Banco Central de Chile Documentos de Trabajo

Central Bank of Chile Working Papers

N° 377

Noviembre 2006

ECONOMIC GROWTH IN LATIN AMERICA: FROM THE DISAPPOINTMENT OF THE TWENTIETH CENTURY TO THE CHALLENGES OF THE TWENTY-FIRST

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ECONOMIC GROWTH IN LATIN AMERICA: FROM THE DISAPPOINTMENT OF THE TWENTIETH CENTURY TO THE CHALLENGES OF THE TWENTY-FIRST

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Resumen

América Latina ha estado marcada por explosiones de crecimiento que, en su mayoría, han terminado en crisis y largos períodos de estancamiento, lo que durante la mayor parte del siglo pasado se tradujo en un desempeño económico débil. Este artículo revisa la experiencia de crecimiento de los países latinoamericanos, con énfasis en algunas áreas específicas que ayudan a explicar por qué a la región le ha costado tanto lograr un crecimiento sostenido. En particular, analiza el rol de la apertura internacional y el comercio intrarregional, de las instituciones, de la estabilidad macroeconómica y de la distribución de la riqueza a la hora de conseguir el despegue económico y un crecimiento sostenido. También revisa temas más generales relacionados con el crecimiento, tales como la importancia de proteger el derecho de propiedad y contar con una estructura adecuada de premio al esfuerzo y fomento a la igualdad de oportunidades. Para concluir, presenta un breve panorama de la actual coyuntura macroeconómica.

Abstract

Latin America has been dominated by growth expansions that, more often than not, have ended in crises and protracted periods of stagnation. This has led to poor growth performance during most of the past century. This paper reviews Latin American growth experiences and discusses some particular areas that help to explain why sustainable growth has been so elusive in the region. In particular, it discusses the role of openness and intraregional trade, the role of institutions, macroeconomic stability and inequality, all factors that are central to resume and maintain growth. The paper also discusses more general issues related to growth, such as the importance of protecting property rights and having an adequate structure of rewards to effort, which includes equal opportunities. Finally, a brief overview on current macroeconomic developments is presented.

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Paper prepared for the Conference "Democratic Governability in Latin America," University of Notre Dame, October 6-7, 2005. I am very grateful to María Cristina Betancour, Scott Mainwaring, Jaime Ros and Tim Scully for very useful comments. I have also benefited from previous discussions at presentations at the University of Southern California, Yale University and Expansiva. I am grateful to Christopher Neilson and Marco Nuñez for excellent research assistance. All views expressed here are my own.

1. Introduction

Certainly, Latin America is one of the regions with more disappointing results during the twentieth century. There have been many outbursts of growth, but they have usually ended up in a crisis and a long period of slow growth. The 1960s and 70s—particularly the former—are remembered as periods of high growth, but in those days Latin American growth was slower than in the world at large and in many other regions (table 1). Perhaps the most important feature of the 1960s was that growth variability across countries in the region was very low. In contrast, during the 1990s, with the world growing much less, some economies managed to grow strongly, at much higher rates than the rest of the world. But a number of those countries came to a sharp stop. Few have been able to cope with scarce capital inflows and an unstable international environment for emerging markets. More recently, the external atmosphere has been positive for emerging markets, but the issue in many Latin American countries (LAC) is how to resume, or in many cases start, a process of sustained growth.

This paper revisits some of the main issues regarding economic growth in Latin America. I begin in sections 2 and 3 with a review of growth performance and the explanations for these facts based on cross-country econometric evidence. Then, in section 4, I focus on the role of openness and the low regional trade among Latin American economies, which certainly reveal a weakness to sustain growth. In section 5, I discuss briefly how to mitigate crises, a recurrent phenomenon in the region that has been a fundamental cause of low growth. Then, in section 6, I tackle one of the most difficult problems in the region, namely severe inequality, and discuss how it can affect the quality of public policy. I discuss more general issues regarding fundamental factors that spur growth in section 7. The paper concludes in section 8 with some final remarks on the current economic outlook for Latin America.

2. Growth Performance and Income Gaps

The growth performance of a number of LAC since 1960 has been volatile and modest (see Table 1.¹) Volatility was particularly high toward the end of the century. In contrast, the 1960s are usually remembered as a period of high and stable growth. Even the 1970s look reasonably dynamic despite the oil shock. However, as the table shows, the 1960s were also years of strong growth all around the world. For this reason, a better assessment can be made by looking into the income gap between Latin America and the developed world. This allows us to see whether the region has been indeed catching up with advanced economies.

A long-term view, using Maddison (2001) data, is presented in Figure 1, where Latin American per-capita GDP is compared to that of the US and that of the advanced economies. Panel (a) shows the simple average of per-capita GDP, while panel (b) weights by GDP of each country. Alternatively, the weights could have been based on population, but the figure looks the same. Latin America grew mildly with respect to the US in the first 40 years of the twentieth century. Latin America did not grow during the Great Depression, but the decline was somewhat milder. In contrast, the second half of the century Latin America steadily lost ground with respect to the advanced world. During the 1940s each Latin American country sharply narrowed its gap with respect to the US and then broadened it due, to a large extent, to abrupt changes in output in the developed world.

The evolution of the output gap with respect to the US for single countries during the twentieth century is presented in Table 2. Argentina and Uruguay were relatively high-income countries, and to a lower extent, Chile. Post 1950 decline is shared by almost all of the countries, with the exception of Mexico and, most importantly, Brazil, which grew fast during the Brazilian "miracle" of the 1960s and 70s. Indeed, Brazil is the only country among those in the table whose gap with respect to the US was smaller in 2000 than in 1970. The decline was sharper during the 1980s, the so-called lost decade. As already shown in Table 1, growth was not the highest during the 1990s, there was greater stability,

¹ For tables 1 and 2 the sample consists of 21 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Trinidad & Tobago, Uruguay and Venezuela. These tables compare with a set of East Asian countries that are those listed in Table 1.

although a decline took place the last years of the century. Looking across decades, the two most important periods and countries catching up with the USA were Brazil in the 1970s and Chile in the 1990s.²

Having shown some basic facts for the output gap between Latin American and developed economies, it is possible to decompose this gap in a similar way to traditional growth decompositions. Traditional growth decompositions compute the relative contribution of productive factor accumulation and total factor productivity to economic growth. But, in this case, I decompose the output gap into a factor and productivity gaps, which is more consistent with the predictions of the neoclassical growth model, since it explains income differentials rather than growth differentials. In this decomposition I explicitly consider human capital. This becomes relevant because comparing levels of income is important in controlling for differences in the quality of the labor force across countries. I compare the income per capita of some LAC and other regions with that of the United States, as is usually done in the literature, and then decompose the difference between them into a productivity gap, a capital-output ratio gap, and a human capital gap. I follow the decomposition suggested by Klenow and Rodríguez-Clare (1997) and Hall and Jones (1999).

