Article

Latin American Economic Growth: Disparate Paths, Creditable Accomplishments

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Abstract

Seven major Latin American countries had moderately high growth rates during the period 2001–2012. We used indicators of capital market modernization and corruption to explain the widely varying GDP growth figures for each time frame and also assessed whether export growth was highly linked to GDP growth. The countries did not fall into clusters with each coinciding closely with the others in the cluster. Instead each country appeared to be sui generis, finding its own path in response to its own circumstances.

Keywords

Latin America, capital market modernization, corruption, export growth, GDP growth

Introduction

The major Latin American countries have, since 2001, been able to achieve moderately high rates of economic growth. These rates compare favorably with the countries' 50-year and 100-year average growth rates and are especially good compared to the dismally low rates of the Lost Decade of the 1980s and the Lost Half-Decade of 1998–2001. The ride has not been smooth but retains some vigor and resilience.

The question to be investigated is how those major countries achieved the improved growth performance. The most common explanation is that commodity prices rose, and the export boom allowed the countries to record high growth rates without major internal reforms. In more granular and precise terms, prices of commodities rose in an aberrant, stuttering, unequal ways, and countries did not benefit equally, nor in synchronization. Another explanation is that the successful countries adopted a set of macroeconomic policies that favored stabilization of business climate and then reaped the rewards of prudence.

Both those explanations, even when presented well, do not give full weight to the reforms that several countries implemented. The major countries did not benefit equally from high commodity prices and certainly did not all adopt comparable macroeconomic policies. The countries in the region each have disparate economic structures, different endowments of physical and human resources, and different degrees of cooperation or antagonism with their immediate neighbors. Broad-brush depictions gloss

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over these differences, and, perhaps inadvertently, attribute growth to external factors. We seek to highlight local reforms and attribute growth to those.

We use five indicators to explain the growth performance of seven major Latin American countries for the years 2001–2012. Three of the indicators are proxies for capital market reforms. A major reason for choosing proxies for capital market reforms is that 20 years have passed since the Tequila Crisis of 1994, and there has been no crisis of such pandemic region-wide impact since then. Brazil had a crisis in 1998 and Argentina had one in 2001, but those did not spill over as much to the other economies of the region. Instead, the region has become surprisingly immune to contagion. The region also does not depend as much on the economic health of its trading partners in North America and Europe. The old dictum about Latin America catching pneumonia and the more recent fear of a prolonged economic slowdown in China are not as fearsome as they might have been in the past. The reasons can be found by examining what individual countries have done to improve its institutions and practices.

The fourth indicator that we use is an index of corruption, to test the validity of another cursory, dismissive explanation that Latin Americans themselves often give. Corruption is widespread and visible, so it provides a convenient excuse for many shortcomings, including some that may not be due to corruption. To a person seeking a quick, prejudicial encapsulation, corruption is appealing: If a society is corrupt, it is easy to believe that it should be poor, and that its economic growth should be slow. But that easy explanation attributes too much power to an evil that exists to varying degrees everywhere.

The fifth indicator that we use is exports as a percent of GDP. If the region's growth is due to an export boom, the data should confirm that. We tested Brazil, the country whose takeoff is often attributed to booming exports of iron ore to China. We found very weak results. The data did not allow examining industry-level linkages, nor could we calculate time lags or multiplier effects. But the aggregate data did not show a big impact, even when we assumed that the effects would be felt after time lags of one to three years. Methods using a more encompassing general-equilibrium approach, and using data from a larger sample of emerging countries, show stronger linkages. We wish to focus more on capital market reforms as drivers of Brazil's growth, so we do not study the detailed impacts of Brazil's export growth; instead, we argue that that country's growth has been driven by factors other than export growth. We found stronger results for other factors, especially development of Brazilian capital markets.

The patterns that we find add nuance and complexity to the Latin American economic growth story. The region's growth or stagnation is no longer so driven by external demand for commodities, nor so dependent on capital inflows from rich countries. The countries no longer try so hard to defend fixed exchange rates for their currencies. The major countries of the region are more able to gather the savings of their citizens and channel those savings to finance their own growth. They also produce and consume more local products and services, and so do not suffer from chronic shortages of foreign exchange. They suffered when the world financial crisis of 2008–2009 engulfed the rich countries, but did not suffer as much and rebounded quickly. Our analysis sheds light on the diversity that underlies the aggregates, and we also hope that our findings undermine the simplistic, broad-brush generalizations that appear frequently in public debate.

Previous Studies

For generations, the literature on Latin American economic growth could be divided into two broad categories: recommendations for accelerating sluggish growth, including models for balanced or unbalanced growth, and similarly mega-macro Hegelian dialectics; and delving into the causes of underperformance. Since 2002, however, those categories have given way to a more eclectic range. We survey a subset of articles that have appeared in that time frame. Many writers have published studies of Latin American economic growth and have added to the knowledge about the most recent phases. The ones we choose are a subset, proximate and germane to the issues we examine. We inevitably overlooked some worthwhile contributions, particularly those in Spanish and Portuguese, and for that we apologize.

