World Economic and Financial Surveys

Regional Economic Outlook

Western Hemisphere

Rising Challenges

APR 14

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Preface

The April 2014 *Regional Economic Outlook: Western Hemisphere* was prepared by a team led by Dora Iakova and Andre Meier under the overall direction of Alejandro Werner and the guidance of Miguel Savastano. The team included Bertrand Gruss, Alexander Klemm, Nicolás E. Magud, Anayo Osueke, Carlos Rondon, Sebastián Sosa, and Ben Sutton. In addition, Deniz Igan and Lusine Lusinyan contributed to Chapter 1, and Anna Ivanova and Bogdan Lissovolik contributed to Chapter 2. Gabriel Di Bella, Fabiano Rodrigues Bastos, and Juan Solé contributed boxes. Production assistance was provided by Patricia Delgado Pino and David Hidalgo; Joanne Johnson of the Communications Department edited the manuscript and coordinated the production with the assistance of Martha Bonilla and Katy Whipple. This report reflects developments and staff projections through end-March 2014.

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Executive Summary

Global economic activity strengthened in the second half of 2013 and is expected to pick up further in 2014, led by a faster recovery in the advanced economies. World output growth is projected to increase from 3 percent in 2013 to slightly above 3½ percent in 2014 and nearly 4 percent in 2015. Activity in the advanced economies will be driven by a reduction of fiscal headwinds, except in Japan, and still highly accommodative monetary conditions. Meanwhile, the momentum of growth in emerging market economies is likely to remain subdued, reflecting tighter financial conditions and homemade weaknesses in some cases. Risks around the outlook have diminished somewhat, but remain tilted to the downside, including because of more prominent geopolitical risks.

Against this backdrop, economic activity in Latin America and the Caribbean is expected to stay in low gear in 2014. The faster recovery in the United States and other advanced economies is expected to bolster export growth, but flat or lower world commodity prices and rising global funding costs are set to weigh on domestic demand. Supply-side bottlenecks in several economies are likely to persist, amid a continued slowdown in investment. On balance, regional growth is projected at 2½ percent in 2014, down from 2¾ percent in 2013 and well below the relatively high growth rates of 2010–12. A modest pickup, to 3 percent, is projected for 2015.

More than usual, these headline numbers mask divergent dynamics across the larger economies of the region. Growth in Mexico is expected to rebound on the back of a stronger U.S. recovery and normalization of domestic factors. In Brazil, activity is expected to remain subdued, as weak business confidence continues to weigh on private investment. Argentina and Venezuela are facing a difficult growth outlook, linked to significant macroeconomic imbalances and distortionary policies. For the region at large, the outlook remains clouded by downside risks, including renewed bouts of financial market volatility and a sharper-than-expected decline in commodity prices. Weak fiscal positions represent an important domestic vulnerability in many economies, especially in Central America and the Caribbean.

- In the *financially integrated economies*, output is generally close to capacity, labor markets remain tight, and external current account deficits have widened. This constellation argues for a neutral fiscal stance, although countries with weaker public finances or large external deficits would be best served by some outright tightening. Monetary policy can respond flexibly to incoming data in economies where inflation is moderate. However, in countries with persistent inflationary pressures, both fiscal and monetary policy should aim for a tighter stance. Exchange rate flexibility should remain the principal absorber of external shocks.
- Policy priorities among the *other commodity-exporting economies* vary as a function of specific domestic conditions. In Argentina and Venezuela, fundamental adjustments are needed to restore macroeconomic stability and avoid disorderly dynamics. The other economies in this group face more positive growth prospects, but will also need to control levels of public spending, which have increased sharply over the past decade on the back of strong commodity revenue.
- In *Central America*, fiscal consolidation should not be delayed any further as borrowing conditions will become less favorable. Consolidation efforts need to combine expenditure restraint and higher tax revenues. The countries that are not officially dollarized would also benefit from greater exchange rate flexibility.

- Reducing high public debt levels remains a key challenge in much of the *Caribbean*, along with further efforts to address long-standing competitiveness problems, notably in the tourism-dependent economies. Addressing financial vulnerabilities is a priority in the Eastern Caribbean Currency Union.

This edition of the *Regional Economic Outlook* features three analytical chapters that address the challenges and the appropriate design of domestic policies in a shifting global environment. Specifically, these chapters assess the impact of U.S. monetary policy normalization on Latin America and the Caribbean, the implications of softer commodity prices for economic growth, and changes in the cyclicality of fiscal policy across the region. The key findings are:

- U.S. monetary shocks affect financial markets across the region. Although spillovers have typically been contained over the past decade, the market turmoil of mid-2013 illustrates the risk of outsized effects under certain conditions, especially in countries with domestic or external weaknesses. Net capital inflows to the region are unlikely to turn into net outflows in a "smooth normalization" scenario, but shocks to country risk premiums may prompt outflow pressures.
- The commodity-exporting countries of the region may be facing significantly lower growth than in the recent boom period, even if commodity prices stay at their current high levels. This finding cautions against resorting to expansionary demand policies to mitigate the ongoing economic slowdown and underscores the need for ambitious structural reforms to boost medium-term growth.
- Fiscal policy has remained procyclical in a few countries in the region, but several others, including Brazil, Chile, Colombia, and Mexico, appear to have increased their capacity to adopt countercyclical fiscal policy in recent years. Despite progress in this area, other important policy objectives, such as fiscal sustainability, transparency, and efficiency, need to be strengthened further.

1. The United States, Canada, and the World: Outlook and Policy Challenges

Global activity strengthened in the second half of 2013 and is expected to pick up further in 2014–15, on account of a faster recovery in the advanced economies. In contrast, the growth momentum in emerging markets remains subdued, reflecting tighter external financing conditions and homemade weaknesses in some cases. Risks around the outlook for global growth have diminished somewhat, but remain tilted to the downside.

Global Backdrop: Strengthening Growth, but Downside Risks Remain

Global activity has picked up since mid-2013, led by the advanced economies. The recovery in the United States has been broad-based, with strong contributions from private consumption, investment, and inventory accumulation. The euro area has emerged from recession, but growth remains uneven, as some countries continue to grapple with high debt burdens and financial fragmentation. In Japan, private consumption was robust, even though wages and private investment have yet to rise decisively. In emerging market and developing economies, domestic demand has generally slowed, reflecting tighter financial conditions, supply bottlenecks, and policy or political uncertainties.

A new bout of financial market volatility hit emerging markets in January, affecting equities, bond yields, and currencies. The sell-off seems to have been triggered by a reassessment of the growth outlook for several large economies and rising political tensions in some parts of the world. By contrast, financial conditions have eased in the advanced economies, and long-term bond yields are generally below their mid-2013 highs.

Looking ahead, the outlook is for a further strengthening of the recovery. Global growth is expected to increase from 3 percent in 2013 to slightly above 3½ percent in 2014 and nearly 4 percent in 2015 (Figure 1.1; see IMF, 2014a, the April 2014 *World Economic Outlook*, for more detail). The advanced economies will continue to lead the expansion as fiscal headwinds ease in most countries while monetary conditions generally remain supportive, notwithstanding the challenge posed by very low inflation rates, especially in the euro area and Japan. Emerging market and developing economies continue to account for the bulk of global growth. However, the momentum of activity remains subdued, with growth expected to strengthen only marginally from 4¾ percent in 2013 to 5 percent in 2014, as the boost provided by stronger exports will be offset by continued softness in domestic demand. The projections assume that capital inflows to emerging market economies will be somewhat lower in 2014 than in 2013, before recovering modestly in 2015. They also assume that the recent repricing of emerging market assets represented largely a one-off increase in risk premiums.

In the euro area, growth is projected to move to positive territory and exceed 1 percent in 2014, supported by a smaller fiscal drag and stronger external demand. Nonetheless, growth in domestic demand is expected to remain weak against a background of continued financial fragmentation and high corporate debt burdens. Persistently large output gaps in many countries are expected to keep inflation below the European Central Bank's target of close to, but below, 2 percent, with risks to the downside.

In the United States, real output growth in 2014–15 is projected to be above trend, supported by a

Note: Prepared by Dora Iakova, Deniz Igan, and Lusine Lusinyan. Madelyn Estrada, Tim Mahedy, Anayo Osueke, and Carlos Rondon provided excellent research assistance.

Figure 1.1

Global growth is expected to strengthen in 2014, led by a pickup in advanced economies, most of which will see reduced fiscal drag.

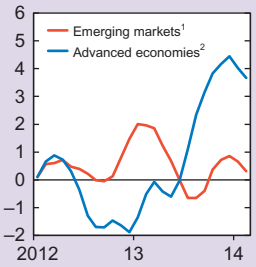
Real GDP Growth

(Percent)

	2012	2013	2014 Projections	2015 Projections
World	**3.2**	**3.0**	**3.6**	**3.9**
Advanced economies	1.4	1.3	2.2	2.3
United States	2.8	1.9	2.8	3.0
Euro area	–0.6	–0.4	1.2	1.5
Japan	1.4	1.5	1.4	1.0
Emerging market and developing economies	5.0	4.7	4.9	5.3
China	7.7	7.7	7.5	7.3

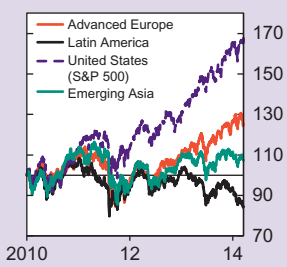
Manufacturing Purchasing Managers' Index

(Deviations from 50, three-month moving average)



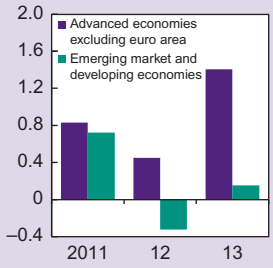
Equity Markets[3]

(Index; Jan. 1, 2010 = 100)



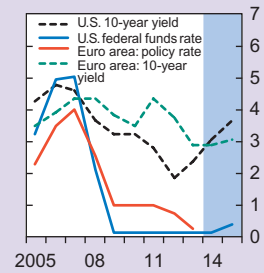
Fiscal Impulse[4]

(Percent of GDP)



Policy Rates and Bond Yields

(Percent)



Sources: Bloomberg L.P.; Haver Analytics; IMF, *International Financial Statistics* and World Economic Outlook database; MSCI Indexes; and IMF staff calculations.

[1] U.S. dollar GDP-weighted average of Brazil, China, Hungary, India, Indonesia, Mexico, Poland, Russia, Turkey, and Vietnam.

[2] U.S. dollar GDP-weighted average of Australia, Canada, Czech Republic, Denmark, the euro area, Israel, Japan, New Zealand, Singapore, South Korea, Switzerland, the United Kingdom, and the United States.

[3] Data as of March 26, 2014.

[4] Change in structural balance.

slower pace of fiscal consolidation, still highly accommodative monetary policy, and a continued recovery of household balance sheets and the housing sector.

In Japan, growth in 2014 is projected to remain at about 1½ percent. Stronger private investment and exports should provide support to activity, but consumption could be negatively affected by the increase in the consumption tax rate.

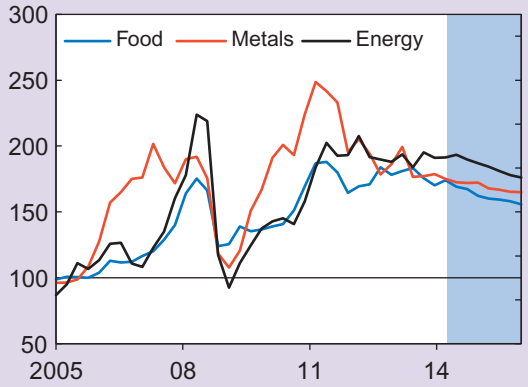
Growth in China is expected to ease to 7½ percent in 2014, as measures to slow credit growth and raise the cost of capital affect investment. A further gradual deceleration of activity, accompanied by rebalancing from investment to consumption, is projected for the medium term.

Under the baseline scenario, most commodity prices are projected to continue declining over the next two years (Figure 1.2). Energy prices are expected to fall by about 5 percent by the end of 2015 as oil production is increasing in countries that are not members of OPEC (the Organization of the Petroleum Exporting Countries). Metal prices, including copper and iron, are also projected to continue to soften on expanded supply capacity and lower demand from China. The near-term outlook for agricultural products varies by commodity, with soybean prices moderating, and coffee and wheat prices projected to rise further.

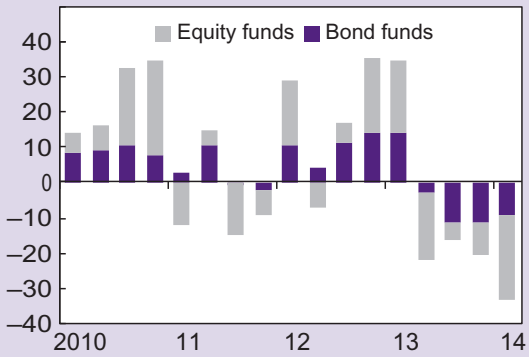
Overall, the balance of risks to the outlook for global growth has improved, on account of lower risks to the outlook for the advanced economies. Still, risks remain tilted to the downside, including because of new geopolitical risks that have come to the fore. In the emerging markets, higher capital flow volatility remains a key concern. Large capital outflows could cause financial market disruptions and weigh on real activity. This risk is larger in economies with weak external positions and where private sector leverage has increased substantially in recent years. In the advanced economies, a prolonged period of low inflation might de-anchor long-term inflation expectations and depress activity.

Figure 1.2
Commodity prices are expected to continue moderating. Tighter external financing conditions and capital flow volatility may result in fresh headwinds for emerging markets.

Commodity Prices
(Index; 2005 =100)



Net Flows into Emerging Market Funds
(Billions of U.S. dollars)



Sources: Emerging Market Portfolio Research; Haver Analytics; and IMF staff estimates.

The United States: Recovery Gaining Ground, Momentum to Continue

Growth in the United States was stronger than anticipated in 2013, spurred by a pickup in consumer spending and business inventories, and solid export growth in the second half of the year. Although the unusually harsh winter weighed on activity in early 2014, the economy is expected to regain its momentum during the rest of the year, thanks to personal consumption and private investment growth, along with a smaller fiscal drag.

In 2013, the U.S. economy grew at an annual rate of 1.9 percent. This exceeded the October 2013 *World Economic Outlook* (IMF, 2013) projection of 1.6 percent growth, as momentum picked up during the course of the year: GDP grew at an average annualized rate of 3.5 percent in the second half of 2013 compared with 1.2 percent in the first half. Notably, this acceleration occurred against the backdrop of the temporary setback from the partial government shutdown in October, which is estimated to have subtracted 0.3 percentage points, in annualized terms, from growth in the fourth quarter. Strong inventory accumulation and export growth were key factors in helping offset the effect of the shutdown. Considering 2013 as a whole, domestic demand was held back by a fiscal drag estimated at 1¼–1½ percent, reflecting the expiration of the payroll tax cut, higher rates on upper-income taxpayers, and cuts in discretionary spending. Despite this, there were clear signs of a firming recovery, with accommodative monetary policy and favorable financial conditions playing their part. Increases in house and stock prices supported the pickup in consumer spending while household deleveraging progressed, with household debt as a share of disposable income continuing its decline (Figure 1.3). The labor market continued to improve, with the unemployment rate falling to 6.7 percent in February 2014. This fall, however, was accompanied by a further decline in the labor force participation rate, which stood at 63 percent in February, close to the lowest level in more than 35 years (see Box 1.1). With still-ample slack in the economy, price pressures remain subdued, and headline consumer price index inflation stood at 1.1 percent (year over year) in February. Increased domestic energy production helped lower oil imports and narrow the external current account deficit to 2.3 percent of GDP at end-2013—the lowest in 15 years.

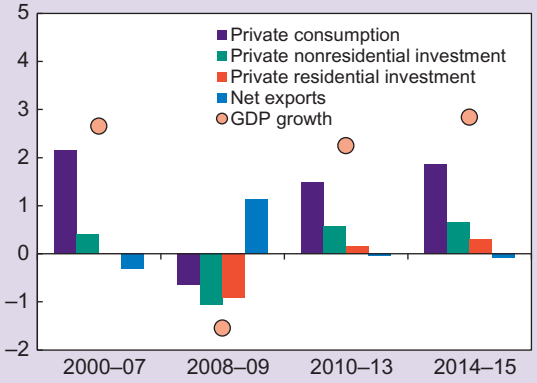
Real GDP growth is projected to rise in 2014 and 2015, despite the drag from the harsher-than-usual weather in early 2014. Residential investment is projected to contribute significantly, as household formation returns to normal, boosting housing starts. Gains in house values are expected to moderate but will further bolster household balance sheets. Consumer spending will remain solid and

Figure 1.3

The U.S. recovery is gathering pace as household balance sheets continue to improve. Unemployment has fallen markedly, partly owing to lower labor force participation.

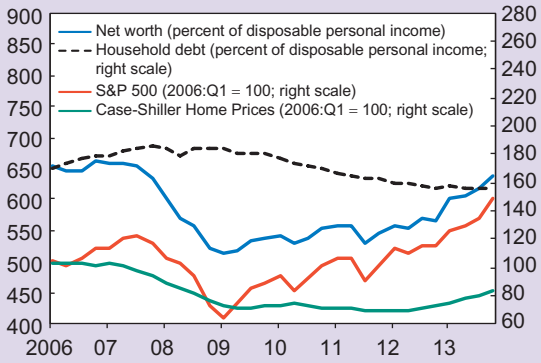
United States: Real Activity Indicators

(Average annual percent change)



Sources: Haver Analytics; IMF, World Economic Outlook database; and IMF staff calculations.

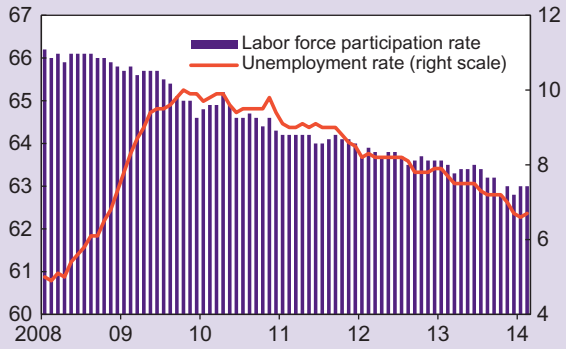
United States: Asset Prices and Household Balance Sheets



Sources: Haver Analytics; and IMF staff calculations.

United States: Labor Market

(Percent)



Sources: Haver Analytics; and IMF staff calculations.

nonresidential fixed investment growth will pick up as consumer and business confidence improves. Meanwhile, the fiscal drag in 2014 is projected to decline to ¼–½ percentage point, thanks in part to the December 2013 Bipartisan Budget Act, which provided some relief from the automatic spending cuts in fiscal years 2014 and 2015 in exchange for back-loaded savings (Figure 1.4). In addition, fiscal policy uncertainty is considerably lower after the act was passed and the debt ceiling was suspended in February 2014, which has effectively eliminated the risk of a partial government shutdown, such as the one in October 2013, for the next year or so.

Even with lower fiscal policy uncertainty, the balance of risks to the U.S. outlook remains slightly tilted to the downside. Slower-than-projected growth in the euro area, potentially exacerbated by disinflationary pressures and renewed financial stress, poses an external risk. In addition, a synchronized slowdown in emerging market economies, analyzed in detail in the April 2014 *World Economic Outlook* (IMF, 2014a), may lower U.S. growth by up to 0.2 percentage points. Turning to domestic risks, private domestic demand could lose steam if long-term Treasury yields were to rise sharply without a concomitant improvement in the growth outlook. Over the medium term, the risks stemming from the lack of a credible fiscal consolidation plan remain. In that scenario, sustainability concerns lead to a loss of confidence and to rising sovereign risk premiums and government bond yields, which slow private domestic demand. A persistent downward trend in labor force participation is another medium-term risk. A much lower participation rate would further dent potential output, lower effective slack in the economy, and may prompt an earlier-than-expected tightening of monetary policy. On the upside, a virtuous cycle could emerge in the housing market as favorable trends in lending conditions, balance sheets, private demand, and confidence feed on each other. Greater confidence in the economy's prospects could also induce firms to start using their cash balances for new investment.

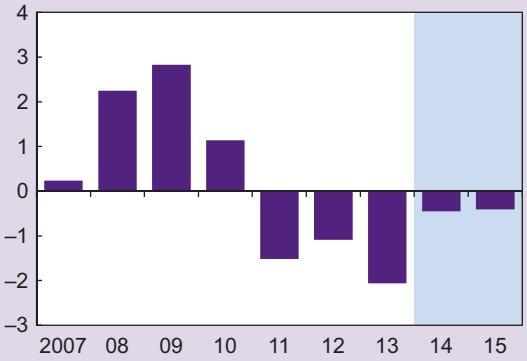
Despite the significant reduction in the fiscal deficit since 2011, U.S. public finances remain on

Figure 1.4

A lower fiscal drag and accommodative monetary policy will help the recovery gain traction, as will pent-up housing demand.

United States: Fiscal Impulse[1]

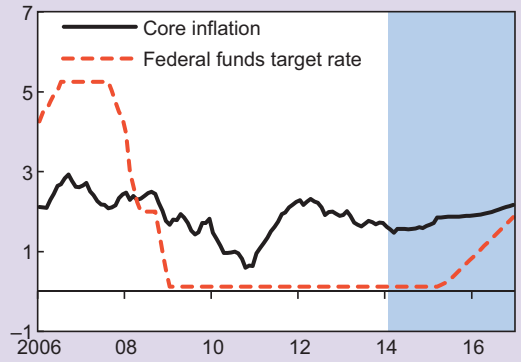
(Percent of GDP)



Sources: IMF, World Economic Outlook database; and IMF staff estimates.
[1] The fiscal impulse is the negative of the change in the primary structural balance.

United States: Policy Rate and Inflation

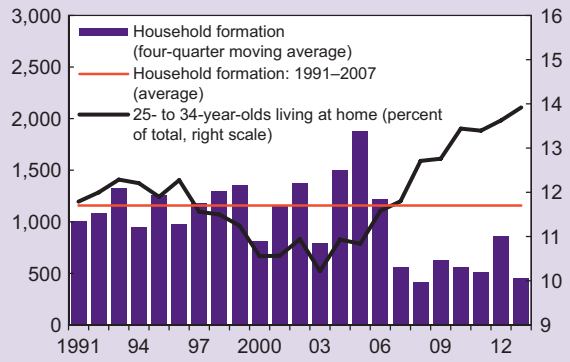
(Percent)



Sources: Haver Analytics; and IMF staff calculations.

United States: Pent-Up Housing Demand

(Thousands of units, unless otherwise indicated)



Sources: Haver Analytics; and IMF staff calculations.

an unsustainable long-term trajectory. Moreover, while the drivers of deficits in the medium term are health care and pension spending, consolidation measures so far have relied on discretionary spending cuts—including through inefficient and abrupt across-the-board cuts ("sequester")—and modest tax increases. Hence, a balanced, gradual, and credible fiscal plan that puts public debt on a firmly downward path should continue to be the main policy priority. Such a plan would have to be multifaceted, balancing the objective of protecting the recovery in the short term with the need to tackle sustainability concerns in the longer term. Necessary components of this plan include changes to entitlement programs to rein in health care and pension spending, a base-broadening tax reform to raise revenues, and replacement of the sequester cuts with back-loaded new revenues and mandatory savings (the Bipartisan Budget Act of December 2013 is a modest step in this direction).

On the monetary front, the growth momentum justifies the ongoing measured reductions in the U.S. Federal Reserve's asset purchase program. Yet, the case for an overall accommodative monetary policy stance remains valid, considering the sizable slack, low current and projected inflation, and steady inflation expectations. Further asset purchases over the next several months, albeit in somewhat smaller amounts, will continue to put downward pressure on longer-term interest rates and contribute to maintaining monetary policy accommodation. The revised forward guidance that indicates that the policy rate can remain low for a "considerable time" after the asset purchase program ends will also help. IMF staff expects that the lift-off of policy interest rates from the zero lower bound will start during the second half of 2015 and be followed with a gradual tightening thereafter, in line with the U.S. Federal Reserve's guidance that economic conditions may warrant policy rates staying below their normal longer-term level for some time. In achieving the appropriate accommodative stance, the additional flexibility provided by the

Federal Reserve's return to qualitative forward guidance in March 2014 may prove helpful. Looking ahead, and as the date of the lift-off of policy rates gets closer, the Federal Reserve will need to communicate clearly its assessment of the progress made in reaching its employment and inflation goals to reduce the risk of excessive market volatility.

On the financial side, notable progress has been made in the implementation of the Dodd-Frank Act and the international capital framework. Moreover, banks' capital ratios remain strong and credit conditions continue to improve, albeit at a slower pace for residential mortgages. However, more remains to be done to increase the resilience of the U.S. financial system. The Volcker Rule, now finalized, needs to be carefully implemented; regulation of money market mutual funds should be strengthened, and systemic risk in the tri-party repo market should be reduced. The bolstering of regulatory policies should continue to be coordinated with the global financial reform agenda. In this context, it will be important to ensure that the implementation of the recently finalized rule on foreign banking organizations, which should help enhance the resilience of their operations in the U.S. financial system and therefore support global financial stability, does not impose undue costs on internationally active banks. In addition, pockets of financial vulnerability appear to be building up in the high-yield bond and leveraged loan markets, and municipal bond markets have been stressed by Detroit's bankruptcy filing and concerns about Puerto Rico's debt sustainability. Although their potential systemic impact seems limited, strong macroprudential oversight and supervision remain essential.

Canada: Facing a Challenging Rebalancing in Growth

Economic activity in Canada firmed up in the course of 2013 on the back of strong growth in consumption and business inventories during the second half of the year. Annual growth is expected to strengthen further in 2014, with the projected recovery in the United States boosting Canada's exports and business investment. Policies should sustain the acceleration of activity, while remaining vigilant to vulnerabilities related to high household leverage and house prices.

Economic growth in Canada strengthened to 2 percent in 2013, after a subdued performance in 2012. Net exports contributed positively for the first time since 2001, but the expected rebalancing from consumption and residential construction toward exports and business investment has yet to fully materialize (Figure 1.5).

Rising household wealth and still-easy financial conditions supported private consumption growth in 2013, and the household debt-to-income ratio reached a historical high of 153. The unemployment rate declined to about 7 percent in 2013, but the pace of job creation slowed in recent quarters.

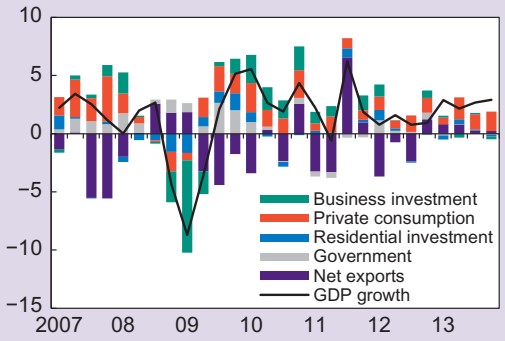
Growth in business investment has weakened since mid-2012, affected by uncertainty about the strength of the recovery. Residential investment also slowed in 2013, as the housing market cooled in part because of macroprudential measures adopted earlier. Nonetheless, house prices remain overvalued (especially in Ontario and Québec), although with important regional differences.

Canada's external current account deficit improved slightly in 2013 as the energy balance strengthened. However, the nonenergy trade balance continued to worsen, despite a real exchange rate depreciation of about 7 percent over the year. Nonenergy exports remain well below precrisis levels, reflecting not only the slow recovery in external demand, but also weak competitiveness related to low productivity growth and a still-overvalued exchange rate.

Fiscal consolidation continued to weigh on economic activity, though at a slower pace than in the past, subtracting about ¼ percentage points from GDP growth in 2013. The federal government fiscal deficit declined at a faster-than-expected pace on the back of stronger spending restraint, but a number of provinces (including Alberta and Québec) announced that they would

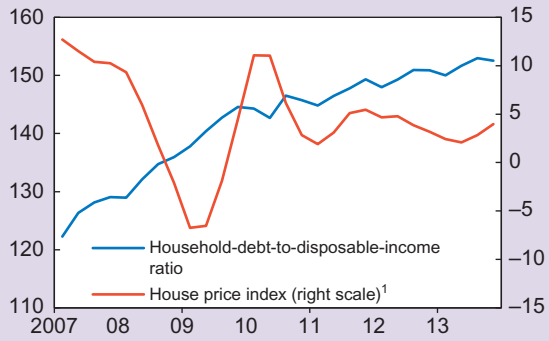
Figure 1.5
Growth in Canada firmed up in 2013 as private consumption strengthened, while fiscal consolidation slowed. Household debt remains high.

Canada: Contributions to GDP Growth[1]
(Percentage change)



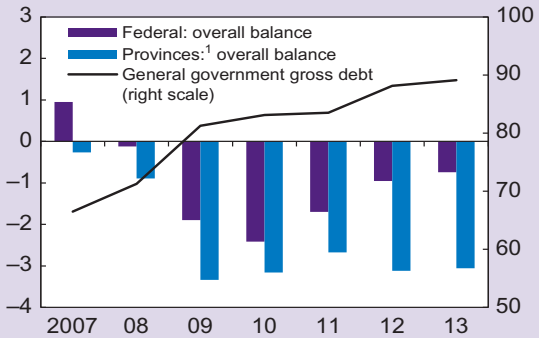
Sources: Statistics Canada; and IMF staff calculations.
[1] The difference between GDP growth and contributions reflects change in inventories and statistical discrepancy.

Canada: Household-Debt-to-Disposable-Income Ratio and House Price Growth
(Percent, unless otherwise indicated)



Sources: Haver Analytics; and IMF staff calculations.
[1] Year-over-year percentage change.