Consider a Cobb-Douglas production function at time t for country j:

$$Y_{jt} = A_{jt} K_{jt}^{\ \alpha} H_{jt}^{1-\alpha}.$$
 (1)

where A is total factor productivity (TFP), K is physical capital, and H is labor adjusted for human capital. The last of these can be rewritten as Lh, where L is employment and h is a measure of human capital per worker. Using lowercase letters for per-capita (or, more properly, per-worker) variables, and omitting the time index, we have that:

$$y_j = A_j k_j^{\alpha} h_j^{1-\alpha}.$$
 (2)

Now we can compare the levels of income per capita of two countries, *j* and *i*, as

² For further details on the Chilean experience, see De Gregorio (2004).

$$\frac{y_j}{y_i} = \frac{A_j}{A_i} \left(\frac{k_j}{k_i}\right)^{\alpha} \left(\frac{h_j}{h_i}\right)^{1-\alpha}.$$
 (3)

We could simply use this decomposition, but, as we know from growth theory, if a productivity shock hits (that is, if A rises), it will lead to an increase in the capital-labor ratio in the steady state, and therefore the increase in productivity will be wrongly attributed to an increase in the capital-labor ratio. However, what remains invariant to a productivity increase in the steady state is the capital-output ratio, which depends on the investment rate, which in turn depends on the saving rate. Therefore, an increase in investment will lead to an increase in the capital-output ratio, but an increase in productivity will not.³

Rewriting equation (2) in terms of the capital-output ratio—that is, dividing and multiplying the right-hand side by y^{α} —and rearranging, we have

$$y_j = A_j^{1/(1-\alpha)} \left(\frac{k_j}{y_j}\right)^{\alpha/(1-\alpha)} h_j.$$
 (4)

Finally, we can consider two countries and decompose the output gap between them as

$$\frac{y_j}{y_i} = \left(\frac{A_j}{A_i}\right)^{1/(1-\alpha)} \left(\frac{k_j / y_j}{k_i / y_i}\right)^{\alpha/(1-\alpha)} \frac{h_j}{h_i}.$$
 (5)

The comparisons here are done with respect to the United States (country *i*). Therefore, if output per capita turns out to be *Z* percent of that of the United States, Z_a percent can be explained by productivity differentials, measured as the first term on the right-hand side of equation (5), Z_{ky} percent by differences in the capital-output ratio, and Z_h percent by differences in human capital. By construction, then, $(1 + Z) = (1 + Z_a)(1 + Z_{ky})(1 + Z_h)$.⁴

³ For further justification, see Cole et al. (2005). For a skeptical view of this approach, see Bosworth and Collins (2003), who argue that not all increases in the capital-labor ratio are the result of increases in TFP.

⁴ The decompositions are constructed on a country-by-country basis, so if averages are taken across countries, this identity may not hold.

Finally, to measure human capital I use the traditional specification based on the returns to education per year of schooling:

$$h = e^{\varphi E}, \tag{6}$$

where *E* represents years of education and φ the returns on schooling, which can be estimated using Mincer equations.⁵ Following Hall and Jones (1999), the exponent in equation (6) is assumed to be piecewise linear. For the first four years of schooling I use a return of 13.4 percent, which is the return to education in Africa. For the next four years I use a return of 10.1 percent, and for years beyond I use the return on schooling in OECD countries, which is 6.8 percent.

The rest of the data are constructed in the same way as for the Solow decomposition discussed previously. For the national accounts I use the Penn World Tables version 6.1 from Heston, Summers and Atten (2002), in order to have internationally comparable data. The results are presented in table 3. Latin America's per-capita GDP was only 21 percent that of the United States when measured at purchasing power parity (PPP).⁶ The capital-output ratio in Latin America was only 27 percent lower than that in the United States, and human capital was 42 percent lower. The largest difference appeared for TFP, which was 57 percent lower than that of the United States with the United States is TFP, followed by human capital.⁷ Indeed, should the TFP gap close, the output gap would be 42 percent. In contrast, closing the capital-output ratio gap would increase the regional income with respect to the US from 21 percent to 25 percent.

For all countries in the table, the most important gap is the TFP gap. Chile and Mexico are the countries where this gap is the narrowest within Latin America, and is similar to that of human capital. It is also important to recall that the human capital gap is not corrected by quality and, as was mentioned before, there is strong evidence that quality

⁵ We have $(1/h)(dh/dE) = \varphi$, which is the return to schooling.

⁶ It is a simple average of Latin American countries for which there were available data in 2000.

⁷ The data on human capital are based exclusively on measures of the educational attainment of the labor force and are not adjusted for quality. This is the implicit assumption when using the same return for education across countries. As will be discussed later, there is evidence of low relative quality of education in Chile, which would increase the human capital gap.

of education in the region is relatively poor, which may indicate that the human capital gap in table 3 could be underestimated. The countries from other regions in the table also show that the largest gap is the one on TFP. This feature is common around the world with only a few exceptions (Parente and Prescott, 2002).

Hence, the largest gains in terms of closing the income gap may be obtained by closing the productivity gap, that is, by increasing efficiency in the use of existing factors of production, in order to produce more with the same inputs. The table also shows that the Asian "miracle" has been more the result of capital deepening than of productivity enhancement, a point originally raised by Young (1995).

3. A Review of Empirical Evidence on Growth Determinants

A huge amount of research has been done in the last 15 years attempting to determine the main factors that underlie economic growth. In this section, I summarize some of the findings of De Gregorio and Lee (2004). In a five-year panel data covering from 1970 to 2000, per-capita growth (GROWTH) is regressed on a number of variables. The regression controls for initial per-capita GDP in each period (Y0) in order to take into account conditional convergence. The regression also includes the investment (I) and fertility rates (F). The neoclassical growth model predicts that high savings (foreign and domestic) speed up the transition and lead to a higher level of steady-state income. In contrast, a high rate of population growth leads to a lower level of steady-state income.

Not only the quantity, but also the quality of resources matters, and to control for the quality of human resources the explanatory variables include the average years of schooling for males aged 25 and over (SCH), available from Barro and Lee (2001), and life expectancy at birth (LIFE). The latter variable is considered another important component of human capital stock. A longer life expectancy would tend to indicate a healthier, more productive labor force. As explained before, there are not enough data on quality of education to correct the measures of educational quality. However, the existing scattered evidence does indeed show that education is pretty mediocre in Latin America. A number of institutional and policy variables were included, and they are quite standard. They are: government expenditure (G), rule of law (RL), inflation (INF), and openness (OPE) Finally, a dummy variable to measure whether or not a country experienced a currency crisis in a five-year period was included (CRISIS) and, in order to control for the external environment, the growth rate of the terms of trade (TOT) was used. The results of this regression are shown below⁸:

Growth = -0.023 Log(Y0) + 0.0442 I - 0.0157 Log(F) + 0.0020 SCH + 0.0686 Log(LIFE)(0.0036) (0.0283) (0.0061) (0.0018) (0.0222)- 0.0651 G + 0.0158 RL - 0.0157 INF + 0.0092 OP + 0.0287 TOT(0.0250) (0.0077) (0.0100) (0.0044) (0.024)- 0.0176 CRISIS No. of countries: 85, obs: 464.(0.00056) (0.0056

The results are quite standard, although it is important to note some particularities. As usual, after controlling for factors determining long-run income, conditional convergence is obtained. Inflation, one of the most recurrent economic problems in Latin America, loses some significance when the currency crisis variable is included. The reason is the colinearity between currency crisis and inflation, this is, currency crisis happens also in countries that have, during the five-year period, high inflation. However, it is not possible to establish causality between crisis and inflation, and most likely both are determined jointly by bad macroeconomic management.

