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Latin America: The Day After. Is This Time Different?

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ABSTRACT

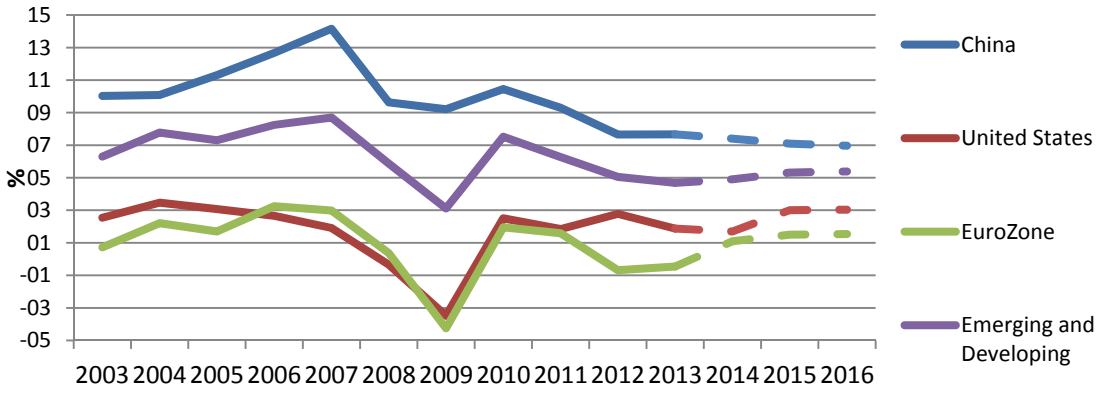
Latin America had a golden decade from 2002 to 2012, mostly thanks to favorable external conditions. Its commodity exports prices raised almost continously, there were abundant capital inflows and low international interest rates. This golden decade has come to an end, even while no sudden worsening of external conditions is expected. Using several short term and structural indicators, this paper analyzes if this decade represented a turning point. Macroeconomic and financial vulnerabilites were indeed sharply reduced, labor market conditions improved significantly, and investment rates increased, in most countries. Many of these achievements are likely to stay and Latin America may prove to be much more resilient to future shocks than in the past. However, the boom in extractive exports prices led to over-concentration of exports, stagnation of other tradable activities, and other symptoms of Dutch Disease. Worse still, productivity gaps were not reduced as their structural determinants improved just too slowly. In summary, the boom was not completely wasted, nor was it fully capitalized.

Keywords: macroeconomic policy, growth, Dutch disease.
Classification JEL: E60, O54

1. Introduction

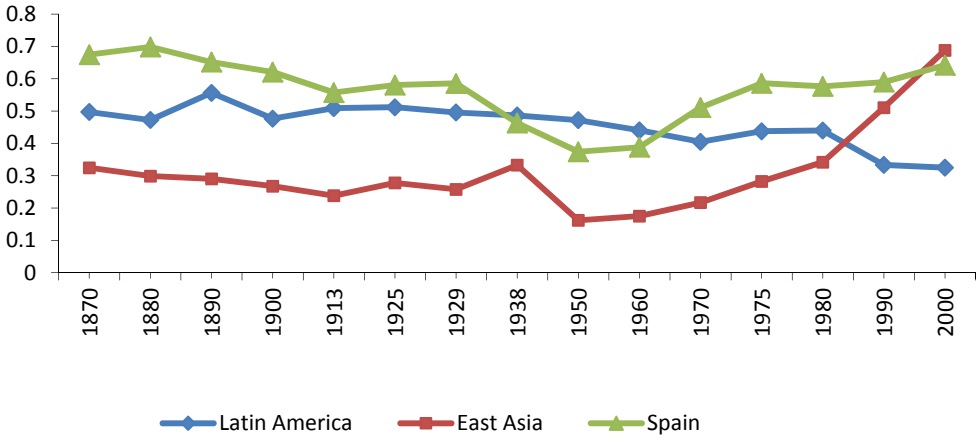
Latin America grew at more than 5 percent annually from 2003 to 2011, converging toward industrialized countries' gross domestic product (GDP) per capita (see Figure 1). This was in sharp contrast to what had happened in the previous two centuries, when divergence was the name of the game (see Figure 2).

Figure 1. Average annual growth: Convergence since 2003, coming to an end?



Source: World Economic Outlook April 2014 and update July 2014.

Figure 2. Long-term divergence: Income per capita as a fraction of core's Organisation for Economic Co-operation and Development.

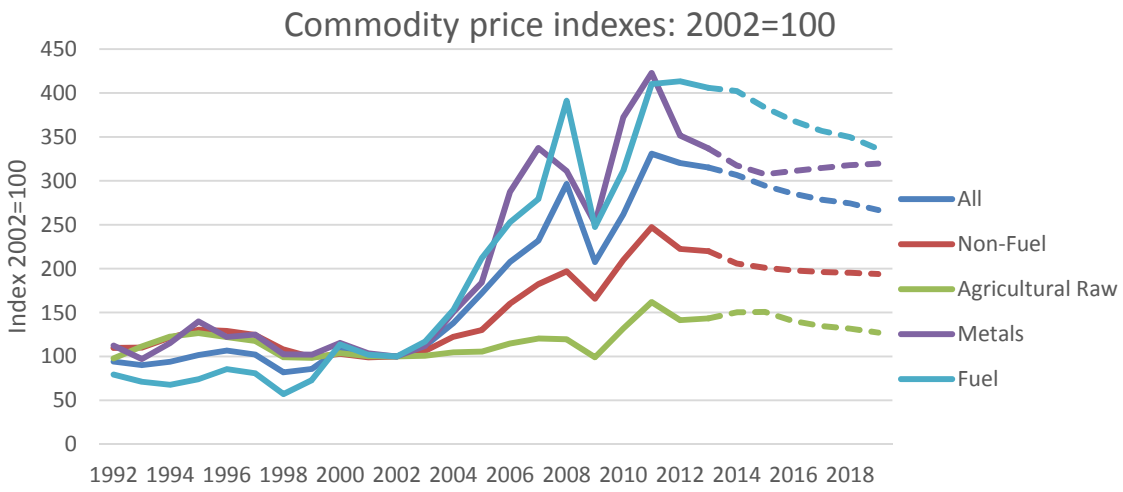


Source: Perry, Arias, López, Maloney, Servén (2006)
Note: Latin America=Argentina, Brazil, Chile, Mexico, Venezuela and Uruguay. East Asia=South Korea, Taiwan, Hong Kong, and Singapore.

Many analysts and market players wondered if we were witnessing a turning point, as has happened in the Asian NIC´s[1] since the sixties (see Figure 2), and Latin America would conform in the future to the convergence prediction of neoclassical economics. Words of euphoria ("The New Latin America," "The Latin American Decade," and the like) came from many quarters, and investors flooded the region with Foreign Direct Investments and portfolio inflows. A few commentators, mostly from academic circles, were more subdued, noting that behind the boom was a large and continuous increase in terms of trade and exceptionally high international liquidity. The more skeptical ones warned that when these external propellers came to an end—as they had to do eventually—the euphoria could end up in tears, as had often happened after previous booms in Latin America.

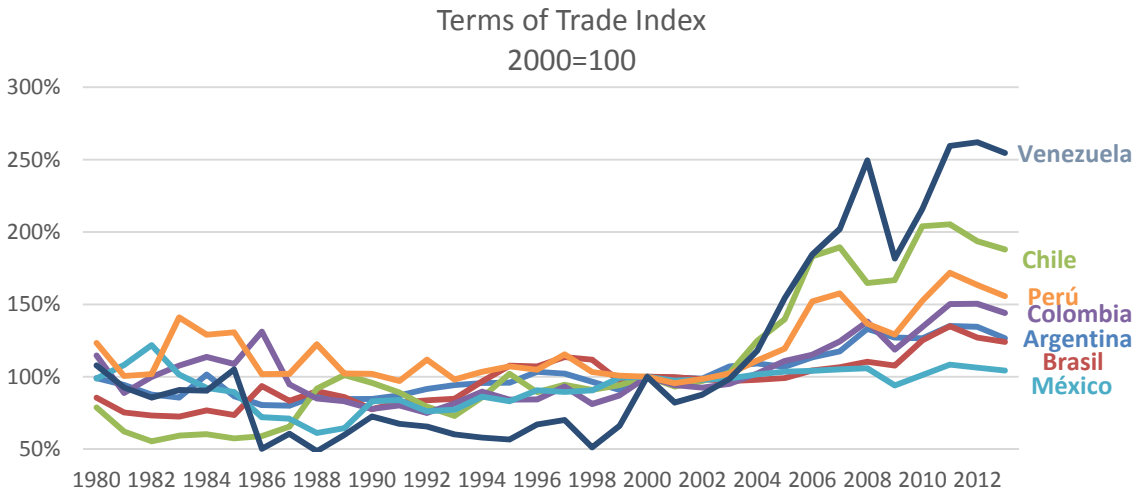
The day of reckoning is here. Growth in terms of trade (fueled by the spectacular growth in real commodity prices from 2003 to 2011) has come to an end (see Figure 3). Most commodity prices have fallen from their peak in 2011,. It seems unlikely, though not fully improbable, that they would come back to the low levels of the nineties, but few would bet now that they could hike again as they did in the golden period from 2003 to 2011.

Figure 3. Commodity price indexes and gains in terms of trade.



Source: International Monetary Fund, (2014)

[1] Newly Industrialized Countries

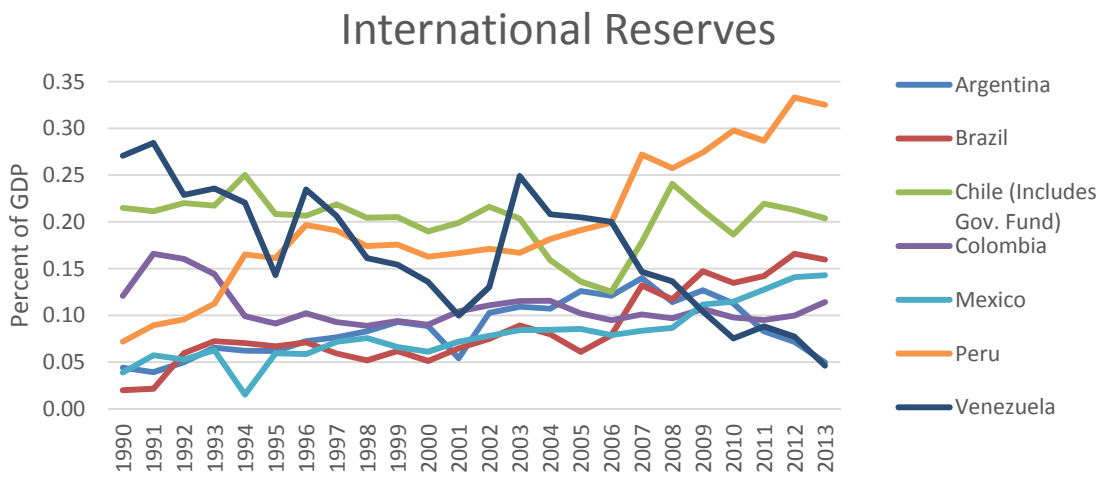


Source: Economic Commission for Latin America and the Caribbean online database, 2014

Moreover, as the US recovery consolidates and Europe comes slowly out of recession, international liquidity will eventually tighten. It took only an announcement of "tapering the taper" from the Federal Reserve System in May 2013 to generate significant market turbulence and capital outflows from many developing countries, including most in Latin America. Though recent announcements from the Federal Reserve System and additional liquidity from European Central Bank have calmed the markets, Latin America cannot count on an indefinite flood of capital inflows and extra low international interest rates going forward.