Canada: Fiscal Balance and Gross Debt
(Percent of GDP)



Sources: Statistics Canada; Department of Finance Canada; Haver Analytics; and IMF staff estimates.
[1] Includes provinces, territories, and local governments.

return to a balanced budget position with some delay relative to the previously announced schedule. The Bank of Canada maintained the policy interest rate at 1 percent while increasing the emphasis on downside risks to the inflation outlook in its announcements since October.

In 2014, growth is expected to rise to 2¼ percent, somewhat above the estimated potential growth rate. The projected pickup in U.S. activity is expected to boost Canada's export growth and stimulate business investment. Inflation is projected to pick up as economic slack diminishes, and to approach the Bank of Canada's target rate of 2 percent by end-2015.

Although external demand may surprise on the upside, downside risks to the outlook continue to dominate. External demand may recover less than expected, reflecting a slower U.S. growth resulting from a sharper-than-expected increase in U.S. long-term interest rates, as well as risks of renewed financial turbulence or more protracted weakness in the euro area, and lower-than-expected growth in emerging markets. Even with strong external growth, Canada's export performance could remain subdued owing to competitiveness challenges. An unwinding of domestic imbalances, including elevated household leverage and house prices, would also pose risks to growth. Over the medium term, risks to the performance of the energy sector are two-sided, depending to a large extent on the removal of infrastructure bottlenecks (see Box 1.2).

With inflation close to the floor of the Bank of Canada's target and downside risks looming, monetary policy should remain accommodative until the recovery is firmly established. Fiscal policy, in turn, has to strike the right balance between supporting growth and rebuilding fiscal buffers. The federal government is expected to reach its balanced budget target in fiscal year 2015–16, but has room to slow the planned adjustment if growth weakens. In contrast, some provinces are facing challenges in their consolidation plans and may need to consider further measures, including on the revenue side, to meet deficit reduction goals.

Measures should also be taken to address longer-term challenges facing Canada's economy. These include reining in health care spending growth to ensure long-term fiscal sustainability, gradually reducing the government's involvement in mortgage insurance, raising productivity growth and external competitiveness, and further strengthening Canada's financial system in line with the recommendations of the 2013 Financial Sector Assessment Program update.

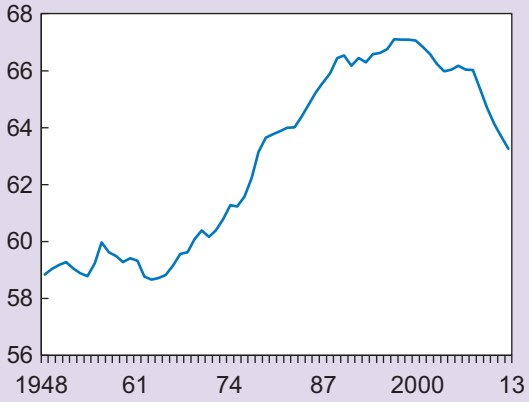
Box 1.1

Recent Trends in the U.S. Labor Force: The Role of the Hispanic Population

Since the 1940s, the U.S. labor force has experienced important changes that mirror developments in American society, in particular increasing numbers of working women and the life cycle of the baby boom generation. These developments brought the aggregate participation rate—the ratio of people employed or seeking jobs divided by the noninstitutional civilian population older than 16—to a historical high of 67.1 percent in 1997. However, as baby boomers started to retire in the new millennium, the participation rate began an inexorable decline (Figure 1.1.1). The decline accelerated during the Great Recession and has continued since: the rate now stands at about 63 percent—a level not seen since the late 1970s. Many studies have focused on the impact of the age-gender dimension on the participation rate. This box examines the impact of changes within ethnic groups, paying particular attention to the role played by the Hispanic population.[1]

Table 1.1.1 shows that the participation rates of all ethnic groups have declined since 2000. However, changes in the population shares of each group have also affected the evolution of the overall rate. For instance, since the participation rate of Hispanics tends to be higher than that of other groups, their increasing population share has helped to slow the decline of the aggregate participation rate.[2]

Figure 1.1.1
United States: Labor Force Participation Rate
(Percent; seasonally adjusted)



Source: Haver Analytics.

Table 1.1.1. United States: Labor Force Statistics, by Ethnicity[1]

	Overall Participation Rate	Hispanic		Black		Other[2]	
		(a)	(b)	(a)	(b)	(a)	(b)
2000	67.1	11.3	69.7	11.7	65.5	77.0	66.9
2007	66.0	13.5	68.8	11.9	63.7	74.6	65.9
2009	65.4	13.9	68.0	12.0	62.4	74.1	65.4
2013	63.3	15.3	66.0	12.4	61.2	72.4	63.0

Sources: Bureau of Labor Statistics, Household Employment Survey; and IMF staff estimations.
[1] (a) population share; (b) participation rate.
[2] Comprises all other ethnic groups, including non-Hispanic whites and Asians.

Note: This box was prepared by Juan Solé, with research support from Jeremy Zook.
[1] See, for instance, Toosi (2013) and Aaronson and others (2006).
[2] The aggregate figure masks a difference between Hispanic men and women. Hispanic men have higher participation rates than the average male in the U.S. population (76.3 percent versus 69.7 percent in 2013), but Hispanic women have slightly lower participation rates than the average female in the population (55.7 percent versus 57.2 percent in 2013).

Box 1.1

To quantify the relative importance of changes in the population shares and participation rates of each ethnic group, we calculated a shift-share decomposition where the total change in the participation rate with respect to a base year can be approximated as the sum of changes in the population share of each group weighted by their base-year participation rate, and changes in the participation rate of each group weighted by their base-year population share.[3] Table 1.1.2 shows the results of this decomposition by ethnic group.

Table 1.1.2. United States: Compositional Analysis of Changes in Labor Force Participation, by Ethnicity (changes between 2000 and 2013 in percentage points)[1]

	Overall Participation Rate Change	Hispanic											
		Mexican American[2]		Puerto Rican		Cuban		Other Hispanics		Black		Other (Non-Hispanic)[3]	
		(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
2000–13	–3.8	1.6	–0.3	0.2	0.0	0.1	0.0	0.9	–0.1	0.4	–0.5	–3.1	–3.0

Sources: Bureau of Labor Statistics, Household Employment Survey; and IMF staff estimations.
[1] (a) population share shift; (b) participation rate shift.
[2] The cumulative interaction term for this group is –0.1 in 2013.
[3] Comprises all other ethnic groups, including non-Hispanic whites and Asians. The cumulative interaction term for this group is 0.18 in 2013.

Notably, since 2000, all Hispanic groups made positive contributions to the aggregate participation rate via higher population shares. However, Mexican Americans and "other Hispanics" have contributed negatively via declining participation rates, although the decline in the aggregate participation rate has been driven by the "Other" group. This group has seen both the population share and participation rates decline since 2000. Because they represent three-fourths of the population, changes in this group dominate the evolution of the aggregate rate.

In the future, the participation rate will likely continue to decline, reflecting primarily the retirement of baby boomers. In addition, the slow economic recovery has led to rising numbers of long-term unemployed and discouraged workers. The increase in the latter group has been exerting further downward pressure on participation. On the positive side, the increasing population share of certain ethnic groups could offset to some extent the secular decline in participation. Hispanics are projected to double their share in the U.S. population to about 30 percent by 2060.[4] If their higher-than-average participation rates are sustained throughout this period, this will have a positive effect on the aggregate participation rate. More generally, migration trends will remain an important factor in determining U.S. labor force dynamics.

[3] Data on population and labor force are from the Household Employment Survey, which does not distinguish the legal status of respondents. Hence, it is not possible to estimate the relative weight of illegal immigrants. According to the Pew Hispanic Center, illegal immigrants accounted for 3.7 percent of the population and 5.2 percent of the labor force in March 2010.
[4] The labor force will also be affected by the evolution of hours worked. The Congressional Budget Office forecasts that potential hours worked in the nonfarm business sector will increase 0.6 percent per year in 2014–24 (compared with 1.3 percent per year in 1950–2013).

Box 1.2

Unconventional Energy Boom in North America: Macroeconomic Implications and Challenges

A boom in unconventional oil and natural gas production has been transforming the energy landscape in North America, with important implications for global energy markets and the broader competitiveness outlook. As a major positive supply shock, the boom carries broad economic benefits but also creates some challenges that need to be addressed.

The Boom

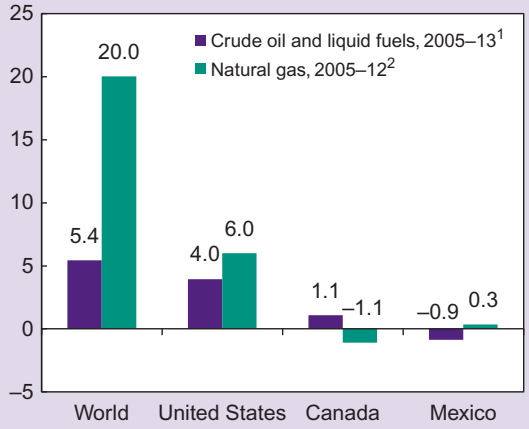
The increase in crude oil production in the United States and Canada during 2005–13 nearly matched the increase in global oil production in those years (Figure 1.2.1). In contrast, Mexico's oil production has been on a steady decline since peaking in 2004, owing to limited investment in exploration, especially in offshore fields, and in secondary recovery techniques. In 2013, more than one-fifth of the world's total crude oil was produced in North America. Within the region, Canada's oil exports, boosted by oil sands production, have gained a substantial market share in the United States at the expense of other traditional exporters such as Mexico, Nigeria, and Venezuela (Figure 1.2.2).

The region also produces more than one-fourth of the world's natural gas, but the U.S. shale gas revolution has significantly shifted the balance in favor of the United States, as Canada's gas production and exports to the United States—its only export market—declined since the mid-2000s. Mexico's gas production has remained relatively flat in recent years, after increasing prior to 2007.

The boom is expected to continue, supported by ongoing improvements in technologies. As a result, the United States is expected to become a net exporter of natural gas in 2018, with domestic production increasing steadily by about 50 percent over the next two decades, while Canada's share in the world's crude oil production is expected to increase from the current 4¾ percent to 5¾ percent by 2030. Current projections also point to the potential for a significant increase in oil and gas production in Mexico, as the 2013 energy reform will fundamentally transform the country's hydrocarbon sector. In particular, the reform opens the door for private participation in upstream and downstream operations.

Figure 1.2.1

Change in Crude Oil and Natural Gas Production

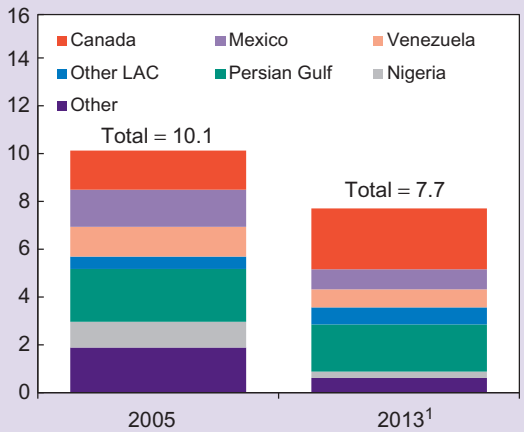


Sources: U.S. Energy Information Administration; and International Energy Agency (2013).
[1] Million barrels per day.
[2] Trillion cubic feet.

Figure 1.2.2

United States: Crude Oil Imports, 2005 vs. 2013

(Million barrels per day)



Source: U.S. Energy Information Administration.
Note: LAC = Latin America and the Caribbean.
[1] Average over January to November for 2013.

Note: This box was prepared by Lusine Lusinyan.

Box 1.2

Macroeconomic Impact

The energy boom in the United States and Canada has had positive effects on both economies, but the potential macroeconomic impacts vary, reflecting in part the relative size and interconnectedness of the respective energy sectors:

- In the *United States*, where oil- and gas-related sectors account for about 1½ percent of total GDP, the direct benefits to the economy of the ongoing boom are estimated to have been relatively small, contributing only 0.1 percentage points to real GDP growth in 2012. However, the low domestic price of natural gas (about one-third of the gas price in Europe and one-fourth of that in Asia) has helped support consumer demand and provided a competitive advantage to domestic energy-intensive industries. IMF staff analysis also suggests that the energy boom in the United States (together with greater energy efficiency) is likely to halve the U.S. energy trade deficit by about 1 percent of GDP by the mid-2020s (Hunt and others, 2013).
- In *Canada*, because of the rapid development of oil sands, the energy sector represents close to 10 percent of GDP and 25 percent of total exports. Although high energy prices have contributed to the real appreciation of the Canadian dollar since the early 2000s, intensifying competitiveness challenges in nonenergy sectors, Canada has benefited from the energy boom through both direct and spillover effects. The positive effects from the energy boom could be even greater once the infrastructure capacity is expanded. IMF staff estimates suggest that eliminating infrastructure bottlenecks and allowing full market access to Canadian energy products would increase Canada's total GDP by about 2 percent over a 10-year horizon (Lusinyan and others, 2014).

Challenges

Nonetheless, the energy sector in North America faces important challenges. Constraints on U.S. exports of natural gas could keep North American gas prices depressed, potentially discouraging further investment in the sector. Canada would benefit from exporting natural gas to other countries besides the United States, but this would require building large-scale facilities close to the Canadian coast. In addition, infrastructure constraints for transporting Canadian heavy oil to U.S. refineries situated in the Gulf Coast or Canada's eastern provinces, and restrictions on U.S. exports of crude oil, have resulted in an oil glut in the center of North America and increased volatility in the market. Unless Canada's share of U.S. oil imports doubles by 2030 from the current 30 percent, it would be essential for Canada to diversify its crude oil export markets to benefit from the growing supply of oil. For Mexico, it would be important to follow through on the energy reform by promptly adopting and implementing legislation and regulations to provide clarity to the private sector and stimulate investment. Among other things, this will require detailing the exact nature of contracts with the private sector and the tax regime applying to new oil.

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2. Outlook and Policy Challenges for Latin America and the Caribbean

Economic activity in Latin America and the Caribbean (LAC) is expected to remain relatively subdued in 2014. While the faster recovery of the advanced economies should strengthen external demand, this effect is likely to be offset by the negative impact of lower commodity prices and tighter financial conditions on domestic demand. Policy priorities include strengthening public finances, addressing potential financial fragilities, and implementing structural reforms to ease supply-side constraints and raise potential growth.

Real GDP growth in LAC moderated further in 2013 to 2¾ percent, down from 3 percent in 2012 and 4½ percent in 2011 (Figure 2.1 and Table 2.1). Activity was held back by weaker domestic demand, lower commodity prices, tightening financial conditions, and supply constraints in some cases. The particularly sharp slowdown in Mexico reflected lower public spending and construction activity, as well as weak demand from the United States. Inflation remained contained in most of the region, reflecting lower food prices and subdued activity. Regional financial markets were affected by repeated bouts of volatility over the past 12 months, as investors reassessed the relative risks and prospects of emerging market economies in the context of the U.S. Federal Reserve's initial steps toward reducing the pace of its asset purchases ("tapering").

Growth is projected to remain in low gear in 2014, at about 2½ percent (Figure 2.2), despite some strengthening of external demand. The slowdown in investment growth is expected to continue, reflecting the completion of large projects in mining and other areas, rising funding costs, and weaker business confidence.

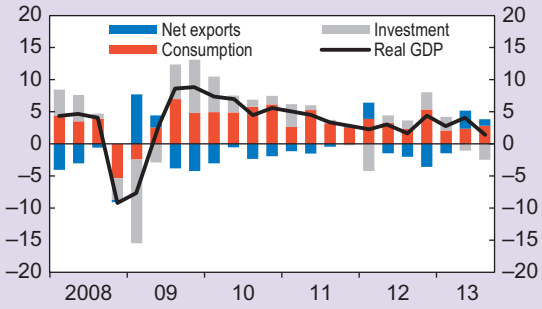
The headline growth number masks divergent dynamics for the region's largest economies. Mexico's economy is expected to rebound on the back of a stronger U.S. recovery and normalization

Figure 2.1

Growth in Latin America moderated further in 2013. Asset prices have declined since the May 2013 "taper shock," amid weaker investor sentiment.

Selected Latin American Countries: Contributions to Quarterly Real GDP Growth[1]

(Percentage points)

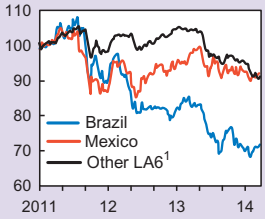


Sources: Haver Analytics; national authorities; and IMF staff calculations.
[1] Seasonally adjusted annualized growth rate. Purchasing power parity GDP-weighted averages of Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Paraguay, Peru, and Uruguay. Data through 2013:Q3. See Annex 2.1 for details on Argentina's GDP.

Selected Latin America: Financial Indicators, 2011–14

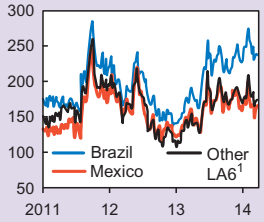
Exchange Rates

(U.S. dollars per local currency; index, January 2011 = 100)



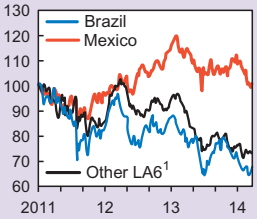
EMBI Spreads

(Basis points)



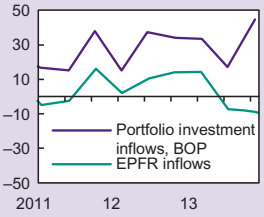
Equity Prices

(Index, January 2011 = 100)



Portfolio and EPFR Flows[2]

(Billions of U.S. dollars, quarterly)



Sources: Bloomberg, L.P.; Haver Analytics; IMF, International Financial Statistics database; national authorities; and IMF staff calculations.
Note: BOP = balance of payments; EMBI = J.P. Morgan Emerging Markets Bond Index.
[1] Simple average of Chile, Colombia, Peru, and Uruguay except for equity prices, where Uruguay is excluded.
[2] Aggregate flows to Latin America. EPFR data refer to inflows into exchange-traded funds and mutual funds.

Note: Prepared by Dora Iakova with Anna Ivanova, Bogdan Lissovolik, Andre Meier, and Sebastián Sosa. Ewa Gradzka, Anayo Osueke, Carlos Rondon, and Ben Sutton provided excellent research assistance.

Figure 2.2

Growth is projected to remain subdued in 2014, reflecting weak investment. External current account deficits are expected to stop widening.

LAC: Real GDP Growth[1]

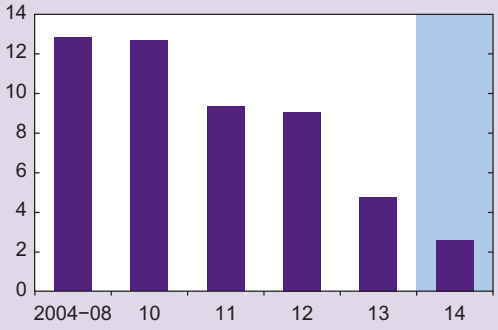
(Percent)

	2012	2013	2014	2015
		Est.	Proj.	
LAC	**3.1**	**2.7**	**2.5**	**3.0**
Financially integrated economies (LA6)	4.1	3.5	3.5	3.9
Other commodity exporters	3.3	5.9	2.8	2.6
Central America	3.8	3.2	3.4	3.4
Caribbean				
Tourism-dependent	0.1	0.7	1.4	1.9
Commodity exporters	3.7	3.2	3.2	3.2
Memorandum:				
Brazil	1.0	2.3	1.8	2.7
Mexico	3.9	1.1	3.0	3.5

Source: IMF, World Economic Outlook database.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay; LAC = Latin America and the Caribbean.
[1] For definitions of the country groups and details on the aggregation method, see Table 2.1 on page 33.

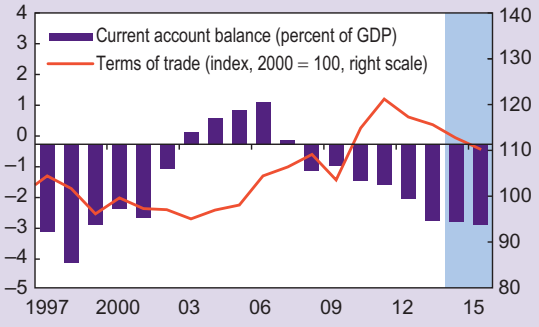
LA6: Real Investment Growth[1]

(Percent)



Source: IMF, World Economic Outlook database.
[1] Simple average of Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

LAC: External Current Account and Terms of Trade



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: LAC = Latin America and the Caribbean.

of domestic factors. In Brazil, activity will remain subdued, as weak business confidence continues to weigh on private investment. Argentina and Venezuela, in turn, are faced with significant fiscal and external imbalances, which have prompted a variety of controls on trade, prices, and exchange rates that hamper activity. In the rest of Latin America, growth is expected to remain close to potential, with stronger external demand from the advanced economies offset by tighter global financing conditions and softer commodity prices. In the Caribbean, high debt levels and long-standing competitiveness problems will continue to constrain activity, though a recovery of tourism flows may provide a positive impulse.

Overall, the balance of risks to the outlook is still tilted to the downside. Although the effects from a gradual and orderly normalization of U.S. monetary policy should be contained for most of the LAC region, increased capital flow volatility remains a risk (see Chapter 3). Based on recent experience, countries with large current account deficits, high inflation, and limited domestic policy space are likely to be most affected by fresh bouts of financial market volatility. Another important risk is a sharper decline in commodity prices, for instance, driven by downward surprises to China's growth outlook. Commodity prices have already softened over the past 12 months (especially metals prices, which declined by 15 percent through mid-March) and are projected to moderate further over the medium term as supply is increasing while demand growth from large emerging markets is expected to slow.[1] A larger-than-envisaged decline in commodity prices would have negative effects on growth in South America's commodity exporters (see Chapter 4).

Turning to domestic risks, weak fiscal positions represent an important vulnerability in a number of economies (see Table 2.2 and Chapter 5).

[1] Chapter 1 of the April 2014 *World Economic Outlook* analyzes a risk scenario of a more prolonged, investment-led slowdown in major emerging market economies (IMF, 2014a).

Bank and household balance sheets are generally on sound footing, but several years of strong credit growth may have created pockets of vulnerability. Meanwhile, the increase in firms' external debt issuance should be monitored closely, with particular attention to buildup of excessive leverage and potential currency mismatches. The combination of slower growth and tighter financial conditions could drive up nonperforming loans and lower bank profitability. These challenges are heightened by the fact that medium-term potential growth in many economies is estimated to be well below the high average growth rates of the past decade. As discussed in the May 2013 *Regional Economic Outlook: Western Hemisphere,* policies need to adjust to this new reality. In particular, macroeconomic policies should not be used to boost demand in economies with output levels close to potential, while structural reforms are needed to raise productivity in the medium term.

Financially Integrated Economies

Developments and Outlook

Output gaps remain relatively small in most of the financially integrated economies in the region. Near-term prospects vary, reflecting differences in potential growth across countries and some idiosyncratic factors:

- *Brazil*'s growth is expected to fall below 2 percent in 2014. Weighing on activity are domestic supply constraints, especially in infrastructure, along with continued weak private investment growth, which seems to reflect loss of competitiveness and low confidence, as well as higher borrowing costs.
- Growth in *Mexico* is set to rebound to 3 percent in 2014. Some of the headwinds to growth have already started to ease, with fiscal policy shifting to a more accommodative stance and U.S. demand picking up, although the recovery in construction activity remains tepid. Looking further ahead, Mexico's ongoing structural reforms, especially in the energy and telecommunications sectors, are expected to raise potential growth over the medium term.
- Among the other financially integrated economies, *Colombia* and *Peru* are expected to maintain fairly rapid growth. Activity in *Chile* is projected to moderate further, as private investment growth has slowed, especially in mining. In all three countries, private consumption growth remains robust, supported by low unemployment rates. In *Uruguay*, growth is also expected to moderate, as a major foreign direct investment–financed investment project reaches completion and external demand from regional trading partners weakens.

Labor markets remain relatively tight in most economies, with unemployment rates still near record-low levels (Figure 2.3 and Table 2.3). That said, a tentative easing of labor market pressures is apparent in several countries—employment growth and real wage growth are starting to moderate.

Inflation generally remained contained in 2013, reflecting lower food prices and the moderation of domestic demand (Figure 2.4). Weaker currencies have created an inflationary impulse recently, but pass-through effects are likely to remain modest, consistent with empirical estimates for economies with credible inflation-targeting regimes. However, the outlook varies across countries. In Chile and Colombia, inflation has recently edged up, but is projected to remain close to the official target. In Mexico, inflation spiked in early 2014, owing to one-off tax changes, but is expected to fall back into the target range in the second half of the year. A similar pattern is projected for Peru, where food supply shocks have caused some upside pressure in recent months. In Brazil, inflation is expected to stay in the upper part of the target range despite significant monetary tightening, reflecting limited spare capacity, inflation inertia, and some pass-through from exchange rate depreciation. Inflation continues to be higher in Uruguay, amid robust demand and widespread wage indexation.

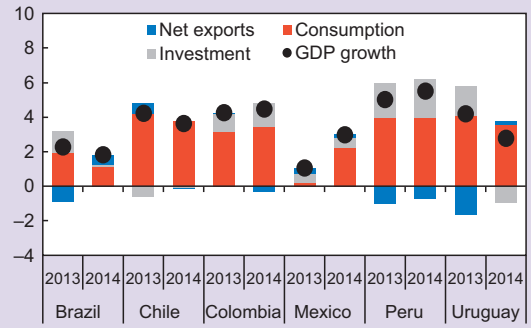
External current account deficits widened further in 2013, reaching 3.8 percent of GDP on average.

Figure 2.3

Unemployment remains at historically low levels, but real wage growth has started to moderate in some of the financially integrated economies.

LA6: Real GDP Growth Contributions, 2013–14

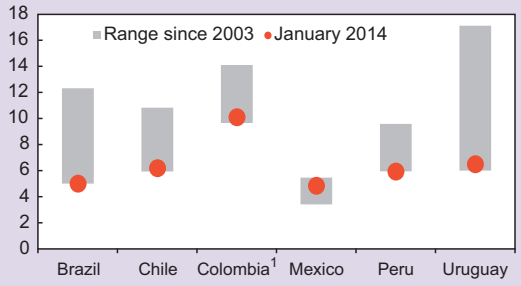
(Percentage points)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

LA6: Unemployment Rate

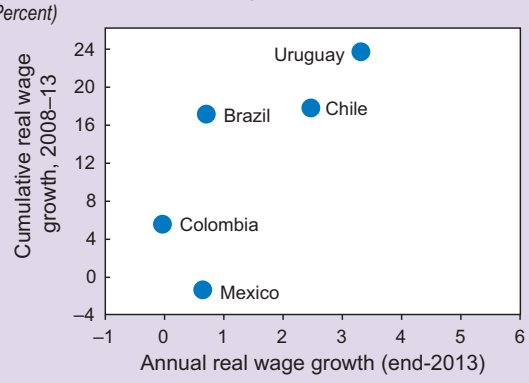
(Percent)



Sources: Haver Analytics; IMF, World Economic Outlook database; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Includes unemployed workers who sought employment within the last 12 months.

Selected LA6: Real Wage Growth, 2008–13

(Percent)



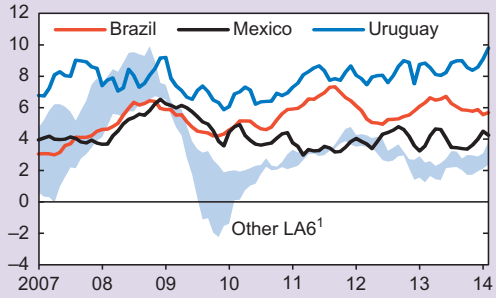
Sources: Haver Analytics; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

Figure 2.4

Inflationary pressures are limited to a few countries. External current account deficits rose further last year but were typically financed by foreign direct investment.

LA6: Headline Inflation, 2007–13

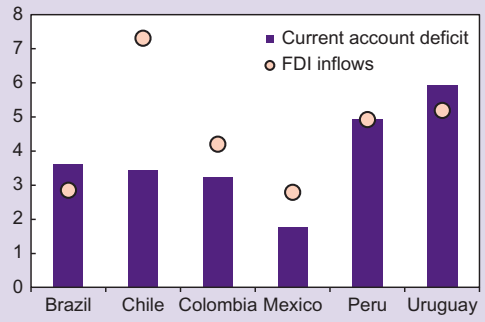
(12-month percent change)



Sources: Haver Analytics; national authorities; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Shading represents the range of values for Chile, Colombia, and Peru.

LA6: External Current Account Deficit and Foreign Direct Investment, 2013

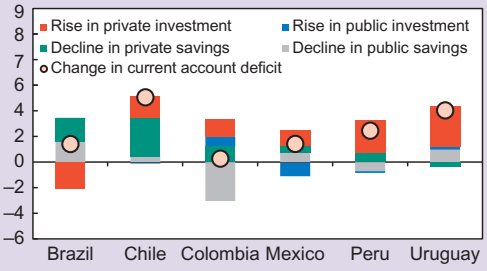
(Percent of GDP)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: FDI = foreign direct investment; LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

LA6: Factors Explaining the Change in Current Account Deficits, 2010–13

(Percent of GDP)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

Relatively weak growth of export volumes was a key factor, alongside some deterioration of the terms of trade, especially in Chile and Peru. Softer commodity prices will continue to weigh on export proceeds in the future, but this effect should be partly offset by expenditure switching from weaker real exchange rates. On balance, current account deficits are expected to stabilize or narrow somewhat over the next two years. A sharper-than-expected deterioration in the terms of trade, however, remains a key downside risk.

