

**INDEXES OF STRUCTURAL REFORM IN  
LATIN AMERICA**

**Samuel A. Morley**

**Roberto Machado**

**Stefano Pettinato**

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## Notes

## **ABSTRACT**

This paper is an attempt to quantify the process of structural reform in Latin America in five areas: trade reform, financial liberalization, tax reform, liberalization of external capital transactions and privatization. It presents indexes for these five areas for 17 countries for the period 1970-1995. The resulting indexes permit one to make comparisons of the degree of reform across countries over time and to examine in a quantitative way the impact of these reforms. The indexes show that the reform process has not been uniform across time, country, or area of reform. The reforms started in the 1970s in the Southern Cone stopped or even reversed after the debt crisis of 1982-1985, but spread to the rest of the region after 1985. Trade reform and domestic financial liberalization were the first components to be widely adopted with eleven countries reaching a level of 85% of the most liberalized by 1990, and all but one of the rest reaching that level by 1995. The period after 1990 witnessed a very significant opening of the capital account. By 1995 there was widespread agreement and policy convergence in these three areas of reform. However, there is much less convergence and more variance in the indexes of privatization and tax reform. With respect to privatization, there have been significant sales of government enterprises in a number of countries, but the overall change in the regional index is still quite small. Partly that is because the government enterprise sector is small in quite a large number of countries, and partly it is because of the continuation or even the expansion of big state-owned enterprise in mining and petroleum in a few countries. With respect to tax reform, only seven of our countries reached the reform threshold that we set. Mainly we suspect that this is due to the conflicting goals of tax neutrality and equity, but it may also reflect differences in the size of the government sector as well.

## I. INTRODUCTION

Over the last 25 years a dramatic change in development policy has occurred in Latin America. Increasingly it has come to be accepted that the old model of state directed import substituting industrialization was not sustainable and had to be replaced. Yet it has taken a long time for different countries in the region to decide with what to replace that model. There now appears to be an increasing convergence in the region toward a particular view of how the economy should work and what the government's role should be in managing the economy. That view has led to profound structural reforms in tariffs, taxes, the control of the international and external financial system, and to a lesser extent, the role of state enterprise and labor regulation. The common characteristic of all of these reforms is to: 1) open up the internal economy to foreign competition, 2) reduce the role of the government in directing the allocation of resources and production in the economy, and 3) reduce the distorting effect of the tax system on private decision-making.

The purpose of this paper is to present a set of quantitative indexes that reflect the main elements of the first generation of reforms. The motivation for this exercise was the need to have some quantitative measure to help in determining the economic impact of the reforms. The indexes to be presented are an extension of earlier work by Eduardo Lora of the Inter-American Development Bank. They have all the weaknesses of any summary measures in that they leave out a good deal of information that cannot easily be expressed numerically. We believe that these difficulties are more than offset by the advantages of comparability of the degree of reform across countries and over time. In the study of individual countries, these indexes should be complemented by the use of more detailed national sources.

There have been a number of valuable earlier attempts both to describe the reform process and to quantify it. Three in particular are noteworthy. Sebastian Edwards gives an excellent survey and history of the reforms in a limited number of countries up to around 1992-1993.<sup>1</sup> Because our account is more abbreviated than his, we are able to include more countries in the analysis and also to update his survey. Another major region-wide analysis of the reforms has been produced by Eduardo Lora. In a pair of path-breaking papers, he proposed and presented reform indexes for around 20 countries during the period 1985-1995.<sup>2</sup> Our work builds on and extends the Lora indexes in two directions. First, we take his indexes from 1985 back to 1970, which will allow researchers to examine the impact of the reforms by comparing the 1990s with the 1970s rather than the debt and recession-plagued 1980s. Second, we construct an index of the control of foreign capital transactions that Lora does not have, and we change several of his other indexes to reflect more adequately the reforms of interest. The third important effort to describe and to measure the reforms is the World Bank's *Long March*.<sup>3</sup> This is an important

addition to the literature which, like Lora's work, contains quantitative reform indexes. It is not strictly comparable to either Lora's indexes or those we shall present here because it combines indexes that reflect results with those that reflect policy. To the extent possible we want our indexes to only depend on government policy and not on reactions to policy by the private sector.