So far, this time has been somewhat, though not totally, different from the past. Neither the extreme optimists nor the catastrophists are being proven right. Latin America has gone back to mediocre historical growth rates since 2012, and Venezuela and Argentina have been suffering acute stress and fighting desperately a sharp reserve drop (see Figure 4), with imposition of all types of controls on capital outflows. However, for the rest of the region the word *crisis* seems to have disappeared from current discussions and concerns.

Figure 4. International reserves/gross domestic product



Source: World Development Indicators online database, World Bank. Chile Ministry of finance.
Note: Data for Chile includes the government's "Fondo de estabilización económica y social" since 2007.

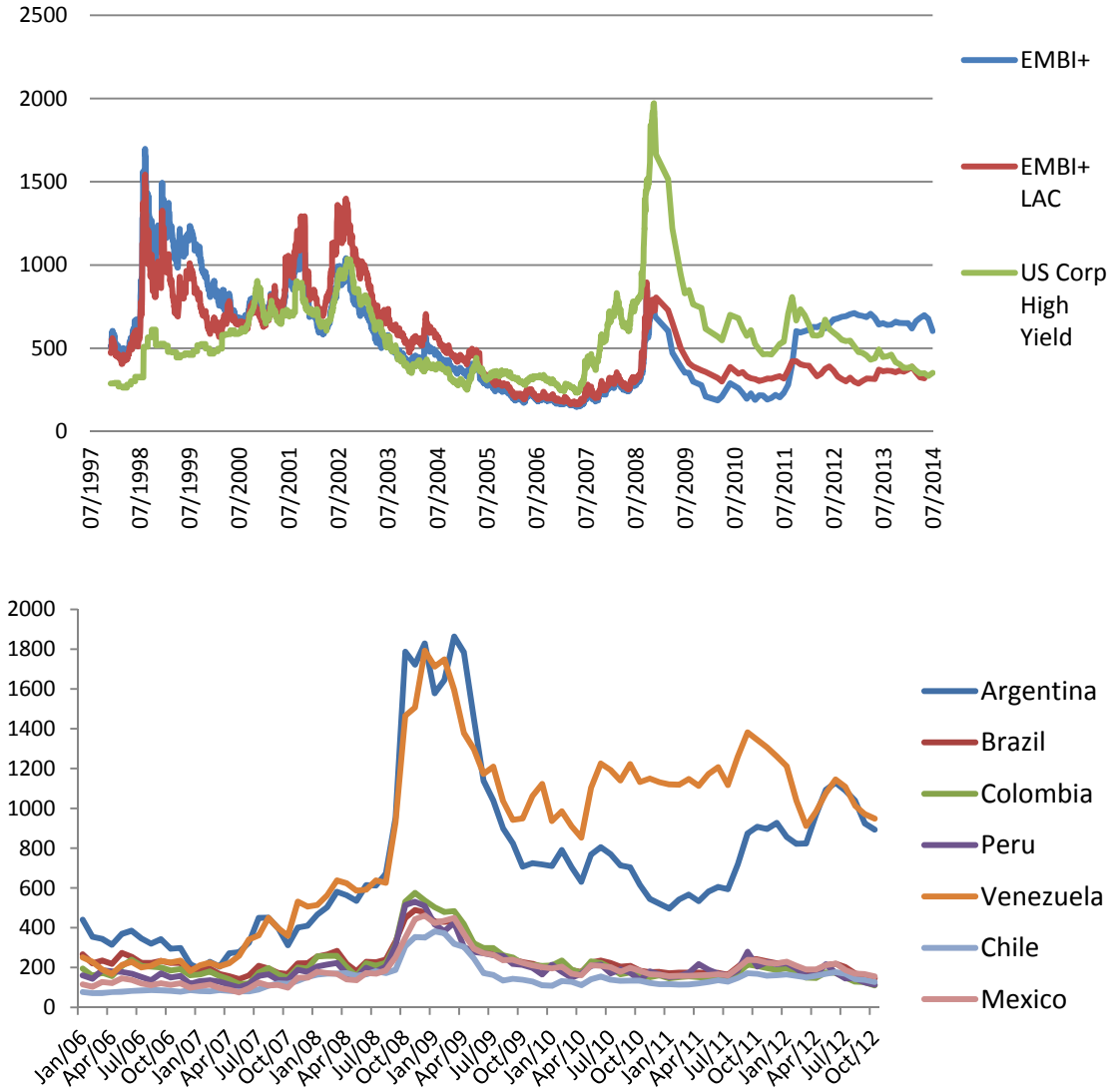
Section 2 discusses why this time (2003–2011) was, in fact, somewhat different and better than the past. Section 3 discusses why it was not, however, completely different. Section 4 concludes.

2. Why This Time Was Different: Building Resilience

In contrast with previous episodes, Latin American countries came out, on average, relatively unscathed from the 2008/2009 global crisis and have resisted relatively well subsequent market volatility. Financial contagion was low. Figure 5 shows how average spreads on Latin American sovereign debt increased much less than in previous milder crises and how they were kept significantly lower than those of North American junk bonds, while the latter had always remained below the LAC EMBI[2], in good and especially in bad times.

[2] The EMBI is a widely used Index of Government Bonds spreads over LIBOR. The LAC EMBI is the average of this index for Latin American issuers.

Figure 5. Spreads on government bonds, compared to US high-yield bonds.

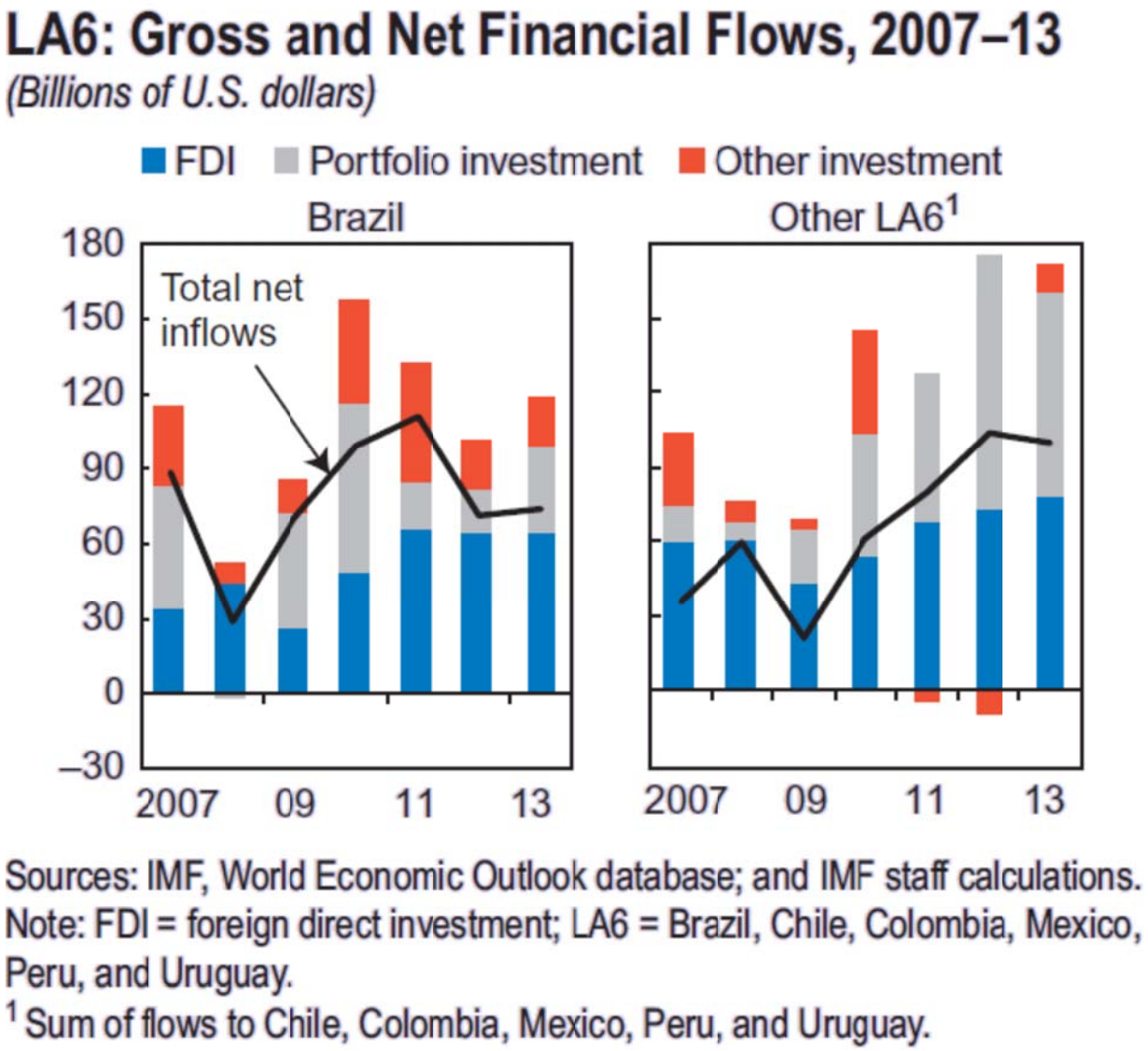


Source: Bloomberg and Global Financial Data databases.
Note: EMBI+=Emerging Markets Bond Index Plus, EMBI+=EMBI for Latin America and the Caribbean, US Corp. High Yield=Barclays US corporate High Yield Index.

Though capital inflows receded somewhat for a while, the region was far from experiencing a sudden stop, as had happened in several other episodes of international market turbulence (see Figure 6). Many countries in the region avoided altogether a drop in credit, and in others there was a fast recovery after an initial sharp fall, also in sharp contrast with past experiences of prolonged credit crunches and with what happened in the developed countries (see Figure 7). There were no bank failures in Latin America, while many banks

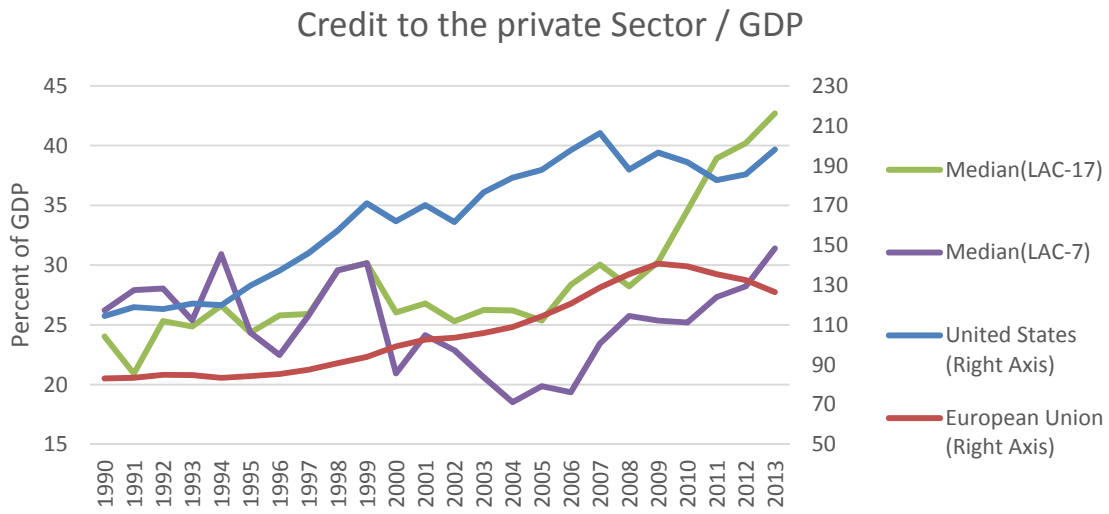
had to be rescued in the United States and Europe. In summary, and contrary to what used to happen in periods of more modest international market turbulence, there was a very mild financial contagion from what proved to be the largest global financial crisis since the Great Depression.

