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The International Crisis and Latin America

Abstract

Latin America has been strongly affected by the international crisis and recession since late 2008. Compared with previous crises, how Latin America has faced this global crisis, what has been the role of different transmission mechanisms and how the structural conditions of the region have affected its vulnerability to external shocks? This paper aims at addressing these questions by assessing growth in the region's seven major economies during 1990-2009; in particular, it examines the effects of the financial crisis originated in the USA in 2008-2009.

Resumen

América Latina ha sido gravemente afectada por la crisis y la recesión internacional desde finales de 2008. En comparación con crisis anteriores, ¿cómo ha enfrentado América Latina esta crisis global?, ¿cuál ha sido el papel de los diferentes mecanismos de transmisión?, y ¿cómo las condiciones estructurales de la región han afectado su vulnerabilidad a choques

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externos? En este artículo se abordan estos temas evaluando el desempeño del crecimiento en siete de las economías más importantes de América Latina durante el periodo 1990-2009 y, en particular, se examinan los efectos de la crisis financiera originada en Estados Unidos en 2008-2009.

1. INTRODUCTION

The world economy is still adjusting to the worst financial crisis since the 1930s. The crisis that started in the financial system in the second half of 2007 took a new dimension in the last two years when it started to hit the periphery of Europe giving origin to a European crisis reaching Spain and Italy. In the case of the USA, massive financial support and rescue programs halted the financial crisis, while the fall of demand, output, and employment was only reversed by the combination of large-scale financial intervention and an aggressive monetary expansion. However, the European crisis is still in progress in spite of the efforts made by the European authorities and institutions. While the origin of the financial crisis was at the heart of the world's financial centers, its transmission mechanisms have been different among regions and countries. Europe suffered the effects of a drastic reduction in funding by USA financial institutions that followed the USA financial crisis and now is struggling to strengthen the fiscal situation and to create the conditions to recover competitiveness and to growth. Other economies outside the USA and Europe –industrial and developing alike– have been suffering from international contagion from the financial centers' crisis and the industrial world's recession through conventional financial and trade transmission channels and the increase in uncertainty.

This global financial crisis has raised concerns in developing economies about their macroeconomic policy frameworks and their development strategies. Among the questions raised by the crisis are: which policies can protect them best from world

crises and shocks?, what role does domestic demand play in shielding them from crises?, and to which extent should they rely on a strategy of close trade and financial integration into a world economy punctuated by shocks and crises?

Latin America has been strongly affected by the USA lead international crisis and recession since late 2008. In comparison to previous crises, how has Latin America coped with the global crisis, what has been the role of different transmission mechanisms, and how have the region's structural conditions affected its sensitivity to foreign shocks?

This paper addresses the latter issues by assessing the performance of growth in Latin America's seven major economies during 1990-2009 and, in particular, examines the effects of the USA led financial crisis of 2008-2009. Results from an econometric model are used to decompose growth into long-term and cyclical determinants to explain the amplitude of decline during the 1998-1999 Asian crisis and the 2008-2009 global crisis. This allows to quantify and identify: *i)* the differences in unconditional and conditional effects of the global crisis for LAC between both crises, *ii)* the role of structural and policy variables that have improved the region's resilience to foreign shocks and crises, and *iii)* the main implications for the evaluation of the dominant development strategy adopted by the region since the 1990s. The presentation here is non-technical and focuses on policy implications. For full details of the model and estimation results, readers are referred to Corbo and Schmidt-Hebbel (2010).

Section 2 of this paper describes the growth performance of Latin America during 1990-2009 and justifies the focus on the two regional recessions: the 1998-1999 recession associated with the Asian crisis and the 2008-2009 recession caused by the global financial crisis. Section 3 uses results from a growth regression model to decompose the amplitude of both recessions, comparing the very different roles of external and domestic growth factors in both recessions. Section 4 draws the implications of the previous results for the choice of policy regimes and development strategies in support of the region's

growth and resilience to foreign shocks and crises. Final remarks close the chapter.

2. LATIN AMERICA'S GROWTH PERFORMANCE

This study focuses on Latin America's seven largest economies –Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela– that account jointly for 91% of Latin America's 2008 GDP. The time sample spans the quarters ranging from 1990Q1 through 2009Q4. The main variable of interest is the countries' annualized quarterly growth rate of seasonally-adjusted real GDP .

