implementation. In other countries, investors may view a relaxation in the fiscal stance skeptically, concerned that the government may be unable to tighten the fiscal stance in the future and become more likely to eventually default. This may lead to higher interest rates that may depress private sector demand. Thus, a countercyclical fiscal policy effort could end up being ineffective or procyclical. This issue was explored in the April 2008 REO.¹

Another issue is how countercyclical fiscal policies interact with a country's monetary policy regime. To analyze this, we use a version of the Global Integrated Monetary and Fiscal model (GIMF), developed by the IMF (Kumhof and Laxton, 2007). The structure of this model is such that countercyclical fiscal policy is feasible: it can (partly) offset the effect on output of a collapse in external demand and an increase in the cost of external financing. The model is calibrated to represent the interactions between a large economy (say, the United States, or all advanced economies in aggregate) and a smaller economy in Latin America. Our exercise studies the effects on the small economy of a scenario associated with financial stress in the large economy that limits funds available for investment and increases the risk premium. This shock leads to a sharp output gap, falling inflation, and lower interest rates in the large economy, which in turn results in a sharp reduction in growth prospects in the small economy. The macroeconomic impact on the small economy, however, will partly depend on the fiscal and monetary policies in place.

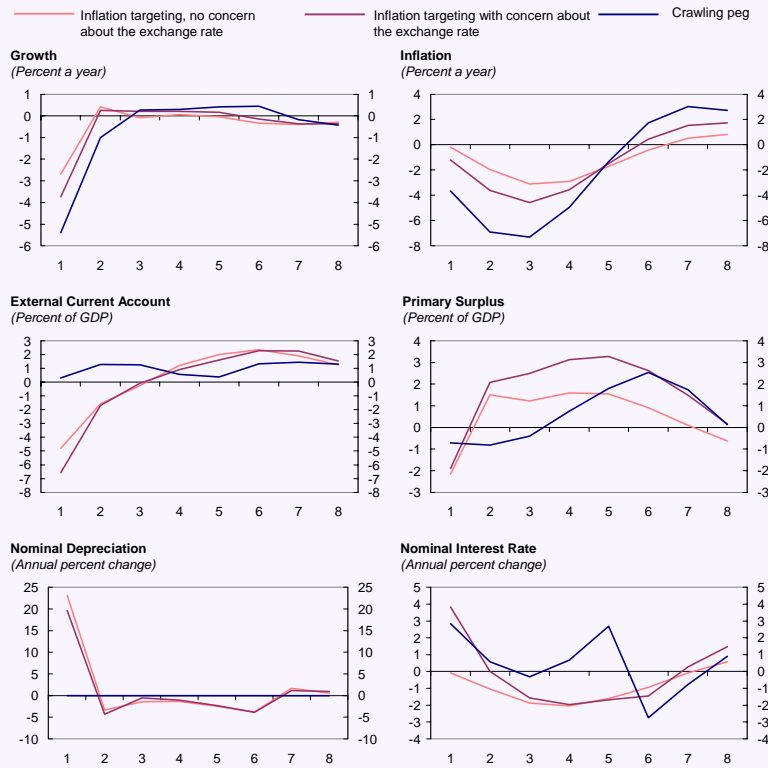
To shed light on the role of monetary policy in helping countercyclical fiscal efforts, we analyze the effect of the global stress scenario and countercyclical fiscal policies under three monetary policy frameworks: (i) inflation targeting with a freely floating exchange rate, (ii) inflation targeting with some "concern" about the exchange rate, and (iii) a crawling peg. The exercise first compares the effects of a constant overall deficit rule with that of the countercyclical tax and spending policy rule, as in Kumhof and Laxton (2007).² Subsequently, the countercyclical policy rule also requires a significant fiscal tightening effort. The main result is that the recession can be worse in countries with lower exchange rate flexibility given the complex interaction between monetary and fiscal policy rules (see figure). Three observations provide some insight. First, compared with pure inflation-targeting countries that react to developments in inflation and the output gap, interest rates in countries with limited exchange rate flexibility tend to be higher because these countries also need to confront pressures for currency depreciation. Second, the output loss is lower in inflation-targeting countries concerned about the exchange rate than in countries with crawling pegs because currency depreciation helps protect their export sectors from collapsing external demand. Finally, following the same fiscal policy *rule* can lead to different fiscal balance outcomes under different monetary

Box 2.5 (concluded)

policy frameworks given the different equilibrium paths for output, interest, and exchange rates. In the exercise, inflation-targeting countries can provide a higher initial fiscal stimulus as measured by a larger primary fiscal deficit, at the cost of having to deliver higher primary surpluses in the future. This greater up-front fiscal stimulus, combined with lower interest rates and weaker exchange rates, also contributes to better growth performance. The analysis highlights the value, particularly in times of stress, of close coordination between monetary and fiscal policy, to factor in the interactions between such policies in designing the macropolicy response to a macroeconomic shock.

Impact of Global Contagion on an Economy Following a Countercyclical Fiscal Policy Rule Under Alternative Monetary Policy Frameworks

(Deviations from steady state of each regime)



Source: IMF staff calculations.

Note: This box was prepared by Jorge Iván Canales-Kriljenko.

¹ See Box 1.6 in the April 2008 REO. In addition, Clements, Flores, and Leigh (2009) and Leigh (2008, 2009) have calibrated the GIMF for the commodity-exporting cases of Colombia and Peru and used it to compare a neutral fiscal stance with a procyclical fiscal policy under a balanced budget rule in an inflation-targeting country. They also explore the fiscal policy reaction under a variety of shocks, including lack of available financing and boom and bust dynamics.

² The constant overall deficit rule considered here also fixes government consumption and public investment as a percent of GDP, while taxes adjust to deliver the constant overall deficit given changes in the interest rate bill. The countercyclical fiscal policy rule increases public spending during a recession, while taxes adjust to ensure debt sustainability in the medium term.

recovery only underscores the urgency of strengthening social safety nets in the region.

Trade policies

So far, creeping trade protectionism has not been the norm within countries in the LAC region. However, some countries have opted or threatened to raise import tariffs to deal with the sharp reversal in external flows. While higher import tariffs are the most evident form of protectionism, other nontariff policies could produce the same negative effects on economic efficiency (for instance, the introduction of subsidies to domestic industries with clear potential effects in competing foreign firms, or provisions to introduce a “home bias” element in domestic lending policies). The latter is of particular concern in countries where a large share of domestic financing comes from foreign banks, which in turn have received large influxes of fiscal public resources from their governments. Going forward, it is important to resist pressures to implement shortsighted protectionist policies that would be counterproductive, as they may end up making all countries worse off.

The medium-term agenda

The experience of the global financial crisis so far points to some key policy lessons going forward. One broad lesson for the LAC region is the importance of strengthening policy preparedness during “good times,” to build up resilience (not immunity) to future adverse shocks. Relatedly, when shocks do materialize, preparations implemented over past years will largely determine how much room a country has

for immediate policy responses to mitigate those shocks. The recent experience should provide ample motivation for building up sound policies for many years to come.

The less favorable medium-term macroeconomic environment heightens the importance of accelerating structural reforms to boost investment and growth and to reduce poverty. With regard to the private sector, key priorities include increasing intermediation and access to bank and capital market funding for smaller firms, strengthening the financial infrastructure, and improving the business environment. The need to increase the level of public investment and improve the quality of public services are also long-standing challenges in the LAC region, both with respect to physical as well as social infrastructure. Reducing budgetary rigidities and phasing out subsidies not targeted to the poor will be essential, to provide fiscal room for public and social investment in the region.

The emerging global debate on financial reform will also influence the region’s medium-term agenda. The global debate is focusing on the longer-term reforms needed to close the gaps in financial supervision that helped sow the seeds of the current crisis. These reforms would also help strengthen financial systems in the region, especially as the depth and sophistication of the region’s financial markets develop over time. Two issues that are particularly relevant for the LAC region at the current juncture include the need to further strengthen consolidated and cross-border supervision, as well as reduce procyclicality in prudential regulation (see Chapter 3).

Annex. Channels of Transmission

2.1. Global shocks and sovereign bond yields

This section was prepared by Jorge Iván Canales-Kriljenko.

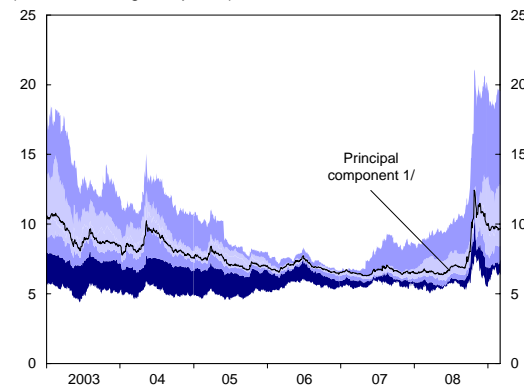
The global financial crisis has significantly increased both the level and dispersion of sovereign yields in Latin America. Following the Lehman Brothers collapse, median sovereign yields of Latin American bonds included in JPMorgan's EMBIG index jumped from 5.6 percent to 10 percent in the last quarter of 2008, with most of the shift occurring in a few weeks. Spreads have remained high since then.⁷

The increase in yields was not uniform across countries, as the dispersion of yields widened sharply. In the last quarter of 2008, sovereign yields ranged between 6.6 and 36.4 percent, whereas before the Lehman Brothers collapse they ranged from 5.6 to 11.4 percent. Taking out the highest 20 percent of the distribution to eliminate a few extremely high-yield outliers, the range of yields roughly doubled, to 6.6–18.1 percent in late 2008, from 5.6–10.7 percent in September 2008. In general, as the dispersion of yields dramatically widened, the precrisis ranking of countries' bond yields has been maintained, with just a few exceptions. But while there has been little new relative differentiation among countries, it is clear from higher secondary market prices that many more countries are now essentially frozen out of new issuance.

Most of the increase in sovereign yields can be attributed to the evolution of global international financial variables. Sovereign yields clearly move together and global international financial variables are strongly associated with them. For the empirical analysis, we separate foreign yields into sovereign

⁷ These include Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, El Salvador, Mexico, Panama, Peru, Uruguay, and Venezuela.

Distribution of Sovereign Yields in Latin America
(Excludes the highest quintile)



Sources: JPMorgan; and IMF staff calculations.
1/ Fitted to match the scale of the EMBIG index.

spreads (as a proxy for sovereign risk) and the U.S. 10-year bond yield. We find that three financial variables have been linearly associated with sovereign spreads in Latin America, explaining most of the fluctuations in yields over the past five years, in bad as well as good times. Positively associated are the Chicago Board Options Exchange Volatility (VIX) Index⁸ and the U.S. term premium (as measured by the difference between the 10-year U.S. treasury bond yield and the U.S. federal funds rate). The VIX is a proxy for global investor sentiment and the U.S. business cycle. Negatively associated is the S&P500 stock exchange index.

The increasing dispersion in yields likely reflects investors' perceptions of differences in country risk during a period in which investors rapidly changed their pricing of risk in general. While sovereign spreads move together, spreads of those countries perceived to be riskier rise faster than average when global developments are increasing spreads, and vice

⁸ The VIX measures the implied volatility of S&P500 index options and is often viewed as the market's expectation of volatility over the coming month; the VIX is also affected by shifts in investors' pricing of such volatility (i.e., their appetite for risk).

Sensitivity of Individual Sovereign Spreads to Market Trends 1/

	2005	2006	2007	2008
Argentina	8.2	9.2	9.0	7.0
Dominican Republic	1.5	1.7	1.7	1.7
Ecuador	1.5	1.4	1.2	1.7
Venezuela	1.8	1.7	1.5	1.6
Uruguay	1.7	1.5	1.5	1.3
Brazil	1.5	1.4	1.4	1.2
Colombia	1.0	1.0	1.1	1.0
Peru	1.0	1.0	1.0	0.9
Panama	0.8	0.9	0.9	0.8
El Salvador	0.7	0.7	0.8	0.8
Mexico	0.7	0.7	0.7	0.7
Chile	0.7	0.6	0.6	0.6
Principal Component	1.0	1.0	1.0	1.0

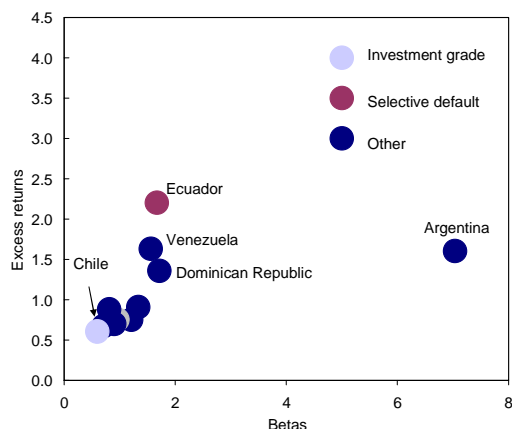
Sources: JPMorgan and IMF staff calculations.

1/ As measured by its beta

$$(yield_t^i - fedfunds_t) = c + beta^i (fittedyield_t - fedfunds_t)$$

where the fitted yield is estimated from the first principal component of Latin American sovereign spreads in the EMBIG.

Excess Returns and Betas 1/



Sources: JPMorgan; and IMF staff calculations.

1/ 2008 Excess returns, proxied by $\frac{E[yield_t^i - fedfunds_t]}{E[fittedyield_t - fedfunds_t]}$

Note: The variable "fittedyield" corresponds to the fitted value of the first principal component of LA sovereign spreads when regressed on external financial variables.

versa. The repricing of risk can happen rapidly, but country risk perceptions are likely to change slowly over time and reflect structural factors, political institutions, and policy frameworks. We find that higher sovereign spreads are indeed correlated with higher risk ratings and moreover that they are more sensitive to global market developments.

We find that the association between sovereign spreads and global financial variables is robust. It can be found through a variety of econometric methods on over different time periods.⁹ The global factors explain movements not only in the aggregate fluctuations (technically measured by the principal component of spreads in the EMBIG index), but also in each of the individual sovereign spreads included in its computation. The relationship has also been robust to the inclusion of other plausible factors (oil prices and aggregated commodity price indices, U.S. industrial production, U.S. corporate bond spreads, the overnight interest rate swap spread to the LIBOR rate), which were dropped from the final specification because either they were not statistically significant or their estimated parameter changed signs as the sample was reduced. We do find that country-specific commodity export prices, however, are statistically significant and negatively affect sovereign spreads in most individual country regressions, at least for the whole sample.

Empirical support also can be found for the idea that sovereign spreads can be grouped into different risk classes.¹⁰ In the spirit of the capital asset pricing model, individual country yields net of the U.S. federal funds rate were regressed on a constant and the corresponding excess yield associated with aggregate market fluctuations due to global financial

⁹ These include basic methods like ordinary least squares (OLS), but also other more complex methods like the Generalized Method of Moments (GMM) and cointegrating techniques, through which a long-run cointegrating relation can be detected.

¹⁰ The higher excess returns also reflect underlying economic fundamentals, as discussed by Hartelius and Kamil (IMF, 2008, see Box 2.1), following a different methodology.

variables.¹¹ Higher betas are associated with higher excess returns.

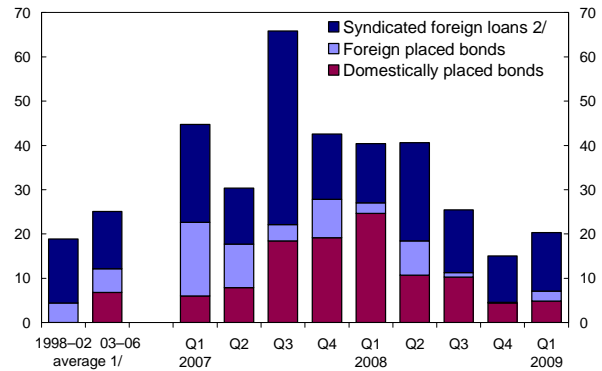
Overall, these findings suggest that Latin American sovereign bonds have suffered contagion from the international financial crisis and that no decoupling is apparent. While there may have been relatively little reassessment of individual countries' risk in recent quarters, there has been a very large repricing of risk in the global capital market, and such repricing hits hardest the countries with the greatest perceived risk. The findings suggest that the impact of global developments on sovereign bond pricing discriminates among countries, with the countries least affected being those that have good credit ratings.

2.2. Financing conditions for corporates

This section was prepared by Herman Kamil and Bennett Sutton.

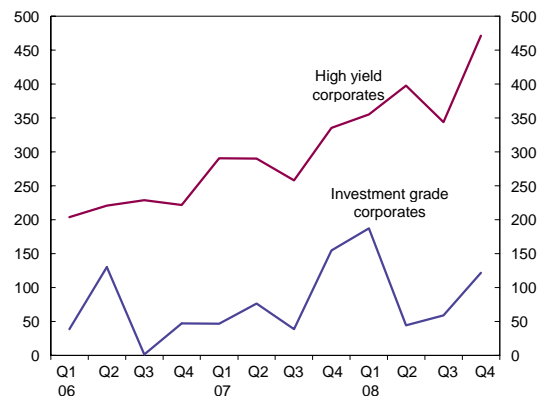
The global credit crunch has taken a toll on emerging-market economies, reducing access to financing by LAC corporates by end-2008. Bond and loan issuance by Latin corporates, including quasi-sovereigns, peaked in the third quarter of 2007, as the commodity boom and positive economic prospects boosted investor demand. But this has slowed notably since the deterioration of global financial markets. Deleveraging by corporates started with a sharp decline in syndicated loans and bonds placed abroad, and private issuers all but disappeared from external bond markets by the end of 2008. With rising turmoil in dollar funding markets starting in the second half of 2007, corporates relied increasingly on domestic bond markets, which provided 60 percent of Latin corporate debt financing needs by 2008Q1. However, domestic bond markets eventually succumbed to the repricing of risk that drove down appetite for new corporate bonds of any variety, and domestic issuance fell sharply in 2008Q4.

Private and Quasi-Sovereign Corporate Financing
(Billions of U.S. dollars)



Sources: Dealogic; and IMF staff calculations.
1/ Averages over 1998Q1–2002Q4 and 2003Q1–06Q4.
2/ Includes bonds issued domestically and abroad. Values converted to U.S. dollars at exchange rates prevailing at time of issuance.

Benchmark Spreads of Syndicated Loans to Latin Corporates at Issuance
(Basis points; simple averages)



Sources: Dealogic; and IMF staff calculations.

¹¹As measured by the fitted value of the first principal component on the EMBIG.

Aside from capital market financing, other forms of funding have also suffered from the global financial stress. Anecdotal evidence indicates that the availability of short-term trade financing has contracted significantly since the onset of the crisis, reflecting lower credit lines from bank counterparts and credit capacity constraints on both buyers and suppliers.¹² In addition, local affiliates of foreign firms could also face funding gaps as intra-group credit from parent firms dries up, reflecting their own higher cost of funding.

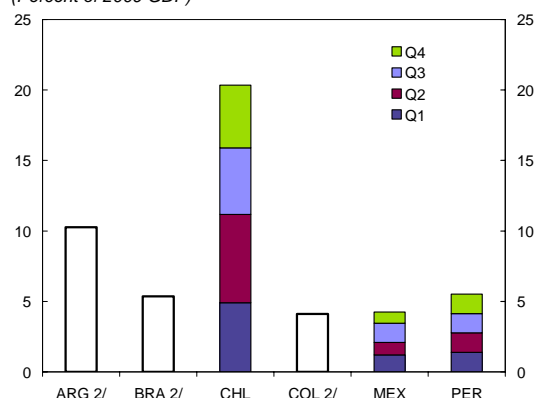
Borrowing costs are also rising. Spreads on syndicated loans to Latin American corporates (over U.S. treasury bills) rose by over 100 basis points in the last quarter of 2008, both for investment-grade and high-yield firms. The gap spiked to a record high in mid-December as the global credit crisis prompted more than \$1 trillion of losses and writedowns at financial firms.