Figure 6. Capital inflows.



Source: IMF, Western Hemisphere Regional Economic Outlook, 2014

Figure 7. Credit to the private sector/gross domestic product (GDP).



Source: World Development Indicators database, World Bank
Note: Median (LAC7) includes Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela. Median (LAC-17) includes LAC-7 countries plus Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay and Uruguay.

To be sure, Latin American economies did suffer a major slowdown in 2009 as a consequence of the global crisis, as evidenced in Figure 1. But the channel of transmission was mostly the sharp fall that took place in global trade, and not financial contagion, as was often the case before. The fact that there was no financial crisis in the region, nor a sudden stop of capital inflows, nor major credit crunches, facilitated a very rapid recovery in 2010. This was no mean achievement and in marked contrast with Latin American past history. Furthermore, the contrast with what happened this time in the United States and Europe was impressive.

These facts suggest a potential turning point with respect to a history of high volatility and proneness to financial crisis in the region. To assess their relative strength vis-à-vis potential new adverse shocks in the future, it is important to understand why it was different this time.

Latin America was traditionally highly vulnerable to changes in mood in international financial markets, due to a combination of several factors:

1. High external liquidity risks, due to large current account deficits and short-term external debt, coupled with relatively low international reserves

2. High balance sheet risks, due to large currency mismatches in both government and corporate balance sheets (in non-tradable sectors)

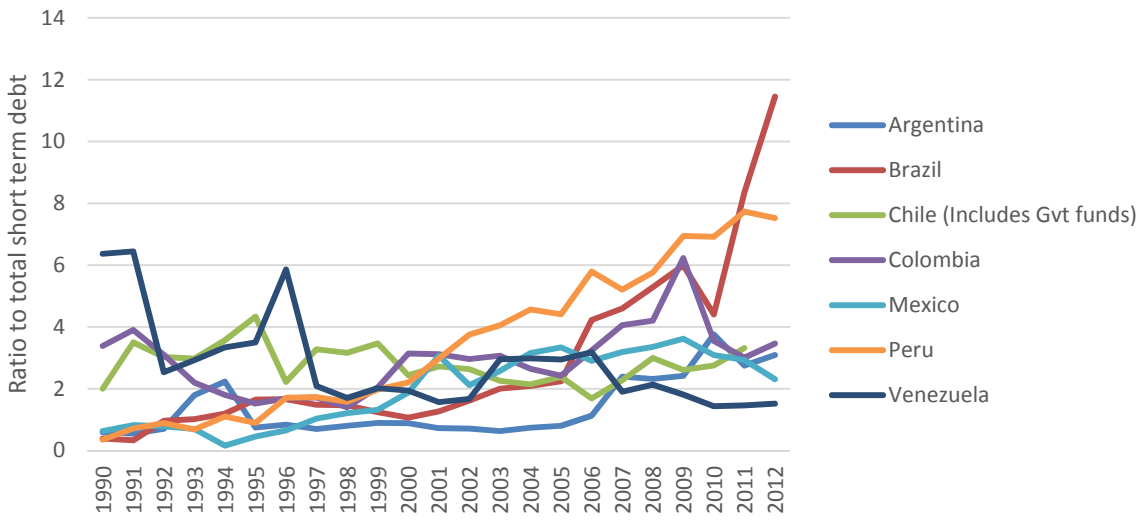
3. High financial-sector risks, due to poorly capitalized and weakly regulated and supervised banks, used to engage in large credit booms and busts, intermediating highly volatile capital inflows

4. High fiscal risks, due to high fiscal deficits and public debt in foreign currencies , which translated into liquidity and balance sheet risks for the government

When the Lehman Brothers shock took place, there had been important advances in all these areas, taking advantage of the previous boom conditions.

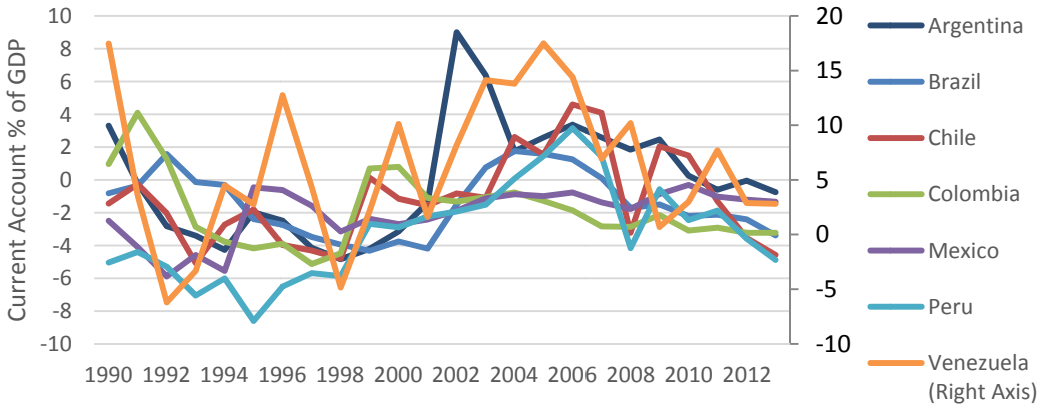
First, external liquidity risks were at an all-time low. Reserves were much higher than short-term debt (see Figure 8) and current account deficits much lower than in the past (see Figure 9).

Figure 8. International reserves ratio to short-term debt.



Note: Data for Chile includes the government's "Fondo de estabilización económica y social" since 2007.

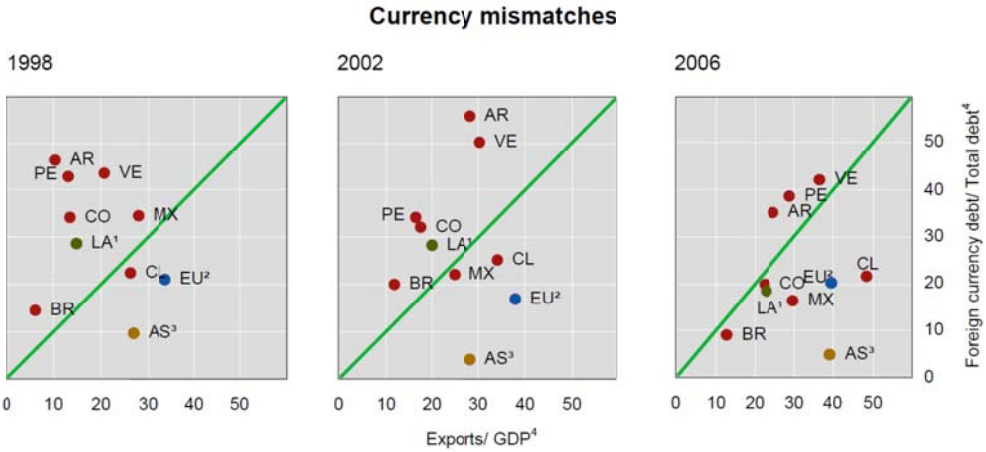
Figure 9. Current account balance/gross domestic product (GDP).



Source: World Development Indicators, World Bank

Second, balance sheet risks had been sharply reduced. Most Latin American countries had significant currency mismatches in 1996, and only three of them, which had the largest mismatches in 1998, kept modest ones by 2006: Argentina, Peru, and Venezuela (see Figure 10).

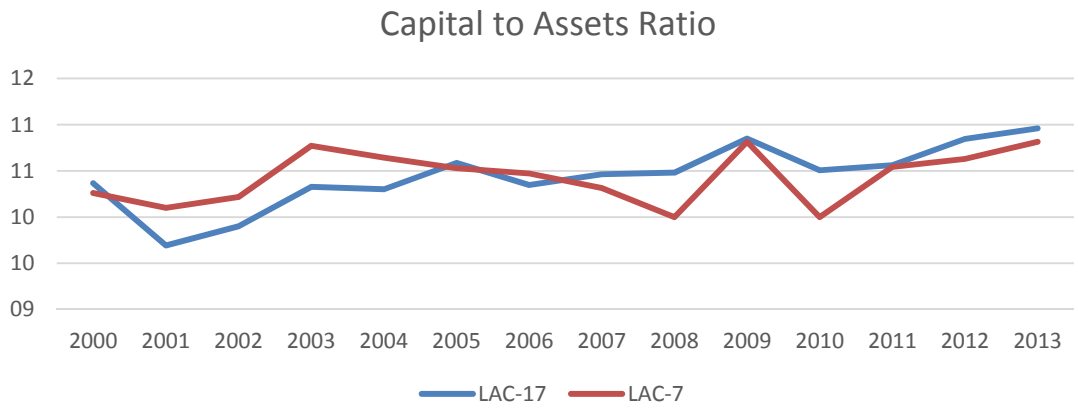
Figure 10. Currency mismatches.



Note: AR=Argentina, BR=Brazil, CL=Chile, CO=Colombia, MX=Mexico, PE=Peru, VE=Venezuela, 1: LA=weighted average of previous countries. 2: EU=Emerging Europe: weighted average of Czech Republic, Hungary, Russia and Turkey. 3: AS=Emering Asia: Weighted average of China, India, Indonesia, Korea, Malaysia, Phillipines and Thailand. 4: in percent.
Currency mismatches are estimated comparing the share of foreign currency debt in total debt, with the share of exports to gross domestic product (GDP)
Source: Bank For International Settlements. "Financial stability implications of local currency bond markets: an overview of the risks". BIS papers no. 36. 2008

Third, banks were well capitalized and provisioned, and credit booms had been modest. Figure 11 shows that Latin American banks' capital/assets ratios have been on average higher than 10 percent. Recent studies show that most large Latin American banks will not need to increase these ratios to comply with Basel III regulations.[3] Figure 7 shows that credit growth before 2008 was modest on average, though it may have increased too fast after 2009 in some of the major countries in the region.

Figure 11. Banks' capital/assets ratios.

