Latin America Copes with Volatility, The Dark Side of Globalization
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April 2012
Foreword

This semiannual report—a product of the Office of the Chief Economist for the Latin America and the Caribbean Region of the World Bank—examines the emerging challenges of living in a new financially globalized world in the aftermath of the 2008-09 global financial crisis for Latin America and the Caribbean (LAC) countries. This report starts by setting the stage on the external environment. It provides an overview of recent economic developments and the prospects for the LAC region in coming months, including an analysis of the sources of external risks for the region. Chapter 1 then provides an in-depth look at new patterns of financial globalization that underpin the financial volatility by analyzing the new dynamics in gross capital flows (whose size dwarfs that of the more commonly studied net capital flows). It also examines the transmission of external shocks through the financial channel across LAC countries and emerging markets more broadly by delving into the incentives and behavior of the international asset management industry. Chapter 2 turns into the vulnerability of LAC countries to various types of external volatility (in external demand, terms of trade, and financial conditions). It explores how exposures to external shocks interact with policy response capacities to yield a heterogeneous map of short-run vulnerability across countries in the region.

The preparation of the entire report was led by Augusto de la Torre, Regional Chief Economist, and Tatiana Didier, Research Economist, in close collaboration with Samuel Pienknagura. Chapter 1 was written in collaboration with Constantino Hevia and Sergio Schmukler, while Chapter 2 was written in collaboration with Paloma Anos Casero and Andrea Coppola. Magali Pinat, Andres Schneider, and Tomas Williams provided outstanding research assistance. We would also like to thank Maria Bru, Cesar Calderon, Oscar Calvo-Gonzalez, Laura Chioda, Tito Cordella, Barbara Cunha, Pablo Fajnzylber, Javier Iellescas, Sergio Jellinek, Megumi Kubota, Julio Loayza, Denis Medvedev, Fernando Mendo, Zafer Mustafaoğlu, David Rosenblatt, Marcela Sánchez-Bender, Carlos Silva-Jauregui, Julio Velarde, Ekaterina Vostroknutova, Jun Wang, and Luan Zhao for their invaluable comments.

April 2012
Executive Summary

After a remarkably strong recovery, by the first half of 2011 many countries in the Latin American and Caribbean (LAC) region were bumping against capacity constraints—with unemployment reaching historically low levels and economic activity hitting bottlenecks—and central banks were thus engaged in combating upward price pressures through tighter monetary policies. The focus of attention was, as a result, shifting towards the longer-term growth and equity agendas in what appeared to be a more tranquil global environment. Suddenly, financial turbulence, unleashed by deep sovereign debt problems in peripheral Europe, spiked dramatically and rippled forcibly throughout markets worldwide during the second half of 2011. Fears of another global financial meltdown rose sharply for months, until bold actions by the European Central Bank in late 2011 and early 2012 managed to significantly reduce the threat of an immediate tail risk event, creating breathing room for the Euro Zone to tackle its complex fiscal and structural challenges in a more tranquil financial environment. With the worst-case scenario in the Euro Zone off the table, at least temporarily, and a better than expected yet still sluggish US recovery, investors have re-ignited their “search for yield” worldwide. The prospects of very low interest rates in rich countries in the foreseeable future add considerable fuel to this quest. As a result, emerging markets in general, and LAC in particular, are experiencing a significant surge in capital inflows since the beginning of 2012—a phenomenon that will surely add tensions to macroeconomic management in the region, especially for countries where currencies are uncomfortably strong (perhaps even overvalued) and economic overheating an attendant menace.

Global financial dynamics have thus become less explosive but are still fragile. The mood of markets remains volatile, with wide swings in asset prices taking place in response to news and data releases that, under a more robust market sentiment, would have little effect. This fickleness, moreover, is unlikely to be durably dispelled in the near future. One clear lesson emerges: LAC will have to find a path to a higher long-run growth with greater social equity in the midst of significant external volatility. The report discusses this complex challenge. Chapter 1 looks into the new patterns of financial globalization that underpin the financial volatility with which LAC has to cope. It does so by examining the new dynamics in gross capital flows and delving into the incentives and behavior of the international asset management industry. Chapter 2 assesses the vulnerability of countries across the region to three categories of external shocks that feature prominently in the current debate (a slowdown in Europe and the US, a slowdown in China and/or a decline in commodity prices, and a rise in risk aversion in international financial markets). It discusses how exposures to external volatility interact with policy response capacities to yield a heterogeneous map of short-run vulnerability across countries in the region.

The analysis in the first chapter of the report highlights that the patterns of financial globalization (into with LAC is immersed) have changed dramatically in the last two decades and we are far from fully grasping their implications. This is illustrated by the evolution of gross and net capital flows. The difference between the two was not significant in the 1980s and foreign investors ran most of the show, except when joined by residents during turmoil episodes. Since the early 1990s, however, financial globalization for LAC has progressively become a two-way street, with residents augmenting their investments abroad even as foreigners increase their presence in local markets. The size of gross flows thus now swamps that of net flows, with the additional complication that fluctuations in gross flows are much larger than in net flows.

The evolving nature of the global financial system is also illustrated by the rising role of the international asset management industry (particularly mutual funds, pension funds, and hedge funds), which has gained relevance vis-à-vis banks as the main conduit for cross-border portfolio capital movements. The problem is that this type of capital
market-based (as opposed to bank-based) flows has not added to financial stability—as many had initially hoped—but has rather led to an amplified pro-cyclicality of financial flows to emerging markets. This reflects a complex set of incentives that tilts international financial intermediation towards a herd behavior that is focused on short-term horizons and where being able to exit rapidly from emerging market exposures dominates over patient analysis of long-term prospects. Moreover, financial markets in the region and elsewhere seem to be increasingly responding to global rather than country-specific factors. The troublesome implication being, of course, that in addition to coping with heightened volatility, a LAC country that is immersed in international financial markets has also to deal with the fact that the quality of its domestic economic policies carries less weight (relative to global factors) in determining how investors treat that country, especially in times of global turmoil.

The good news is that LAC seems to be making steady progress in dealing with these dark sides of financial globalization. A safer integration into the global financial system, underpinned by the consolidation of sound macrofinancial policy frameworks and the associated build-up of buffers, has been at the core of the new face of LAC, reducing the vulnerabilities associated with greater financial integration. In addition, risk sharing with foreigners has become a larger part of LAC’s financial globalization. The combination of these factors appear to be the key explanation of why international portfolio managers, fickle as they are, have nonetheless treated LAC much better this time around.

The greater ability to cope with external volatility for the region as a whole, however, masks a considerable heterogeneity across LAC countries. The assessment of this heterogeneity in Chapter 2 yields three key messages. First, there is an important set of countries in the region that have high exposure to external shocks and yet a relatively low vulnerability (Brazil, Chile, Colombia, Mexico, Peru, Uruguay). These countries are endeavoring to capture the upside of international integration (including to raise their long-run growth rates), while avoiding its downside by strengthening their policy capacity to cushion external shocks.

Second, at the other extreme, there are countries with substantial exposures to external shocks (e.g. Ecuador or Venezuela) that also have to improve their response capacity in order to increase resilience. Other economies are severely limited by the structural condition of being very small and highly-opened (e.g. most of the English-speaking Caribbean countries). As monetary policy might not offer enough flexibility for many of these countries, their focus should be on expanding fiscal space.

Third, the rest of the countries in the region are moderately vulnerable to external shocks. These are economies that are already integrated into international markets along one or more important dimensions. At present, though, their macroeconomic “immune system” is not sufficiently strong to avoid being trampled by external volatility under a reasonably wide range of scenarios. Relatively small improvements in the shock-absorption capacity of their monetary, fiscal, and macro-prudential policies can have large payoffs for them in terms of reduced vulnerability. They can tilt the balance, enabling these countries to more consistently reap the benefits of globalization without savoring its costs.

Of course, countries are more or less vulnerable not just to external shocks. They may also be vulnerable to self-inflicted shocks arising from domestic policy mistakes. This report argues that, in general and to the extent that macro-financial frameworks are improving, external shocks may be more likely to materialize than home-grown ones. But there is of course no room for complacency, and the scope for domestic policy inconsistencies and serious mistakes is widely—albeit unevenly—distributed across the region. In the end, the greatest premium is on policies. The greater room for policy maneuver reduces vulnerability even as international integration deepens. To be sure, a veritable “tsunami” of external shocks can, at its height, overwhelm even the best macroeconomic policy response capacity. But, as the global financial crisis amply illustrated, policies still play a crucial role, not least because they enable a faster recovery.
Introduction: The Global Setting and Short-Term Prospects

The Latin American and the Caribbean (LAC) region continues on a relatively robust growth path after a remarkable performance in the aftermath of the global financial crisis. In effect, as discussed in our April 2011 report “LAC Success Put To The Test,” the region’s recession in 2009 was relatively short lived and surprisingly mild compared to other middle-income countries (MICs) and to its own past, and its recovery in 2010-2011 strong. Nonetheless, the cyclical recovery has now given rise to more mature, and thus lower growth dynamics in LAC. Current consensus forecasts envisage a deceleration of GDP growth for LAC to between 3.5 and 4 percent in 2012, close to its potential rate, after having expanded by around 6 and 4 percent during 2010 and 2011, respectively. Such a deceleration is consistent with the closing of the output gap—i.e., the gap between actual and potential (non-inflationary) growth. In addition to the closing of this gap, such deceleration in growth also reflects the stagnant economic activity and financial turbulence in the US and Europe. The slowing down of growth is in fact quite generalized across the emerging world; it started in 2011 and is forecast to continue throughout 2012.

LAC’s growth prospects for 2012, however, are robust once contrasted to other emerging economies (Figure I.1, Panel A): higher than those of Eastern Europe and Central Asia and similar to that of East Asia. China and India stand ahead of this pack with GDP forecast to rise by 8.4 and 7.2 percent, respectively. GDP growth of emerging economies remains decoupled from that of the developed world, a noteworthy feature of the new global landscape. In effect, economic activity in the developed countries is forecast to remain well-below their potential (full-employment) level in 2012, with the US expected to grow by 2.2 percent, while a contraction of 0.4 percent is currently projected for the Euro Zone.

To be sure, economic performance within LAC is highly heterogeneous. Mexico and Brazil, the two largest economies in the region, feature on the lower end of the distribution of growth rates for 2012 across LAC countries, with projected growth rates of 3.3 and 3.4 percent, respectively, below the regional average. Most countries in Central America and the Caribbean are also projected to underperform the regional average. Panama and the Dominican Republic are notable exceptions; they stand prominently at the other extreme of the growth forecasts distribution, alongside the fastest growing countries in the region such as Chile, Colombia, and Peru, where economic activity is projected to grow 4 percent or more (Figure I.1, Panel B).

Global Dynamics: Less Explosive but Still Fragile

While LAC’s fundamentals remain robust and growth dynamics remain healthy to date, the region has become keenly aware of the rise in global uncertainties over the second half of 2011. A confidence crisis on the sustainability of the Euro system materialized, which resulted in downward pressures on the LAC region’s growth for 2012 since mid-2011, beyond those associated with the closing of the output gap (Figure I.1, Panel C). Such a deceleration however is not a LAC-specific
FIGURE I.1 Actual Real GDP Growth and Forecasts

PANEL A. Across Regions

PANEL B. Across LAC Countries

Notes: In Panels A and B, weighted averages are reported. In Panels A and B, 2011 statistics (2011e) reflect actual or expected growth rates and 2012 statistics (2012f) reflect forecasts. Weights are calculated using 2007 nominal GDP. Sources: Consensus Forecasts (March 2012) and IMF’s World Economic Outlook (September 2011).

development, economic activity around the world has also been affected by heightened jitters across financial markets and countries. Volatility in asset prices and the perception of risks among market participants were on the rise across a wide range of markets between the summer of 2011 and January 2012, reaching levels not observed since the aftermath of the global financial crisis (Figure I.2). Market sentiment was quite negative and risk aversion (as measured by the VIX index) was particularly high in global financial centers. Financial markets across LAC countries were not spared from this turbulence. Since the beginning of this year, volatility and risk aversion however have subsided significantly, largely reflecting a massive emergency liquidity intervention by the European Central Bank (ECB).

Even as the threat of an imminent tail risk event in the Euro Zone has visibly diminished, the current juncture remains filled with uncertainties amid a range of unresolved structural issues in the global economy. While domestic policies tend to move to the center stage in LAC, as the global situation becomes less unstable, most of the downside risks in the short run to the region continues to come from external headwinds, with the main epicenter of uncertainty continuing to be the Euro
Zone. A comparison of credit default swaps (CDS) spreads for sovereign debt in the beginning of April 2012 with those at the end of 2007 characterizes the Euro Zone reversal of fortunes (Figure I.3). More than 6 months after the onset of the turmoil, markets continue to perceive the sovereign debt default risk of several LAC countries—including Brazil, Chile, Colombia, Mexico, Panama, and Peru—to be lower than that of a central Euro Zone country such as France for instance! Overall, CDS spreads for LAC’s sovereign debt (with the exception of Argentina, Ecuador, and Venezuela) have remained at relatively low levels when compared to other emerging economies. Moreover, sovereign credit ratings not only clearly portray the deterioration of the situation across Euro Zone countries, but they also highlight the relatively good standing of LAC economies (Figure I.4). While downgrades have been widespread across European countries over the 2007-2012 period, upgrades have been the norm across LAC and Asian countries.

The main reason for the dimming of the threat of a financial meltdown in the Euro Zone was arguably the launch of new 3-year long-term refinancing operation (LTRO) for European banks by the ECB.¹ This bold liquidity injection marked a turning point. It led to a continuing easing in bank funding costs, thus alleviating liquidity conditions in intra-bank credit markets. Indeed, intra-bank interest rates have declined and the CDS spreads for financial institutions have also been reduced, both indicating a perception among market participants of lower risks of bank failures (Figure I.5).

¹ Two installments of the LTRO have so far been implemented—the first in December 2011 and the second in February 2012.
More importantly, the LTRO gave a strong, albeit indirect, support to sovereign placements and debt values, as banks can use such bonds as the highest-quality collateral to access LTRO liquidity. For instance, Italian and Spanish banks have boosted their government bond holdings significantly in January 2012. Since then, some sovereign borrowing costs have been reduced. Although the LTRO auctions have an expiration date, there is a generalized perception among market participants, that should the situation deteriorate significantly, the ECB would step in and institute another round of auctions.

While removing the tail-risk event in the short-run, the LTRO is not a panacea for the Euro Zone troubles. The latter continues to face deep structural challenges that require larger and broader actions. Macroeconomic and financial dynamics in the Euro zone remain fundamentally fragile. Consequently, market tensions have persisted and recessionary conditions are expected through most of 2013. Even after the LTRO came into effect, with risk aversion and volatility tamed to some extent, the mood of markets has been volatile, moving up and down on the basis of relatively minor news. Market sentiment could shift back towards deeper pessimism if inaction (or bad policy actions) dominates and it could as well turn to strong optimism should European leaders converge on a decisive and credible action plan.