LAC corporates may face higher financing pressures in 2009 and 2010. The retrenchment of cross-border bank flows, coupled with falling revenues from the downturn, raise concerns about the private sector's ability to pay or refinance external debt.¹³ Our estimates suggest that financial and nonfinancial companies in LA6 need to repay or roll over approximately US\$148 billion in external debt with nonresidents (including bonds, loans, short-term trade finance and intercompany loans) in 2009. In percent of GDP, Argentina, Chile, and

¹² There is anecdotal evidence that exporters have reduced the volume and terms of credit they are willing to provide their customers. This, in turn, reflects the reduction in access to working capital for exporters, and increased counterparty risk as importers face more difficult economic and financial conditions. This squeeze in trade finance could explain part of the sharp fall in regional trade in recent months. However, it is difficult to gauge the ultimate impact of a contracting supply of credit on trade since causality may run in the other direction, namely, that a fall in trade caused by slowing world demand can reduce the demand for trade credit.

¹³ In Brazil, Chile, and Mexico, the stock of foreign currency debt is very concentrated in the largest firms. In Argentina, 80 percent of short-term private external debt is trade credit or inter-company borrowing.

2009 Corporate Amortization of External Debt 1/
(Percent of 2009 GDP)



Sources: National authorities; and IMF staff calculations.

1/ Includes amortization and interest payments of short-term and long-term debt coming due in 2009 with nonresidents, for both financial and non-financial companies. Covers bonds, syndicated and bilateral loans, trade finance, and inter-company loans.

2/ Quarterly data not available.

Peru face the largest borrowing needs. The currencies of several Latin American economies have dropped more than 20 percent against the dollar in the past year, increasing the cost of servicing foreign currency obligations. At the same time, many of these companies that do have foreign currency obligations are also exporters (and/or may have liquid assets denominated in foreign currency).

As external funding has become more difficult, Latin American corporations have turned to domestic markets. Some corporates have been successful in switching to banks as a source of financing, although this is likely to crowd out bank financing to smaller firms and/or households. In Chile, for example, some companies have resorted to domestic capital markets. Chilean corporates have also replaced short-term external debt for long-term domestic debt, reducing both rollover and currency risks. In Mexico, the association of pension funds has committed to using the expansion of the funds' portfolios to buy domestically issued securities.

Still, some corporates may need to renegotiate with their creditors or seek government aid through development banks to remain current on their

external obligations.¹⁴ In an effort to alleviate refinancing risks of external debt, central banks in several countries in the region have offered foreign currency credit to banks, provided the funds are onlent to local companies with maturing foreign debt. The lending has been financed out of currency reserves. Brazil's central bank, for example, unveiled plans in February 2009 to provide more than \$20 billion to help 4,000 or more companies meet external debt payments this year. Companies in Mexico have received some support from development banks, including through credit guarantees.¹⁵ Mexico has recently drawn from its swap facility with the U.S. Federal Reserve (US\$30 billion) to help finance the corporate sector.

2.3. Geographical concentration of LAC exports and exposure to shocks in the United States and Europe

This section was prepared by Roberto Garcia-Saltos and Carolina Saizar.

The sudden drop in the LAC region's exports is a clear consequence of the global recession. Although this is not different from other regions, insufficient geographical diversification in LAC's exports could be a drag on economic recovery. A shock to a common trading partner such as the current one could fuel a cascading effect in reducing trade and negatively affect growth.¹⁶

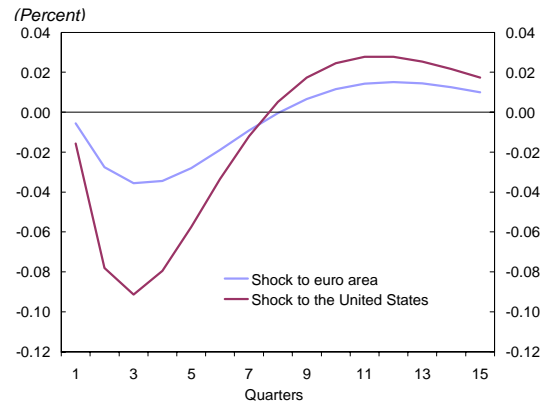
LAC's high exposure to the United States and Europe is of particular concern, given the expected severe slowdown in these economies. The United States and Europe remain the main trading partners

¹⁴ According to Moodys (2009), approximately half of the companies in the region that have issued external debt have high exposure to funding risk.

¹⁵ In Chile, state-sponsored financing support through guarantees is being aimed at small and medium-sized enterprises and exporters, which were particularly affected by tighter domestic lending conditions as well.

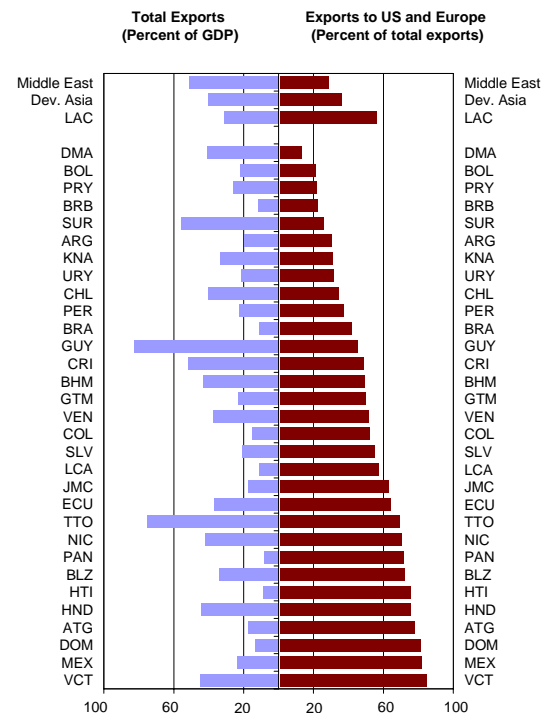
¹⁶ As documented elsewhere, including in past REOs, lack of product diversification in exports has usually been identified as a key factor associated with larger output volatility; see also Malik and Temple (2006).

LA5 Output Gap Reponse to a 0.4 Percent Negative Output Gap Shock in the United States or in the Euro Area



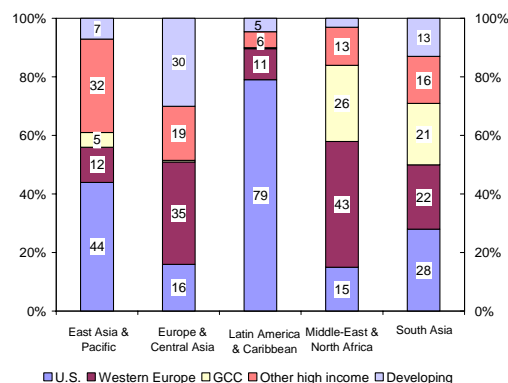
Source: IMF staff calculations
1/ Size of the shock is one s.d. in the United States case and 1.2 s.d. in the euro area case.

Latin America: Total Exports and Share to the United States and Europe, 2008 1/



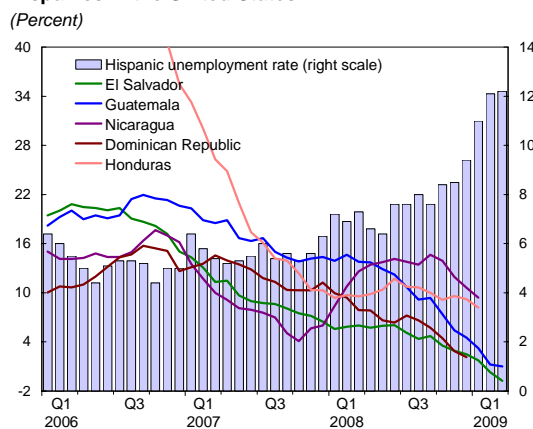
Sources: IMF, *Direction of Trade Statistics*; and IMF staff calculations.
1/ Provisional data for 2008Q4.

Source of Remittances by Recipient Regions (2008)



Source: World Bank (2008).

Growth of Remittances and the Unemployment Rate of Hispanics in the United States (Percent)



Sources: Labor Force Statistics from the Current Population Survey; Haver Analytics, and national authorities.

of most countries in LAC and there is limited room in the short term for intraregional trade or trade with other regions to substitute falling demand from those countries.

Relative to other regions, exports from LAC countries are more geographically exposed to the United States or Europe. Intraregional trade and trade with Asia has increased in recent years, but so has the synchronicity of business cycles between LAC and the United States and Europe.¹⁷ Indeed, impulse responses derived from the regional global projection model (GPM) show a high degree of synchronization in the response of the LA5 output gap to a negative shock in the United States or in Europe.¹⁸ While the intensity of the response varies, the negative effect of the shock lasts for about 8 quarters. Also, countries with relatively low direct export exposure to the United States or Europe may still be affected, if they export heavily to partners with strong ties with these advanced countries (i.e., indirect exposure). Countries where this indirect exposure is important include Bolivia, Paraguay, Suriname, and Uruguay in South America; and Barbados, Dominica, and Grenada in the Caribbean.

2.4. Declining workers' remittances

This section was prepared by Ewa Gradzka and Carolina Saizar.

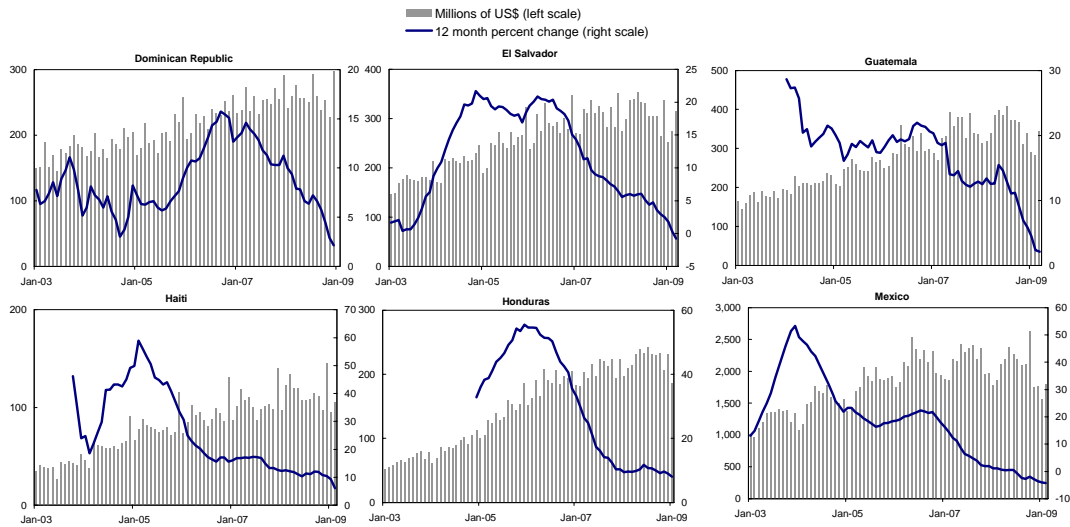
Since the onset of the global crisis, remittances to the LAC region have decelerated sharply. Growth in remittances had started to decelerate in mid-2006, but as the financial crisis spread and advanced economies slowed, this pace accelerated in many countries. In several LAC countries, remittances already posted negative growth by end-2008 (e.g., Argentina, Mexico, Ecuador).

This trend is likely to continue, given the bleak economic outlook in the United States and Spain.

¹⁷ See, for instance, Chiquiar and Ramos-Francia (2005), Aiolfi and others (2007), and Roache (2008).

¹⁸ For details of the model, see Canales-Kriljenko and others (2009).

Gross Remittances Inflows by Country



Sources: Haver Analytics; and national authorities.

The United States is the most important source of remittances for LAC, followed by Spain. The ongoing recession in these countries is having a severe impact on the employment outlook of Hispanic immigrants, taking a toll on remittances flows. The unemployment rate for Hispanics or Latinos in the United States has jumped from 6.3 percent in February 2008 to 10.9 percent in February 2009. Remittances to some countries have been especially sensitive to conditions in the United States construction sector. But more recently all U.S. sectors have been affected, weakening the outlook for remittances even if the construction sector bottoms out. In addition, as the United States continues tightening immigration laws, employers have been induced to lay off immigrant workers. In Spain, the second-largest source of remittances to LAC, unemployment is already one of the highest in the European Union (at 14 percent), and the government is providing monetary incentives for immigrants to volunteer to return to their home countries.

The IMF staff projects that remittances will fall further in 2009. For Mexico, remittances are assumed to drop by 10 percent in dollar terms and only gradually recover as growth in the United States

picks up. In Central America, they are expected to decrease by about 5 percent on average and in Haiti by about 7 percent. For the LAC region as a whole, the World Bank projects that remittances in 2009 will fall by around 4.4 percent under a baseline scenario, and by as much as 7.7 percent under a more pessimistic scenario that assumes recent migrants return to their home countries (Ratha and Mohapatra, 2009). Even modest contractions will represent a significant loss relative to the fast growth trend of remittances to which many LAC countries have been accustomed in recent years.

While remittances are falling in terms of foreign currency inflows, the recent depreciation of the real exchange rate in some countries has provided a cushion to recipients of remittances. Previously, rising inflation since mid-2007 and throughout much of 2008, combined with exchange rate appreciation in many LAC countries, had contributed to reducing the real value of the remittances in domestic currency. However, as global shocks deepened, inflation has slowed. In addition, nominal exchange rates depreciated sharply in some LAC countries, including Mexico, more than offsetting the decline of remittances measured in foreign currency. Still, the continued decline in

Remittances: Nominal vs. Real Terms
(Average of the monthly annual growth rates)

	U.S. dollars		Local currency		Real terms	
	Jan-Sep 2008	Oct-Dec 2008	Jan-Sep 2008	Oct-Dec 2008	Jan-Sep 2008	Oct-Dec 2008
Mexico	-3.9	-3.1	-7.7	16.6	-11.8	9.8
El Salvador	5.4	-5.5	5.4	-5.5	-2.1	-10.9

Sources: Haver Analytics; and IMF staff calculations.

dollar flows is eroding the gains from depreciation. In dollarized economies such as El Salvador, declining dollar remittances are not being cushioned by exchange rate depreciation.

Declining remittances inflows can have significant effects on the external balance of payments, growth, and social conditions of recipient countries. Workers' remittances have become a significant source of external inflows for many LAC countries. As a region, LAC receives the largest volume of remittances globally, reaching US\$61 billion in 2007, followed by east Asia and the Pacific with US\$58 billion. For some countries, remittances account for a significant share of GDP. Haiti tops the list, with remittances at 19.7 percent of GDP in 2008, followed by Honduras (19.1 percent of GDP), El Salvador (17.2 percent of GDP), Nicaragua (13 percent of GDP), and Guatemala (12 percent of GDP). While Mexico receives the largest amount in dollar terms, this represents less than 3 percent of its GDP, which may limit the impact on the overall national economy. In dollarized economies such as El Salvador, weakness in remittances could reduce the country's capacity to purchase goods and services from abroad. It is thought that a large proportion of remittances is spent mainly on consumption, so the drop in remittances will lead to a corresponding drop in domestic demand. Moreover, remittances have been a vital source of personal income, thus playing an important role in reducing poverty (Acosta and others, 2007; Adams and Page, 2005). The study by Acosta and others which considers 11 countries in LAC, estimates that for each 1 percent increase in the share of remittances to GDP, the fraction of population

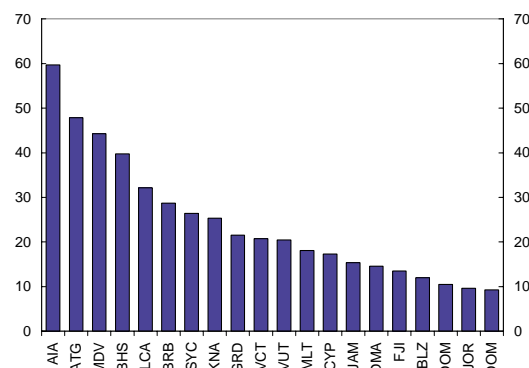
living in moderate poverty is reduced by an average of about 0.4 percent.

2.5 Caribbean tourism: a severe demand downturn and policy responses

This section was prepared by Bernhard Fritz-Krockow and Yan Sun.

Caribbean¹⁹ economies are among the most tourism-dependent in the world. For most countries, tourism is the main source of economic growth, employment, and foreign exchange earnings. Of the top 20 tourism-dependent countries, ranked by average travel receipts in percent of GDP during 1980–2007, 10 are from the Caribbean region. Tourism receipts in Antigua and Barbuda, the most tourism-dependent country, have averaged almost 50 percent of GDP over the past three decades. The employment impact of the tourism sector is considerable. In addition, Caribbean countries benefit from tourism-related construction in terms of employment and economic growth, with the associated foreign direct investment supporting balance of payments inflows. In Barbados and The Bahamas, tourism-related construction accounted for an estimated 4–5 percent of GDP during 2003–07.

Travel Receipts for Tourism-Dependent States, Average 1980–07
(Percentage of GDP)



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

¹⁹ Unless otherwise stated, Caribbean here refers to members of CARICOM, excluding Haiti.

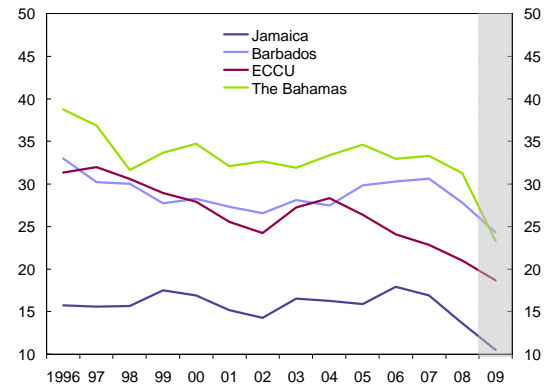
The still-unfolding economic downturn in advanced countries is dampening tourism activity, with significant economic consequences for Caribbean countries. Historically, tourism arrivals have been closely correlated with economic activity in tourism-source countries.²⁰ Caribbean tourism arrivals fell by a cumulative 8.6 percent during the 2001 recession and by 2.9 percent during the 1981 recession. After an uptick in the first half of 2008, stay-over tourists to the Caribbean are estimated to have fallen by about 5 percent during the second half of the year. Tourism receipts are expected to continue falling in 2009—on average by 15 percent, even though the decline in stay-over arrivals may be more modest, as hotel operators are currently offering heavily discounted prices. Reflecting the weak tourism performance, real GDP is projected to decline by an average of ½ percent this year.

The slowdown in visitor arrivals and tourism-related development projects is reducing foreign exchange inflows. To some extent, the negative impact on the external current accounts of the Caribbean countries will be dampened by a decline in imports amid sluggish domestic activity and sharply lower oil import prices. Nevertheless, with a projected fall-off in capital flows, including to tourism-related construction projects, pressure will increase on international reserve levels and/or currencies, as many countries in the region have pegged exchange rates. Increasing layoffs and reduced profit margins in the tourism sector will also pressure fiscal positions in many Caribbean countries.