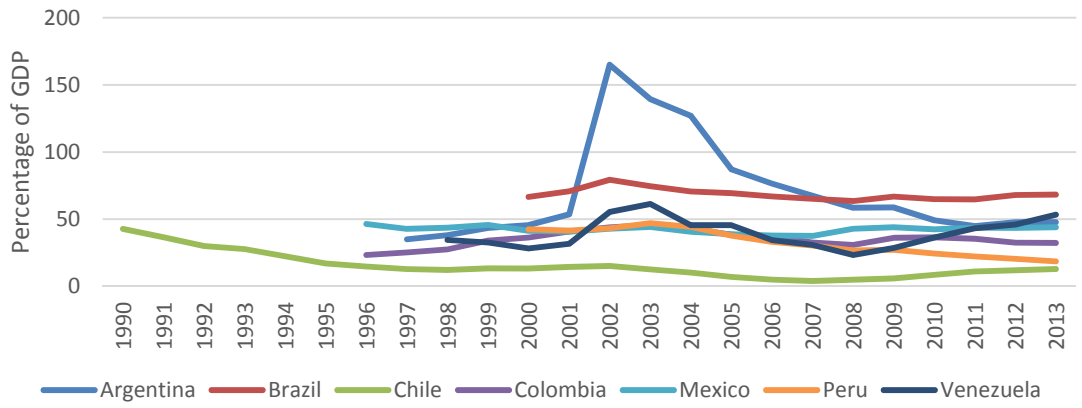


Note: (LAC7) is a simple average of Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela. LAC-17 includes LAC-7 countries plus Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay and Uruguay.
Source: World Development Indicators database, World Bank.

Fourth, fiscal vulnerabilities were lower than in the past. Figure 12 shows that public debt/GDP ratios were around or below 60 percent for all major countries. Brazil's and Argentina's were the highest, and Chile's and Peru's the lowest (around or below 20 percent). Furthermore, Figure 13 shows that Chile and Peru had fiscal surpluses and the rest of the large LAC countries had modest deficits around 2007/2008. It is to be noted, however, that by 2013 fiscal balances had deteriorated in most countries, notably in Venezuela, where the deficit was around 15 percent of GDP. Argentine and Mexican deficits had also increased to about 4 percent.

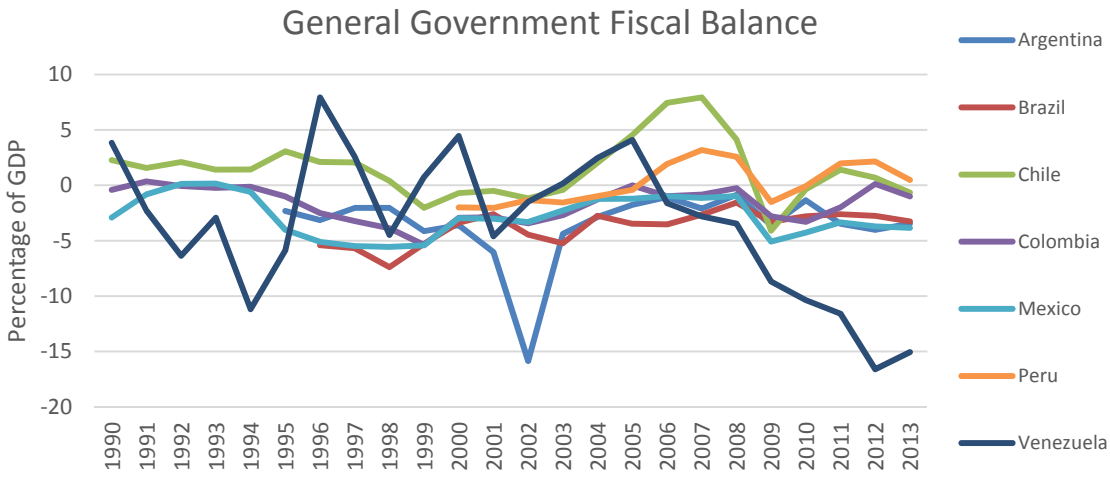
[3] Galindo, Rojas-Suarez, del Valle (2012)

Figure 12. Public debt/gross domestic product (GDP).



Source: International Monetary Fund, World Economic Outlook Database, April 2014

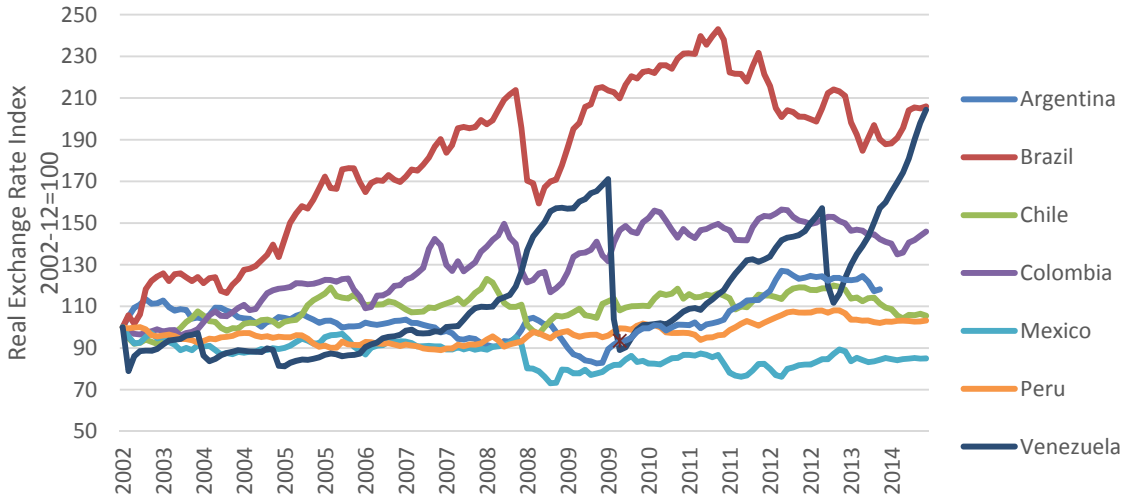
Figure 13. Fiscal surplus/gross domestic product (GDP).



Source: International Monetary Fund, World Economic Outlook Database, April 2014

In addition, the floating exchange rate regimes in several countries (Brazil, Chile, Colombia, Peru, and Mexico) permitted an automatic exchange rate depreciation (see Figure 14) and the use of countercyclical monetary policies (see Figure 15), thus helping to absorb the external shock without a major contraction in activity. Central banks in these countries had largely overcome their traditional "fear of floating" because inflation rates (see Figure 16) and inflationary expectations had come down—so there was less fear of the inflationary pass-through of nominal devaluations that characterized our history—and currency mismatches had been reduced, avoiding the adverse balance sheet effects that often led to bankruptcies after abrupt nominal devaluations. Within this group of countries, Brazil was less able to apply a countercyclical monetary policy, because some inflationary pressures survived.

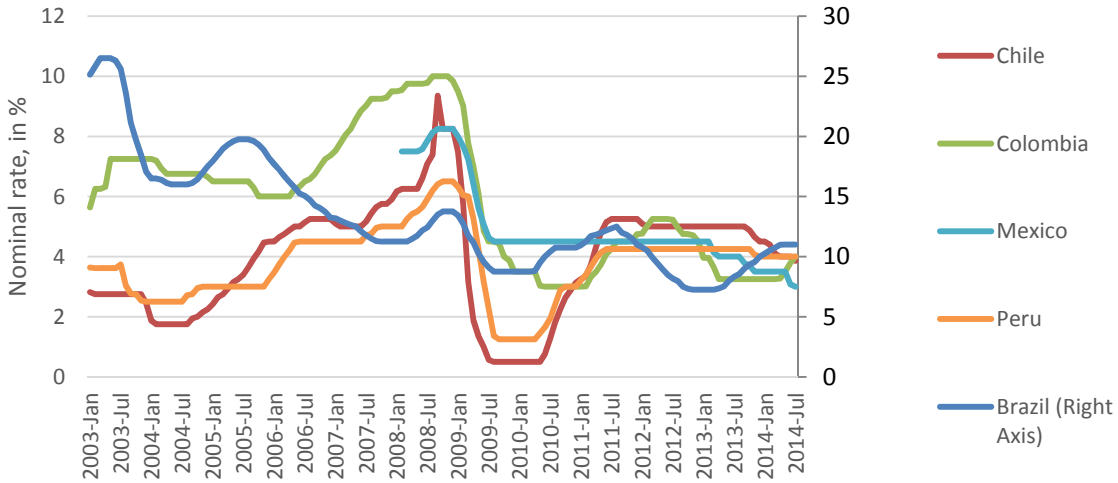
Figure 14. Real exchange rates.



Source: Bank For International Settlements online database.

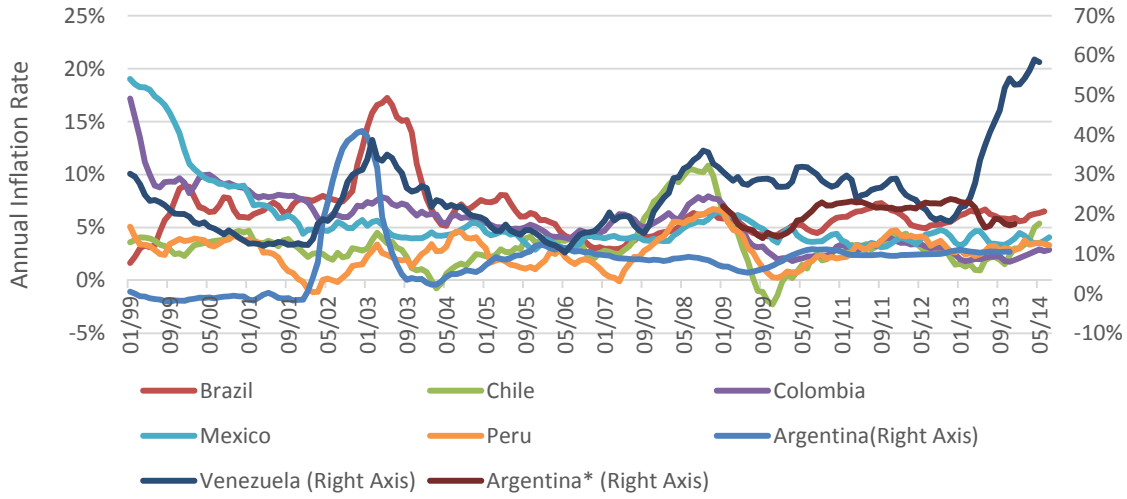
Note: Argentina data is adjusted since July-2009 using Billion Prices Project inflation (http://bpp.mit.edu/).

Figure 15. Central banks' reference rate.



Source: Interamerican Development Bank online database.

Figure 16. Inflation rates.



Source: Economic Commission for Latin America and the Caribbean online database, 2014
Note: Argentina* data since July-2009 uses Billion Prices Project inflation (http://bpp.mit.edu/).

Even more important, as already mentioned, there were no financial crises in the region (no bank failures and no significant credit crunches), in sharp contrast to what was happening in the United States and Europe. Banks were well capitalized and provisioned, and credit growth during the boom had been modest. In addition, a lower degree of financial integration and sound prudential regulations had precluded the accumulation of toxic assets that had rendered so fragile US and European banks. Most Latin American countries thus appear to have learned from their previous history of frequent and costly banking crises.