Net capital inflows remained relatively strong in 2013, despite jitters in global financial markets (Figure 2.5). Foreign direct investment inflows continue to exceed the current account deficit in most countries. Portfolio investment and other types of capital inflows also held up, despite some divestment by foreign mutual fund investors. More generally, the pattern of flows during the most recent capital inflow episode compares favorably with a previous inflow episode in 1991–94. In particular, the financially integrated economies have received a more resilient mix of inflows, with a greater share of foreign direct investment, and have used a larger share of those inflows to build up international reserves and private asset holdings overseas, while the widening of the current account deficit has been more contained.[2] Nonetheless, the risk of a sudden stop of capital flows remains a concern.

Turning to domestic financial developments, bank lending growth moderated somewhat in Brazil, Chile, and Mexico, but remains buoyant—with real annual growth in excess of 10 percent in several countries. In Brazil, aggregate credit growth of 8 percent in real terms masks an important divergence between a slower pace of lending by private banks, in response to weak demand and tightening credit standards, and a still-strong expansion of lending by public banks. After several years of strong credit expansion, the challenge for most of the financially

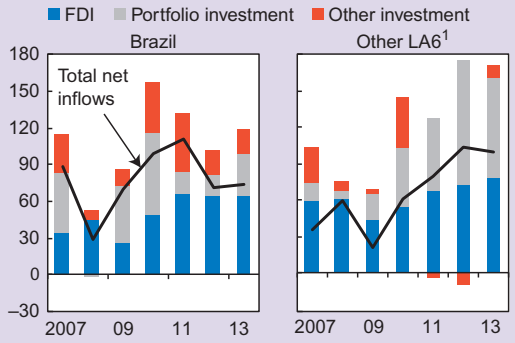
[2] In the aftermath of the "taper shock" in May 2013, the partial retrenchment of foreign investors was offset by repatriation of assets by residents in some countries (see Chapter 3).

Figure 2.5

Even as asset prices declined, net capital inflows remained relatively strong in 2013. Domestic credit growth also stayed buoyant.

LA6: Gross and Net Financial Flows, 2007–13

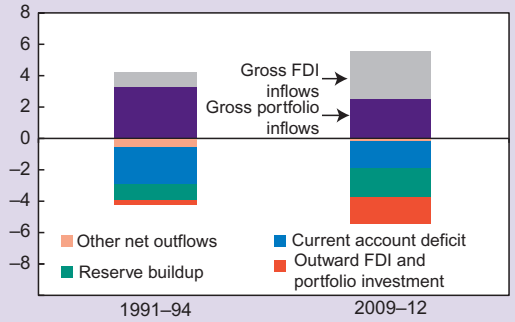
(Billions of U.S. dollars)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: FDI = foreign direct investment; LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Sum of flows to Chile, Colombia, Mexico, Peru, and Uruguay.

LA6: Comparison of Two Capital Inflow Episodes

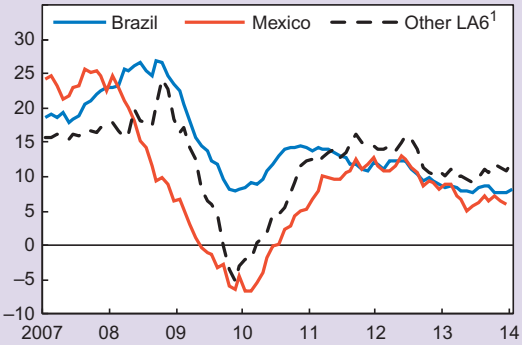
(Percent of GDP, period averages)



Sources: IMF, International Financial Statistics database; and IMF staff calculations.
Note: FDI = foreign direct investment; LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

LA6: Credit to the Private Sector in Real Terms

(12-month percent change)



Sources: Haver Analytics; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Simple average of credit growth in Chile, Colombia, Peru, and Uruguay.

integrated economies is to engineer a smooth transition to more sustainable rates of credit growth.

Cyclically sensitive sectors with high leverage, such as commercial real estate development in Chile, could be especially vulnerable. An area of potential concern in Brazil is consumer credit, which has increased rapidly in recent years, albeit from a low base.

Corporate debt issuance in the region has also been very strong in recent years, though the bonds have relatively long maturities and there are no near-term maturity cliffs (Figure 2.6). In some cases, including Brazil, balance sheet leverage has increased, although debt metrics do not yet suggest broad-based financial excess (see Box 2.1).

Policy Priorities

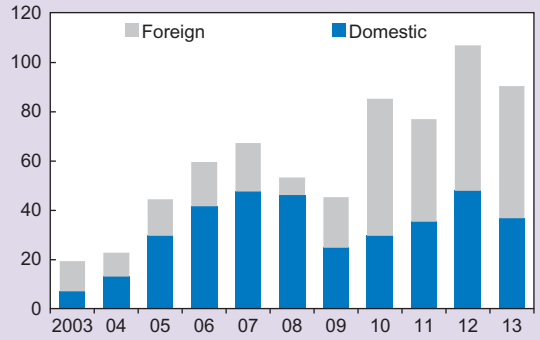
The outlook for the financially integrated economies presents two main policy challenges. First, investor sentiment toward emerging markets remains fragile. New episodes of market turbulence could further drive up funding costs, with negative knock-on effects for growth. Second, with the secular commodity price boom petering out and activity increasingly constrained by supply-side bottlenecks, economic growth is likely to settle below the high rates of the past decade, even in the absence of major external shocks. Addressing these challenges will require a careful recalibration of macroeconomic policies, a clear focus on reducing vulnerabilities, and stepped-up structural reforms to remove obstacles to growth.

Exchange rate flexibility played a key role in helping these countries adjust to the market turbulence in mid-2013, and will continue to provide an important buffer (Figure 2.7).[3] In general, the depreciation of the past 12 months has brought these countries' exchange rates closer in line with long-term fundamentals. Importantly, the economic benefits of better-aligned currencies have not been outweighed by adverse side effects: pass-through to inflation has generally been moderate, and there is little evidence for negative balance sheet effects, although potential vulnerabilities bear continued close monitoring.

Large international reserve positions are an additional source of strength. All the financially integrated economies have sufficient resources to provide foreign exchange liquidity if faced with disorderly market conditions owing to illiquidity. Temporary interventions to smooth excessive exchange rate volatility could also be justified in some cases, although they should not be used to defend fundamentally misaligned exchange rates

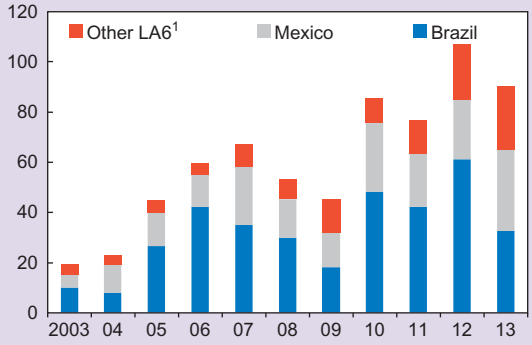
Figure 2.6
Corporate bond issuance moderated in Brazil but continued at a strong pace elsewhere.

LA6: Corporate Bond Issuance in Domestic and Foreign Markets
(Billions of U.S. dollars)



Sources: Dealogic; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

LA6: Corporate Bond Issuance by Nationality of Issuer
(Billions of U.S. dollars)



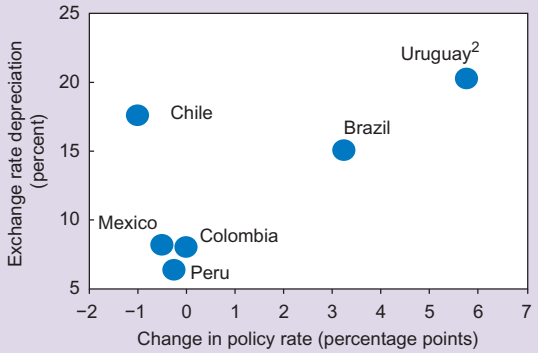
Sources: Dealogic; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Sum of corporate bond issuance in Chile, Colombia, Peru, and Uruguay.

[3] Magud and Vesperoni (2014) show that economies with flexible exchange rates have less pronounced credit cycles than those with more rigid exchange rate regimes during episodes of large capital flow reversals.

Figure 2.7

Flexible exchange rates and high reserve levels provide important external buffers. Fiscal spending continued to rise, even as revenues slowed.

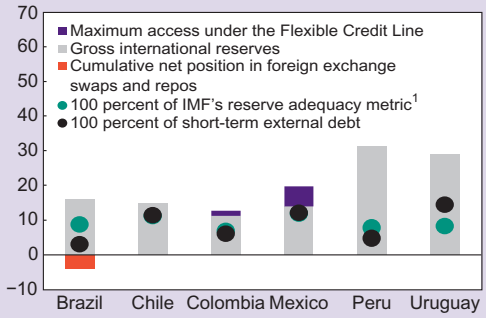
LA6: Change in Policy Rates and Exchange Rates Since End-April 2013[1]



Sources: Haver Analytics; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Data through March 26, 2014.
[2] Uruguay discontinued its policy rate in June 2013. The figure shows the one-month Uruguayan peso rate.

LA6: Official Foreign Exchange Reserves

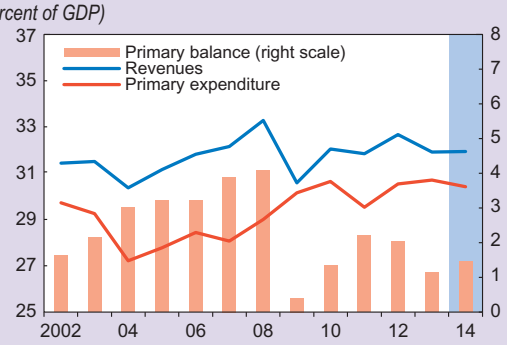
(Percent of GDP)



Sources: National authorities; World Economic Outlook database; and IMF staff calculations.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] Methodology described in Moghadam, Ostry, and Sheehy (2011).

LA6: Fiscal Indicators, 2002–14

(Percent of GDP)



Source: IMF, World Economic Outlook database.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.

or as a substitute for necessary macroeconomic policy adjustments. The key to sustaining investor confidence, more broadly, lies in maintaining strong balance sheets, credible policy frameworks, and a prudent macroeconomic stance.

As seen over the past year, countries with low inflation and well-anchored inflation expectations retain the flexibility to ease monetary policy in response to a slowdown in growth, even when global interest rates are rising. In countries with relatively high and persistent inflation, both monetary and fiscal policies should focus on reducing inflation pressures and strengthening the credibility of the policy framework. Brazil and Uruguay tightened their monetary policy stance significantly over the past 12 months to rein in inflation and support the domestic currency, although fiscal policy has been broadly neutral.

With activity levels still close to potential in most countries, fiscal policy stimulus is not warranted. A neutral fiscal stance is appropriate for countries with strong public finances and low external current account deficits; others should aim for gradual tightening to put debt firmly on a downward path. Countercyclical fiscal stimulus would be appropriate only in case of a sharp slowdown in activity amid evidence of considerable slack in the economy, and only in countries with adequate fiscal space. In addition, increasing the transparency of fiscal accounts—including by improving the reporting and monitoring of public-private infrastructure projects—and minimizing reliance on one-off measures to meet budget targets would help strengthen investor confidence and keep risk premiums low.

Looking at longer-term trends, primary public expenditure as a share of GDP has increased steadily since the financial crisis, including in 2013, even though revenue growth has started to slow. The moderation of revenues is likely to persist over the period ahead, reflecting softer commodity prices, rising commodity extraction costs, and lower potential growth. At the same time, pressures on expenditure are growing, including from higher interest bills, critical infrastructure needs, and demands for better public services. Aging-related

spending is also expected to increase in the medium term. All these factors underscore the importance of prudent fiscal policy as well as the need to improve the efficiency of public spending.

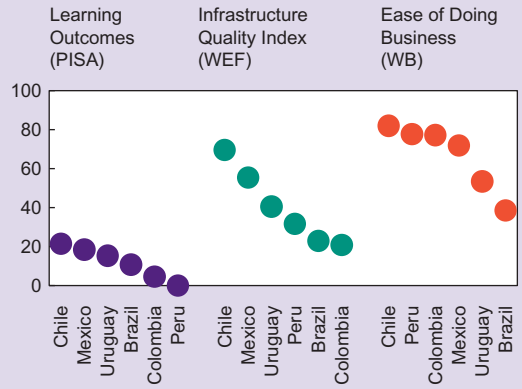
Strong financial sector regulation and supervision remain crucial to safeguard financial stability. Banks in the financially integrated economies generally have solid capital and liquidity ratios, good asset quality, strict ceilings on open currency positions, and limited reliance on external financing. However, some of these buffers may be eroded in a scenario of slower growth and tighter financial conditions, especially in economies that have seen high credit creation in recent years. Targeted macroprudential measures could be used to reduce vulnerabilities.

The key challenge over the medium term is to boost productivity and competitiveness. Total factor productivity in the region has improved over the last decade, but still lags compared with other fast-growing emerging markets (see Chapter 3 in the May 2013 *Regional Economic Outlook: Western Hemisphere,* and Sosa, Tsounta, and Kim, 2013). Output growth during that period was driven mainly by factor accumulation, aided by favorable financing conditions and strong demographics. To sustain high growth rates in the medium term, however, policymakers need to focus on upgrading the domestic infrastructure, improving educational outcomes, and strengthening competition (Figure 2.8). Mobilizing domestic saving (which is low in LAC by international standards) could also enhance investment and long-term growth.

Figure 2.8

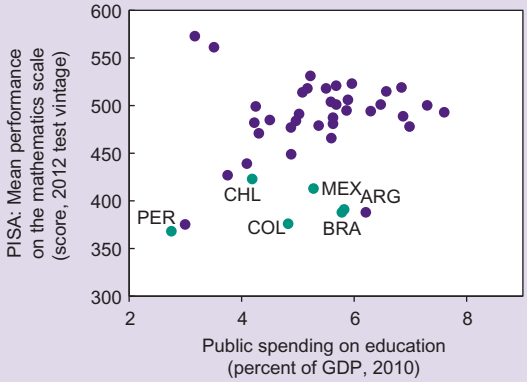
Latin America compares unfavorably on education outcomes. Infrastructure standards and the business environment vary more across countries.

LA6: Structural Performance Indicators, Percentile Ranks[1]



Sources: Organization for Economic Cooperation and Development, Programme for International Student Assessment (PISA; 2012); World Bank (WB), Ease of Doing Business database (2013); World Economic Forum (WEF).
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[1] The scale reflects the percentile distribution in all countries for each respective survey; higher scores reflect higher performance.

Selected Latin America: Educational Performance and Public Spending on Education



Sources: Organization for Economic Cooperation and Development, Programme for International Student Assessment (PISA); and World Bank, World Development Indicators database.
Note: See page 63 for country name abbreviations.

Other Commodity Exporters

Developments and Outlook

Developments in the other five large commodity exporters in Latin America reflected mostly differences in domestic policies (Figure 2.9).

Venezuela suffered a sharp economic slowdown, a steep rise in inflation, and an intensification of shortages of foodstuff and other consumer goods in 2013. These developments were a consequence of the highly expansionary policies in recent years, which—while helping to improve social indicators—led to

Figure 2.9

Output growth was strong in 2013 among the other commodity exporters of the region, except in Venezuela, where activity weakened sharply.

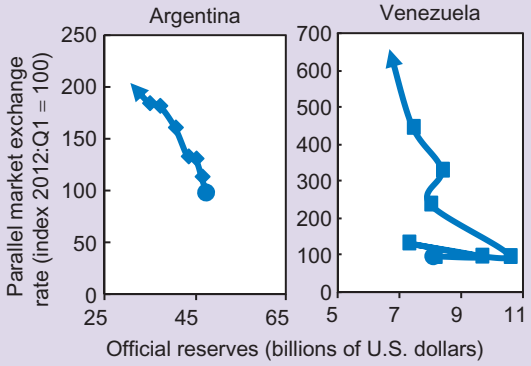
Other South America: Real GDP Growth[1]

(Percent)

	2012	2013 Est.	2014 Projections	2015 Projections
Argentina[2]	1.9	4.3	0.5	1.0
Bolivia	5.2	6.8	5.1	5.0
Ecuador	5.1	4.2	4.2	3.5
Paraguay	–1.2	13.0	4.8	4.5
Venezuela	5.6	1.0	–0.5	–1.0
Memorandum:				
LA6	4.1	3.5	3.5	3.9
LAC	3.1	2.7	2.5	3.0

Source: IMF, World Economic Outlook database.
Note: LA6 = Brazil, Chile, Colombia, Mexico, Peru, and Uruguay; LAC = Latin America and the Caribbean.
[1] For definitions of the country groups and details on the aggregation method, see Table 2.1.
[2] See Annex 2.1 for details on Argentina's GDP.

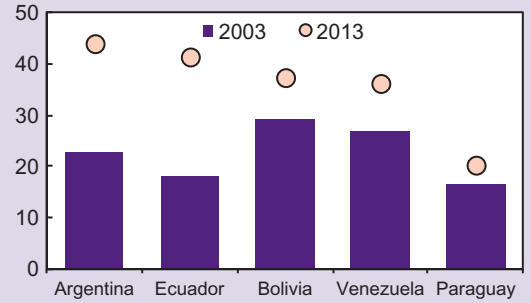
International Reserves and Parallel Market Exchange Rates, 2012:Q1–2013:Q4



Sources: Ambito Financiero; IMF, International Financial Statistics database; national authorities; and IMF staff calculations.

Other South America: Primary Government Expenditure, 2003 and 2013

(Percent of GDP)



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

the buildup of large macroeconomic imbalances. The imposition of extensive controls on prices has worsened economic distortions. In Argentina, strong agricultural output boosted real GDP growth in early 2013; however, activity slowed sharply in the second half of the year, and confidence has deteriorated. With no access to external funding, the Argentine authorities have increased reliance on central bank credit to finance the fiscal deficit. In both countries, tight controls on the foreign exchange market and trade have failed to ease pressures on the external accounts, with reserves declining to fairly low levels.

In January, the Argentine authorities allowed a depreciation of the official exchange rate, backed by an increase in domestic policy rates. However, real rates are still negative, and a sizable gap remains vis-à-vis the exchange rate in the informal market. In Venezuela, the bolivar/U.S. dollar exchange rate in the parallel market has recently been 8 to 13 times higher than the official exchange rate. Responding to this imbalance, the authorities introduced an additional official segment to the foreign exchange market in late March. The more depreciated exchange rate in this segment has resulted in a depreciation of the average official rate in Venezuela's multiple exchange rate regime.

Assuming that economic policies do not change course, output in both countries is expected to stagnate during 2014, though projections are subject to significant uncertainty and downside risks.

In the other three countries in the group, growth has been strong. Bolivia's economy expanded nearly 7 percent last year, supported by record-high hydrocarbon exports, strong private consumption, and accommodative macroeconomic policies. These factors should continue to support above-potential growth in 2014. Growth in Paraguay rebounded sharply as the agricultural sector recovered from a severe drought. The main risk to the outlook for both countries is a potential weakening of external demand from large regional trading partners (see Box 2.2, Chapter 4 in the May 2012 *Regional Economic Outlook: Western Hemisphere,* and Adler and Sosa, 2014). In Ecuador, growth is expected to

remain more moderate at about 4 percent, in part owing to lower oil exports.

Inflation remained low in Ecuador and Paraguay (at 2¾ percent and 3¾ percent by end-2013, respectively), whereas it increased in Bolivia (to 7½ percent), due to food supply shocks. The external current account balances deteriorated in Bolivia and Ecuador in 2013, reflecting softer terms of trade, but improved in Paraguay, due to higher agriculture and meat export volumes.

Policy Priorities

Policy priorities among the other commodity-exporting economies differ depending on specific domestic conditions. In Argentina, recent measures to allow for a weaker exchange rate, higher domestic interest rates, and a reduction in certain utility subsidies are steps in the right direction. However, further policy adjustments are necessary to restore macroeconomic stability, especially in the context of less favorable prospects for global commodity prices. In Venezuela, the persistence of significant imbalances, including high inflation and pervasive scarcity of basic goods, underscores the need for fundamental policy adjustments to avert the risk of disorderly dynamics. For Ecuador, the key challenge relates to building buffers against the risk of a future drop in oil prices, which would put some strain on the external and fiscal accounts.

More generally, public expenditure as a share of GDP in most countries in the group has increased sharply over the last decade, on the back of rising commodity revenues. Energy subsidies account for a significant share of spending in all countries except for Paraguay (see Box 2.3). Spending should be scaled back significantly, including through a reduction and better targeting of subsidies, to correct macroeconomic imbalances and increase buffers. Meanwhile, sustaining inclusive growth is a common challenge in Bolivia, Ecuador, and Paraguay. Further efforts to enhance productivity, promote deeper and more efficient financial markets, and improve education and health standards remain critical.

Central America, Panama, and the Dominican Republic

Developments and Outlook

Economic activity in Central America slowed in 2013 as exports weakened, reflecting a slowdown in U.S. demand and the onset of the coffee roya disease (Figure 2.10). Growth in Panama also eased owing to a reduction in canal traffic and re-export activity (related in part to controls on foreign exchange payments by Venezuela). Moderate growth and lower food and commodity prices helped keep inflation low. The rise in financial market volatility since last May has affected Central America, Panama, and the Dominican Republic (CAPDR) as well. Exchange rates have depreciated, foreign exchange reserves have declined in some countries, and sovereign spreads have increased.

Growth is projected at about 3¼ percent in 2014, similar to last year's outturn. The projected pickup in U.S. demand is expected to have positive spillovers through higher exports and remittances. However, these will be offset by rising external financing costs and idiosyncratic factors, such as the need for fiscal consolidation and the impact of the coffee roya disease, which is expected to reduce growth over 2013–14 by a cumulative ¾ percentage point on average.

Risks to the outlook remain tilted to the downside. CAPDR is exposed to renewed bouts of negative investor sentiment toward emerging markets, given high financing needs and, in some cases, increased reliance on external funding. Reduced financing from Venezuela under the PetroCaribe program could also weigh on growth in some countries—especially the Dominican Republic and Nicaragua. On the upside, with more than 40 percent of exports going to the United States, higher-than-expected U.S. growth would be a net positive for the region (see Chapter 3). The expected stabilization of oil prices would also benefit most countries.

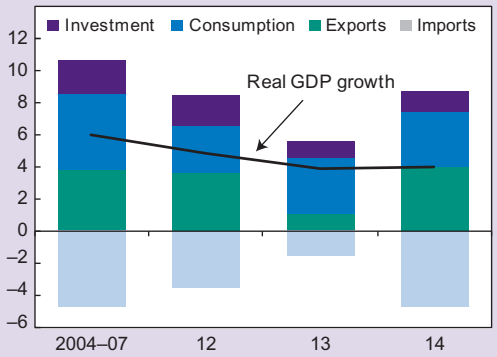
Weak fiscal positions remain a key vulnerability for most CAPDR countries. Public debt has increased significantly since 2008 in Costa Rica, the Dominican Republic, El Salvador, and Honduras, reflecting a permanent increase in expenditure.

Figure 2.10

Growth moderated in the CAPDR region in 2013. The region was also affected by the increase in financial market volatility since last May.

CAPDR: Contributions to Growth[1]

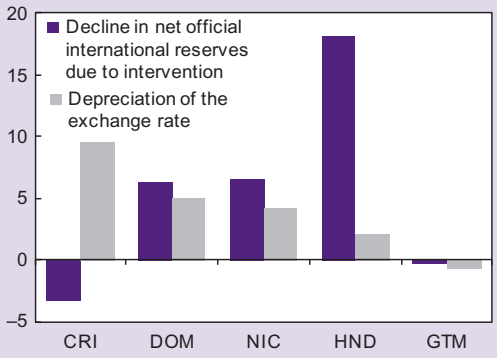
(Percent)



Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic.
[1] Includes a simple average of Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.

Selected CAPDR: Exchange Market Pressure[1]

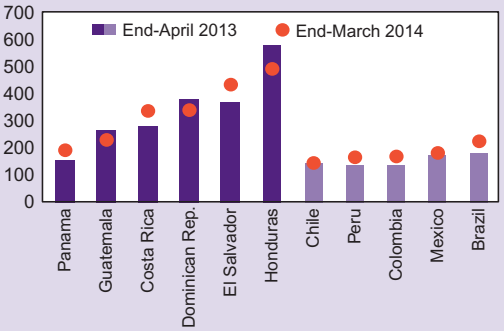
(Percent)



Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic.
See page 63 for a list of country name abbreviations.
[1] Data from April 2013 to February 2014.

Selected Latin America: EMBIG Spreads

(Basis points)



Sources: Bloomberg, L.P.; and IMF staff calculations.
Note: EMBIG = J.P. Morgan Emerging Markets Bond Index Global.

Many countries have taken advantage of the favorable global financing conditions in recent years and issued international bonds to meet financing needs. The increased reliance on external financing could lead to a rise in refinancing costs and rollover risk in the medium term, as global financial conditions tighten.

External current account deficits are also large (7 percent of GDP on average), and external debt is high and rising in a number of countries, including the Dominican Republic, El Salvador, and Honduras (Figures 2.11 and 2.12). A moderation of foreign direct investment and portfolio inflows could pose risks, with international reserves providing only a limited cushion.

Although banks across CAPDR are well capitalized and have liquidity ratios that meet or exceed Basel III standards, a high degree of dollarization remains a potential vulnerability. In addition, some banks have increased their reliance on external financing in recent years. A depreciation of the local currency could weaken the balance sheets of businesses and households, exposing banks to credit and refinancing risks. Another concern in some countries is the large exposure of banks to the public sector.

Policy Priorities

A consolidation of public finances is necessary to reduce fiscal and external imbalances, and to ensure debt sustainability. Consolidation efforts would have to include both expenditure restraint, such as curbs on public sector wage growth and improved targeting of subsidies, and higher tax revenues. Putting social security systems on a sound financial footing is also critical in many countries.

In addition, countries would benefit from strengthening the fiscal policy framework more broadly, including specifying medium-term fiscal objectives, introducing fiscal rules, and minimizing fiscal risks related to public-private partnerships.

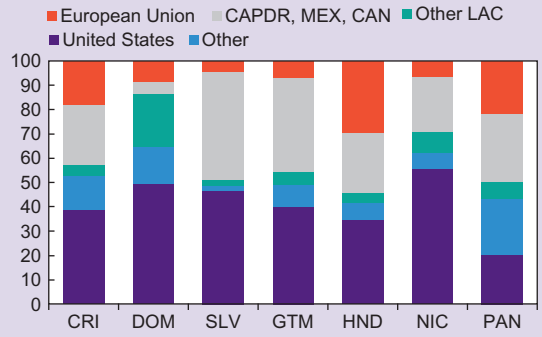
The five CAPDR economies that are not officially dollarized would benefit from greater exchange rate flexibility to enhance their capacity to adjust to

Figure 2.11

External positions remain weak in most of the CAPDR region.

CAPDR: Exports of Goods by Destination, 2012

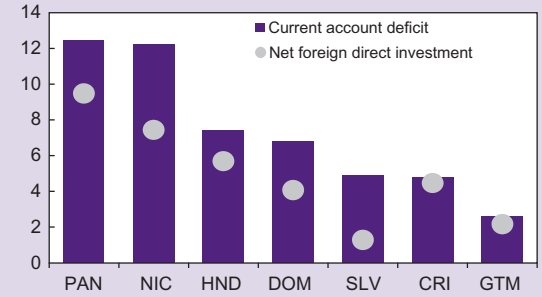
(Percent of total goods exports)



Sources: IMF, Direction of Trade Statistics database; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic. See page 63 for a list of country name abbreviations.

CAPDR: External Current Account Deficits and Net Foreign Direct Investment[1]

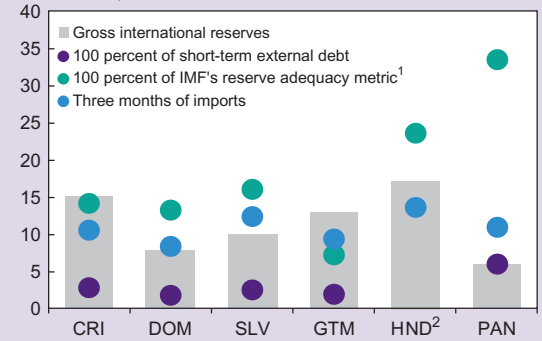
(Percent of GDP)



Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic. See page 63 for a list of country name abbreviations.
[1] Annual average for 2010–13.

CAPDR: External Buffers, 2013

(Percent of GDP)



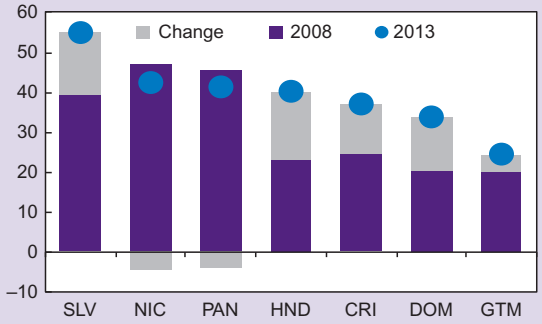
Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic. See page 63 for a list of country name abbreviations.
[1] Methodology described in Moghadam, Ostry, and Sheehy (2011).
[2] For Honduras, import data refer to the following year's imports of nonmaquila goods.

Figure 2.12

Public and external debt has increased in most countries in the CAPDR region. Financial sector vulnerabilities remain significant in some cases.

CAPDR: Public Debt

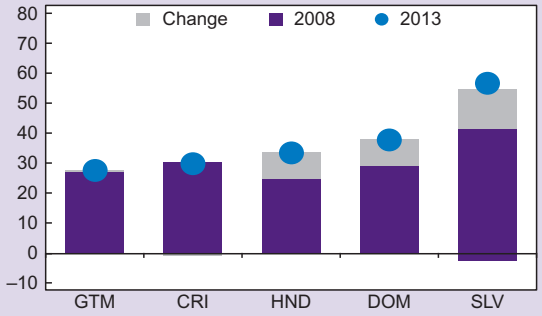
(Percent of GDP)



Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic. See page 63 for a list of country name abbreviations.