At the heart of the challenges is the structural difference between Germany at the core of the Euro Zone and the rest of the member states, particularly the Mediterranean ones. The latter are severely affected by problems of high fiscal deficits and public debts, low productivity, lack of external competitiveness, very high unemployment, and general economic stagnation. They remain caught in a currency-growth-debt trap: a vicious circle where an overvalued Euro (relative to the fundamentals of the Euro Zone periphery) hinders growth, thereby making public debt even more burdensome which, in turn, undercuts investment, thus tightening the grip of currency overvaluation on growth even further.² Breaking free from this trap is a challenge while the Euro remains consistent with

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² A discussion of the currency-growth-debt trap in the case of the 2001 Argentine crisis is found in De la Torre, Levy Yeyati, and Schmukler (2003).
fundamentals in Germany, but it is inconsistent with the fundamentals of the Euro Zone periphery. To the extent that the room for troubled Euro Zone countries to grow out of debt narrows, reinforcing of the viability of fiscal processes rises, putting a premium on growth-enhancing policies. Some of these policies however may intensify already stretched social tensions. Hence, absent major fiscal and structural reforms in the Euro Zone periphery and a deepening of the Union (i.e., to include a greater integration of fiscal and financial regulation institutions), the Euro Zone will remain vulnerable to mood swings. The LTRO has therefore simply bought the Euro Zone more time to make the necessary structural and institutional reforms.

Although the Euro Zone situation remains the main epicenter of risks for LAC in the near future, developments elsewhere should be followed closely. First, social unrest in the Middle East persists in some countries and a renewal of tensions should not be ruled out. Turmoil has notably increased in Syria. In Libya, the situation is far from being stable. Egypt’s transition to democracy has been complicated by increasing demands to accelerate the transition to a civil regime and by the uncertainty associated with the relationship between political parties and the military. From the
global economic perspective, these sources of instability have been concentrated in less systemically important countries. However, if geopolitical risks were to escalate in the UAE, Saudi Arabia or Iran, more serious consequences for the global economy could ensue, including perhaps a significant hike in oil prices and consequently food prices.

Second, recent statistics suggest a slowdown in economic growth in China that could potentially affect LAC countries in a significant way. China’s role in economic activity across LAC countries is important, as highlighted in our September 2011 LAC Semi-Annual Report “LAC’s Long-Term Growth: Made in China?” The robust growth observed in LAC over the past decade is in part an important reflection of this connection, both directly (via trade and FDI channels) and indirectly (mostly via China’s impact on third markets and international commodity prices). In the aftermath of the 2008 Lehman Brothers’ debacle, China’s growth did not decelerate unduly and, as a consequence, the fall in commodity prices was short-lived (they started to rebound in January 2009). Both factors contributed significantly to the fast post-2009 recovery observed in many LAC countries. The Chinese performance during the depths of the global financial crisis largely reflected a massive stimulus package of more than US$580 billion (14 percent of GDP) implemented between October 2008 and the end of 2010. Hence, an important question for LAC going forward is whether China can maintain robust growth amidst global turbulence, thereby sustaining high commodity prices and, if necessary, be able to implement again stimulus policies as aggressively as it did in the recent past.

Financial turbulence in developed countries might have played a role in the target set by the authorities for China’s GDP growth in 2012 which, at 7.5 percent, is well below its recent trend of almost 10 percent growth per annum. Global demand for its exports contributed marginally to China’s growth in 2011 (Figure I.6, Panel A). However, it is hard to conclude that the external demand is the whole story. Internal conditions and policies also played a role. Over the past 18 months or so, Chinese authorities have been pursuing a tightening cycle in monetary policy which
seems to have contributed to cooling down the economy and bringing inflation under control. This said, however, the huge wave of stimulus spending in infrastructure investment (as illustrated by the more than doubling—in nominal terms—of the so-called “social financing” between 2007 and 2009), which was spurred mainly via bank credit, has not been withdrawn yet (Figure I.6, Panel B). Nonetheless, there is little doubt that China, unbothered by local financial market panics and runs, has the fiscal capacity to engineer another round of stimulus—possibly more focused on social policy—if global demand takes a major downturn.

The deceleration of growth in China is arguably also an early sign of ongoing, deep changes in its long-term growth dynamics as the current model approaches exhaustion. The Chinese model is evolving away from unskilled labor-intensive goods and towards the production of more skill- and technology-intensive ones, while at the same time, transitioning from an export and investment driven economy towards one where domestic consumption plays an increasing role. While consumption continues to represent a low share of GDP (49 percent, compared to 80 percent in LAC in 2009), its contribution to growth since 2009 has not been trivial, increasing in fact from 20.4 in 2010 to 33.7 percent in 2011 (Figure I.6, Panel A). Over the same period, the contribution of the external sector to growth was significantly reduced. Most importantly, while recent announcements indicate that policy will remain supportive of growth, there is a clear intention to re-direct them towards boosting domestic growth sources, such as a higher share of services and consumption in the economy. In particular, authorities have recently been stressing that the financial sector should support the real economy, thereby hinting that major financial system reforms are envisaged. In addition, they have signaled tax cuts and increases in expenditures to support certain sectors (e.g., SMEs, affordable housing, service industry development and the social safety net, strategic emerging industries), consistent with a broader “proactive” tone of fiscal policy.

FIGURE I.6 Recent Developments in China

| PANEL A. Real GDP growth in China | PANEL B. Total Social Financing in China |

Notes: In Panel B, 2012 statistics (2012f) for total social financing in China is a forecast. Sources: EIU and CEIC database.

3 The loose credit conditions associated with the 2008-2010 stimulus package led to a pickup in inflation in the first half of 2011, a process likely exacerbated by increases in international prices of foodstuffs and other key commodities. However, CPI inflation peaked around mid-2011, reflecting the tightening of monetary policy, and has eased further since then. Inflation is expected to continue to gradually fall in 2012. Monetary tightening seems to have also pricked the potential bubble in real estate prices, at least for the time being.
Infrastructure nonetheless is expected to remain a focus of public investments, including water conservation, transportation, roads and railways, which have been defined in 12th Five-Year Plan. On the monetary front, there are growing signs of a relative easing of monetary conditions going into 2012 that aim at providing support for economic growth as well as facilitating economic restructuring.

This shift towards a sustainable and domestic-demand driven growth model, if successful, may have major consequences not only for LAC, but also for the world economy. Two of those are worth emphasizing. First, it may lead to further strengthening of the Chinese currency, although it is unclear how the Chinese authorities would handle this transition. Such an appreciation of the Yuan would be a positive development for LAC countries competing with China in third markets, such as Mexico and some other Central American countries. Second, it may imply a different demand for LAC’s exports, with a relatively smaller demand for metals and a growing one for food and consumer goods, and thus it might have effects on the overall volume of trade. A key question is thus whether LAC countries can still remain a major supplier to the Chinese economy in the medium term.

Economic activity in the US is, of course, another potential source of concern for LAC. It has been on a modest recovery, with some better than expected data releases in recent weeks. Underlying this revival is rising employment and strong corporate and financial balance sheets, as well as growing confidence. Nonetheless, the consumer deleveraging process and the slump in the housing market continue to be a drag and, importantly, there is no consensus whether they have reached bottom yet. Hence, despite the positive news, the US recovery remains somewhat sluggish and significant risks lie mainly on two fronts: oil prices and the path of fiscal policy. The recent rise in oil and gasoline prices might have a significant impact on consumers through lower real incomes, eventually hitting overall domestic demand and thus affecting growth. However, the slowdown in China, ceteris paribus, could eventually help reduce the international price of oil. At the same time, any rebalancing of the reform-stimulus nexus for fiscal policy is likely to remain on hold in an election year, adding to growth-debilitating uncertainties.4

In this current context of uncertainties amid an erratic recovery in rich countries, central banks therein will likely continue to keep policy rates low for a while. This, together with the recent decline in risk aversion observed in the past weeks—largely associated with the removal of a tail-risk event in the Euro Zone—implies the resurgence of the “search for yield” among investors. For LAC countries, this means that a new wave capital inflows akin that of 2010 is likely to be in the cards. In effect, evidence based on mutual fund investment flows points to a significant surge in flows to emerging markets in general, and LAC in particular, in the first quarter of this year (Figure I.7).5

Hence, the scope for macroeconomic policy tensions and tradeoffs might get acutely intensified, especially in those LAC countries where output is closer to potential. As authorities try to reconcile the objectives of, on the one hand, keeping inflation expectations anchored in the face of economic overheating and, on the other hand, avoiding an “excessive appreciation” of the local currency in the face of high and potentially volatile commodity prices and capital inflows. Moreover, large volumes of capital inflows might spur credit growth and lead to financial excesses and bubbles down the line.

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4 Stokey (2012) for instance highlights that uncertainty about a future tax changes can lead to a reduction in investment.
5 Data on mutual fund flows come from EPFR, a widely used source that collects high frequency mutual fund portfolios around the world.
These concerns are distinctively salient in countries with already particularly strong currencies, such as Brazil, Colombia, and Uruguay, in contrast to Mexico for instance, where the currency appears rather undervalued.

As policy makers seek to align those conflicting goals, the application of broadly-defined macro-prudential policies might become especially helpful. However, little is still known about the effectiveness of macro-prudential policy tools and their implementation costs. The authorities, moreover, will be confronted with the temptation of using these policies as a substitute (rather than as a complement) to monetary and fiscal policy instead of focusing them on increasing financial system resiliency, tackling externalities and other market failures that amplify business cycles, and promoting excessive build-up of risks.  

While the external environment is plagued by uncertainties, volatility in this highly globalized world appears as a certainty. This raises two questions for LAC that the rest of this report addresses. First, given that global financial turbulence features prominently in the current setting, what are the new patterns of financial globalization that underpin the financial volatility that LAC has to cope with? Second, how vulnerable are different LAC countries to various types of external volatility (in external demand, terms of trade, and financial conditions)? Chapter 1 deals with the former question by exploring the new dynamics in gross capital flows (whose size dwarfs that of the more commonly studied net capital flows) and delving into the incentives and behavior of the international asset management industry. Chapter 2 discusses the latter question by exploring how exposures to external volatility interact with policy response capacities to yield a heterogeneous map of short-run vulnerability across countries in the region. This report thus focuses on coping with external volatility.

<i>FIGURE 1.7 Portfolio Flows To LAC-7 Countries</i>

For a LAC-focused discussion of macro-prudential policy issues, see our recent Flagship Report “Financial Development in Latin America and the Caribbean: The Road Ahead.”
Chapter 1: Coping with New and Varied Forms of Financial Volatility

An important lesson of the recent past is that LAC countries have entered a new phase of financial development, encouraged by more supportive enabling environments and a more stable macro-financial environment, as discussed below. Most importantly, the challenges of ensuring sustained development and growth in a more globalized and possibly more turbulent world are likely to mutate, giving rise to complexities that may have little to do with the traditional challenges of the past. Back then, shocks tended to be home-grown: they tended to either arise from unstable and unviable domestic macroeconomic policies or, when originated externally, to have devastating consequences, due to the amplification caused by weak domestic policy frameworks. Many LAC countries now face a new world, where shocks are less likely to stem from home-grown macroeconomic policy mistakes and more likely to arise from external volatility. LAC policymakers will thus confront in the years to come a range of novel challenges for which they need to prepare.

The benefits and costs of a greater integration into world financial markets has been the subject of heated debate. Different channels have been identified through which capital flows can spur growth. Access to international capital may lift credit constraints and allow firms to undertake more productive investments (Acemoglu and Zilibotti, 1997). Direct investment inflows may facilitate the diffusion of technology and managerial know-how as well as improve the skill composition of labor (Grossman and Helpman, 1991; Haskell et al. 2007). International financial integration may also raise the depth and scope of domestic financial markets by lowering borrowing costs and improving the quality and availability of financial services (Chinn and Ito, 2006). Finally, the free flow of foreign capital may have a “discipline effect” on monetary policy, whereas the evidence is not as robust for fiscal policy (Tytell and Wei, 2005; Rogoff, 2007).

Those benefits however may come at a cost. The bad side-effects of financial globalization have in fact been widely documented. The inherent volatility of capital flows may bring instability and uncertainty with permanent adverse effects on income. In particular, business cycles might get amplified and crises might become more frequent (Kaminsky and Reinhart, 1999). The procyclicality of capital flows may also have a perverse effect on macroeconomic stability: consumption and spending might grow excessively during periods of capital flow bonanza and they might have to adjust drastically when foreign capital stops flowing in. The lack of access to world capital markets during bad times may also hamper the ability of governments to conduct counter-cyclical fiscal policies (Kaminsky, Reinhart and Vegh, 2005; Reinhart and Reinhart, 2008).

Against the background of this debate and in light of the current concerns with volatile financial markets, the rest of this chapter discusses a few important dimensions of the financial globalization process into which LAC is immersed. First, it documents the evolution of gross (rather than net) capital flows into and out of LAC countries, their magnitude, co-movement, and the high volatility of portfolio flows relative to foreign direct investments (FDI). Second, it examines the role of asset
managers, who have gained relative space vis-à-vis banks as important players in international capital movements and whose behavior is more likely (compared to that of banks) to amplify capital flow fluctuations. Third, we document how asset managers have treated LAC recently when compared to other emerging regions and to LAC’s own past. We also discuss the factors that may explain the observed differences. Understanding the inner workings of a volatile global financial system and the policies to cope with such volatility is key for LAC in maximizing the gains from financial globalization while minimizing its costs.

**Large and Volatile Gross (rather than Net) Capital Flows**

Over the past 30 years, there has been a generalized process of two-way financial globalization, intensified during the 2000s, that has deeply changed the financial landscape around the globe. While net capital flows have remained relatively stable over this period (not least because solvency and viability constraints prevent current account deficits from continuously rising), gross capital flows, that is, the purchases of domestic assets by foreign agents and the purchases of foreign assets by domestic agents, have greatly expanded (Table 1.1). As gross capital flows expanded over time, capital flow dynamics have also mutated. Foreigners have increased their presence in local financial systems at the same time that domestic agents have expanded their participation in foreign markets (Broner et al., 2010). Many LAC countries have in fact experienced a deepening of this two-way process of integration into the international financial system (Figure 1.1).

Despite the relevance of gross capital flows, most empirical work has focused on analyzing variations in net capital flows during booms and busts. While very useful to understand some aspects of financial crises, such as the availability of overall external financing for a country in turbulent times, the focus on net capital flows does not allow us to fully disentangle how different shocks affect local versus foreign investors, why they spread and affect countries differently, and what are the dynamics underlying different financial shocks. Net capital flows to one country can only tell how much capital that country receives, but fail to inform whether that is being driven by the behavior of domestic or foreign agents. A sudden stop in capital flows driven by foreign investors may call for a very different policy response from the one driven domestic investors. And finally, the focus on net capital flows does not capture where countries stand in the global portfolios, which is an important aspect to keep in mind in designing policy responses.