In a recent paper, Rodríguez (2006) argues that cross-country regressions are not robust when taking into account all possible interactions among explanatory variables, and any result could be obtained. This view would apply to almost all empirical work using

⁸ The system has six equations, corresponding to the periods 1970-75, 1975-80, 1980-85, 1985-90, 1990-95, and 1995-2000. The dependent variables are the growth rates of per capita GDP. Data on GDP are from Penn-World Tables version 6.1. The log of per capita GDP, the average years of male secondary and higher schooling, and the log of life expectancy at age one are measured at the beginning of each period. The ratios of government consumption and investment to GDP, the inflation rate, the total fertility rate and the growth rate of the terms of trade are period averages. The rule-of-law index is the earliest value available (for 1982 or 1985). The openness variable is the period average. Estimation is by three-stage least squares. Instruments are the actual values of the variables for schooling, life expectancy, openness, and the terms of trade; dummy variables for Spanish or Portuguese colonies and other colonies (which have substantial explanatory power for inflation); lagged values of the log of per capita GDP, the government consumption ratio, and the investment ratio; and the initial values for each period of the rule-of-law index and democracy index. The instrument for the rule-of-law indicator is its value for 1982 or 1985. The initial values of foreign reserve-import ratio are used as an instrument for balance-of-payments crisis. Individual constants (not shown) are included for each period. Standard errors of the coefficient estimates are shown in parentheses. For further details and additional estimations, see De Gregorio and Lee (2004).

cross-country data. In addition, there is enough evidence beyond econometrics to confirm many results, and the regressions help to quantify the magnitude of the effects. There is no small country that has developed while not being open to trade or having high inflation. On the other hand, although terms of trade are important determinants of economic performance, the evidence shows that they have not been a relevant factor in explaining why Latin America has grown less than the world or even less than East Asia, if its countries are supposed to have experienced the largest increases in terms of trade. Econometric results will always lack full robustness, but taking them as indicative, rather than as definitive, of broad correlations is very useful. It is also true that, most of the times, the effects of some variable depend on the presence of other conditions, but this does not imply that some combination of right and wrong policies may work.⁹

Bearing this criticism in mind, the regression presented above is used to compare growth performance between LAC and the world average. It is worth pointing out before discussing the results that the benchmark of comparison is the entire world, and one could be more interested in comparing the results with regions whose economies have been more successful in terms of growth. That exercise is done in De Gregorio and Lee (2004), where the comparison is undertaken with East Asia, in which case there are some differences, in particular regarding the role of openness. The results of the comparison with the world are presented in Table 4. The first column presents the difference between actual growth in the region and in the world. The second column shows the predicted difference according to the regression and is then decomposed in the rest of the columns into the different explanatory factors used in the regression. The bottom row presents the average rate of actual and predicted growth for the world. Actual growth during 1970-2000 was 2.1 percent a year, while the predicted yearly rate of growth is 3 percent. This implies that Latin America grew on average 0.9 percent (1.2 percentage points below the world), and the prediction is 1.8 percent (1.2 percentage points below the prediction for the world). Initial income, due to convergence would have implied more growth for the region, except for countries that started above world average: Argentina, Mexico, Uruguay and Venezuela.

⁹ In the discussion of Ros (2006), it is argued that even the way to measure openness in this paper, trade corrected by size, includes an implicit interaction effect between size and openness, which is the one theory would suggest.

Investment, fertility and human resources (i.e., schooling and life expectancy) retarded growth with respect to the world. Institutional factors explain an important fraction of the lower growth in the region. High government consumption, weak rule of law, high inflation and low degree of openness had a negative impact on growth, and they total almost three-quarters of the difference. This has been particularly important in countries with high inflation, such as Argentina and Brazil. Openness played a less important role; however, as discussed below, using the world as a benchmark could be misleading. Countries with high instability, measured by the number of currency crises, also suffered from slower growth, such as the cases of Argentina, Brazil, Chile, Mexico and Venezuela. The absence of crisis played a positive role only in Colombia.

In contrast, terms of trade shocks played a small part in explaining the poor growth performance of the region. Therefore, the old idea that supported the import-substitution strategy in Latin America during the 1960s, which held that opening to trade would result in developing countries producing "bad goods"—mostly commodities, whose terms of trade would be declining—has been proved wrong. It is true that countries that face unfavorable terms of trade grow less rapidly, but it is also true that there has not been such a deterioration in the terms of trade in Latin America.¹⁰

Finally, it is important to note that comparing with the world average could give a partial view about the region's strengths and weaknesses, as the world is not necessarily the best control group. In De Gregorio and Lee (2004), we compare growth performance between Latin America and a group of high growth East Asian economies. That exercise revealed that the two most important factors, explaining the 3-percentage-point difference in growth performance, are low investment and low openness in the region. Both account separately for 0.6 percentage point of lower growth in Latin America with respect to East Asia.

In the following sections I will discuss with greater detail some of the issues raised in the empirical discussion presented in this section.¹¹

¹⁰ Meller (2002) provides a clear illustration of this claim for the Chilean case. He says that in 1980 two tons of copper where needed to buy one personal computer, while in 2000 one ton could buy 2 personal computers. In 2005 the price of copper was double that of 2000, and in 2006 has risen further.

¹¹ Loayza et al. (2004) present some additional and detailed empirical evidence on growth in Latin America.

4. **Openness, Regional Trade and Institutions**

As reported in the previous section, openness is good for growth, and here I will discuss some issues regarding openness, regional trade, and the interplay with institutions. Most empirical research on economic growth has lent support to this finding. This result enjoys broad (but by no means total) consensus. In sum, more-open economies have been able to grow faster than closed ones.¹² This is particularly significant in periods of trade liberalization. Of course, we can add many caveats to the strategy of opening up, the institutional framework in which opening up takes place, etc. etc. However, it is a proven fact that more open economies grow faster than closed ones. This lesson is especially valid for small economies. I have been unable to find an example of a relatively high-income small economy that is not integrated with the rest of the world, or that has managed to grow being isolated from the world. Although openness plays a small role in explaining GDP growth of Latin America vis-à-vis the rest of the world, it has been an important factor in explaining differences with high growth economies of East Asia (De Gregorio and Lee, 2004).

In addition, Winters et al. (2004), in a detailed review of the evidence, find that openness is associated with poverty reduction in the long run, and there is a strong presumption that this association holds in the short run as well. Of course, trade liberalization may also work with other policies to alleviate poverty. Therefore, trade liberalization is good for the economy, and it is advisable to undertake it right away. (The same cannot be said of other areas, such as financial liberalization.)

Unilateral trade liberalization has already occurred in most of Latin America and more intensely during the 1990s. Indeed, Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Uruguay and Venezuela, i.e. most of Latin America, were classified as closed in the period 1970-1989 according to Wacziarg and Welch (2003), and as open economies in the period 1990-1999.

¹² See also Edwards (1998) and Dollar and Kraay (2002). For a more skeptical view, see Rodríguez and Rodrik (2001).

Although tariffs have been reduced and non-tariff barriers have been removed, Latin America still has small trade coefficients. Most Asian countries have substantially more trade than Latin American countries (figure 2). Only China is below three LAC in the sample, but after correcting trade by size, China appears to be much more open than Latin America. This begs the question of how to increase integration and gain access to new markets, given that tariffs and most barriers to trade have been substantially reduced. In some respect, many policymakers may feel frustrated after they liberalize trade, while actual trade takes some time to pick up.

Moreover, intraregional trade in Latin America is scarce when compared with other regions of the world (figure 3). It was already scant in the 1960s, at about 10 percent of the total, and although it has shown some increase in recent years, it remains comparatively low. Trade among South American countries is 24 percent of their total trade, and trade among all LAC is 17 percent, the lowest among the regions shown in the figure. The same pattern of low integration emerges for other country groupings such as Mercosur or Aladi (not shown). These findings stand in sharp contrast to the dynamic intraregional trade among the East Asian countries: already in the 1960s, about 26 percent of these countries' trade was with each other, and that number has increased to 50 percent in recent years. Trade among the industrialized countries has long been an important share of their total trade.

Institutions play a key role in fostering trade. I use institutions in the definition of Douglas North as the formal and informal rules that constrain human economic behavior. However, this discussion is more focused on formal rules, for which we can have some indicators to measure quality, such as the rule of law, used in section 2, in cross-country regressions.