On the subject of exports, and particularly commodity exports, driving economic growth, we found five studies that addressed the link. Unfortunately, these studies have been overshadowed by the widespread belief in a strong link. They have also been easy to label leftist or rightist, so their analytic content has been relegated to lesser status. Worse, the debate over privatization has spilled over to these articles. That is regrettable because the privatization debt was at its peak a decade earlier.

The careful studies by Cypher (2007), Gallagher & Porzecanski (2009), and Ocampo (2007) found weak linkages between commodity export booms and broad indicators of economic growth. Gallagher & Porzecanski are aware, as we are, of the widespread belief that exports fueled growth. In consequence, they take special care to explain their method, so that readers will agree that their surprising result is correct.

Petras & Veltmeyer (2009) arrived at the same conclusion for the time period 2000–2009. They labeled that decade the fourth phase of neoliberal development, and found a collapse in foreign direct inflows. That would debilitate the effects of a commodity export boom, possibly so much that export growth would be uncorrelated with GDP growth of the seven countries in our study.

Loser (2013) took a fresh approach, using terms of trade and linkages to investment and capital flows to explain growth. His approach has the advantage that it allows growth to be affected when a country's exchange rate strengthens, and in that way takes into account the strengthening of many Latin American currencies that occurred, particularly in 2007. Loser's approach acknowledges the strength of Latin American currencies and implicitly takes into account the growing appeal of holding those currencies.

On the subject of corruption, previous research found theoretical support for the view that corruption lowers growth. Mauro (2006) found that corruption lowers investment, and lower investment leads to slower growth. Blackburn, Bose, & Haque (2005) found that corruption distorts the signals from the price system and leads to sub-optimal economic performance. Published statistics, however, do not give strong confirmation to the theoretical relationship. Kutan, Douglas, and Judge did not find a significant relationship between corruption and GDP per capita despite using two different model specifications. Their results are similar to what other researchers have found: Indicators of corruption do not appear to explain GDP per capita, nor GDP growth.

On the subject of capital market modernization, the most prominent research theme is pension fund privatization. Mesa-Lago (2008) gives an overview of this transformative set of initiatives. Kritzer, Kay, & Sinha (2011) report on the wave of adjustments to existing successful privatization schemes. After the pioneering success of pension fund privatization, the next research theme has been institutional reform, to bring the benefits of capital market modernization to potential. Lora (2007) examines on institutional reforms of political, fiscal, public, and social sector institutions and assesses their outcomes and the obstacles faced in their implementation. Borensztein et al. (2008) analyze the advances made in the fixed income markets in Latin America and the difficulties that are still encountered.

The Model

The general specification that we use is

$$Y = \alpha + BX1 + BX2 + BX3 + \varepsilon$$

where
Y = GDP growth; and in a second version, Gross Private Investment
α = intercept term
X1 = stock market capitalization as a percentage of GDP
X2 = corruption index
X3 = domestic credit to the private sector
ε = error term.

This specification is appropriate to reveal patterns, but there are not enough data to give decisive results. We can only point out relationships that are worthy of more detailed study. This specification can be criticized because it does not use lags. We did not use lags because the number of observations was low and using lags might have shown misleading results. The time period studied included the crisis years (2008–2009), and those years introduced large variations, so if we reduced the degrees of freedom, the variance in the sample would have been dominated by the crisis years. When more data are available, using lags might reveal whether a rise in stock market capitalization preceded or followed a year of high growth and whether the jumps in domestic credit preceded or followed higher growth. Using lags might also show whether a deterioration in the corruption index preceded or followed a year of high or low growth.

Another possible criticism of this specification is that the data about stock market capitalization, domestic credit, gross private investment, and exports are expressed as ratios, whereas the corruption index is nonlinear. Both types of metrics are vulnerable to distortions when used in regressions to explain simple scalar metrics like GDP growth.

The Data

All data are from the World Bank Database. The data are considered reliable, but may be of differing quality for some countries and for the crisis years. There was a gap in one time series that we needed: There were no observations for Venezuela's stock market capitalization for the years 2007 and 2008. We interpolated, using the data points for the years 2006 and 2009, and used 3.0 percent for both years. For 2006 the figure was 4.5 percent and for 2009 it was 2.5 percent. Using slightly different figures for 2007 and 2008 would not have significantly changed the results.

The Results

The seven countries that we studied appear to be seven unrelated cases. They are divergent, with differences that are more prominent than the few similarities that we were able to observe. It is as if the countries were located in different regions of the world. This broad finding indicates that each country has its own growth trajectory, and each finds its own way to foster growth.

The countries we studied are Argentina, Brazil, Chile, Peru, Colombia, Venezuela, and Mexico. Our preliminary hypothesis was that Argentina and Venezuela would show some similarity to each other. We also thought that the other five countries would show more similarity to each other than to Argentina or to Venezuela.

What we found were results that differed from what we expected. Argentina and Venezuela had very few similarities. Argentina is always surprising and this time its results were surprisingly counterintuitive. Increases in stock market capitalization and domestic credit to the private sector had slightly negative effects on growth! These results were significant at the .05 level, but the data for 2002 appear to have had outsized influence. For that year GDP growth was –10.2 percent, while stock market capitalization and domestic credit both rose larger percentages than usual. The corruption index had the expected effect, with a lower index (i.e., more corruption) being associated with lower growth, though its effect was weak.