Finally, due to improvements in fiscal positions, the region avoided the application of procyclical adjustments during 2009, as had been common during previous periods of stress or crisis. Several countries applied countercyclical fiscal stimulus, though these were significant only in Peru and Chile,[4] which had achieved surpluses during the boom and had lower public debt to GDP ratios (see Figures 12 and 13 above).

In summary, all this was in sharp contrast with the past. Most countries in the region had significantly reduced their traditional vulnerability to adverse external shocks.

[4] Most countries increased somewhat their fiscal deficits during the crisis, but the only two that show a significant change in their fiscal balances before, during, and after the crisis (from surpluses to deficits and then again to surpluses) were Chile and Peru.

It is true that complacency with these results led to less prudent macro/financial management after the 2009 crisis:[5] countercyclical fiscal policies were left in place for too long in some countries. As a consequence, there was some deterioration in current account balances (see Figure 8) and structural fiscal balances. Some also allowed a probably too-sharp increase in credit. But still, the situation at the end of 2013 was much better than that after past booms in most countries.

It is also true that there are important exceptions to this general storyline. Venezuela lost international reserves during most of the period since 2003 in spite of having benefited from the largest terms of trade windfall in the region[6] and the largest in its own history. And this happened in spite of strict capital controls on outflows and two large nominal devaluations. Such a disastrous result was a consequence of both excessive fiscal spending and monetary expansion as well as growing insecurity in property rights that led to major capital outflows.

Argentina is the other exception. It also has been effectively cut from international finance and has been losing reserves since 2007, leading to the imposition of capital controls on outflows. Even then, reserves continued to fall rapidly, and a significant nominal depreciation ensued in early 2014, while the black market rate continues to exceed the official rate by a wide margin.

Brazil and Ecuador are milder and partial exceptions to the generally positive regional storyline. Brazil experienced significant market volatility after the May 2013 Federal Reserve System announcement and had actually suffered a reduction in capital inflows before that. It is also more constrained in its monetary responses than other inflation targetters in the region (Chile, Peru, Mexico, and Colombia), but international reserves are much larger than short-term external debt, so the probability of a currency crisis is small. Ecuador has been doing very well overall, but because it is a dollarized economy with limited reserves and no recourse to private international finance, it is highly vulnerable to an eventual, though presently improbable, sharp drop in oil prices.

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[5] The International Monetary Fund (IMF) has repeatedly warned about this. See, for example, International Monetary Fund (2013b).

[6] See Figures 3 and 4. Furthermore, IMF estimates that the accumulated income windfall in Venezuela was by far the largest in the region. See IMF, op. cit.

However, even with these caveats, it remains true that most countries in the region appear to be today more resilient to adverse external shocks, especially to financial shocks, than in past decades.

3. Why This Time Was, However, Not Completely Different: Dutch Disease, Low Productivity Growth, and Complacency.

The fact that the region has returned to its modest historical average growth rates, or even lower, since 2012 suggests that this time is not, however, entirely different from the past. Indeed, the reversal of external push factors that has taken place (no further terms of trade gains and lower world growth) fully explains the significant slowdown experienced by the region since 2012, and recent growth rates seem close to potential, based on current investment rates and total factor productivity (TFP) growth, under present external conditions.[7] Furthermore, several countries accumulated Dutch Disease symptoms during the boom that may negatively affect their medium-term growth.

Dutch Disease Symptoms

According to the traditional Dutch Disease theory, a commodity price or quantity boom may impair long-term growth of a net commodity exporter because it leads to lower growth of manufacturing (through the effects of an overvalued exchange rate and "pull" factors), which, according to proponents of this view, is an activity superior in terms of productivity growth and positive externalities in comparison to primary production.[8] Although there is no agreement in the profession about the last part of this argument (as productivity growth derived from fast technological change in some primary activities has actually been higher than in several manufacturing activities[9]), most practitioners and academics would agree that excessive export concentration in a few commodities is unwise because it leaves countries exposed to abrupt terms of trade shocks and thus to higher volatility and crisis.[10] Growth may not recover fast enough once the commodity boom ends, because it will take time and substantial effort to open or reopen external markets for manufactured and service exports.

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[7] See Brookings Institution (2013) and World Bank,(2013b).

[8] See Sachs(2001).

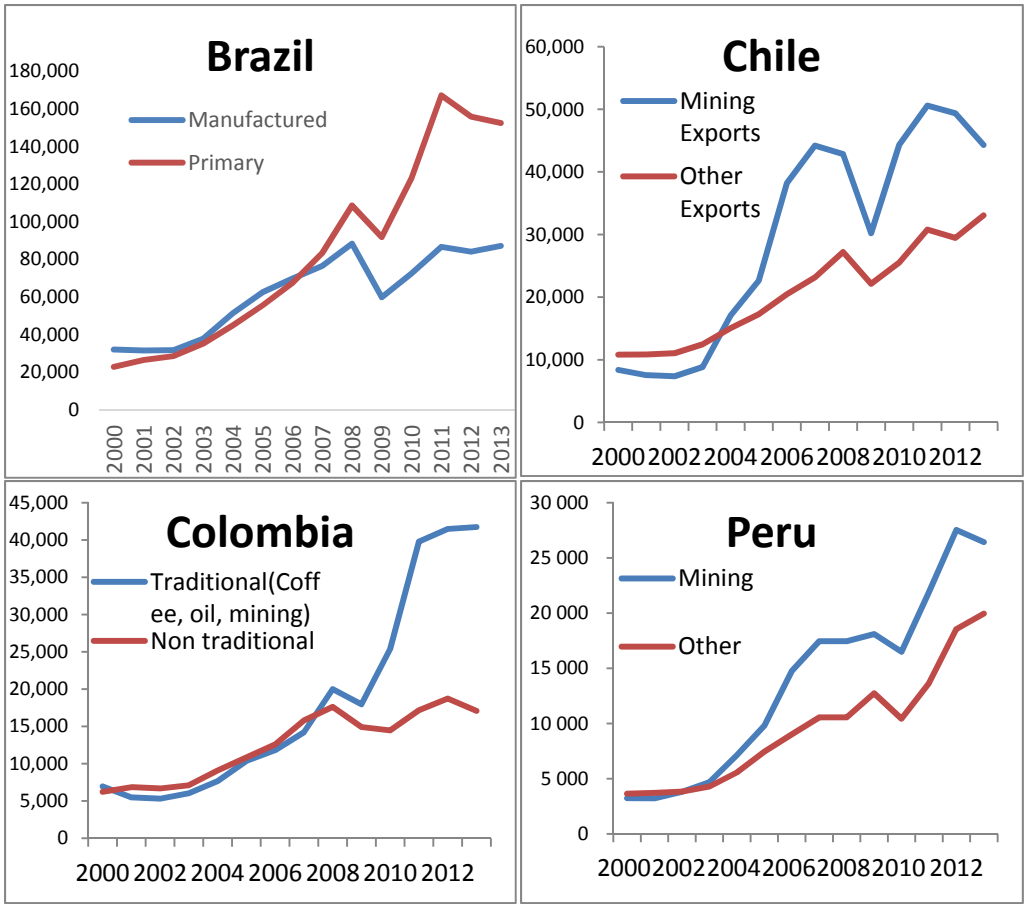
[9] Maloney (2007)

[10] See, for example, Newfarmer , Shaw and Waklenhorst (2009). and Lederman, Maloney (2012) and De La Torre, Sinnott, Nash (2010).

Furthermore, several studies have found that high macro volatility and crises affect growth negatively in the long term.[11]

With these concerns in mind, Figures 17 to 19 present a set of potential indicators of Dutch Disease symptoms for the largest Latin American economies, excluding Mexico, which did not experience a major terms of trade windfall.

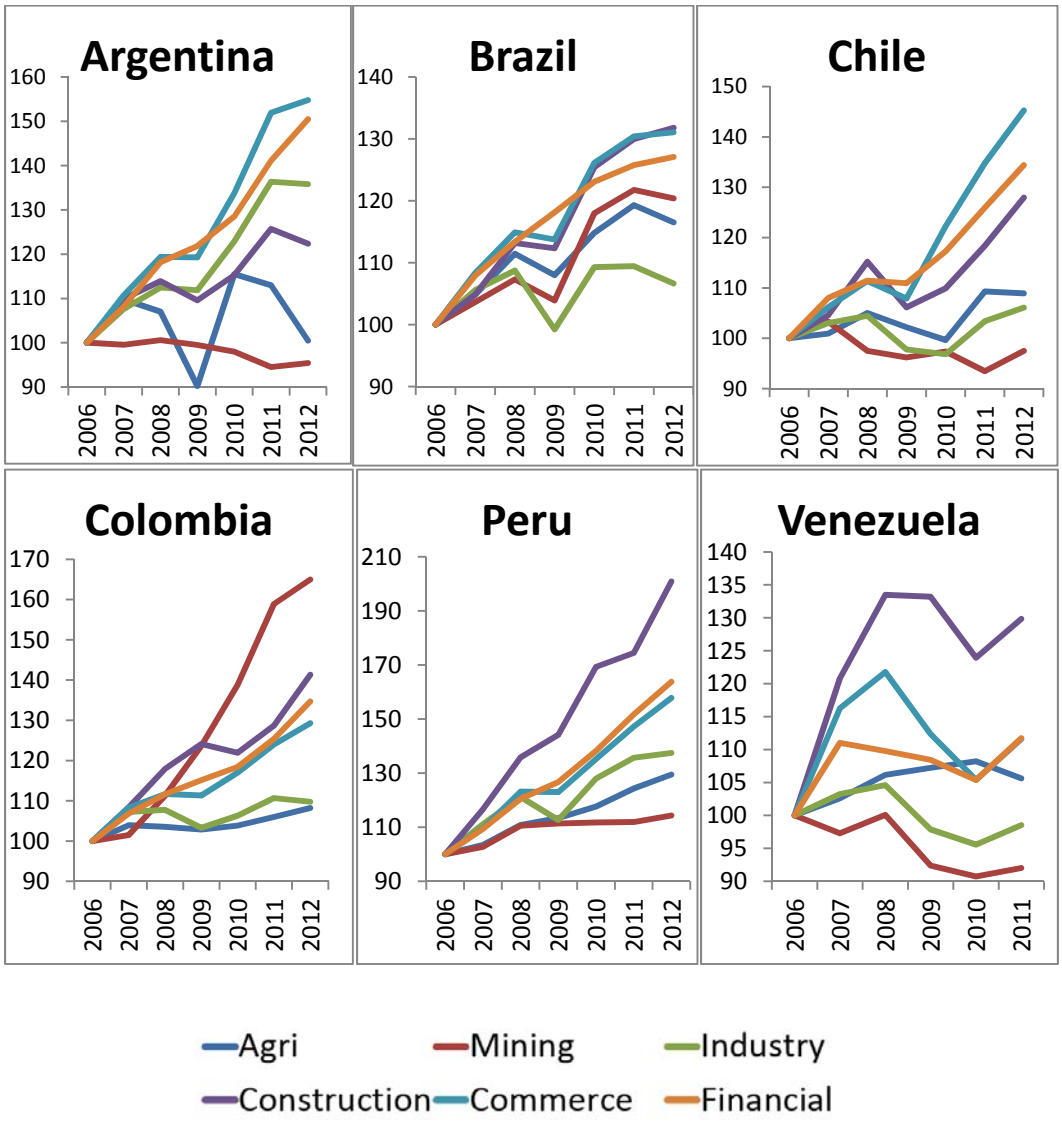
Figure 17. Export growth and concentration



Source: For Brazil: World Trade Organization online database. For Chile: Comision Chilena del Cobre (Cochilco) web page. For Colombia: Central Bank web page. For Peru: Central Bank web page.