When looking at gross capital flows by foreigners to LAC over the last three decades or so, a few aspects stand out. First, fluctuations in gross capital flows have been larger than the already sizeable swings in net capital inflows, and while the volatility of net flows has fallen over time, the changes in gross flows has actually increased. The volatility of capital flows in recent years suggests that cross-border financial shocks have not become smaller over time, and definitely not so for LAC, whether they are measured through either gross or net capital flows (Table 1.1). For example, capital inflows by foreigners across LAC countries typically dropped from 4.4 to 1.4 percent of GDP in crisis years relative to non-crisis years between 1980 and 2007, thus declining 3 percentage points, whereas these flows fell 4.6 percentage points between 2007 and 2009. If net capital flows are considered instead, the reversal in flows during the recent turbulent period is of a similar magnitude to that of past experiences.

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7 In this report, we focus on the behavior of foreign investors, though understanding the dynamics of capital flows driven by domestic agents is as important.

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TABLE 1.1 The Dynamics of Capital Flows

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<td>0.82</td>
<td>1.06</td>
</tr>
<tr>
<td>2000s</td>
<td>-0.18</td>
<td>1.90</td>
<td>1.26</td>
</tr>
<tr>
<td>Non-Crisis Years</td>
<td>-0.18</td>
<td>0.76</td>
<td>1.04</td>
</tr>
<tr>
<td>Crisis Years</td>
<td>2.58</td>
<td>-0.02</td>
<td>-0.44</td>
</tr>
<tr>
<td>2007</td>
<td>-0.58</td>
<td>5.10</td>
<td>0.56</td>
</tr>
<tr>
<td>2008</td>
<td>3.83</td>
<td>4.08</td>
<td>1.78</td>
</tr>
<tr>
<td>2009</td>
<td>0.21</td>
<td>0.30</td>
<td>-1.29</td>
</tr>
<tr>
<td><strong>Capital Inflows by Foreign Agents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980s</td>
<td>4.79</td>
<td>0.83</td>
<td>0.18</td>
</tr>
<tr>
<td>1990s</td>
<td>7.00</td>
<td>3.96</td>
<td>5.00</td>
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<tr>
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<td>15.16</td>
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<td>4.68</td>
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<tr>
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<tr>
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<td>7.50</td>
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<td>1.39</td>
</tr>
<tr>
<td>2007</td>
<td>28.89</td>
<td>14.01</td>
<td>10.72</td>
</tr>
<tr>
<td>2008</td>
<td>12.96</td>
<td>8.90</td>
<td>6.73</td>
</tr>
<tr>
<td>2009</td>
<td>4.09</td>
<td>5.81</td>
<td>6.11</td>
</tr>
<tr>
<td><strong>Capital Inflows by Domestic Agents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980s</td>
<td>-3.78</td>
<td>-1.40</td>
<td>-0.87</td>
</tr>
<tr>
<td>1990s</td>
<td>-6.56</td>
<td>-2.80</td>
<td>-4.13</td>
</tr>
<tr>
<td>2000s</td>
<td>-17.71</td>
<td>-6.44</td>
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</tr>
<tr>
<td>Non-Crisis Years</td>
<td>-13.86</td>
<td>-6.45</td>
<td>-3.54</td>
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<tr>
<td>Crisis Years</td>
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<tr>
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<td>-11.51</td>
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<tr>
<td>2008</td>
<td>-9.82</td>
<td>-5.77</td>
<td>-7.18</td>
</tr>
<tr>
<td>2009</td>
<td>-4.45</td>
<td>-4.05</td>
<td>-4.63</td>
</tr>
<tr>
<td><strong>No. of Countries</strong></td>
<td>39</td>
<td>26</td>
<td>8</td>
</tr>
</tbody>
</table>

Notes: The table shows summary statistics of capital flows by both foreign and domestic agents as well as net capital flows. The median value of country averages of capital flows over trend GDP is shown. The sample period is from 1970 to 2009. Source: Broner, Didier, Erce, and Schmukler (2010).

Second, the nature of gross flows underlying net flows has been evolving over time. During the 1980s, changes in net capital inflows to LAC largely reflected the changes in gross capital flows by foreigners, whereas flows by domestic residents were particularly small, except in episodes of massive capital flight. But starting in the early 1990s, and especially during the 2000s, gross inflows by foreign agents and gross outflows by domestic agents have increasingly mirrored each other, leading to much more complex dynamics underlying net capital flows (Figure 1.1). During good times, foreigners have increasingly poured money into LAC countries while LAC residents have expanded their investments abroad. During turbulent times, however, including periods of high risk aversion in global financial markets, investors have typically retrenched, triggering large reallocations of capital by foreign and domestic agents. These reallocations can have significant destabilizing effects on the local financial system. And in some cases, these reallocations have not been symmetric.
which has typically resulted in decreases (or even reversals) in net capital inflows to LAC during turbulent times. More generally, however, these reallocations have tended to, at least in part, offset each other, leading to relatively minor changes in net capital inflows that conceal dramatic and vast changes in gross capital flows.

Third, the nature of financial shocks also seems to have changed over time. This can be seen in two dimensions. First, in the 1980s, 1990s, and early-2000s, most crises were usually originated at home or, if stemming from abroad, magnified at home. The most recent crises however started in high-income countries and were transmitted globally to most of the financially open economies in the world, whether they had or not direct exposure to these markets. Rather than magnifying the effects, local policy frameworks cushioned the effects in many LAC countries. For instance, two past crises (i.e., the financial turbulence unleashed by the Russia crisis or by the troubles of Long Term Capital in the US) had external epicenters to the region and yet led to domestic financial crises in a number of LAC countries. In contrast, the recent episodes of turbulence originated with the US sub-prime debacle and the troubles in the periphery of the Euro Zone did not result in domestic crisis in LAC.

And second, the recent crises have shown the unprecedented speed and magnitude through which turbulence spread across markets and borders. In particular, the 2008 crisis originated in the
relatively small US subprime housing market but quickly spread across institutions, markets, and countries without obvious direct linkages to the US housing sector.\(^8\)

**The Growing Importance of Asset Managers**

At the core of this new financially globalized world has been a transition from mostly bank-based financial systems to more complete and interconnected ones, where capital markets have gained space, institutional investors (such as mutual and hedge funds, etc.) have played a more central role, and the number and sophistication of participants has increased.\(^9\) In other words, while in the past banks directly interacted with borrowers and lenders through “relationship lending”, there are now several institutions participating in the process of the intermediation of savings and the allocation of credit through arm’s length transactions, involving many agents, such as financial analysts, financial advisors, asset managers, rating agencies, and underwriters.

Understanding the heterogeneity in motives and behaviors of these agents is essential for an accurate diagnostics of this new world financial system. In particular, financial intermediation through institutional investors, especially pure asset managers, raises important agency problems that are very different in nature than those resulting from the interaction between savers and banks.\(^10\) As noted by Diamond and Rajan (2001), asset managers such as mutual funds are fundamentally different from banks because they do not create monetary liquidity. Banks’ financial structure (illiquid loans, liquid liabilities, and skin-in-the-game through capital requirements) provides incentives for prudence in risk taking behavior. In addition, through good supervision, the moral hazard arising from deposit insurance can be controlled. Banks engage in maturity transformation and absorb the risks through their capital while providing downside risk insurance to investors (to the extent that there are no bank failures). In contrast, portfolio managers do not have hard liabilities, and investors (rather than the asset managers) remain fully exposed to investment risks. The fact that portfolios are marked to market daily, and thus absorb price fluctuations on a high frequency basis, provides a shock absorption mechanism that gives investors fewer incentives to run. This is particularly so in the case of equity mutual funds. However, other factors might trigger massive redemptions by fund investors during bad times, as discussed below.

More broadly, the delegation of the investment decisions to asset managers occurs under asymmetric information and gives rise to a basic agency problem: will the asset managers consistently act in line with the interest of the investors? In the absence of skin-in-the-game, that is, in the absence of a requirement that asset managers have their own resources at risk, compensation schemes have been used as a substitute to align the incentives of asset managers (the “agents”) with those of the investors (the “principals”). In addition, transparency (including through mark-to-market accounting and disclosure practices) has been relied upon to empower investors to closely monitor the behavior and performance of asset managers. In practice, however, both compensation

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\(^8\) The subprime market represented 15 percent of US total residential mortgages in 2006 and the latter accounted for 25 percent of US total debt (see Agarwal and Ho, 2007).


\(^10\) For the rest of this report, the term “institutional investor” refers to asset managers, such as mutual funds and hedge funds. Hence, we exclude in particular from this group of investors, such important asset-liability managers as banks and insurance companies. See our 2011 Financial Flagship Report for a more detailed analysis of the differences between these two types of financial intermediaries.
schemes for asset managers (typically a positive function of the total assets under their management and, often also, of the fund performance) as well as mark-to-market accounting and disclosure practices have tended to foster churning of risks, herding behavior, and an excessive focus on short-term returns in the asset management industry. This has been reinforced by investors’ preference to “discipline” asset managers by exiting (i.e., quickly redeeming their participations in funds) rather than by costly information gathering and processing to better monitor the asset manager’s performance beyond the short-term. The incentives for investors to rely on exit (rather than on monitoring), moreover, has risen as securities markets have become more liquid. Liquidity is in effect a sort of public good that encourages investors to free ride on it. \(^{11}\) Plenty of empirical evidence suggests that these injections/redemptions take place as a reaction to observed short-term fund returns. This structure of incentives encourages fund managers to herd within short-run horizons and to focus on the more liquid assets, dampening their willingness to hold risk over long horizons and thus to capture the risk premium of long-run investments. The shorter horizons of asset managers, when compared to the longer-term asset structure of, say, banks and insurance companies, might create more fluctuations in financial markets associated with short-run trading and herding behavior. Therefore, a world where pure asset managers play a greater role might be characterized by a greater overall level of volatility than the socially optimum.

To evaluate how asset managers have behaved during crises and how this behavior has created winners and losers across emerging markets, a micro-level dataset on the portfolio allocation of international mutual funds is analyzed. \(^{12}\) Whereas the focus on mutual funds could appear limited at first glance, this is in fact not the case. First, the importance of mutual funds is growing and international capital flows have been increasingly intermediated by them. For instance, there has been a sizable expansion over the past two decades in the total assets held by equity mutual funds specialized in investing in emerging countries (global emerging funds) covered in our sample, from about US$10 billion in mid-1996 to over US$150 billion at the end of 2011 (Figure 1.2). Large increases were also observed among equity funds specialized in investing globally (global funds). \(^{13}\) Moreover, the sample of mutual funds used for the analysis here is large. Second, the portfolio flows generated by the mutual funds in our sample is representative of the dynamics of aggregate gross portfolio flows by foreign investors more broadly. \(^{14}\) There is in effect a strong positive correlation between the investments of these funds and aggregate portfolio inflows by foreigners across emerging economies, including LAC countries. \(^{15}\) This is also illustrated by the fact that mutual funds

\(^{11}\) See our 2011 Flagship Report “Financial Development in Latin America: The Road Ahead” for a more detailed discussion of these issues.

\(^{12}\) The sample includes mostly opened-end mutual funds and ETFs located mostly in world financial centers and aimed at investing globally. Many of the closed-end funds included in the dataset allow for monthly or quarterly subscriptions and redemptions, and are therefore not truly closed. They account for less than 10 percent of the total assets under management tracked in the sample. The sample excludes hedge funds.

\(^{13}\) Data on global equity funds during the 1990s are not available.

\(^{14}\) These flows are not necessarily representative of flows from residents of a single country. In fact, Levy Yeyati and Williams (2012) find that the simple within-country correlation between these mutual fund flows and portfolio flows by US residents (captured through the TIC dataset) is rather low.

\(^{15}\) The mutual fund flows to emerging economies captured in our dataset show a statistically significant correlation of 0.42 with overall gross portfolio inflows when pooling all countries together. However, there is some heterogeneity across countries. While for most countries, including Brazil, China, Poland, South Korea, and Thailand, there is a strong correlation (typically above 0.85), for a few others, such as Chile, Czech Republic, and Egypt this correlation is much weaker (being negative for some of those countries). In the latter case, it is possible that capital controls explain at least in part this smaller correlations; in countries with widespread capital controls, portfolio flows sometimes appear under other type of flows, such as FDI.
have typically faced a sharp decline in their asset base around crises—namely, during the 1997 Asian and 1998 Russian crises, the 2008-2009 global crisis, and the European crisis since May 2011 (Figure 1.2).\(^{16}\) Third, while portfolio inflows are not the largest type of inflows emerging countries typically receive, they tend to be the most volatile in relative terms and thus particularly relevant in the transmission of external shocks (Table 1.2).\(^{17}\)

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**FIGURE 1.2 Evolution of Total Assets in Equity Mutual Funds**

**PANEL A. Asian/Russian Crises**

**PANEL B. Global Financial Crisis**

*Source: EPFR.*

**TABLE 1.2 Volatility of Gross Capital Inflows by Foreign Agents**

<table>
<thead>
<tr>
<th></th>
<th>All Countries</th>
<th></th>
<th>Middle-Income Countries</th>
<th></th>
<th>Latin American Countries</th>
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<tr>
<td></td>
<td>Median</td>
<td>Median Scaled</td>
<td>Median</td>
<td>Median Scaled</td>
<td>Median</td>
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<tr>
<td></td>
<td>Average</td>
<td>Std. Dev.</td>
<td>Average</td>
<td>Std. Dev.</td>
<td>Average</td>
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<td><strong>Portfolio Investments</strong></td>
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<tr>
<td>1980s</td>
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<td>36.90</td>
<td>0.00</td>
<td></td>
<td>0.02</td>
</tr>
<tr>
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<td>2.02</td>
<td>0.48</td>
<td>2.12</td>
<td>2.06</td>
</tr>
<tr>
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<td>1.69</td>
<td>0.48</td>
<td>3.05</td>
<td>0.71</td>
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<td></td>
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<tr>
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<td>1.29</td>
<td>0.25</td>
<td>13.56</td>
<td>-0.64</td>
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<tr>
<td>1990s</td>
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<td>1.48</td>
<td>1.77</td>
<td>1.42</td>
<td>0.48</td>
</tr>
<tr>
<td>2000s</td>
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<td>1.62</td>
<td>1.98</td>
<td>1.70</td>
<td>0.53</td>
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<td><strong>Direct Investments</strong></td>
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<td>0.74</td>
<td>0.42</td>
<td>0.90</td>
<td>0.67</td>
</tr>
<tr>
<td>1990s</td>
<td>2.95</td>
<td>0.72</td>
<td>2.04</td>
<td>0.90</td>
<td>2.95</td>
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<tr>
<td>2000s</td>
<td>3.29</td>
<td>0.64</td>
<td>3.12</td>
<td>0.65</td>
<td>3.29</td>
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<td><strong>No. of Countries</strong></td>
<td>103</td>
<td></td>
<td>26</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

*Source: Broner, Didier, Erce, and Schmukler (2010).*

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\(^{16}\) A focus on the size of their assets however does not allow us to distinguish between changes in prices and quantities invested.

