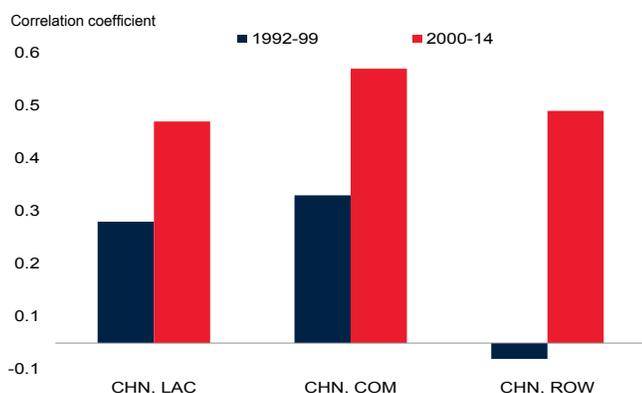


BOX 2.2 What does a slowdown in China mean for Latin America and the Caribbean?¹

Growth in Latin America and the Caribbean (LAC) has become increasingly dependent on activity in China, partly as a result of heavy reliance on commodity exports. A 1 percentage point deceleration of growth in China has been associated with a 0.6 percentage point slowing of growth in the LAC region.

FIGURE B2.2.1 Correlations between China and Latin America and the Caribbean

Growth in LAC region has increasingly become tied to growth in China.



Source: World Bank calculations.

Note: "CHN, LAC" refers to the correlation between China's GDP growth and Latin America and the Caribbean's GDP growth; correlation coefficients are statistically significant at 5 percent for both periods. "CHN, COM" refers to the correlation between China's GDP growth and metal commodity prices; correlation coefficients are statistically significant at 5 percent only for the second period (2000-2014). "CHN, ROW" refers to the correlation between China's GDP growth and the rest of the world's GDP growth; correlation coefficients are statistically significant at 5 percent only for the second period (2000-14). Estimations are based on quarterly data covering 1992Q2-2014Q2.

Growth in Latin America and the Caribbean (LAC) received a substantial boost from China in the first decade of the 2000s through growing trade, investment, and commodity market linkages. As linkages between China and LAC have strengthened, their business cycles have also become more correlated (Figure B2.2.1). During the same period, global commodity prices and activity have also become more closely aligned with Chinese growth dynamics. The carefully managed slowdown in China expected over the near term, however, may dampen growth and pose policy challenges for the LAC region.

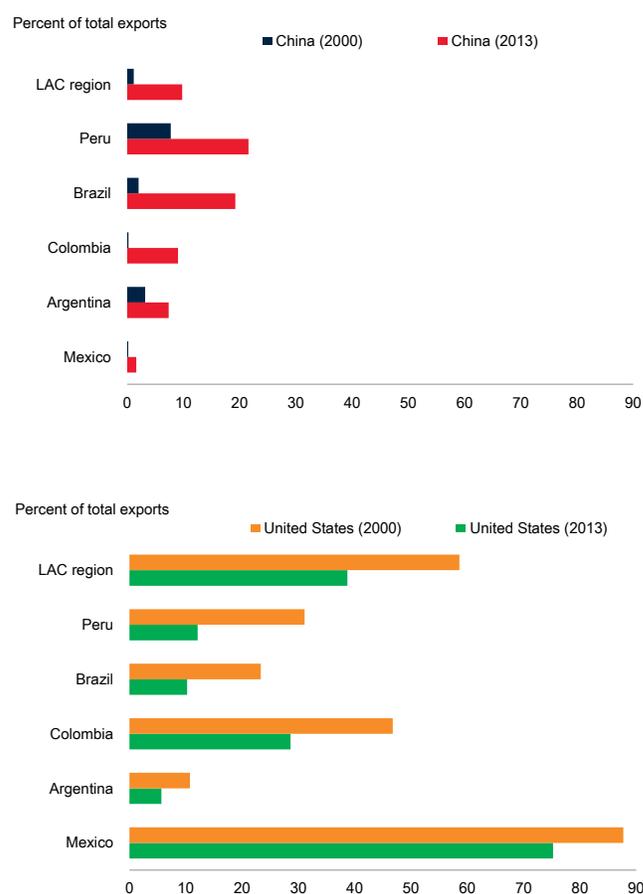
This box briefly documents the growing linkages between LAC and China and analyzes the implications for the region of the slowdown in China.

Linkages between LAC and China

There are two main channels through which China's growth performance has spurred activity in LAC: (i) directly, as trade, and to some extent, foreign direct investment (FDI) from China to several LAC countries have increased; and (ii) indirectly, as

FIGURE B2.2.2 Share of exports from Latin America and the Caribbean to China and the United States

China has become an increasingly important export destination for LAC countries while the share of exports to the United States has declined.



Source: World Bank calculations based on Comtrade (2014).