Figure 1 depicts quarterly growth rates for the region.[1] Figure 1 reflects four periods of at least two consecutive quarters of negative average growth in the seven countries that represent the LAC region in our study: 1998Q3-1999Q2, 2001Q3- 2002Q1, 2002Q4-2003Q1, and 2008Q4- 2009Q1. The first episode is linked to the 1997-1998 Asian crisis and the last to the 2008-2009 global financial crisis and world recession. The second and third episodes reflect two very deep but idiosyncratic recessions in Argentina and Venezuela. The two latter episodes were not caused by international but by domestic factors (a deep and generalized crisis in Argentina and a temporary collapse of oil production in Venezuela associated with a strike in the sector), with almost no consequences for other countries in the region. In contrast to the two latter country-specific episodes, five of the seven countries suffered a recession during the 1998-1999 regional contraction, and all seven countries suffered a recession during the 2008-2009 contraction. Hence we focus in this study on the two latter recessions only.

We now turn to dating the precise extent of the recession. One possibility is to stick to the two windows of consecutive negative growth, depicted in Figure 1. However, this aggregate regional growth behavior may mask significant country

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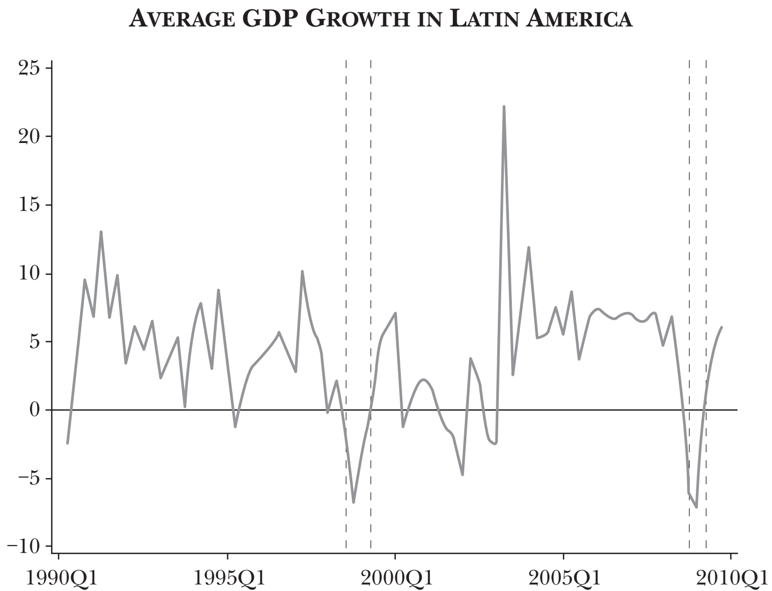
[1] Seasonally-adjusted GDP data are from official national sources. The full database used in this paper is available upon request.

Figure 1

AVERAGE GDP GROWTH IN LATIN AMERICA



Source: Own elaboration.

heterogeneity. Therefore we exploit the full panel-data sample to test for recessions combining alternative recession windows for the 1998-1999 recession with different windows for the 2008-2009 recession, using panel-data estimations.[2] We find that the best results are those for the four-quarter window spanning 1998Q3-1999Q2 (Asian crisis) and the two-quarter window 2008Q4-2009Q1 (global financial crisis). The latter results are identical to the recession periods for aggregate LAC , depicted in Figure 1.

However, for the purpose of the final choice of contraction periods relevant for our growth decomposition analysis performed below, we also consider the behavior of output gaps around recessions (Figure 2).[3] The average output gap in LAC

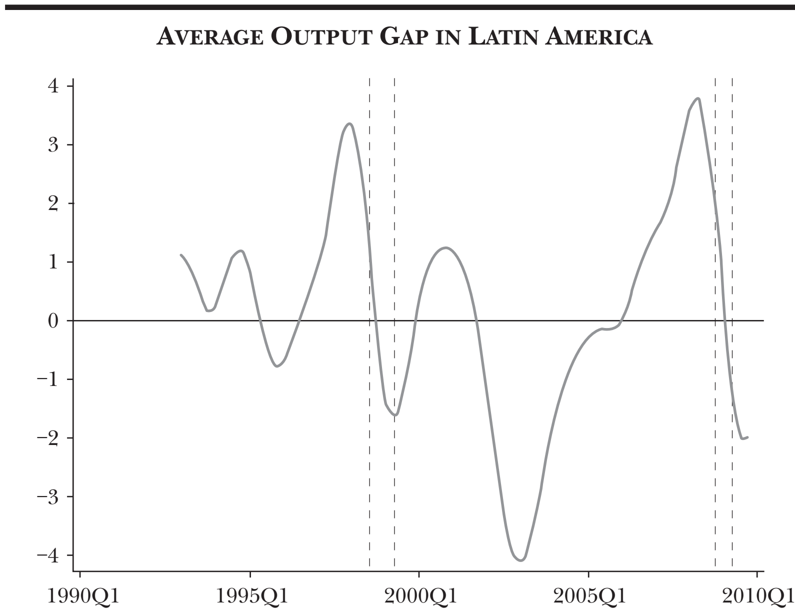
[2] Results are not reported here but are available on request.