For countries to develop deep and extensive trade relations, each must demonstrate at home the ability to enforce contracts, to maintain the rule of law, and to establish enduring trade relations. The existence of a stable macroeconomic environment is also important, because it reduces uncertainty among trade participants. Yet Latin America has weak institutions and is subject to recurrent macroeconomic crises, and this impedes the growth of trade linkages. Recent trade disputes—such as the problems over natural gas between Argentina, Bolivia and Chile—bear witness to these obstacles. As shown in section 2, the indicators of institutional quality, such as the rule of law index, are correlated with economic growth. Latin America has weak institutions. Additional evidence is presented in figure 4, which shows the index of corruption of Transparency International in 2003. The index ranges from 0, the most corrupt, to 10, the least so. Latin American countries are depicted with dark lines, and all of them with the only exception of Chile, followed by Costa Rica, are in the high-corruption side of the distribution.

The next question is then how to proceed and what do we know about institutional building, especially from the standpoint of the discussion on trade fostering. It seems that strong institutions are needed for trade liberalization to be effective in promoting growth. This is particularly important in countries rich in natural resources, where the possibility of rent seeking and voracity effects is high. This does not imply that strong institutions are a prerequisite for successful trade liberalization, but building strong institutions helps to maximize the benefits from reforms. Indeed, in Rodríguez's (2006) view of massive interactions among growth determinants, perhaps one of the most important candidates is the quality of institutions. For example, privatization works only when it is appropriately done and not used as a vehicle to assault the state. Privatization is unlikely to work in a corrupt state. Indeed, in recent evidence, Prasad et al. (2003) show that only countries with strong institutions can benefit from financial liberalization.

Recent research at the IMF (IMF, 2005) can shed more light on policies that can help to improve institutions. Institutions are slow to adjust, and major changes involve constitutional and political reforms. However, there are many examples of countries that have gone through institutional transitions during the last 30 years.¹³ IMF (2005) reports empirical evidence on the determinants of the probability of having an institutional transition and on the quality of institutions. Regarding openness, measured by an index that takes a value of 0 prior to liberalization and 1 thereafter, is found to increase the probability of having an institutional transition and the quality of institutions. Hence, openness not only has direct effects on growth, but it also helps to strengthen institutions.

¹³ The definition of institutional transition is based on indices of political score (Polity index) and economic freedom score (Cato index) and involve three characteristics: (i) they must result in a minimum level of institutional quality, (ii) significant increase in quality, and (iii) they endure. In Latin America the transitions

In the regressions reported in IMF (2005), other variables showed up significant determinants of the probability of having an institutional transition and quality of institutions.¹⁴ This is the case of accountability and freedom of the press. High levels of education and strong institutions in neighboring countries also increase the probability of having a transition, but its effects on the quality of institutional transition, but effects on the quality of institutional transition, but their institutions are also of better quality. Foreign aid reduces the probability of having a transition, but has little relation with quality. On the other hand, the greater the dependence on natural resources, the weaker the institutions, although the effect on the probability of transition is insignificant. These findings help to explain why some research has found a negative effect between economic growth and natural resource abundance.

Overall, the evidence not only points to the importance of openness on economic growth, but also on its impact on the quality of institutions and on the probability of improving them.

5. Macroeconomic Stability and Crisis Prevention

When thinking about Latin American economies, observers would point first to macroeconomic instability, such as high inflation, hyperinflation, currency crisis and weak fiscal polices. Moreover, as shown in previous sections, they have been also important deterrents of economic growth. There are many channels through which macroeconomic instability hampers growth. For example, it distorts the allocation of talents, since it rewards speculation and instability-protection rather than productivity and innovation. Financial markets work less efficiently. Finally, macroeconomic instability signals incompetent policymakers and weak institutional framework.

Clearly, in the macro front one size does not fit all. The selection of exchange rate regime, integration to international financial markets, and other policy choices have not a unique answer. However, the recurrent crises in the region provide some general principles.

are: Argentina 1991, Brazil 1999, Chile 1976, Costa Rica 2000, Dominican Republic 1996, Ecuador 2000, El Salvador 1994, Guatemala 1994, Honduras 2003, Mexico 1991, Panama 2000, Paraguay 2004, Peru 2003.

¹⁴ In the regressions for quality of institutions this variable is measured with indices of governance, corruption and economic freedom.

But, before discussing them briefly, I must clarify that, in my view, a crisis is not a purely random phenomenon, and good policy can shield countries from crisis and contagion, while enjoying the benefits of integration and financial development. Indeed, recent literature, particularly after the Asian crisis, has modeled crisis as a self-fulfilling phenomenon, many times unrelated to fundamentals. I do not believe this is the case since here are always policy distortions, at the macro or financial level. Crises may be triggered by external developments, but the economies affected are never entirely innocent, because crises do not occur at random. Contagion and frantic financial markets may make a bad situation worse, but in the end there is no substitute for sound domestic policy. Therefore, I do not share the view that crises can be bad outcomes of otherwise sound economies. Crises happen because of mismanagement.

First, fiscal discipline is crucial. Most crises in the region have been associated to fiscal imbalances. Moreover, countries that were able to recover strongly from their difficulties—like Chile in 1982 and Mexico in 1994, and also as in most Asian countries in 1997-98—were those that had a strong fiscal position before the crisis hit. Despite some mild deterioration occurred in the fiscal position in the eve of these crises, there is no evidence that expansionary fiscal policy was central to the recovery (Céspedes and De Gregorio, 2005). Therefore, although not only countries with a weak fiscal position are exposed to a crisis, those that have solid public finances recover sooner.

Regarding inflation, a low rate indicates credible monetary policy and sound monetary institutions. Rather than discussing details on monetary policy, stable low inflation is a summary statistic for good macroeconomic environment, which also is the basis for strong institutions at the macro level. Not only is it desirable to have an independent central bank, but it is also necessary to implement good policies. For example, a stable macroeconomic environment allows implementing a flexible exchange rate regime and using monetary policy as the instrument for stabilization, which becomes the most effective way for achieving macroeconomic stability.

Perhaps the Achilles heel during crises in emerging markets is their weak financial sectors. Liability dollarization, mismatched currencies and maturities, implicit guarantees and related lending are among the factors that lead to financial crisis when there are significant corrections in relative prices or a curtailment of capital inflows. Prudential

regulation and strong institutions are important to take full advantage of financial development. Contrary to trade opening, financial liberalization can be the source of problems in a weak institutional setup. The Chilean economy learned this lesson the hard way, with a huge financial crisis in the early eighties.

One of the most relevant vulnerabilities of financial systems is dollarization. It happens when trust in the domestic currency is lost. This, in general, is the result of rising inflation and sudden and sharp devaluations. Dollarization is many times irreversible. Hence, after the economy stabilizes, and the value of the currency too, the de-dollarization process may never take place. Chile went a different route, minimizing the risk of permanent dollarization. After the 1982 crisis, instead of going into the dollar, most financial contracts were linked to the indexed currency (on a daily basis to the last month's CPI) known as the UF (unidad de fomento). Deposits and loans denominated in UFs in the banking system increased significantly.¹⁵ As the inflation rate declined, the economy has actually "de-UFized", and currently the peso is the main unit to denominate financial contracts. This has been achieved in part by the policy decision to base monetary policy on a nominal interest rate. The composition of public debt has shifted from UFs to pesos. Therefore, financial indexation helped in the transition, but is no panacea. The unit in which contracts are written is not the only relevant consideration for avoiding dollarization; it is also the ability to enforce and honor financial contracts. The dollar is always a superior instrument when the enforcement of contracts is weak.

Currency crises are costly. Empirical estimations indicate that a country that suffers a currency crisis has a cost of about 8% in terms of lost GDP, but this cost is doubled when accompanied by a banking crisis (De Gregorio and Lee, 2004). Of course these are averages across countries, and there are many examples in the region where the costs have been much higher.