Before starting our description of the reforms, it is important to clarify what we mean by structural reforms and to distinguish them from macroeconomic policy reforms. By structural reforms we refer to the changes in regulations, tariffs, tax rates or the control of capital transactions that affect decisions at the micro level. Macroeconomic policy reforms involve fiscal deficit control, changes in monetary policy, and exchange rate management. These changes in macroeconomic management have succeeded in lowering inflation to the lowest level in fifty years and have restored the credibility of Latin America in the eyes of international lenders. There is little controversy about these measures or about the fact that they have been successful.

However, that is not nearly as true of the structural reforms. The reforms that we will describe here reflect a subjective view of how the economy should work and about the proper role of government, a viewpoint with less empirical basis in past experience than the macroeconomic policy reforms. For this reason, if no other, when attempting to measure the impact of the reforms it is useful to consider the two types of reforms and their effects separately. But that is very difficult to do especially when evaluating particular historical events in which the two types of reforms were adopted together. For example, we cannot determine whether the success of Argentina after 1990 is due to the Menem government's structural reforms or the fact that its macroeconomic reforms stopped a hyperinflation.

## II. MEASURING STRUCTURAL REFORM

In measuring the extent of reforms, or analyzing their impact, it is essential to have some sort of quantifiable index with which one can compare the extent of reforms between countries or the progress of reforms over time in a single country. As mentioned earlier, Eduardo Lora of the IDB has made a very valuable effort to construct such an index. In this section we report on our effort to extend the Lora indexes back to the 1970s which include adding an index of the control of foreign capital transactions and revising the Lora indexes in several ways. Both Lora's and our indexes are based as much as possible on policy variables under the control of the government.

In this respect, our indexes differ from those of the World Bank. In several cases, these indexes reflect both results and policy changes. For example, the World Bank financial reform index includes the ratio of quasi-liquid liabilities to GDP and the ratio of credit allocated to the private sector relative to GDP. Changes in these ratios are outcome variables that reflect both changes in policy by the government and changes in the external environment. To the greatest extent possible, our indexes measure the efforts that governments have made to implement the reform package.

Each index is normalized to be between zero and one, with one being the most reformed or free from distortion or government intervention. We used the same normalization procedure as Lora. The difference between each country's "raw" index and the least liberalized country observation is expressed as a percentage of the difference between the maximum and minimum observations for all the countries over the entire period. Note that this implies that the maximum value of any index is the level actually attained in some country between 1970 and 1995.<sup>4</sup>

Several comments are in order about our normalization procedure. First, it measures each country's performance relative to the most liberalized country in the region. This may not result in a very high standard since conceivably none of the countries made a significant liberalization. When that is the case, a high index value gives a misleading impression of the absolute level of reform.

Secondly, our indexes measure the degree of liberalization or freedom from government intervention or distortion. However, this does not imply that a high value of an index is necessarily "better" than a lower value. We do not know what the optimal value for each index is. It may well be that the optimal value of some particular policy variable is not the most extreme value. For example, our index of capital account liberalization measures the degree of

governmental control over capital account transactions. But a complete absence of government control of capital inflows and outflows may well not be optimal.

In formal terms the index value for country  $i$  at time  $t$  is:

$$I_{it} = (\text{Max} - IR_{it}) / (\text{Max} - \text{Min})$$

$I_{it}$  = index value for country  $i$ , year  $t$ .

$IR_{it}$  = raw value of reform measure, country  $i$ , year  $t$ .

MAX= maximum value of reform measure for all countries, all years.

MIN= minimum value of reform measure for all countries, all years.

We have a total of five indexes: trade reform, domestic and international financial liberalization, tax reform, and privatization. Each of these indexes are comprised of a number of components that were chosen to reflect the degree of government control or, in the case of taxes and tariffs, the degree of non-neutrality of the tax system.