[3] Output gap series are built for each country using 2010-2014 GDP projections from Consensus Forecast. Then we use the 1990-2014 quarterly country time series for past and projected future GDP

during the first recession period declines precisely during the 4-quarter window that was selected above, i.e., in 1998Q3-1999Q2. The output gap starts to close in 1999Q3, i.e., actual growth exceeds estimated trend growth since the latter quarter. However, after the second recession period the output gap continues to widen in 2009Q2 and 2009Q3, reflecting a weak growth recovery in the aftermath of the global financial crisis. This takes us to extend the contraction period relevant for our 1998-1999 growth decomposition by one quarter, to obtain a three-quarter recession period. Accordingly, we have identified 1998Q3-1999Q2 (four quarters) and 2008Q4-2009Q2 (three quarters) as the recession periods in this study.

Figure 2

AVERAGE OUTPUT GAP IN LATIN AMERICA



Source: Own elaboration.

levels to estimate trend GDP series based on the Baxter-King filtering method. The output gap is defined as the percentage deviation of actual (or projected future) GDP from trend GDP.

3. EXPLAINING THE AMPLITUDE OF THE 1998-1999 AND 2008-2009 RECESSIONS

The literature on long-term growth is very wide on both the theoretical and empirical sides. While theoretical studies usually analyze the role of a key growth determinant in isolation, the empirical literature takes a wider view, considering several structural and policy growth factors. Our approach is to estimate a growth model encompassing the largest possible set of structural, institutional, policy, and cyclical determinants of short and long-term growth, anchored in theory and international evidence. Our regression models, data sources, and estimation results are presented in full detail in Corbo and Schmidt-Hebbel (2010).

We put our regression results to work by using them to explain the amplitude of LAC's growth decline in the aftermath of both crises. To start, we compute the amplitude of the growth reduction in the seven sample countries during both recessions, i.e., the cumulative level reduction (expressed in annualized terms) observed between the peak quarter before the recession (labeled in Figure 3 as quarter 0) and the trough quarter of our selected recession periods (labeled in Figure 3 as quarter 4 or 1999Q2 for the first recession and quarter 3 or 2009Q2 for the second recession). Table 1 reports the annualized recession amplitude for the seven individual countries and the region at large. The peak-to-trough cumulative change ranges from a loss of 8.5% in Venezuela to a gain of 3.4% in Mexico during the four-quarter 1998-1999 recession. In contrast to the latter, the full country range is in negative terrain during the three-quarter 2008-2009 recession, with cumulative losses that range from 0.9% in Colombia to 11.1% in Mexico.

Simple (weighted) country averages of recession amplitudes for the region stand at −3% (−1.2%) for the first recession and −4.2% (−5.2%) for the second recession. By any of the latter measures, it is clear that the second recession was much deeper than the first one. Our next task is to explain a significant part of the observed simple-average recession amplitude, making

use of our coefficient estimates and the changes in independent variables (and in coefficient estimates, when applicable), according to our decomposition method, summarized in the working paper version of this chapter.

Table 1

RECESSIONS IN LATIN AMERICA. AMPLITUDE OF GDP GROWTH DECLINE
(percent)

	Asian crisis	*Global financial crisis*
	1998Q3-1999Q2	*2008Q4-2009Q2*
Argentina	−5.20	−1.55
Brazil	−1.03	−3.99
Chile	−3.88	−4.40
Colombia	−6.82	−0.87
Mexico	3.37	−11.09
Peru	1.15	−3.64
Venezuela	−8.51	−3.59
Simple average	−2.99	−4.16
Weighted average	−1.15	−5.24

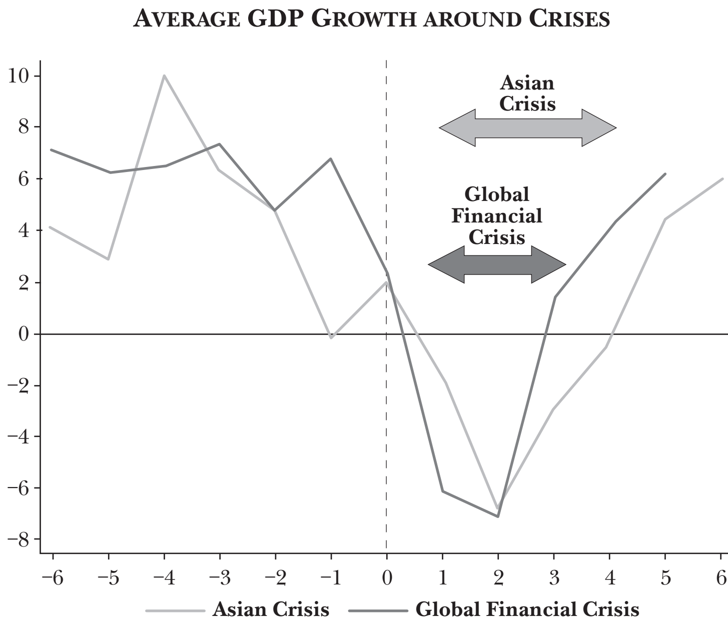
Source: Own elaboration.
Notes: Cumulative GDP growth rates within the reference period. Series deseasonalized using ARIMA X-11.