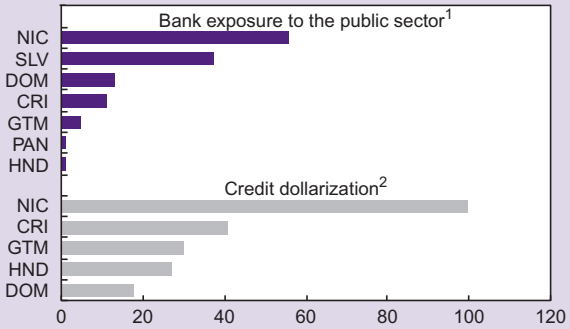
Selected CAPDR: Total External Debt

(Percent of GDP)



Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic. See page 63 for a list of country name abbreviations.

CAPDR: Financial System Vulnerabilities, 2012



Sources: National authorities; and IMF staff calculations.
Note: CAPDR = Central America, Panama, and the Dominican Republic. See page 63 for a list of country name abbreviations.
[1] Net bank sector claims toward the nonfinancial public sector in percent of net domestic assets.
[2] Credit in foreign currency in percent of total private credit.

external shocks. Financial vulnerabilities related to dollarization should be addressed through enhanced prudential regulation to create stronger incentives for agents to internalize currency risks. Some countries are taking steps in this direction by imposing more stringent criteria for assessing credit risks of unhedged borrowers and raising provisioning requirements. Moreover, regulators will need to ensure that banks rigorously stress test their customers' as well as their own foreign exchange exposures.

A key medium-term challenge is to raise productivity and potential growth, which remain constrained by a weak business environment, security issues, and poor infrastructure. Priorities include improving the investment climate and upgrading the quality of the labor force through better education and health care. Meanwhile, improving governments' revenue-generating capacity would allow directing more resources to productive public investment.

The Caribbean

Developments and Outlook

Growth remains tepid in most of the Caribbean (Figure 2.13). In the tourism-dependent economies, real GDP growth picked up modestly in 2013 (to ¾ percent, up from close to zero in 2012). Construction activity seems to have bottomed out, but tourist arrivals and spending have continued to underperform in most countries. Ongoing financial sector stress is further weighing on growth in some cases. Growth has been stronger among the region's commodity exporters—in particular Guyana and Suriname—and in Haiti, whose economy expanded 4 percent on the back of ongoing reconstruction spending and increased agricultural output and textile exports. Inflation is generally low across the region, as domestic demand remains weak and food and fuel prices soften.[4]

External positions remain very weak in the tourism-dependent economies. Their current account deficits averaged 17 percent of GDP in 2013, similar to the previous two years, reflecting a high oil import bill and persistently poor competitiveness. These large deficits continue to be financed mainly through net foreign direct investment and official flows, including from the IMF. Financing from Venezuela's PetroCaribe is also important in some countries (Guyana, Haiti, Jamaica, and most of the Eastern Caribbean Currency Union [ECCU], where it represents as much as 4–7 percent of GDP per year). A sudden interruption of any of these flows would cause severe financing difficulties (see Box 2.2).[5]

Fiscal balances deteriorated in most of the region in 2013. Public debt levels remain especially high in the tourism-dependent economies (averaging more than 90 percent of GDP), where strong and sustained efforts will be required to bring debt to a sustainable path. In some countries, governments already face considerable financing challenges (Antigua and Barbuda, Barbados, Belize, Grenada, St. Lucia), underscoring the urgency of consolidation efforts.[6] Public debt levels are significantly lower among the Caribbean commodity exporters (50 percent of GDP on average), but fiscal adjustment is still warranted in some countries to ensure debt sustainability.

Financial sector issues are prominent in the ECCU, where indigenous banks remain under stress. Reflecting the sluggish economy and high and rising nonperforming loans, along with a regulatory interest rate floor on savings deposits, banks' profitability has been generally low and credit to the private sector has remained subdued.

On the positive side, provisioning for nonperforming loans has improved and deposits have recovered in some countries.

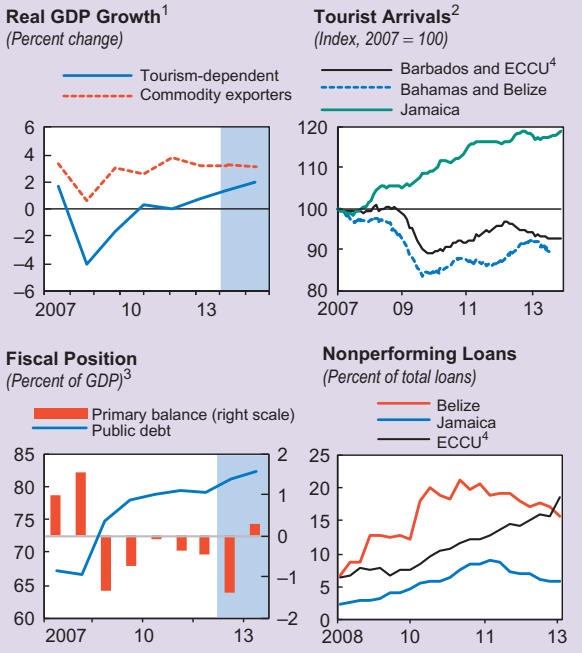
[4] An exception is Jamaica, where inflation rose to almost 10 percent (from 8 percent in 2012), reflecting the pass-through of nominal depreciation and higher administered prices.

[5] Some countries have taken steps to confront these risks. Antigua and Barbuda, Guyana, and St. Kitts and Nevis, for example, have been saving a substantial part of the PetroCaribe financing.

[6] In Antigua and Barbuda and in Anguilla, the high resolution costs of failed banks add to fiscal pressures. In Belize, financing needs are exacerbated by the potential costs of the nationalization of two utility companies.

Figure 2.13

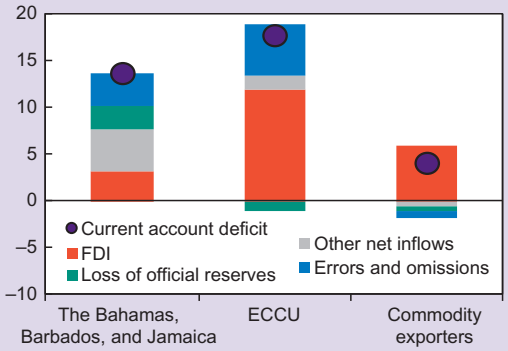
In most of the Caribbean, growth remains low, constrained by high public debt and significant external and financial vulnerabilities.



Sources: National authorities; Caribbean Tourism Organization; Eastern Caribbean Central Bank; and IMF staff calculations.
Note: ECCU = Eastern Caribbean Currency Union.
[1] Commodity exporters include Belize, Guyana, Suriname, and Trinidad and Tobago. Tourism-dependent economies include Antigua and Barbuda, the Bahamas, Barbados, Dominica, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.
[2] 12-month moving averages.
[3] Simple average of all the countries listed in footnote 1.
[4] ECCU data include Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

Caribbean: Financing of External Current Account Deficit, 2013[1]

(Percent of GDP)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: ECCU = Eastern Caribbean Currency Union; FDI = foreign direct investment.
[1] Positive values (negative values) for reserves indicate reserve use (reserve accumulation).

Looking ahead, growth in the tourism-dependent economies is expected to rise somewhat this year but remain constrained by debt overhang, weak competitiveness, and necessary fiscal consolidation. The fallout from further delays in the resolution of troubled financial institutions constitutes an important risk to the ECCU's outlook. In the commodity-exporting economies, growth is expected to remain broadly stable in 2014.

Policy Priorities

Reducing high public debt levels is a key challenge in much of the Caribbean. The urgency and desirable speed of fiscal consolidation is directly related to the extent of the debt burden. Although fiscal consolidation can prove challenging in a context of slow growth, the cost of the status quo is likely to be more disruptive economically and socially at some point. Improving medium-term fiscal policy frameworks, lowering current spending to make room for capital expenditure, and reducing the level of tax waivers and concessions would help enhance the consolidation process. The recent introduction of an enhanced fiscal rule in the context of Jamaica's Extended Fund Facility–supported program is an example of such reforms.

Reducing financial vulnerabilities is critical in the ECCU. An updated asset quality review of banks and legislative reforms to strengthen the bank resolution framework should be priorities. Additionally, strengthening the legal and regulatory framework to facilitate financial sector resolution and crisis management, and enhancing supervision of the entire system are also required to address financial sector weaknesses.

Boosting potential growth remains the main challenge for most of the Caribbean countries. Decisive reforms to foster competitiveness, enhance productivity, and raise private sector investment are necessary. In particular, reforms should focus on addressing key structural weaknesses (such as high energy and labor costs), reducing the cost of cross-border trading, and diversifying tourism markets.

Box 2.1

Taking the Pulse: Leverage and Debt Servicing Capacity among Firms in Latin America

Several consecutive years of strong corporate debt issuance have given rise to concerns that companies across the financially integrated economies of Latin America may be reaching problematic degrees of financial leverage. To assess the issue, we consider a database of about 1,000 listed nonfinancial firms in Brazil, Chile, Colombia, Mexico, and Peru, tracking key indicators over the past decade.

Focusing initially on the median firm, a trend increase in indebtedness—measured as the ratio of total liabilities (i.e., all funding sources other than equity) to total assets—is readily visible since 2006, although the indicator has eased from its 2009 peak. At about 53 percent, the median LA5 firm turns out to be as leveraged in 2013 as it was 10 years ago (Figure 2.1.1). As regards the composition of debt, the ratio of bond debt to total assets has increased since 2009, while the ratio of bank term debt to total assets has remained broadly stable.

A closer look at country-specific data shows that median leverage is highest among Brazilian firms, followed by their Mexican peers. Firms from Chile and especially Mexico rely relatively more on bond debt than on bank term loans, whereas the opposite holds for Brazil. From a sectoral perspective, industrial companies stand out as having geared up the most, with liabilities now representing more than 60 percent of total assets on average.

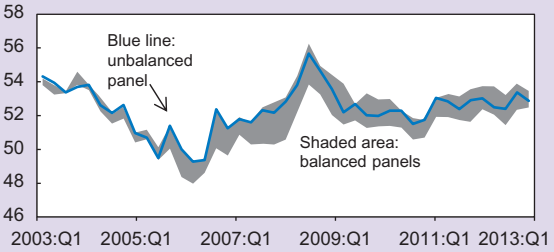
The rise in leverage in recent years does not yet appear to have compromised the debt-servicing capacity of the median company in the sample. Earnings before interest and taxes are three to four times higher than interest payments in most countries (Figure 2.1.2). However, these ratios are prone to marked declines in the event of a pronounced economic downturn or rise in interest rates. Moreover, statistics for the median firm conceal vulnerabilities in the weaker tail of companies. Data for 2013 reveal that some 30 percent of the companies in the sample had an interest coverage ratio below one (Figure 2.1.2). This group includes disproportionately many Brazilian companies. Looking across sectors, low interest coverage ratios are concentrated in the consumer sector, followed by materials, industrials, and energy.

Close monitoring of corporate sector financial data is important to ensure that remaining buffers do not get eroded too far, notably in countries whose firms already appear more highly geared. Authorities also need to be particularly vigilant to any indication—impossible to verify from the data used for this box—that the increased issuance of hard currency bonds by Latin American firms in recent years is creating problematic open positions in foreign currency.

Figure 2.1.1

LA5: Median Ratio of Total Liabilities to Total Assets for Panels of Companies, 2003–13

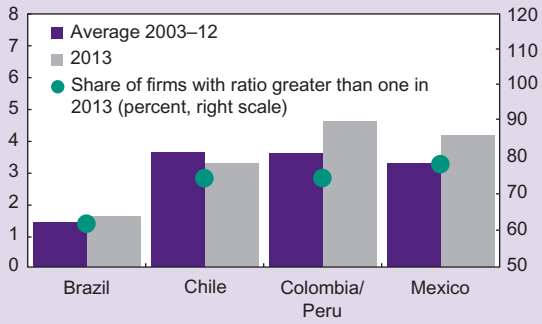
(Percent)



Sources: Standard & Poor's Capital IQ; and IMF staff calculations.
Note: The dataset includes listed companies from Brazil, Chile, Colombia, Mexico, and Peru. The shaded area refers to a set of balanced panels, each starting in a given quarter and comprising all companies for which an uninterrupted time series through 2013:Q3 is available. Sample sizes range from 266 companies for the longest panel to 914 companies for the shortest.

Figure 2.1.2

LA5: Median Ratio of Earnings before Interest and Taxes to Interest Expenditure, 2003–13[1]



Sources: Standard & Poor's Capital IQ; and IMF staff calculations.
[1] The statistics shown are based on median values for unbalanced panels of companies covering the period 2003:Q1 through 2013:Q3. Companies for Colombia and Peru are considered in the same group to ensure a sufficient sample size.

Note: This box was prepared by Fabiano Rodrigues Bastos, Andre Meier, and Anayo Osueke.

Box 2.2

Potential Spillovers from Argentina and Venezuela

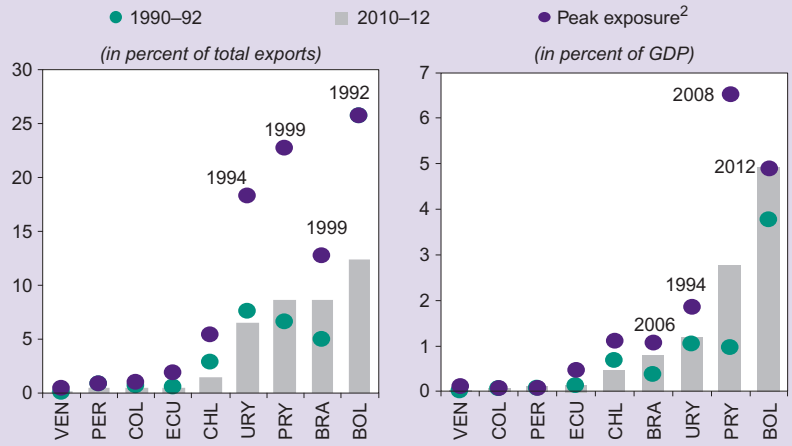
Argentina represents more than 10 percent of Latin America's GDP, but model-based results suggest that it would have limited real-sector spillovers to most neighbors, except for Uruguay. Financial market spillovers are also judged to be modest. In contrast, economic distress in Venezuela could pose spillover risks to some countries in the region, mostly in Central America and the Caribbean.

Spillovers from Argentina

The level of trade in goods between Argentina and its Latin American neighbors is relatively small. Only some economies (Bolivia, Brazil, Chile, Paraguay, Uruguay) exhibit a meaningful trade exposure to Argentina (Figure 2.2.1). Bolivia, in particular, experienced a remarkable increase in exports to Argentina over the past decade (reaching 12 percent of total exports, almost 5 percent of GDP), mainly as a result of rising exports of natural gas. In the other economies of the region, trade with Argentina has always been, and remains, almost negligible.

Figure 2.2.1

Selected Latin America: Trade Exposure to Argentina[1]



Sources: IMF, Direction of Trade Statistics database; and IMF staff calculations.
Note: See page 63 for a list of country name abbreviations.
[1] Exports of goods to Argentina.
[2] Maximum exposure during 1990–2012, based on three-year moving averages. Corresponding year reported next to observation.

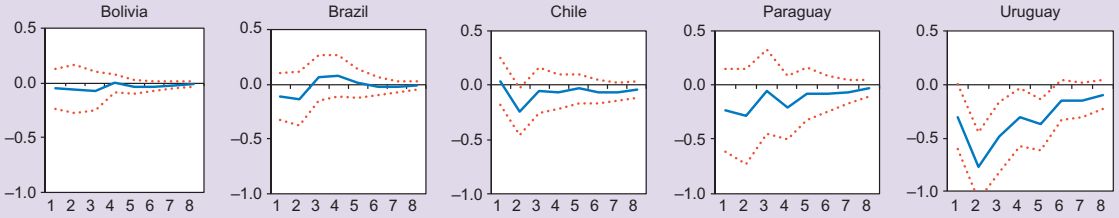
Other potential spillover channels are generally limited. In particular, Argentina's direct financial ties with neighbors are generally weak. In Bolivia and Uruguay, some channels other than trade in goods could play a role. In Uruguay, these channels include (i) trade in services (tourism from Argentina); (ii) foreign direct investment from Argentina (2 percent of GDP); and (iii) Argentine deposits in Uruguayan banks. In Bolivia, remittances from Argentina (1 percent of GDP) could be another transmission channel.

Results from vector autoregression estimations suggest that the impact of shocks to Argentina's output on its neighbors' output is not significant—except for Uruguay.[1] After controlling for common global factors, Argentina-specific output shocks have a significant impact on Uruguay, with the largest effect observed one quarter after the shock (Figure 2.2.2).[2]

Note: This box was prepared by Sebastián Sosa.
[1] We estimate country-specific vector autoregression models that include global factors (demand, financial conditions, and commodity prices), Argentina's real GDP growth, and the neighbor's real GDP growth. The model is estimated using quarterly data starting in 1990:Q1.
[2] Spillovers from Argentina to Uruguay are also evident from a simple variance decomposition analysis, with shocks from Argentina accounting for 20 percent of the variance of Uruguay's GDP at standard horizons.

Box 2.2

Figure 2.2.2
Selected Latin America: Output Response to a Negative Shock to Argentina's Output[1]



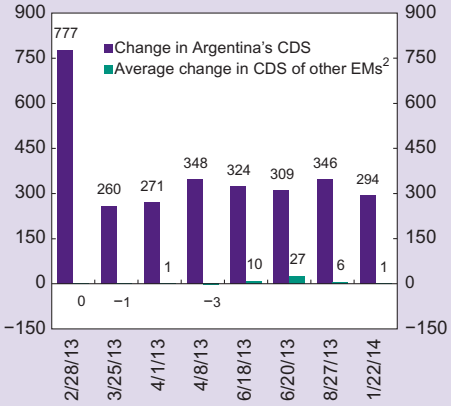
Source: IMF staff calculations.
[1] Response to a one-standard-deviation shock to Argentina's GDP (1.5 percentage points) ±1.5 standard errors (dotted lines). Time horizon in quarters.

Moreover, the impact of Argentina's output shocks on Uruguay today is significantly weaker than in the past. Several factors have contributed to this: (i) the share of Argentina in Uruguay's total exports of goods is at historical lows (5 percent, or 1 percent of GDP, in 2013, compared with an average of more than 10 percent of exports in the last two decades); (ii) the share of Argentina in Uruguay's tourism receipts has declined; and (iii) the share of Argentine deposits in Uruguayan banks has fallen from 40 percent of total deposits in 2001 to about 10 percent in 2013. Moreover, risks associated with nonresident deposits are manageable, as Uruguayan banks are highly liquid in dollars. Preliminary econometric analysis using only the more recent period suggests a lower sensitivity to Argentina than in the past.

Results from the vector autoregression model may understate the impact of Argentina's output fluctuations on Bolivia. Bolivia's trade exposure to Argentina has increased significantly in recent years; however, the estimation measures the average sensitivity over the entire sample.

The estimated impact of a shock to Argentina's GDP on Brazil's GDP is not significant. This is consistent with the fact that exports to Argentina represent only 8 percent of total exports (1 percent of GDP). However, 85 percent of those exports are manufacturing goods (mainly durable consumption goods); thus, a negative shock in Argentina may have a negative impact on specific sectors.

Figure 2.2.3
Behavior of Emerging Markets' CDS Spreads on Days of Large Increases in Argentina's CDS Spread
(December 2012–February 2014, basis points)[1]



Sources: Bloomberg, L.P.; and IMF staff calculations.
Note: CDS = credit default swap; EM = emerging market.
[1] Identified as days with the top 1 percent increases in the country's sovereign CDS spread since 2007.
[2] Average of 11 other emerging market sovereign CDS spreads.

Argentina is also not likely to generate financial market spillovers to its neighbors. In fact, the recent large increases in Argentina's sovereign credit default swap spreads have not been highly correlated with changes in spreads of their neighbors or emerging markets more generally (Figure 2.2.3). Three main factors appear to account for these limited spillovers: (i) Foreign investors are largely absent from local currency bond markets, while the stock of external debt has continued to shrink.[3] (ii) A narrow investor base—although detailed data are not available, existing evidence suggests that the subset of investors still active in the Argentine market consists mainly of hedge funds and dedicated emerging market and distressed-debt investors, which typically have high risk tolerance and are less prone to fire sales. (iii) Proxy hedging (that is, selling other assets to hedge Argentine risk) is quite uncommon, reflecting the large idiosyncratic component of Argentina's market moves.

[3] Argentina's current weight in leading global emerging market bond benchmarks (such as the Emerging Market Bond Index Global Diversified) is about 1–2 percent.

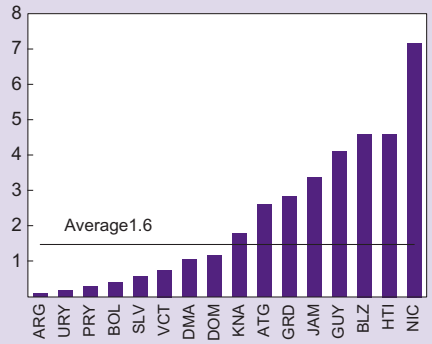
(*continued*)

Box 2.2 (*concluded*)

Spillovers from Venezuela

Over the last decade, Venezuela has provided financial support to several countries in Latin America and the Caribbean through various energy cooperation agreements. Under the agreements (including those under the PetroCaribe initiative), Venezuela provides financing under very favorable terms to beneficiary countries (including sometimes the possibility to repay in kind). Some countries in Latin America and the Caribbean are highly dependent on financing from these arrangements (Figure 2.2.4). Financing from Venezuela has averaged about 1½ percent of the recipient country's GDP per year, but in some cases has represented up to 6–7 percent of GDP. Accordingly, these countries' stock of debt to Venezuela is as high as 15 percent of GDP (Haiti) or 20 percent of GDP (Nicaragua). A sudden interruption of these agreements, or an abrupt change in their conditions, would create significant balance of payments problems for the recipient country, which would have to find alternative sources of external financing.[4]

Figure 2.2.4
External Financing from Venezuela, 2012
(Percent of GDP)



Sources: National authorities; Petroleos de Venezuela S.A.; and IMF staff calculations.
Note: See page 63 for a list of country name abbreviations.

[4] An orderly reduction in oil exports under these agreements is already taking place. Oil exports to PetroCaribe declined by 15 percent in 2013. Venezuela also started to shorten maturity and increase interest rates to some countries.

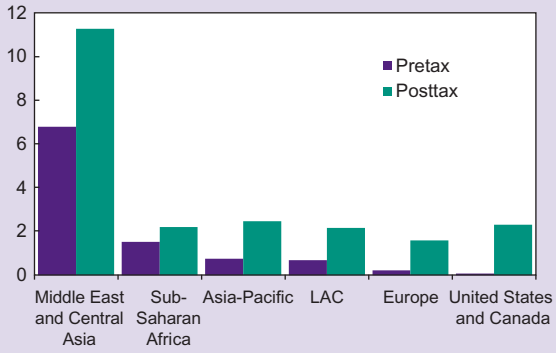
Box 2.3

Energy Subsidies in Latin America and the Caribbean

High oil prices since 2008 have increased pressures on countries to provide energy subsidies—even though these have fiscal costs and nontransparent effects on distribution and efficiency.

Energy subsidies are a worldwide phenomenon, and broadly speaking, are as prevalent in Latin America and the Caribbean (LAC) as in other regions. Depending on how they are measured, fuel and electricity subsidies amounted to between 0.7 and 2.2 percent of GDP in the average LAC country during 2011, broadly similar to the average for countries in the Asia-Pacific and sub-Saharan Africa regions, and somewhat higher than in Europe (Figure 2.3.1).[1] This range, however, masks much variety in the size of subsidies (large in

Figure 2.3.1
Global: Total Energy Subsidies, 2011
(Percent of GDP)



Source: Clements and others (2013).
Note: LAC = Latin America and the Caribbean.

Note: This box was prepared by Gabriel Di Bella with Lawrence Norton, Joseph Ntamatungiro, Sumiko Ogawa, Issouf Samake, and Marika Santoro.

[1] Data for world region averages are taken from Clements and others (2013). The lower number refers to "pretax" subsidies (that is, transfers to bridge the gap between domestic and international prices); the higher number also includes an estimate of foregone revenues and negative externalities (or "posttax" subsidies). Measuring electricity subsidies also requires an evaluation of whether all costs and losses (including theft) are reflected in the tariffs set for the public.

Box 2.3

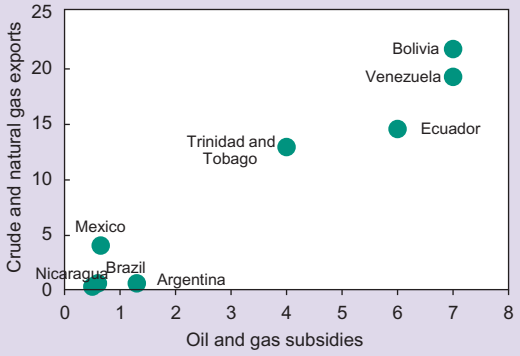
some energy-rich LAC countries), the type of subsidies (with some countries mainly subsidizing fuel, and others subsidizing the electricity sector or public transport), whether they give rise to budgetary transfers, or whether they account for a significant share of government revenues, thereby constraining fiscal policy.

Fuel subsidies tend to be larger and more entrenched in energy-rich LAC countries (Figure 2.3.2). This is similar to what is observed in energy exporters in the Middle East and Central Asia. Some countries set domestic fuel prices below international prices as a permanent form of social policy to transfer natural resource wealth to the public. Others provide subsidies when they fix domestic fuel prices temporarily, following hikes in the world price of energy or fuel (or do not allow a full pass-through of the world price, as in Mexico, especially since the mid-2000s). The costs associated with these decisions range from foregone tax revenue (if taxes are lowered to cushion the impact of higher import prices) to outright transfers (if domestic prices are kept below international prices). In some countries (for instance, Venezuela and, to a lower extent, Brazil), the fuel price policy has made national oil companies less profitable and more indebted. The gap between international and domestic prices of fuel products is particularly large in Venezuela (where subsidies represented about 7 percent of GDP in 2013), Ecuador (6 percent of GDP), and Trinidad and Tobago and Bolivia (4 percent of GDP each).[2] Some fuel importers also provide subsidies—for instance, Haiti and, to a lower extent, St. Lucia. In turn, Bolivia subsidizes natural gas consumption (for about 3 percent of GDP in 2013). Other countries subsidize public transportation, usually in cities, either by subsidizing companies directly or by giving them access to lower fuel prices (for example, Argentina, Nicaragua).

Figure 2.3.2

Selected Latin America: Oil and Gas Subsidies[1]

(Percent of GDP)

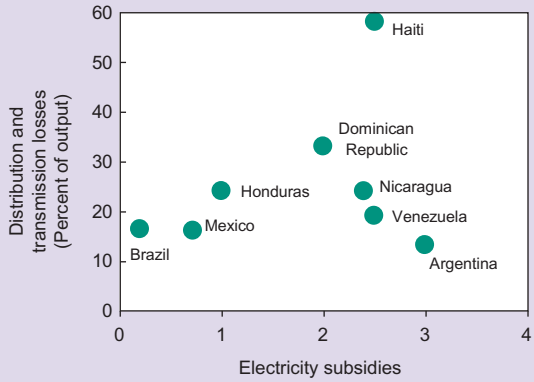


Sources: UN Comtrade; and IMF staff estimates.
[1] Data for Argentina and Nicaragua refer to subsidies to public transportation; data on exports come from UN Comtrade; subsidies are based on IMF staff estimates.

Figure 2.3.3

Selected Latin America: Electricity Subsidies

(Percent of GDP, unless otherwise noted)



Sources: World Bank, *World Development Indicators* (2011); and IMF staff estimates.

Subsidies to the electricity sector are also important in some LAC countries (Figure 2.3.3). Measuring these subsidies is complex. In the electricity sector, subsidies arise not only when tariffs do not fully cover costs, but also when they do not fully compensate for nontechnical losses (including electricity theft). These losses can be sizable. Tariffs high enough to cover all losses imply a cross-subsidy between the users that pay for the service and those who do not. When tariffs do not cover the bill, the public sector has to pay, either directly or indirectly. For instance, electricity tariffs are set below

[2] Figures for Venezuela do not include concessional financing provided in the context of its regional energy cooperation agreements (such as PetroCaribe). This financing carries a cost for Venezuela in terms of foregone oil income, but has allowed recipient countries to cushion the impact of higher oil prices.

(*continued*)

Box 2.3 (*concluded*)

production costs in some cities of Argentina, and in Mexico and Venezuela, with government transfers filling the gap. In Brazil, below-average rainfall since 2013 has prompted the government to bear the cost of substituting more expensive thermal energy for hydroelectricity. In other cases (for example, the Dominican Republic, Haiti, Honduras, Nicaragua), subsidies also result from setting tariffs at levels that do not fully cover nontechnical losses. Without government transfers, the electricity sector may be able to absorb the subsidies for some time, but at the cost of under-investing and eventually becoming decapitalized—which will have consequences for the rest of the economy, and eventually for public finances.

The shortcomings of energy subsidies are well known.

- *They may give rise to fiscal sustainability concerns, particularly when open ended.* In many countries, they are the main factor driving fiscal deficits. They also tend to be equivalent to a large share of tax revenues such as in Argentina (19 percent in 2013), Bolivia (25 percent), Haiti (35 percent), Ecuador (about 40 percent), and Venezuela (at least 50 percent). Their size and volatility constrain fiscal policy—governments that fix or do not fully adjust domestic energy prices during periods of rising world prices face the choice of abandoning fiscal targets, reducing other spending, or raising taxes. Partly for these reasons, they tend to give rise to episodes of domestic payment arrears (including to the energy sector), which are often difficult to unwind.
- *While popular, their social calculus is not well understood.* Energy subsidies are often not well targeted. In some LAC countries, they are larger than spending on education and health. The fact that they are often recorded only as costs to state-owned oil companies or utilities rather than reported in budget documents raises fiscal transparency concerns.
- *They can hurt growth, efficiency, and competitiveness.* Mispricing tends to be associated with under-investment in energy, not only when the sector is not compensated, but when energy prices fall below their opportunity cost. Conversely, subsidies elicit overconsumption and environmental damage. In electricity and other parts of the energy sector, the combination of high production costs and shortages undermines competitiveness and growth.