**a. Trade reform:** This index is the average of two subcomponents: the average level and the dispersion of tariffs. The raw observations of tariffs are drawn from a number of studies. Since these studies only analyze selected years, we interpolated values for the intervening years, as did Lora. There are two problems with the resulting index. First, it does not include non-quantitative restrictions, which could be more important than tariffs in restricting imports. We did not have enough information to measure this aspect, but we know that quantitative restrictions were particularly important in the 1970s, and they were removed along with tariff reductions in the reforming countries. This implies that our index accurately represents the direction of trade reform, but perhaps not the relative level of real protection across countries or the amount of liberalization.

A second problem with this index is that it could overstate the significance of liberalization efforts when tariffs are so high that domestic prices fall short of one plus the tariff rate. In this case, lowering of tariffs may have no effect whatsoever on the level of imports until this excess protection is eliminated.

**b. Domestic financial reform:** This index is the average of three subindexes: control of borrowing and lending rates at banks and the reserves to deposits ratio. The control indexes are zero-one variables; one if the rate is market determined, and zero if it is controlled.

Our index differs in one important respect from Lora's. In his index of financial reform, he included as one of the subcomponents an index of the quality of government regulation of the financial system because he reasoned that if financial liberalization is to be successful, then it should be accompanied by increased regulation. We do not disagree with that judgment.

However, we want our indexes to reflect only the presence or absence of government intervention. An increase in any of our indexes implies a reduction in government-induced



distortions or interventions in the market. Those interested in measuring the effect of regulation should introduce that index separately.

**c. International financial liberalization:** This index is the average of four components which reflects the sectoral control of foreign investment, limits on profit and interest repatriation, controls on external credits by national borrowers and capital outflows. The index for each component was derived from the descriptions contained in the IMF's *Balance of Payments Arrangements* in addition to independent information from various World Bank country memoranda. It is important to note that the translation of verbal descriptions of controls into indexes is fundamentally subjective. We have attempted to make the indexes reflect the relative significance of controls both between countries and over time, but we may have over or understated the importance in practice of particular regulations.

**d. Tax reform:** This index is the average of four sub-components: the maximum marginal tax rate on corporate incomes and personal incomes, the value added tax rate and the efficiency of the value-added tax. The latter is defined as the ratio of the VAT rate to the receipts from this tax expressed as a ratio of GDP. The latter indicator expresses the coverage or the neutrality of the VAT tax as well as the efficiency of the government in collecting the tax.

**e. Privatization:** Our index is one minus the ratio of value-added in state owned enterprises to non-agricultural GDP. This index is completely different from Lora's. The Lora privatization index was defined as the value of the proceeds from the sale of state enterprise as a percent of public investment between 1985-1987. That measure has two problems. First, we are not particularly interested in the proceeds of the sale of state enterprise as a means of financing government investment; rather we want a measure that reflects the size of the public sector in the economy. Our index has the benefit that it does not penalize countries which do not have public enterprise, or which, like Chile, had sold off a good deal of the public enterprise sector before he began his measurement.

For example, if a high index value is intended to reflect an economy with a small degree of government intervention, or in this case a small government enterprise sector, the Lora index is very misleading. It is high in countries that are reducing the size of the sector through sales. But it will be zero in countries that do not have public enterprises to sell. Our alternative does not have this problem. Secondly, Lora used the accumulated value of the proceeds of public enterprise sales in the numerator of his index which exaggerates the upward trend in privatization. As we will see, our index has a very different time profile than his even for the same country. These differences in the construction of the index have a significant impact on the overall ranking of some countries according to their degree of reform.

However, our index has some measurement problems of its own. The most serious is that it is sensitive to inflation and to exogenous trends in primary product prices. For example, typically during periods of severe inflation, governments attempted to hold down the prices of public services provided by state-owned companies. As a result, the companies ran at a loss and

consequently, had negative value added. In our index that will look like a reduction in the size of the state owned sector when actually some companies are running at a loss. The same effect can be seen in Venezuela, Jamaica or Chile which are important mineral producers. Their prices are set in world markets, and in the event of a commodities boom our indexes will show a rise in share of state enterprise. While in one sense that is true, it does not mean a reversal of privatization.

### III. TRENDS AND PATTERNS OF REFORM

Six reform indexes are displayed in annex one. The first (Table A1) is a general index which is the simple average of the five underlying subindexes shown in (Tables A2-A6). Obviously, the simple average scheme used here is arbitrary. Some indexes may well have more economic impact than others may. We display the subindexes so that readers can experiment with different weighting schemes. This also will enable researchers to add other components of reform to the data we have presented.