Some Caribbean countries have introduced policy measures to soften the shock to the tourism industry. A number of governments (e.g., Antigua and Barbuda, Jamaica, St. Kitts and Nevis, and St. Vincent and the Grenadines) are providing short-

Travel Receipts

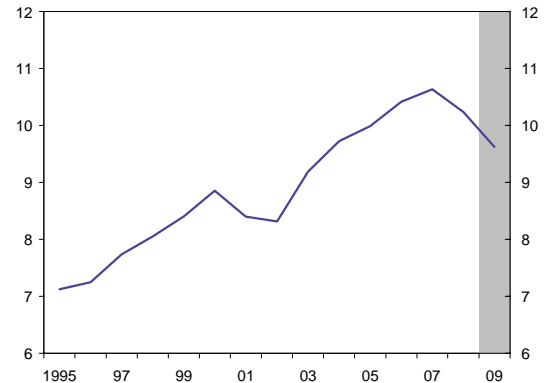
(Percent of GDP)



Sources: Eastern Caribbean Central Bank; IMF, *Balance of Payments Statistics*; and IMF staff calculations.

Stopover Tourists 1/

(Millions of people)



Sources: Caribbean Tourism Organization; and IMF staff calculations. 1/ Includes Anguilla, Antigua & Barbuda, The Bahamas, Barbados, Belize, Dominican Republic, Dominica, Grenada, Guyana, Jamaica, Martinique, St. Kitts and Nevis, St. Lucia, St. Maarten, St. Vincent & The Grenadines, Suriname, and Trinidad and Tobago.

²⁰ See Tsounta (2008) for an analysis of the determinants of demand for tourism in Eastern Caribbean Currency Union (ECCU) countries. The ECCU comprises the IMF member countries of Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, as well as the U.K. territories of Anguilla and Montserrat.

term tax relief to hotels and other tourism operators, along with reduced charges for electricity, water, and other inputs to tourism services, in some cases on condition that proactive measures are taken to preserve employment, increase operating efficiency, and reduce operating costs. Many governments are also supporting aggressive marketing efforts, including major advertising campaigns (e.g., The Bahamas, Barbados, Jamaica, St. Lucia, St. Vincent and the Grenadines). In Jamaica, in particular, the advertising campaign and discounted vacation packages appear thus far to have been successful, as stay-over arrivals are up about 3 percent for the first two months of 2009 compared with a year ago.

Macroeconomic policy options may be limited. The scope for countercyclical fiscal policies in response to the global economic downturn is constrained by the already-high debt levels in many Caribbean countries. Even in cases where an expansionary policy would not jeopardize fiscal sustainability, the deterioration in tourism earnings, and associated fiscal revenue, may require a tightening of macroeconomic policies in order to sustain the fixed exchange rate pegs that characterize many Caribbean countries—especially if capital inflows remain low. Although the regional financial systems weathered the global shocks well initially, given recent local shocks (CL Financial in Trinidad

and Tobago, and Stanford Group in Antigua and Barbuda), it will be important to closely monitor developments in the financial system. A prolonged global downturn could lead to further unemployment, financial strain, and bankruptcies in the tourism sector, which could have adverse spillovers onto the banking system and hinder a recovery during the cyclical upturn.

In response to the downturn in tourism receipts, several Caribbean countries have sought IMF financial assistance. St. Vincent and the Grenadines (followed shortly thereafter by Dominica and St. Lucia) is the first country in the Western Hemisphere to request a drawing under the IMF's Exogenous Shock Facility, responding to the transitory fall in its tourism receipts. Similarly, Grenada has requested an augmentation of its Poverty Reduction and Growth Facility to help absorb the shock to its balance of payments position arising from the downturn in tourist receipts. Belize has received assistance through the IMF's emergency assistance for natural disasters (ENDA) to mitigate the adverse effects of recent floods on international reserves. St. Kitts and Nevis is also requesting assistance through ENDA to help cope with the adverse balance of payments impact of a hurricane.

**Western Hemisphere
Main Economic Indicators**

	Output Growth (Annual rate in percent)							Inflation (End-of-period, in percent) 1/							External Current Account (In percent of GDP)						
	1995-							1995-							1995-						
	2004 Avg.	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.	2004 Avg.	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.	2004 Avg.	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.
North America 2/	3.1	3.0	3.0	2.2	1.1	-2.8	0.1	3.4	3.3	3.2	2.9	4.2	0.2	0.8	-3.0	-4.9	-5.0	-4.5	-4.0	-2.6	-2.6
United States	3.1	2.9	2.8	2.0	1.1	-2.8	0.0	2.5	3.7	2.2	4.1	0.8	-0.1	0.1	-3.3	-5.9	-6.0	-5.3	-4.7	-2.8	-2.8
Canada	3.3	2.9	3.1	2.7	0.5	-2.5	1.2	2.1	2.3	1.4	2.5	1.9	-0.2	0.9	0.8	1.9	1.4	0.9	0.6	-0.9	-0.7
Mexico	2.7	3.2	5.1	3.3	1.3	-3.7	1.0	15.4	3.3	4.0	3.7	6.5	3.5	3.1	-1.8	-0.5	-0.5	-0.8	-1.4	-2.5	-2.2
South America 2/	2.4	5.3	5.7	6.6	5.3	-0.8	1.8	10.5	6.8	5.4	7.0	8.8	7.8	7.8	-1.5	2.7	2.8	1.3	0.1	-1.7	-1.0
Argentina	1.3	9.2	8.5	8.7	7.0	-1.5	0.7	4.9	12.3	9.8	8.5	7.2	7.2	7.2	-0.5	1.7	2.3	1.6	1.4	1.0	1.8
Bolivia	3.3	4.4	4.8	4.6	5.9	2.2	2.9	5.0	4.9	4.9	11.7	11.8	6.0	5.5	-3.8	6.5	11.3	13.2	11.5	-2.1	-1.1
Brazil	2.5	3.2	4.0	5.7	5.1	-1.3	2.2	8.6	5.7	3.1	4.5	5.9	4.2	4.0	-2.4	1.6	1.3	0.1	-1.8	-1.8	-1.8
Chile	4.8	5.6	4.6	4.7	3.2	0.1	3.0	4.2	3.7	2.6	7.8	6.9	2.2	3.0	-1.8	1.2	4.9	4.4	-2.0	-4.8	-5.0
Colombia	2.4	5.7	6.9	7.5	2.5	0.0	1.3	12.0	4.9	4.5	5.7	7.7	4.6	3.6	-2.1	-1.3	-1.8	-2.8	-2.8	-3.9	-3.3
Ecuador	2.8	6.0	3.9	2.5	5.3	-2.0	1.0	31.4	3.1	2.9	3.3	8.8	2.0	2.5	-1.8	0.8	3.9	2.3	2.4	-3.5	-2.3
Paraguay	1.5	2.9	4.3	6.8	5.8	0.5	1.5	8.9	9.8	12.5	5.9	7.5	5.5	5.0	-1.7	0.3	0.5	0.7	-1.4	-1.0	-0.9
Peru	3.5	6.8	7.7	8.9	9.8	3.5	4.5	4.9	1.2	1.1	3.9	6.7	2.5	2.0	-3.7	1.4	3.0	1.4	-3.3	-3.3	-3.2
Uruguay	0.4	7.5	4.6	7.6	8.9	1.3	2.0	14.0	4.9	6.4	8.5	9.2	6.4	6.5	-1.1	0.0	-2.3	-0.8	-3.6	-1.7	-2.4
Venezuela	1.3	10.3	10.3	8.4	4.8	-2.2	-0.5	35.1	14.4	17.0	22.5	30.9	42.0	45.0	6.5	17.7	14.7	8.8	12.3	-0.4	4.1
Central America 2/	3.7	4.7	6.3	6.9	4.3	1.1	1.8	7.6	8.0	6.0	8.6	9.6	5.7	5.0	-5.2	-4.8	-4.7	-7.0	-9.2	-6.1	-7.1
Costa Rica	4.3	5.9	8.8	7.8	2.9	0.5	1.5	12.4	14.1	9.4	10.8	13.9	8.0	7.0	-3.8	-4.9	-4.5	-6.3	-8.9	-5.3	-5.3
El Salvador	3.0	3.1	4.2	4.7	2.5	0.0	0.5	4.0	4.3	4.9	4.9	5.5	2.5	2.3	-2.4	-3.3	-3.6	-5.5	-7.2	-2.3	-3.9
Guatemala	3.4	3.3	5.4	6.3	4.0	1.0	1.8	7.4	8.6	5.8	8.7	9.4	5.5	4.7	-5.2	-4.5	-5.0	-5.2	-4.8	-4.0	-4.9
Honduras	3.7	6.1	6.6	6.3	4.0	1.5	1.9	13.4	7.7	5.3	8.9	10.8	9.4	8.1	-4.6	-3.0	-3.7	-10.3	-14.0	-8.0	-9.2
Nicaragua	4.3	4.3	3.9	3.2	3.0	0.5	1.0	8.5	9.6	9.5	16.9	13.8	7.0	7.4	-20.6	-14.6	-13.6	-18.3	-23.2	-15.5	-14.5
Panama	4.4	7.2	8.5	11.5	9.2	3.0	4.0	0.9	3.4	2.2	6.4	6.8	3.2	2.5	-5.3	-4.9	-3.1	-7.3	-12.4	-10.1	-11.6
The Caribbean 2/	3.9	5.8	8.2	5.8	3.0	-0.2	1.5	9.7	8.3	5.9	9.0	8.9	5.3	5.2	-3.1	0.3	2.1	-1.5	-2.8	-5.1	-4.1
The Bahamas	3.0	3.3	4.6	2.8	-1.3	-4.5	-0.5	1.7	1.2	2.3	2.9	4.5	1.0	0.2	-10.4	-10.0	-20.4	-18.2	-13.4	-9.5	-10.4
Barbados	2.2	3.9	3.2	3.4	0.6	-3.5	0.5	2.5	7.3	5.6	4.8	8.9	-3.6	7.6	-4.0	-12.8	-8.4	-5.2	-8.4	-7.2	-6.9
Belize	5.5	3.0	4.7	1.2	3.0	1.0	2.0	1.8	4.2	2.9	4.1	4.4	2.5	2.5	-11.5	-13.6	-2.1	-4.0	-11.4	-6.7	-6.2
Dominican Republic	4.9	9.3	10.7	8.5	4.8	0.5	2.0	13.0	7.4	5.0	8.9	4.5	6.0	5.0	-0.8	-1.4	-3.6	-5.0	-9.7	-6.8	-6.9
ECCU 3/	2.5	5.6	6.3	5.2	1.8	-2.4	-0.1	1.5	4.2	2.8	5.7	5.0	2.4	2.3	-16.2	-22.4	-29.7	-34.8	-33.9	-24.2	-24.1
Guyana	2.4	-1.9	5.1	5.4	3.2	2.6	3.4	5.4	8.3	4.2	14.0	6.4	5.0	5.0	-12.0	-14.8	-20.9	-18.0	-20.8	-18.1	-15.6
Haiti 4/	1.8	1.8	2.3	3.4	1.3	1.0	2.0	8.6	14.8	12.4	7.9	20.8	3.0	5.0	-1.0	2.6	-1.4	-0.3	-3.1	-3.3	-2.8
Jamaica	0.7	1.0	2.7	1.4	-1.2	-2.6	-0.3	11.5	12.6	5.7	16.8	16.8	8.9	8.9	-5.7	-9.4	-10.2	-14.9	-15.3	-12.5	-10.9
Suriname	3.2	4.5	4.8	5.5	6.5	2.8	2.5	15.4	15.8	4.7	8.4	9.3	9.5	8.0	-7.2	-4.3	1.8	2.9	0.2	-7.8	-1.9
Trinidad & Tobago	7.6	5.4	13.3	5.5	3.4	0.5	2.0	3.8	7.2	9.1	7.6	14.5	5.0	5.0	2.0	22.4	37.5	24.8	26.8	7.4	10.2
Memorandum item:																					
Latin America and the Caribbean 2/	2.6	4.7	5.7	5.7	4.2	-1.5	1.6	11.4	5.9	5.0	6.2	8.1	6.2	6.1	-1.9	1.3	1.5	0.4	-0.7	-2.2	-1.6

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

1/ End-of-period rates, i.e., December on December. These will generally differ from period average inflation rates quoted in the IMF, *World Economic Outlook*, although both are based on identical underlying projections.

2/ Weighted average. For output and inflation, weighted by PPP GDP; for external current account, dollar-weighted GDP.

3/ Eastern Caribbean Currency Union. For inflation, dollar-weighted GDP. For output and current account, ECCU aggregate.

4/ Fiscal year data.

**Latin America and the Caribbean
Main Fiscal Indicators 1/**

	Public Sector Revenue (In percent of GDP)						Public Sector Primary Expenditure (In percent of GDP)						Overall Balance (In percent of GDP)						Primary Balance (In percent of GDP)					
	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.	2005	2006	2007	2008 Est.	2009 Proj.	2010 Proj.
Latin America and the Caribbean 2/	30.6	31.2	31.4	31.9	30.6	30.9	27.2	27.9	28.5	29.1	30.7	30.1	-1.2	-0.9	-1.0	-0.8	-3.3	-2.3	3.4	3.3	2.9	2.8	-0.1	0.8
South America and Mexico 2/	31.4	31.9	32.1	32.7	31.3	31.6	27.8	28.5	29.1	29.8	31.4	30.8	-1.2	-0.9	-1.0	-0.8	-3.3	-2.3	3.5	3.4	2.9	2.9	0.0	0.8
Argentina	29.4	29.9	31.6	33.1	33.5	33.3	25.0	25.9	29.2	30.1	33.1	32.9	-1.8	-1.1	-2.0	-0.5	-3.3	-2.8	4.4	4.0	2.4	3.0	0.4	0.4
Bolivia	30.9	34.3	34.5	37.4	29.4	29.4	30.2	27.3	30.4	33.2	32.6	30.4	-2.2	4.5	1.6	2.3	-5.2	-3.0	0.8	7.0	4.2	4.2	-3.2	-1.0
Brazil	42.5	42.6	42.9	42.9	41.2	41.3	38.1	38.8	38.9	38.3	39.1	38.0	-3.0	-2.9	-2.2	-1.5	-2.3	-0.5	4.4	3.8	3.9	4.6	2.0	3.3
Chile	25.9	27.8	29.5	27.9	24.8	26.6	20.4	19.2	19.9	23.2	27.6	26.4	4.7	7.9	9.0	4.4	-3.8	-0.9	5.6	8.6	9.6	4.7	-2.8	0.1
Colombia	26.1	27.3	27.3	26.2	26.2	25.1	22.7	24.4	24.1	22.9	25.6	24.8	0.0	-0.7	-0.6	-0.1	-2.9	-3.0	3.4	2.9	3.2	3.3	0.6	0.3
Ecuador	24.2	27.4	28.8	34.0	28.9	30.6	21.4	21.6	24.8	33.7	31.2	30.8	0.7	3.7	2.2	-1.1	-3.9	-1.7	2.9	5.8	4.1	0.3	-2.3	-0.2
Mexico	20.8	21.5	21.5	22.7	22.6	22.6	19.3	19.3	20.3	22.0	23.5	23.5	-1.3	-0.6	-1.4	-1.8	-3.6	-3.7	1.6	2.2	1.3	0.8	-0.9	-0.9
Paraguay	23.3	24.6	23.1	22.9	22.1	22.5	20.8	22.2	20.1	19.0	21.8	22.3	0.9	0.8	1.5	2.7	-0.7	-0.8	2.5	2.4	3.0	3.9	0.3	0.2
Peru	24.2	25.4	25.8	26.5	24.4	24.2	22.5	21.3	20.9	22.8	24.2	24.1	-0.3	2.2	3.3	2.0	-1.2	-1.3	1.6	4.1	5.1	3.6	0.2	0.0
Uruguay	30.8	30.7	30.4	28.0	29.2	29.6	26.9	27.2	27.0	26.7	27.4	27.4	-0.6	-0.5	0.0	-1.4	-1.5	-1.0	3.8	3.5	3.4	1.4	1.8	2.2
Venezuela	37.6	37.3	33.1	34.2	27.9	31.2	30.6	36.7	34.1	32.3	34.8	34.2	4.1	-1.5	-2.6	0.8	-9.1	-5.8	7.1	0.6	-1.0	1.9	-6.9	-3.0
Central America 2/	18.7	19.6	20.6	20.2	19.4	19.7	18.1	18.5	18.5	19.5	20.0	20.1	-1.7	-1.0	0.3	-0.9	-2.3	-2.3	0.6	1.0	2.1	0.7	-0.6	-0.4
Costa Rica	20.9	21.2	22.8	23.2	23.0	23.5	18.4	18.2	18.7	21.1	24.5	24.8	-1.2	0.5	1.9	0.4	-3.1	-3.2	2.5	2.9	4.1	2.1	-1.5	-1.3
El Salvador	16.6	17.2	17.1	16.9	16.3	16.7	16.8	17.6	16.6	17.6	16.8	17.5	-2.4	-2.9	-1.9	-3.1	-2.8	-3.4	-0.2	-0.5	0.5	-0.7	-0.5	-0.8
Guatemala	12.0	12.7	12.9	12.0	11.3	11.5	11.8	12.7	11.9	11.1	12.0	11.8	-1.2	-1.5	-0.6	-0.5	-2.2	-2.0	0.2	-0.1	0.9	0.9	-0.7	-0.4
Honduras	24.2	24.1	24.4	25.5	24.0	24.5	25.7	26.4	26.5	28.1	26.9	27.1	-1.4	-1.9	-1.6	-1.7	-2.5	-2.1	-1.5	-2.3	-2.2	-2.6	-2.8	-2.6
Nicaragua	26.9	28.8	29.6	29.2	28.7	29.7	25.9	25.9	27.2	29.3	29.1	28.6	-1.3	0.8	0.9	-1.7	-2.2	-1.6	0.9	2.8	2.4	-0.1	-0.3	1.1
Panama	22.3	24.9	28.2	26.0	24.0	24.0	20.5	20.1	21.2	22.5	21.8	21.8	-2.6	0.5	3.5	0.4	-1.0	-1.0	1.8	4.8	7.0	3.5	2.2	2.2
The Caribbean 2/	22.2	22.2	23.0	21.3	20.9	21.3	17.9	19.1	19.7	19.4	20.2	18.7	-1.6	-1.9	-1.1	-2.5	-3.7	-3.3	4.3	3.0	3.3	1.9	0.7	2.6
Dominican Republic	15.6	16.2	17.6	15.1	16.0	16.8	14.5	15.8	15.9	15.5	16.9	14.6	-3.0	-3.1	-1.4	-3.8	-3.5	-3.0	1.0	0.4	1.7	-0.4	-0.9	2.2
Jamaica	30.2	27.3	28.4	25.9	27.8	28.8	18.8	19.2	20.4	20.2	21.2	21.3	-4.2	-4.8	-3.8	-5.5	-6.5	-5.6	11.5	8.1	8.0	5.7	6.7	7.4
Trinidad and Tobago	31.6	32.1	32.1	33.6	27.5	27.5	23.2	24.8	27.0	27.2	26.3	26.2	6.0	5.2	3.1	4.5	-1.0	-1.1	8.5	7.3	5.1	6.5	1.2	1.4
ECCU 3/	29.9	31.3	30.7	31.0	28.9	29.0	30.4	32.4	31.5	31.7	31.2	31.2	-4.4	-5.1	-4.4	-4.7	-6.7	-6.8	-0.5	-1.1	-0.8	-0.7	-2.2	-2.2

Source: IMF staff calculations.

1/ Figures for overall public sector, including general government and public enterprises.

2/ PPP-GDP weighted average.

3/ Eastern Caribbean Currency Union.