\(^{17}\) Other investment flows, which include bank flows, are typically more volatile than portfolio flows across LAC countries in absolute terms. A number of papers have analyzed the role of banks, and foreign banks in particular, in transmitting shocks across countries—see for example Kaminsky and Reinhart (2000), Martinez Peria, Powell, and Vladkova-Hollar (2005), Cetorelli and Goldberg (2011). Nonetheless, much less is known about the behavior of institutional investors in the propagation of external shocks.
Exploring the behavior of mutual funds allow us to analyze the (i) injections/redemptions of capital driven by the underlying investors into mutual funds participating in developed and developing markets, and (ii) the portfolio reallocation of assets across countries driven by the actions of fund managers. The interplay between managers and underlying investors sheds light on the dynamics behind the observed movements in capital flows. Investors pour funds into mutual funds when they wish to diversify globally and withdraw their funds when they want to retrench and, in the process, may favor their local assets. Managers of international mutual funds, in turn, need to deal with the injections/redemptions decisions of investors (and with other shocks) by choosing in which countries and assets to invest, how to reallocate their portfolios as market conditions change, and how much cash to hold. The available evidence suggests that both investors and managers act procyclically, investing more in good times and retrenching from countries in bad times.\(^{18}\) This effect occurs either during country specific crises or during periods of global turmoil (Raddatz and Schmukler, 2011). For example, investors suffering a negative wealth effect due to shocks at home tend to reduce their investments abroad. This, in turn, generates incentives for managers of global funds to avoid potentially lucrative long-term investments, particularly so during periods of distressed prices.

To illustrate this sort of dynamics, the next section examines the behavior of international mutual funds during two worldwide episodes of financial turbulence (the Asian and Russian crises in the late 1990s and the global financial crises in the late 2000s). Importantly, we distinguish between the behavior of the underlying investors of mutual funds and the behavior of the asset managers. The next section also documents and the improvements in the way these funds have treated LAC in comparison to other emerging regions during the most recent global financial crisis. In the last section, we turn to the potential reasons behind these funds’ improved attitudes towards LAC countries.

**Underlying Investors Have Treated LAC Differently This Time Around…**

To capture the behavior of the underlying investors in mutual funds towards emerging regions, we focus on flows in and out of dedicated regional funds (especially LAC and Asia ones) and compare them to flows in an out of global funds. We look at cumulative injections into and redemptions out of mutual funds during the 1997 Asian and 1998 Russian crises and during the more recent global financial crisis of 2008-2009. In general, we find that investors pull out from all funds independently of their investment scope—i.e., there is a generalized increase in redemptions from all (global and regional) mutual funds during the peak of these turmoil episodes (Table 1.3). Nonetheless, flight to quality (from emerging regions to rich countries) was more dominant in the recent global crisis, as withdrawals from emerging (equity and bond) funds were substantially larger than those from global funds. Global investors, mostly from high income countries, retrenched from their foreign asset holdings in favor of investments in their own domestic markets, particularly the US, perceived to be safer, even though the crisis was rooted precisely in its financial system.

Despite a generalized flight to quality, there are some important differences between the global financial crisis and the crises of the late 1990s. While investors reduced their exposure disproportionately more from Asian and Latin American funds during both crises periods, these

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\(^{18}\) In this report, we focus on the cyclicality of capital flows with respect to the economic fluctuations in the recipient country rather than in the source country, though the latter can also affect the dynamics of capital flows.
reductions have been substantially smaller in the most recent crisis (Table 1.3). For instance, during 2008, they lowered their exposure to LAC and Emerging Asia through specialized equity funds by about 14 percentage points, compared to 9 percentage points in global emerging equity funds and 8 percentage points in global equity funds. In contrast, during the Asian and Russian crises, investors withdrew around 27 percentage points of the initial total assets in equity funds from Asia and Latin American funds but only 12 percentage points from global emerging funds.

Most interestingly, investors treated LAC more favorably than they treated Asia in the period around the most recent global financial crisis. To be sure, both regions were treated roughly the same during the height of the turmoil surrounding the Asian and Russian crises and the global financial crisis, albeit with a different degree of severity, given that the latter crisis was to some extent an exogenously-originated episode for these regions. However, when a longer period is considered, that is from July 2007 to March 2009, Latin American funds faced much smaller cumulative redemptions than their Asian counterparts (Table 1.3). This suggests that money was still pouring into Latin American funds from mid-2007 to mid-2008, while Asian funds had to deal with withdrawals. We explore the potential reasons behind this comparatively more benign behavior towards LAC countries in a latter part of this chapter.

A final point worth noticing is that redemptions from bond funds were somewhat different from those from equity funds, regardless of their scope of investment. Investors started pulling out earlier (and more strongly) from emerging market bond funds than from emerging market equity funds (Table 1.3). In fact, there were large redemptions from emerging bond funds between July 2007 and July 2008 (of about 16.1 percentage points of initial assets), while emerging equity funds had positive injections during the same period (of about 5.8 percentage points of initial assets). Underlying these patterns is perhaps the different nature of equity and bond assets, particularly so with respect to liquidity. As noted above, liquidity is a key aspect behind the investment patterns of the asset management industry. As highlighted by Holmstrom (2012), equity market liquidity thrives in heterogeneous beliefs. Price discovery for instance takes place through continuous trading and every minute information matters. Investors spend large sums on analyses of the companies’ prospectuses. In contrast, the liquidity in bond markets, and especially in money markets, comes from a “no-questions-asked” approach in which there is a shared-understanding of the underlying value of the assets. That is, information is coarse at best and underlying investors believe in symmetric information about payoffs. Hence, in an environment of great uncertainty that typically characterizes

| TABLE 1.3 Accumulated Injections/Redemptions in Mutual Funds |
|-------------------|-------------------|-------------------|
| Fund Type         | In percentage points |
| **Equity Funds**  |                 |                 |                 |
| Global Emerging   | -12.0           | -2.9            | -8.7            |
| Global Funds      | -5.5            | -5.5            | -7.9            |
| Latin American    | -26.2           | 0.0             | -13.9           |
| (excl. Japan) Funds | -27.6          | -12.2           | -13.7           |
| **Bond Funds**    |                 |                 |                 |
| Global Emerging   | -                | -35.6           | -19.5           |
| Global Funds      | -1.1            | -7.1            | -6.3            |

Notes: This table presents injections to different type of funds accumulated over different periods and divided by initial total assets. All injections and total assets are considered for the median fund in the sample. Source: Didier, Hevia, and Schmukler (2012a).
financial crises, liquidity might be more severely affected in bond than in equity markets, and therefore, the different dynamics of these two markets might explain the heterogeneity in responses of underlying investors towards these two types of funds.

… And So Did Portfolio Managers

To capture the behavior of asset managers, we focus mainly on truly global funds (i.e., that invest in assets of rich countries and emerging markets alike) and funds that hold a diversified portfolio of emerging market assets. Portfolio reallocations within those funds can be attributed to asset managers, rather than decisions by underlying investors.

On top of the investors’ reallocation, there has been in fact an important reallocation of assets between regions (and countries) due to managers’ behavior.19,20 In other words, observed aggregate portfolio inflows reflect not only the investment behavior of underlying investors, but also that of asset managers. Most importantly, these two agents do not need to act synchronously towards their investments, and hence the importance in understanding their behavior separately.

During the Asian and Russian crises, managers reallocated assets towards the LAC region, even as investors pulled out their assets from the region (Table 1.4). For example, the portfolio weight of global emerging equity funds in the Latin American region increased from about 30 percentage points in late 1996 to more than 35 percentage points in 1998 (Figure 1.3, Panel A). This trend arguably reflected a more optimistic view of the LAC region by asset managers than by underlying investors, at least relative to Asia and Eastern Europe (remember, managers of emerging market funds have to invest in emerging markets, while the underlying investors are unconstrained.) In contrast, Asia suffered the largest declines in portfolio weights, from about 30 percent in mid-1996 to less than 15 percent in 1998, indicating a similar perception among portfolio managers and underlying investors towards these countries. However, as this external crisis got amplified towards the end of 1998, triggering domestic turmoil across a number of LAC countries between 1998 and 2001, managers rebalanced their portfolios away from LAC and slowly returned to emerging Asia (Figure 1.3, Panel A).

During the recent global financial crisis, managers and underlying investors displayed a congruent behavior towards the LAC region. Countries in the region typically lost in the midst of the turbulence, but gained when longer horizons are considered, with investors and asset managers agreeing on their increasingly favorable perception of LAC (Table 1.4). However, when compared to other emerging regions, Asia has been the clear winner of this reallocation of funds among emerging regions. For example, the weight of emerging equity funds in Asian countries increased from about 25 percent in the first half of 2008 to over 30 percent by the end of 2011, while the weight in the Latin American region stayed roughly constant throughout this crisis at about 22 percent, though there was a slight increase relative to its value in 2006 and 2007 (Figure 1.3, Panel B). The clear

19 Didier, Hevia, and Schmukler (2012a) provide a more detailed analysis of these portfolio reallocations.
20 Table 1.4 reports the changes in portfolio weights relative to average weights during key periods during the Asian and Russian crises (first column), during the global financial crisis (third column), and during a longer time horizon around the global financial crisis and the European crisis (second column). The table shows absolute and relative changes in portfolio weights. For example, a region whose portfolio weight increases from 0.20 to 0.25 has an absolute increase in its weight of 5 percentage points, and a relative increase of 25 percent relative to its original weight.
losers were Eastern European countries, with a fall from over 12 percentage points in the first half of 2008 to about 8 percentage points in 2011.\footnote{The weight in Eastern European countries was increasing before the crisis, reaching a maximum weight of 14 percentage points in June 2008.}

The dynamics of portfolio allocations across global funds during the global financial crisis highlight that the US continues to stand alone as a safe haven. European countries do not seem to enjoy this status. Even though the crisis originated in the US, the average portfolio of global funds increased its exposure to that country. Global equity funds, for example, increased their portfolio weights from about 14 percentage points in the first half of 2008 to more than 16 percentage points during the worse part of the crisis, representing an increase in almost 15 percent. On the other hand, global funds decreased significantly their exposure to European countries. For instance, weights of global equity funds declined from 54 percentage points of the overall portfolio at the beginning of 2008 to about 49 percentage points in 2011 (Table 1.4).

<table>
<thead>
<tr>
<th>TABLE 1.4 Changes in Mutual Fund Portfolio Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
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<tr>
<td></td>
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<tr>
<td>Global Emerging Equity Funds</td>
</tr>
<tr>
<td>Asia</td>
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<tr>
<td>Eastern Europe</td>
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<td>Latin America</td>
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<td>Latin America</td>
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<tr>
<td>Global Emerging Bond Funds</td>
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<td>Asia</td>
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<td>Global Bond Funds</td>
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<tr>
<td>High-Income Regions</td>
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<tr>
<td>Dev. Asia and Pacific</td>
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<tr>
<td>Europe</td>
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<tr>
<td>North America</td>
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<td>Middle-Income Regions</td>
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<td>Asia</td>
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<tr>
<td>Eastern Europe</td>
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<td>Latin America</td>
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</table>

Notes: This table displays changes in aggregate weights for different regions among different type of funds. Aggregate weights were constructed as weighted averages of individual funds, and then the change or percentage change were computed. Each column presents either the change or percentage change of the average weight during two periods. The change (percentage change) was computed as the last period average weight minus the earliest period average weight. The percentage change is with respect to the earlier period. Source: Didier, Heria, and Schmukler (2012a).
The regional reallocations hide significant heterogeneity across countries. Typically, countries with stronger fundamentals gain space in investors’ portfolios (the “winners,” i.e. those that receive capital inflows from these investors) relative to the more vulnerable countries (the “losers,” i.e. those that face outflows from these investors) if long enough horizons are considered. During the Asian and Russian crises, Chile and Mexico were the LAC countries among the top gainers for global emerging equity funds, whereas Brazil was among the top losers, along with some of the crises countries themselves such as Hong Kong, Russia, and Thailand (Figure 1.4, Panel A). Since then, the perception of managers towards LAC countries has changed towards the better (Figure 1.4, Panels B and C). Chile remained in the group of top gainers during the global financial crisis, and it is now joined by Brazil and Colombia. Mexico joins the group of top winner countries when global emerging bond funds are considered. Argentina, Ecuador, and Venezuela nonetheless are among the top losers along with Greece (Figure 1.5).

While countries with stronger fundamentals gain space in investors’ portfolios if long enough horizons are considered, other factors play an important role for asset managers if shorter horizons are evaluated. In particular, winners and losers in the height of the crisis are not necessarily the same as those in the longer run, and especially so among equity funds. Two notable examples are Brazil and the US, though for very different reasons. Brazil, along with Thailand and Indonesia, is typically

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22 Figures 1.4 and 1.5 show country-specific information to shed light on the top 10 winners and losers in terms of relative weight changes for global emerging funds. This relative weight change captures the proportional increase in the exposure to a particular country relative to its average weight level, and is defined as the absolute weight change over a given period divided by the average weight between the beginning and the end of this period.
among the top losers in the short run, but a major gainer in the long run. Asset managers’ behavior towards Brazil and these two Asian countries might be explained by liquidity considerations, as stock markets in these three countries feature prominently among the most liquid markets within their regions. Once facing withdrawals from underlying investors during turbulent times, managers need to sell positions and they might prefer to do so in liquid markets, where such liquidation can perhaps be less costly and more easily executed. This behavior is particularly marked across managers of equity funds, and it reinforces this interpretation of the observed trends.\(^\text{23}\) The key point is that,

\(^{23}\) Raddatz and Schmukler (2011) provide evidence that cash is used more as a buffer in bond funds, reducing the impact of redemptions on manager reallocations, whereas in equity funds cash is used pro-cyclically, being accumulated during crises. Also consistent with this interpretation is Didier, Love, and Martinez Peria (2011), who find that market liquidity
contrary to what is often expected from deep liquidity, the fact seems to be that markets with greater liquidity tend to fall in tandem with the global markets, while more illiquid markets tend to be somewhat more shielded.

In a similar fashion, there are also some countries that switch from gainers, in the short run, to losers in the long run. The US is a notable example in this regard (and Japan to a lesser extent). For all of its economic troubles, the US dollar remains as the undisputable international reserve currency—the safe haven where investor find refuge in times of high risk and uncertainty aversion. For instance, even though global bond fund managers reduced their exposure to the US by more than 5 percentage points in the long run, they increased their exposure to this country by 4 percentage points during the peak turmoil period of the global financial crisis. This flight to quality effect is also observed across global equity funds, where the exposure to the US during the global crisis increased by 2.5 percentage points, while the longer-term trend showed an increase of only 1 percentage point. This “exorbitant privilege” arising from a safe haven status, gives countries like the US considerable maneuvering room to deal with external shocks, as it enables them to borrow at relatively lower cost even in circumstances of high distress.