**Reforms by component:** Figure one is a graphic presentation of the region wide averages for each of our reform indexes. It gives a quick picture of what has been reformed most and when the process has occurred.

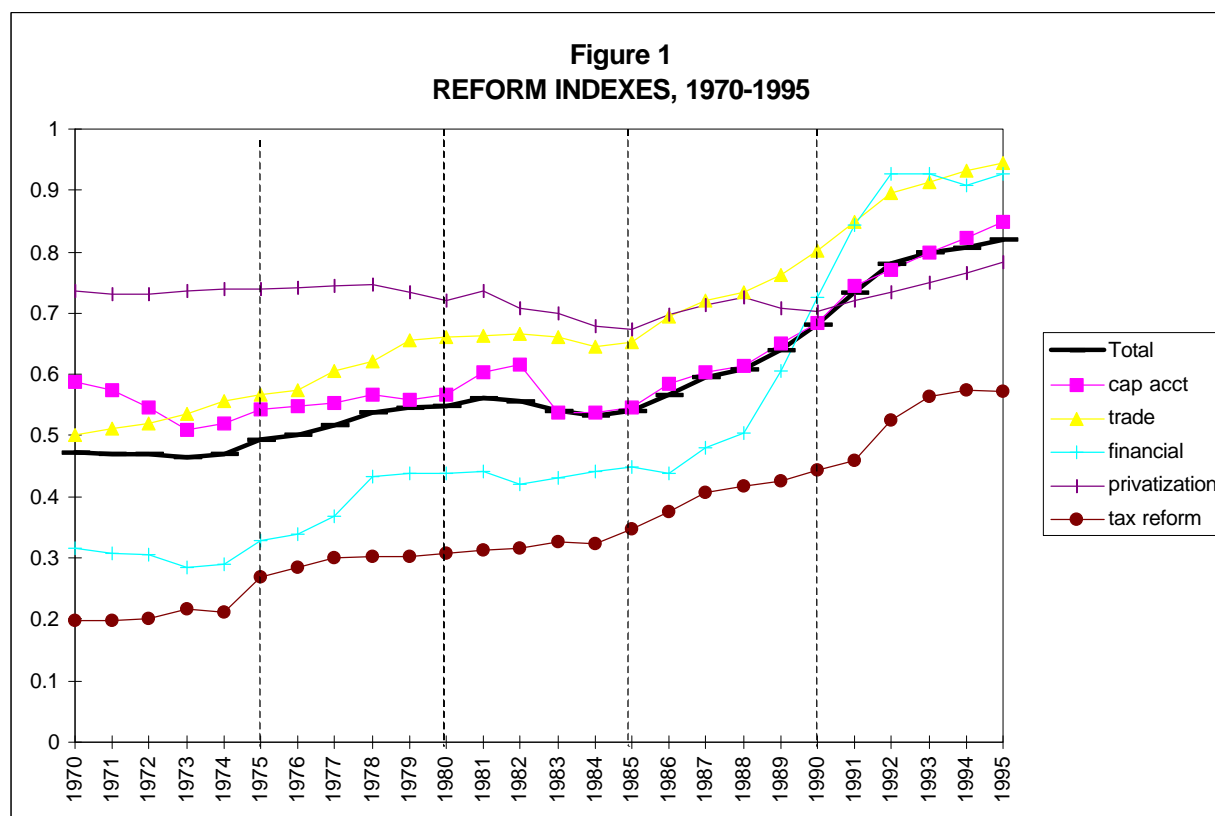


Figure 1 and the indexes of reform in annex one clearly illustrate that the reform process has been anything but uniform across time, area, or country. It started in the 1970s in three of our five areas: trade, financial liberalization and tax reform, and it was confined primarily to Chile, Uruguay, Argentina, and Colombia. These early reformers are responsible for virtually all of the rise in the trade and financial reform indexes during the 1970s. In this period there was also a rise in the tax reform index which reflects the adoption of value-added tax systems in quite a large number of countries.