III. The Global Crisis and Banking Systems in Latin America and the Caribbean

Challenges from a Global Crisis

The global crisis raises essential questions and issues for financial systems around the world, including in the Latin American and Caribbean (LAC) region. In the near term, it is important to understand the spillover to LAC banking systems and the implications for the outlook and short-term policy responses. In addition, as lessons are now being drawn in advanced economies, a new policy reform agenda is emerging: what are the implications of these reform proposals for the region?

In examining these issues, this chapter first focuses on the key “starting conditions” from which LAC banking systems are confronting the global crisis. The emphasis is on banking systems because banks dominate the financial sector in most countries in the region (Box 3.1). We then identify four key channels of adverse spillovers of the global crisis and discuss how LAC banking systems are likely to be affected by each of these “real-life stress tests.” Finally, we discuss short-term policy responses to limit adverse financial and real effects and the scope for further strengthening financial regulation and supervision in the coming years.

We conclude that LAC financial systems overall are much better prepared and more resilient than in the past because earlier weaknesses, such as exposure to currency depreciation or reliance on external financing,

have been greatly reduced, and important capital buffers have been built. This partly explains why six months into the global financial crisis, Latin American banking systems have managed the stress on their domestic economies well. In addition to the main improvements to the macroeconomic framework and vulnerability indicators, the successful—though not complete—implementation of a “first generation” of reforms in financial regulation and supervision, which vary by country and have often led to banking system consolidation, have played an important role. Of the ongoing spillovers affecting the region’s banks, we see credit risk as the most relevant concern, because the global recession reduces the profitability and income of the companies and households to which banks lend. In the near term, financial policies will need to continue responding to spillovers on a number of fronts. Over the medium term, policymakers may want to consider carefully the new agenda for a second generation of regulatory reforms that is emerging from the global crisis.

Starting Condition of LAC Banking Systems

Financial soundness indicators suggest that LAC banks continue to have some margin to tolerate moderate stress. In particular, financial soundness indicators constructed from aggregate country data suggest that LAC banks are solvent and profitable, at least on average, with systemwide capital and liquidity cushions that are helping them weather financial turmoil.

- Most banking systems have healthy capital adequacy ratios, with a median of about 15 percent, well above the 8 percent

Note: This chapter was prepared by Jorge Iván Canales-Kriljenko. The chapter draws in part on a forthcoming paper on implications for the LAC region of global financial and regulatory reform (Rennhack and others, forthcoming).

Box 3.1. Financial Systems in Latin America and the Caribbean

Banks dominate Latin American financial systems and are the only financial institutions with access to liquidity facilities and other parts of the financial safety net. Foreign banks have a significant presence through branches and subsidiaries in about 10 countries in the region (see Chapter 4) and are the dominant players in other countries, including those in the Eastern Caribbean Currency Union (ECCU), El Salvador, Mexico, and Panama. Public banks manage more than 10 percent of deposits in Argentina, Brazil, Chile, Costa Rica, the Dominican Republic, Uruguay, and Venezuela.

Some countries (Chile, Brazil, Mexico, Peru, Colombia, Panama, and Trinidad and Tobago) have well-established domestic equity and corporate bond markets, as well as pension funds, a few of which have fairly close ties with global capital markets. Still, these capital markets are relatively small in comparison with those of advanced economies.

Private pension fund assets are sizable and growing—accounting for 8–20 percent of GDP in Bolivia, Brazil, Colombia, El Salvador, Mexico, Peru, and Uruguay and 60 percent of GDP in Chile.

mandated by the Basel II accord and the higher national regulatory limits.

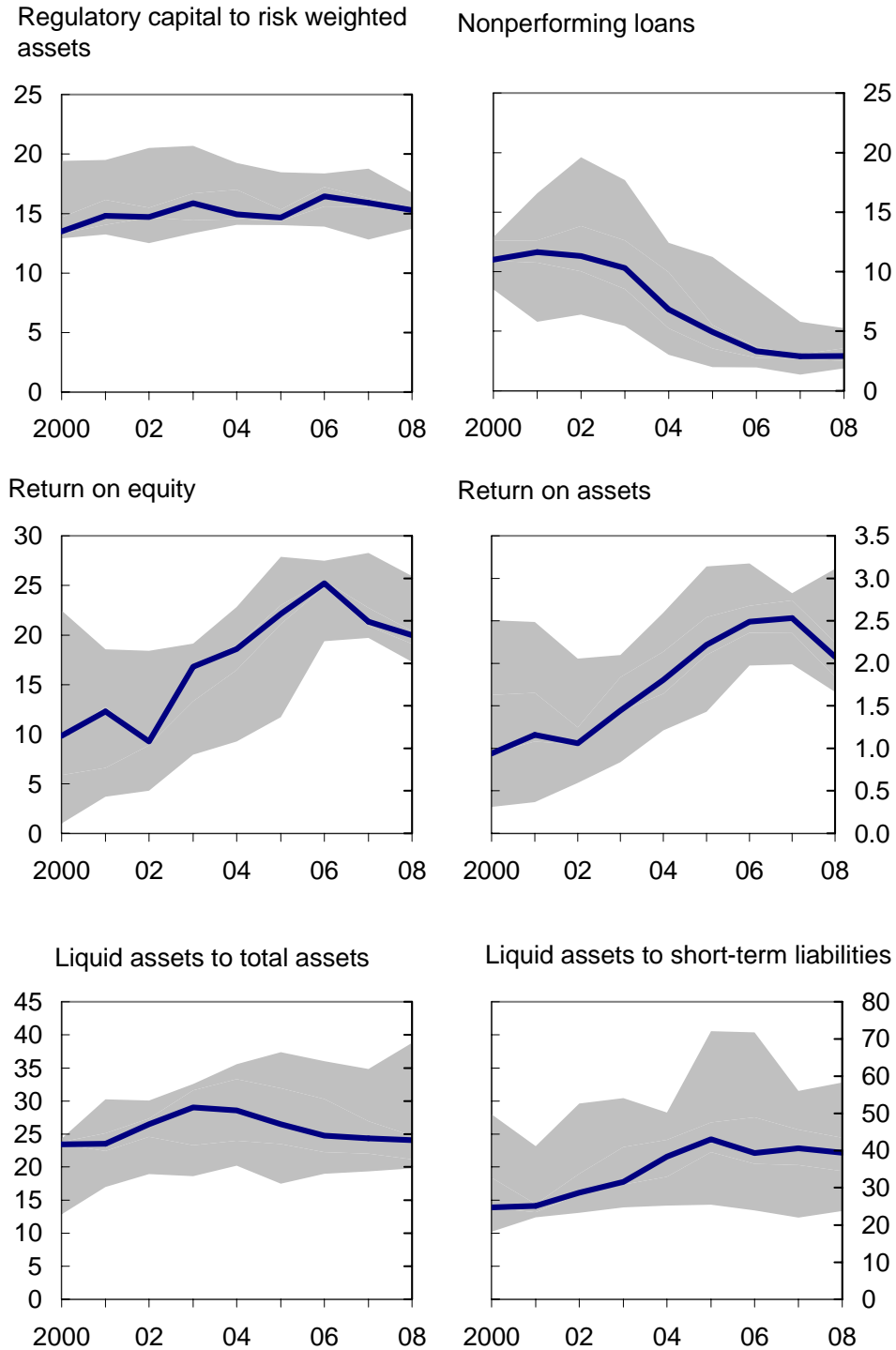
- The nonperforming loan ratio has been falling over the past few years to a median level of about 2.5 percent, although in 2008 it mildly increased in some commodity-importing countries.
- The return on equity is consistently high across countries, with a median level of 20 percent in 2008, although it has been declining since 2006.
- The return on assets is positive in all countries, with a median level of 2 percent a year and a tight distribution, although dispersion increased somewhat in 2008.
- Although liquidity ratios have been falling, liquid assets were still at about 20 percent of total assets and 40 percent of short-term liabilities by end-2008 (Figure 3.1), which is adequate for noncrisis situations.¹

Although reassuring, financial soundness indicators have limitations, including that they often are backward-looking indicators and may reflect a long period of growth that has already passed a turning point. In addition, system data can mask the deterioration in financial conditions of individual banks, particularly those that are of small or medium size. As in any other recession, the need to provide additional bank capital—or even individual bank failures—cannot be ruled out.

As in other emerging markets, bank balance sheets expanded rapidly in the LAC region over the past five years. In 2008, bank asset growth continued to be strong in commodity-exporting countries, but sharply decelerated in commodity-importing countries, which could reflect wealth effects arising from the sharp changes in relative prices. In most LAC countries, however, credit growth slowed considerably in 2008. From 2004 through mid-2007, credit growth had been expanding at very rapid rate, particularly in the form of consumer lending throughout the LAC region. The median credit growth rate has been on a clear downward trend since then, falling to 10 percent, from 30 percent at its peak.

¹ Aggregate banking data provide a useful reference for describing banking system trends but cannot, of course, signal financial stress in individual banks. Still, aggregate banking data do give some indication of the health of systemically important banks given their significant weight in the total.

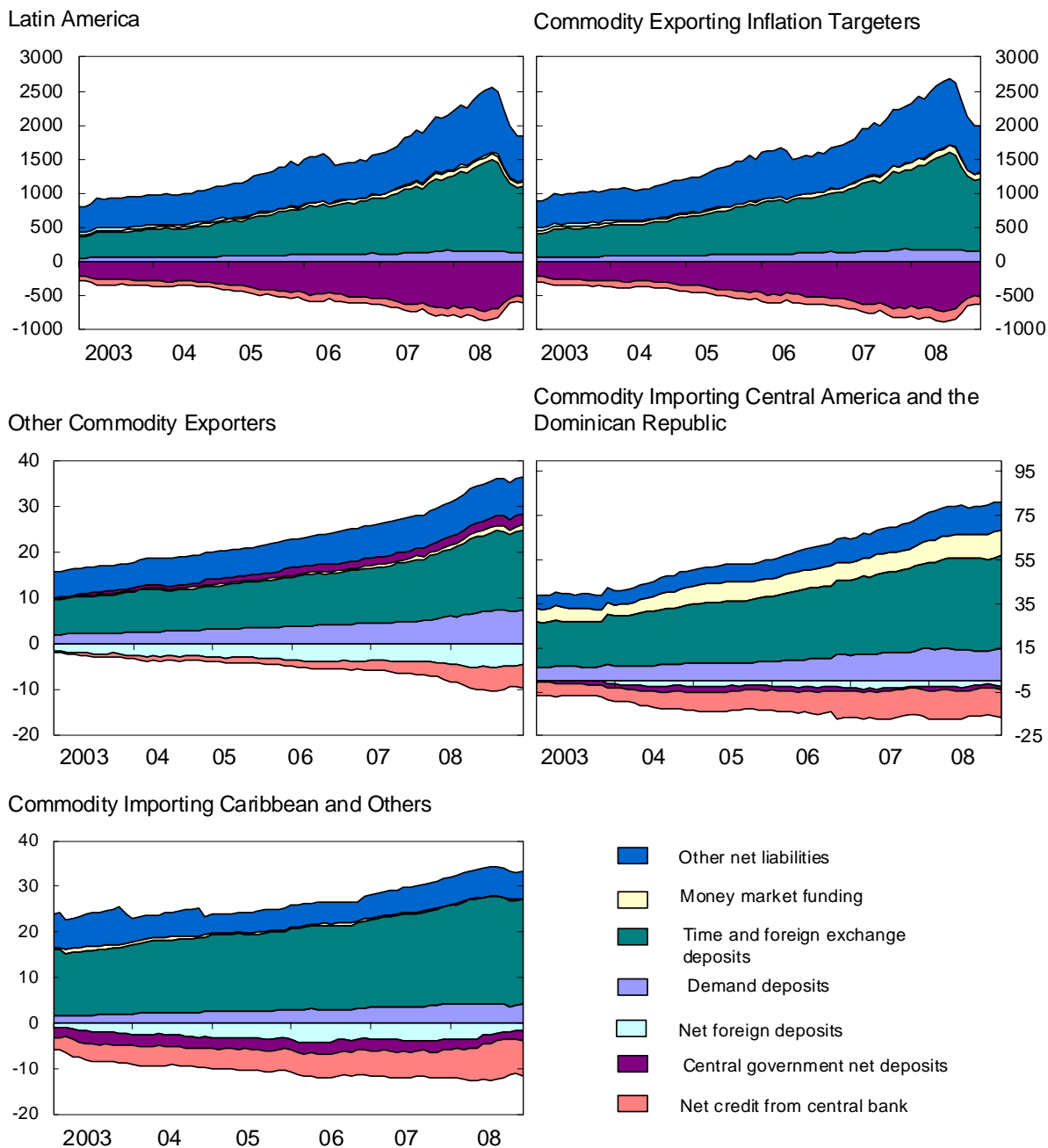
Figure 3.1 Latin America and the Caribbean: Financial Soundness Indicators, 2000–08 1/



Sources: National authorities; and IMF staff calculations.

1/ The official definition of soundness indicators vary by country. The solid lines indicate the median of the indicators across the countries in the group, while the shaded area contains the second to the fourth quintiles.

Figure 3.2. Latin America and the Caribbean: Banks' Net Liability Structure
(Billions of U.S. dollars)

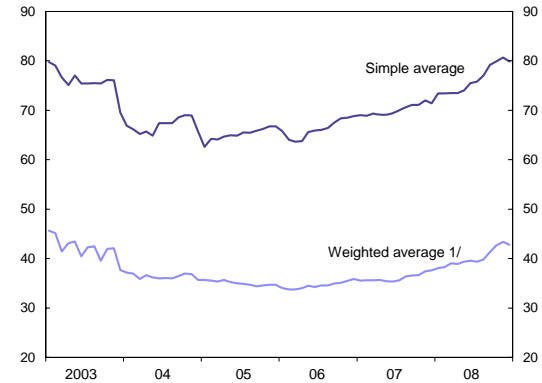


Sources: National authorities; and IMF staff calculations.

- Bank balance sheet structures in the LAC region have improved over time and appear stronger than in other emerging markets that are currently facing significant stress (Figure 3.2).
- The domestic bank loan portfolio is well covered by a stable domestic deposit base.
- LAC banks hold few of the “toxic assets” that have created havoc in advanced economies. Prudential regulation in many LAC countries established firm limits on banks’ exposure to complex derivatives and structured investment products. The bulk of banks’ foreign assets are kept in the form of bills and foreign exchange deposits abroad, with the more financially advanced economies in Latin America engaging also in equity investments and derivative transactions.
- Banking systems in Latin America maintain balanced or positive net foreign asset positions, even without counting the foreign exchange reserve requirements held at the central bank in dollarized economies. This is in contrast to the situation in emerging Europe, for example, where bank funding increasingly has relied on foreign inflows.
- In recent years, there has been a clear trend reduction in financial dollarization on both sides of the balance sheet, particularly in the highly dollarized economies of Bolivia, Paraguay, and Peru. The lower dollarization trend can still be verified when controlling for fluctuations in the real exchange rate, although dollarization appears to have slightly increased over recent months.
- Although global banks are important players in LAC financial systems, they have funded most of their subsidiaries’ and branches’ positions with LAC deposits (see Chapter 4). They do not rely on wholesale funding from abroad to extend credit.

Domestic Private Sector Loans in Latin America and the Caribbean

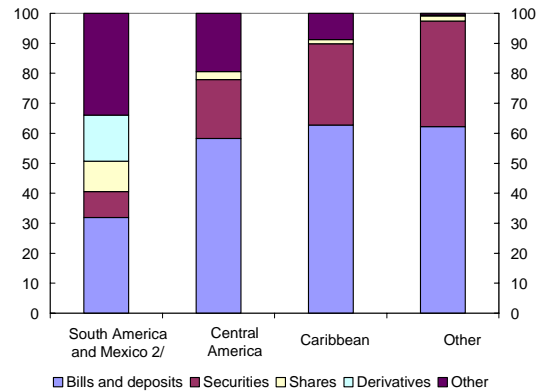
(Percent of private sector deposits)



Sources: National authorities and IMF staff calculations.
 1/ Weighted by the size of private sector loans and deposits outstanding expressed in U.S. dollars in each banking system.

Bank Foreign Asset Structure, 2008 1/

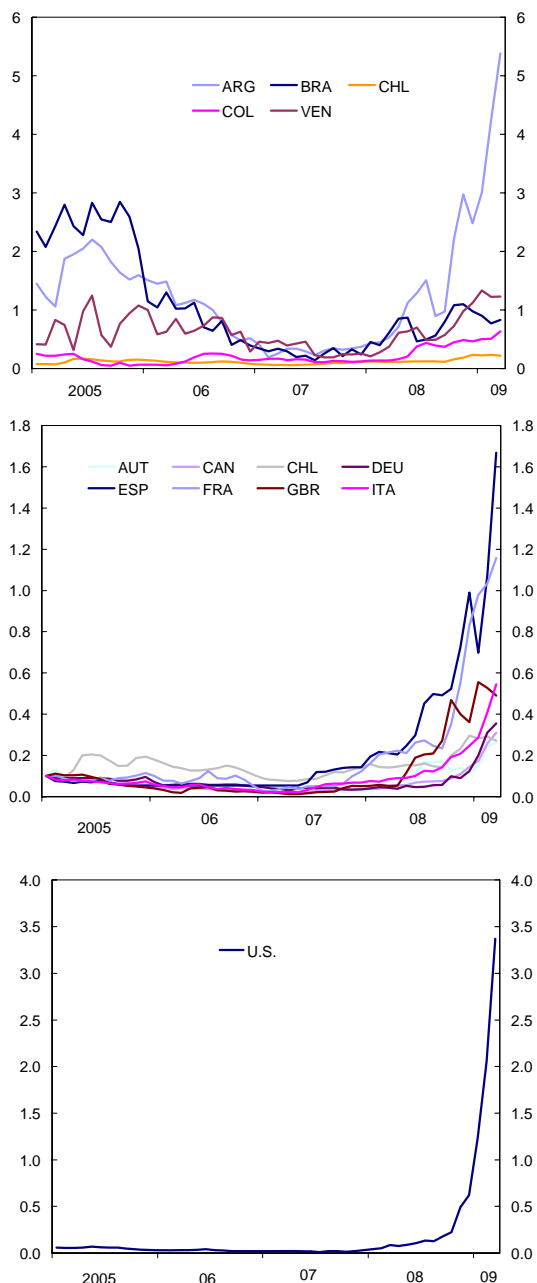
(Percent)



Source: IMF staff calculations.
 1/ For each region, the chart shows the average of the percent structure in each country.
 2/ Includes Brazil, Chile, Colombia, Mexico and Uruguay.

Despite the mostly favorable soundness indicators and balance sheet structures for the region, analyst perceptions of financial sector stability are not favorable for some countries in the region. For example, Standard & Poor’s banking industry country-risk assessment services place in the highest risk category the financial systems of several countries in the LAC region, typically those with high sovereign spreads. Market indicators suggest a moderate increase in the expected probability of default on debt obligations

Expected Default Probability 1/
(Percent)



Source: Moody's KMV.
1/ Expected default probabilities (EDFs) on the service of bank liability obligations are available for banks listed at stock exchanges. These banks represent between 30 and 91 percent of banking assets in the Latin American countries in the Figure. Mexico's EDFs were excluded because they represent only 7 percent of banking system assets.

in some LAC countries, but these are not as high as in some advanced economies.