Dismantling subsidies is often optimal but typically very difficult. International experience underscores the importance of dismantling subsidies pragmatically—gradually, and with well-targeted mitigating measures to the most vulnerable and to groups most affected by the reform. A communication strategy to garner support should complement policy implementation.[3] A main objective should be to depoliticize the price setting of the subsidized product, either by allowing the market to set prices or by adopting an automatic adjustment mechanism. This mechanism could pass through international price changes to domestic prices contemporaneously, or gradually to cushion the impact of volatility. Often, state-owned enterprise management reform is a vital supporting measure.

[3] Jordan began to gradually decrease fuel subsidies in 2005, culminating in a full price pass-through in 2008; the government simultaneously increased the minimum wage, maintained an electricity lifeline tariff, and provided cash transfers to low-income households. Mitigating measures were also implemented together with fuel price increases in 2008 in both Indonesia and Mozambique. Clements and others (2013) refer to some successful historical reform episodes.

Annex 2.1. Data Disclaimer

The data for GDP in Argentina are officially reported data prior to the late March 2014 revisions of GDP series announced by the statistical agency. The IMF has issued a declaration of censure and called on Argentina to adopt remedial measures to address the quality of the official GDP data.

The data for inflation in Argentina are officially reported data. Consumer price data from January 2014 onward reflect the new national consumer price index (CPI; IPCNu), which differs substantively from the preceding CPI (the CPI for the Greater Buenos Aires Area [CPI-GBA]). Because of the differences in geographical coverage, weights, sampling, and methodology, the IPCNu data cannot be directly compared with the earlier CPI-GBA data. Because of this structural break in the data, IMF staff forecasts for CPI inflation are not reported in the April 2014 *World Economic Outlook* (IMF, 2014a). Following a declaration of censure by the IMF on February 1, 2013, the public release of a new national CPI by end-March 2014 was one of the specified actions in the IMF Executive Board's December 2013 decision calling on Argentina to address the quality of its official CPI data. The Executive Board will review this issue again as per the calendar specified in December 2013 and in line with the procedures set forth in the IMF's legal framework.

Table 2.1. Western Hemisphere: Main Economic Indicators[1]

	Output Growth (Percent)					Inflation[2] (End of period, percent)					External Current Account Balance (Percent of GDP)				
	2011	2012	2013 Est.	2014 Projections	2015 Projections	2011	2012	2013 Est.	2014 Projections	2015 Projections	2011	2012	2013 Est.	2014 Projections	2015 Projections
North America															
Canada	2.5	1.7	2.0	2.3	2.4	2.7	0.9	1.0	1.8	2.0	–2.8	–3.4	–3.2	–2.6	–2.5
Mexico	4.0	3.9	1.1	3.0	3.5	3.8	3.6	4.0	4.0	3.7	–1.1	–1.2	–1.8	–1.9	–2.0
United States	1.8	2.8	1.9	2.8	3.0	3.1	1.8	1.2	1.5	1.7	–2.9	–2.7	–2.3	–2.2	–2.6
South America															
Argentina[3]	8.9	1.9	4.3	0.5	1.0	9.5	10.8	10.9			–0.6	–0.1	–0.9	–0.5	–0.5
Bolivia	5.2	5.2	6.8	5.1	5.0	6.9	4.5	6.5	5.5	5.2	0.3	7.8	3.7	3.7	2.4
Brazil	2.7	1.0	2.3	1.8	2.7	6.5	5.8	5.9	5.8	5.4	–2.1	–2.4	–3.6	–3.6	–3.7
Chile	5.7	5.4	4.2	3.6	4.1	4.4	1.5	3.0	3.0	3.0	–1.2	–3.4	–3.4	–3.3	–2.8
Colombia	6.6	4.2	4.3	4.5	4.5	3.7	2.4	1.9	2.7	3.0	–2.9	–3.2	–3.3	–3.3	–3.2
Ecuador	7.8	5.1	4.2	4.2	3.5	5.4	4.2	2.7	2.7	2.5	–0.3	–0.3	–1.5	–2.4	–3.1
Guyana	5.4	4.8	4.8	4.3	4.0	3.3	3.4	3.5	4.3	4.3	–13.1	–13.3	–17.9	–18.3	–19.9
Paraguay	4.3	–1.2	13.0	4.8	4.5	4.9	4.0	3.7	5.0	5.0	0.5	–1.0	0.9	–0.9	–1.6
Peru	6.9	6.3	5.0	5.5	5.8	4.7	2.6	2.9	2.3	2.0	–1.9	–3.4	–4.9	–4.8	–4.4
Suriname	5.3	4.8	4.7	4.0	4.0	15.3	4.4	0.6	2.2	3.3	5.8	0.6	–4.7	–4.5	–6.7
Uruguay	6.5	3.9	4.2	2.8	3.0	8.6	7.5	8.5	8.5	7.6	–3.0	–5.4	–5.9	–5.5	–5.2
Venezuela	4.2	5.6	1.0	–0.5	–1.0	27.6	20.1	56.1	75.0	75.0	7.7	2.9	2.7	2.4	1.8
Central America															
Belize	2.1	4.0	1.6	2.5	2.5	2.5	0.6	0.4	2.0	2.0	–1.1	–2.2	–4.2	–4.5	–4.8
Costa Rica	4.5	5.1	3.5	3.8	4.1	4.7	4.6	3.7	4.5	4.5	–5.3	–5.2	–5.0	–5.1	–5.1
El Salvador	2.2	1.9	1.6	1.6	1.7	5.1	0.8	0.8	2.0	2.6	–4.9	–5.4	–6.7	–6.3	–5.9
Guatemala	4.2	3.0	3.5	3.5	3.5	6.2	3.4	4.4	4.3	4.2	–3.4	–2.6	–3.0	–2.6	–2.3
Honduras	3.8	3.9	2.6	3.0	3.1	5.6	5.4	4.9	7.0	6.0	–8.0	–8.6	–8.8	–7.4	–6.0
Nicaragua	5.4	5.2	4.2	4.0	4.0	8.0	6.6	6.9	7.0	7.0	–13.2	–12.9	–13.2	–12.7	–12.2
Panama	10.9	10.8	8.0	7.2	6.9	6.3	4.6	3.7	3.6	3.5	–15.9	–10.6	–11.9	–11.5	–11.2
The Caribbean															
Antigua and Barbuda	–2.1	2.8	0.5	1.6	1.9	4.0	1.8	1.1	1.1	2.0	–10.4	–14.0	–13.8	–12.3	–11.4
The Bahamas	1.7	1.8	1.9	2.3	2.8	3.2	0.7	0.3	5.5	2.5	–15.3	–18.4	–19.6	–14.7	–10.4
Barbados	0.8	0.0	–0.7	–1.2	0.9	9.5	2.4	2.2	1.8	1.6	–11.4	–10.1	–11.4	–7.8	–7.3
Dominica	0.2	–1.1	0.8	1.7	1.7	2.0	2.0	–0.9	2.3	1.7	–14.5	–18.9	–17.0	–17.7	–16.7
Dominican Republic	4.5	3.9	4.1	4.5	4.1	7.8	3.9	3.9	4.5	4.0	–7.9	–6.8	–4.2	–4.5	–5.2
Grenada	0.8	–1.8	1.5	1.1	1.2	3.5	1.8	–1.2	1.7	1.6	–21.8	–19.2	–27.2	–22.6	–21.0
Haiti[4]	5.5	2.9	4.3	4.0	4.0	10.4	6.5	4.5	5.7	5.0	–4.3	–5.4	–6.5	–5.8	–5.7
Jamaica	1.4	–0.5	0.5	1.3	1.7	6.0	8.0	9.7	8.5	8.0	–13.4	–13.0	–10.4	–8.6	–7.4
St. Kitts and Nevis	–1.9	–0.9	1.7	2.7	3.0	2.8	0.1	0.4	1.5	2.0	–15.7	–11.9	–8.5	–17.4	–17.1
St. Lucia	1.4	–1.3	–1.5	0.3	1.0	4.8	5.0	–1.4	2.4	1.8	–18.8	–12.8	–11.8	–11.4	–11.4
St. Vincent and the Grenadines	0.3	1.5	2.1	2.3	2.9	4.7	1.0	0.2	1.7	1.7	–29.4	–27.8	–28.9	–30.7	–24.4
Trinidad and Tobago	–2.6	1.2	1.6	2.2	2.2	5.3	7.2	5.6	4.0	4.0	12.4	4.9	10.2	10.1	8.9
Memorandum:															
LAC[1]	**4.6**	**3.1**	**2.7**	**2.5**	**3.0**	**6.6**	**5.3**	**7.6**	**8.6**	**8.2**	**–1.4**	**–1.9**	**–2.7**	**–2.7**	**–2.8**
Financially integrated LAC[5]	5.4	4.1	3.5	3.5	3.9	5.3	3.9	4.4	4.4	4.1	–2.0	–3.2	–3.8	–3.7	–3.6
Other commodity exporters[6]	6.1	3.3	5.9	2.8	2.6	10.9	8.7	16.0	22.1	21.9	1.5	1.9	1.0	0.5	–0.2
CADR[7]	4.1	3.8	3.2	3.4	3.4	6.2	4.1	4.1	4.9	4.7	–7.1	–6.9	–6.8	–6.4	–6.1
Caribbean															
Tourism-dependent[8]	0.3	0.1	0.7	1.4	1.9	4.5	2.5	1.1	2.9	2.6	–16.8	–16.2	–16.5	–15.9	–14.1
Commodity exporters[9]	2.6	3.7	3.2	3.2	3.2	6.6	3.9	2.5	3.1	3.4	1.0	–2.5	–4.2	–4.3	–5.6
ECCU[10]	–0.1	0.2	0.5	1.4	1.8	4.1	2.4	0.1	1.8	1.9	–18.2	–17.1	–17.6	–17.1	–16.7

Source: IMF staff calculations and projections.
Note: ECCU = Eastern Caribbean Currency Union; LAC = Latin America and the Caribbean.
[1] Regional aggregates are purchasing power parity GDP-weighted averages unless otherwise noted. Current account aggregates are U.S. dollar nominal GDP-weighted averages. Consumer price index forecasts exclude Argentina.
[2] End-of-period (December) rates. These will generally differ from period average inflation rates reported in the IMF's *World Economic Outlook*, although both are based on identical underlying projections.
[3] See Annex 2.1 for details on Argentina's data.
[4] Fiscal year data.
[5] Simple average for Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[6] Simple average for Argentina, Bolivia, Ecuador, Paraguay, and Venezuela.
[7] Simple average of Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua.
[8] Simple average of the Bahamas, Barbados, Jamaica, and ECCU member states.
[9] Simple average of Belize, Guyana, Suriname, and Trinidad and Tobago.
[10] Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, as well as Anguilla and Montserrat, which are not IMF members.

Table 2.2. Western Hemisphere: Main Fiscal Indicators[1]

	Public Sector Primary Expenditure (Percent of GDP)					Public Sector Primary Balance[2] (Percent of GDP)					Public Sector Gross Debt (Percent of GDP)				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
			Est.	Projections				Est.	Projections				Est.	Projections	
North America															
Canada	42.3	41.5	41.2	41.0	40.7	–0.2	0.0	0.3	0.7	1.2	83.5	88.1	89.1	87.4	86.6
Mexico	23.9	24.6	24.7	24.9	24.2	–1.0	–1.1	–1.3	–1.5	–0.9	43.3	43.3	46.5	48.1	48.4
United States[3]	36.1	34.8	34.3	33.7	33.5	–7.0	–5.7	–3.6	–2.7	–1.8	99.0	102.4	104.5	105.7	105.7
South America															
Argentina[4]	37.9	40.9	43.5	43.5	43.5	–0.5	–0.6	–0.9	–0.9	–0.9	44.9	47.7	46.9	52.9	58.2
Bolivia[5]	34.1	35.1	39.0	38.4	37.4	2.1	2.8	1.1	0.5	0.2	34.7	33.4	33.1	29.5	27.1
Brazil	32.0	33.5	34.0	33.1	32.0	3.1	2.1	1.9	1.9	3.1	64.7	68.2	66.3	66.7	66.4
Chile	22.7	23.1	23.1	22.8	22.6	2.0	1.3	–0.1	–0.2	0.0	11.1	12.0	12.2	12.6	13.5
Colombia[6]	25.9	25.6	26.1	25.8	25.2	0.8	2.8	1.6	1.5	1.8	35.2	32.4	31.8	31.7	30.4
Ecuador	38.2	39.7	42.2	41.4	39.9	0.7	–0.2	–3.1	–2.9	–2.5	18.3	21.3	24.3	24.8	25.5
Guyana[7]	29.1	30.1	30.1	31.0	31.9	–1.5	–3.5	–2.9	–2.3	–1.9	65.1	64.3	63.9	64.4	64.6
Paraguay	19.7	24.3	22.4	22.1	22.2	1.3	–1.1	–1.5	–1.3	–0.6	12.4	12.6	15.2	14.7	14.5
Peru	18.2	18.5	20.0	20.1	20.3	3.1	3.2	1.5	1.1	1.0	22.4	20.5	19.6	18.1	16.6
Suriname[8]	25.5	28.6	28.9	27.7	27.1	1.9	–3.1	–4.5	–3.8	–2.4	20.2	22.1	29.2	37.0	42.0
Uruguay[9]	29.9	31.5	32.5	32.3	32.1	2.0	–0.2	0.5	0.2	0.5	60.0	59.6	59.4	61.2	61.8
Venezuela	37.3	37.3	35.1	34.1	31.8	–9.4	–13.9	–12.2	–10.7	–9.1	43.3	46.0	49.8	51.6	52.7
Central America															
Belize[10]	25.4	25.1	26.7	26.8	26.2	2.3	1.4	1.2	1.1	1.0	79.4	75.4	75.5	80.4	92.6
Costa Rica[7]	15.7	16.0	16.5	16.7	16.9	–1.9	–2.3	–2.8	–3.1	–3.2	30.6	35.1	37.0	39.4	42.9
El Salvador[9]	19.3	19.8	20.5	20.8	20.8	–1.7	–1.6	–1.7	–1.9	–2.0	50.0	55.1	54.9	57.1	59.5
Guatemala[10]	12.9	12.5	12.0	12.4	12.3	–1.3	–0.9	–0.5	–0.6	–0.6	23.7	24.4	24.4	25.1	25.7
Honduras	24.8	25.4	27.8	28.4	27.8	–3.0	–4.3	–6.9	–5.3	–4.6	32.1	34.4	40.2	44.9	48.6
Nicaragua[9]	26.6	26.9	27.6	27.2	27.8	1.9	1.1	0.7	1.0	1.0	45.4	43.2	42.4	40.6	39.7
Panama[11]	24.5	24.5	25.6	25.5	24.4	0.3	0.6	–1.0	–1.0	0.2	43.8	42.6	41.3	41.4	41.3
The Caribbean															
Antigua and Barbuda[12]	22.0	18.9	19.9	29.9	22.1	–1.5	1.1	–1.4	–8.5	–1.5	92.7	87.8	92.2	100.7	102.4
The Bahamas[10]	20.2	21.4	20.6	19.6	19.2	–1.9	–3.3	–4.2	–2.5	–0.6	47.7	51.2	56.3	59.3	59.6
Barbados[13]	36.0	38.3	36.0	32.4	32.0	1.7	–2.1	–4.0	0.7	1.5	78.0	85.8	92.0	94.7	95.0
Dominica[12]	33.7	33.9	34.5	34.2	33.9	–2.9	–3.4	–1.1	–1.4	–1.2	69.7	73.3	75.0	75.8	76.3
Dominican Republic	14.5	18.3	15.9	15.5	15.3	–1.1	–4.3	–1.3	–0.2	–0.7	26.3	30.2	33.8	35.4	36.7
Grenada[12]	25.8	22.7	24.8	27.4	23.5	–2.2	–2.0	–3.4	–2.4	1.3	106.5	108.5	115.0	117.0	115.7
Haiti[10]	25.1	27.8	27.0	26.9	26.4	–3.2	–4.4	–6.2	–6.3	–5.9	12.0	16.4	21.3	24.4	29.4
Jamaica[12,14]	22.4	20.4	19.4	19.4	19.5	3.2	5.4	7.5	7.5	7.5	141.9	146.9	138.9	133.7	129.1
St. Kitts and Nevis[12]	30.6	26.9	27.8	30.6	29.6	6.5	9.0	14.5	3.6	4.0	154.0	137.0	104.9	91.2	84.6
St. Lucia[12]	29.5	30.3	28.7	27.5	27.5	–3.5	–5.8	–3.0	–2.1	–2.1	66.2	71.7	79.8	83.7	87.0
St. Vincent and the Grenadines[12]	32.4	26.3	28.4	33.8	25.7	–4.7	0.3	–3.9	–6.9	–0.4	69.2	71.7	76.4	85.0	84.9
Trinidad and Tobago	33.6	30.4	33.4	33.1	32.9	1.8	1.4	–0.6	–0.9	–1.6	33.4	36.9	30.6	33.3	36.7
ECCU[15]	27.7	26.2	27.0	30.4	26.0	–0.6	–0.3	0.1	–3.4	0.5	86.9	86.2	86.2	89.1	88.5
Memorandum:															
LAC	**33.7**	**34.5**	**34.5**	**34.3**	**33.4**	**–0.3**	**–0.3**	**–0.5**	**–0.4**	**–0.3**	**49.7**	**50.3**	**50.2**	**51.1**	**51.4**
Financially integrated LAC[16]	25.4	26.1	26.7	26.5	26.1	1.7	1.3	0.7	0.5	0.9	39.5	39.3	39.3	39.7	39.5
Other commodity exporters[17]	33.4	35.5	36.4	35.9	35.0	–1.2	–2.6	–3.3	–3.1	–2.6	30.7	32.2	33.8	34.7	35.6
CADR[18]	19.0	19.8	20.0	20.1	20.2	–1.2	–2.0	–2.1	–1.7	–1.7	34.7	37.1	38.8	40.4	42.2
Caribbean															
Tourism-dependent[19]	28.1	26.6	26.7	28.3	25.9	–0.6	–0.1	0.1	–1.3	1.0	91.8	92.7	92.3	93.5	92.7
Commodity exporters[20]	28.4	28.5	29.8	29.6	29.5	1.1	–1.0	–1.7	–1.5	–1.2	49.5	49.7	49.8	53.8	59.0

Source: IMF staff calculations and projections.
Note: ECCU = Eastern Caribbean Currency Union; LAC = Latin America and the Caribbean.
[1] Definitions of public sector accounts vary by country, depending on country-specific institutional differences, including on what constitutes the appropriate coverage from a fiscal policy perspective, as defined by the IMF staff. All indicators reported on fiscal year basis. Regional aggregates are purchasing power parity GDP-weighted averages, unless otherwise noted.
[2] Primary balance defined as total revenue less primary expenditures.
[3] Data for the United States have been revised significantly following the Bureau of Economic Analysis's recent comprehensive revision of the National Income and Product Accounts along the lines of the 2008 System of National Accounts (SNA). As a result of these methodological changes, the deficit includes several expenditure items not counted as expenditure in other countries which have not yet adopted the 2008 SNA. Moreover, for cross-country comparability, gross and net debt levels reported by national statistical agencies for countries that have adopted the 2008 SNA (Canada and the United States) are adjusted to exclude unfunded pension liabilities of government employees' defined benefit pension plans. See Box 1.1 in the April 2014 *Fiscal Monitor* for more details.
[4] Federal government and provinces; includes interest payments on an accrued basis. Primary expenditure and balance include the federal government and provinces. Gross debt is for the federal government only.
[5] Nonfinancial public sector, excluding the operations of nationalized mixed-ownership companies in the hydrocarbon and electricity sectors.
[6] Nonfinancial public sector reported for primary balances (excluding statistical discrepancies); combined public sector including Ecopetrol and excluding Banco de la República's outstanding external debt reported for gross public debt.
[7] Includes central government.
[8] Primary expenditures for Suriname exclude net lending. Debt data refers to central government and government-guaranteed public debt.
[9] Consolidated public sector; data for El Salvador include operations of pension trust funds.
[10] Central government only. Gross debt for Belize includes both public and publicly guaranteed debt.
[11] Fiscal data cover the nonfinancial public sector excluding the Panama Canal Authority.
[12] Central government for primary balance accounts; public sector for gross debt.
[13] Overall and primary balances include off-budget and public-private partnership activities for Barbados and the nonfinancial public sector. Central government for gross debt (excludes NIS Holdings).
[14] Debt includes PetroCaribe debt (net of its financing to the central government) and projected IMF disbursements and other international financial institutions.
[15] ECCU members are Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. Central government for primary balance accounts; public sector for gross debt.
[16] Simple average for Brazil, Chile, Colombia, Mexico, Peru, and Uruguay.
[17] Simple average for Argentina, Bolivia, Ecuador, Paraguay, and Venezuela.
[18] Simple average of Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua.
[19] Simple average of the Bahamas, Barbados, Jamaica, and ECCU member states.
[20] Simple average of Belize, Guyana, Suriname, and Trinidad and Tobago.

Table 2.3. Western Hemisphere: Selected Economic and Social Indicators, 2004–13[1]

	2013				2004–13 Average					2013		Latest Available		
	GDP[2] ($US bil.)	Population (Million)	GDP per Capita ($PPP)	Output Share of LAC Region[2] (Percent)	Real GDP Growth (Percent)	Consumer Price Index Inflation[3] (Percent)	Current Account (Percent of GDP)	Domestic Saving (Percent of GDP)	Trade Openness[4] (Percent of GDP)	Gross Reserves (Percent of GDP)	Unemployment Rate (Percent)	Poverty Rate[5]	Gini Coefficient[5]	Sovereign Credit Rating[6]
North America														
Canada	1,825.1	35.1	43,472	—	1.9	1.8	−0.9	22.5	64.7	3.9	7.1	—	32.0	AAA
Mexico	1,258.5	118.4	15,563	21.8	2.6	4.2	−1.1	21.8	59.4	14.0	4.9	11.4	49.1	BBB
United States	16,797.5	316.4	53,094	—	1.8	2.4	−4.0	16.6	27.7	0.9	7.4	—	47.7	AAA
South America														
Argentina[7]	488.2	41.5	18,750	8.5	6.7	9.4	1.3	23.4	42.5	6.3	7.1	4.2	42.0	CCC+
Bolivia	29.8	11.0	5,364	0.5	4.9	6.2	6.4	24.5	66.0	48.4	—	17.0	46.5	BB−
Brazil	2,242.9	198.3	12,221	38.8	3.7	5.5	−0.9	17.4	25.4	15.9	5.4	10.4	52.3	BBB
Chile	277.0	17.6	19,068	4.8	4.7	3.4	0.5	23.0	71.2	14.8	5.9	2.9	50.8	AA−
Colombia	381.8	47.2	11,189	6.6	4.8	4.1	−2.4	20.1	34.7	11.2	10.3	17.5	53.4	BBB
Ecuador	94.1	15.8	10,080	1.6	4.8	4.0	0.6	25.8	59.7	3.6	4.7	12.9	46.2	B
Guyana	3.0	0.8	8,250	0.1	3.6	5.7	−11.1	7.4	132.5	26.4	—	—	—	
Paraguay	28.3	6.8	6,823	0.5	4.8	6.0	1.1	17.1	102.3	19.7	5.4	14.4	52.6	BB−
Peru	206.5	30.9	11,124	3.6	6.6	2.9	−1.1	22.0	48.0	31.2	7.5	11.1	45.3	BBB+
Suriname	5.1	0.5	13,116	0.1	4.9	8.3	2.3	—	101.6	14.6	—	—	—	BB−
Uruguay	56.3	3.4	16,723	1.0	5.5	7.4	−2.6	17.2	56.9	28.9	6.3	2.5	41.3	BBB−
Venezuela	374.0	30.0	13,605	6.5	5.9	26.0	8.0	33.0	50.7	1.8	9.2	18.1	43.3	B−
Central America														
Belize	1.6	0.3	8,716	0.0	2.8	2.2	−6.0	11.4	123.7	25.1	16.3	—	—	B−
Costa Rica	49.6	4.8	12,942	0.9	4.7	8.4	−5.0	17.8	90.2	14.8	9.0	4.7	48.5	BB+
El Salvador	24.5	6.3	7,515	0.4	1.8	3.4	−4.6	10.4	72.0	10.2	5.7	14.7	41.8	BB−
Guatemala	54.4	15.5	5,282	0.9	3.5	6.1	−3.3	13.7	64.0	12.9	—	40.5	52.2	BB+
Honduras	18.8	8.1	4,839	0.3	4.1	6.7	−7.2	20.2	124.0	17.3	4.4	37.4	57.2	B
Nicaragua	11.3	6.1	4,554	0.2	3.9	9.1	−12.1	16.8	102.6	17.7	6.2	29.3	45.7	B−
Panama	40.3	3.7	16,658	0.7	8.6	4.2	−8.5	16.0	73.7	7.1	4.5	11.8	51.9	BBB
The Caribbean														
The Bahamas	8.4	0.4	32,037	0.1	0.8	2.1	−12.5	15.5	94.6	8.8	16.2	—	—	BBB+
Barbados	4.3	0.3	25,181	0.1	0.9	5.4	−8.8	7.8	98.6	13.5	11.9	—	—	BB−
Dominican Republic	60.8	10.4	9,911	1.1	5.9	8.2	−4.8	11.9	63.6	7.7	7.0	14.0	47.4	B+
Haiti	8.5	10.3	1,315	0.1	1.5	9.8	−2.6	25.7	64.1	20.4	—	—	—	—
Jamaica	14.3	2.8	9,048	0.2	0.2	11.1	−11.6	12.8	91.3	12.7	14.9	—	—	B−
Trinidad and Tobago	27.7	1.3	20,438	0.5	3.2	7.7	18.5	34.6	100.4	38.3	5.0	—	—	A−
Eastern Caribbean Currency Union	5.3	0.6	14,696	0.1	1.5	2.8	−20.0	12.7	98.4	20.6	—	—	—	—
Antigua and Barbuda	1.2	0.1	18,558	0.0	1.4	2.4	−17.7	19.3	112.2	16.0	—	—	—	—
Dominica	0.5	0.1	14,283	0.0	2.1	2.0	−19.1	0.9	89.8	17.1	9.8	—	—	—
Grenada	0.8	0.1	13,724	0.0	0.9	2.9	−23.7	6.0	82.0	16.4	—	—	—	SD
St. Kitts and St. Nevis	0.8	0.1	15,606	0.0	1.7	3.5	−16.7	29.8	86.5	37.7	—	—	—	—
St. Lucia	1.3	0.2	12,730	0.0	1.8	2.9	−18.3	12.5	107.8	13.1	20.6	—	—	—
St. Vincent and the Grenadines	0.7	0.1	12,207	0.0	1.6	3.2	−26.5	−0.3	86.9	18.5	—	2.9	40.2	B
Latin America and the Caribbean[1]	**5,775.3**	**593.1**	**12,667**	**100.0**	**4.2**	**6.3**	**−0.5**	**18.0**	**44.7**	**13.9**	—	12.3	52.0	—

Sources: Bloomberg, L.P.; national authorities; IMF, International Financial Statistics database; World Bank; and IMF staff calculations.

[1] Estimates may vary from those reported by national authorities on account of differences in methodology and source. Regional aggregates are purchasing power parity GDP-weighted averages, except for regional GDP in U.S. dollars and population where totals are computed.

[2] At market exchange rates, except for Argentina and Venezuela for which data used comes from national authorities and private analysts.

[3] End-of-period, 12-month percent change.

[4] Exports plus imports of goods and services in percent of GDP.

[5] Data from Socio-Economic Database for Latin America and the Caribbean, based on the latest country-specific household surveys. In most cases, the surveys are from 2011 or 2012, though the data for Guatemala (2009) and Venezuela (2006) are less recent. Poverty rate is defined as the share of the population earning less than US$2.50 per day. Gini Index is calculated by the World Bank using pooled data for each country. Data for the United States are from the U.S. Census Bureau; those for Canada are from Statistics Canada.

[6] Median of long-term foreign currency ratings published by Moody's, Standard & Poor's, and Fitch.

[7] See Annex 2.1 for details on Argentina's data.

3. Taper Tantrum or Tedium: How Will the Normalization of U.S. Monetary Policy Affect Latin America and the Caribbean?

A stronger U.S. recovery will impart a positive impulse primarily to Mexico, Central America, and the Caribbean, whereas the anticipated normalization of U.S. monetary policy will affect all countries in Latin America and the Caribbean (LAC). Traditional exposures to U.S. interest rates have diminished, as governments in LAC have reduced their reliance on U.S. dollar–denominated debt. However, U.S. monetary shocks also spill over into local funding and foreign exchange markets. Spillovers to domestic bond yields have typically been contained over the past decade, but the market turmoil of mid-2013 illustrates the risk of outsized responses under certain conditions. In a smooth normalization scenario, net capital inflows to LAC are unlikely to reverse, although new risk premium shocks could trigger outflow pressures. Countries cannot fully protect themselves against such external shocks, but strong balance sheets and credible policy frameworks provide resilience in the face of financial volatility.