The results are reported in Table 2, based on our most comprehensive regression results. There we report the recession amplitude decomposition for the Asian crisis (column 1) and for the global financial crisis (column 2). The latter column is divided into three parts: the first is based on changes in explanatory variables only, the second is based on changes in estimated parameters only, and the third is the total contribution, which is the sum of the two previous parts.

The amplitude of the first recession is −3% (reported in the bottom line of Table 2), of which we explain some 90%, i.e., an annualized output decline of 2.7%. Of the much deeper second recession, with an amplitude of −4.2%, we explain some

Figure 3

AVERAGE GDP GROWTH AROUND CRISES



Source: Own elaboration.

95%, i.e., an annualized output decline of 4.1%. What are the factors driving these results?

We start with foreign cyclical variables, which reflect the transmission mechanisms from international crises and recessions to the region. A striking difference emerges between LAC's first and second recessions. On average (across countries and across the five foreign cyclical variables), international conditions improved during the first recession, contributing by 0.5% to higher cumulative growth.[4] The opposite is observed during the recent recession, when international conditions deteriorated on average massively for LAC, contributing by −2.7% to (or more than half of) the recession's amplitude. In 1998-99 three out of five foreign variables improved for LAC.

[4] For simplicity we use the term percent change instead of the more precise percentage-point change throughout this section.

However, in 2008-2009 all five cyclical variables deteriorated, and the largest single external driver of the recession was the massive decline in trading partners' growth. Hence the 1998-1999 recession was largely homemade, while the 2008-2009 recession was significantly caused by the global financial crisis and world recession.

Table 2

DECOMPOSITION OF LATIN AMERICA´S RECESSIONS

	Asian crisis (%)	*Global financial crisis (%)*		
	1998Q3-1999Q2	*2008Q4-2009Q2*		
Amplitude of GDP growth decline	−2.99	−4.16		
		Structural changes		
		No	*Changes*	*Yes*
Sources				
Long-term variables	−1.68	0.77		0.05
Private credit	0.24	0.44		0.44
Inflation	0.65	0.97	−0.73	0.24
Secondary school enrollment	−0.14	0.15		0.15
Fiscal balance	−1.17	−0.73		−0.73
Political certainty	−1.26	−0.06	0.01	−0.05
Structural variables	−0.57	0.59		−1.70
Financial openness	0.73	−0.60	0.14	−0.46
Trade openness	−0.53	−1.32	−0.79	−2.11
Net external assets	− 0.08	0.08		0.08
International reserves	−0.68	2.43	−1.64	0.79
Exchange rate regime	−0.01	0.00	0.00	0.00
Foreign cyclical variables	0.54	−2.60		−2.74
Terms of trade growth	0.02	−0.32		−0.32
Growth of trading partners	0.26	−1.36		−1.36
Growth of world exports	0.53	−0.05		−0.05

Capital inflows to Latin America	−0.05	−0.68		−0.68
Sovereign spreads	−0.22	−0.19	−0.14	−0.33
Domestic policy variables	−0.99	−0.14		0.99
Government consumption	0.69	1.12		1.12
Real interest rate	−1.68	−1.26	1.13	−0.13
Interactions	−0.02	−0.67		−0.67
Growth of trading partners * Trade openness	0.00	−0.19		−0.19
Growth of trading partners * Financial openness	0.10	−0.35		−0.35
Capital inflows to Latin America * Financial openness	−0.09	−0.10		−0.10
Sovereign spreads * Net external assets	−0.02	−0.03		−0.03
Structural changes post-2000		−2.02		
Explained variation	−2.72	−4.07		−4.07
Unexplained variation	−0.26	−0.09		−0.09
Total variation	−2.99	−4.16		−4.16

Source: Own elaboration.