Venezuela's growth varied even more widely than Argentina's, with GDP falling 8.9 percent in 2002 and rising 18.3 percent in 2004. Stock market capitalization and domestic credit, meanwhile, were fluctuating much less, and the coefficients were not significant. The corruption index had a stronger effect than in Argentina, and the coefficient had the expected sign, but that might be because the index ranged from 2.8 to 1.9, a big decline in percentage terms.

Among the five remaining countries, Peru and Chile had more similarities than Colombia and Mexico. Brazil's dizzying stock market boom from 2002 to 2007 had the expected effect, as did the corruption index, but domestic credit growth had almost no effect on GDP growth. One possibility is that investment was badly allocated or ineffective because other investments, such as roads, did not keep pace. The stock market, at least in this stage of its development, did not channel investment into activities that were immediately accretive to GDP. The stock market would allocate investments more productively, but during that period, many of the IPOs were launched by companies that had existed for many years, so the boom in stock prices was the re-pricing of productive assets that already existed.

Peru's results were the strongest, with all explanatory variables contributing as expected. However, none of the variables were significant, even at the 0.10 level, and the overall significance of the F test was only 0.14, indicating that the model does not fit the data with sufficient precision.

For the entire group of countries, stock market capitalization and domestic credit appear to have boosted growth of GDP, but not by large, significant amounts. Capitalization in a market as mature as Chile's does not vary according to levels of investment during the time frame when capitalization rises or falls. Instead capitalization varies depending on investor perceptions of future returns, and their perceptions can be affected by external shocks, natural disasters, or a host of other factors. For Chile, stock market capitalization had a strong effect from 2001 to 2007, but not from 2008 onward. Chile's famous pension fund reforms had their effect from 1984 to 1997, but by 2001, the first year of our sample period, Chile's pension funds were no longer driving economic growth. By that time, the pension funds had made their contribution by financing infrastructure investments in telecoms and electric power generation and transmission (Organisation for Economic Co-operation and Development [OECD], 1997). Since the 2008–2009 crisis, Chile's pension funds have become targets for criticism, accused of complacency and excess conservatism. Successive governments have launched investigations to identify ways of improving the pension fund system.[1]

When we used stock market capitalization, domestic credit, and the corruption index to explain gross capital formation, the results were again inconclusive. That is surprising, because gross capital formation should be highly correlated with domestic credit growth. But that relationship was significantly different from zero only in the case of Brazil. For Mexico and Peru, the regression coefficients for domestic credit growth were almost exactly zero, which indicates that gross capital formation was financed in some ways that did not consistently involve using domestic credit. That unexpectedly weak relationship raises the question of how capital is being allocated and is a silent criticism of private credit-granting entities. The other explanatory variables were also unable to account for the growth of gross capital formation. For those variables, the results were so inconclusive that the signs of the regression coefficients were not all as expected.

The index of corruption does have some explanatory power. For most of the countries, as corruption gets worse, GDP growth slows down. And as corruption becomes less severe, GDP growth rises. But the results are not strong. One reason for this inconclusive result is that for some countries the corruption index does not change much during the sample period. For Mexico, the corruption index ranged between 3.0 and 3.7, with most observations being 3.5 or 3.6. Meanwhile, the country's growth rate fluctuated in the range of 5.3 percent to –4.7 percent.

The results, when scrutinized at the most granular level that the data and the model specification permit, are surprisingly different from what casual observers might expect. Studies of single countries can show how each country grew, but these results show that the simple specification that is adequate for one country does not apply to explain the growth that all these seven countries achieved.

Conclusion

The seven major Latin American countries that we studied had creditable, though highly volatile, growth records during the turbulent years 2001–2012. Those were turbulent years, punctuated by a pandemic financial crisis and volatility not seen since the thirties. We expected to find that their growth was spurred by capital market reforms, but the record was so mixed that the capital market reforms were often swamped by other developments. The growth of the seven countries was held back by corruption, but not to a significant degree. The corruption index was not correlated with GDP growth at the 0.05 level for any of the countries except Argentina. And even that result is questionable, because the corruption index for Argentina fluctuated in a very narrow range, probably within the margin of error, while GDP varied across a much wider range, not in synchronization with the small variations in the corruption index.

The evidence indicates that each country found its own formula for success. No single source of growth accounted for the region's good record, even though all seven countries are actively engaged with the world economy and experienced the ups and downs of trade flows, capital movements, and vicissitudes of foreign demand. There were macro trends outside the region and local initiatives that helped improve performance. Our main finding is that each country's economy deserves to be studied on its own, not grouped together and studied in a multi-country aggregate.

Note

1. See, for example, the role played by Alejandro Ferreiro, who was Superintendent de Valores y Seguros and Minister of Economy in the first Bachelet government. http://www.biobiochile.cl/2013/06/12/superintendencia-de-pensiones-anunciara-hoy-cambios-por-aumento-de-traspasos-de-fondos-de-afp.shtml

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