Note: LAC refers to low- and middle-income countries in Latin America and the Caribbean.

¹The main authors of this box are Young Il Choi, Marcio Cruz, and Raju Huidrom.

BOX 2.2 (continued)

the economic expansion in China has contributed to higher global commodity prices, raising receipts for many LAC commodity exporters not only from exports to China, but also to the rest of the world.²

China’s rapid growth has coincided with a sharp increase in its trade with LAC.³ The share of the region’s exports going to China increased by tenfold between 2000 and 2013 (Figure B2.2.2). China’s impact on the export profile of Argentina, Brazil, Colombia, and Peru has been particularly large, although there is some distinction in the types of products China imports from these countries. Argentina, Uruguay, and Paraguay export predominantly agricultural products to China, whereas Chile and Peru export mostly metals and Colombia and República Bolivariana de Venezuela export mainly oil. Brazil exports a large share of both its agricultural and mineral production to China. While the region’s trade linkages with the United States have weakened over time, they remain quite strong. Although FDI from China to the LAC region has risen, it remains relatively small.⁴

Since the early 2000s, rapid expansion of the Chinese economy has played an important role in the steady growth of global commodity prices (World Bank, 2014e). China’s imports of some commodities have risen significantly, and many of these are produced in LAC (Figure B2.2.3).⁵ A slowdown in China could reduce demand for commodities and soften their prices, especially of metals that are heavily used in industrial production. This could weaken growth in commodity-exporting countries, including those in LAC.

Near-term effects of slowdown in China

To better understand the possible short- and medium-term effects that a slowdown in China could have on the LAC region, a simple structural vector auto regression (SVAR) model is estimated using data over 1992Q2–2014Q2 with the following variables: rest of world’s gross domestic product (GDP) growth, world interest rate (proxied by the U.S. federal funds rate),

²There are other direct and indirect linkages between LAC and China (World Bank, 2011). For example, low cost production of labor-intensive goods in China may have contributed to global disinflationary pressures over the 2000s.

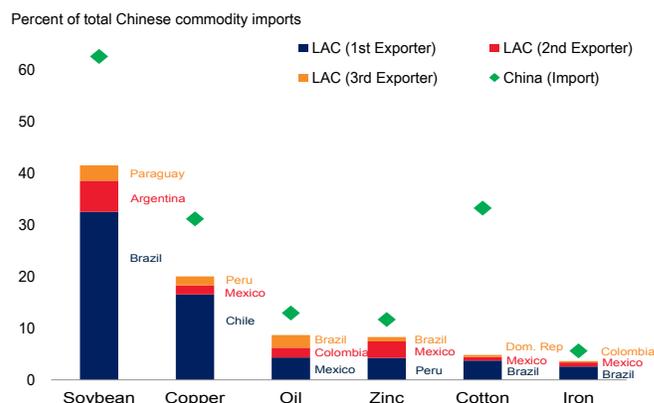
³Trade between LAC and China has picked up from a low base, after the accession of China as a member of the World Trade Organization, in 2001.

⁴FDI from China is significant in República Bolivariana de Venezuela (accounting for an average of more than 11 percent of total FDI between 2010 and 2012). There is little evidence that FDI from China has a significant impact on overall FDI to LAC (Garcia-Herrero et. al. 2008).

⁵Baffes and Savescu (2014) and Roache (2012) documented that China plays a key role in global base metal markets.

FIGURE B2.2.3 Shares of global commodity trade, 2012

LAC countries account for a significant share of global commodity exports.

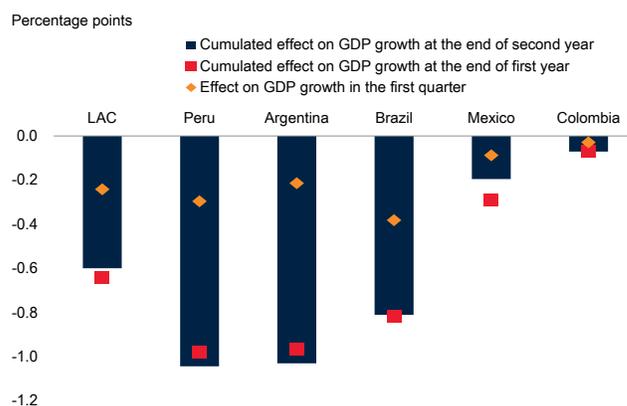


Source: World Bank calculations based on Comtrade (2014).

Note: The green diamonds refer to China’s share of global imports and the bars refer to the shares of the top three Latin America and Caribbean exporters in global exports with respect to soybean, copper, oil, zinc, cotton and iron.

FIGURE B2.2.4 Growth response of a 1 percentage point decline in China’s growth

A growth slowdown in China would sharply reduce growth in some LAC countries.



Source: World Bank estimations.