We now turn to long-term growth variables. They deteriorated on average significantly during the first recession, explaining a sizeable −1.7%, which is more than half of the 1998-1999 recession's amplitude. In contrast, long-term variables improved on average during the second recession, contributing with 0.8% to higher cumulative growth in 2008-2009. Higher private credit flows (relative to) and lower inflation contributed most to positive growth, while the deterioration in fiscal balances (relative to) weakened growth. When considering the reduced inflation coefficient observed since 2002, the growth gain from lower inflation is much smaller in 2008-2009. Therefore, combining both changes in variables and coefficients, the

contribution of long-term variables to the second recession's amplitude is close to nil.

We come to similar conclusions regarding the very different role of changes in structural variables during both recessions: they deepen the recession in 1998-1999 (by -0.6%) while they dampen the recession in 2008-09 (by 0.6%). While our ex post measures of financial and trade openness decline significantly during the most recent recession, the buildup of international reserves more than offsets the latter. However, once we consider the large changes in coefficients after 2000 (smaller for financial openness, larger for trade openness, and smaller for international reserves), the overall contribution of structural variables to the 2008-2009 recession amplitude –combining changes in their values and their estimated parameters– is very negative and equals −1.7 percent.

Domestic macroeconomic policy played on average a contractionary role in 1998-1999 and an expansionary role in 2008-2009. Fiscal policy was expansionary in both recessions, but much more so in the second experience, when it made a positive contribution by 1.1% to cumulative growth. As opposed to the latter, monetary policy was highly contractionary in both recessions (due to higher nominal interest rates in 1998-1999, and negative inflation expectations in 2008-2009), but much less so in the recent experience. Higher real interest rates deepened the 1998-1999 recession by 1%, while higher real rates (combined with the decline in the real interest rate absolute coefficient) deepened the 2008-2009 recession just by 0.1 percent.

Finally, the growth effects of interactions between structural conditions and foreign shocks were neutral for the first recession but deepened significantly the second recession, by 0.7%. This is not surprising because the interaction terms largely reflect the amplifying effects of the deterioration in foreign conditions observed in 2008-2009 but not in 1998-1999.

4. IMPLICATIONS FOR POLICIES AND GROWTH STRATEGIES

The evidence presented in this paper on Latin America's performance during its two last crises, 1998-1999 and 2008-2009, shows striking differences between the very different role played by foreign and domestic growth factors in both recessions. The first (less intense) recession was largely homemade, while the second (more intense) recession was largely due to a deteriorating world economy. The combined effect of foreign cyclical factors was positive for Latin America's growth during the first recession, while all foreign cyclical variables deteriorated sharply during the world financial crisis, explaining more than half of the last recession. In contrast to foreign variables, all domestic variables explain more than 100% of the first recession and less than half of the 2008-2009 downturn.

The latter result is due to the large changes in development strategies and policy regimes that Latin America started in the 1990s and deepened in the 2000s. While populist policies have reemerged in some countries, the region's dominant development approach relies on the adoption of sustainable macroeconomic and financial regimes, a more open market economy, strong commitment to global integration, and some reform progress to make governments more effective in their provision of public goods. Next we derive the implications of our empirical findings for evaluating the region's development strategy in three key areas: macroeconomic regimes and policies, domestic financial development, and international integration of goods and financial markets.

Latin America started a major revamping of its macroeconomic policy frameworks in the 1990s, a drive that was consolidated in the 2000s. Fiscal policy had been unsustainable in many countries since the 1970s and through the early 1990s, leading to fiscal crises and hyperinflation. Fiscal orthodoxy replaced profligacy in the 1990s, a trend that was intensified in the 2000s, when a significant part of commodity windfalls

was saved. In turn, fiscal policy was used as a counter-cyclical stabilizing tool during the 2008-09 recession.

Fiscal trend deficits were dramatically curtailed or turned into surpluses, and public debt levels were generally reduced to low and sustainable levels. Average public and publicly guaranteed debt fell from 30.1% of in the early 1990s to 14.3% of in the late 2000s (Table 3). A final step toward further strengthening of fiscal frameworks in the region –adopting formal fiscal rules and fiscal councils– is still pending. Chile is the only country that has in place a fiscal rule since 2001.

Table 3

PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT IN LATIN AMERICA
(percent of GDP)

	1990-1994	*1995-1999*	*2000-2004*	*2005-2009*
Argentina	23.59	23.92	56.35	25.84
Brazil	20.31	12.35	16.91	7.26
Chile	23.42	7.16	9.15	6.27
Colombia	28.04	17.05	22.71	14.10
Mexico	22.03	24.06	14.80	10.93
Peru	45.23	35.13	36.18	21.43
Venezuela	48.10	34.11	24.51	14.41
Simple average	30.10	21.97	25.80	14.32
Weighted average	23.56	18.42	22.51	11.62

Source: World Development Indicators, World Bank (2010).