A much debated proposal to avoid crises is capital controls. An example of successful capital controls is the Chilean experience during the nineties. Chile was, after all, the country that suffered the least with the crisis of emerging markets toward the end of the last decade. In my view, capital controls did not introduce severe costs to the Chilean economy, but they were far from responsible of the success of the nineties. Capital controls

¹⁵ See Herrera and Valdés (2004) for further details.

did not prevent contagion from the Asian crisis and did not avoid the appreciation of the real exchange rate during the decade. They were quite ineffective. Their main effect was to tilt loan maturity from short-term to long-term, which seems a good thing, but the orders of magnitude involved in this shift were fairly small. Moreover, what was at the center of the recession in 1999 and also part the massive inflows in the nineties were the rigidities of the exchange rate. In recent years, the economy has been able to absorb a very volatile international environment with a flexible exchange rate and without capital controls. It is true that today the Chilean economy is not booming, as it was in the past with an international environment similar to the current one, but it is better prepared to face adverse external conditions. Prudent fiscal policy, based on a rule for the cyclically adjusted budget deficit, and a flexible exchange rate as part of an inflation target regime for monetary policy, provide more resilience to the Chilean economy to face external shocks.¹⁶

Perhaps, one of the most persuasive demonstrations that capital controls were not central to Chile's success was that, in 1982, Chile had stricter capital controls than in the late 1990s. Borrowing for less than two years was not allowed, and a reserve requirement (*encaje*) was in place for all remaining borrowing up to 65 months. Furthermore, the banking sector was fully currency-matched in its assets and liabilities. The crisis struck hardest in the corporate sector that was severely mismatched. A large proportion of loans in foreign currency was lent to non-tradables sectors. The lack of adequate financial regulation governing related lending, and a fixed-exchange-rate regime that provided insurance to those that borrowed abroad, were the key factors explaining the depth of the Chilean currency-financial crisis of 1982, and capital controls did not shield the economy from this.

Moreover, in contrast to the Chilean case, capital controls have been used as a substitute for sound financial policies in many countries. Authorities may think—wrongly, of course—that instead of undertaking serious and necessary adjustments in the fiscal and financial fronts, they can get away with overspending by imposing capital controls. They give the wrong impression that the economy is well sheltered to face external shocks, and

¹⁶ Cowan and De Gregorio (2005), analyzing the effects of capital controls, argue that the key to explain capital inflows, financial vulnerability and currency crises is the exchange rate regime in place, rather than capital controls.

delay necessary reforms to strengthen macroeconomic institutions. Macroeconomic institutions were the pillars of the Chilean economic success, not capital controls.

6. Inequality, Distortions and Growth

One of the most notorious characteristics of Latin American countries is their high level of inequality (figure 5). Indeed, it is possible to attribute most of the region's economic problems to the severe disparities in income distribution. But, as I will also discuss below, the case of Chile, with inequality at the same levels as some of its neighbors, has been able to overcome its distortions.

Theoretical as well as empirical evidence suggests that unequal income distribution is bad for growth, although some recent research has challenged this view. The theoretical literature emphasizes that inequality can lead to inefficient policies that actually harm growth, in an attempt to compensate for severe inequality. The classic case is the introduction of inefficient taxation for purposes of redistribution. However, there are more channels through which inequality hampers economic growth due to its impact on the quality of economic policy provoked by social conflicts. Indeed, when including inequality in the cross-section regression presented in section 2, this variable lacks significance. De Gregorio and Lee (2004) show that inequality deteriorates the factors and policies that foster growth.

After adjusting for the level of development, countries with more unequal income distributions, as measured by the Gini coefficient, are more likely to have characteristics and policies that are bad for growth. For example, they have lower school enrollment rates, probably because, after controlling for average income, a larger fraction of their population cannot afford to go to school. In addition, countries with greater inequality have higher fertility rates, larger governments, lower educational attainment, and weaker institutions.

Two issues are relevant in this discussion. The first one is defining the policy implications to reducing inequality. We know little about policies that can reduce inequality of income in a short period of time. Income distribution changes very slowly and we do not know about its main determinants. The relationship with income is unclear. Education

helps;¹⁷ increasing educational achievement for the underprivileged reduces inequality, but it takes a long time to affect income distribution. Improving education today will have effects on income distribution many years later, when more educated people become a significant part of the labor force. This should not discourage educational reform, however, since it has an immediate effect on income mobility and the intertemporal distribution of income. Therefore, it contributes to equalize opportunities faster than it affects actual income. Welfare is more equally distributed when poor families find their kids receiving a better education.

A second issue that is also very relevant in economies with high inequality is how to avoid its negative effects on policies and, through them, on economic growth. It is a very different thing to endure a stable unequal income distribution in a country that is experiencing growth from suffering inequality in another where the economy is stagnant. In addition, although growth may have small effects on inequality, growth is essential for poverty alleviation. Having good social policies, which can partly compensate for inequalities and are growth-enhancing, must be a priority. Strengthening institutions is particularly necessary in countries where inequality may be the source of corruption and other institutional distortions.

The case of Chile is a good example. Despite its large inequality, its institutions or policies do not seem to have deteriorated, and the economy has been able to grow, which in turn have been key to reducing social conflict and focusing policies on growth and helping the poor. Perhaps, fast growth has been the most important factor alleviating tensions from inequality, and lending broad support to economic policies since the 1990s. It has also improved the living conditions of the whole population. Broadly speaking, income distribution has been roughly constant since 1990, and hence the whole population has seen its income increased at the rate of aggregate per-capita growth.

In addition, as mentioned above, countries with pronounced inequality have worse economic conditions to foster growth. In the case of Chile, these factors have been offset by policies. Indeed, the levels of respect for rule of law and secondary school enrollment

¹⁷ There are recent studies on the determinants of income distribution, where education appears to be an important factor in reducing inequality. However, as argued in the text, it takes time to turn around inequality via education. Other recent papers have emphasized the role of financial development in reducing inequality. See Li et al. (1998) and Beck et al. (2004).

are greater than would be predicted by Chile's levels of inequality and income. Similarly, the fertility rate is lower than what would be predicted by income and inequality. Therefore, Chile has been able to overcome, through institutions and public policy, the growth problems that tend to come with inequality.

Since distribution changes slowly and there are no clear prescriptions to alter it in the short run, one may wonder what can be done to avoid the noxious effects of inequality on policies. The clearest instrument policymakers have at their disposal is fiscal policy, in particular the allocation of public spending. We can take a closer look at inequality in Latin America and the role of fiscal policy using the data in de Ferranti et al. (2003), which include information on the provision of government spending across income quintiles. Figure 6 shows the distribution among deciles of transfers excluding social security (de Ferranti et al., 2003). The figure shows that, in the sample of countries in the table, Chile is the only one where the largest fractions are allocated to the poorest (quintil 1). Since these transfers are about 1% of GDP, a relatively small amount of total government expenditure, it is important to look at other components of government expenditure, especially education and health.

Figure 7 shows income distribution measured by the Gini coefficient, represented by the dots (right scale). In addition, using these data, for the year indicated in parenthesis, I present in the left scale the average gross national income per capita of the country and the average gross national income for the first quintile, using data on income for 2003. The countries are presented from the highest income of the first quintile to the lowest quintile. We see a high correlation between income and income of the poorest. This implies that, for most of the countries, the income of the poor is largest in the countries with the largest level of income per capita. Gini coefficients are very volatile, but the relevant range for Latin America cannot by itself change significantly the overall ranking of income and the ranking of the first quintile. The notable exceptions are the most egalitarian countries in the region: Costa Rica and Uruguay. Despite not having the highest income, the income of the poorest is the highest in the region.¹⁸

¹⁸ Note that data on income distribution of Argentina and Uruguay are taken a year before the sharp crisis they had with the collapse of convertibility in late 2001.