Note: Results for the cumulated effect on GDP growth at the end of first and second years are statistically significant at the 16th–84th percentile range based on 2000 draws for LAC, Peru, Argentina, and Brazil.

BOX 2.2 (continued)

China's GDP growth, LAC's GDP growth; world trade, and commodity prices (proxied by an index of metal prices).⁶

A slowdown in China is indeed associated with slower growth in the LAC region, which experiences a 0.6 percentage point reduction in GDP over a horizon of two years in response to a 1 percentage point reduction in China's growth (Figure B2.2.4).⁷ A slowdown in China, by reducing demand for commodities, also adversely affects commodity prices: they decline by as much as 5 percentage points over two years when growth in China slows by 1 percentage point. The findings related to commodities suggest that commodity markets are an important channel for the transmission of a slowdown in China to the region.

Additional models are estimated to analyze the impact of a slowdown in China on select Latin American economies: Argentina, Brazil, Colombia, Mexico, and Peru.⁸ The results indicate that a 1 percentage point decline in China's GDP tends to have a strong, statistically significant impact on Argentina, Brazil, and Peru whereas the impact on Colombia and Mexico is much weaker and not statistically significant (Figure B2.2.4). These results point to a complementary economic relationship between some of the largest Latin American commodity exporters and China and a potentially competitive relationship between Mexico and China for export markets, especially for manufactured goods going to the United States (Hanson, 2012).

Long-term challenges and opportunities

Growth in China has slowed since 2010, and this trend is expected to continue in the long term as a rebalancing away from credit-fueled investment toward consumption and services proceeds (World Bank, 2014f; Eichengreen et al., 2012). Over a longer time horizon than that considered in the models here, the projected rebalancing of China's economy toward consumption and services is also likely to lower the growth of global demand for some commodities, such as copper, lead, tin, and aluminum (Roache, 2012; Ahuja and Naba, 2012; Baffes and Savescu, 2014) proportionately more than for others, such as soybeans, corn, and meat (Westcott and Trostle, 2014). As a result, countries that are heavily dependent on metal exports will likely experience sharper growth headwinds than those that rely more on agricultural exports.

At the same time, structural changes underway in China's economy may provide opportunities for the region, regarding commodities, manufacturing, tradable services, and FDI (World Bank, 2014f). These include the potential increase in food prices if growing per capita incomes in China raises food demand, a potential increase in demand for services as China's population

ages, improving relative competitiveness of LAC countries as Chinese labor cost rise, and possibly rising FDI from China.

Conclusions

With the slowing of China's economy likely to have negative effects on LAC economies in the short and medium term, pushing forward with reforms aimed at increasing productivity and ensuring sustainable growth, as well as raising the odds that countries in the region benefit from new opportunities that may come with structural changes in China, becomes more urgent (World Bank, 2011a). First, it is critical to consolidate the improvements in macroeconomic management achieved in the last two decades. Second, supply-side measures are needed to increase savings and enable greater investment in infrastructure (World Bank, 2014g). Third, although LAC countries have made significant advances over the last few decades in raising access to education, as measured by years of schooling, the region needs to address lags in the quality of education (Barro and Lee, 2010; Programme for International Student Assessment, 2012). Ensuring continued improvements in human capital will be critical to seizing opportunities related to trade in services. Finally, there is substantial potential to improve the business environment as LAC economies still exhibit among the longest times needed to comply with tax obligations, obtain construction permits, and start a new business (World Bank, 2014h).

⁶ All variables are seasonally adjusted and transformed into log differences (Q-o-Q). The identification is based on a Cholesky decomposition with the variables ordered as listed, which is based on the presumed exogeneity or pre-determination of variables. For instance, global GDP and global interest rates are presumably more exogenous than China's GDP in the VAR system, and hence ordered before China's GDP. Rest of world real GDP refers to global GDP minus the combined GDP of China and LAC countries. World trade volume is estimated using import data. LAC's GDP corresponds to the summed GDP of 10 countries in the region (Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Peru and Paraguay) for which quarterly data over the 1992Q2-2014Q2 period are available; these economies represent close to 90 percent of total GDP (in 2013 U.S. dollars) of low- and middle- income countries (according to the World Bank's classification) in the Latin America and the Caribbean region.

⁷ This result is broadly in line with those of other studies using different types of models. Gruss (2014), for example, reports that a 1 percentage point reduction in China's growth rate is associated with a growth decline of 1/2 percentage point over the following three years on average for commodity exporters in Latin America. In addition, the Inter-American Development Bank (2014) considers the risk of a slowdown in China's growth, and projects a negative effect on the Latin America and Caribbean region's economic performance lasting more than 1.5 years.

⁸ These five economies are the largest Latin America and the Caribbean economies for which quarterly data are available. The variables used to estimate the five country-specific SVARs are the same as those used to estimate the first SVAR except that the data for Latin America and Caribbean's GDP growth is replaced by GDP growth data for the individual country being considered.