Our results provide strong evidence on the growth impact of the latter shift in the region's fiscal policy. First, the fiscal balance makes a robust and economically large contribution to growth. Second, government consumption has a significant stabilizing effect on short-term growth. Our growth decomposition shows that the stabilizing role of government consumption was more heavily used during the 2008-2009 contraction, when countries had more room for counter-cyclical fiscal policy.

The second regime change in macroeconomic policies was the shift from inflexible toward flexible exchange rate regimes, largely implemented after the Asian crisis. Either forced by markets or as a result of policymakers' convictions, many countries replaced their crawling pegs or exchange rate bands by floats, which exceptionally are of the clean type (like in Mexico) and more frequently of the dirty type, i.e., with high-frequency non-announced interventions (like in Brazil or Peru) or low-frequency pre-announced intervention periods (like in Chile). Latin America has reaped three benefits from flexible exchange rates: avoidance of recurring currency crises (that often lead to financial repression and recessions), use of nominal (and hence real) exchange rate adjustment as a buffer against adverse foreign shocks (therefore avoiding costly unemployment and output losses), and allowing full conduct of an independent monetary policy.

Flexible exchange rates have not precluded countries from engaging in trend accumulation of international reserves to strengthen their foreign liquidity positions. Drawing lessons from recurring past experience with inflexible exchange rate regimes and currency crises, Latin America has adopted an eclectic framework that combines exchange rate flexibility with self-insurance in the form of holding significant levels of international reserves. Our empirical evidence shows that both a flexible exchange rate regime and foreign exchange holdings contribute to growth in Latin America. Most revealing is our finding that while reserve holdings had a very large effect and the exchange rate regime a non-significant effect on growth in the 1990s, the relative importance of both variables was reversed after the shift toward floats. Since 2000-2001, the flexible exchange rate regime has a significant and large effect on growth, while the effect of reserve holdings has declined in size albeit not in statistical significance. Moreover, during the 1998-1999 recession, central banks sold reserves and therefore contributed to deepen the recession, while in 2008-2009 they did the opposite, contributing to higher growth.

The third component of macroeconomic policies is the monetary regime. As noted above, a flexible exchange rate is a necessary condition for exercising an independent monetary policy. Fiscal sustainability and responsibility precludes fiscal dominance over monetary policy, which is a second macroeconomic regime condition for the exercise of an independent and credible monetary policy. Finally, de jure (or, at least, de facto) central bank independence strengthens the conduct of a monetary policy that is independent of direct interference by government or private-sector interests. Adoption of inflation targeting, today's monetary regime of choice among many central banks in the world, requires the three latter conditions to be satisfied. Therefore it is no coincidence that several central banks adopted inflation targeting in Latin America after obtaining legal or de facto independence, after severing their links with government budgets, and during or after their transition toward floating exchange rates. With inflation targeting (and sometimes without it), central banks have made significant progress in adopting a framework of careful and responsible exercise of monetary policy. The success of monetary policy is reflected in low inflation, which has declined in Latin America from an annual average of 34% in the early 1990s to 7% in the last five years (Table 4). Our findings support the conclusion that lower inflation also contributes significantly to higher growth.

The gains in monetary policy credibility reaped from low inflation gradually allow central banks to adopt counter-cyclical monetary policies. While central banks were busy defending their inflexible exchange-rates during the 1998-1999 recession, they allowed their local currencies to depreciate in 2008-2009 and exercised counter-cyclical monetary policy. Our evidence shows that central banks raised nominal (and hence real) interest rates in 1998-1999, while they cut nominal interest rates in 2008-2009. Although the latter cuts were not sufficient to compensate for a significant decline in inflation expectations, they helped in avoiding excessively high real interest rates. Our evidence shows that growth was

significantly curtailed by contractionary monetary policy in 1998-1999, as opposed to the 2008-2009 experience.

Table 4

INFLATION IN LATIN AMERICA
(percent)

	1990-1994	*1995-1999*	*2000-2004*	*2005-2009*
Argentina	30.46	0.21	6.73	8.26
Brazil	85.91	8.56	7.79	4.54
Chile	13.66	5.26	2.68	3.69
Colombia	20.02	14.32	6.55	4.69
Mexico	12.32	19.01	5.40	4.04
Peru	47.09	7.08	2.19	2.54
Venezuela	30.12	30.74	16.75	18.06
Simple average	34.23	12.17	6.87	6.55
Weighted average	51.68	11.16	7.11	5.45

Source: Own elaboration.

The macroeconomic regime shifts that Latin America has implemented in the last decade have contributed to hold aggregate demand growth in check during the last decade, leading to healthy current account balances and significant reductions in public and private net external liabilities. Our findings confirm that the buildup of net external assets has had a significant positive effect on the region's growth performance, either directly or interacting with sovereign debt premiums. Moreover, when the global financial crisis and world recession of 2008-2009 hit, Latin America's fiscal and external position was healthy and policy regimes were strong, enabling the region to face very well –compared to 1998-1999 or 1981-1982– the severe deterioration in international conditions, adopting effective countercyclical policies for the first time in its recorded history.