The changes in portfolio weights towards individual countries described above can be rather large. With more than one hundred countries mutual funds could invest, increasing the portfolio exposure to a single country by a few percentage points means a massive reallocation of funds. In relative terms, these swings in portfolio allocations can be even more striking. For instance, a country starts in the pre-crisis period receiving say 1 percent of mutual fund flows (i.e., portfolio weight of 1 percent), but ends up in the aftermath of a crisis with a portfolio weight of 1.5 percent would experience an increase of 50 percent in inflows from mutual funds. There are a number of cases in
which countries observed increases in their weights by 50 percent of more, as for example Turkey, Israel, South Africa, and Thailand during the recent global financial crisis. Furthermore, lack of market liquidity may amplify the effects of these reallocations. With prices over-reacting in relatively less liquid markets, the portfolio shifts by foreign investor may lead more volatility in local markets, especially during turbulent times.

These overall trends in the relative position of countries in investors’ portfolios are consistent with asset price data. As we argued in our April 2011 LAC Semi-Annual Report “LAC Success Put to the Test” and in Levy Yeyati and Williams (2012), the degree of comovement suggests a strong and growing presence of a common factor driving overall emerging market asset returns. Importantly, common factors gain importance during turbulent times (Figure 1.6, Panel A). International investors’ risk aversion and herding behavior are surely captured in the measures of common factors. Risk aversion (measured through the VIX) explains during tumultuous times a much larger fraction of equity returns across LAC countries than in tranquil periods (Figure 1.6, Panel B). While this reflects the high degree of international financial integration of domestic markets, it means that investors are reacting increasingly more to common (global) factors than country-specific factors. The sad implication is that, to the extent that global factors dominate, financial markets are less likely to reward domestic good policies, especially during turbulent times.

**What Does This Means for Policy Makers in LAC?**

The evidence provided so far, including the rising importance of common (global) factors, relative to country-specific factors, in the ups and downs of financial markets, implies that LAC countries are exposed to large financing shocks, even when perceived to be well-managed and with strong economic fundamentals. The international asset management industry appears to be a key element in the transmission of financial shocks across countries, reflecting the behavior of underlying fund

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**FIGURE 1.6 Global Factors and Assets Prices**

**Panel A. Equity Returns and the VIX**

![Diagram showing average R-squared from country regressions for Equity, Foreign Exchange, and CDS Spreads.]

**Panel B. Principal Component of EM Assets Returns**

![Diagram showing MSCI Latam w.r.t VIX and S&P500: VIX Coefficient.]

Notes: In Panel A, a principal component is estimated for returns on equities, on foreign exchange spot contracts, and on CDS sovereign spreads. Then, country-specific returns for each asset class are regressed on its associated PC1 in order to get an R-squared. The average R-squared is being reported for countries within each region. In Panel A, we report the VIX coefficient associated to a regression of MSCI Latam Index against VIX and S&P500.

Sources: LCRCE Staff calculations, Bloomberg, and LCRCE October 2010 Outlook Report.
investors and fund managers. The observed stylized pattern is as follows. Underlying investors react pro-cyclically to shocks by pulling out their foreign investments during crises times and generating a retrenchment of gross capital flows. Their pro-cyclical reaction is matched by a similar behavior of fund managers, who adjust significantly the weights on different country assets in their portfolios as crises hit. At times of high stress, there is a flight to quality and capital gets reallocated towards safe havens, and especially the US. Some emerging countries suffer more than others in the midst of turmoil, as considerations such as market liquidity might play a more dominant role, shadowing country-specific strengths and vulnerabilities. Only after crises subside, capital returns to the regions and countries perceived to offer more stable and sounder policy conditions and robust growth prospects. Investors and fund managers thus tend to shun risk in the face of a sharp deterioration of global (common) factors, abandoning emerging countries in a rather generalized fashion and favoring the safety and liquidity of US assets.

These findings have important implications for the policy discussion. First, they suggest that in a world where investors discipline managers through exit, managers of mutual funds have inherent difficulties in taking advantage of long-term arbitrage opportunities and in reacting counter-cyclically in times of global distress so as to favor of emerging countries with sounder policy and institutional fundamentals. The evidence is therefore not consistent with international deep-pocket investors playing a stabilizing role across borders. On the contrary, the international mutual fund industry appears fickle, transmitting shocks across countries and generating excessive volatility in financial markets relative to what would be socially optimal. Such excessive fluctuations might reflect not just the agency problems mentioned above, but also negative externalities, free riding behavior, and collective cognitions problems (De la Torre and Ize, 2010). For example, the availability of public information and the associated reduction in the ability to appropriate the rents from private information encourage investors to free ride. Instead of staying put and investing in analysis and monitoring, they may rather go short and rely on market liquidity to exit at the first sign of possible trouble.

Second, the pro-cyclical behavior of financial intermediaries is observed even across equity funds for which prices adjust instantaneously and where the need to get out first is not as imperative as in the case of bond funds. This evidence challenges common wisdom. For instance, some had hoped that a shift from bank-based model to a capital market-based model would help avoid runs and contagion effects. But this shift, as we have clearly learned by now, will not necessarily solve the problem of runs. Runs and contagion are possible even in equity markets and, a fortiori, in fixed-income markets. The evidence also suggests that idiosyncratic risk and market discipline play only a limited role during crises and, thus, a systemically-oriented regulatory system would be needed to mitigate the threat of crises.

Third, the evidence presented in this report indicates that shocks to the supply side of funds are hard to dismiss. Foreign investors (in this case, international mutual funds) do not necessarily play a stabilizing role; in fact, they are more likely to act in a highly pro-cyclical manner. This has important implications for the debate on the tensions between emergency liquidity provision and moral hazard. To the extent that shocks come from the supply side of funds and reflect global factors (or what Guillermo Calvo calls the “globalization hazard”), providing lender-of-last resort liquidity at times of crisis can decisively help stabilize markets and countries without unduly raising moral hazard.  

24 See for instance Calvo (2002).
Is LAC Becoming More Financially Globalized and Yet Less Vulnerable?

The LAC region has suffered many external shocks over the past decades, and the last years have been particularly turbulent. Shocks and non-FDI capital flow fluctuations certainly have not become smaller over time. Nonetheless, LAC has shown a high degree of resilience in the last global crisis episode. Importantly, there has been an improvement in investors’ perception of many LAC countries. All of this is clearly a new and welcome feature that stands in contrast with the region’s history and that illustrates that greater exposure to international financial market fluctuations does not necessarily entail greater vulnerability.

In effect, historically, financial crises in LAC have been to a large extent self-inflicted. Even when the initial disturbance was completely exogenous—as was, for instance, the 1998 Russian crisis—LAC’s macroeconomic and financial vulnerabilities were such that the domestic ripple effects of the external disturbance were substantially amplified. This amplification phenomenon was the result of a risky form of financial integration, characterized by inflexible rate regimes, low levels of international reserves, large volumes of dollarized financial contracts in the local financial system, and foreign debt liabilities of relatively short-term maturities. 25 This structure of LAC’s financial integration was not only fragile in itself, but was also exacerbated by a number of factors that became LAC trademarks, including high and volatile inflation, chronic fiscal and current account deficits, burdensome public debts, and shallow financial systems. Moreover, in a context of pro-cyclical capital flows, the scope for macro policy maneuvering was heavily constrained and policy responses tended to be pro-cyclical. For instance, the fear of letting the exchange rate float reflected the constraints imposed by the widespread dollarization of debts, and consequently, the resulting lack of exchange rate flexibility implied that central bankers had to raise interest rates in bad times in an effort to arrest capital flight. Similarly, the sudden curtailment of access to international capital markets compelled ministers of finance to raise taxes and/or cut expenditures even as the economy was contracting. The amplification phenomenon was thus a sort of trap: domestic weaknesses magnified external shocks and capital flows tended to react pro-cyclically in the face of such weaknesses; the interplay of these factors further induced macroeconomic policies to respond pro-cyclically, which in turn exacerbated the initial magnification effects.

Over the past 10 years and partly in response to the painful lessons learned through the recurrent crises suffered in the 1980s and 1990s, a number of LAC countries have moved towards a safer form of financial integration, while implementing a silent revolution in their macro-financial frameworks. A virtuous combination of improvements in many important fronts has converted the region’s traditional factors of shock amplification (weak currencies, fragile fiscal processes, and vulnerable financial systems) into shock absorbers (flexible and credible exchange rate regimes in a context of fewer currency mismatches, stronger public finances, and well capitalized and liquid banking systems), enabling countries to reduce the vulnerabilities associated with international financial integration.

Many LAC countries have in effect moved towards more robust monetary policy frameworks that feature flexible exchange rate regimes. This has been a key factor that contributed to the ability to

25 A discussion and review of the literature on the unequal blessings of safe versus unsafe forms of financial globalization, see De la Torre, Levy Yeyati and Schmukler (2002).
FIGURE 1.7 Improved Immune Systems

PANEL A. Interest Rates in LAC: Late 1990s

PANEL B. Interest Rates in LAC: Late 2000s

PANEL C. Foreign Currency Bonds

PANEL D. Nominal Exchange Rates

Notes: Panels C and D show the currency composition of domestic private and public bonds at issuance. Panel C shows the average foreign currency denominated bonds as a percentage of total bonds issued by the private sector in domestic markets per year between 1991 and 2008. Panel D shows the composition of domestic public bonds issued on average per year (between local currency, foreign currency, and inflation-linked bonds) over the period 2000 and 2009. Numbers in parentheses show the number of countries in each region. Sources: Bloomberg and Didier, Hevia, and Schmukler (2011).
lower interest rates amid turmoil in global financial markets and capital outflows (Figure 1.7, Panels A and B). This movement was feasible because more robust monetary policy frameworks have been implemented, grounded on credible and professionally managed central banks. Inflation-targeting countries (Brazil, Chile, Colombia, Mexico, and Peru) are notable examples in this regard. The improved credibility and institutional capacity of central banks in turn allowed the reduction in currency mismatches in the government and private sector’s balance sheets resulting from the steady lowering of price inflation and its volatility (Figure 1.7, Panel C). Most importantly, the effectiveness of more flexible exchange rate regimes has risen in line with a decline in currency mismatches and a deepening of local currency debt markets, implying that exchange rate movements now generate much less adverse balance sheet effects. There has arguably been a decline in the extent of fear of floating across LAC countries. Many central bankers in LAC indeed allowed exchange rates to depreciate significantly in late 2008, thereby cushioning the global shock and, at the same time, helping mitigate the deterioration of the external balance (Figure 1.7, Panel D).

In addition, many countries in the LAC region have steadily changed the structure of their external assets and liability positions, thus making aggregate balance sheet effects work in their favor amid external turmoil. On average, there has been a switch of net foreign liabilities from debt to equity, while net debt assets in foreign currency were accumulated to levels that exceed foreign debt liabilities (Figure 1.8, Panel A). As currencies depreciated in LAC countries, amid turbulence in the financial systems around the world, the local currency value of their external assets increased, while that of their debt liabilities shrunk. As a result, as LAC countries (along with many other emerging economies) let their currencies depreciate, and they enjoyed large positive wealth effects during the recent global financial crisis, in contrast with the negative (or much less positive) wealth effects experienced during the Asian-Russian crises (Figure 1.8, Panel B). Of course, countries were able and willing to let their currencies depreciate in the last crisis episode, not least because the change in foreign assets and liabilities did not create concerns of negative balance sheet effects.

An important development behind this change in the composition of external asset-liability positions has been the accumulation of international reserves, which picked up dramatically in the emerging world in general, and in LAC in particular, since the Asian and Russian crises of the late 1990s (international reserves are measured as the vertical distance between the black and grey lines in Figure 1.8, Panel A). Reserve accumulation has served two purposes: it slowed down the appreciation of the domestic currency during the pre-crisis expansionary period; and, it has worked as a self-insurance and shock absorption mechanism during the global financial crisis. In fact, when the global financial crisis erupted, many LAC countries held international reserves well in excess of their stock of short-term foreign liabilities. This eliminated concerns about debt rollover difficulties, giving investors less incentives to attack domestic currencies. International reserves also gave central banks a significant room to contain an excessive depreciation of their currencies during the turmoil.

Greater discipline in fiscal policy, along with enhanced debt management systems, contributed to reductions in government debt burdens and improvements in the currency, interest rate, and term structure of such debts, with salutary collateral effects on the deepening of local currency debt markets. In fact, many economies in the region had improved their over fiscal stance previous to the global crisis and had thus acquired enough fiscal space to design and implement packages to counteract the contraction in the world economy. See our October 2010 LAC Semi-Annual Report “Globalized, Resilient, Dynamic: The New Face of Latin America and the Caribbean” and Didier, Hevia, and Schmukler (2012b) for greater details on these developments.
In sum, a safer integration into the global financial system, underpinned by the consolidation of sound macro-financial policy frameworks and the associated build-up of buffers, has been at the core of the new face of LAC, reducing the vulnerabilities associated with greater financial integration. But it is wise not to declare victory too early. Although LAC’s improved immune systems passed the test this time, the continued resilience of countries in the region is not a foregone conclusion. The risk of reversals may be reduced but is never fully eliminated. While the region faced an admittedly large external shock in recent years, it was a single shock and one of a short duration. The newfound resilience of LAC remains untested to a streak of consecutive shocks. The freedom of LAC countries from “serial crises” status is in effect the result of a long process that has only begun, although admittedly in an impressive manner. Moreover, the positive prospects for LAC’s growth in the near future notwithstanding, the region is not isolated from the world economy and a significant fraction of the downside risks come from the outside. The next chapter takes this as a starting point and assesses the heterogeneous landscape of exposures and vulnerabilities to external shocks across LAC countries.

FIGURE 1.8 Safer Integration

PANEL A. Net Foreign Assets as a Percentage of GDP

Notes: The wealth effects in Panel B show the density plots of the change in the local currency value of debt and equity holdings due to changes in nominal exchange rates and local and international (debt and equity) prices. Only emerging economies are included in the density estimations. See Didier, Heria, and Schmukler (2012b) for more details. The number of countries included in each density estimation is shown in parentheses. Sources: Lane and Milesi-Ferretti (2007) for Panel A, and Didier, Heria, Schmukler (2012b) for Panel B.
Chapter 2:
The Landscape of Vulnerabilities in LAC

As implied by the discussion in the previous chapter, LAC will have to find a path for higher growth in the midst of a volatile external environment. The good news is that the macro-financial “immune system” has improved in many LAC countries. While it does not provide a full guarantee, it does augur well for the capacity of LAC taken as a whole to better cope with external volatility. However, this improved capacity represents the LAC average and hides a very pronounced variation across LAC countries. This chapter aims at shedding light on this heterogeneity.