Introduction

Since the beginning of 2014, the U.S. Federal Reserve has started to reduce the scale of its bond purchases. Although the Federal Reserve's stance remains highly expansionary, this "tapering" process marks the first stage in the anticipated normalization of U.S. monetary policy. Given the novelty of the Federal Reserve's quantitative easing (QE) program, there are many questions over how its unwinding will affect the rest of the world. Repeated bouts of financial market turmoil since May 2013 have raised concerns that sustained increases in U.S. interest rates could destabilize emerging markets that have benefited from ultra-low external financing costs and received large capital inflows in recent years.

This chapter examines how prospective changes in U.S. monetary conditions could affect the LAC region, focusing in particular on spillovers through trade flows, bond, and foreign exchange markets.

Spillover Channels

The Federal Reserve's decision to start tapering its bond purchases points to what is a priori a big positive for global economic activity, namely the firming recovery in the U.S. economy. Higher U.S. demand for imports will support the LAC economies, although the size of this impact varies across countries. One of the greatest beneficiaries is likely to be Mexico, whose manufacturing industry has become highly integrated into the North American supply chain. Indeed, Mexico's exports to the United States far exceed those of all other large economies in LAC, both in absolute terms and relative to GDP (Figure 3.1). A stronger U.S. recovery will also help some economies in Central America and the Caribbean with close U.S. trade links.[1] Most of South America, however, would benefit only marginally.

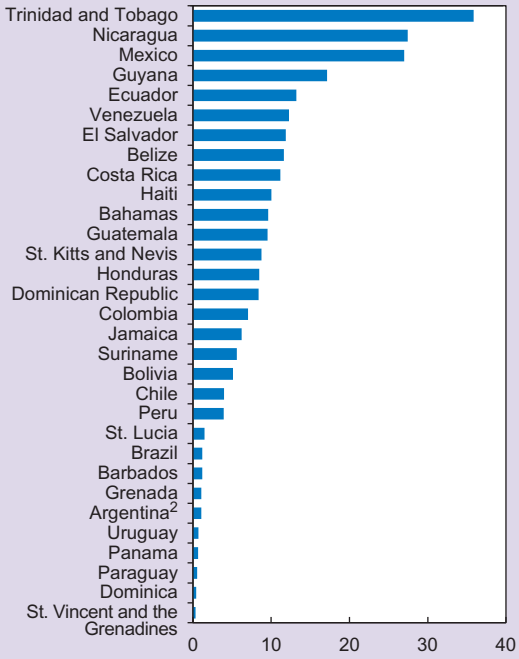
The flip side of an improving economic outlook for the United States is the gradual removal of the extraordinary monetary stimulus that the Federal Reserve has imparted since 2008. In the short term, the main effect should be some upward drift in longer-term U.S. interest rates, as the horizon shrinks over which policy rates are expected to stay close to zero. IMF staff projections are premised on a smooth adjustment, with 10-year yields increasing by some 120 basis points from current levels by end-2015 (consistent with the

Note: Prepared by Alexander Klemm, Andre Meier, and Sebastián Sosa. Anayo Osueke, Carlos Rondon, and Ben Sutton provided excellent research assistance.

[1] Beyond the impact of positive spillovers through merchandise trade, many countries in Central America and the Caribbean will also benefit from higher tourism and workers' remittance flows from the United States.

argument in Chapter 3 of the April 2014 *World Economic Outlook* [IMF, 2014a] that U.S. real interest rates will remain relatively low for some time). However, more abrupt changes in U.S. bond yields are possible, either because of news about the likely path of future policy rates or because of sudden shifts in the term premium (the gap between long-term bond yields and the average of expected short-term interest rates over the same horizon). Term premium shocks could arise, in particular, from remaining uncertainty over the timing and modalities of the exit from QE.

Figure 3.1
LAC: Exports of Goods to the United States[1]
(Percent of GDP)



Sources: IMF, Direction of Trade Statistics database; and IMF staff calculations.
[1] Average ratios to GDP for 2010–12.
[2] See Annex 2.1 for details on Argentina's GDP.

Higher long-term U.S. interest rates have a direct effect on emerging market debt denominated in U.S. dollars. As little as two decades ago, this category represented the bulk of public debt in LAC. Accordingly, tighter Federal Reserve policy ineluctably drove up the marginal funding costs of governments (and other borrowers)—typically by more than one-for-one, as higher U.S. interest rates tend to coincide with wider spreads on foreign currency emerging market debt (Table 3.1). Over the past decade, however, this vulnerability has diminished appreciably in LAC, as most countries have shifted their issuance toward local currency debt (Figure 3.2).

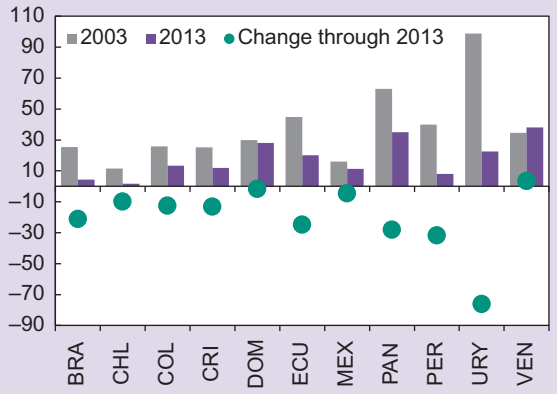
This is not to deny that sizable direct exposures persist in some cases, notably in economies with fully dollarized financial systems, such as Ecuador and Panama, or those with limited capacity to issue local currency debt. In addition, the region's large firms have borrowed significant amounts abroad in recent years, notably through corporate bond markets. While this trend creates new vulnerabilities, many firms are initially shielded by the relatively long tenor of the bonds they issued. Near-term

Table 3.1. U.S. Monetary Policy and Emerging Market External Bond Spreads: Some Previous Studies

Study	Sample	Methodology	Measure of U.S. monetary stance	Main findings
Arora and Cerisola (2001)	1994–2001; 11 EMs	Country-specific regressions	10-year Treasury bond yield and federal funds rate	Positive relationship with EM spreads (average elasticities of 0.78 and 0.82 for 10-year and federal funds rates, respectively)
Uribe and Yue (2006)	1994–2001; 7 EMs	VAR model	Three-month T-bill real rate	A 1 percentage point rise in U.S. interest rates raises EMBI yields by ½ percentage point on impact, and by 1¾ percentage points after one year
Alper (2006)	1998–2006; 7 EMs	Unbalanced panel	U.S. monetary policy surprises	Positive impact of unanticipated component of U.S. monetary policy on EM spreads
Hartelius, Kashiwase, and Kodres (2008)	1991–2007; 33 EMs	Fixed-effects panel	Three-month federal funds future	A 1 percentage point increase in the three-month-ahead expected federal funds rate leads to an increase in spreads by 5 percent
Bellas, Papaioannou, and Petrova (2010)	1997–2009; 14 EMs	Pooled mean group and fixed-effects models	10-year Treasury bond yield	Statistically insignificant effect on EM spreads
Csonto and Ivaschenko (2013)	2001–13; 18 EMs	Fixed-effects and pooled mean group estimation	Federal funds rate, three-month and 10-year Treasury yield	No statistically significant effect on EM spreads in the long term

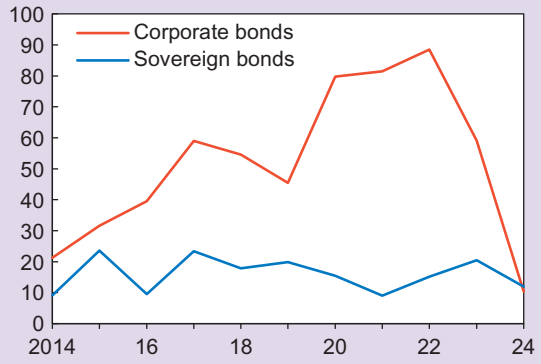
Source: IMF staff compilation.
Note: EM = emerging market; EMBI = J.P. Morgan Emerging Markets Bond Index; VAR = vector autoregression.

Figure 3.2
Selected LAC Economies: Public Debt Denominated in Foreign Currency: 2013 vs. 2003[1]
(Percent of GDP)



Sources: National authorities; and IMF staff calculations.
Note: See page 63 for a list of country name abbreviations.
[1] Includes debt instruments linked to foreign currency. Definition of the government sector varies somewhat across countries.

Figure 3.3
Latin America: Foreign Currency Bonds Outstanding by Maturity Date[1]
(Billions of U.S. dollars)



Sources: Bloomberg L.P.; and IMF staff calculations.
[1] Includes all bonds denominated in advanced economy currencies with original maturity greater than one year that were outstanding as of early January 2014. Corporate bonds identified based on issuer's "country of risk."

maturities are relatively moderate in general, delaying the direct effect of tighter U.S. financial conditions on refinancing costs and roll-over risk (Figure 3.3), although potential currency mismatches bear close monitoring (see also Box 2.1).

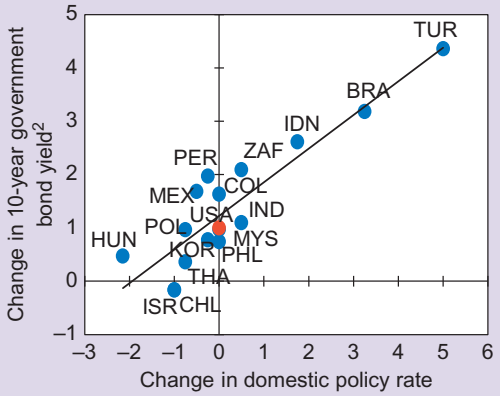
Focus on Local Bond Markets

The gradual dedollarization of public debt has boosted the resilience to exchange rate changes among the emerging markets in LAC. In principle, it has also created greater scope for domestic financing costs to differ from foreign interest rates. However, domestic monetary policy settings and broader financial conditions clearly are not immune to external developments in a world of large cross-border flows and increased foreign investment in local emerging market bond markets.[2] One tentative indication is the nearly universal, albeit differentiated, rise in long-term bond yields across emerging markets since the May 2013 "taper shock" (Figure 3.4). The impact of higher bond yields on domestic demand will vary across countries but is likely to be important in many cases, given the deepening of domestic credit markets over the past decade. Lower emerging market equity prices in the wake of an interest rate shock would add to the contractionary impact, though a weaker exchange rate should generally be supportive of growth.

Two channels, in particular, account for the synchronized rise in bond yields apparent from Figure 3.4. First, rising U.S. bond yields lower the attractiveness of investments in other currencies, putting pressure on emerging market exchange rates. These pressures may lead central banks to raise policy rates to avert excessive pass-through to domestic inflation (or other destabilizing effects related to capital outflows and currency depreciation). A higher path for short-term policy rates, in turn, affects longer-term bond yields. Second, term premiums are likely to be positively correlated across countries, reflecting common

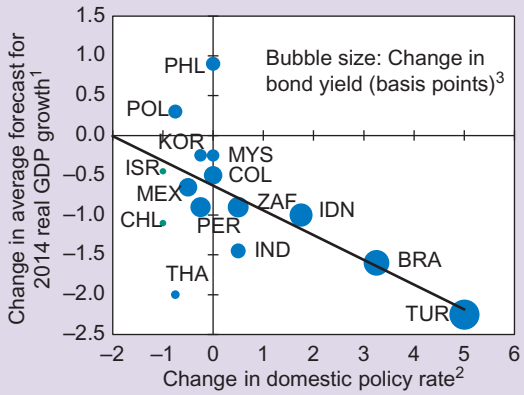
[2] Chapter 2 of the April 2014 *Global Financial Stability Report* (IMF, 2014b) analyzes in detail the impact of foreign portfolio investors on local bond market dynamics. Rey (2013) and Klein and Shambaugh (2013) discuss the related policy challenges.

Figure 3.4
Selected Economies: Changes in Policy Rates and Domestic Bond Yields Since End-April 2013[1]
(Percentage points)



Sources: Bloomberg L.P.; and IMF staff calculations.
Note: See page 63 for a list of country name abbreviations.
[1] Change over the period April 30, 2013, to March 27, 2014.
[2] Bond yield data for Brazil and Chile reflect bonds with a residual maturity of nine years toward the end of the sample period.

Figure 3.5
Selected Economies: Changes in Policy Rates, Domestic Bond Yields, and Growth Forecasts Since End-April 2013
(Percentage points)



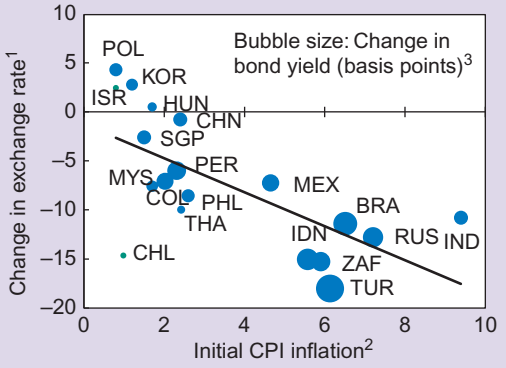
Sources: Bloomberg L.P.; and IMF staff calculations.
Note: See page 63 for a list of country name abbreviations.
[1] Change in average growth forecast among analysts surveyed by Bloomberg L.P. between April 30, 2013, and March 27, 2014.
[2] Change over the period April 30, 2013, to March 27, 2014.
[3] Change in 10-year domestic bond yield between April 30, 2013, and March 27, 2014. Changes for Chile and Israel were negative. Yield data for Brazil and Chile reflect bonds with a residual maturity of nine years toward the end of the sample period.

trends in uncertainty and risk aversion.[3] Both effects appear to have been present in emerging markets over the past year.

A third potential explanation for the synchronized rise in interest rates is that it reflects a generalized improvement in the growth outlook. However, the evidence seems to rule out this possibility. Countries facing the largest rise in interest rates have tended to experience the sharpest downward revisions in growth forecasts (Figure 3.5). Put differently, domestic financial conditions have tightened the most not in countries featuring the brightest near-term growth prospects, but in those facing a combination of inflation and exchange rate pressures (Figure 3.6). On further inspection, these attributes also correlate closely with elevated current account deficits and significant earlier appreciation of the real exchange rate. The underlying problem, therefore, may be a recent history of strong capital inflow pressures that

[3] For a deeper analysis of common trends in long-term real interest rates, see Chapter 3 of the April 2014 *World Economic Outlook* (IMF, 2014a) and Turner (2014).

Figure 3.6
Selected Economies: Changes in Exchange Rates and Domestic Bond Yields Since End-April 2013 vs. Initial CPI Inflation
(Percent)



Sources: Bloomberg L.P.; Haver Analytics; and IMF staff calculations.
Note: CPI = consumer price index. See page 63 for a list of country name abbreviations.
[1] Percent change in the U.S. dollar per local currency exchange rate between April 30, 2013, and March 27, 2014.
[2] Percent change in inflation over the year through April 2013.
[3] Change in 10-year domestic bond yield between April 30, 2013, and March 27, 2014. Changes for Chile and Israel were negative. Yield data for Brazil and Chile reflect bonds with a residual maturity of nine years toward the end of the sample period.

pushed up real exchange rates—fueling wider external deficits—and led central banks to keep monetary policy looser than they otherwise would have.[4]

Sensitivity of Bond Yields to U.S. Monetary Shocks

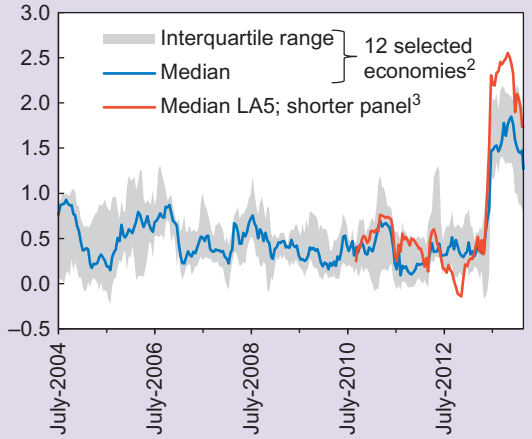
Turning to a more formal investigation, we trace the response of 10-year local currency government bond yields to U.S. monetary shocks. The latter are identified in a U.S.-specific vector autoregression model with sign restrictions. Positive monetary shocks are identified as innovations that drive up 10-year U.S. Treasury bond yields, while depressing the price of equities. As such, they are distinguished from positive news shocks, which raise both bond yields and equity prices.[5] In essence, monetary shocks capture unanticipated changes in the perceived outlook for monetary policy that are unrelated to changes in growth expectations or investor risk sentiment. The analysis focuses on shocks affecting long-term U.S. bond yields, as these capture perceived changes in the monetary policy outlook even under unconventional policies, such as QE or "forward guidance."

Bond Market Turmoil in 2013: Structural Break or Anomaly?

Using a simple regression approach for daily data going back to 2004, we find that the response of 10-year U.S. bond yields to the monetary shocks described above is very steady, with yields rising by about 3 basis points in response to a standardized positive shock. The response of local currency emerging market bond yields is more variable, but typically hovers in a range of 1 to 2 basis points, implying that they co-move less than one for one with U.S. bond yields, including in Latin America (Figure 3.7).[6] However, the estimated sensitivity surged markedly in 2013, with most emerging market bond yields exhibiting betas (that is, responses relative to the change in the U.S. yield

Figure 3.7

Normalized Response ("Beta") of Domestic Bond Yields to U.S. Monetary Shocks, 2004–14[1]



Sources: Bloomberg L.P.; and IMF staff calculations.
[1] Based on country-specific, six-month rolling regressions of daily changes in 10-year domestic government bond yields on the contemporaneous and one-day-lagged U.S. monetary and news shocks.The betas shown above are computed by adding the two coefficients on the U.S. monetary shock from the country-specific regression, and dividing by the sum of the corresponding two coefficients from the U.S. bond yield regression.
[2] Economies with data availability for January 2004–February 2014: China, Hong Kong SAR, Hungary, India, Indonesia, Korea, Mexico, Philippines, Poland, Singapore, South Africa, and Thailand.
[3] Panel varies, due to data availability, but in all periods shown includes at least four of the following countries: Brazil, Chile, Colombia, Mexico, and Peru. Yield data for Brazil and Chile combine bonds with 9 and 10 years' residual maturity.

[4] See also Eichengreen and Gupta (2014), Mishra and others (forthcoming), and Arvanitis and others (forthcoming).

[5] News shocks capture other sources of news that could affect bond yields, notably growth surprises or variation in risk sentiment. For more details on the empirical approach, see the forthcoming IMF Spillover Report.

[6] The regression relates emerging market bond yield changes to the contemporaneous and one-day-lagged value of the U.S. monetary and news shocks to allow for delayed effects on markets in the Asian and European time zones.

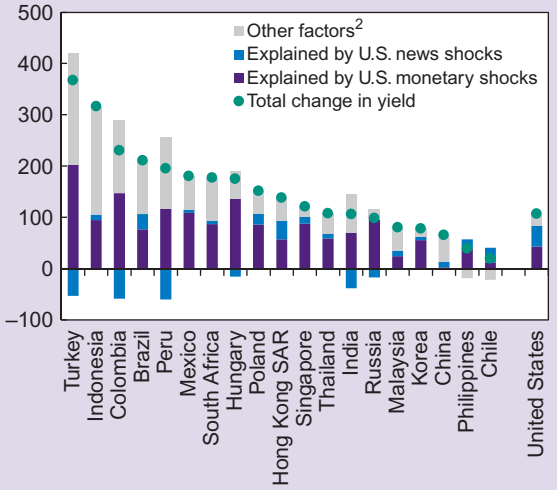
itself) well in excess of one.[7] For the most intense period of last year's emerging market turmoil, that is, May 21 to September 5, these high betas explain between 30 percent and 80 percent of the observed increase in bond yields for most emerging markets (Figure 3.8).

Does this striking rise in the impact of U.S. monetary shocks on emerging market bond yields signal a lasting change, coinciding with an inflection point in Federal Reserve policy? It is difficult to be sure, but there are a few indications to the contrary. First, the sensitivity of emerging market bond yields has started to ease again in recent months. Second, we find no evidence of a structural break in 2008–09, when QE was first launched, casting doubt on the notion that the impact of U.S. monetary policy changed fundamentally with the shift to unconventional policy. Third, there also is no evidence in our sample that upward moves in U.S. bond yields have systematically larger effects on emerging market yields than downward moves. Despite these considerations, it would not seem prudent to dismiss the taper shock as a total anomaly either.

Figure 3.8

Selected Economies: Factors Explaining Changes in Bond Yields following the "Taper Shock"[1]

(Basis points)



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

[1] Refers to the period May 21, 2013, to September 5, 2013, based on a regression of daily changes in 10-year government bond yields on identified U.S. shocks. Yield data for Brazil and Chile combine bonds with 9 and 10 years' residual maturity.

[2] Includes impact of other external or domestic factors captured by the regression constant and residuals.

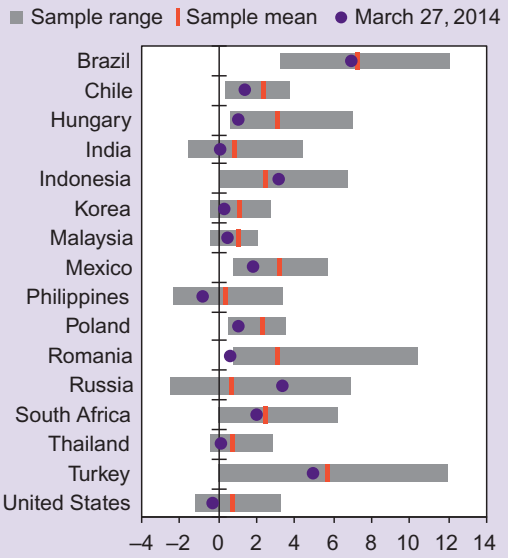
One factor that may explain the outsized changes in emerging market bond yields in mid-2013 is the extreme market situation prior to the taper shock—interest rates in most emerging markets had hit record-low levels, both in nominal and real terms, as many investors were positioned for persistently loose monetary conditions and low volatility. This situation made markets particularly vulnerable to news about a monetary turning point or a rise in uncertainty—as generated by the May 22 testimony by then Federal Reserve Chairman Bernanke, which triggered the sell-off in global bond markets. Since then, long-term interest rates—both nominal and real—in emerging markets have normalized to some extent, although they remain below longer-term averages in most countries (Figure 3.9).

Panel Regression Results

The results from the daily yield regressions are broadly confirmed by a panel regression that uses monthly data and several control variables to explain changes in emerging market bond yields. As before, there is robust evidence for a positive response to U.S. monetary shocks and for a marked increase in that response in 2013. Also, as before, the results do not point to any systematic difference in the response to positive versus negative U.S. monetary shocks. Perhaps more surprisingly, there is no evidence for yield sensitivities to be systematically related to typical

[7] By contrast, the response to news shocks fluctuates around zero for the average emerging market over the whole sample period, suggesting that the positive co-movement induced by growth surprises (higher U.S. growth reduces slack in emerging markets, leading to tighter monetary conditions) is broadly offset by the negative co-movement owing to risk appetite shocks (higher risk appetite raises U.S. bond yields but lowers emerging market yields). We also find no significant response of emerging market yields to U.S. growth shocks in regressions that include the Goldman Sachs daily U.S. growth surprise index as an additional regressor.

Figure 3.9
Selected Economies: Real Interest Rates, January 2006–March 2014[1]
(Percent)



Sources: Bloomberg L.P.; Consensus Forecasts; and IMF staff calculations.
[1] Computed as the difference between five-year interest rate swap rates and the consensus forecast for consumer price index inflation one year ahead. Data for Malaysia only start in November 2006; those for Romania and Russia start in August 2006.

Table 3.2. Dependent Variable: Monthly Change in Domestic Government Bond Yield
(Percentage points)

	(1)	(2)	(3)	(4)	(5)
U.S. variables:					
News shock	0.008	0.007	0.007	0.007	
	(0.006)	(0.006)	(0.006)	(0.006)	
Monetary shock	0.019***	0.017***	0.017***	0.015**	
	(0.005)	(0.006)	(0.005)	(0.007)	
Monetary shock, interacted with Latin America dummy		0.011			
		(0.011)			
Monetary shock, interacted with post-April 2013 dummy			0.021*		
			(0.013)		
Monetary shock, interacted with indicator dummy for positive shocks				0.009	
				(0.010)	
Δ 10-year Treasury bond rate					0.491***
					(0.076)
Δ VIX index	0.007	0.007	0.007	0.006	0.012***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.003)
Individual emerging market economy variables:					
Δ Inflation forecast	0.150*	0.153*	0.150*	0.154*	0.130
	(0.089)	(0.088)	(0.089)	(0.090)	(0.090)
Δ Growth forecast	0.017	0.019	0.022	0.019	–0.000
	(0.059)	(0.060)	(0.059)	(0.060)	(0.056)
Δ Official foreign exchange reserves	–0.068	–0.066	–0.062	–0.062	–0.106
	(0.074)	(0.073)	(0.073)	(0.075)	(0.072)
Δ Fiscal balance	0.001	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Δ External debt	0.077***	0.077***	0.077***	0.075***	0.085***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.019)
Observations	1,221	1,221	1,221	1,221	1,221
R-squared	0.086	0.088	0.089	0.087	0.112

Source: IMF staff calculations.
Note: The regressions are estimated using monthly data for a sample of 18 emerging markets, including Brazil, Chile, Colombia, Mexico, and Peru, from January 2006 to December 2013. Robust standard errors are in parentheses. All variables in percent or percent of GDP and differenced, except for the U.S. monetary and news shocks. Unreported robustness checks included additional control variables (for instance, current account balances and a capital account openness indicator) and interaction terms, but generally did not yield significant estimates. *** p-value < 0.01, ** p-value < 0.05, * p-value < 0.1. Inflation and growth forecasts are obtained from Consensus Economics.

indicators of economic fundamentals over the whole sample period, although some of these variables are found to have a direct influence on emerging market yields (Table 3.2).[8]

Limited Spillovers from Gradual Normalization, but Volatility Risks Remain

Overall, the results presented so far suggest that a gradual and orderly normalization of U.S. monetary conditions should affect emerging market bond markets in a relatively moderate fashion. Local yields have historically tended to respond to U.S. monetary shocks, but less than one for one. Other news shocks, which include positive U.S. growth surprises, appear to have even more limited (and possibly benign) effects on emerging market bond yields.[9]

Nonetheless, important risks remain. Renewed volatility in U.S. bond yields could trigger large, sudden moves in emerging market bond markets,

[8] See also related work by Jaramillo and Weber (2013), Kamil and others (forthcoming), and Perrelli and Goes (forthcoming). Our own regressions use monthly data in first differences. Compared to some other studies, this may make it harder to gauge the full impact of economic fundamentals, which tend to display limited high-frequency variation within the same country.

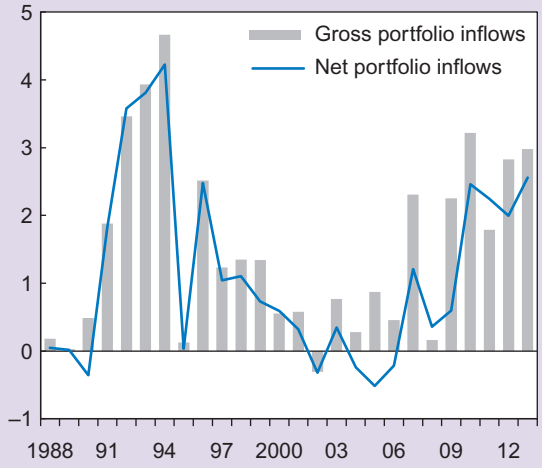
[9] This is consistent with prima facie evidence from the previous U.S. monetary tightening cycle of 2004–06, when short- and longer-term interest rates in Brazil, Chile, Colombia, Mexico, and Peru rose less than in the United States, or even declined.

especially if it were to coincide with other negative shocks to investor sentiment, such as adverse political or economic developments in emerging markets. Based on the evidence of the mid-2013 market turmoil, the impact would tend to be larger in economies with weak external positions and limited capacity to maintain an accommodative policy stance. Market fluctuations could be heightened by the apparent decline in trading liquidity in recent years, as some banks have reduced their market-making activities.

A Capital Flow Perspective

Further light on the possible impact of U.S. monetary policy normalization can be shed by focusing on capital flows rather than bond yields. As has been amply documented, the record-low real interest rates observed across emerging markets in early 2013 were partly the reflection of strong portfolio capital inflows observed up to that point (Figure 3.10). This heightens the concern that rising U.S. interest rates could slow or reverse the flow of capital to emerging markets.

Figure 3.10
LA5: Aggregated Portfolio Inflows, 1988–2013[1]
(Percent of aggregated GDP)



Sources: National authorities; and IMF staff calculations.
[1] LA5 includes Brazil, Chile, Colombia, Mexico, and Peru. Gross inflows refer to the change in portfolio liabilities and net inflows to the change in portfolio liabilities minus the change in portfolio assets. For 2013, data are annualized based on quarterly data through the third quarter (through the second quarter only for Peru).