Financial System Impact of Selected Macroeconomic Risks

Latin American banking systems have so far handled the global financial crisis well, although the situation remains delicate. The most important risk factor for LAC financial systems now is the overall deterioration in economic activity and international trade, which can be expected to substantially affect the quality of bank loan portfolios. Several other risk factors are also relevant, but aggregate balance sheet structures suggest that these should not individually play a major direct role in the transmission of the global crisis to LAC banking systems. However, their effect will be stronger if they take place at the same time. They may also indirectly affect the health of banks in the system through their impact on onshore and offshore corporations and financial institutions to which domestic banks lend or that are related to the bank through their shareholders.²

Sharp contraction in growth and international trade

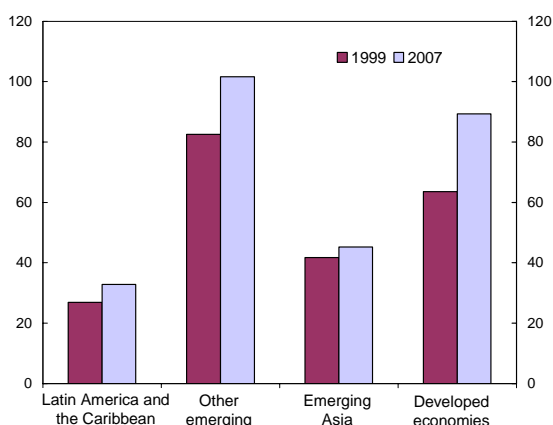
As the global financial crisis unfolds, the quality of the loan portfolio of banks in the region will likely be affected, as business conditions deteriorate, unemployment increases, and real wages and remittances diminish, compromising the ability of households to service their bank debt. The expected sharp slowdown in credit growth also will tend to expose any problem loans that may have been masked by the generally favorable economic conditions in the region. Nevertheless, deterioration in the quality of the loan portfolio is likely to have fewer macroeconomic implications than it would in other emerging markets because private sector credit as a share of GDP is relatively small.

² Recent examples of this type of contagion include the financial meltdown of Trinidad-based CL Financial Group and fraud accusations against Antigua-based Stanford Financial Group.

Capital cushions will provide some breathing room. For example, the IMF staff estimates that the 18.3 percent capital adequacy ratio in Brazil as of December 2008 would allow for writing down up to 10 percent of the loan portfolio to the public and private sectors while remaining within the 11 percent regulatory limit. A similar exercise for Mexico would allow for writing down up to 11.8 percent of the loan portfolio while remaining within the 8 percent regulatory limit.

Although the large capital cushions provide protection against credit risk, they must also offer cover for the market and other risks borne by banks, including those in off-balance-sheet transactions. They also often provide cover for risks taken by financial institutions belonging to the same economic group.

Credit to Private Sector 1/
(Percent of GDP)



Source: IMF, *International Financial Statistics*.
1/ GDP weighted averages.

Sudden stop

Latin American banking systems appear to be well covered against foreign exchange liquidity risk arising from a sudden stop. In particular, most banking systems in Latin America have enough assets abroad to cover withdrawal of liabilities owed to nonresidents. Except for a few countries (Costa Rica, Guatemala, Jamaica, Nicaragua, and St. Lucia), the net foreign asset position of Latin American

banking systems is either positive or negligible when compared with domestic deposits.

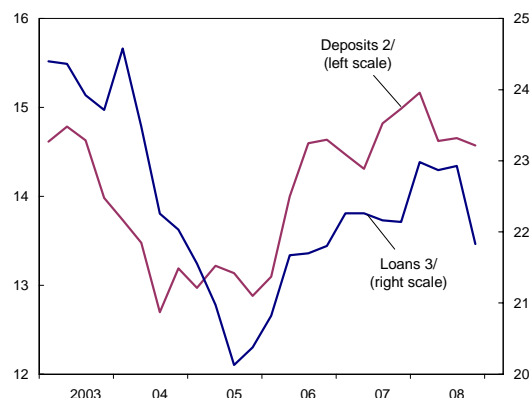
Although global banks have a sizable exposure in LAC countries (see Chapter 4), this exposure is mostly financed with local deposits as opposed to foreign borrowing. Moreover, the global banks operating in the region are widely considered “too big to fail” (indeed, their governments already have rescued some). Global banks’ operations in LAC countries are among the most profitable and well capitalized in the region. Thus, it might be reasonable to expect that the presence of global banks in the LAC region remains important. Nevertheless, there is always the risk that local subsidiaries of global banks could be instructed to transfer large amounts to the global banks’ headquarters, and some supervisors have moved to tighten related-party lending limits to cover this risk.

A separate risk is that a generalized lack of access to foreign borrowing may indirectly affect banking systems if it places stress on LAC firms, which may be on their loan portfolio or belong to the same economic group. Bank for International Settlements (BIS)-reporting banks lend and book outside LAC countries about US\$300 billion to the governments and private sectors in the region. Although domestic governments and corporates hold about US\$200 billion in BIS-reporting banks, borrowers and depositors do not always coincide.³

On the other hand, limited access to foreign borrowing may actually improve business opportunities for domestic banks. Reduced competition from abroad opens the possibility for banks to cater to large domestic firms that had been borrowing overseas. This may come at the cost of households and small and medium-sized enterprises, which may be displaced, and this has already happened in a few countries in the region. It may also raise credit risk by increasing the concentration of the loan portfolio.

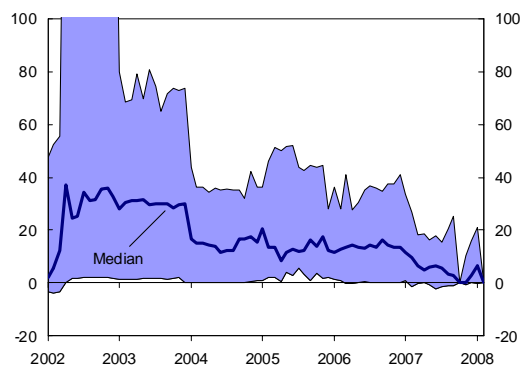
³ Nevertheless, they often do coincide, given the high level of wealth concentration in some countries in the region.

Cross-Border Loans and Deposits 1/



Sources: Bank for International Settlements (BIS); and IMF staff calculations.
 1/ Corresponding to cross-border, nonbank operations of residents of the LAC region with BIS-reporting banks. Shares computed from variables at 2007 prices and exchange rates.
 2/ Deposits of residents in percent of their total deposits in both domestic and foreign banks.
 3/ Loans of residents from foreign banks in percent of their total loans from both domestic and foreign banks.

Estimated Net Open Foreign Exchange Positions in Selected Latin American and Caribbean Countries, 2002–08 1/
 (Percent of capital)



Source: IMF staff calculations.
 1/ Area excludes the top and bottom 20 percent of the distribution. Included countries are Brazil, Chile, Colombia, Costa Rica, Dominican Republic, the ECCU, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay and Uruguay.

Currency risk

Bank exposure to exchange rate risk varies by country but today is significantly smaller than in the past, when this type of market risk was often the region's Achilles' heel. Rapid currency depreciation can affect LAC banks directly and indirectly. The direct effect is through banks' net open foreign exchange positions in their balance sheets, while the indirect effect is through deterioration in foreign exchange credit quality. Although information on net open foreign exchange positions is not readily available to the public for most LAC countries, supervisory authorities typically track these positions on a daily basis for all supervised institutions, since these are subject to quantitative prudential limits in most countries. To explore the direct exposure of banking systems in countries where information is not readily available, net open foreign exchange positions were computed from detailed aggregate standardized banking data submitted to the IMF for the publication of *International Financial Statistics*. The analysis confirms that aggregate net open foreign exchange positions are positive in most countries, but have been on a downward trend. In a few countries (e.g., Chile and Colombia), banks have used derivative instruments to manage their currency exposures.

Exposure to foreign exchange credit risk, though smaller than in the past, remains substantial in the more dollarized economies. The falling level of credit dollarization in the few highly dollarized economies, however, has helped reduce credit risk arising from exchange rate fluctuations. Prudential rules are in place in several countries that effectively limit foreign exchange credit risk (Honduras, Peru, and Uruguay, among others).

On the other hand, significant currency depreciation since the Lehman Brothers collapse has so far been limited mostly to a handful of countries in Latin America that export commodities heavily. Currency depreciation in these countries has helped cushion the negative effect of plummeting commodity prices on the export sector and, ultimately, on the quality of the credit portfolio

granted to export companies. Still, it is too early to assess the full net effect of these developments on the quality of banks' loan portfolios.

An indirect source of credit risk from exchange rate fluctuations may arise from large corporate exchange rate losses. Corporate coverage to exchange rate risk, however, has reportedly been generally improving over the past few years (see the November 2008 REO). One exception is the losses associated with foreign exchange derivative positions affecting some firms in Brazil and Mexico in late 2008.

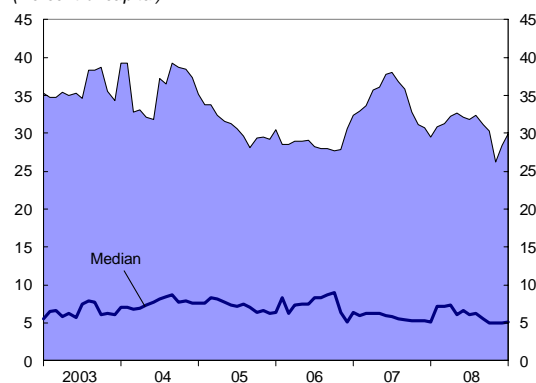
Asset price deflation

Asset price deflation gives rise to another form of market risk. Banks' direct exposure to stock market fluctuations varies by country. Median bank holdings of shares are relatively small, at about 5 percent of capital, but are considerably higher in some of the larger countries. Such figures should be viewed as an upper bound for the amount exposed to short-term fluctuations in stock prices, as only a subset of the shares owned will be on banks' trading books.⁴ In addition to the direct effects on bank books, stock price drops may have an effect on aggregate demand and output associated with the destruction of financial wealth—but this channel is thought to be weak in LAC countries, as market capitalization is generally low and because share ownership tends to be highly concentrated among the wealthiest individuals. In the LAC financial sector, the stock exchange collapse has affected pension fund assets in a few countries, eroding household wealth (and this, in time, could become a fiscal liability). For instance, in Peru pension assets fell by nearly 20 percent in nominal terms between end-2007 and February 2009. In other countries, the effect has been smaller, given tighter limits on pension fund investments at the stock exchange (e.g., Mexico).

⁴ Many LAC countries have already adopted accounting standards that require marking to market bond and equity assets held in the trading book, generally except those held to maturity.

Banks' exposure to real estate prices takes the form of the value of collateral on its mortgage portfolio. Latin American banks typically show the mortgages they originate on their banking books (unlike recent practice in the United States, where banks securitized some of the loans they originated and took them off their balance sheets, at least temporarily), and the value of the property serves as an important source of collateral. Reductions in real estate prices can affect the banking system if they are large enough to encourage default. Nevertheless, Latin American exposure to real estate is still small, and mortgage lending has not been among the fastest credit growth areas in Latin American countries. In particular, the share of mortgage loans in total household credit has been on a declining trend in many countries (e.g., Argentina, Bolivia, Brazil, Colombia, Peru), with more private sector credit granted directly in the form of consumer loans or credit cards. In a few countries, the mortgage portfolio has been increasing, albeit from a low base (typically still below 30 percent of the total household loan portfolio). The mortgage exposure is somewhat larger in countries in the ECCU.

Bank Holdings of Shares in Selected Latin American and Caribbean Countries, 2002–08 1/
(Percent of capital)



Source: IMF staff calculations.
1/ Area excludes the top and bottom 20 percent of the distribution. Includes data for Brazil, Chile, Colombia, Mexico, Uruguay, Costa Rica, Guatemala, Honduras, Costa Rica, Dominican Republic, El Salvador, Nicaragua, Panama, the ECCU, Jamaica, and Paraguay.

Implications for Prudential Regulation and Banking Supervision

The sharp deterioration in the macroeconomic environment calls for a state of alert in banking supervision. The LAC region has some breathing room before risks from the global recession fully materialize, and financial supervisors and regulators have the opportunity to make the most of it. Significant progress in prudential regulation and banking supervision has been made in the region, but there is still scope for further improvement (Figure 3.3).

The immediate focus has rightly been on close supervision of high-frequency developments and early-warning systems to detect and correct problems that could become systemic. In some countries, this has required enlarging the information set available to supervisors, including off-balance-sheet operations of banks, household indebtedness, real estate prices, and other collateral values, among others. In other countries, it has also involved gathering information on the health of firms in the economic group to which the bank belongs.

Extraordinary arrangements to provide liquidity have arguably helped avoid at the margin deposit runs arising out of fear and unrelated to banks' underlying financial situation. Central banks in many countries in the region have created new facilities to provide domestic and foreign currency liquidity in case of need. Unlike in earlier external crises, many countries have been able to ease monetary conditions, which has helped banks on the liquidity front. The scope for providing liquidity assistance has of course been limited by the monetary framework in place, particularly in countries with fixed exchange rate arrangements or those that are fully or highly dollarized. Some country authorities have also looked for alternative sources of medium-term funding for banks or set up government programs aimed at attenuating credit risk borne by banks. Some public banks have played a supporting role (see Chapter 2).

Periodic stress tests are playing a crucial surveillance role. Supervisors know that off-site analysis can provide clues about possible problems, but the complete impact on the bottom line or in capital requirements of a specific stress scenario can be assessed only with information only at disposal of top bank management. Besides regular on-site inspections, stress tests can provide early-warning signals. Exercises in which the central bank and the supervisory agency cooperate can be particularly useful (with the central bank providing the macro framework and the supervisory agency coordinating with banks on the impact of this scenario on their balance sheets and profitability). This type of exercise could highlight, for example, currency exposures arising from financial contracts that may be difficult to detect from balance sheet data.

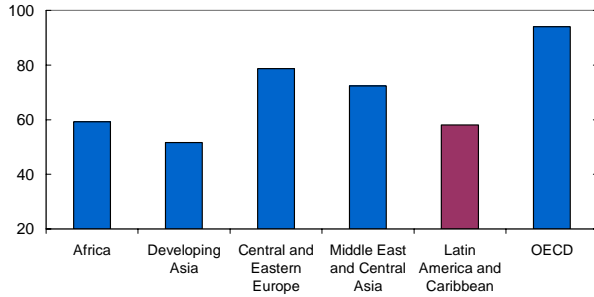
Given the external environment, it would seem prudent to closely review the existing bank resolution frameworks, safety net arrangements, and strategies for dealing with systemic risk. This may involve preparing contingency plans for worst-case scenarios and identifying necessary improvements to the legal and regulatory arrangements, to be able to pass them quickly in case of need. Granting supervisors legal protection and power to act on behalf of the financial stability of the country is arguably at the top of the agenda in some Latin American countries. Safety net arrangements are in place in most Latin American countries, but only a few have fully developed a framework for dealing with systemic crises. Even without passing a new law (or needed amendments), which could be counterproductive in the current environment, it could pay to have a draft ready for congressional discussion in case of emergency.

Medium-term agenda

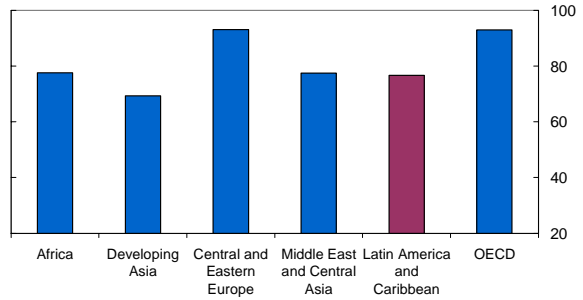
In adapting the medium-term agenda to the current environment, supervisors are following closely the lessons on prudential regulation and banking supervision that are emerging from the global financial crisis. Preliminary discussions point

Figure 3.3. Compliance with Basel Core Principles 1/ 2/

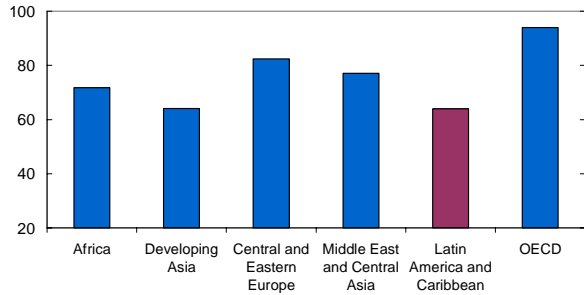
Overall Compliance with Basel Core Principles



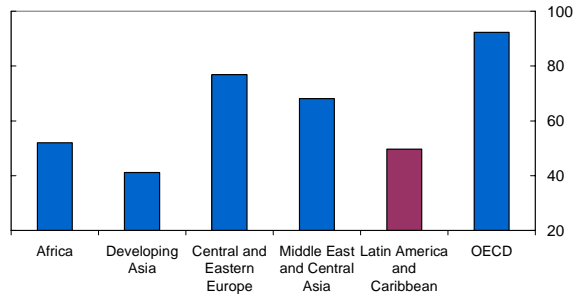
Licensing and Structure



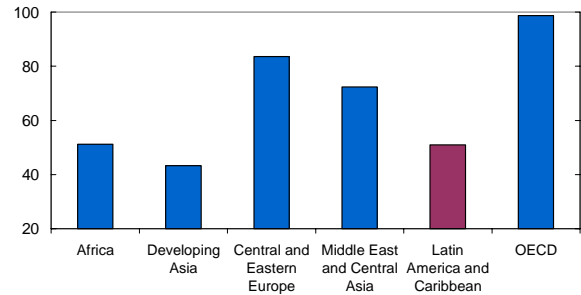
Objectives, Independence, Transparency, and Cooperation



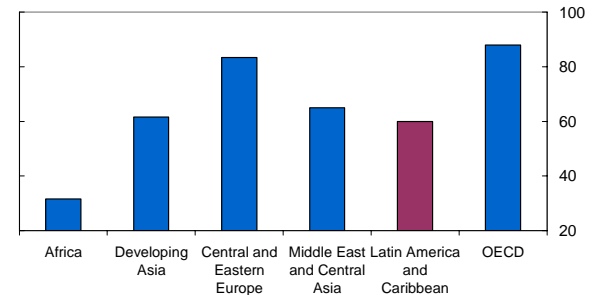
Prudential Regulation and Requirements



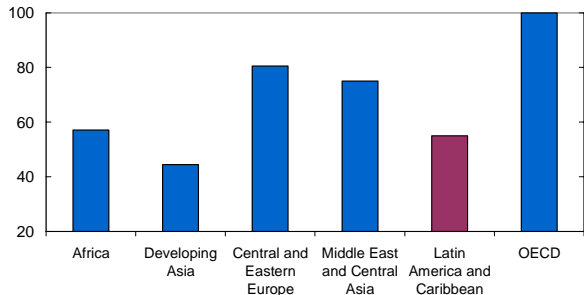
Methods of Ongoing Banking Supervision



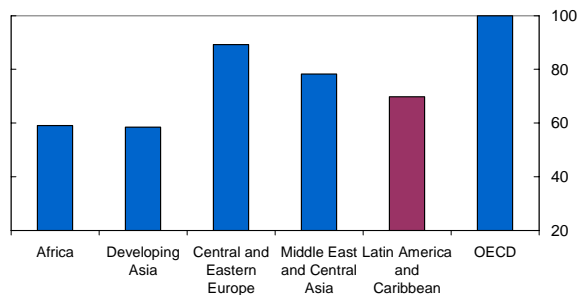
Accounting and Disclosure



Corrective and Remedial Powers of Supervisors



Consolidated and Cross-Border Banking Supervision



Sources: IMF's standards and codes database and Rennhack and others, forthcoming.