The heterogeneity in the LAC region is easily observable, although its ongoing mutations and its drivers are much more difficult to grasp. Two simple and recently observed facts help illustrate the high degree of macroeconomic heterogeneity that exists within the region—one concerns the short run and the other the medium run. First, there are the significant differences in the magnitude of the adjustments made to the 2012 growth forecasts for LAC countries during the second half of 2011. The 2012 growth forecasts were downwardly adjusted for the region as a whole starting in July 2011, but both the level and variance of the adjustments varied markedly across LAC countries, reflecting their heterogeneity in terms of vulnerability and growth prospects (Figure 2.1). A large component of these adjustments reflected a common factor—the perceived deterioration of the global environment on account of the sovereign debt troubles in the periphery of the Euro Zone.

Second, there is heterogeneity in growth performance over the last ten years, as documented in our September 2011 LAC Semi-Annual Report “LAC’s Long-Term Growth: Made in China?” From this perspective, LAC countries appear clustered into three broad groups (Figure 2.2). The first group, the high-growth countries, experienced a steep rise in real GDP during the pre-crisis period (2003-2007). While growth in these countries decelerated by about 6 percentage points on average from 2007 to 2009, it picked up strongly thereafter, with GDP returning to its trend by 2011 on the strength of a cumulative expansion of about 13 percent during 2010-2011. The set of high-growth countries accounts for about 71 percent of the region’s GDP and includes mostly the South American countries (Argentina, Brazil, Bolivia, Chile, Paraguay, Peru, and Uruguay), but also Panama and the Dominican Republic. The group of low-growth countries, at the other extreme, had a slower paced increase in real GDP in the pre-crisis period, their growth rate fell by about 9 percentage points between 2007 and 2009, and their recovery thereafter has been quite disappointing. The set of low-growth countries jointly accounts for about 22 percent of the region’s GDP and includes the English-speaking Caribbean countries, El Salvador, Mexico, and Venezuela. The group of intermediate-growth countries had a moderate increase in real GDP during the pre-crisis period, their growth rate declined by 4.5 percentage points from 2007 to 2009, and the recovery has been lagging, so that by 2011 their GDP remained about 7 percent below trend. The cluster of intermediate-growth countries comprises mainly Central American countries, but also Ecuador.

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27 This section draws from country notes prepared by economists from the Economic Policy, Financial and Private Sector Development, Poverty, Gender and Equity, and Social Protection groups for the Latin American region at the World Bank.
FIGURE 2.1 Real GDP Growth Forecasts

PANEL A. GDP Growth Forecasts

Sources: Consensus Forecast (March 2012) and IMF’s World Economic Outlook (September 2011).

FIGURE 2.2 Heterogeneity of Economic Activity within LAC

PANEL A. High-Growth Countries

List of Countries:
Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Panama, Peru, and Uruguay.

PANEL B. Low-Growth Countries

List of Countries:
English-Speaking Caribbean Countries, El Salvador, Mexico, and Venezuela.

PANEL C. Intermediate-Growth Countries

List of Countries:
Costa Rica, Ecuador, Guatemala, Haiti, Honduras, and Nicaragua.

Notes: Countries are classified as follows: low-growth countries are those with a 2011-2008 accumulated real GDP growth below 4%. Intermediate-growth countries are those with an accumulated real GDP growth (the same period) between 4 percent and 10 percent. High-growth countries are those with an accumulated real growth (in the same period) above 10 percent. Sources: Consensus Forecasts (March 2012) and IMF’s World Economic Outlook (September 2011).
This diversity across countries in the region—in perceived growth prospects as well as in growth outcomes over the last ten years—reflects a multiplicity of factors and stems from a complex interaction between structural characteristics, the strength of policy frameworks, and external factors. There is not a one-to-one mapping from a single domestic or external factor to economic performance. For instance, most of the countries in the high-growth group are net commodity exporters, though some commodity importers like the Dominican Republic and Panama also appear in that group. Conversely, not all commodity-exporting economies are high-growth countries, as is the case of Ecuador and Venezuela, which feature in the intermediate-growth and low-growth groups, respectively. Geographic location seems to be an important factor but, again, is far from capturing the full story. While Central American and the Caribbean economies tend to appear in the intermediate-growth and low-growth groups, the Dominican Republic and Panama stand out for their vigorous growth, whereas Venezuela—a South American country—appears among the low-growth economies. Similarly, the shock-absorption capacity of strong macro-financial policy frameworks seems to be an important predictor of good growth performance, but there are clear exceptions as well. For instance, while well-established inflation targeters like Brazil, Chile, Colombia, and Peru feature in the group of high-growth countries, Mexico, another country with a robust inflation-targeting regime, is classified among the low-growth economies.

Be it as it may, one thing is clear: an important dimension behind the heterogeneity in economic performance across LAC countries is the differences in their vulnerability vis-à-vis external shocks. To explore this source of within-LAC variation, we proceed along four layers. First, we identify three types of external shocks that feature prominently in the current policy debate. Second, we sketch the variation across LAC countries in their exposure to the three types of shocks. Third, we outline the differences across LAC countries in terms of their policy response capacity—i.e., their policy-derived ability to resist and absorb external shocks. Lastly, the interaction between exposure and policy response capacity then yields an uneven landscape across LAC countries in terms of differences in their vulnerability to external shocks. Note that we focus on vulnerability to external shocks. While shocks originating from home-grown macroeconomic policy mistakes are possible in some countries in the region, the vulnerabilities to these internal shocks are however not explored in this chapter. Similarly, our analysis also does not delve into vulnerabilities threading long-run growth dynamics. It focuses only on vulnerabilities to external shocks in the immediate juncture.

Disentangling exposure from the “room for policy maneuver” is a key feature of the exercise. While low exposure to shocks clearly translates into low vulnerability, the wedge between exposure and vulnerability can grow larger at higher exposure levels. Some degree of exposure to a shock is a necessary but not sufficient condition for vulnerability. If reliance on commodity exports and the degree of financial and trade openness provided the one-to-one mapping between exposure and vulnerability, we would have, for instance, observed a significantly worse performance in Chile during the 2008 global financial crisis. Policies thus play a crucial role. They can help in not only

28 For example, our September 2011 LAC Semi-Annual Report “LAC’s Long-Term Growth: Made in China?” explored the long-run opportunities and challenges associated with the increasing connection with China that has been observed over the past decade among a number of LAC countries, while others have emphasized the business cycle dynamics of these interactions. Calderon, Loayza, and Schmidt-Hebbel (2008) and Schmidt-Hebbel (2010) for instance focus on the relation between openness and GDP volatility.

29 Based on the lessons from crises over the past decades, we believe that the list of channels considered here is of first order relevance, though we recognize that they are not an exhaustive list.
shielding economies from external shocks, but also in mitigating their effects. As a result, “high exposure” to external shocks does not necessarily imply “high vulnerability.”

**Potential Shocks and LAC Countries’ Exposures**

In the context of the more stable yet still fragile and uncertain global conditions, described in the first part of this report, three key possible shocks that are at the center of the policy debate can potentially cloud LAC’s future. These shocks are: (i) a slowdown in economic activity in US and Europe; (ii) a slowdown of growth in China and/or a fairly generalized decline in commodity prices; and (iii) an increase in financial turmoil in global markets driven by a sharp increase in risk aversion.

Far from being an attempt to predict the exact nature and magnitude of the next external shock that may hit the LAC region, our analysis should be interpreted as a “what-if” exercise in a partial equilibrium framework—it examines the vulnerability of countries in the region to a change in a particular external condition, holding all other external conditions unchanged. While there are of course interactions and possible feedback loops between the three external shocks considered here, to keep our analysis tractable, we examine them separately.

Note that the second shock, namely a slowdown of growth in China and/or a fairly generalized decline in commodity prices, is a combination of two possible shocks. They are jointly considered because in practice they are highly correlated and they affect a largely overlapping set of countries in the region through comparable channels. Also, a decrease in remittances inflows, a potential shock relevant to a number of small countries in LAC, is in effect highly correlated to, and can thus be folded into, the first of the three shocks mentioned above. This is simply because the bulk of remittances to LAC come from the US and Europe and the flow of remittance is positively associated with economic activity therein.

**First Potential Shock: Slow Growth in the US and Europe**

As highlighted in Chapter 1, the sluggish recovery in the developed world continues to raise concerns over the outlook in the global economy. The US is still struggling to consolidate its recovery—while hopeful signs of steady growth and reductions in unemployment are emerging, many risks remain. Despite the steps forward taken to resolve the crisis, the Euro Zone countries continue to face deep structural challenges that require larger and broader actions, and hence macroeconomic vulnerability remains high. In this context, a slowdown in economic activity in US and Europe is a plausible scenario. We consider two main channels through which such a negative shock could affect LAC countries: trade connections and remittance inflows.

Historically, the LAC region has had strong commercial ties with developed economies, and especially so with the US. Hence, a first effect from a slowdown in the US or in Europe would be a (potentially large) decline in the demand for LAC’s exports. Exports of goods to the US represent more than 30 percent of GDP for nearly half the countries in the region. For Central America and the Caribbean, the median share of exports to the US and Europe hovers around 45 percent. For the Dominican Republic, Mexico, Nicaragua, and Honduras the fraction of total exports of goods

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30 According to Powell et al. (2012), the elasticities between economic activity in China and commodity prices range from 0.1 to 38, with iron ore, aluminum, and zinc having the highest values. Agricultural commodities have non-negligible elasticities, albeit smaller ones than metals (3 for soybeans and 2 for beef).
going to the US and Europe are well above 60 percent. But LAC’s reliance on demand from rich economies is not limited to Central America and the Caribbean. A number of South American countries, such as Colombia, Ecuador, and Venezuela, export more than 50 percent of their goods exports to the US and Europe. By contrast, Argentina, Bolivia, Paraguay, and Uruguay have indeed a much lower share of exported goods going to the US and Europe (Figure 2.3, Panel A).

An examination of trade shares misses the fact that many economies in LAC have rather low levels of trade openness, i.e., the ratio of exports to GDP are rather low. For instance, Colombia sells approximately 55 percent of its exports goods to the US and Europe, though they represent only 8 percent of GDP (Figure 2.3, Panel B). However, the overall ranking of LAC countries based on their degree of exposure to a slowdown in the US and Europe through the trade channel changes only marginally when we take into account the ratio of exports to GDP, instead of the share of exports going to the US and Europe in total exports.

While direct trade connections to the US and Europe matter, indirect ones (such as the exports to countries in the LAC region that, in turn, export mainly to the US) can also play an important role in determining exposure. For instance, Mexico is a major exporter of goods to the US and simultaneously has close trade linkages with many Central American and Caribbean economies. These linkages could contribute to further propagate the effects of a slowdown in the US to a number of other LAC countries. Bahamas, Costa Rica, Guatemala, Honduras, and Nicaragua would be particularly exposed through this indirect channel (Figure 2.3). Interestingly, a few South American economies such as Brazil, Chile, and Uruguay also have a non-negligible share of their good exports going to Mexico and can thus be exposed, albeit to a much a lesser extent.

Trade integration with the rest of the world is not restricted to the flow of goods. Trade in services, including tourism, can be rather large. The latter in fact represents the main form of integration between some Central American and Caribbean and the US and Europe. Service trade corresponds to approximately 35 percent of GDP on average for the Caribbean economies, with tourism

**FIGURE 2.3 Trade Connections with the US and Europe**

**PANEL A. As a Share of Total Exports**

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<th>2010</th>
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<td>Mexico</td>
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**PANEL B. As a Share of GDP**

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<th>2010</th>
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<tr>
<td>Mexico</td>
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</table>

**Notes:** Export volumes include goods and not services. Source: DOTS.
representing 25 percent of GDP. The reliance on trade in services and tourism is particularly marked for St. Lucia, Barbados, and Dominica where the former represents 50, 58, and 38 percent of GDP respectively, while the latter represents 27, 26, and 14 percent of GDP, respectively. Among Central American countries, Panama features prominently as a service-oriented economy, with service flows hovering around 33 percent of GDP and tourism flows around 10 percent (Figure 2.4).

A second channel through which a slowdown in the US and Europe could affect the region is remittances. This propagation mechanism is particularly relevant for some Central American and Caribbean countries. For instance, remittances from the US and Europe represent more than 10 percent of GDP for El Salvador, Guatemala, Haiti, Honduras, and Jamaica. (Figure 2.5, Panel A). While some countries have relatively low levels of remittances as a share of GDP, notably Barbados, Dominica, and St. Kitts and Nevis, on a per capita basis their reliance on these flows is significant, thus increasing their degree of exposure (Figure 2.5, Panel B). For the majority of countries in the region, including the South American ones, remittances are a marginal source of exposure. In fact, approximately 65 percent of the countries in the region receive remittances of less than 5 percent of GDP.

Taking all of the above facts into account, we classify LAC countries into three groups according to their degree of exposure to a possible grim economic performance in the US and Europe. The low exposure group includes countries (Argentina, Barbados, Bolivia, Paraguay, and Uruguay) with low trade linkages to the US and Europe and low levels of remittances inflows. The high exposure group of countries is the largest one—it includes 20 countries: Mexico, all the Central American and Caribbean countries, and three South American countries (Colombia, Ecuador, and Venezuela). A country is classified as high exposure if it sells a significant share of its exports (goods and/or

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**FIGURE 2.4 Trade in Services and Tourism Receipts in LAC**

**PANEL A. Trade in Services**

**PANEL B. Tourism Receipts**

Notes: For Panel A, the data reported is the sum of imports and exports of services over GDP. For Panel B, data for Barbados, Bolivia, Dominican Republic, Ecuador, Haiti, Honduras, and Peru is from 2009. Source: WDI.

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31 We focus on the detrimental effects of a slowdown in economic activity in developed countries on remittance flows to a number of LAC countries. However, as Fajnzylber and Lopez (2008) suggest, the overall effect on these flows is partly determined by the relative performance between the recipient and the source countries rather than the absolute performance of the source country. This implies that even in the presence of a negative shock affecting the US and Europe, remittance inflows to LAC could increase if the slowdown in LAC economies is more severe than that of the country of origin.
services) to the US and Europe or have high levels of remittance flows relative to GDP. The moderate exposure group is composed of three South American economies (Brazil, Chile, and Peru). These are countries that have either intermediate levels of remittances flows or an intermediate fraction of their exports going to the US and Europe (Figure 2.6).