The second area of significant progress in the region has been in the development of domestic financial and capital markets. During the last decade Latin America's banking sector

has developed both in size and diversity of financial services, while improving its health and resilience to domestic and external shocks. Domestic financial deepening (and financial integration) has been facilitated by macroeconomic stability, deregulation of domestic financial activities, privatization of banks, opening up to foreign ownership of banks, privatization of non-financial firms, and reduction of controls on foreign capital flows. Restrained from excessive risk taking by reformed financial regulation and supervision –that reflects the right lessons derived from previous financial crises– the region's banks have avoided exposure to USA toxic assets and have generally resisted well the recession of 2008-2009. In fact, no financial crises were observed during 2008-2009 in a region that had suffered recurring banking crises in the past, when hit by severe foreign shocks and domestic recessions. In our findings, the ratio to of private credit from commercial banks contributes significantly to the region's growth. Moreover, the increase in the latter ratio had a mild stabilizing effect during the 1998-1999 recession and a larger expansionary influence during the 2008-2009 recession.

Beyond banking, the region adopted capital-market reforms that boosted the development of private debt and equity markets, insurance markets, and pension funds. Financial and capital-market development is a major and robust growth determinant acting through several channels of transmission on saving and investment, and, fundamentally, on productivity growth, as shown by a long literature (e.g., Levine, 2005). Deep pension reforms in many Latin American countries have replaced state-run pay-as-you-go pension systems by defined-contribution systems managed by private companies that invest pension funds both domestically and internationally. The latter systems contribute to financial deepening (and financial opening), improve domestic corporate governance, and raise aggregate efficiency. Hence structural pension reform can contribute significantly to economic growth, as shown for the Chilean case (Corbo and Schmidt-Hebbel, 2003).

The third key area of the region's development strategy is globalization. Latin America in general has deepened its trade and financial integration with the world economy. During the past two decades, the region has largely dismantled its massive historical barriers to trade in goods, services, and capital flows.

Table 5

TRADE OPENNESS IN LATIN AMERICA
(percent of GDP)

	1990-1994	*1995-1999*	*2000-2004*	*2005-2009*
Argentina	17.20	22.12	22.60	25.98
Brazil	15.45	20.44	22.36	27.40
Chile	49.72	60.85	68.41	83.56
Colombia	29.96	37.50	36.76	44.27
Mexico	27.26	40.47	53.32	60.89
Peru	26.00	32.74	35.43	40.56
Venezuela	61.37	56.22	52.46	61.29
Simple average	32.42	38.62	41.62	49.14
Weighted average	22.64	29.53	33.74	39.77

Source: Own elaboration.

Latin American countries have made much progress in reducing import tariffs, eliminating most non-tariff barriers, and putting in place a large number of multilateral and bilateral preferential trade agreements with major world trading partners. An open trade regime contributes to higher long-term growth by reaping the well-known benefits of improved resource allocation and helps to cushion the negative growth effects of adverse regional shocks (such as the 2008-2009 recession in industrial countries) through a regionally more diversified trade pattern. The region's large progress in trade integration is reflected by an increase in its average total trade ratio to from 32% in the early 1990s to 49% in the late 2000s (Table 5). The countries that have progressed most in trade integration are Chile and Mexico –a result of their low general

trade barriers and having a dominant share of their foreign trade conducted under preferential trade agreements. According to our findings, higher trade openness has a very significant and large effect on the region's growth performance. The drawback of this positive impact on long-term growth is that during recessions, when trade declines more than domestic output, shrinking trade ratios deepen domestic recessions –this was observed moderately in 1998-1999 and massively in 2008-2009, according to our results.

Table 6

FINANCIAL OPENNESS IN LATIN AMERICA
(percent)

	1990-1994	*1995-1999*	*2000-2004*	*2005-2009*
Argentina	78.47	103.80	176.51	147.57
Brazil	45.84	53.18	86.77	82.94
Chile	119.02	126.87	192.10	184.57
Colombia	51.70	61.62	87.07	78.97
Mexico	62.99	81.79	70.28	79.52
Peru	97.99	100.91	103.79	102.45
Venezuela	156.85	131.10	145.50	122.00
Simple average	87.55	94.18	123.14	114.00
Weighted average	63.19	74.23	100.77	95.70

Source: Own elaboration.