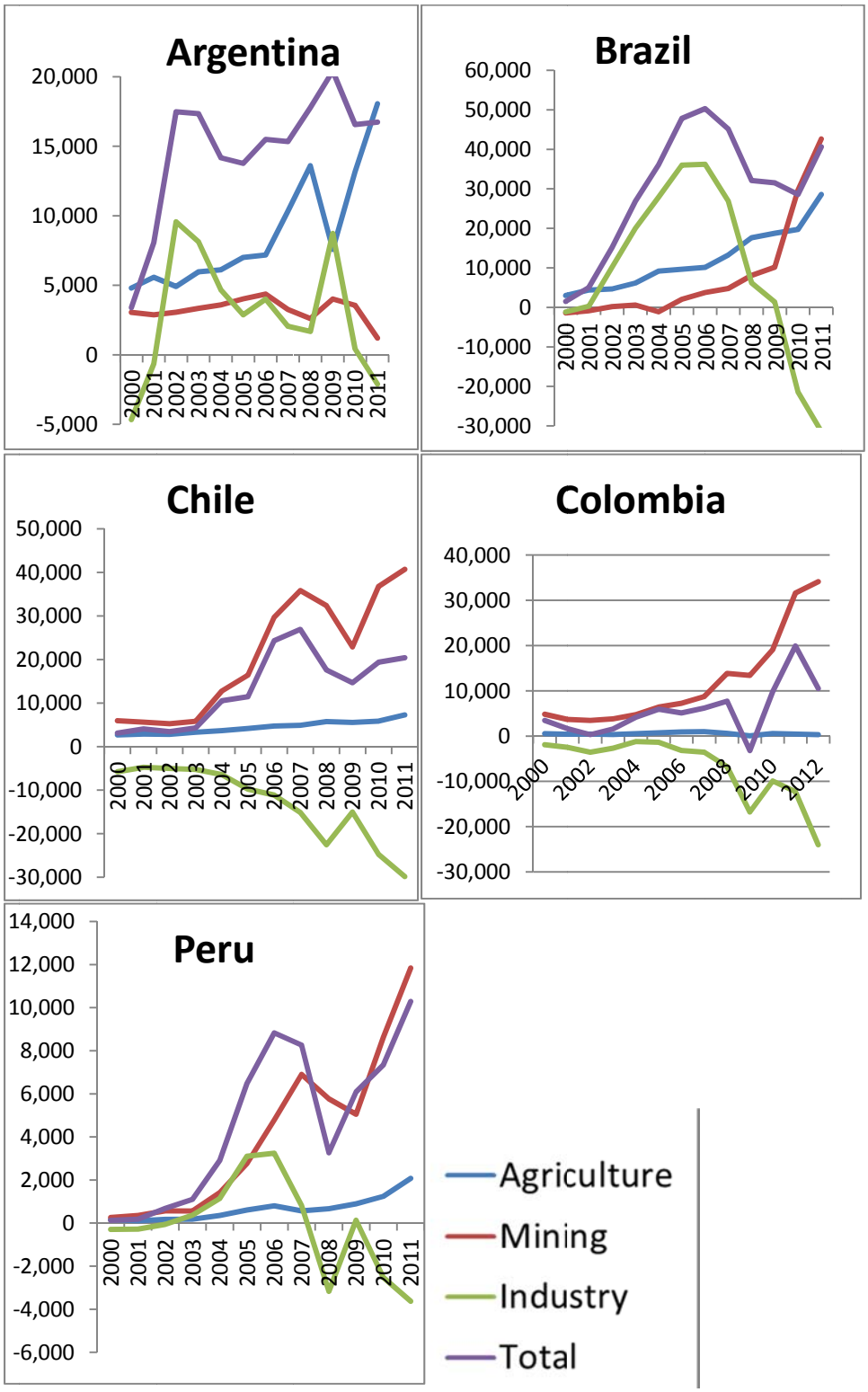
11 See for example Cerra, Saxena(2008) and Blanchard, Summers(1987).

Figure 18. Sectoral growth.



Source: Economic Commission for Latin America and the Caribbean online database, 2014
Note: Y axis is an index of sectoral GDP, 2006=100.

Figure 19. Sectoral current account balances.



Source: Economic Commission for Latin America and the Caribbean online database, 2014
Note: Value for exports and imports is Free on Board (FOB) millions of dollars.

The case of Venezuela stands out from these figures as the one in which exports concentration (in oil) and (non-commodity) current account deficits are the largest. Though non-oil exports have had a grim performance for quite a while, the non-commodity current account deficit rose especially sharply during the boom period (2003 onward), and industry declined in absolute terms. In addition to exacerbating the high vulnerabilities already mentioned (accelerated loss of reserves and high fiscal deficit), the increased dependence on dwindling oil production and exports suggests serious limits to medium-term growth, as it is unlikely that non-oil activities, in particular industry and agriculture, which have been severely weakened, have the capacity to react strongly to real currency devaluations or growing world imports.

Dutch Disease symptoms were not observed in Argentina until 2008, in line with the fact that there was no currency appreciation until then, but began to appear in 2009, when significant appreciation trends emerged. Strong currency appreciation also helps explain the accelerated loss of reserves since 2009, mentioned above.

Turning to the four countries with flexible exchange rate regimes that experienced significant terms of trade windfalls (Brazil, Chile, Colombia, and Peru), an apparent paradox is observed. Though Chile and Peru had the higher terms of trade windfalls of the foursome (see Figure 3),[12] they experienced a more modest currency appreciation and Dutch Disease symptoms—especially in the case of Peru—than Brazil and Colombia. This apparent paradox can be explained by a combination of higher previous TFP growth in industry in Peru and Chile and two macro policy factors that mitigated the extent of real exchange rate appreciation in these countries: first, they were the only two countries in the region that kept a fiscal surplus during the boom—see Figure 13—and second, they accumulated larger fractions of international reserves to GDP then the rest—see Figure 4.

Though there is no consensus in the profession on the effects of central bank foreign exchange interventions, most recent empirical research suggests they can affect the real exchange rate during prolonged periods.[13] Furthermore, policymakers in both Asia and the region appear to accumulate reserves during booms not just for precautionary reasons (reducing future exposures to abrupt terms of trade reductions or sudden stops of capital inflows) but also in an attempt to help mitigate temporary appreciation pressures that could

[12] Similar results are obtained by more precise calculations done by the International Monetary Fund. See Adler and Magud (2013)

13 See for example Adler and Tovar (2011) and Daude, Levy Yeyati, and Nagengast (2014),

have undesirable effects on non-commodity tradable activities. They are probably right, as suggested by this recent Latin American experience as well as by the international community's claims against China for maintaining an undervalued currency to boost its exports and economic performance.

The observed Dutch Disease symptoms would be less worrying if the recent commodity boom had not been due to just transitory price hikes. It is difficult to judge how much of the commodity price increase from 2003 to 2011 was of a long-time nature, but as already mentioned, there is no doubt that a significant part was transitory and is already over. And the windfall was not accompanied by quantity increases in commodity production, with the exceptions of Brazil and Argentina, where there was a significant permanent increase in agricultural output in the past decade.[14] In extremis, oil production has actually been significantly reduced in the case of Venezuela, and it is unlikely to recover soon to previous levels.

Investment Rates

Latin American historically modest long-term growth rates have been a consequence of low investment rates and, especially, low productivity growth in addition to the long-term effects of frequent and costly crises. These factors explained the major differences in growth from Asian newly industrialized countries (NICS) from 1960 to 2000.[15]

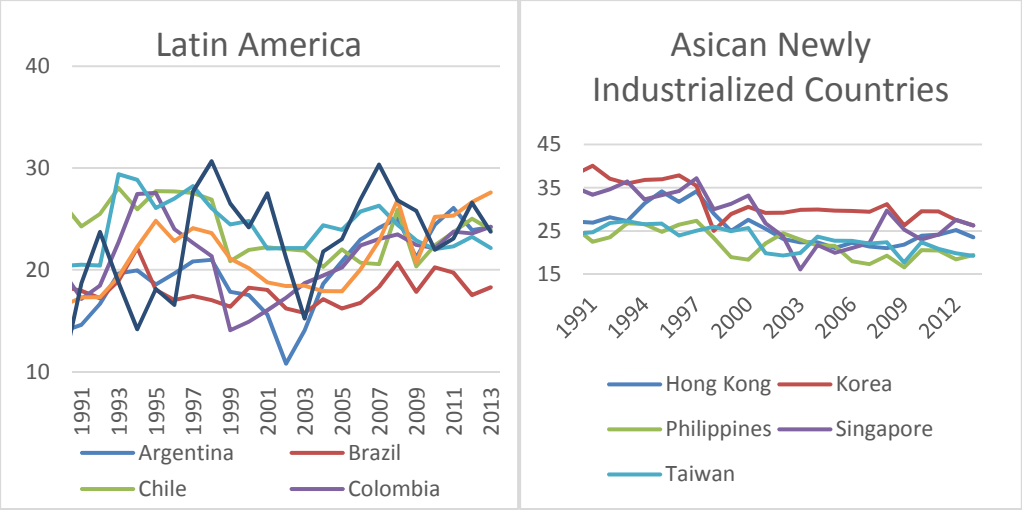
Gaps in investment rates with the Asian NICS have recently closed (see Figure 20) both because most large Latin countries have increased theirs to around 25 percent of GDP (with the major exception of Brazil, which still invests well below 20 percent of GDP) and because most Asian NICS have reduced their own to around 27 percent of GDP and some to about 20 percent of GDP. The lower performance of Brazil in this regard, which constitutes a major limitation to its potential growth rate, is associated with its still very high marginal lending interest rates (see Figure 21) and other macro and micro impediments. On the macro side, an overbloated state crowds out private investment by collecting more than 30 percent of GDP in highly inefficient taxes and by maintaining large financing and refinancing needs, which push up real interest rates, while being incapable of producing the required quality of

[14] The increase was due to technological breakouts, such as the use of transgenics, "siembra directa," and in the case of Brazil, new varieties that allowed temperate products to be competitively produced in tropical environments. This country also found huge new oil and gas deposits in the pre-salt layer, as a consequence of drilling innovations, that may convert it to being a major oil exporter going forward.

[15] See Loayza & Fajnzylber & Calderón (2005).

public goods (see below). As important, access to long-term credit is limited to the beneficiaries of BNDES[16] subsidized credit. As a recent Organisation for Economic Co-operation and Development report indicates,[17] it is likely that generalized access to long-term credit will not happen until Brazil conducts a major financial-sector reform to facilitate the competitive development of private sources of long-term credit, as most other major Latin American countries have done. Furthermore, the high "custo Brasil" of doing business continues to impose significant disincentives to private investment.