**Second Potential Shock: Slow Growth in China and/or a Decline in Commodity Prices**

The second source of uncertainty in the global economy is related to China’s growth slowdown and its implication for commodity prices. As argued in our September 2011 LAC Semi-Annual Report “LAC’s Long-Term Growth: Made in China?”, China has played a crucial role (directly and indirectly) not only in LAC’s performance during the boom years of the 2000s, but also in the aftermath of the global financial crisis. This new connection has been central to the “decoupling” in economic activity from developed economies that LAC and emerging economies more generally have experienced over the last decade. The Chinese economy has started to show some signs of deceleration, which could be cyclical but could also reflect a longer-run trend. To examine the exposure of LAC countries to such possible slowdown, we consider two transmission channels: trade and the indirect effect through commodity prices.

Among the countries with a significant share of their good exports going to China are Argentina, Brazil, Chile, Colombia, Costa Rica, Peru, and Venezuela (Figure 2.7, Panels A and B). By contrast, Mexico and most countries located in Central America and the Caribbean have little or no exports to China. Once again, indirect trade relationships within LAC could operate as a transmission mechanism and amplify the effects of a possible deceleration of the Chinese economy. Brazil’s strong ties with China could intensify the exposure to China of several South American countries (Argentina, Bolivia, Paraguay, and Uruguay, to name a few) and increase that of others in the region like Barbados (Figure 2.7, Panels A and B). Panama deserves a special mention in this discussion. At first glance, low direct trade connections with either China or Brazil would assign to Panama a distant observer role. However, because of its strategic geographical position, any decline in overall
trade volumes around the world in general, and with China in particular, could significantly affect the country.

A deceleration of growth in China can have important implications for commodity prices more broadly. As Mustafaoglu et al. (2012) and Powell et al. (2012) point out, there has been an increasing co-movement between commodity prices and Chinese economic activity, although the strength of this co-movement is higher for mineral commodities (particularly metals) than for agricultural commodities. Hence, countries such as Chile and Peru (large producers of metals) could face sharper commodity price declines due to a slowdown in China than Argentina, Paraguay, or Uruguay (large producers of agricultural goods), making the former group of countries relatively more exposed than the latter (Figure 2.7, Panel C). Economic activity in China is less relevant for the price of oil, which reflects a variety of other factors, especially geopolitical ones. Oil exporting countries like Colombia, Ecuador, Mexico, and Venezuela are thus exposed to oil price fluctuations that may be delinked from the performance of the Chinese economy. Given this heterogeneity in the drivers of commodity prices, we consider a decline in commodity prices as potential shock for LAC independently of its connection to a slowdown in China.

The region as a whole is a net commodity exporter, and commodity-exporting countries account for approximately 90 percent of the GDP and over 90 percent of the population in the region. Particularly exposed to a decline in commodity prices are Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Trinidad and Tobago, and Venezuela. For these economies, commodities represent more than 30 percent of their total exports (Figure 2.7, Panel C). About half the number of LAC countries, however, the majority of which are in Central America and the Caribbean, are net importers of commodities. For them, a decrease in commodity prices (particularly of oil and cereals) would be a positive shock, and a major relief.
FIGURE 2.7  Trade with China and the Composition of Commodity Exports

PANEL A. Exports to China and Brazil as a Share of Total Exports

PANEL B. Exports to China and Brazil as a Share of GDP

PANEL C. Overall Composition of Commodity Exports

PANEL D. Diversification of Commodity Exports

Notes: In Panel C, the classification of products as commodities comes from Lall (2000). For Panel D, commodities are analyzed at the 3-digit level. Sources: DOTS and WITS.

After taking into account all the information above, we classify LAC countries according to their degree of exposure to a slowdown in China or to a decrease in commodity prices into three groups (Figure 2.8). The high exposure group includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Peru, Trinidad and Tobago, Uruguay, and Venezuela. The moderate exposure group features Belize, Guatemala, Guyana, and Nicaragua. The majority of countries in the region are in the low exposure group. This group includes 16 commodity importers, mostly Central American and Caribbean economies.

LAC’s connection to China is evolving, at least in part due to deep transformations occurring in the Asian giant economy. Two are worth highlighting. First, as discussed in Chapter 1, an increase (in relative terms) of consumption at the expense exports can bring significant challenges to LAC commodity producers, as they might face both quantity (lower demand for their exports) and price (lower overall commodity prices) effects. Countries with exports concentrated in a few commodities
and with a high concentration of their commodity exports going to China could thus face a potentially tough and challenging scenario. Auspiciously, the region as a whole has diversified its export destinations since 2000. However concentration of exports products, and especially towards commodities, has increased over the same period. There are a few notable exceptions. Argentina, Brazil, and Peru exhibit relatively low levels of concentration of commodities in both production and market destinations, and thus would be better positioned to cope with a potentially softer demand for commodities (Figure 2.7, Panel D).

Second, a shift within China towards the production of skill- and technology-intensive goods (endogenously fueled at least in part by increasing labor costs and a more educated labor force) could also have an impact on LAC economies, although to varying degrees across countries in the region. Countries with industries concentrated on low-skilled labor intensive goods, such as Guatemala and Mexico, may benefit from such a change and gain a comparative advantage with respect to China in these industries and in third markets. In contrast, a number of other countries might start to face China as a competitor in the more advanced industries.

**Third Potential Shock: Increased Risk Aversion in International Financial Markets**

As highlighted in Chapter 1, many LAC countries are significantly integrated into the international financial system, and thus exposed to swings in overall market sentiment as well as fluctuations in cross-border capital flows. The relatively more volatile type of capital flows, that is, portfolio flows, has increased as a percentage of GDP in the 2000's when compared to the 1990's. Brazil, Chile, and Mexico are among LAC countries that have seen the largest increases. Hence, should these flows dry-up, they would be the most affected ones. A number of other LAC countries however receive very little portfolio inflows and are thus more protected against shock emanating from global financial markets. For example, Bolivia, Costa Rica, and Guatemala received portfolio flows smaller than 0.1 percent of GDP in 2010, while Brazil for instance received 3.25 percent over the same

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32 Sinnot, Nash, and de la Torre (2010) characterize this broad pattern.
period. Despite, their relative stability compared to portfolio flows, FDI flows can also represent a significant source of exposure to increases in risk aversion in a few countries like Costa Rica.

Dependence on cross-border bank financing, reflected in the share of foreign liabilities in the balance sheets of the local banking system, is another channel through which financial turmoil in world markets could affect LAC countries. Should the mood in global financial markets deteriorate, a possible freeze of cross-border banking flows could destabilize domestic banks, and the domestic financial system more broadly to the extent that domestic banks depend on these flows to provide credit in local markets. Cross-border banking flows represent almost 20 percent of GDP in approximately half of the LAC countries in our sample. Central America and Caribbean economies in particular exhibit the greatest reliance on these funds. Barbados, Panama, and The Bahamas could also be greatly affected because of their status as offshore centers.

Countries in the region are classified in three groups according to their exposure to increases in risk aversion in international capital markets (Figure 2.9). To measure this particular exposure, we take into account gross capital flows or cross-border banking flows relative to GDP and rank countries accordingly. Interestingly, the moderate exposure group turns out to be an empty set. The high exposure group includes not only offshore centers, but also Brazil, Jamaica, and Mexico due to their high levels of portfolio flows, and Colombia, Costa Rica, and the Dominican Republic due to their high levels of cross-border banking flows. The low exposure group includes Bolivia, Ecuador, and Venezuela.

Countries exposed to more than one of the types of shocks examined here may have to deal with the amplifying effects that could originate from the interactions between shocks, as observed during the 2008 financial crisis. According to our classifications, only two countries in the region (Colombia and Panama) are in the high-exposure groups for the three categories of shocks (Figure 2.10).

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**FIGURE 2.9 Exposure to Increases in Risk Aversion**

![Graph showing exposure to increases in risk aversion for different countries.](image)

*Note: Countries with population below one million habitants are excluded. Due to difficulties in interpreting the data, El Salvador, Guatemala, Honduras, and Nicaragua are also excluded. Sources: BIS, and IMF’s IFS.*

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33 Although not explored here, an additional source of exposure to this financial shock is the presence of foreign bank subsidiaries in the region. In fact, as highlighted in our 2011 Flagship Report, LAC-7 financial systems show the highest penetration of foreign banks among emerging economies.
Highly exposed to two categories of shocks are Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, Jamaica, Mexico, Nicaragua, and Trinidad and Tobago. The majority of countries in the region is highly exposed to at most one shock.

**Buffering the Shocks: Space for Policy Actions across LAC**

As noted, high exposures do not necessarily translate into high vulnerability to external shocks. The resilience shown by many LAC countries to the global financial crisis is a clear illustration. To gauge the role of policies in reducing vulnerability even in the face of high exposure to external shocks, we assess the differences in monetary and fiscal policy response capacity across LAC countries, while taking structural factors as given.\(^{34}\) Note that our classifications aims to capture a relative ranking of the space for policy across LAC countries, and not an absolute measure of the quality of macroeconomic policies in the region.

**Fiscal Buffers**

Counter-cyclical fiscal policy was used by a number of LAC countries to mitigate the adverse domestic effects of the global financial crisis. However, the expansionary fiscal stance has not been fully reversed to date, resulting in somewhat pro-cyclical fiscal stances in many LAC countries.

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\(^{34}\) We also attempted to evaluate differences in banking system buffers across LAC countries. However, there was insufficient variation in the data to permit a clear classification of countries according to high, moderate, and low buffering capacity. In general, LAC banking systems display capital, provisions, and liquidity buffers that are above comparator countries. The exceptions are some small Caribbean countries, where these buffers are relatively thin.
Overall, therefore, there is less maneuvering room for counter-cyclical fiscal policy in LAC today compared to the situation in 2008, just before the Lehman debacle. Moreover, the room for fiscal policy maneuvering varies considerably across LAC countries. To assess the within-LAC heterogeneity in fiscal policy response capacity, we focus on a variety of indicators, including fiscal deficits/surpluses, public debt levels, total government spending, the change in total government spending since 2002, and the depth of local markets for local currency-denominated government bonds.

When considering the fiscal response capacity, primary surpluses matter. There are countries such as Bolivia, Chile, Nicaragua, or Peru, which run significant primary surpluses and could thus afford, if needed, to engage in expansionary policies (Figure 2.11, Panel A). Primary balances, however, are only part of the picture. An important challenge in times of turmoil is to manage a potential fall in revenues while keeping up with government expenditures to stimulate domestic demand and prevent a rise in poverty and inequality. This challenge is particularly difficult for countries with very large government expenditures, and especially so if a significant portion is on earmarked expenses. Argentina and Brazil have government expenditures representing more than 40 percent of GDP (Figure 2.11, Panel B). Guatemala would also be particularly constrained in this regard. By LAC standards, Guatemala’s revenue to GDP ratio has been stubbornly small and it is well-known that Guatemala faces particularly acute political economy constraints to raise revenues. Another set of countries might also face serious challenges if they have significantly increased total government consumption on the basis on high commodity prices, they would thus face significant tensions if such prices were to decline. This is the case of oil-exporting countries like Ecuador, Trinidad and Tobago, and Venezuela, which have vastly increased their expenditure levels since 2002 (Figure 2.11, Panel B).

The level of public sector debt is another factor determining the fiscal maneuvering room. Many LAC countries have typically lowered the level of their public debt over the past decade. However the region still has a relatively high level of debt over GDP when compared to other emerging economies, though there is great heterogeneity across LAC countries (Figure 2.11, Panel C). At one end of the distribution stand the Caribbean economies, with very high debt to GDP ratios, some even above 100 percent. At the other extreme are Chile, Guatemala, and Peru, with debt ratios below 25 percent. Besides this heterogeneity in the overall size of government debt, there are also marked differences with respect to its composition (Figure 2.11, Panel C). Countries with a greater share of foreign debt are more vulnerable to a deterioration of external conditions than those that rely more on domestic debt, and especially so if the local debt is denominated in domestic currency. Countries like Barbados, Belize, and Jamaica, with levels of external debt above 30 percent of GDP stand out when contrasted with countries such as Brazil and Chile where external debt is below 5 percent of GDP.

After taking these three broad factors into account—namely primary balance, level and change in government expenditures, and size and composition of public debt—LAC countries are classified into three groups—high, low, and moderate—according to their fiscal response capacity. Chile, Paraguay, and Peru clearly belong in the group of high fiscal space. They feature high primary

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35 When referring to debt levels we use gross debt.
36 LAC’s median debt over GDP in 2011 stands at 46 percent compared to a 58 percent level in 1990. The median debt over GDP level for emerging economies stands at 40 percent.
surpluses, low public sector debt and relatively low levels of government consumption. Bolivia also appears strong, although it has a comparatively high level of government spending. At the other extreme are many Caribbean economies with low fiscal space—they have not only high debt levels but also large fiscal deficits. Venezuela and Ecuador are also included in this category despite its relatively low debt to GDP ratios, mainly because of their high dependence on commodity revenues and large increases government spending to a high level at present. Lastly, the group of moderate fiscal space includes countries with either not obviously strong fiscal surpluses, or moderate debt to GDP ratios, or relatively high government absorption levels. In this group are Brazil, Colombia, Guatemala, and Uruguay for instance. Assessing the scope for fiscal policy response in this latter group, however, is a complex task as a number of other factors (such as the depth of their local market for government bonds, access to external financing, flexibility of government revenues and expenditures) would need to be taken into account to yield a more nuanced characterization. For example, Brazil and Colombia have deep domestic bond markets and this gives them an edge over the rest of the countries in the group.

**FIGURE 2.11 Fiscal Space across LAC**

**PANEL A. General Government Debt and Fiscal Primary Surplus**

![Graph showing General Government Debt and Fiscal Primary Surplus across LAC countries.]

**PANEL B. Expenditure over GDP**

![Graph showing Expenditure over GDP across LAC countries from 2002 to 2011.]

**PANEL C. Government Debt Composition**

![Bar chart showing government debt composition by external and domestic debt for 2011.]

**PANEL D. Primary versus Structural Fiscal Surplus**

![Bar chart showing primary versus structural fiscal surplus for selected LAC countries in 2011.]

*Sources: IMF’s IFS, WEO (September 2011), Bloomberg and LCRCE staff calculations.*
Even for the countries classified in the high fiscal space group, however, there is no room for complacency, and especially so if we consider the current phase in the business cycle. For instance, the comparison in Powell et al. (2012) of the current structural budget position of LAC economies with their 2007 levels suggests that 13 of 23 countries in the region have less fiscal space at present than they did back then (Figure 2.11, panel D).

**Monetary Buffers**

Many LAC countries have registered a systematic improvement in their monetary policy response capacity. The global financial crisis in fact found many LAC countries with the required credibility and space to conduct counter-cyclical monetary policies. The more robust monetary policy frameworks are grounded on professionally managed central banks. Well-established inflation-targeting countries (Brazil, Chile, Colombia, Mexico, and Peru) are notable examples in this regard. To cushion external shocks, these countries can combine independent interest rate setting with exchange rate flexibility while keeping inflation under control (Figure 2.12, Panel A). A few other countries in the region, like the Dominican Republic, Guatemala, and Uruguay, have also been able to move interest rates counter-cyclically while keeping inflation relatively well anchored, and have their policy rates now at a level that gives them room to lower them counter-cyclically if the need arises (Figure 2.12, Panel B). In a contrasting position in this regard are Argentina and Venezuela—given that their inflation rates tend to be equal to or exceed the policy interest rate, they have no room for non-inflationary counter-cyclical monetary policy.