1/ Regional average of the percentage of principles largely or fully compliant in each category.

2/ Albania, Algeria, Andorra, Anguilla, Antigua and Barbuda, Armenia, Aruba, Australia, Austria, Azerbaijan, Bahamas, The, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Bermuda, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, British Virgin Islands, Bulgaria, Cameroon, Canada, Cayman Islands, Central Economic African Monetary Union, Chile, Colombia, Cook Islands, Costa Rica, Côte d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Eastern Caribbean Central Bank, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Gabon, Georgia, Germany, Ghana, Gibraltar, Greece, Guatemala, Guernsey, Guinea, Guyana, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Islamic Republic of, Ireland, Isle of Man, Israel, Italy, Jamaica, Japan, Jersey, Jordan, Kazakhstan, Kenya, Korea, Republic of, Kuwait, Kyrgyz Republic, Labuan (Malaysia), Latvia, Lebanon, Lithuania, Luxembourg, Macau, Macedonia, former Yugoslav Republic of, Madagascar, Malta, Marshall Islands, Mauritius, Mexico, Moldova, Montserrat, Morocco, Mozambique, Namibia, Netherlands, Netherlands Antilles, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russian Federation, Rwanda, Samoa, American, Saudi Arabia, Serbia, Seychelles, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, St. Vincent and the Grenadines, Sweden, Switzerland, Syrian Arab Republic, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turk and Caicos, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, Uruguay, Vanuatu, Yemen, Republic of, Zambia.

Box 3.2. Forward-Looking Provisioning Considerations

Several countries have tried to make banks set provisions taking into account the risk profile of the loan portfolio over the entire cycle. Spain pioneered this approach in 2000, and a few Latin American countries have introduced similar schemes: Bolivia (2008), Colombia (2007), Peru (2008),¹ and Uruguay (2001). Countercyclical provisioning essentially consists of building provisions during a period of high growth, which can be used during periods of low growth to cover the rising nonperforming loans. The provisions built during the upturn are typically called “statistical” or “countercyclical” to differentiate them from the “specific” provisions that are assigned to individual problem loans. The mechanics consist of converting the countercyclical provisions into specific ones as needed. Country regulations differ in how much must be provisioned during the upturn, depending, among other things, on the existing loan classification and the method for determining the position in the cycle, and the conditions for converting countercyclical into specific provisions.

¹ Peru introduced temporary countercyclical provisions based on financial margins in 2000.

to the need to (i) expand the perimeter of regulation by reevaluating what is considered a systemic institution, which would require strong regulation; (ii) make consolidated supervision more effective; (iii) adapt existing regulatory and institutional practices to reduce procyclicality; (iv) strengthen public disclosure practices for systemically important financial institutions and markets; and (v) give central banks a broader mandate for financial stability, which would give greater attention to controlling credit and asset booms (Rennhack and others, forthcoming).

The discussion about the perimeter of regulation stresses the fact that any financial institution that can threaten the financial system should be strongly regulated and supervised. Supervisors should be able to flexibly determine at any time which institutions fall within the perimeter of strong regulation and which are left in an outer perimeter of lighter regulation. Banks will always be highly regulated because they have direct access to the country's financial safety net. Nonbank systemic institutions must be under close scrutiny because they could disrupt and compromise confidence in the financial system. These may include institutions with strong linkages to large banks, any large financial institution

(including off-balance sheet items), highly leveraged institutions, and those that play a key role in the financial infrastructure, such as custody, clearing, settlement, or payments.

Most Latin American countries already have broad regulatory and supervisory perimeters, although some systemic institutions are arguably insufficiently regulated and supervised. Examples of possible systemic nonbank financial institutions include insurance companies, offshore financial institutions, credit unions, cooperatives, investment funds, finance companies, and mutual funds. Incorporating systemic institutions into the strong regulatory and supervisory perimeter is clearly a more pressing issue in countries with sizable nonbank financial institutions and domestic capital markets, although recent examples of systemic risk have arisen in some economies with less developed financial systems.

In light of this risk, strengthening consolidated supervision is a major medium-term goal for most of the region. The importance of this issue stems from the prevalence of large financial conglomerates, offshore and regional banking (Central America and the Caribbean), and the significant presence of global banks in many

countries in the region. Consolidated supervision is in the early stages in most LAC economies, although significant progress has been made in others. The key is to resolve shortcomings in the legal framework for consolidated supervision and to make memorandums of understanding effective by creating mechanisms that institutionalize information sharing and cooperation. Developing effective consolidated supervision with advanced countries will remain a major challenge.

Countercyclical prudential regulation is an area worth exploring. The regulatory systems in the region do have features that give rise to procyclicality, including, under certain crisis scenarios, capital adequacy standards, provisioning requirements, and accounting rules. Some countries in the region have already moved in this direction by adopting, for example, countercyclical provisioning requirements (Box 3.2). Countercyclical prudential regulation, however, could be counterproductive, especially in countries that have not established a good policy track record. As in any other type of countercyclical policy, a relaxation in the present requires a tightening in the future, which often gives rise to a “time-inconsistency” dilemma in which the incentives for tightening may diminish.

Conclusions

Most banking systems in Latin America are facing the global financial crisis from a position of strength. They have built significant capital and liquidity cushions that have helped them absorb moderate shocks and have followed financial policies that have contained risk. Six months after the Lehman Brothers collapse, no Latin American banking system has faced a banking crisis. With little direct exposure to structured investment products and toxic assets, which caused stress in advanced economies and other emerging markets, the regional banking systems have balanced or positive net

foreign assets and net open foreign exchange positions. They rely mainly on a local deposit base for financing their loan portfolios, with relatively little direct impact arising from liquidity shortages in international financial markets.

Nevertheless, LAC banking systems are operating in an adverse environment and are likely to suffer significant stress arising from the rapid slowdown in economic activity, which could erode confidence if not managed properly. A major challenge will be to limit the feedback between the real and financial sectors. Although banking systems appear resilient, if the crisis were to last longer than anticipated (as envisaged in our downside scenario), there is always the risk that some isolated cases of banks under stress may need to be addressed by national authorities, for which a timely review of the bank resolution framework will be key to ensure that nonsystemic and individual cases are managed in an orderly way. In this regard, many authorities in the region have taken appropriate measures to ensure orderly domestic liquidity conditions and the continued flow of credit.

The sharp deterioration in the macroeconomic environment calls for a state of alert in banking supervision. The immediate focus should be on close supervision of high-frequency developments and early-warning systems to detect and correct problems in financial institutions that could become systemic. It will be important to make progress in contingency planning, financial safety nets, and bank resolution frameworks. In the medium term, country authorities may want to consider an agenda that incorporates the lessons that are being drawn from the current global international crisis. These include expanding the perimeter of strong regulation to all systemically important financial institutions, strengthening consolidated supervision, and reducing procyclicality in prudential regulation, among others.

IV. Will International Banks Transmit the Global Credit Crunch to Latin American and Caribbean Countries?

A Potential Channel of Credit Crunch Transmission

Internationally active banks have typically played positive roles in many emerging market and developing countries around the world, in terms of the development and stability of the local financial system.¹ However, in the context of the current global financial crisis, these foreign banks—typically headquartered in advanced economies but with operations in multiple countries—represent a potential channel of propagation of global financial shocks. As their losses continue to mount and asset quality deteriorates sharply, the global scramble for dollar liquidity and the need to deleverage their balance sheets could lead global banks to reduce their exposures to emerging market and developing countries.

This chapter examines the recent and prospective behavior of such foreign banks with regard to the Latin American and Caribbean (LAC) region. The question is relevant for the LAC economic outlook, to the extent that foreign banks have acted as a significant source of funding for companies and households in many Latin American economies. We show that the nature of the involvement of such banks in LAC has differed in fundamental ways from that seen in other regions, notably emerging

Europe, and that this difference has relatively favorable implications for the supply of credit in LAC countries going forward.

At the outset, it is essential to highlight that foreign banks extend credit to LAC and other economies through two distinct routes:

- i. *directly, from their headquarters abroad* (overseas lending by parent banks or “cross-border flows”). In the terminology of a country’s external balance of payments, credit received from a foreign bank through this traditional route represents a capital inflow, and the accumulation of a liability to non-residents (i.e., form of external debt).
- ii. *indirectly, via the activities of their local affiliate banks in host countries* (foreign-owned subsidiaries or branches). Since the affiliates are residents of their host countries, the credit they extend locally does *not*, in itself, represent a balance of payments inflow nor an external debt of the host country. For most LAC countries, this indirect route is the dominant form of foreign banks’ involvement, and is often significant in scale. Indeed, these foreign-owned local affiliates now hold a substantial portion of local banking system assets in a number of LAC countries.²

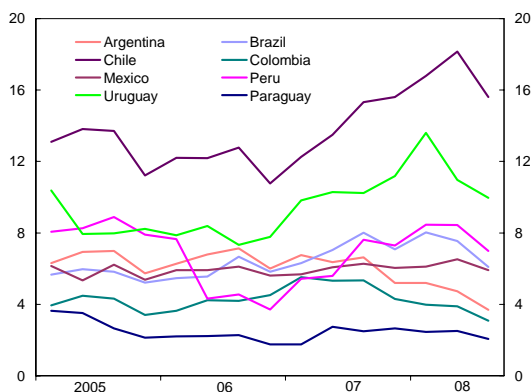
In this chapter we draw extensively on the international banking statistics reported by the Bank for International Settlements (BIS), which combine information on the two types of lending referred to above, to provide a comprehensive view of a global bank’s exposure to a given country. This ownership-

Note: This chapter was prepared by Herman Kamil and Kulwant Rai. The authors are grateful to Sebastian Goerlich for his help in interpreting the data from the Bank for International Settlements.

¹ The presence of foreign banks has typically been considered a positive development in emerging market countries, strengthening the financial systems of their host countries (through more efficient allocation of capital, increased competition and more sophisticated financial services, among others). See Claessens, Demirgüç-Kunt, and Huizinga (2001) and World Bank (2008) for an extensive discussion.

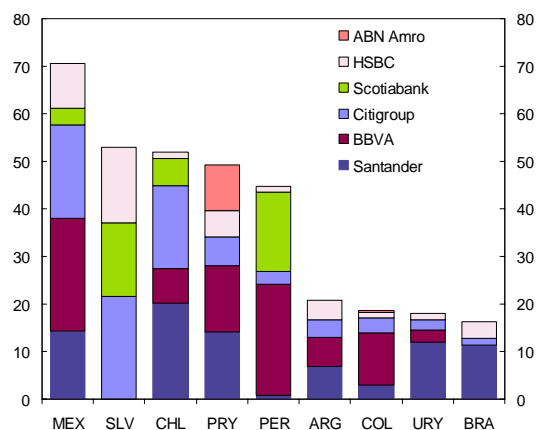
² However, in a few countries in the region (such as Ecuador, Guatemala, Dominican Republic, and Venezuela), the banking system is largely domestically owned.

Cross-Border Lending by Foreign Banks 1/
(Percent of GDP)



Sources: Bank for International Settlements; and IMF staff calculations.
1/ Includes lending to the bank and nonbank sectors in each country.

Share of Banking Assets Held in Subsidiaries or Branches of Large Foreign Banks 1/
(Percent of total banking system assets, end-2008)



Sources: National authorities; Bankscope and IMF staff calculations.
1/ Included in the calculations are the six main foreign banks with global presence. In some countries, the actual share of foreign bank ownership could be higher due to the presence of other international and regional banks.

based viewpoint is of interest to the extent that global banks choose to manage their holdings centrally, treating local affiliates as part of a global portfolio. For example, a global bank facing capital or liquidity shortages may instruct its affiliates to curtail their local lending to help improve the group's consolidated capital asset position, or to transfer liquidity to headquarters. On the other hand, even if some decisions are taken centrally, it is possible that local affiliates follow a distinct business model and that their local lending activities may respond differently—or not at all—to shocks affecting their parent bank. As will be seen, we find strong evidence of such differences in behavior in the most recent period of global financial distress.

To shed light on the potential transmission of the global deleveraging process working through foreign banks, this chapter first looks at some key features of the involvement of foreign banks in the region. It then analyzes econometrically the determinants of foreign bank lending to Latin America, with a special focus on the importance of global liquidity conditions and international banks' financial soundness. In turn, these results are used to illustrate how foreign banks' lending to the LAC region could evolve in the period ahead, under certain assumptions for global financial conditions and other key determinants.

The chapter shows that lending by global banks to the different regions of the world retrenched significantly in 2008. To most regions, this deceleration or contraction of lending began in 2008Q2, and deepened through the year. On the other hand, lending to the LAC region only began to be strongly affected in the final quarter of 2008. During that quarter, cross-border loans to LAC contracted sharply, while lending by local affiliates—which plays a much larger role in the region—proved much more resilient. Looking forward, the analysis suggests that tight global financial conditions, coupled with a slow recovery in global banks' financial health, will weigh against foreign banks' lending to Latin America. The deepest retrenchment is likely to be in cross-border lending; the fact that such lending generally plays a lesser role

in the region will limit the potential impact of its contraction.

Indeed, a number of structural characteristics of foreign bank involvement in the region imply that the retrenchment of foreign bank credit will be less severe than in other emerging market regions, and also compared to LAC's own past. Foreign banks conduct a higher share of their lending in the region through local affiliates and in domestic currency, mitigating the risk of a homeward flow of foreign banks' assets. In addition, much of the funding of foreign-owned banks in Latin America has come from domestic sources (mostly deposits), rather than from parent banks' resources or wholesale funding.³ We show that these features of foreign banks' operations in the region reduce the risk of contagion from the international liquidity squeeze. In addition, the maturity composition of lending to the LAC region has shifted toward the long term, reducing the vulnerability to a sudden withdrawal of short-term external funding. Taken together, these characteristics reduce the likely impact on LAC of financial distress in mature markets, notwithstanding the overall negative outlook.

Key Features of Foreign Banks' Lending to LAC

The analysis draws on the BIS *Consolidated Banking Statistics*, which contains country-level information on the gross claims of international banks to the bank and non-bank sectors in Latin American countries through the last quarter of 2008.⁴ Such claims include not only bank loans, but also other forms of financing through debt securities and equities; for ease of exposition, *we will refer to all these forms together as "lending."* As noted, such lending by

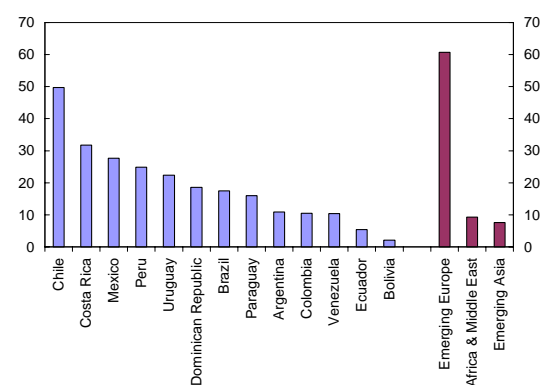
³ See also Chapter 3 for a detailed analysis.

⁴ This comprises more than 20, primarily OECD, countries (referred to as "BIS-reporting countries"). There are important distinctions between "foreign" and "BIS-reporting" banks, especially in Central America where regionally operating, non-BIS-reporting banks are not uncommon. For ease of exposition, in this chapter we refer to BIS-reporting banks as international, global or foreign banks.

BIS-reporting banks is extended internationally by parent banks' headquarters ("cross-border") and also locally through their branches and subsidiaries in the recipient country ("local affiliates").⁵

Foreign banks' lending to Latin America has increased significantly in the past five years, both in dollar volumes and as a share of GDP. In terms of the latter, foreign bank assets are most important in Chile, followed by Costa Rica and Mexico, although they are significantly below the median ratio for countries in emerging Europe. In terms of absolute size, Brazil, Mexico, and Chile accounted for almost 80 percent of all outstanding lending by foreign banks to LAC by end-2008.

Foreign Banks' Lending as a Share of GDP, 2008 1/
(Percent)



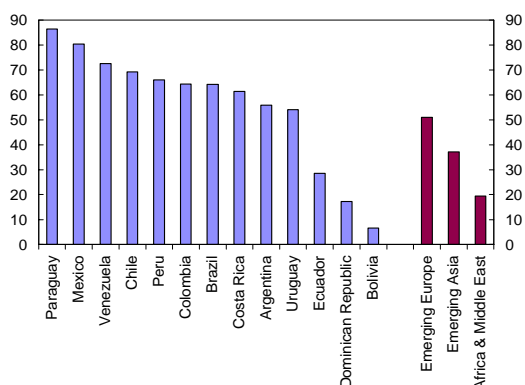
Sources: Bank for International Settlements; and IMF staff calculations.
1/ Includes cross-border lending and lending by foreign-owned local affiliates in each country.
Note: Regional data correspond to the median across countries.

In Latin America, two-thirds of all foreign banks' lending in 2008 was disbursed through local affiliates. This share is significantly higher than the median in emerging Europe (50 percent), emerging Asia (37 percent) and Africa and the Middle East

⁵ The BIS consolidated banking statistics track banking systems' consolidated worldwide foreign claims *netting out intra-group positions with their affiliates worldwide*. This is an important advantage of this data set since it allows a measure of net exposure to a borrower country. See McGuire and Wooldridge (2005) for a detailed discussion on the structure of the BIS consolidated banking statistics.

Share of Foreign Banks' Lending Extended Through Their Local Affiliates, 2008

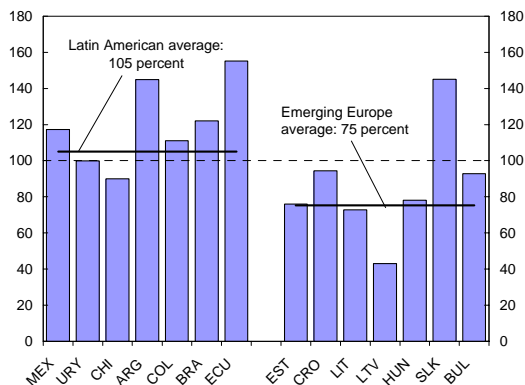
(Percent of total)



Sources: Bank for International Settlements; and IMF staff calculations
Note: Regional data correspond to the median across countries.

Deposit-to-Loan Ratios in Foreign-Owned Local Affiliates, 2007 1/

(Percent)

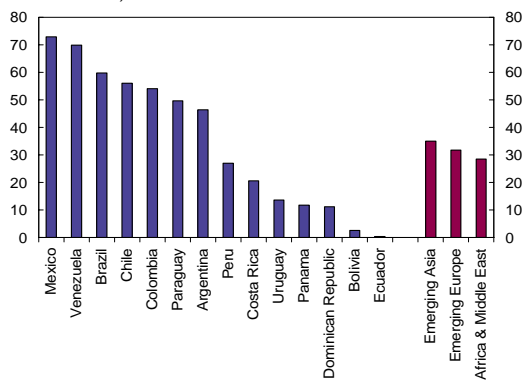


Source: Adler and Cerutti (2009).

1/ The deposit-to-loan ratio for each local affiliate is calculated as the sum of demand, time, saving, and foreign currency deposits as a share of their loans to the private sector. For each country, the value reported corresponds to the weighted average of foreign affiliates' deposit-to-loan ratios, using their loan portfolio as weights.

Share of Foreign Banks' Lending Denominated in Local Currency, 2008

(Percent of total)



Sources: Bank for International Settlements; and IMF staff calculations
Note: Regional data correspond to the median across countries.