Furthermore, there was a significant tightening of capital account controls in the early 1970s due principally to policy changes under the Peron government in Argentina and the military government in Peru. Subsequently, there was a significant liberalization under the military government in Argentina and under the Pinochet government in Chile. In this early period, the only privatization was the sale of a large number of relatively small government enterprises in Chile.

After 1982, the Latin American debt crisis not only stalled the process of reform but also reversed it in several of the early reformers. In response to the debt crisis Chile, Bolivia, and Argentina imposed temporary controls on capital account transactions. Additionally, many countries, among them Argentina, Chile, Brazil, Peru and Colombia increased tariff and non-tariff restrictions on imports. Clearly, the process of financial liberalization was either reversed or stalled, and there was no further progress in either tax reform or the opening of the capital account during this period.

Around 1985 a far more general and widespread adoption of the structural reform package started and accelerated significantly in the 1990s. Countries such as Chile, Uruguay, and Argentina, which had been leaders in the first round, continued to extend their reforms by further tariff reductions, financial and capital account liberalization, and tax reform.<sup>5</sup> Most of the other countries in the region followed the early reformers by lowering tariffs, eliminating credit and interest rate controls, and reforming their tax systems. But what is very clear is that in this period there was a major change in the government's relation to both internal and external financial markets. Internally, almost all countries decontrolled their interest rates. Externally, there was a quite massive and widespread move to integrate domestic and international capital markets more closely.

**a. Trade Reform:** The reform process started in the 1970s with significant trade, tax and finance reform in the Southern cone countries. The biggest and earliest changes were in tariffs and trade regimes. Argentina, Chile and Uruguay were the leaders. For example, Chile went from having the second highest level of tariff protection in the region in 1970 to the lowest in 1982. Uruguay lowered its tariff rates by an even greater percentage. But they were not the only countries opening their internal markets. For the seventeen countries for which we have data, average tariffs were cut in half over the 1970s. Similarly, tariff dispersion and non-tariff barriers such as import quotas were also reduced.

After the debt crisis in 1982, there was a temporary reversion in trade liberalization as in other areas of reform, particularly in Chile and Argentina. Quantitative import restrictions were increased until the crisis passed after mid decade. Subsequently, the trade reform process started again and spread to all the remaining countries of the region. The average tariff in the region, which had been 46% in 1985, was reduced to only 12% ten years later. By 1995 no country in the region was using its tariff system to protect domestic industry or to promote particular sectors except for the Brazilian automobile industry. The highest average tariff rate was 18% in the Dominican Republic, and the average variance of tariff rates between products within countries had been reduced from 20% in 1986 to 6.4% in 1995.

**b. Domestic financial liberalization:** At the beginning of the 1970s government ceilings on interest rates, particularly on loans, were present in most countries in the region. A good deal of credit was allocated by government decision rather than by supply and demand. To try to maintain the financial soundness of the banking system, the Central Bank typically imposed quite high reserve requirements. The net result of all this was what the development literature called financial repression; that is, a system in which savings and financial intermediation were discouraged. Not only was the resulting volume of investment funds likely to be smaller than they would have been in a reformed system they were also likely to be misallocated because of credit controls.

As in the area of trade, financial reforms started first in the 1970s in a few countries, in the case of Colombia, in addition to Chile and Uruguay. Then there was a pause, or even a reversal, for several years after 1982 with the process starting again in earnest in most of the countries of the region in the late 1980s and 1990s. During this period, there were two widely accepted reforms: decontrolling interest rates and abandoning directed credit. By 1995 only Venezuela had controls on loan rates, and no country in our sample had them on deposit rates. Information on credit controls is less precise, but clearly the private market, not the government, is now the primary allocator of credit.

Regulation of the banking and financial system has not advanced at rate similar to the pace of liberalization. In this paper, it is not our intention to engage in an extended discussion of the sequence and coordination of reforms; therefore, our discussion is limited to mainly description. However, experience and repeated financial crises have taught us that financial liberalization, if not accompanied by strengthened regulation of banks, dramatically increases the danger of bank crises. In addition, there are good theoretical reasons why this should happen.<sup>6</sup> Adverse selection, incomplete information about lenders and banks, and ex-post safety nets for banks in crisis have all tended to encourage excessive risk-taking by banks and the banking sector. Consequently, this has led to a series of bank crises which have had a major negative impact on economic development in the region.