Although I already showed evidence on the distribution of transfers, and highlighted the importance of focalizing these expenditures on the poor, the expenditure allocated to the poor is much larger than transfers. Indeed, although transfers are the more direct form of getting to the poor, its weight is low in total social expenditure. I use World Bank data to compute, in the same sample of Latin American countries of figure 7, the impact in reducing inequality of social expenditure once allocated. In particular, I use the distribution of education and health expenditure and add to gross national income to compute the new Gini coefficients. These computations are presented in figure 8. As a guide, the right axis depicts the Gini per capita of the first quintile. For all the countries the Gini coefficient declines, and therefore, as expected, inequality declines as a result of social expenditure. Fiscal policy plays an important role in reducing income inequality at the expenditure level.

The reduction in the Gini coefficient and the differences across countries presented in figure 8 are the combined result of two factors. The first is the level of education and health expenditure, and the second is the form in which these expenditures are allocated across different income brackets. This decomposition is presented in figure 9. The two columns of the figure show the percentage change in the Gini coefficient as a result of government expenditure (based on data in figure 8) and the other is the level of education and health expenditure as percentage of GDP. The largest level of social expenditure as percentage of GDP is in Colombia, where the decline in the Gini is the largest. Using these data, we can compute the efficiency of social expenditure in terms of the changes in the Gini per unit of social expenditure. This is presented as dots in the figure and measured in the right axis of figure 9. This measure is constructed by dividing the percentage change in the Gini by the level of government expenditure. Chile and El Salvador are the countries with the most efficient social expenditure from the point of view of reducing inequality, but their social expenditure is relatively low.¹⁹ This evidence suggests that as social expenditure increases, its focalization declines, as illustrated by the contrast between Chile and El Salvador with Colombia and Costa Rica. Therefore, according to these figures, there are limits to the efficacy with which social expenditure can improve income distribution.

¹⁹ These figures are illustrative and present broad trends, but always there are measurement problems, first due to the traditional problem of coverage, which is different across countries, and second due to the forms in which expenditure is made.

Summing up, Latin America has very unequal distribution and this is an important handicap for growth. Social fragmentation deteriorates the quality of economic policies and reduces growth potential. High levels of inequality tend to induce policies that can generate significant distortions and hamper economic growth. The search for reducing inequality may induce inefficiencies. Classical cases are minimum wages and labor market regulations. A more effective and direct way to ameliorate the problems inequality generates is through social expenditure, which contributes to providing income to the poor. However, as illustrated here, the effectiveness of social expenditure has also limits. In addition, there are issues such as financing of the budget that may tilt the balance enough to introduce distortions because of inability to obtain all the required revenues. Finally, having good institutional and policy frameworks are important in order for policies for the poor to succeed.

7. On Growth Fundamentals: Institutions, Competition and Mobility

We could list many areas where improvement is possible and would foster growth. But ultimately the question one would like to have answered is, What are the main foundations that support the accumulation of human and physical capital and improvements in productivity—in short, that determine economic growth? Growth occurs when incentives are appropriately in place to make people and firms spend their talents in growth enhancing activities, as opposed, for example, to rent seeking or political capture. In my view, two basic principles underlie growth:

- Secure property rights. When people invest in their own human capital, or when entrepreneurs invest in plant and equipment or in new techniques to increase productivity, they must be certain that the benefits of these investments will not be taken away from them. For this to happen, property rights need to be clearly defined and respected.
- *Adequate structure of rewards*. Investment and effort must be properly rewarded. This is essential to encourage creativity, entrepreneurship, and a growth-promoting allocation of talent.

In terms of policy, securing property rights implies setting clear rules of the game. It is inevitable that some policies, or changes in policies, will have redistributive effects. Modifying tax policies, for example, changes the profitability of investment in physical and human capital, in effect reducing or increasing the value of that capital. Improving regulation, too, often changes profitability. A firm that has become a monopoly may be obliged to take steps to reduce its monopolistic power and cut down its profits. In short, redistribution happens. In other cases, property rights are not clearly defined. This is typical of environmental conflicts, for example between the agricultural sector and industrial development that causes pollution. Property rights have their limits and there are conflicts as well as gray areas. The important thing is to be clear on those limits and the mechanisms to resolve disputes. To achieve this, nations must have strong institutions and clear rules to define and delimit property rights, as well as mechanisms for fair compensation when changes in policy have redistributive effects.

In a democracy, taxes are generally decided upon by the legislature, and no one should be surprised, although some may not like it, when changes in taxes occur. Of course, a sound constitution and good laws will prevent arbitrary enforcement of the tax laws and outright expropriation. The lesson here is again on the need to have strong institutions, and these institutions must have a clear orientation toward protecting property rights.

A stable macroeconomic environment is also an important part of securing property rights. High and unstable inflation also redistributes income, usually from savers to borrowers, and this discourages saving. By, in effect, liquidating nominal public debt through sharp price increases, inflation also redistributes wealth from bondholders to governments. The same can be said of freezes on deposits during banking crises, and other confiscatory policies. Macroeconomic stability thus promotes growth by providing a safe environment in which to invest, allowing entrepreneurs to focus on the usual and unavoidable risks of business, rather than protecting themselves from macroeconomic instability.

But the second principle—an adequate reward structure—is also important and necessary for growth. One can imagine a country where property rights are secure and immutable but the business sector consists of a group of monopolists enjoying significant barriers to entry. No one will then have any incentive to invest or to compete: the

established monopolists have no need to do so, and any potential new entrant will encounter clear disadvantages. Therefore, it is not enough to protect property rights, although necessary. The means to establish this second principle in the economic arena is competition, full and strong competition, that allows markets to operate efficiently. Openness and free trade, in turn, are essential to ensure and increase competition, especially in a small economy. In order to compete and succeed, firms will need to operate efficiently and creatively. Absent any competitive threat to established business, there will be no incentive for these businesses to be efficient.

Regulating and fostering competition has implications regarding the protection of property rights and also providing adequate rewards to effort and entrepreneurship. Many countries are discussing regulatory reforms to spur growth, and this is good. But, in my view, the most important institutional basis is to define how conflicts are resolved, who is responsible for setting regulations, and who is charged with administering those regulations. Granting independence to and requiring accountability from regulators, and defining independent panels to settle disputes (including interpretation of the law) are the most important reform that ensuring stability and fair rules of the game may provide for encouraging investment and productivity. However, it is important to foster accountability, which is particularly necessary for independent institutions.

The second principle also has implications for social policy. It is important that workers, as well as businesses, receive rewards appropriate to their effort. A natural aspiration of parents, especially among the poor, is that their children enjoy more prosperous lives than their own. For this they need opportunities. A person's income from labor will depend on the productivity of that labor, and so the goal of educational policy must be to transfer useful knowledge and thus transform people into more productive workers. Stated more generally, this second principle translates into social mobility, or equal opportunity, on the social front.

We can better understand difficulties in Latin America in the light of these two principles. In many LAC, institutions are weak, the macroeconomic environment is unstable, and therefore property rights are not properly safeguarded. In addition, trade is still very low, and hence the scope for competition is limited. Therefore, investors are not always well rewarded. On the other hand, the quality of education must be improved, and efforts to reduce inequality through social policies aimed at improving the living conditions of the poor and creating conditions for greater social mobility, must be reinforced. From the point of view of government activities, it is important to focus on how to foster growth and help the poor and the disadvantaged, while minimizing policy distortions. This is not a trivial challenge, but as long as growth can be sustained, the job is made easier, because populist temptations are then reduced, although never eliminated.