(19 percent). This reflects a steady shift in international banks' business strategy toward LAC, from cross-border lending by bank's headquarters to lending through local affiliates.⁶

Lending by foreign banks' affiliates is mostly financed from domestic deposits, and their dependency on nondeposit funding (parent bank resources or wholesale financing) is particularly low in Brazil. This is in contrast to the situation in emerging Europe, where the flow of new credit in recent years has tended to be predominantly financed by cross-border flows from parent banks.

Reflecting the particular mix of local and cross-border lending, and the domestic sources of funding by local affiliates, LAC is the region with the highest share of domestic-currency-denominated lending in total foreign banks' lending. For most of the region's larger economies, half or more of all foreign banks financing is denominated in local currency, with this share exceeding 70 percent in the case of Mexico.

The maturity composition of lending to the LAC region has shifted toward the long term, and refinancing risk remains low compared with developing countries as a whole.⁷ In addition, lending by foreign banks to the banking sector in ALC (as a share of total lending) is the lowest among all regions considered. For Asia and the Pacific, the proportion is almost 30 percent, while it is 15 percent for Latin America and the Caribbean.

⁶ This shift in foreign banks' lending strategy was based, in part, in the acquisition by foreign-owned local affiliates of large local banks, with an already significant local deposit base. This has been particularly important, for example, in Peru, with the entry of Scotiabank (acquiring the third-largest bank in the system) and the reentry of Banco Santander (acquiring a medium-sized local bank) in the late 1990s. For a detailed account of foreign banks' mergers and acquisitions in the region, see Pozzolo (2008).

⁷ Information about residual maturity is available only for cross-border and local affiliates' lending denominated in foreign currency. For the region as a whole, the share of total foreign banks' claims (denominated in foreign currency) with short maturity dropped from 54 percent in 1997 to 42 percent in 2008.

Banks from Spain and the United States are the dominant players in Latin America, jointly accounting for approximately 50 percent of all outstanding financing by foreign banks to Latin American countries.⁸ These foreign banks have low exposure to emerging Europe.⁹ Conversely, the most active global banks in emerging Europe (from Austria, Belgium, Sweden and Italy), have a small presence in Latin America.¹⁰

Sources of Stability

Four key features of international banks' lending to the region could mute the possible transmission and amplification of global financial shocks. First, Latin America's lower reliance on cross-border, foreign-currency-denominated debt may make it less exposed to the risk of a homeward flow of foreign banks' assets than other regions. Recent empirical evidence has shown that countries in which a larger share of foreign banks lending to firms and households is extended through their local affiliates rather than through external loans tend to enjoy more stable foreign bank financing (Garcia-Herrero and Martinez-Peria, 2007). Because cross-border lending (mostly denominated in foreign currency) is typically funded in international markets, it tends to be highly sensitive to movements in global interbank market conditions. But since lending by foreign-owned affiliates are often funded locally, they may be less sensitive to external shocks.¹¹ (We find evidence of this, as will be discussed.)

Second, foreign-owned affiliates' low reliance on parent credit lines (or potentially unstable

⁸ Canadian banks account for the largest share of foreign bank assets in the Caribbean. Foreign bank claims on Central America, on the other hand, are relatively diversified between U.S., U.K., and other western European banks.

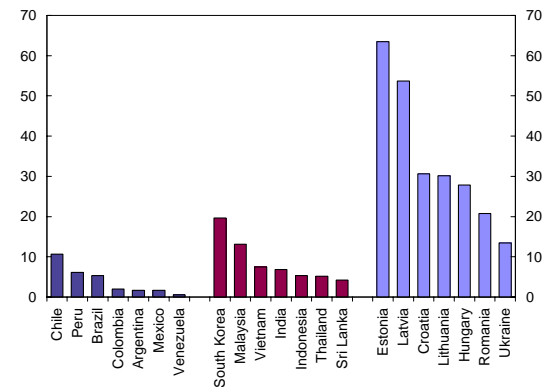
⁹ For a detailed analysis of international banks' exposure to emerging Europe, see Maechler and Ong (2009).

¹⁰ The exceptions are banks from Germany and France.

¹¹ As discussed in Garcia-Herrero and Martinez-Peria (2007), because local lending activities require paying higher fixed and irreversible costs, it seems reasonable to expect these flows to be more stable and less responsive to negative shocks than cross-border lending.

Foreign Banks' Cross-Border Lending to Banks in Emerging Markets, 2008 1/

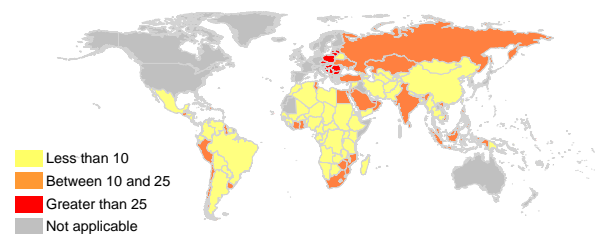
(Percent of GDP)



Source: IMF staff calculations.
1/ Foreign banks' overseas lending to domestic-owned banks and foreign-owned local affiliates in each country.

Total Foreign Banks' Lending in Foreign Currency in Emerging Markets

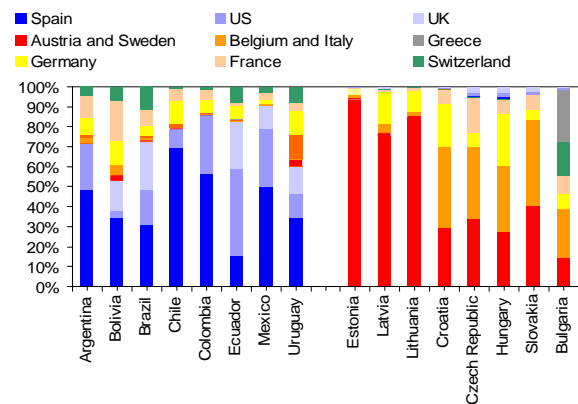
(Percent of GDP, 2008)



Source: IMF staff calculations.
Note: the boundaries on this map do not necessarily reflect the IMF's official position.

Foreign Lending by Bank Nationality

(Percent, 2008Q3)



Sources: Bank of International Settlement, and IMF staff calculations
Note: Percentage computed over the specified lender banks.

commercial obligations) to fund credit growth limits the potential destabilizing effects coming from solvency problems or tight liquidity conditions faced by banks in the major industrialized economies.

Third, a low share of short-term foreign currency lending (especially interbank lending) makes countries of the LAC region less exposed to rollover risk and, thus, to shocks affecting creditor banks.¹²

Fourth, the large global bank players in emerging Europe have reduced presence in Latin America. In the current crisis, this limits the cross-regional contagion effects that can occur through a “common bank lender effect,” in which losses in a country would cause a global bank to liquidate its assets or cut credit lines to its subsidiaries in order to restore its capital adequacy ratios.¹³ In the most recent period, bank lending ties have been a major channel of transmission, with western European banks the main source of stress (IMF, *World Economic Outlook*, April 2009).

The general presence of these sources of resilience, however, does not mean that the LAC region is immune to deceleration or contraction of lending by foreign banks. Moreover, there is heterogeneity within the region, and countries that are more dependent on cross border lending—the component of foreign banks lending that is more sensitive to global funding conditions—may be more affected. Also, the potential knock-on effects on economic activity in each country would likely also depend in part on the depth and structure of financial markets.

What Drives Foreign Bank Lending to the LAC Region?

The turmoil in global credit markets has raised questions about the level and stability of foreign

¹² The short-term maturity of foreign currency lending by Spanish banks to emerging markets is 40 percent, while that of U.S. banks is close 80 percent (McGuire and Tarashev, 2008). This suggests that U.S. banks can in principle adjust large portions of their exposures more easily than Spanish banks can.

¹³ See Calvo and Reinhart, 1996; Van Rijckeghem and Weder, 2000.

banks' financing to Latin America. To shed light on how a deepening of the credit crunch could cascade in Latin America, this section looks at the historical determinants of international bank lending to the region from 1999 to 2008, using a multivariate panel regression framework (see the Technical Appendix for details).¹⁴ The model is focused on analyzing the impact of the following three factors on foreign banks' lending activity to the region: (i) deteriorating global liquidity conditions, (ii) large write downs and weaker balance sheets of major international financial institutions; (iii) the downturn in the lending cycle in advanced economies.

The econometric analysis regresses the quarterly growth in banks' total lending (i.e., cross-border plus local affiliates) from each foreign country to each country in LAC on the following:¹⁵

- The TED spread (the spread between the three-month U.S. dollar LIBOR and the three-month U.S. treasury rate) to proxy for liquidity strains in global interbank markets.¹⁶
- Banks' lending standards in advanced countries, to control for quantitative bank lending conditions. We use the net percentage of tightening of credit standards in a given quarter based on data from the U.S. Federal Reserve's Senior Loan Officer Opinion Survey.
- Creditor banks' financial soundness indicators. We use market-based indicators on the expected default frequencies (EDFs) of the banking

¹⁴ The BIS consolidated banking statistics were reported semiannually until 1999, and quarterly thereafter.

¹⁵ The 13 borrower countries from ALC included in the sample are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Peru, Venezuela, and Uruguay. McGuire and Tarashev (2008) conduct a similar exercise for 19 emerging markets.

¹⁶ In an alternative specification, we use the difference between the three-month U.S. dollar LIBOR and the three-month overnight index swap rates (the LIBOR/OIS spread), which captures banks' perceptions of the creditworthiness of other financial institutions. When perceived counterparty risk increases, as it has during the current financial market turmoil, banks may become more reluctant to lend to each other, thus possibly reducing available funds to acquire assets abroad.

system specific to each country. These have showed a marked deterioration in recent months, reflecting declining capitalization and earnings, and rising stock price volatilities of publicly listed banks.

- Macrofinancial conditions of recipient countries that influence both lending demand and lending supply. We include the short-term interest rate differential, an increase in which would signal a rise in the relative rate of return on investment in LAC. We also control for the real GDP growth rates of the borrower country.
- The percentage change in the borrower country exchange rate against the US dollar, to capture valuation effects (and possibly also portfolio reallocations that could occur in response to exchange rate movements).¹⁷
- A composite indicator of economic, political, and financial risks in each borrower country, to account for the fact that lower perceived economic and institutional risks tends to attract foreign bank investment. We use the International Country Risk Rating, published by the PRS Group.
- Creditor-borrower pair fixed effects, to capture unobserved and mostly constant sources of heterogeneity.¹⁸

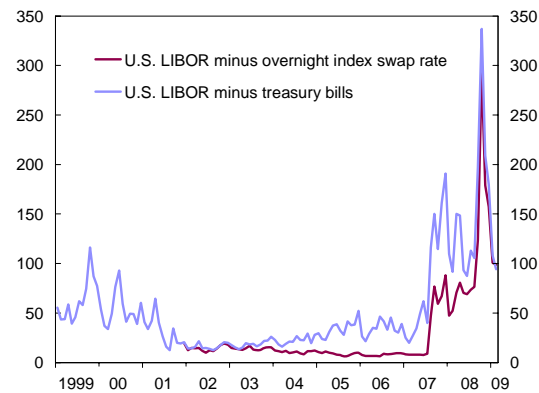
The estimated model provides a plausible explanation of the factors affecting lending by foreign banks to countries in Latin America. The

¹⁷ BIS data are end-period values, expressed in U.S. dollars; changes in these values incorporate valuation changes (exchange rate changes, marking to market of securities, and write-downs of nonperforming loans) and so may differ from net lending flows. Currency valuation effects can at times be significant, especially in countries where local-currency-denominated lending represents a significant portion of the total.

¹⁸ Foreign bank presence tends to be higher in countries with common language, similar legal systems and banking regulations, and geographical proximity (Claessens and van Horen, 2008). For example, in Latin America and the Caribbean, 60 percent of foreign banks are headquartered in the United States and Spain, whereas in Europe and Central Asia more than 90 percent of foreign banks are headquartered in the European Union.

Three-Month Money Market Spreads

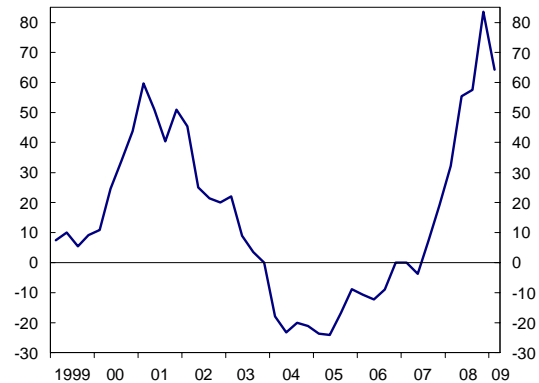
(Basis points)



Source: Haver Analytics.

Reported Tightening in U.S. Banks' Lending Standards 1/

(Net percentage of senior loan officers tightening lending standards)

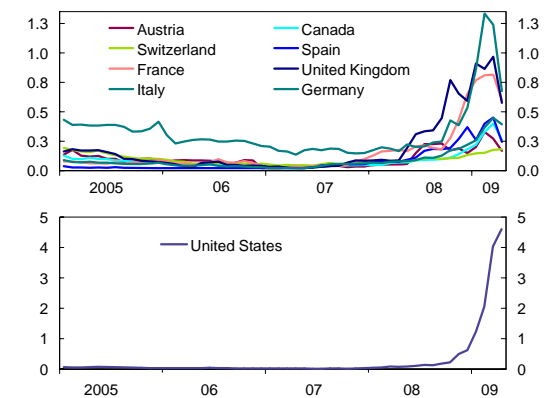


Source: Board of Governors of the Federal Reserve System, Senior Loan Officer Opinion Survey.

1/ The net percentage of tightening is the percentage of senior loan officers who reported tightening minus the percentage of officers who reported easing in credit standards. Higher numbers imply tightening credit standards.

Market Indicator of Banks' Expected Default Frequency

(Median over banks in each country)



Sources: Moody's KMV; and IMF staff calculations.

main findings (based on results presented in the first two columns of the table in the Technical Appendix) are as follows:

- There is a strong link between global money market conditions and changes in international banks' lending to Latin America. Consistent with World Bank (2008) and McGuire and Tarashev (2008), a deterioration in interbank liquidity adversely affects foreign banks' lending growth to the region. The coefficient estimates suggest that a 10-basis-point increase in the TED spread would lead, on average, to a roughly 1 percentage point reduction in the quarterly growth rate of total lending by global banks.¹⁹
- A deterioration in banks' financial health has consistently led to slower growth in international banks' lending to LAC. A rise in one standard deviation (20 basis points) in banks' EDF is associated with a 1.4 percentage point average decrease in the quarterly growth rate of foreign lending. This result is consistent with recent work by Čihák and Koeva Brooks (2009) that shows that bank loan supply in the euro area moves in line with banks' financial soundness.
- Changes in banks' lending standards in advanced economies (proxied by those in the United States) do not seem to have a statistically significant effect on the growth of foreign banks' credit to Latin America, once we control for other factors.
- Exchange rate depreciations are associated with a significant slowdown in foreign banks' lending during the same quarter. These estimates could be capturing mechanical valuation effects, as well

¹⁹ In the alternative specification, an increase in the LIBOR/OIS spread by 10 basis points is expected to lead to a decrease in the growth of lending to LAC by 1.3 percent. This negative effect of an increase of the LIBOR/OIS spread is consistent with results reported in World Bank (2008) for a larger group of emerging market countries, although the absolute value of the estimated impact for LAC countries is significantly smaller than those reported in the World Bank study.

as the impact of currency crises that occurred during the sample period.²⁰

- Other explanatory variables have the expected sign and are consistent with theory.²¹ Higher economic growth is robustly associated with an increase in lending growth to the region during the same quarter. Institutional improvements (as proxied by a more favorable economic and political risk rating) lead to stronger investor confidence and thus attract more foreign bank lending.

Finally, we also estimate a different specification that allows shocks to global liquidity conditions and to parent banks' financial health to have differential effects across LAC countries, varying according to the share of claims on that country that are denominated in local currency. This share serves as a proxy for the share of local affiliates in foreign banks' total claims on a country.²² The results, reported in the last two columns of the table in the Technical Appendix, suggest that the transmission of global financial shocks through the foreign bank lending channel is more muted in countries where foreign banks conduct a higher share of their lending in domestic currency. This finding is consistent with results reported by Garcia Herrero and Martinez Peria (2007), who show that countries in which a larger share of foreign bank lending is extended through local affiliates (as opposed to cross-border financing) experience lower volatility in total foreign banks' lending.

²⁰ The literature suggests that borrowing conditions are likely to tighten for a country that experiences a currency collapse given the balance sheet effects due to currency mismatches.

²¹ The exception is the coefficient on the nominal interest rate differential between the borrower and lender countries. However, its estimated value was insignificant.

²² These two shares are positively correlated across countries, since cross-border lending is rarely extended in local currency, and lending by local affiliates is often (though not always) denominated mainly in local currency. Data availability limitations preclude directly estimating separate models for cross-border lending and lending through local affiliates. Such a data breakdown is only available since 2005, and on an aggregate country-level basis.

Overall, our results suggest foreign bank lending to Latin America does respond to funding constraints caused by liquidity shortages and heightened counterparty exposure in the global interbank market. Also, increases in foreign banks' own financial vulnerability can prompt reductions in their financing to the region.²³ However, the size of the responses to the above shocks depends on the structure of lending to a given LAC country. As expected, the estimates suggest that the larger effects are on cross-border lending (which is largely denominated in foreign currency), while effects on lending from affiliates (especially in those countries with low dollarization of credit) are smaller.

Is a Retrenchment Under Way? The Latest Evidence

BIS banking statistics for end-2008 were released in late April of this year, allowing us to examine how international banks responded in the months following the Lehman Brothers event of September 2008. Because the last quarter of 2008 was characterized by unusually large depreciations of several LAC currencies, the discussion below focuses on movements in lending by foreign banks that exclude currency valuation effects.²⁴

For many countries around the world, total lending by global banks (both cross-border and through local subsidiaries) had begun to slow or even contract in 2008Q2, and this trend continued through the latest data available for end-2008. In Latin America—where previous growth rates of total lending had not been as rapid as elsewhere—significant retrenchment did not occur until 2008Q4, when total lending of foreign banks to the

²³ Using data through 2000, Goldberg (2001) shows that movements in U.S. bank lending to Latin American countries are closely tied to economic conditions in the parent country.

²⁴ Adjusting for exchange rate valuation effects can be important not only in light of the sharp depreciations in the last semester of 2008 (especially in Brazil and Mexico, which together account for about two-thirds of foreign bank claims on the LAC region), but also because these depreciations were preceded by sustained periods of domestic currency appreciation.