Regarding financial integration, Latin America has complemented domestic financial liberalization with external financial opening, reducing restrictions on holdings, inflows and outflows of short and long-term foreign direct investment, loans, and portfolio and equity flows. Restrictions on short-term capital inflows –prevalent in some countries during the 1990s– have been abolished and/or not restarted in most countries. International financial integration leads to larger gross external asset and liability holdings, which contribute to more efficient resource allocation and better insurance against national

idiosyncratic shocks, and hence to higher growth and lower income and output volatility. The region's progress in financial integration is reflected by a rise of the average total external asset and liability ratio to GDP from 89% in the early 1990s to 114% in the late 2000s (Table 6). We have also found that higher financial openness has a very significant and large effect on the region's growth performance. However, while during the 1998-1999 recession the ratio of external asset and liability holdings increased, hence lessening the recession, the opposite occurred during 2008-2009, when the significant decline of the latter ratio (reflecting in part the decline in capital inflows to the region) contributed to deepen the recession.

Despite large progress in applying a coherent and sustainable development strategy, Latin America still faces a large pending agenda to raise growth further and to make faster progress in reducing poverty and improving income distribution. On growth the region's main shortcoming is the low level of productivity and the inadequate rate of productivity growth. There is much room to improve efficiency and competitiveness of domestic markets and to facilitate the process of creative destruction of firms. Labor markets are excessively regulated in the formal sector, leading to high structural unemployment and informal employment. Another area where the equity and efficiency costs of inadequate public policies are very high is in education, which exhibits very low quality levels. Although much progress has been made regarding school enrollment and educational attainment, Latin American countries still rank very low in international education achievement tests, even when controlling for per capita income levels. Public education suffers from low budgets, poor incentives, lack of accountability, and barriers to education reforms aimed at improving teaching methods and raising teachers' productivity. Finally, regional growth is hampered by widespread government corruption and low efficiency of public administration. Government bureaucrats are largely selected on the basis of party affiliation instead of professional merit, which is reflected not only in the low quality of government bureaucracies but

also their short tenure, linked to government mandates. Notable exceptions are Brazil and Chile, which have introduced, at least partly, meritocratic hiring of government managers and staff. Hence government reform at all levels –from municipalities to public enterprises and to central governments– is also a major development challenge in the region's quest to attain higher growth and more equity.

5. FINAL REMARKS

We conclude that Latin America has changed significantly between the late 1990s and the 2000s. This chapter's empirical results show that the region's growth rate has been raised by putting in place a better and stronger development strategy since the late 1990s. While there is still significant intra-regional heterogeneity in economic regimes and policies, the predominant development strategy is based on the adoption of prudent and rule-based macroeconomic policies, deeper and healthier financial systems and capital markets, and strong integration into world goods and capital markets. Our results show that improvements in many specific variables associated with these three areas have led to higher average growth.

Moreover, Latin America's resilience to adverse foreign shocks has been greatly improved by adopting the latter development strategy. This paper's results show that the last recessions suffered by the region were very different –in magnitude, the role of foreign shocks, and the contribution of domestic conditions and policies. The 1998-1999 recession –of a smaller magnitude– was largely homemade, related to the weak macroeconomic and structural policy framework that Latin America had in place in the 1990s. In contrast, the second recession –much deeper and affecting all major Latin American economies– was largely due to deteriorating conditions in the world economy. The improved resilience of Latin America to foreign shocks and world recessions is reflected by our results in four ways. First, the success in adopting macroeconomic policy regimes that better protect domestic economies against

external shocks (like exchange rate floats, lower levels of foreign net liabilities, and larger levels of gross international reserves) and strengthen adoption of countercyclical policies (like inflation targeting, contributing to lower inflation, and improved fiscal policy frameworks, reflected in lower public debts and deficits). Second, the success in building up deeper and healthier financial systems and capital markets. Third, the attainment of larger trade and financial integration. Finally, the indirect benefits of the latter improvements in reducing the sensitivity of growth to adverse conditions, reflected for example by the post-2000 reduction in the sensitivity of growth (i.e., in growth coefficients) to inflation and political uncertainty, and the increase in the sensitivity of growth to trade openness and exchange rate floats.

Although much has changed in Latin America in the last two decades, there are still many impediments to achieve higher and sustained growth and better opportunities for the poor. A large reform agenda to improve the region's business environment, labor market regulations, quality of education, and government efficiency has to be tackled to raise Latin America's efficiency and equity levels. Lack of progress in the latter areas could result in frustration with macroeconomic responsibility and structural achievements, creating conditions for further spreading of populist policies that inflicted so much damage to the region in the last fifty years. To make significant progress in these areas requires improving significantly the quality and independence of the public sector, learning from the successful experience of countries like Australia, Canada, Finland, New Zealand, or Sweden.

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