8. Final Remarks: The Mood, The Facts and The Prospects

There is a lot of uncertainty and skepticism about Latin America's prospects, and certainly those priors are well grounded on a history of deception, recurrent crisis, and inability to sustain economic progress. Latin America has been perhaps the most fertile ground for proposing ideologies and "new" ways to face development, but they have not succeeded. On the other hand, there is also skepticism about whether reforms and the "Washington Consensus," or some new incarnation of it, is the way to go. I have argued that one size does not fit all, and not only the reform package, but also the timing, political legitimacy and delivery are critical. However, there are some basic principles such as protecting property rights, encouraging competition and openness. In this final section I want to summarize in my view which is the actual mood, what are the facts and what can we conclude about prospects for economic progress.

The mood:

The mood is gloomy. There is uncertainty, and some deception. Perhaps, the 1990s were good years for some, but they did not succeed. For others, reforms were incomplete or plainly wrong, so no wonder the results. The lack of results from reforms, together with much more political uncertainty today, turns out to pessimism. Corruption scandals, not only the recent ones, but also past experiences, add to the pessimism, or at least skepticism. Recent macroeconomic crises have placed reforms, especially institutional and microeconomic ones, on the backburner. However, I will argue that although there could be reasons for moderate skepticism, the region is in a position where it could (finally?) start sustainable growth.

The facts:

Recent data, as well as short-term forecasts, on macroeconomic performance are presented in tables 5 and 6. In terms of growth, the region has moved closer to world average. But, on a time series basis, the region has done much better this decade than the previous one. Although the ten years up to 2002 experienced some crises that reduced average growth, since then Latin America, in general, has been recovering at a reasonable pace. The largest economies, Brazil and Mexico, are below the simple regional average, and of course improving their performance should spill over to the rest of the region.

The chronic malaise, inflation, is historically low. From the group of countries represented in table 5, only Argentina and Venezuela have two-digit inflation, something that was very common even until as recently as the nineties. This is a very important achievement, which could in part be due to the slack of economic activity, but any measure of output gap will not suffice to explain the large decline since the nineties, and more likely this is a durable achievement. On the external front, the data show that the region is not relying too heavily on foreign financing in this phase of the cycle.

Regarding fiscal performance, there has also been an improvement (table 6). Some of this improved performance may be due to high commodity prices. But, taking into account the fact that in general Latin American economies are not in a boom and that inflation is still contained, it is very likely that this improved performance is more structural than simply good conditions for high revenues. Further evidence is shown in figure 10, which presents the evolution of the primary fiscal balance (PB) and the overall fiscal balance (OB) for Argentina, Brazil, Chile, Mexico, and the average of Latin American countries as reported by UBS. Latin America has had an improvement between 2.5 and 3 percentage points of GDP since 1998. This is major progress and has been achieved in governments of different political signs.

Overall, at least on the macro front, Latin America is in good standing. Whether this is the result of a good external environment and a favorable cyclical position is open to discussion. However, progress on the fiscal side as well as in lowering inflation is indicative that the region has good initial conditions to resume growth, and the challenge is to consolidate stability.

The prospects:

Being macroeconomically stable, having an open economy, developing institutions oriented to the protection of property rights and the rule of law, and good human resources, among others, are key to sustain growth. One can add an array of caveats about timing, intensity, and deepness of reforms, but there are no shortcuts to basic principles. However, inability to sustain growth in the region has been the result of failure to deliver.

It is necessary to build support for reforms, assuring that their benefits reach all of the population. Reforms and transformation have their costs, but they must at least be perceived as fair, and not as that those who bear the costs are always the same and those who enjoy the benefits are always the same minority too. Policies that promote competition and openness bring better living conditions across the whole population.

As I have argued, the recent crises in emerging countries have brought better macroeconomic management. It is essential to maintain it during good times and to increase the economies' resilience to external shocks to be better prepared for bad times. All things being equal, the region will still grow modestly, so progress in reforms is necessary to speed up growth, and perhaps one primary factor to sustain reforms and growth is to build support for growth-oriented economic policies. I think in the successful case of Chile, despite large unsatisfied needs and deep inequalities, the benefits of growth have been widespread, and this has allowed building strong support for macroeconomic stability, market oriented reforms, and strong social policies.

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	1960-70	1970-80	1980-90	1990-2000	1960-2000	1970-2000
LATIN AMERICA						
Argentina	2.29	1.38	-3.87	4.22	1.00	0.57
Bolivia	0.60	2.01	-2.22	1.08	0.37	0.29
Brazil	4.23	5.67	-0.26	1.46	2.77	2.29
Chile	2.19	1.22	1.28	4.79	2.37	2.43
Colombia	2.23	3.11	1.35	0.87	1.89	1.78
Costa Rica	1.85	2.59	-0.94	1.75	1.31	1.13
Ecuador	1.35	6.16	-1.17	-0.85	1.37	1.38
El Salvador	2.24	0.05	-1.66	2.30	0.73	0.23
Guatemala	2.44	3.05	-1.21	0.84	1.28	0.90
Jamaica	3.43	-1.14	1.72	-1.05	0.74	-0.16
Mexico	3.28	3.27	-0.43	1.78	1.97	1.54
Nicaragua	3.25	-2.70	-3.00	-2.42	-1.22	-2.71
Panama	4.98	3.35	-0.69	1.96	2.40	1.54
Paraguay	1.70	4.46	1.01	-0.58	1.64	1.63
Peru	3.73	0.45	-3.13	2.47	0.88	-0.07
Uruguay	0.43	2.70	-1.00	2.81	1.23	1.50
Venezuela	2.95	-2.79	-1.36	-0.80	-0.50	-1.65
Average	2.05	1.56	-0.74	0.98	0.96	0.60
REFERENCE						
Japan	9.27	3.09	3.53	1.05	4.23	2.55
USA	2.87	2.66	2.16	2.30	2.50	2.37
East Asia (9)	4.69	5.36	4.45	3.95	4.61	4.58
World	2.53	1.99	<i>0.98</i>	1.32	1.70	1.43

 Table 1: Latin America's Growth in Per Capita GDP (%)

Source: Heston, Summers and Atten (2002)

	1900	1913	1950	1960	1970	1980	1990	2000
Argentina	0.67	0.72	0.52	0.49	0.49	0.44	0.28	0.30
Bolivia	n.a.	n.a.	0.20	0.14	0.14	0.14	0.09	0.09
Brazil	0.17	0.15	0.17	0.21	0.20	0.28	0.21	0.20
Colombia	0.24	0.23	0.23	0.22	0.21	0.23	0.21	0.18
Chile	0.48	0.50	0.40	0.38	0.35	0.31	0.28	0.35
Ecuador	n.a.	n.a.	0.19	0.20	0.19	0.22	0.17	0.11
Mexico	0.33	0.33	0.25	0.28	0.29	0.34	0.26	0.26
Paraguay	n.a.	n.a.	0.17	0.14	0.12	0.18	0.14	0.11
Peru	0.20	0.20	0.24	0.27	0.25	0.23	0.13	0.13
Uruguay	0.54	0.62	0.49	0.44	0.34	0.35	0.28	0.28
Venezuela	0.20	0.21	0.78	0.85	0.71	0.55	0.36	0.30
Latin America	0.32	0.29	0.31	0.35	0.33	0.32	0.22	0.22
East Asia (9)	0.16	0.18	0.13	0.14	0.17	0.24	0.29	0.33
Asian-4	n.a.	0.19	0.16	0.18	0.25	0.40	0.54	0.66

Table 2: LAC's GDP Per Capita as Ratio of GDP Per Capita of the USA

Source: Maddison (2001). n.a.: not available.