As regards the scope for cushioning external shocks via exchange rate flexibility, the variance across countries in the region is quite large. In the aftermath of the Lehman debacle, no significant changes in the nominal exchange rates were observed across 17 of the 32 LAC economies (3 South American, 3 Central American, and 11 Caribbean countries), mostly because these countries use the dollar as their national currency or abide by de-facto inflexible exchange rate regimes (Figure 2.12, Panel C). Within these countries, however, Bolivia stands out for its remarkably high level of international reserves (equivalent to 41.5 percent of GDP in 2011). The other 15 LAC countries, however, experienced large swings in their nominal exchange during the depths of the global financial crises. While all 15 countries saw a depreciation of their currencies between September 2008 and March 2009, only Brazil, Chile, Colombia, Mexico, Paraguay, Peru, and Uruguay have experienced an appreciation of their currencies between March 2009 and September 2009. These 7 countries have also broadly displayed a larger volatility in their nominal exchange rates when compared to the other economies in the group of 15 (Figure 2.12, Panel C).

We thus classify the region in three groups—high, moderate, and low—according to their degree of monetary policy response capacity. Well-established inflation targeters (Brazil, Chile, Colombia, Mexico, and Peru) are from the outset included in the high monetary response capacity group. We then enlarge this group by adding Uruguay, given that they have demonstrated a relatively high degree of exchange rate flexibility while holding relatively high levels of international reserves. At the other extreme are countries with low monetary policy response capacity, which include countries (for example Ecuador, El Salvador, Panama, Venezuela, and the non-Spanish speaking Caribbean countries) that are either dollarized or with fixed exchange rates, have little or no room for monetary policy independence, and hold low levels of international reserves. The rest of countries in the region are in the group of moderate monetary policy response capacity. This group typically includes countries with a
relatively fixed exchange rate regime but a high level of international reserves, such as Bolivia, and countries with more flexible exchange rate regimes and some room to engage in counter-cyclical policies if needed, but with relatively low levels of international reserves, like Costa Rica and the Dominican Republic.

**Overall Assessment in the Room to Maneuver**

Combining fiscal and monetary policy response capacity, we reach a classification of LAC countries in three groups (Table 2.1). The top group includes countries with high space at least on one policy front (be either fiscal or monetary) and high or moderate room to maneuver in the other. Brazil, Chile, Colombia, Mexico, Paraguay, Peru, and Uruguay feature in this group and stand well-positioned to respond to external shocks. The intermediate group, which includes Costa Rica, Guatemala, and Nicaragua, among others, is navigating in a more complex terrain. Their room to maneuver is more modest, restricted by strained fiscal positions, but with some room for countercyclical monetary policy. Argentina is included among this group—it has some fiscal space...
TABLE 2.1 Typology of Countries according to their Space for Policy Responses

<table>
<thead>
<tr>
<th></th>
<th>Brazil, Chile, Colombia, Mexico, Paraguay, Peru, and Uruguay.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (7)</td>
<td>Argentina, Bolivia, Costa Rica, Dominican Republic, Guatemala, Guyana, Honduras, Nicaragua, Panama, and Trinidad and Tobago.</td>
</tr>
<tr>
<td>Moderate (10)</td>
<td>Antigua and Barbuda, Barbados, The Bahamas, Belize, Dominica, Ecuador, El Salvador, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Venezuela.</td>
</tr>
</tbody>
</table>

Notes: Countries are classified as follows: high room for policy response countries are those with a strong monetary stance and/or large fiscal space and no weak monetary stance or small fiscal space; moderate room for policy response countries are those with a moderate monetary stance and a moderate fiscal space; low room for policy response countries are those with a weak monetary stance and/or small fiscal space and no strong monetary stance or large fiscal space. Source: LCRCE staff calculations.

and somewhat flexible exchange rates to deal with external shocks. Finally, at the other extreme, is the set of countries with little room to activate countercyclical fiscal or monetary policies should an external shock to which they are exposed were to materialize. This latter group includes many Caribbean countries as well as Ecuador. Venezuela is also included in this group, and thus appears more constrained in its space for policy action to deal with an external shock than Argentina. The latter has a much larger primary surplus than the former, and although they both have relatively large expenditure to GDP ratios (when compared to the LAC average), Venezuela has expanded it significantly over the past 9 years, while Argentina did not. Moreover, Venezuela not only have less flexible exchange rates than Argentina, as reflected in the evolution of nominal rates during the global financial crisis, but it also has significantly less international reserves.

Box A. Social Vulnerabilities

Poverty remains a significant source of concerns for LAC policymakers. Moderate poverty, defined by the percentage of population living under US$ 4 per day, is at least 10 percent in all countries in the region for which poverty numbers are available (18 countries), and it exceeds 30 percent in 11 of these countries. The growth spur experienced over the last decade across a number of LAC countries came along with significant progress in poverty reduction and in the equity agenda. This progress also reflected stronger social assistance programs and a greater ability to generate jobs in the region, compared to the past. As a result, more than 70 million Latin Americans were lifted out of moderate poverty between 2003 and 2012 and at least 12 countries in the region registered non-trivial declines in the income Gini coefficient.

However, poverty and inequality are sensitive to the overall level of economic activity, and can thus suffer setbacks during downturns, making external shocks a possible drag in the region’s recent progress. External shocks can in fact derail the overall agenda on poverty reduction and increased equity, especially in high-vulnerability countries. Nonetheless, the impact of external shocks on social indicators can be mitigated by effective social policies. Social safety nets such as conditional cash transfers, for instance, if properly targeted, can reduce the impact on the most exposed section of the population.

Among the countries with better social assistance programs in the region are Argentina, Brazil, Chile, Costa Rica, Panama, and Uruguay. These countries have not only relatively more favorable initial conditions (i.e., lower poverty levels) but also stronger social safety nets and a lower sensitivity of poverty to growth outcomes. It is worth highlighting though that some countries in this group—Brazil, Chile, Costa Rica, and
Panama—have relatively high levels of inequality. At the other extreme, countries like Bolivia, Dominican
Republic, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, and Paraguay, have relatively high
poverty rates. These countries are less socially protected: they have weaker safety nets and their poverty
indicators are more responsive to growth outcomes. Finally, there is an intermediate group of countries,
which includes Ecuador, Mexico and Peru, with moderate poverty and strong safety nets.37

When jointly considering the typology of vulnerability to external shocks and social protection indicators,
the Dominican Republic, Guatemala, Honduras, Jamaica, and Nicaragua are the ones most likely to suffer
setbacks on the social front in the aftermath of a negative external shock. These countries typically have
strong ties with the developed world and, particularly the US, through international trade, foreign
investments, remittances, and tourism. Therefore, an adverse shock to the US and Europe, rather than a
commodity price shock, is the relevant one to watch from the point of view of these countries, as it may
lead to large negative effects on social outcomes.

**Exposures and Policy Response Capacity:
A Regional Landscape of Vulnerability**

We are now ready to combine the rankings in exposure with the rankings in policy response capacity in
order to sketch a landscape of vulnerability to external shocks for LAC countries. The results are
summarized in Table 2.2, where we map the degree of vulnerability (high, moderate, low) to the
degree of exposure to each of the three types of external shocks (a slowdown in the US and Europe, a
slowdown in China and/or a decrease in commodity prices, and an increase in risk aversion in
international capital markets). There are three basic messages from these results, discussed below.

The first message concerns the *low vulnerability* group. The key point to note is that this group
features two very different subsets of countries. One subset contains countries with low exposure to
external shocks, which implies that they are less internationally integrated in at least one dimension
(be it the links to the US and Europe, the links to China and commodity prices, or the links to
international financial markets). For these countries, the external environment is not a major threat
(in respect of the type of external shock to which they are not exposed, of course). Therefore, their
economies may cruise at close to their potential growth rate more smoothly, as long as they manage
avoid incurring in serious domestic policy mistakes. The other subset of countries within the low
vulnerability group is of a different nature—it includes countries where strong macroeconomic
policy response capacity trumps their significant exposures to external shocks. These are thus
countries that are endeavoring to capture the upside of international integration (including to raise
their long-run growth rates), while avoiding the downside, by strengthening their policy capacity to
resist and cushion external shocks. Prominent in this latter subset are the five well-established
inflation targeters (Brazil, Chile, Colombia, Mexico, and Peru), but also two more recent entrants to
the inflation-targeting club that have a reasonable fiscal maneuvering space (i.e., Uruguay and, to a
lesser extent, Paraguay). Recall that membership to this second subset of countries within the low
vulnerability group takes into account external shocks only. If the possibility of self-inflicted shocks
due to policy mistakes is allowed, a valid debate would ensue as to whether all the countries in this
list would deserve to stay. This is a debate from which we are explicitly staying away from in this
exercise.

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37 This classification presented might neglect other country-specific characteristics that may amplify or mitigate the
impact of external shocks on social outcomes (e.g. expansionary fiscal policies, political instability, among others).
The second message concerns the **high vulnerability** group, which is at the other extreme and includes countries with substantial exposure to external shocks that also have a low macroeconomic policy capacity to cushion such shocks. This group contains most of the English-speaking Caribbean countries, Ecuador, El Salvador, and Venezuela. These are countries where a domestic reform agenda to better cope with external volatility is either lagging or severely limited by the structural condition of being very small and highly-opened economies. For most countries in this group, where monetary policy independence is not feasible, the agenda to reduce vulnerability vis-à-vis external shocks will have to focus on improving fiscal space and resiliency.

The third message relates to the **moderate vulnerability** group. It includes countries with high or moderate exposure to external shocks and whose policy response ability to cope with these shocks is also moderate, comparatively speaking. For these countries, small improvements in macroeconomic policy frameworks can have large payoffs in terms of reduced vulnerability to external shocks. In effect, these economies tend to already be significantly integrated into international markets along one or more important dimensions. At present, though, their macroeconomic “immune system” is not sufficiently strong to avoid being trampled by external volatility under a reasonably wide range

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**TABLE 2.2. Landscape of Vulnerabilities in LAC**

<table>
<thead>
<tr>
<th>Vulnerabilities</th>
<th>External Shocks</th>
<th>Low Exposure</th>
<th>Moderate Exposure</th>
<th>High Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Vulnerabilities</strong></td>
<td><strong>High Ability to Respond</strong></td>
<td>High Exposure</td>
<td>Brazil, Chile, Colombia, Paraguay, Peru, and Uruguay</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Moderate Exposure</td>
<td>Brazil and Peru</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Low Exposure</td>
<td>Argentina, Bolivia, Chile, Paraguay, and Uruguay</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Moderate Vulnerabilities</strong></td>
<td>Low Ability to Respond</td>
<td>Moderate Exposure</td>
<td>Costa Rica, Dominican Republic, Guatemala, Guyana, Honduras, Nicaragua, Panama, and Trinidad and Tobago</td>
<td>Argentina, Bolivia, Brazil, Costa Rica, Panama, and Trinidad and Tobago</td>
</tr>
<tr>
<td></td>
<td>Moderate Ability to Respond</td>
<td>High Exposure</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Moderate Ability to Respond</td>
<td>Moderate Exposure</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>High Vulnerabilities</strong></td>
<td>Low Ability to Respond</td>
<td>High Exposure</td>
<td>Antigua and Barbuda, Barbados, Bahamas, Bolivia, Dominican Republic, El Salvador, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, and Venezuela</td>
<td>--</td>
</tr>
</tbody>
</table>

Source: LCRCE staff calculations.
of scenarios. Relatively small improvements in the shock-absorption capacity of their monetary, fiscal, and macro-prudential policies can tilt the balance and make them more consistently able to reap the benefits of globalization, without savoring its costs.

To conclude this chapter, it is worth emphasizing that we have implicitly considered shocks of a reasonable magnitude. In the event of an “economic tsunami”, a large shock which has the potential to trigger further shocks, above and beyond the simple propagation mechanism of the originating jolt, policy responses, however strong, of course may be overwhelmed during the initial phase of the turmoil. As the global financial crisis illustrated, countries around the world fell in a highly synchronized matter and almost no country was left unscathed. In the recovery phase though, policies play a crucial role. Countries with greater room for policy actions were indeed able to restore growth to a high and robust level at a faster pace.
**Final Thoughts**

As global financial turbulence features prominently in the current setting, a key question for the globalized countries in LAC is whether they can avoid the boom-bust pattern triggered by external shocks that has so often marked the region’s history. The significant improvements in LAC’s macro-financial immune systems imply that shocks are now less likely to arise from domestic macroeconomic policy weaknesses and are more likely to stem from the external front or from new (endogenous) financial system dynamics. Throughout this report, we have focused on coping with this external volatility. The first chapter looked closely at the new patterns of financial globalization that underpin financial volatility by exploring the movements in gross capital flows (whose size dwarfs that of the more commonly studied net capital flows) and delving into the international asset management industry. At present, they are at the core of the financial globalization process and, while tending to amplify fluctuations, they have treated LAC rather favorably compared to other emerging regions. The second chapter sketched the uneven landscape of vulnerabilities to external shocks in LAC. It did so by exploring how differential exposures to external volatility (in external demand, terms of trade, and financial conditions) interact with varying policy response capacity to yield a heterogeneous map of vulnerability across countries in the region.

LAC needs to be conscious that while globalization has brought many benefits so far, it has also widened the scope for volatility, and especially financial volatility associated with the inner workings of international financial markets. Understanding the dynamics of the global financial system and in particular the role of asset managers is key to identify when countries are potentially most vulnerable. In its continuing process of building a robust macro-financial immune system, LAC should also be aware of the changing nature of the external shocks it would face. The global financial system has been evolving towards complexities that may have little to do with the challenges of the past. Rather than pursuing de-globalization however, LAC countries should need to continue to strive for a safer form of international financial integration, where risk-sharing with foreigners through FDI should play an increasing role relative to short-term capital flows. Policy frameworks should improve so as to shield and mitigate the negative spillover effects of increased financial globalization, and they should adapt in a timely manner to the changing landscape of globalization.

In the end, the greatest premium is on policies. It is the greater room for policy maneuver that several countries in LAC have steadily built that has enabled them to reduce vulnerabilities even as international integration has deepened, and hence exposure to external volatility increased. Unfortunately however, for many LAC countries, exposure and vulnerabilities come hand in hand. This is particularly accentuated among smaller Caribbean economies. Their small size and high degree of openness, together with a burdensome fiscal and debt situation to start with, severely limit their ability to build counter-cyclical policy response capacity. The special challenges faced by small open economies should continue to rank high in the agenda of international financial institutions.
References