To analyze the response of capital flows to shocks to long-term U.S. real interest rates, we estimate a panel vector autoregression with quarterly data since 1990 for a group of 38 emerging markets. Two alternative specifications are considered, one using net and the other gross capital flows.[10] Besides the capital flow variables, the model includes country-specific fixed effects and a set of global variables, that is, U.S. real output growth, global uncertainty (proxied by the VIX), changes in the real U.S. federal funds rate, changes in the 10-year real U.S. interest rate, and the log difference of a commodity price index.[11]

Investor Reactions to Changes in U.S. Interest Rates

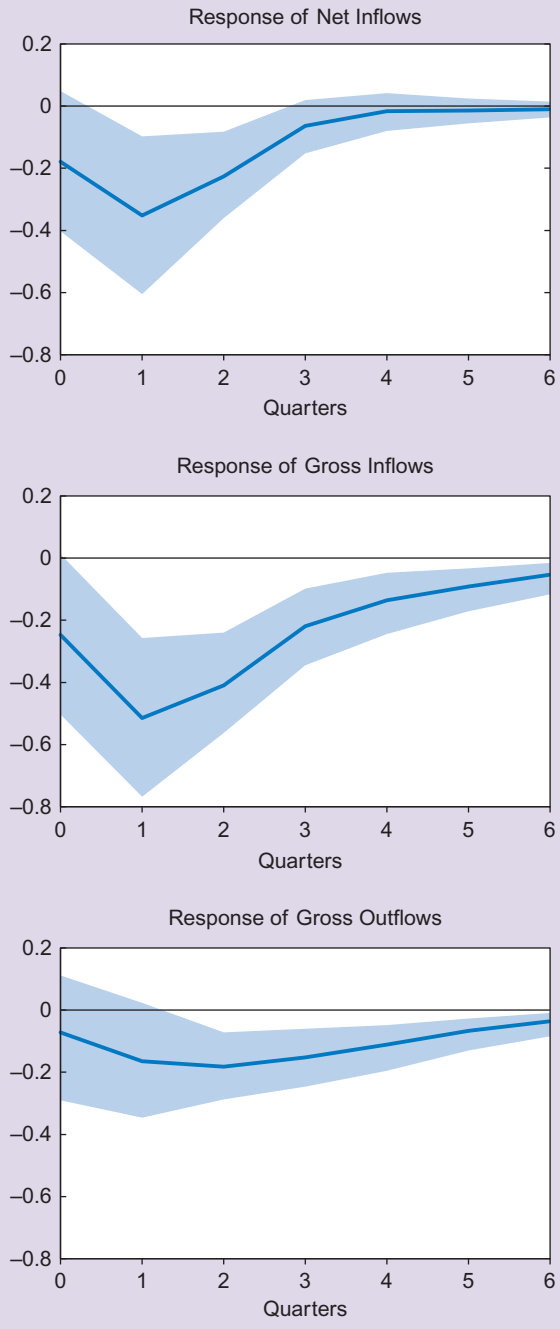
The results from the regressions suggest that shocks to the real U.S. Treasury bond rate have a significant impact on capital flows to emerging markets (Figure 3.11). Gross inflows decline markedly, falling by almost 2 percent of GDP over six quarters in response to a 100-basis-point increase in the real Treasury rate. The impact on net capital inflows, while also negative, is more muted, reflecting the stabilizing role played by domestic investors. Indeed, the latter tend to react by repatriating external assets, partly offsetting the retrenchment of foreign investors.[12]

[10] See Adler, Djigbenou, and Sosa (2014) for further details on the methodology and results as well as an overview of the related empirical literature.

[11] Capital flows are expressed in percent of trend GDP. Real interest rates are computed using forward-looking inflation expectations at 1-year and 10-year horizons. To avoid endogeneity problems related to country-specific fixed effects, forward mean-differencing is used; see Love and Zicchino (2006) and Arellano and Bover (1995).

[12] The asymmetric responses of domestic vs. foreign investors may reflect factors such as home bias or heterogeneity in investors' assessment of asset valuations. Indeed, the dynamics depicted in Figure 3.11 are consistent with foreign investors reacting promptly to a change in interest rate differentials, triggering a drop in local asset prices and the currency, which may subsequently induce local investors to "take a profit" on their overseas asset holdings and switch into "cheaper" domestic assets.

Figure 3.11
Response of Capital Flows to Emerging Markets to a U.S. Long-Term Interest Rate Shock[1]
(Percentage points of domestic GDP)



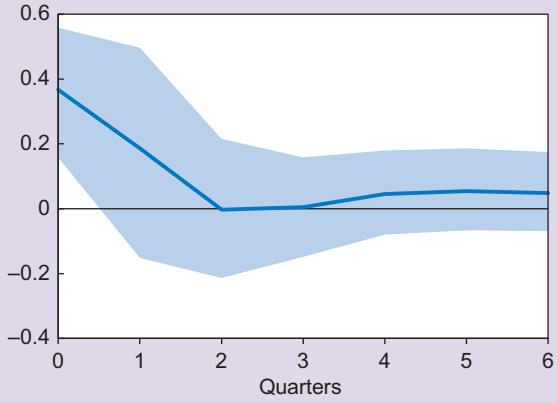
Source: IMF staff calculations.
[1] Response to a one standard-deviation shock (that is, 23 basis points) to the real 10-year Treasury bond yield. Confidence intervals (5th and 95th percentiles) computed with Monte Carlo simulations. Gross inflows denote the change in international labilities; gross outflows denote the change in international assets.

Closer inspection reveals that these dynamics are dominated by non–foreign direct investment flows. Moreover, the fall in net capital inflows following a shock to the U.S. 10-year real interest rate is found to be larger in Latin America than in other emerging market regions.

The results shown in Figure 3.11 appear broadly in line with the experience during the taper shock of 2013. In most LAC countries, the retrenchment of foreign investors was partially offset by asset repatriation by residents, mitigating the negative impact on net flows.

By controlling for U.S. output growth in the panel vector autoregression, we ensure that the estimated effects reflect those of "pure" U.S. interest rate shocks, and not the endogenous response of interest rates to U.S. output shocks. In the context of the Federal Reserve's exit from QE, however, rising interest rates may be predominantly the result of stronger economic prospects. For this scenario, we find that net capital flows to emerging markets respond positively to an increase in U.S. GDP growth (Figure 3.12), despite the associated rise in U.S. interest rates. Although there is no clear-cut mapping from capital flows to asset prices, this

Figure 3.12
Response of Net Capital Inflows to Emerging Markets to a U.S. Real Output Shock[1]
(Percentage points of domestic GDP)



Source: IMF staff calculations.
[1] Response to a one standard-deviation shock (that is, 0.6 percentage points) to U.S. real GDP growth. Confidence intervals (5th and 95th percentiles) computed with Monte Carlo simulations.

finding broadly conforms with the main results from the yield regressions reported above—emerging markets would not have to be particularly concerned about an orderly normalization of U.S. monetary policy that mirrors an improving U.S. growth outlook.

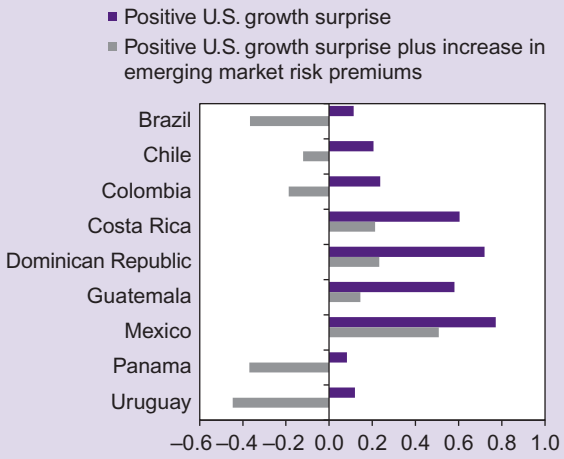
In contrast, markets are likely to suffer fresh bouts of volatility in the case of an independent shock to global risk sentiment. Indeed, such shocks (proxied by changes in the VIX) appear to have a particularly large impact on net inflows to the LAC region. Specifically, there is a considerable decline of gross inflows (twice as large as in the average emerging market) which is only partially compensated for by residents' asset repatriation.

Illustrative Results from a Full-Fledged Macro Model

To sum up, the scenario of a strengthening U.S. recovery provides positive real-sector impulses to Mexico and several Central American and Caribbean economies, but is less important for South America. A rise in U.S. bond yields, meanwhile, tightens financial conditions more broadly, but should have only moderate effects if it is gradual and driven by positive output developments in the U.S. economy. Of greater concern would be a pure U.S. interest rate shock, whose impact would be felt most acutely in the more vulnerable economies across the region. Exchange rate flexibility, in turn, should help to buffer adverse shocks to the extent that it facilitates an orderly rebalancing toward stronger net exports.

To illustrate the interplay of these different channels, we run simulations of the IMF's Flexible Suite of Global Models, which allows a general equilibrium analysis of the global economy with significant regional specificity. The first shock we consider is a stronger-than-expected U.S. recovery that entails a faster normalization of U.S. monetary policy. To this, we add, as a second shock, a simultaneous rise in emerging market risk premiums, as could result from a renewed surge in U.S. term premiums.

Figure 3.13
Selected Latin American Economies: Cumulative Effect on Real GDP from Shocks to U.S. Output and Risk Premiums, 2014–15[1]
(Percent; relative to baseline)



Sources: National authorities; and IMF staff calculations.
[1] A positive U.S. growth surprise entails a 1.1 percent rise in U.S. real GDP relative to the baseline through 2015, triggering an earlier-than-expected tightening of U.S. Federal Reserve policy. Under the emerging market risk premium shock, market interest rates rise by one standard deviation in each country (computed from the country-specific distribution of Emerging Markets Bond Index Global bond spread changes since end-2011, annualized). On average, this shock amounts to 100 basis points across the sample. It is assumed to persist during 2014–15.

The results confirm that, among the larger economies in LAC, Mexico fares reasonably well even in the scenario of the combined shocks, reflecting the positive U.S. spillovers through the trade channel (Figure 3.13). In comparison, output growth in Brazil and a few of the other South American economies would be adversely affected as the rise in risk premiums dominates any positive output spillovers.

Policy Implications

These illustrative simulations confirm the broad findings of this chapter and underscore the importance for countries across LAC to further reduce their vulnerability to large increases in external interest rates. The key to achieving greater resilience, as argued in Chapter 2, lies in continuing to strengthen policy frameworks and in securing robust balance sheets that enable

countries to enact countercyclical policies when faced with adverse shocks.[13]

Indeed, a sharp tightening of external financial conditions may require that individual countries use some of the buffers that have been built up in recent years, notably their large holdings of international reserves. Several countries have also taken advantage of strong recent investor appetite for long-maturity assets by increasing average debt duration. Should yield curves steepen markedly going forward, these countries may have some room to reduce duration to accommodate this shock, without compromising a prudent overall strategy for debt management.

[13] See also the policy recommendations in Arvanitis and others (forthcoming). Separately, Chapter 2 of the April 2014 *Global Financial Stability Report* (IMF, 2014b) advises specific steps toward financial deepening, including the promotion of larger local investor bases, to enhance resilience to external shocks.

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4. After the Boom—Commodity Prices and Economic Growth in Latin America and the Caribbean

This chapter takes another look at the commodity boom experienced by Latin America and the Caribbean (LAC) since the early 2000s and analyzes how the region will be affected by a more subdued outlook for commodity prices. The analysis suggests that growth in the years ahead could be significantly lower than during the commodity boom even if commodity prices were to remain stable at their current relatively high levels. The results caution against trying to offset the current economic slowdown with demand-side stimulus and underscore the need for ambitious structural reforms to secure strong growth over the medium term.

Introduction

Following a decade of rapid, broad-based gains, international commodity prices have been weakening since 2012. Many analysts now argue that the upward phase of the commodity super-cycle that started in the early 2000s has run its course.[1] Indeed, market futures show commodity prices softening further in the near term. This outlook reflects an anticipated increase in commodity supply along with weaker demand from some of the major commodity-importing economies, notably China.[2] What would this imply for the commodity exporters of LAC? Some observers claim that the recent slowdown in output growth across the region is primarily linked to the end of the upswing in commodity prices, raising obvious concerns for the future. Others have downplayed these concerns, pointing out that commodity prices are still higher than in the mid-2000s.

This chapter explores the possible consequences of weaker commodity prices on economic growth in the region in the next few years. We start by documenting the size of the recent commodity price boom in individual countries. We then investigate whether it is the lower *growth* of commodity prices or their still-high *levels* that will matter the most for output growth in the region.

The Commodity Boom in LAC and Its Aftermath

Global commodity prices measured in current U.S. dollars almost tripled between 2003 and 2013. Although the increase was generalized, its magnitude differed considerably across categories: oil prices almost quadrupled, and metals prices tripled, while prices of agricultural products rose by about 50 percent. As illustrated in past editions of this *Regional Economic Outlook*, the impact that the sharp rise in commodity prices has had on individual countries across LAC depends on the specific mix of commodities they export and import.[3] To capture these features, we construct country-specific net commodity price indices (NCPIs) by combining international prices and country-level trade data for individual commodities.[4]

The Mid-2000s Commodity Boom

NCPIs across LAC increased sharply starting in the mid-2000s. The annual rate of growth of the NCPI

Note: Prepared by Bertrand Gruss. Anayo Osueke, Carlos Rondon, and Ben Sutton provided excellent research assistance. See Gruss (forthcoming) for technical details.

[1] See, for instance, Erten and Ocampo (2013a), Goldman Sachs (2014), and Jacks (2013).

[2] See the "Commodity Market Review" in the October 2013 *World Economic Outlook* (IMF, 2013).

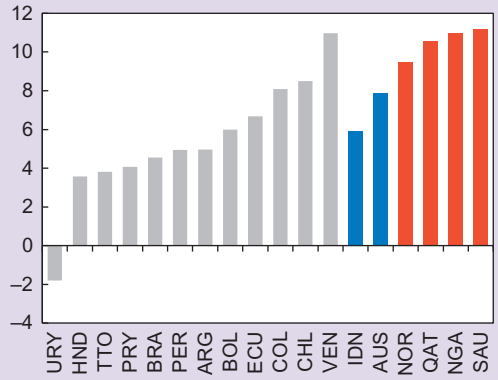
[3] See, for example, Chapter 3 of the October 2011 *Regional Economic Outlook: Western Hemisphere,* and Adler and Sosa (2011).

[4] The NCPI is constructed in relative terms—dividing individual commodity prices by international manufacturing prices—and in net terms—weighting prices by net exports of individual commodities (see Annex 4.1). Thus, a price increase that would imply a positive (negative) income shock if the economy is a net exporter (net importer) of that commodity would be captured by an increase (decrease) of its NCPI.

for the average commodity exporter in LAC turned positive in 2003, reached double digits in 2004, and remained positive and large until 2011 (with the exception of 2009).[5] Given this, it is appropriate to refer to 2003–11 as a "commodity boom" period for LAC.

During the commodity boom, NCPIs in the region grew on average by 5½ percent per year (Figure 4.1), an increase similar to that recorded in commodity exporters of other regions, such as Australia and Indonesia. Venezuela experienced the sharpest improvement in its NCPI among LAC commodity exporters, with average gains of over 10 percent per year, similar to oil producers in other regions. The only commodity exporter in the sample that did not experience NCPI gains in this period was Uruguay, reflecting its high reliance on oil imports.[6]

Figure 4.1
LAC: Commodity Price Growth, 2003–11[1]
(Average annual growth of NCPI; percent)



Sources: UN Comtrade; IMF, World Economic Outlook database; World Bank, *Global Economic Monitor*; and IMF staff calculations.
Note: LAC = Latin America and the Caribbean; NCPI = net commodity price index. See page 63 for a list of country name abbreviations.
[1] See the text for a discussion of NCPI. The sample includes the 12 largest commodity exporters in LAC. Other commodity exporters outside LAC are reported for reference (blue and red bars, the latter corresponding to oil producers).

[5] Commodity exporters are defined as those countries whose share of commodity exports in total exports is higher than the average for a sample of 169 countries during 2000–12.

[6] The case of Uruguay underscores the importance of focusing on *net* commodity prices: Uruguay's NCPI decreased by 15 percent during 2003–11, but a purely export-based index would have shown a 23 percent increase.

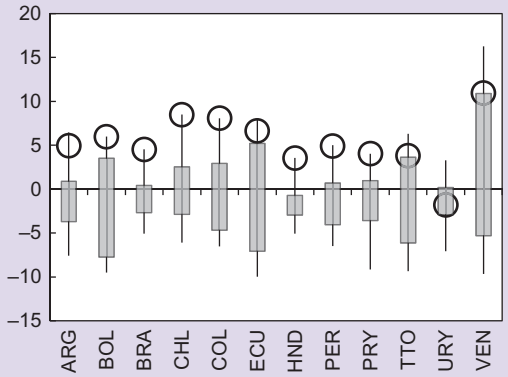
Historical Precedents

Comparing the increase in NCPIs in 2003–11 with comparable periods since 1970 suggests that the recent commodity boom was truly exceptional for most economies in the region. Figure 4.2 shows the distribution of average NCPI growth rates over rolling nine-year windows for the 12 largest commodity exporters in LAC. In all cases except Uruguay, the average annual NCPI growth rate during the recent boom was above the eighth decile of the distribution. Moreover, in many cases the average NCPI *growth* during 2003–11 was at, or very close to, the sample maximum. By contrast, the average NCPI *levels* observed during the last decade do not typically stand out in a historical perspective (Figure 4.3), except for Chile and Venezuela. In fact, in some countries (for example, Honduras and Uruguay) the average NCPI level in 2003–11 is close to the sample minimum.

Is the Commodity Boom Over?

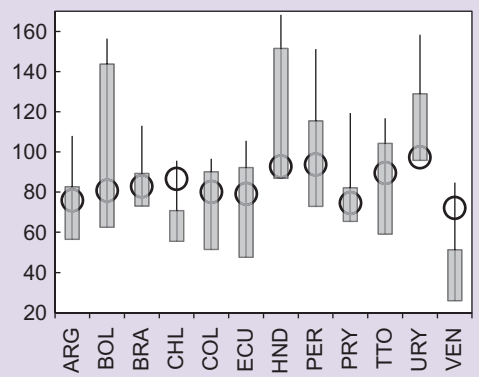
The uncertainty surrounding commodity price projections makes it difficult to be confident about future trends. However, most forecasts

Figure 4.2
LAC: Commodity Price Growth, 1970–2013[1]
(Average growth rate of NCPI over nine-year rolling windows; percent)



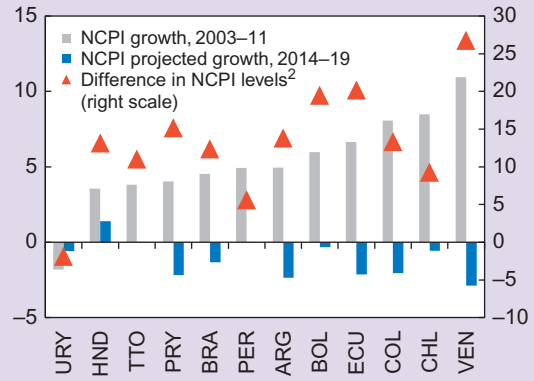
Sources: UN Comtrade; IMF, World Economic Outlook database; World Bank, *Global Economic Monitor*; and IMF staff calculations.
Note: LAC = Latin America and the Caribbean; NCPI = net commodity price index. See page 63 for a list of country name abbreviations.
[1] The black lines denote the range for the nine-year window averages of annual NCPI growth rates; the rectangle denotes the second through eighth deciles of its distribution; the marker denotes the average NCPI growth rate in 2003–11.

Figure 4.3
LAC: Commodity Price Level, 1970–2013[1]
(Average NCPI level over nine-year rolling windows; 2012 = 100)



Sources: UN Comtrade; IMF, World Economic Outlook database; World Bank, *Global Economic Monitor*; and IMF staff calculations.
Note: LAC = Latin America and the Caribbean; NCPI = net commodity price index. See page 63 for a list of country name abbreviations.
[1] The black lines denote the range for the nine-year window averages of the NCPI level; the rectangle denotes the second through eighth deciles of its distribution; the marker denotes the average NCPI level in 2003–11.

Figure 4.4
LAC: Commodity Price Outlook, 2014–19[1]
(Average annual growth of NCPI; percent)



Sources: UN Comtrade; IMF, World Economic Outlook database; and IMF staff calculations.
Note: LAC = Latin America and the Caribbean; NCPI = net commodity price index. See page 63 for a list of country name abbreviations.
[1] NCPIs for 2014–19 are constructed from prices of commodity futures prevailing at end-February 2014.
[2] Percentage difference between average NCPI levels in 2014–19 vs. 2003–11.

suggest that commodity prices will soften in the coming years. Specifically, NCPI forecasts using current prices of commodity futures suggest that the peak of the ongoing commodity super-cycle has passed. The current market-based outlook for 2014–19 is characterized by a sharp decline in NCPI growth rates across LAC, with an annual growth rate (averaged over time and across economies) about 6½ percentage points lower than during the commodity boom—and actually negative for most countries (Figure 4.4). This notwithstanding, average NCPI levels during 2014–19 would remain more than 10 percent higher than during the boom years. This outlook puts a premium on understanding whether it is high prices per se, or steady increases in prices, that provide the greatest positive impulse to economic growth in commodity-exporting countries.

Growth in LAC after the Commodity Boom

What would be the effect of high but stable or softening commodity prices on economic growth in LAC? We seek to shed light on this question based on the historical evidence of the last four decades.

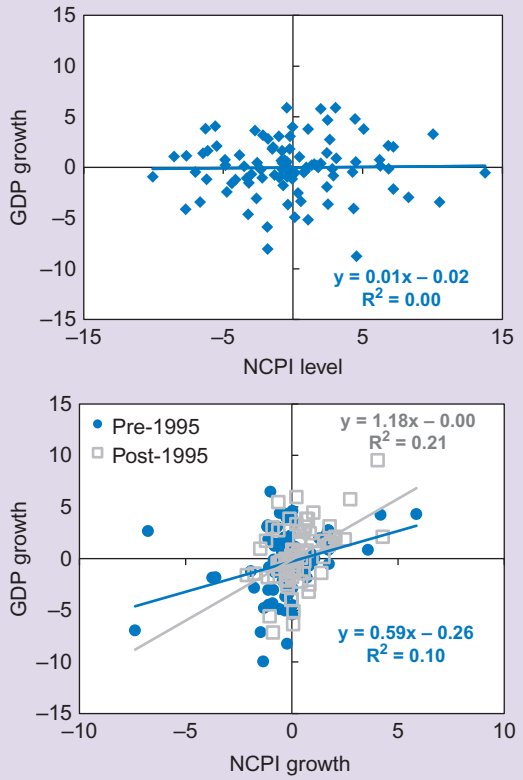
Benchmark

Before examining the evidence, it is useful to briefly review the potential links between commodity prices and growth. Consider a commodity exporter that is growing at its steady-state rate and suddenly faces a positive commodity price shock that is expected to persist. The higher income resulting from the improved terms of trade would boost demand for consumption, supporting domestic output (along with an increase in imports). This positive cyclical impulse would be reinforced by the rise of investment in the commodity sector in response to improved profitability. Higher investment, in turn, would expand the productive capacity of the economy. Thus, both potential and actual output would grow faster than in the absence of the commodity price shock. This effect, however, will be temporary. Once investment and consumption have adjusted to the new commodity price outlook, output *growth* would revert to its pre-shock level, unless the new investment leads to permanently higher productivity growth.

Commodity Prices and Growth—A First Look

Figure 4.5 plots the unconditional bivariate correlations between NCPIs and output growth in the commodity exporters of LAC.[7] The data in the upper panel of the figure do not point to any significant relationship between NCPI *levels* and output growth in LAC, at least since the 1970s. By contrast, the bottom panel suggests there may have been a positive relationship between the *growth* in NCPIs and output growth, especially since the mid-1990s. This simple pattern provides a prima facie indication that non-growing commodity prices could be a drag on growth in LAC in the next few years, even if they were to remain steady at their current high levels. However, a more careful multivariate analysis is necessary to investigate the underlying relationships and obtain quantitative predictions for concrete commodity price scenarios.

Figure 4.5
LAC: Commodity Prices and GDP Growth[1]
(Deviation from sample average; percent)



Sources: UN Comtrade; IMF, World Economic Outlook database; World Bank, *Global Economic Monitor*; and IMF staff calculations.
Note: LAC = Latin America and the Caribbean; NCPI = net commodity price index.
[1] NCPIs are adjusted by the share of commodity trade in GDP in order to identify the actual economic impact of commodity prices on output in a cross-country comparison. NCPI growth rates, NCPI levels, and GDP growth rates correspond to the average over three-year windows and are reported as deviations from their country-specific sample averages.

Multivariate Analysis

Our multivariate analysis of the relationship between commodity prices and output growth is based on a variant of the global vector autoregression (GVAR) model proposed by Pesaran, Schuermann, and Weiner (2004). In particular, we conduct the analysis using a formulation that combines country-specific vector-error correction models (VECMs) for 30 countries covering about 80 percent of world GDP, including 13 LAC economies.[8] The individual country VECMs are meant to capture the output effects of both commodity price *levels* and *changes* while also allowing for idiosyncratic factors. Combining the individual country VECMs into a global model, in turn, ensures that key cross-country interdependencies (owing to observed and unobserved common factors, but also to trade and policy spillover effects) and general equilibrium dynamics are taken into account. The model is estimated with annual data from 1970 to 2013 (to capture as many commodity cycles as possible). The following discussion focuses on results for a subset of commodity exporters of LAC, notably Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, and Uruguay.[9]

[7] We consider NCPIs instead of standard terms-of-trade measures because world commodity prices have been shown to be better at capturing exogenous terms-of-trade shocks for commodity exporters (see Chen and Rogoff, 2003).

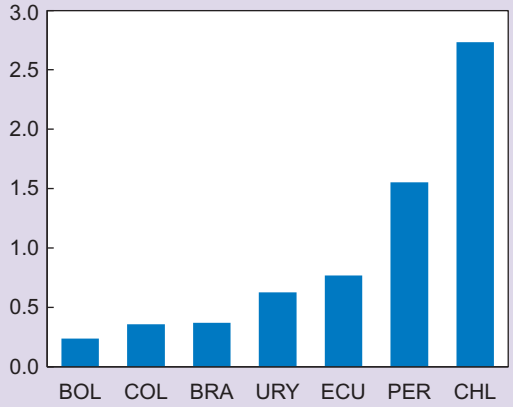
[8] See Annex 4.1 and Gruss (forthcoming) for more details.

[9] We exclude pure oil exporters from the analysis because their output dynamics are quite different from other commodity exporters. In particular, historical variation in oil prices tends to reflect idiosyncratic supply shocks (such as geopolitical shocks) that would distort the analysis. We also omit Argentina based on concerns about the quality of the official GDP data (see Annex 2.1).

Turning to the key implications from the model, we first consider the response of GDP to a shock to commodity prices. Figure 4.6 shows that a 10 percent increase in the country-specific NCPI would increase that country's output, on average, by about 1 percent after three years.[10] The estimated impact is about twice as large for Chile and Peru—a plausible finding, as these are very open economies for which commodities represent a large share of exports. For Brazil, with a much lower share of commodity exports in GDP, the estimated response is only half that of the average commodity exporter in LAC.

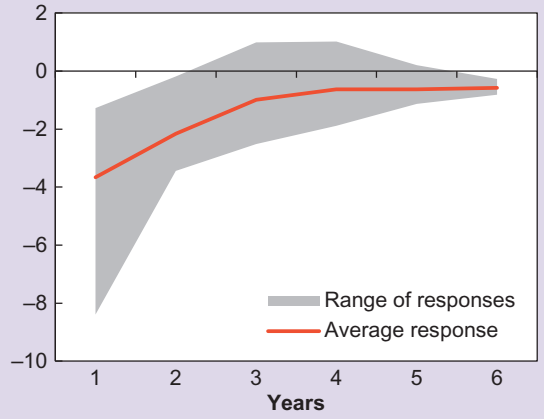
Demand from China has been a key driver of global commodity prices in recent years (see Erten and Ocampo, 2013b). In view of this, we examine the response of commodity prices to a hypothetical decline in China's GDP growth. Figure 4.7 shows the results: a 1 percent decline in China's GDP (relative to baseline) would lower the average NCPI of LAC countries by about 4 percent on impact. Moreover, the average NCPI would remain about 2 percent below trend two years after the shock. As before, these results appear quantitatively plausible and are in line with previous findings.[11]

Figure 4.6
Selected Latin America: GDP Response to a 10 Percent Increase in NCPIs
(Cumulative response after three years; percent)



Source: IMF staff calculations.
Note: NCPI = net commodity price index. See page 63 for a list of country name abbreviations.

Figure 4.7
Selected Latin America: NCPI Response to a 1 Percent Decrease in China's GDP Relative to Baseline[1]
(Percent)



Source: IMF staff calculations.
Note: NCPI = net commodity price index.
[1] Percentage deviation from trend of NCPIs for selected commodity exporters (Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, Uruguay).

The key question, however, is how different paths for commodity prices could affect output growth across LAC commodity exporters in the future. To answer this question, we use the GVAR model to produce forecasts for output growth over 2014–19, conditioning on projected NCPIs and oil prices under three alternative scenarios for commodity prices: (i) a "stable prices" scenario, which assumes that commodity prices will remain constant in U.S. dollar terms at their 2013 average levels; (ii) a "futures" scenario, where commodity prices evolve in line with the market prices of commodity

[10] Given the size of the model and following other studies using GVARs, we compute generalized impulse responses (Pesaran and Shin, 1998) in which the shocks are not identified (that is, we do not attempt to identify the ultimate source of the disturbance). For a discussion on the effects of supply- versus demand-driven shocks to commodity prices see Chapter 4 of the April 2012 *World Economic Outlook* (IMF, 2012b).

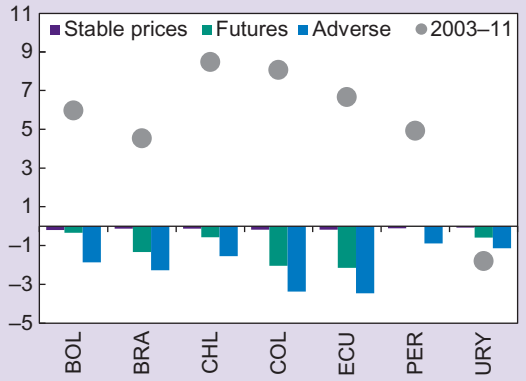
[11] For instance, the IMF Spillover Report on China (IMF, 2011) finds that a shock to real activity in China of 1 percent of GDP would lead to an increase in oil and metals prices of about 6 percent after six months.

futures prevailing at end-February 2014;[12] and (iii) an "adverse" scenario, in which all commodity prices are assumed to be 10 percent below those implied by the "futures" scenario by the end of the forecast horizon. The implications for the country-specific NCPIs are shown in Figure 4.8.