Foreign Banks' Lending to LAC: Recent Developments
(Percent change in U.S. dollar values)

Region/Country	Quarterly Change		Annual Change	
	Actual	Valuation Adjusted 2/	Actual	Valuation Adjusted 2/
Latin America and the Caribbean	-14.0	-4.8	-5.1	7.0
Brazil	-20.6	-10.7	-10.9	5.4
Mexico	-16.3	-1.6	-11.3	3.9
Other South America	-8.1	-4.4	1.8	9.0
o/w Argentina	-10.6	-6.4	-5.6	-1.3
Chile	-10.4	-3.5	3.2	18.2
Colombia	-7.0	-10.7	-11.6	-15.7
Peru	-4.0	-3.0	25.3	27.3
Central America	0.5	0.5	13.5	13.8
o/w Costa Rica	-0.8	-2.3	-12.1	7.4
Guatemala	3.8	4.6	18.0	18.5
Caribbean	-3.7	-3.6	24.2	24.3
o/w Dominican Republic	-5.6	-5.5	-3.6	-3.3
Grenada	2.9	2.9	13.2	13.2
<i>Memo item</i>				
Emerging Europe	-7.5	-2.2	1.0	6.1
Africa & Middle East	-8.4	-5.9	-0.7	5.6
Emerging Asia	-10.5	-10.0	-7.1	-4.9

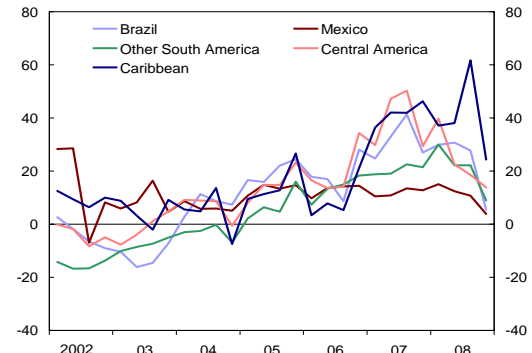
Sources: Bank for International Settlements; and IMF, *International Financial Statistics*.

1/ Includes cross-border lending and lending by foreign-owned local affiliates in each country.

2/ Adjusts for exchange rate effects on foreign bank lending denominated in domestic currency.

Growth in Foreign Banks' Lending to LAC, by Country or Region 1/

(Annual percent change, exchange rate-adjusted)

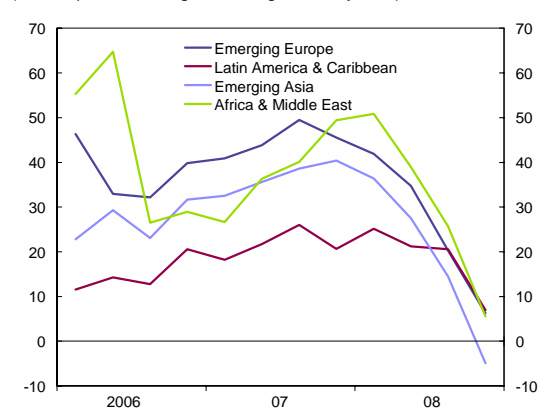


Sources: Bank for International Settlements; IMF, *International Financial Statistics*; and IMF staff calculations.

1/ Includes cross-border lending and lending by foreign-owned local affiliates in each country.

Growth in Foreign Banks' Lending, by Region 1/

(Annual percent change, exchange rate-adjusted)

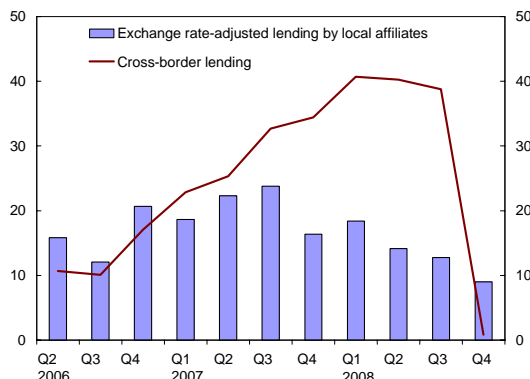


Sources: Bank for International Settlements; IMF, *International Financial Statistics*; and IMF staff calculations.

1/ Includes cross-border lending and lending by foreign-owned local affiliates in each country.

Channels of Foreign Banks' Lending to LAC: Differences in Their Behavior

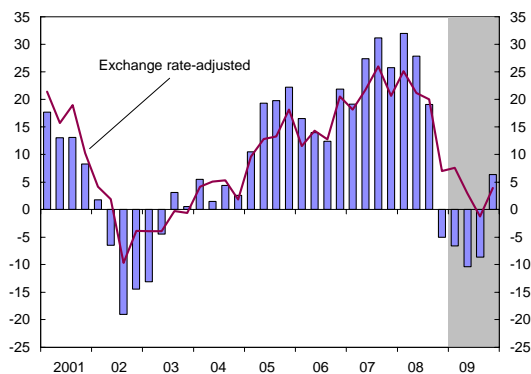
(Annual percent change in U.S. dollar value)



Sources: Bank for International Settlements; and IMF staff calculations.

Foreign Banks' Lending to LAC: Model-Based Forecasts for 2009 1/

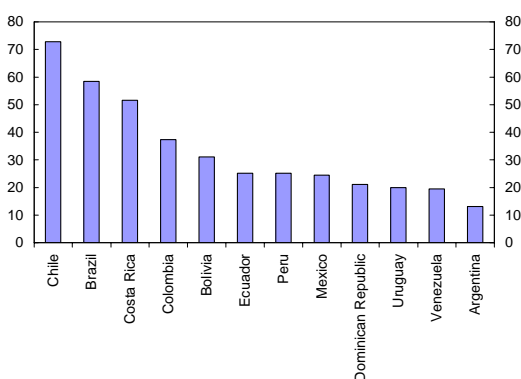
(Annual percent change)



Sources: Bank for International Settlements; and IMF staff calculations.
1/ Includes cross-border lending and lending by foreign-owned local affiliates in each country.

Bank Credit to the Private Sector 1/

(Percent of GDP, 2008)



Sources: IMF, *International Financial Statistics*; and IMF staff calculations
1/ Includes lending from foreign-owned affiliates and domestic banks in each country.

region as a whole contracted by about 5 percent within the quarter. Contractions varied in size, but did occur in most countries of the region (see table). Still, for the year as a whole, lending from foreign banks was up 7 percent.

Within total lending to the region, the behavior of local affiliates and their parent banks diverged dramatically in the last quarter of 2008. The stock of cross-border claims on LAC, which had been growing at annual rates of well over 30 percent in previous quarters, abruptly contracted within the fourth quarter, by almost 20 percent (taking growth for the year down almost to zero).²⁵ On the other hand, lending by local affiliates of foreign banks continued a gradual deceleration, but managed to grow modestly in the fourth quarter with respect to the previous quarter.

What Will Happen in 2009?

Using the model estimates presented in the preceding section, and making assumptions about international financial conditions and growth prospects in LAC, we construct forecasts of foreign banks' lending to Latin America in the coming quarters.²⁶ These forecasts should be viewed only as illustrative projections, particularly in light of current uncertainties.²⁷

²⁵ In addition to the factors discussed earlier, it is possible that recent bank support or rescue programs in advanced economies may be accelerating the curtailment of cross-border bank flows. In particular, banks receiving public support may feel pressure to expand domestic lending at the expense of their foreign operations.

²⁶ To condition on the future values of the explanatory variables in the model, we use IMF forecasts on the TED spread. Countries' GDP growth forecasts are based on the IMF's April 2009 *World Economic Outlook*. We assumed that lender country banks' EDFs and borrower country risk ratings remain constant at their April 2009 levels. We also assume that nominal exchange rates will hold constant, at their April 15 levels, for the rest of the year.

²⁷ It also should be noted the model was estimated over a period that was mostly tranquil, but it is being used to forecast lending growth in the wake of a shock of unprecedented magnitude. That said, the model did reasonably well in predicting the

(continued)

According to the projection, the credit crunch in mature markets and other domestic factors will likely cause a steep deceleration in foreign banks' lending to LAC, with the four-quarter growth rate dropping from about 20 percent in 2008 Q3, to touch bottom at about -1 percent in 2009 Q3. Still, the predicted downturn in lending is smaller and less protracted than seen at the beginning of this decade; this could reflect in part the structural changes in foreign banks' lending activities to LAC mentioned earlier, as well as the more robust macroeconomic fundamentals of the countries in the region today.

Conclusions

In this chapter, we look at the potential transmission of the global financial shock and deleveraging process to LAC countries, through foreign banks that are actively engaged in the region.

The analysis suggests that foreign banks are likely to lower their total exposure in Latin America, and indeed a deceleration of the growth of such exposure already has been observed, with a contraction occurring in 2008Q4. Going forward, our analysis shows that two key factors shaping the current global financial turmoil—tight interbank liquidity and mounting pressure on major banks' capital positions—are likely to have negative effects on the availability of foreign bank lending to the region. The deleveraging process could have wider, more adverse implications in countries where cross-border lending has supported more heavily the banking sector.

Still, the impact on foreign bank lending to Latin America will be cushioned by the fact that (1) most lending is funded from a stable domestic deposit base and denominated in domestic currency; (2) cross-border interbank exposure is limited and the maturity structure has moved toward the long term; and (3) the global banks with the largest presences in LAC markets have low exposures to emerging Europe, so that Latin America is not likely

sudden turning point and drop of foreign bank lending to LAC in 2008Q4.

to be susceptible to a credit pull-back similar to, or feeding off, strains in emerging Europe. Finally, to the extent that contraction of lending by foreign-owned banks does occur, there is the potential in many LAC countries for strong policy responses—or the behavior of other banks operating in the same country—to act to offset the decrease in international banks' lending.

Technical Appendix

Empirical model

The baseline empirical analysis is based on a reduced-form model specification given by:

$$FBL_{ijt} = \beta_0 + \beta_1 TED_t + \beta_2 EDF_{jt-1} + \beta_3 LendSt_{t-1} + \beta_4 \hat{GDP}_{it} + \beta_5 (r_{it} - r_{jt}) + \beta_6 CRating_{it} + \beta_7 Deprec_{it} + \lambda_t + \gamma_{ij} + e_{ijt},$$

where the dependent variable, FBL , is the quarterly growth rate of Foreign Banks' Lending (cross-border and by local affiliates) to LAC country i by foreign banking system j in quarter t . The sample spans the period from 1999Q4 through 2008Q4. We consider all 20 BIS-reporting countries, most of which are advanced economies. The 13 LAC borrower countries included in the sample accounted for more than 90 percent of the outstanding foreign banks' lending in the region at the end of 2008. For the rest of the LAC countries not included in the sample, some of the explanatory variables were not available. Panama was excluded not only due to data limitations, but also because it is a regional banking center and is classified as an offshore center by BIS. It constitutes an outlier in the region, with foreign banks' claims accounting for 190 percent of GDP.

The dependent variable covers direct cross-border lending by parent banks, and lending by foreign affiliates in each country, in domestic and foreign currency. It includes international banks' loans to banks in the host country that are not their subsidiaries/branches (such as loans, bank-to-bank credit lines and trade-related credit) and loans to the

nonfinancial sector. It also covers portfolio flows (such as holdings of securities) and equity shares in unrelated institutions (in particular, mergers and acquisitions, which are especially important for the region during the sample period). The data used in the analysis reflects an adjustment in 2008Q3 for a one-off operation of ABN AMRO's sale of its business in Brazil and Uruguay.²⁸

Many growth rate observations of the dependent variable show extreme values, primarily due to countries entering or exiting the reporting population of banks, which can lead to sudden jumps in the outstanding stock of lending vis-à-vis particular countries. To address this, we included a dummy variable for those observations where the dependent variable lied fell in the lower and upper 5 percent of the distribution each year.²⁹ As in McGuire and Tarashev (2008), the inclusion of this dummy significantly increases the regression fit since much of the overall variance in the dependent variable is contained in these observations. The results of the model are robust to the exclusion of this dummy variable, except that the explanatory power of the model is significantly reduced.

As for explanatory variables:

- *TED* is the spread between three-month U.S. dollar LIBOR and the three-month U.S. treasury bill rate (TED spread), and is meant to capture liquidity strains in global interbank markets. As an alternative proxy for global funding conditions, we also use the spread between three-month LIBOR and three-month overnight index swap rates (the LIBOR/OIS spread). This captures uncertainty regarding counterparty credit quality among banks.
- *EDF* represents estimates of banks' expected default probabilities using data for almost 600

publicly-listed financial institutions in 20 countries. These are calculated by Moody's KMV using a contingent claims approach that uses equity market information combined with balance sheet data to estimate forward-looking default probabilities. We take the median of bank-level figures to generate time-varying financial soundness measures for each banking system.

- *LendSt* captures the perceived lending standards in the US banking system in a given quarter, based on data from the U.S. Federal Reserve's Senior Loan Officer Opinion Survey. It is defined as the percentage of senior loan officers who reported tightening minus the percentage of officers who reported easing in credit standards to large and medium-sized firms.
- *GDP* measures the percentage change in quarterly GDP in the LAC borrower country, while *CRating* is a composite indicator of economic performance and institutional quality for each LAC country, based on the International Country Risk Rating published by PRS Group. A higher value suggests better macroeconomic frameworks and institutions. The variable $(r_{it} - r_{jt})$ is the short-term nominal interest rate differential between the recipient and lender country. *Deprec* is the percentage change in the borrower country exchange rate against the U.S. dollar.

The panel data estimation controls for time-specific (λ_t) and borrower/lender pair-specific (γ_{ij}) unobserved heterogeneity. The time fixed effects account for regional changes that affect all countries equally. The high degree of commonality observed in the time series behavior of foreign bank lending across countries described in the text suggest that regional factors may be partially driving the behavior of lending. We also control for fixed effects specific to each lender-borrower pair, to account for time invariant and unobserved factors driving cross-country differences in foreign bank lending.

²⁸ Since in both cases the sales were to a local subsidiary of a Spanish bank (also reporting to the BIS), the amount in question was reported in total claims of Spanish banks in Brazil and Uruguay, in December 2008.

²⁹ Foreign banks' credit to smaller countries constitutes a very small share of total foreign credit, and thus tends to exhibit large variations over a small base, reducing the statistical power of our tests.

Determinants of Foreign Banks' Lending to Latin America

1999Q4-2008Q4; Panel OLS with Fixed Effects

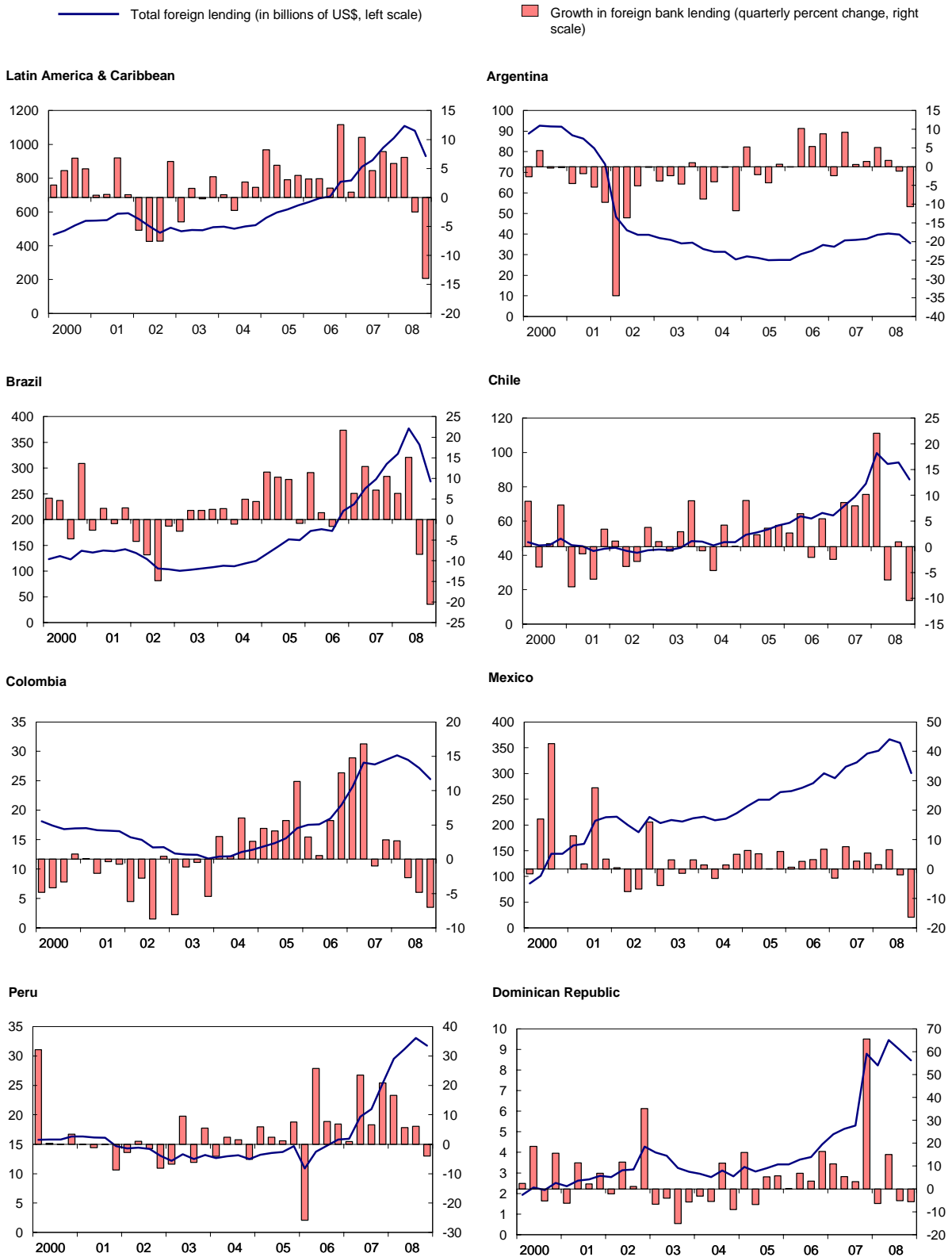
Dependent Variable: Quarterly Percent Change in Total Foreign Banks' Lending

	Average effects		Differential effects	
	(1)	(1)	(3)	(4)
TED spread	-0.10 *** (0.03)		-0.15 *** (0.03)	
TED spread x share of local-currency lending			0.14 *** (0.04)	
OIS spread		-0.13 *** (0.04)		-0.18 *** (0.04)
OIS spread x share of local-currency lending				0.16 *** (0.05)
Banks' EDF	-6.57 * (3.52)	-6.80 * (3.58)	-11.60 ** (4.71)	-11.22 ** (4.71)
Banks' EDF x share of local-currency lending			42.13 *** (10.59)	37.66 ** (12.46)
Tighter lending standards	0.03 (0.06)	0.08 (0.06)	0.02 (0.06)	0.08 (0.06)
GDP growth of borrower	0.32 ** (0.11)	0.40 ** (0.17)	0.20 * (0.11)	0.33 * (0.15)
Interest rate differential (Borrower minus Lender)	-0.03 (0.06)	-0.03 (0.07)	-0.03 (0.06)	-0.02 (0.07)
Composite indicator of credit rating	0.26 * (0.14)	0.24 (0.18)	0.21 * (0.10)	0.10 (0.11)
Depreciation	-0.12 * (0.06)	-0.13 * (0.06)	-0.07 (0.05)	-0.07 (0.05)
Share of local currency lending			16.56 (12.87)	18.34 (10.65)
<i>Fixed Effects</i>				
Time (quarter) dummies	Yes	Yes	Yes	Yes
Borrower/lender dummies	Yes	Yes	Yes	Yes
<i>Diagnostics</i>				
Number of observations	4080	4080	3572	2947
R ²	0.19	0.19	0.20	0.19

Source: IMF staff calculations.

1/ This table reports the panel fixed effect regression described in the Technical Appendix. The variables Expected Default Probability and Lending Standards are entered with one lag. A dummy variable is included for extreme observations, defined to be those below the 5th, and above the 95th, percentile of the distribution of percent changes in foreign banks' lending in each year. Robust standard errors are clustered at the borrower country level. Asterisks denote significance of coefficients, with ***, ** and * indicating significance at the 1%, 5% and 10% level, respectively.

Panel 4.1. Foreign Banks' Lending to LAC Region 1/



Sources: Bank for International Settlements and IMF staff calculations.
 1/ Includes cross-border lending and lending by foreign-owned local affiliates in each country.

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