	Per capita GDP	Capital-Output	Human Capital	Productivity
		Ratio		
Argentina	0.398	0.921	0.943	0.458
.		[0.432]	[0.422]	[0.868]
Chile	0.389	0.863	0.694	0.649
		[0.450]	[0.560]	[0.599]
Colombia	0.178	0.701	0.629	0.403
		[0.254]	[0.283]	[0.441]
Mexico	0.381	0.922	0.684	0.604
		[0.413]	[0.557]	[0.631]
Peru	0.156	1.006	0.695	0.224
		[0.155]	[0.225]	[0.699]
Venezuela	0.275	0.936	0.666	0.441
		[0.294]	[0.413]	[0.624]
Corea	0.571	1.185	0.977	0.493
		[0.482]	[0.584]	[1.158]
Greece	0.546	1.127	0.940	0.515
		[0.485]	[0.581]	[1.060]
Israel	0.675	1.114	0.955	0.634
		[0.605]	[0.706]	[1.065]
Asia-4	0.670	1.089	0.885	0.724
		[0.640]	[0.788]	[0.963]
Latin America	0.225	0.816	0.648	0.464
		[0.301]	[0.379]	[0.529]

Table 3: Level Decomposition, GDP per-capita 2000

Each figure represents the ratio between that country or region with respect to the US. The product of capital, human capital and producivity equals the output gap, except for averages. The figures in square brackets are the values that would take the ratio of income with respect to the US if that specific gap would be zero. Source: Author's claculation based on Heston, Summers and Atten (2002).

	Differ	ence in	Contributing Factors										
Country	Actual	Predicted	Initial income	Initial Investment Fertility Human Resource Institutions and Policy Variables									
	Growth	Growth					TOTAL	Governt. Consump	Rule of law	Inflation	Openness	Terms of trade shock	Balance of payments
Argentina	-1.5	-2.9	-1.2	0.0	0.0	0.3	-1.4	0.1	-0.1	-1.1	-0.3	-0.1	-0.5
Bolivia	-1.8	-1.4	1.7	-0.3	-1.0	-1.0	-0.4	-0.1	-0.1	0.0	-0.2	0.0	-0.3
Brazil	0.2	-3.2	0.0	0.1	-0.2	-0.3	-2.0	-0.5	-0.1	-1.3	-0.1	-0.1	-0.7
Chile	0.3	-0.8	0.0	-0.1	0.1	0.3	-0.5	-0.2	0.2	-0.3	-0.1	-0.2	-0.5
Colombia	-0.3	-0.7	0.6	-0.3	-0.2	-0.1	-1.0	-0.1	-0.6	-0.1	-0.2	-0.1	0.3
Mexico	-0.6	-1.6	-0.5	0.0	-0.5	0.1	-0.2	0.2	-0.1	-0.2	-0.1	-0.1	-0.5
Paraguay	-0.5	-0.9	0.7	-0.2	-0.7	0.1	-0.6	0.0	-0.4	0.0	-0.3	0.0	0.0
Peru	-2.2	-1.3	0.5	0.0	-0.3	-0.3	-0.8	0.2	-0.1	-0.7	-0.2	0.0	-0.3
Uruguay	-0.6	-2.0	-0.6	-0.2	0.2	0.5	-1.2	-0.2	-0.2	-0.4	-0.4	-0.1	-0.5
Venezuela	-3.8	-1.1	-0.8	0.0	-0.4	0.2	0.1	0.3	0.0	-0.1	-0.1	0.1	-0.2
Latin 21 Avg.	-1.2	-1.2	0.6	-0.2	-0.4	-0.2	-0.8	-0.1	-0.2	-0.2	-0.2	-0.1	-0.2
World Avg.**	2.1	3.0											

Table 4: Differentials of Latin America countries realative to World Average, 1970-2000*

* Author's calculation. Human resources include life expectancy variable.

** The figures are actual and predicted growth, used to compute the differences reported for each country.

		GDP Growth	u (%)		Inflation (%)				Cu	rrent Account	(% GDP	')
	1993-2002	2002-2006 (f)	2005	2006 (f)	1993-2002	2002-2006 (f)	2005	2006 (f)	1993-2002	2002-2006 (f)	2005	2006 (f)
World	3.5	4.4	4.8	4.9	2.1	2.0	2.3	2.3				
Argentina	0.7	4.7	9.2	7.3	4.2	13.2	9.6	12.9	-2.2	4.1	1.8	1.2
Bolivia	3.5	3.4	3.9	4.1	6.1	3.5	5.4	3.4	-5.4	0.8	2.6	1.7
Brazil	3.0	2.6	2.3	3.5	412.3	8.3	6.9	4.9	-2.9	0.8	1.8	1.0
Chile	5.0	4.8	6.3	5.5	6.4	2.7	3.1	3.8	-2.7	-0.4	-0.4	0.5
Colombia	2.4	4.0	5.1	4.5	15.9	5.8	5.0	4.7	-2.9	-1.4	-1.7	1.6
Ecuador	2.2	3.8	3.3	3.0	38.4	5.8	2.4	3.4	-2.4	-1.7	-0.9	0.2
El Salvador	3.9	2.4	2.8	3.5	6.4	3.7	4.0	4.0	-1.6	-3.8	-4.0	-4.0
Guatemala	3.7	2.9	3.2	4.1	8.8	7.5	9.1	6.9	-5.0	-4.5	-4.5	-4.2
Mexico	2.8	2.6	3.0	3.5	16.0	4.3	4.0	3.5	-3.1	-1.2	-0.7	-0.6
Peru	4.4	5.1	6.7	5.0	12.0	2.1	1.6	2.7	-5.0	-0.2	1.3	1.4
Uruguay	0.5	2.7	6.0	4.0	22.9	11.0	5.9	5.5	-1.5	-1.2	-2.4	-5.8
Venezuela	0.1	3.3	9.3	6.0	41.9	20.6	15.9	11.7	3.8	13.5	19.1	14.1
Average	2.7	3.5	5.1	4.5	49.3	7.4	6.1	5.6	-2.6	0.4	1.0	0.6

Table 5: Recent Macroeconomic Indicators

(f): Forecast.

Source: World Economic Outlook, April 2006. For inflation the average is for advanced economies.

	Pri	mary Balance	e e	Overall Balance			
	1997-2002	2002-2005(f)	2005 (f)	1997-2002	2002-2005(f)	2005 (f)	
Argentina	0.8	2.3	3.1	-2.0	0.3	1.0	
Bolivia	-3.5	-4.4	-2.3	-5.2	-7.0	-5.2	
Brazil	2.3	3.6	3.9	-5.0	-5.8	-5.5	
Chile (*)	0.9	1.5	2.3	0.0	0.5	1.3	
Colombia	-0.8	0.9	1.6	-4.6	-3.8	-3.4	
Ecuador (*)	3.2	1.9	1.6	-1.6	-1.2	-1.3	
El Salvador	-1.2	0.4	1.2	-2.9	-3.3	-2.8	
Guatemala (*)	-0.6	-0.4	-0.3	-1.8	-1.5	-1.4	
Mexico	1.8	1.4	1.6	-1.1	-0.9	-0.5	
Peru	0.2	0.6	1.0	-2.0	-1.6	-1.1	
Uruguay (*)	-1.6	2.2	4.4	-4.2	-2.7	-0.4	
Venezuela (*)	0.1	0.7	0.8	-2.0	-3.9	-3.7	
Average	0.1	0.9	1.6	-2.7	-2.6	-1.9	

Table 6: General Government Fiscal Balance

(f): Forecast.

(*): Central government.

Source: Moody's





















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