Results and Policy Implications

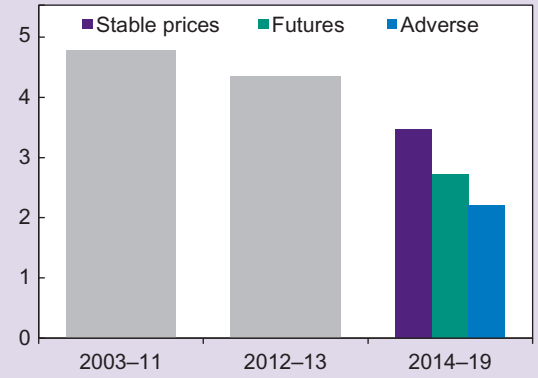
Overall, our results suggest that it is the lower projected *growth* of commodity prices, rather than their still-high *levels* per se, that will have a dominant effect on output growth in the next few years. Even if commodity prices were to remain stable at their current levels, average annual GDP growth in these seven LAC commodity exporters would be about 0.9 percentage points lower than in 2012–13 and 1.3 percentage points lower than during the commodity boom (Figure 4.9). The slowdown vis-à-vis the boom period would affect all countries, ranging from 0.8 percentage points in Chile to about 2 percentage points in Peru (Figure 4.10). The model also predicts lower average GDP growth in 2014–19 than in 2012–13 for all countries, except Brazil. Average growth under the "futures" and "adverse" scenarios would be about ¾ and 1¼ percentage points lower, respectively, than under the "stable prices" scenario, highlighting further downside risk.

Figure 4.8
Selected Latin America: Projected NCPI Growth Under Alternative Scenarios, 2014–19
(Average annual growth rate; percent)



Source: IMF staff calculations.
Note: NCPI = net commodity price index. See page 63 for a list of country name abbreviations.

Figure 4.9
Selected Latin America: Projected Average GDP Growth, 2014–19[1]
(Average annual growth rate; percent)

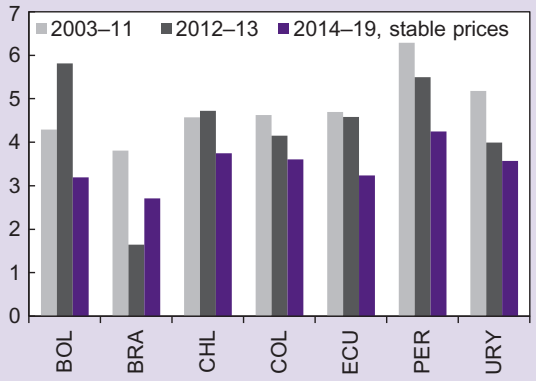


Source: IMF staff calculations.
[1] Simple average for Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, and Uruguay.

While interesting, the results from this exercise are subject to important caveats. First, the estimated model assumes stable relations, including policy responses to external shocks, over the period 1970–2013. Most LAC economies have undergone important structural transformations over these four decades, and many have significantly strengthened their policy frameworks more recently (for instance, by allowing greater exchange rate flexibility and reducing the procyclicality of fiscal policy). To the extent that these changes have a direct bearing on future growth, the projections from the model used in this chapter are likely to have a downward bias. Second, the model does not take into account future developments that are already foreseen but not readily captured by key macroeconomic relationships (for example, planned structural reforms aimed at raising future potential output).

[12] Although this market-based scenario could be thought of as a neutral scenario, using futures to forecast spot prices may imply a downward bias (see "Special Feature: Commodity Price Forecasting" in the April 2014 *World Economic Outlook* [IMF, 2014a]).

Figure 4.10
Selected Latin America: Projected GDP Growth, 2014–19
(Average annual growth rate; percent)



Source: IMF staff calculations.
Note: See page 63 for a list of country name abbreviations.

Despite these caveats, the model results carry two important policy implications for LAC commodity exporters. First, to avoid the boom-bust dynamics often associated with commodity cycles, countries should work to weaken the link between commodity prices and economic activity. Fiscal policy needs to play a critical role in this regard, by striking the right balance between building buffers and frontloading capital spending to raise potential growth. A formal fiscal framework, potentially including a stabilization fund, can support this effort. Exchange rate flexibility, underpinned by credible monetary and macroprudential frameworks, provides an additional buffer for shocks to the terms of trade.[13] Second, the recent slowdown in many LAC economies could be the result, to a large extent, of having passed the peak of the commodity super-cycle. If that is indeed the case, using demand-side stimulus to keep growth at recent high rates can give rise to problematic macroeconomic imbalances. Policies should focus instead on structural reforms to raise productivity.

[13] See IMF (2012a) for a thorough discussion of suitable policy frameworks for resource-rich countries.

Annex 4.1. Technical Details[14]

Country-Specific Net Commodity Price Index

To construct the net commodity price index (NCPI) for individual countries, we follow Deaton and Miller (1996) and Cashin, Céspedes, and Sahay (2004). As the commodity mix of individual countries may have changed since the 1970s, our measure uses three-year rolling averages of trade weights. These, in turn, are based on the *net exports* of each commodity to capture net income effects from changes in their prices (similarly to Spatafora and Tytell, 2009). The weights are lagged one year, so that changes in the price index reflect changes in commodity prices rather than endogenous changes in volumes. The annual change in country *i*'s NCPI is given by:

$$\Delta \mathrm{Log}\left(\mathrm{NCPI}\right)_{i,t} = \sum_{j=1}^{J} \Delta P_{j,t} \cdot (x_{i,j,t-1} - m_{i,j,t-1}) / A_{i,t-1},$$

where $P_{j,t}$ is the logarithm of the relative price of commodity j at time t (in U.S. dollars and divided by the IMF's unit value index for manufactured exports);[15] Δ denotes first differences; $x_{i,j,t-1}$ ($m_{i,j,t-1}$) denotes the average *exports (imports)* value of commodity j by country i between $t-1$ and $t-3$ (in dollars, from UN Comtrade); and where $A_{i,t-1}$ is the lagged three-year moving average of country i's total commodity trade (exports plus imports), except for the indices used in Figure 4.5, where it is the lagged three-year moving average of country i's GDP in dollars.

[14] See Gruss (forthcoming) for more details.

[15] We use prices for 33 commodities (taken from the IMF's International Financial Statistics database) since 1970: aluminum, bananas, barley, beef, coal, cocoa, coconut oil, coffee, copper, corn, cotton, crude oil, fishmeal, hides, iron ore, lamb, lead, natural gas, natural rubber, nickel, palm oil, rice, shrimp, soybean meal, soybean oil, soybeans, sugar, sunflower, tea, tin, wheat, wool, and zinc.

The Global Vector Autoregression Model Setup

The model covers 30 economies, 5 of which are modeled as a group (France, Germany, Italy, Spain, the United Kingdom).[16] The other 25 economies include 13 LAC countries, covering the 12 largest commodity exporters (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Honduras, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela) and Mexico; other commodity exporters outside the region (Australia, Indonesia, Iran, Nigeria, Norway, Qatar, Saudi Arabia); and other large economies (Canada, China, India, Japan, the United States).

In a first step, a vector-error correction model (VECM) is estimated for each country/region, in which domestic variables are related with foreign-specific variables (that is, the trade-weighted cross-sectional average of domestic variables for the other economies) and global variables.[17] Most country models include real GDP, the real exchange rate (defined as the nominal exchange rate deflated by domestic consumer prices), and the current-account-to-GDP ratio (to proxy for changes in net foreign assets) as endogenous variables; and trade-weighted foreign real GDP and the country-specific NCPI (or the real price of oil for pure oil exporters or non-commodity exporters) as weakly exogenous variables. The global variables, that is, the oil price and the NCPIs, are modeled in three additional VECMs that include the trade-weighted output of all the economies in the model as a weakly exogenous variable. In a second step, the estimated country-VECMs are stacked into a global model and linked using a matrix of predetermined cross-country linkages based on the average trade flows over 2010–12.

To compute conditional output forecasts under alternative future paths for a set of endogenous variables in the model (all NCPIs and the oil price), we use the Kalman filter approach proposed by Camba-Mendez (2012).

[16] See Pesaran, Schuermann, and Weiner (2004) and Dees and others (2007) for a thorough description of global vector autoregressions. The model is estimated using the toolbox by Smith and Galesi (2011).

[17] To account for the significant changes in trade linkages over the sample period, we use three-year moving average trade shares to construct foreign-specific variables.

5. Has Fiscal Policy Become More Countercyclical in Latin America?

For many decades, fiscal policy in Latin America has been, on average, procyclical. However, country-specific estimates for the cyclicality of fiscal policy are mostly insignificant, with only a few exceptions of clearly procyclical policy. Some countries (Brazil, Chile, Colombia, El Salvador, Mexico), meanwhile, appear to have moved toward less procyclical or more countercyclical policy in recent years. Nonetheless, other important attributes of sound fiscal policy, including fiscal sustainability, transparency, and efficiency, need to be strengthened further in many countries.

Introduction

For many decades, fiscal policy in Latin America has been procyclical. The easy availability of funds during periods of economic expansion, against a background of major social and infrastructure needs, repeatedly prompted rapid increases in government expenditure. But later spending often had to be cut sharply when economies fell into recession or faced a sudden stop of capital inflows.

This procyclicality has been empirically documented in a growing literature that started in the late 1990s (with Gavin and Perotti, 1997; see the summary in Annex 5.1). With very few exceptions, studies have found evidence of procyclical fiscal policy in developing and emerging markets, and especially in Latin America.

The overall improvement in the macroeconomic performance and policy frameworks of many Latin American economies over the last decade or so makes this a good time to check progress in reducing the procyclicality of fiscal policy.

To be sure, the cyclical stance is only one of many dimensions along which to assess improvements in fiscal policy. It is entirely possible, for example, that countercyclical fiscal policy increases wasteful spending or endangers fiscal sustainability.

Note: Prepared by Alexander Klemm, based on the analysis in Klemm (2014). Anayo Osueke provided excellent research assistance.

The rest of this chapter is structured as follows. First, it clarifies some methodological issues, notably regarding the treatment of automatic stabilizers. It then presents empirical results, both for Latin America as a whole and for individual countries, followed by a broader discussion of the quality of fiscal policies in the region and a brief conclusion.

Methodology

The idea behind countercyclical fiscal policy is simple: fiscal policy should be tighter during booms and looser during recessions. To test for this empirically, previous studies have either looked at correlations between fiscal and macroeconomic variables or used a regression approach, which allows further controls. The typical regression relates the change in (a measure of) the fiscal balance to the output gap and a few additional variables:

$$\Delta \frac{B}{Y} = \beta_0 + \beta_1 \left(\frac{Y - Y^*}{Y^*} \right) + \beta_2 \frac{B}{Y_{t-1}} + \gamma' x + f_i + \varepsilon \qquad (5.1)$$

where B is the fiscal balance, Y is nominal GDP, Y^* is potential GDP, x is a vector of other control variables, f_i is a country fixed effect, which may be added in case of estimation on panel data, and ε is an error term. Variants in the literature include using real GDP growth instead of the output gap as a regressor, and focusing on government revenues or expenditures instead of a fiscal balance.

In these studies, the estimated coefficient on the output gap (β_1) is the main indicator of the cyclicality of policy. A negative coefficient is evidence of procyclical policy, as it suggests that the fiscal stance is relaxed in a boom. Conversely, a positive coefficient implies countercyclical

policy. With an insignificant coefficient, acyclical fiscal policy cannot be rejected against the alternative hypotheses of pro- or countercyclical fiscal policies.

When estimating this type of regression, three main issues have to be addressed:

- The definition of the cyclical stance;
- The endogeneity of the output gap; and
- Other major influences on the fiscal balance, such as commodity-related revenues.

The Cyclical Stance

Previous studies have used two approaches to measure the cyclical stance. Some have considered only discretionary policy actions—such as tax cuts or budget revisions—to delimit the cyclical stance. In practice, this means using changes in the cyclically adjusted primary balance (or a structural balance) as the dependent variable of the regression. Other studies have taken all actual changes in the fiscal balance, whether owing to discretionary action, or occurring automatically—for instance, because of rising revenues—when the economy performs better than expected.

We propose an innovative third approach. Specifically, we include as part of the cyclical response of fiscal policy the automatic stabilizers that are an inherent part of the economy's tax and welfare system (such as the additional revenues gained during a boom owing to a rising average tax rate under a progressive tax system, or the reduction in welfare spending as the unemployment rate drops). We do not, however, consider as a policy response (i) the additional revenues from taxing deviations of GDP from potential at an unchanged average tax rate and (ii) declines in spending ratios that are only the result of GDP exceeding potential.

The reason for adopting this approach is that ignoring the contribution of systematic automatic stabilizers could be misleading in the analysis of policy. For example, when comparing the policy responses of two countries, noting a more active discretionary response in one of them but not reporting on the larger automatic stabilizers in the other would bias the assessment. Lesser reliance on discretionary measures could, in fact, be motivated by the presence of stronger automatic stabilizers, which reduce the need for policy action.

The definition used here strikes a balance between ignoring automatic stabilizers and counting all temporary revenue gains as a policy response. Empirically, it is implemented by using changes in an adjusted primary balance as the dependent variable.[1]

A number of studies use as a dependent variable indicators of expenditure, rather than the fiscal balance. This has the advantage of largely avoiding the question of cyclical adjustments, especially if spending excluding transfer payments is considered. Conclusions about cyclicality drawn from expenditure analysis are, however, only valid if there is no policy change on the revenue side. Otherwise, a fully tax-financed increase in expenditure would incorrectly be interpreted as a cyclical policy response.

The Endogeneity of the Output Gap

The output gap is partly the result of fiscal policy, which affects the economy. Estimating equation (5.1) using ordinary least squares would therefore produce biased results. To avoid this, an instrumental variable approach should be used instead. The results reported below were obtained using a system-Generalized Method of Moments estimator in panel data regressions and a simple instrumental-variable approach in country-specific regressions.

[1] Specifically, the adjusted balance is defined as

$$\left(\frac{B}{Y}\right)' = \frac{B}{Y} + G\left(\frac{1}{Y} - \frac{1}{Y^*}\right),$$

where G is government spending. The year-to-year difference in this adjusted balance will rise if the average tax rate goes up and/or spending grows less than potential GDP.

Commodity-Related Revenues

Apart from the business cycle, other factors can affect tax revenues, of which commodity prices are particularly important in Latin America. Commodity prices may boost revenues beyond what can be explained by real GDP growth, and the effect will tend to be stronger in larger exporters of natural resources, which may be highly taxed or where the government itself may be a major investor.

To control for the effect of commodity prices on the fiscal balance, we include a commodity price index as a regressor, following Cespedes and Velasco (2011). The index is constructed as the change in commodity prices, weighted by the share of each exported commodity in GDP. It is therefore specific to each country, reflecting the relevant dependence on commodities.

Regression Results

A panel data estimation of equation (5.1), allowing for different intercepts for each country, but imposing the same slope within a region, was conducted for a group comprising 19 Latin American economies (see Table 5.2 for a list) and for a group of 32 advanced economies. Table 5.1 summarizes the results.[2]

The results suggest that fiscal policy in Latin America has been procyclical, as the coefficient on the output gap is negative and statistically significant, both in a standard within-group regression and in a Generalized Method of Moments regression that allows for endogeneity.[3]

Table 5.1. Regionwide Results

Dependent variable: Δ Adjusted primary fiscal balance				
Countries	Latin America		Advanced economies	
Estimation method	WG	GMM	WG	GMM
	(1)	(2)	(3)	(4)
Output gap	–0.343**	–0.337**	0.138**	0.302***
	(0.142)	(0.150)	(0.057)	(0.106)
Commodity price growth	0.386***	0.414	0.565***	1.405**
	(0.075)	(0.261)	(0.069)	(0.644)
Adjusted deficit$_{t-1}$	–0.441***	–0.479***	–0.228***	0.042
	(0.082)	(0.125)	(0.025)	(0.103)
Observations	333	333	760	760
R-squared	0.343		0.184	
Number of countries	19	19	32	32
AB AR(1) test		0.079		0
AB AR(2) test		0.494		0.406
Hansen *p*-value		0.347		0.764

Source: IMF staff calculations based on data from IMF, *World Economic Outlook* (October 2013); and UN Comtrade.
Note: Robust errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
AB = Arellano-Bond test; WG = within-group regressions; GMM = system Generalized Method of Moments regressions that treat the output gap and the lagged adjusted primary fiscal balance as endogenous, using the first and second lags as collapsed instruments. Sample: 1980–2012.

In contrast, the results for advanced economies, which are reported for comparison, show a positive and statistically significant coefficient, implying countercyclical fiscal policy. These results are in line with most of the previous studies, which have also found procyclical policy in Latin America, and either acyclical or countercyclical policy in advanced economies.

The coefficient on the commodity price is positive and statistically significant in three of the four regressions. This confirms the conjecture that the adjusted primary fiscal balance improves when commodity price growth is strong.

We also estimated country-specific regressions, using the same explanatory variables as those in Table 5.1. To address endogeneity, we applied an instrumental-variable approach with the lagged output gap as an instrument. Table 5.2 presents estimates of the coefficient on the output gap obtained in these regressions.

What stands out from the first two columns of Table 5.2 is the very small number of statistically significant coefficients. This is a common—though rarely mentioned—feature of studies on fiscal

[2] See Klemm (2014) for further results and robustness checks, including the use of growth rates instead of output gaps, different instruments, and different dependent variables (expenditure ratios, discretionary measures, and unadjusted fiscal balances).

[3] Table 5.1 also reports the standard specification tests: the Arrellano-Bond AR(1) test is rejected as expected, whereas the AR(2) test and the test of overidentifying restrictions (Sargan/Hansen test) are not rejected, as required.

Table 5.2. Country-Specific Results—Coefficient on the Output Gap

Dependent variable: Δ Adjusted primary balance				
			OLS	
	OLS	IV	Pre-2005	Δ since 2005
Argentina	–0.32***	–0.381**	–0.26**	–0.36
	(0.08)	(0.15)	(0.11)	(0.67)
Belize	0.22	2.40	0.54	–0.53
	(0.30)	(1.76)	(0.35)	(0.48)
Bolivia	–0.45	–0.21	–0.42	0.01
	(0.38)	(1.00)	(0.43)	(1.12)
Brazil	0.32	5.55	–0.16	0.74*
	(0.19)	(21.96)	(0.21)	(0.33)
Chile	0.27	–1.10	0.00	0.90**
	(0.26)	(1.21)	(0.17)	(0.34)
Colombia	–0.14	–0.50	–0.31	0.69*
	(0.16)	(0.45)	(0.25)	(0.38)
Costa Rica	0.25	–0.77	–0.35	0.75
	(0.20)	(1.45)	(0.33)	(0.51)
Ecuador	–0.48**	0.60	–0.28	0.13
	(0.22)	(2.45)	(0.23)	(0.50)
El Salvador	0.30	–1.03	–0.08	0.61*
	(0.19)	(2.90)	(0.24)	(0.32)
Guatemala	0.14	–0.75	–0.42	0.62
	(0.16)	(1.69)	(1.24)	(1.28)
Guyana	1.12***	–0.89	1.12	0.07
	(0.23)	(6.46)	(0.83)	(0.83)
Honduras	0.21	0.18	1.51*	–1.42*
	(0.14)	(0.37)	(0.65)	(0.69)
Mexico	–0.21	0.43	–0.32**	0.46**
	(0.14)	(0.66)	(0.15)	(0.19)
Nicaragua	–0.33	–0.71	–0.81**	0.84
	(0.21)	(0.61)	(0.29)	(0.45)
Paraguay	–0.07	4.98	–0.13	0.19
	(0.13)	(35.75)	(0.25)	(0.29)
Peru	0.36	0.58*	0.20	0.15
	(0.30)	(0.28)	(0.58)	(0.53)
Suriname	–1.10	–9.85	–1.26	0.79
	(0.68)	(10.88)	(0.77)	(2.16)
Uruguay	–0.45***	–0.71***	–0.46***	0.14
	(0.07)	(0.18)	(0.08)	(0.22)
Venezuela	–0.60***	0.28	–0.54***	0.26
	(0.16)	(0.83)	(0.15)	(0.37)

Source: IMF staff calculations based on data from IMF, *World Economic Outlook* (October 2013); and UN Comtrade.
Note: IV = instrumental variables; OLS = ordinary least squares. Robust standard errors in parentheses. In IV regressions, the lagged output gap serves as instrument. All regressions also include a constant, the lagged adjusted primary balance, and the commodity price index. Sample: 1990–2012. See Annex 2.1 for details on Argentina's GDP.

policy cyclicality, many of which do not report tests of significance. Still, the coefficients for some countries show evidence of procyclical policy under both the ordinary least squares and instrumental-variables regressions. In other countries, such as Ecuador and Venezuela, the evidence for procyclical fiscal policy does not hold up in the instrumental-variables estimates. The coefficient is not positive or consistently statistically significant in any of the 19 countries. In other words, there is no significant evidence for countercyclical policy in any Latin American country. In summary, for most countries, acyclical policy cannot be rejected, although a mildly cyclical (with a coefficient close to zero) or erratic (with large standard errors) fiscal policy is also consistent with the evidence.

Of course, there is no reason for the cyclicality of fiscal policy to remain unchanged in the 23-year period covered in the regressions. To investigate whether there have been any recent changes to fiscal policy, Table 5.2 also reports regressions that allow for a varying degree of cyclicality over time, showing coefficients for the period 1990–2004 and the change to the coefficient during the following years.[4]

The results suggest that fiscal policy may have become less countercyclical only in Honduras, while it moved toward more countercyclical or less procyclical policy in Brazil, Chile, Colombia, El Salvador, and Mexico. As the later period includes the global financial crisis and any related stimulus, the next boom period will provide a test of whether more countercyclical policies will prevail.

The Quality of Fiscal Policy

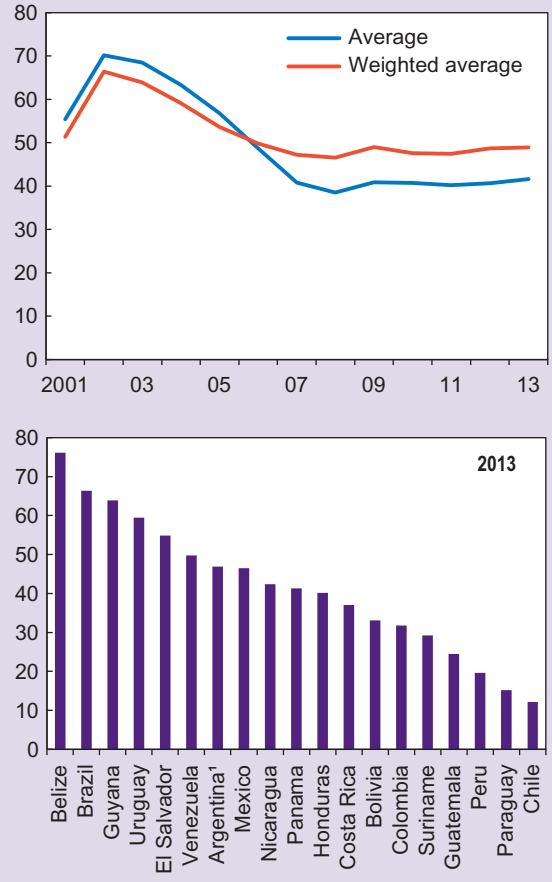
As noted earlier, the cyclical stance of fiscal policy is only one dimension of the quality of fiscal policy. A given fiscal stance could be achieved with many different underlying tax and expenditure policies. Hence, a move toward more countercyclical policy could be problematic if certain risks are not addressed.

Fiscal Sustainability

A countercyclical policy response—and in particular deficit-increasing policy during recessions—must

[4] The year 2005 was chosen because the panel regressions suggest that this is the year with the most significant change in the coefficient, and because a single year for all countries allows easy comparability. Moreover, to ensure a sufficient sample size during the second period, a later year would not be advisable.

Figure 5.1
Public Debt in Latin America
(Percent of GDP)



Source: IMF, World Economic Outlook database.
[1] See Annex 2.1 for details on Argentina's GDP.

not go so far as to put medium-term finances at risk. In Latin America, public debt remains very high, on average, having stopped declining in 2007 (Figure 5.1). The high level of debt and its evolution in recent years act as a constraint for countercyclical policy during downturns. However, the situation differs greatly across countries, as some have very low debt stocks.

Fiscal expansions in downturns are meant to address a demand shortfall and thus should be reversible or limited in time. If the higher expenditures are structural in nature, it will be harder to readjust the stance when the economy improves. Chile is an example of a country that has tried to reduce this risk, by linking increases in structural spending to permanent revenues (for example, a recent tax reform to finance education spending). Most other countries in Latin America, however, do not make this distinction.

Fiscal Institutions

Many countries in Latin America have adopted reforms to strengthen fiscal institutions, including fiscal rules.[5] Provided that such rules are well-designed, they can support sustainable fiscal policy while avoiding procyclicality. Indeed, countries such as Chile, Colombia, and Mexico have managed to move toward more countercyclical policy while following a fiscal rule.

Fiscal transparency is also important, for both policymakers and the public. Some recent examples of intransparent policies include the use of one-off transactions to reduce reported deficits or the increased use of deficit-neutral operations such as policy lending, which may still increase fiscal liabilities.

Conclusion

The evidence presented in this chapter suggests that fiscal policy in Latin America has been procyclical, on average, rather than acyclical or countercyclical as in most advanced economies. Country-specific estimations, however, yield mostly insignificant results, as is common—but often unacknowledged—in comparable studies. In more recent years, Brazil, Chile, Colombia, El Salvador, and Mexico appear to have moved toward less procyclical or more countercyclical fiscal policy. It remains to be seen whether this development will prevail during times of closed or positive output gaps, when previous fiscal stimulus measures should be unwound. More generally, countries need to rebuild their buffers, not least to be prepared for any future negative economic shock.

[5] For an overview of fiscal rules in Latin America, see the October 2011 *Regional Economic Outlook: Western Hemisphere*.

Apart from cyclical considerations, fiscal policy should be sustainable and transparent. Fiscal institutions, such as well-designed fiscal rules can support sustainability without leading to procyclical fiscal policy. Fiscal transparency has been improved in many countries over the last decade, but recent examples indicate the reappearance of problematic behavior, such as the use of one-off transactions and operations that are chosen to avoid increasing reported deficits.

Annex 5.1. Summary of Empirical Literature

Table A5.1. Empirical Literature on the Cyclical Stance of Fiscal Policy in Emerging Markets

Study	Method	Finding[1]
Alesina, Campante, and Tabellini (2008)	Regression of change in fiscal balance/spending on output gap	Only advanced (OECD) economies countercyclical
Catão and Sutton (2002)	Regression of change in fiscal balance on output gap	Most emerging markets procyclical
Cespedes and Velasco (2011)	Regression of change in fiscal balance on output gap and cyclical component of commodity prices	Diversity across countries; some developing economies have become more countercyclical
Daude, Melguizo, and Neut (2011)	Correlation between change in cyclically adjusted primary balance and output gap	Most of Latin America procyclical
Di Bella (2009)	Regression of change in cyclically adjusted primary balance on cyclically adjusted primary balance and debt rating during 2009 downturn	Countries with stronger fiscal positions and credit ratings more countercyclical
Frankel, Vegh, and Vuletin (2013)	Correlation between cyclical components of real government spending and GDP	Developing countries more procyclical than advanced, but less than in the past
Gavin and Perotti (1997)	Regression of change in fiscal balance/revenue/spending growth on GDP growth	Advanced economies countercyclical; Latin America procyclical
Ilzetzki and Vegh (2008)	Regression of real spending on real GDP	Developing economies often procyclical
Jaimovich and Panizza (2007)	Regression of fiscal balance or spending on growth	Advanced economies countercyclical; developing economies indeterminate
Kaminsky, Reinhart, and Vegh (2004)	Difference between spending growth in good and bad times; correlation between spending and growth	Most non-OECD and half of OECD countries procyclical
Lane (2003)	Regression of government spending on GDP	Procyclical policies more likely in countries with volatile output and dispersed political power
Lledo, Yackovlev, and Gadenne (2011)	Regression of government spending on GDP growth	Developing countries, especially in sub-Saharan Africa, procyclical
Talvi and Vegh (2005)	Correlation between real output and government consumption/ revenues	Developing countries procyclical
Vegh and Vuletin (2012)	Regression of tax rates on cyclical component of real GDP	Tax policy acyclical in advanced economies; procyclical in developing economies

Source: IMF staff compilation.
Note: OECD = Organization for Economic Cooperation and Development.
[1] Many papers have a different focus; the finding reported here is related to the cyclicality of fiscal policy.

List of Country Abbreviations

Argentina	ARG	Korea	KOR
Antigua and Barbuda	ATG	Malaysia	MYS
Australia	AUS	Mexico	MEX
Belize	BLZ	Nicaragua	NIC
Bolivia	BOL	Nigeria	NGA
Brazil	BRA	Norway	NOR
Canada	CAN	Panama	PAN
Chile	CHL	Paraguay	PRY
China	CHN	Peru	PER
Colombia	COL	Philippines	PHL
Costa Rica	CRI	Poland	POL
Dominica	DMA	Russia	RUS
Dominican Republic	DOM	Qatar	QAT
Ecuador	ECU	St. Kitts and Nevis	KNA
El Salvador	SLV	St. Vincent and the Grenadines	VCT
Grenada	GRD	Saudi Arabia	SAU
Guatemala	GTM	Singapore	SGP
Guyana	GUY	South Africa	ZAF
Haiti	HTI	Thailand	THA
Honduras	HND	Trinidad and Tobago	TTO
Hungary	HUN	Turkey	TUR
India	IND	United States	USA
Indonesia	IDN	Uruguay	URY
Israel	ISR	Venezuela	VEN
Jamaica	JAM		

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