Figure 20. Investment rates: Latin America and Asian newly industrialized countries.

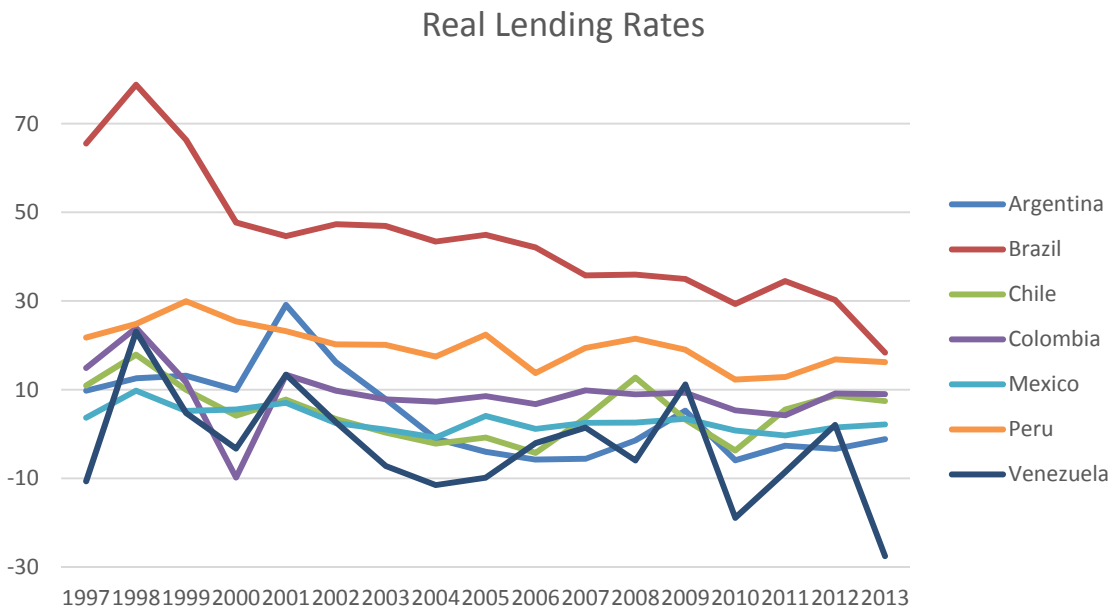


Source: International Monetary fund. World Economic Outlook, IMF April 2014
Note: Investment rates are the ratio of total investment to gross domestic product.

[16] The Brazilean Development Bank

[17] Organisation for Economic Co-operation and Development, 2013

Figure 21. Average lending real interest rates.



Source: World Bank, World Development Indicators online database.

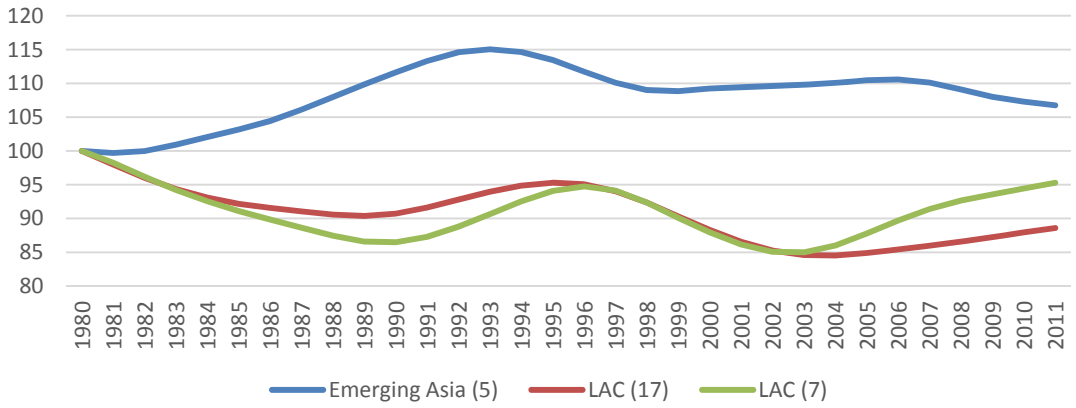
The Worrying Long-term Productivity Picture

A grimmer picture emerges on the productivity front. The low relative Latin American growth of average TFP productivity (see Figure 22), which had just a modest upward shift during the boom, is mostly a consequence of lags in several long-term determinants of productivity growth.[18] Also, as an Interamerican Development Bank report on the subject highlighted a few years back,[19] the composition of growth has recently favored lower-productivity service sectors.

[18] Loayza and Calderon (op. cit.), and Daude & Fernandez-Arias (2010)

[19] Inter-American Development Bank ,2010, The Age of Productivity: Transforming Economies from the Bottom Up. Washington.

Figure 22. The relative productivity decline in Latin America.



Source: Daude and Fernández-Arias (2013)20.
Note: LAC7 is a simple average of Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela. LAC-17 includes LAC-7 countries plus Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay and Uruguay. Emerging Asia includes Hong Kong, Korea, Malaysia, Singapore and Thailand.

Long-term productivity growth depends on several factors in addition to macro stability: the scope and efficiency of innovation by firms, the availability of skills and quality of public infrastructure, the access to financial services, the difficulties of doing business due to excessive or inefficient regulations, and more generally, the overall quality of institutions. Latin America does not fare well and has not improved fast enough, in many, if not in most, of these factors.[21]

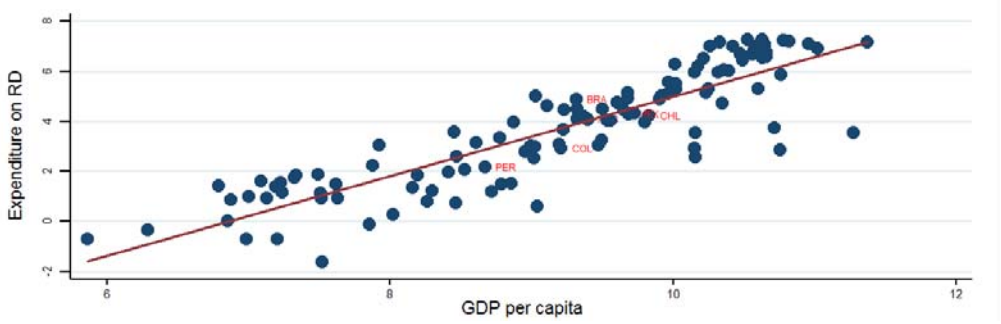
Innovation by firms, especially research and development (R&D), is generally low in the region (see Figure 23) as a consequence of many factors including past macro volatility, the poor quality of skills and overall institutions, and the lack of competition in nontradable sectors and also due to low and inefficiently allocated public resources directed to R&D, poor intellectual property rights systems, insufficient specific skills required for innovation (engineers, scientists), and a public university system that by and large does not relate effectively to private and public firms and is reluctant to do so. Only Brazil has developed a first-rate innovation system in one major sector (agriculture) and spends somewhat more public resources on R&D. And only Chile has attempted to organize a coherent national

20 "Productivity and Factor Accumulation in Latin America and the Caribbean: A Database" Washington, DC, United States: Research Department, Inter-American Development Bank. Available at: http://www.iadb.org/research/pub_desc.cfm?pub_id=DBA-015

21 Barro (1991),and Loayza, Calderon Fajnzylber (2005).

innovation system, though the last government undid many of the efforts of its two predecessors in this regard.

Figure 23. Research and development per capita versus income per capita

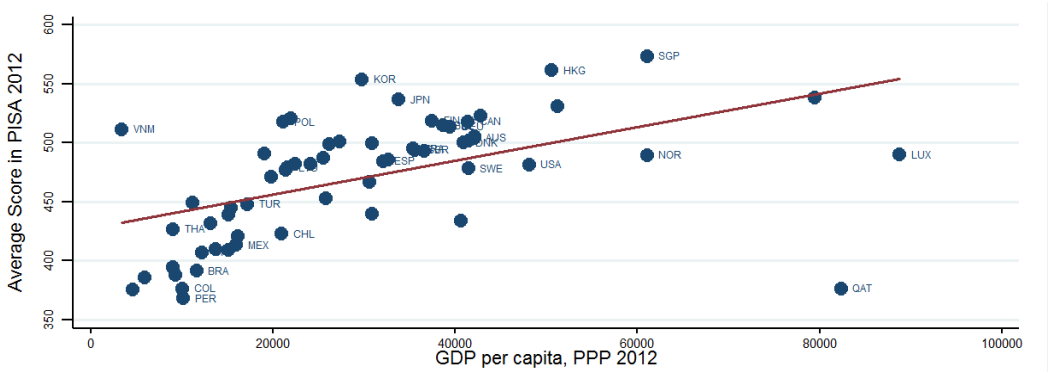


Source: United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Bank.
Note: RD=Research and Development. GDP= Gross Domestic Product. Data for 2010 or latest available. Both variables in logs and purchasing power parity adjusted

The second key restriction to long-term productivity growth is related to poor skills. Skills mismatches are common in several Latin American countries, but the most critical issue in this regard is the low quality of basic public education in all countries in the region (see Figure 24). Only Chile has achieved some progress in this regard, thanks to continuous reforms oriented to improve coverage and quality of basic education,[22] though its students still score well below those from Asian countries in Program for International Student Assessment tests.

[22] Mancebo, Vaillant, Llambi, Piñeyro, Gonzalez (2013)

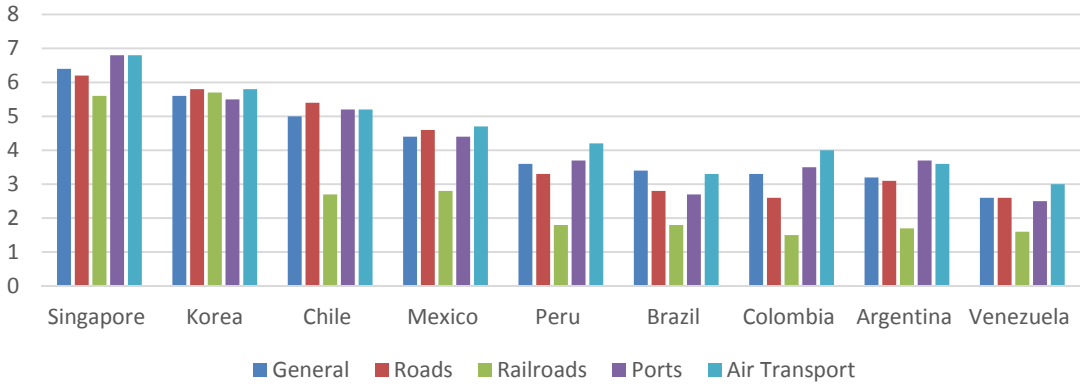
Figure 24. Program for International Student Assessment (PISA) results versus income per capita.



Source: Organization for Economic Co-operation and Development and World Bank.
Note: GDP= Gross Domestic Product. PPP= purchasing power parity. Dot codes correspond to countries' standard three letter code (ISO-3)

Another factor affecting some countries in the region (particularly Venezuela, Argentina, Brazil, Colombia, and Peru) though not others (such as Chile, Mexico, and Ecuador) is the poor quality and coverage of public transport infrastructure (see Figure 25). Also, access to credit by Small and Medium Enterprises (SMES) is still low in some countries, especially Argentina and Mexico, which were affected by major financial crises, and Venezuela (see Figure 26).

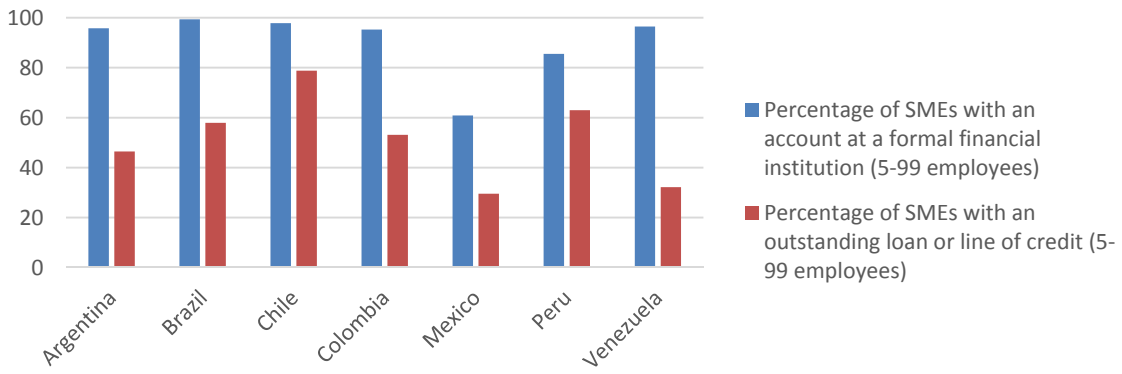
Figure 25. Transport infrastructure World Economic Forum scores.



Source: World Economic Forum (2014)23.

[23] Schwab.(2013)

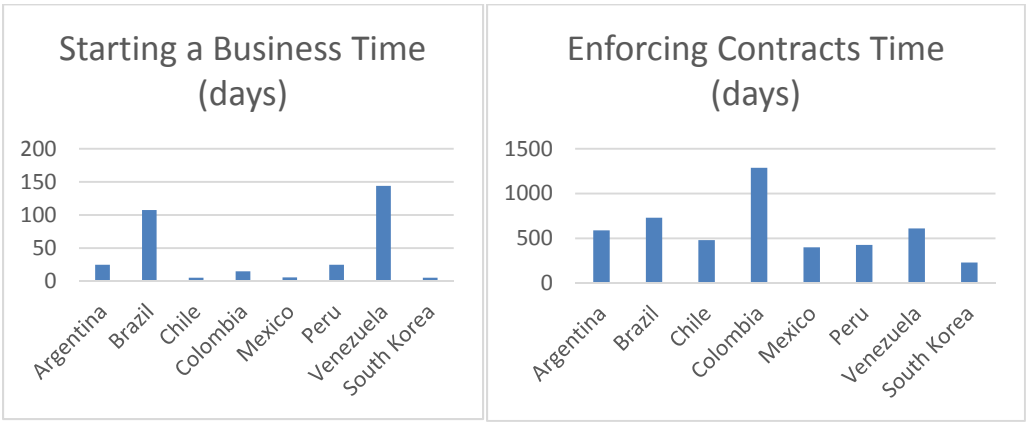
Figure 26. Financial access for firms.



Source: World Development Indicators online database, World Bank.
Note: SMES=Small and medium enterprises.

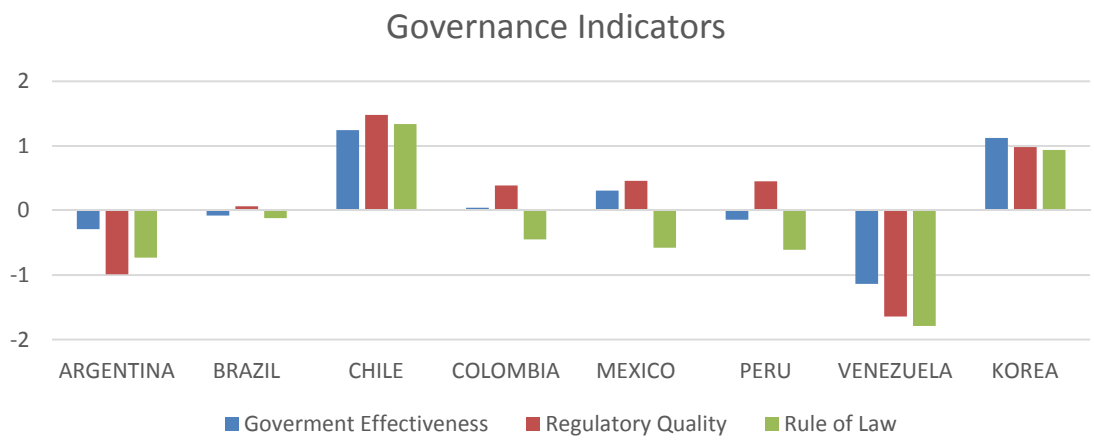
In addition, some countries excessively regulate product and factor markets. Lengthy and costly procedures to set up firms limit entry (especially in Brazil and Venezuela), and inadequate bankruptcy procedures make exit difficult and costly, reducing Schumpeterian "creative destruction." Firm growth is also frequently impaired by weak enforcement of contracts, particularly in Colombia (see Figure 27).

Figure 27. Cost of doing business indicators.



Source: World Bank, Cost of Doing Business, 2013

Figure 28. Governance indicators 2013



Source: World Bank Governance Indicators online database, 2014

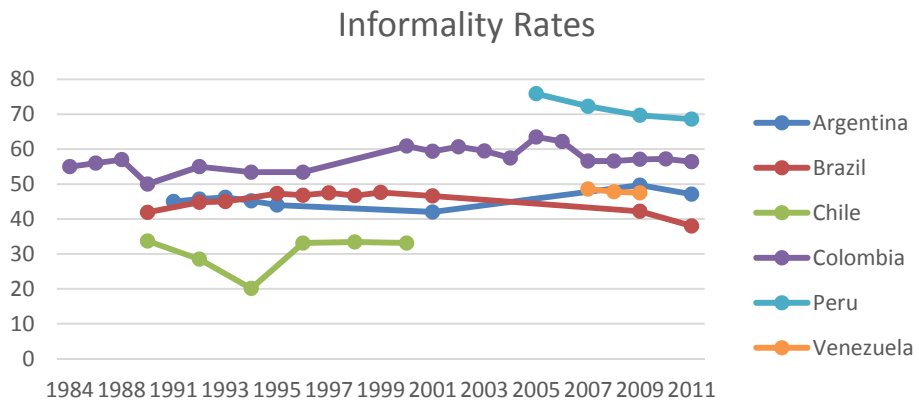
Last, and more generally, with some notable exceptions (such as Chile),[24] the overall quality of institutions is weak in critical areas for productivity growth such as rule of law, quality of bureaucracy, and quality of regulations, especially in Argentina and Venezuela (see Figure 28).

One notable consequence of the combination of overregulation and weak rule of law in Latin America has been generalized high levels of informality, measured as either the share of informal firms or the share of informal employment (not contributing to social protection), with some notable exceptions such as Chile.[25] This has been a major concern from both a social protection and productivity point of view. Some studies find significant negative effects of informality on growth.[26] Further, there is considerable evidence that informal firms have lower productivity than similar formal firms, and incentives to remain informal may be limiting the growth of some small but productive firms.[27] There is promising news on this front, as informality rates began to recede in many countries in the past decade, after a generalized increase in the nineties (see Figure 29). This outcome was especially notable given that overall labor force occupation rates increased significantly during the decade, while unemployment rates were reduced (see Figure 30) in spite of a

[24] Uruguay and Costa Rica, not shown in Figure 27, are also exceptions.
[25] Perry & Maloney & Arias & Fajnzylber & Mason & Saavedra-Chanduvi(2007)
[26] Loayza & Oviedo & Serven (2005)
[27] Ibidem

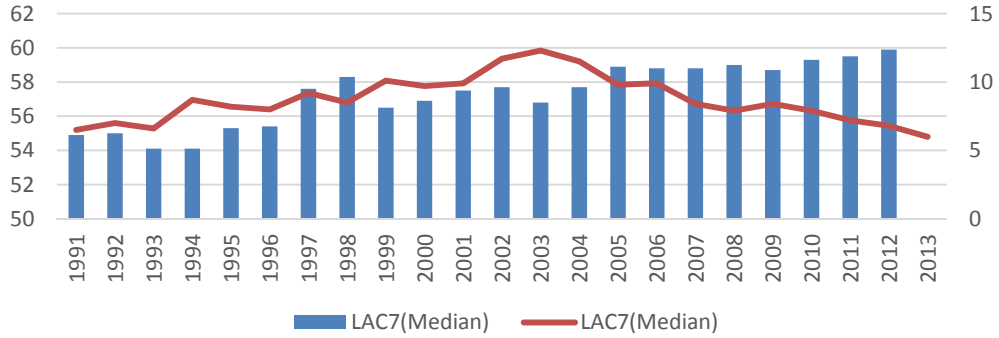
continued increase in female labor force participation.[28] It is still early to know to what extent these positive trends will continue after the end of the boom.

Figure 29. Recent reductions in informality rates.



Source: World Labor Organization online database .

Figure 30. Employment and unemployment rates.



Source: World Bank World Development Indicators and Economic Commission for Latin America and the Caribbean online database, 2014. Note: LAC7: includes Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela

28 International Monetary Fund. Western Hemisphere Regional Economic Outlook. Washington, May 2014b.

4. Conclusion

The analysis of Latin American performance during the past decade supports either a moderately positive or a moderately negative view of the region's future growth prospects. The glass looks half full when looked at through the lens of vulnerability to crises. The average performance of the region during the 2008/2009 global crisis and its fast recovery were truly outstanding and seem to mark a departure from past trends. This time was definitively different in this regard. Most Latin American countries (except for Venezuela and Argentina) seem to have learned from the high frequency and costs of past currency, banking, and fiscal crises. They did take advantage of the boom period from 2003 to 2008 in significantly reducing currency mismatches, liquidity risks, and financial-sector risks. It seems likely that such reduced macro/financial vulnerabilities will characterize the new Latin American landscape going forward, with exceptions.

Furthermore, flexible exchange rates helped absorb the adverse external 2009 shock in Brazil, Colombia, Chile, Peru, and Mexico and permitted their use of countercyclical monetary policies for the first time in decades. This notwithstanding, there were significant Dutch Disease symptoms, especially in Brazil and Colombia, that may affect their capacity to recover from an eventual further drop of commodity prices. Chile and Peru have also been successful in applying countercyclical fiscal policies, and the other large countries, except for Venezuela, avoided the strong procyclical fiscal policies that characterized their previous history, though there was some fiscal loosening after 2009.

However, the glass looks half empty when looked at through the lens of productivity growth. Performance on this front continues to be disappointing, and modest progress in basic productivity determinants (in particular the continued low pace of innovation and poor quality of basic education in all countries, but also the infrastructure lags, excessive red tape, low access to credit by SMEs, and low quality of institutions in many of them) does not bode well for the future. In this sense, this time was not different. Latin America did not take advantage of the recent boom to strengthen most of its key long-term growth fundamentals.

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