**c. International financial liberalization:** Opening the internal financial market to external capital is more recent, more controversial, and less widespread than the two reforms we have considered so far. There has always been a debate in the literature over the proper sequencing and role of opening economies to trade and foreign capital. Latin American policy makers have reached a clear consensus on the advisability of trade liberalization. There is less consensus on how to treat restrictions or controls on external capital transactions. Partly, this is due to the risks and increased volatility that come with better integration of domestic and foreign capital markets. No one doubts that foreign capital can play a positive role in investment and development. But the rapid inflow of foreign capital, particularly in the 1990s, in addition to increasing the exposure to volatility, have also tended to increase the value of the local currency with deleterious effects on the domestic production of tradable goods.<sup>7</sup>

In 1970, all but a couple of Latin American countries maintained a high degree of control over external capital transactions both for their citizens and for foreigners wishing to invest. Many countries limited the sectors that were open to foreign investors and placed ceilings on the repatriation of interest and dividends. Domestic banks were limited in their ability to borrow abroad; and in most countries, capital outflows required previous authorization of the Central Bank.

Unlike trade and domestic financial reform, opening up external capital transactions did not start in a general way in the 1970s. Argentina, Costa Rica, Honduras, Peru and Venezuela had relatively open systems in 1970. But other than Uruguay, no country made a major opening in its system prior to the 1982 debt crisis. Indeed, in Argentina and Peru, there was a significant increase in governmental control of external financial transactions. Only in the late 1980s did capital account liberalization start in earnest, and even then in only a handful of countries, among them Argentina, Costa Rica and Guatemala. In the 1990s many additional countries adopted this reform. Most of them were smaller economies such as El Salvador, Jamaica and the Dominican Republic. The bigger economies, Brazil, Mexico, Colombia and Chile, all continued to maintain significant controls over foreign capital transactions.

**d. Tax reform:** The fourth component of the reform package is tax reform. Two major components have been widely adopted. The first was the value-added tax. Reformers favored this tax because they argued that while all taxes have distorting effects on private decisions, these are less with an across the board VAT than for either tariffs or high marginal income tax rates. In addition, of course, there should be less tax evasion with a VAT than with an income tax based system. The VAT was introduced in the 1970s in nine of the 17 countries for which we have data. In the 1980s the VAT was adopted in all the remaining countries in the region and; in addition, there was an increase in the coverage or efficiency of the VAT in most countries.

A second element of tax reform was the reduction in marginal tax rates on corporate and personal income which significantly reduced the progressivity of the income tax. Every country in the region has reduced its top marginal tax rate since 1970. Not all have gone as far as Uruguay, which eliminated the personal tax altogether, but overall the average marginal rate on personal

income has fallen from around 50% in 1970 to about 25% in 1995. The corporate rate has fallen from 37% in 1970 to 29% in 1995. Almost all these changes have taken place since 1985.

**e. Privatization:** The final component of reform on our list is privatization. State enterprises were an important component of the old development model. It not only depended critically on tariff protection and directed credit allocation but also on ownership of key elements of the production structure, in particular basic industries such as mining and petroleum companies and infrastructure. Many of these companies performed badly. They often ran significant deficits, which added to the government fiscal problem.<sup>8</sup> They were chronically short of capital for expansion, depending as they did on central governments for funding. In addition, the level and quality of public utility services failed to keep abreast of either public expectations or demand. With the increased demand for accountability and objective standards of resource allocation came a decision to turn these companies into private enterprises which subjected them to the discipline of private capital and product markets.

While privatization may make sense to reformers on objective economic grounds, it has often sparked acrimonious political battles in practice. Thus, privatization has been less widespread across countries or across public entities within countries than the other reforms we have considered so far. Chile started the process in the 1970s. Between 1974 and 1978, it privatized more than 500 firms, most of which had been nationalized during the Allende regime. There was a short reversal of the process after the 1982 banking crisis, but by 1992, 96% of all Chilean state enterprises had been sold.<sup>9</sup>

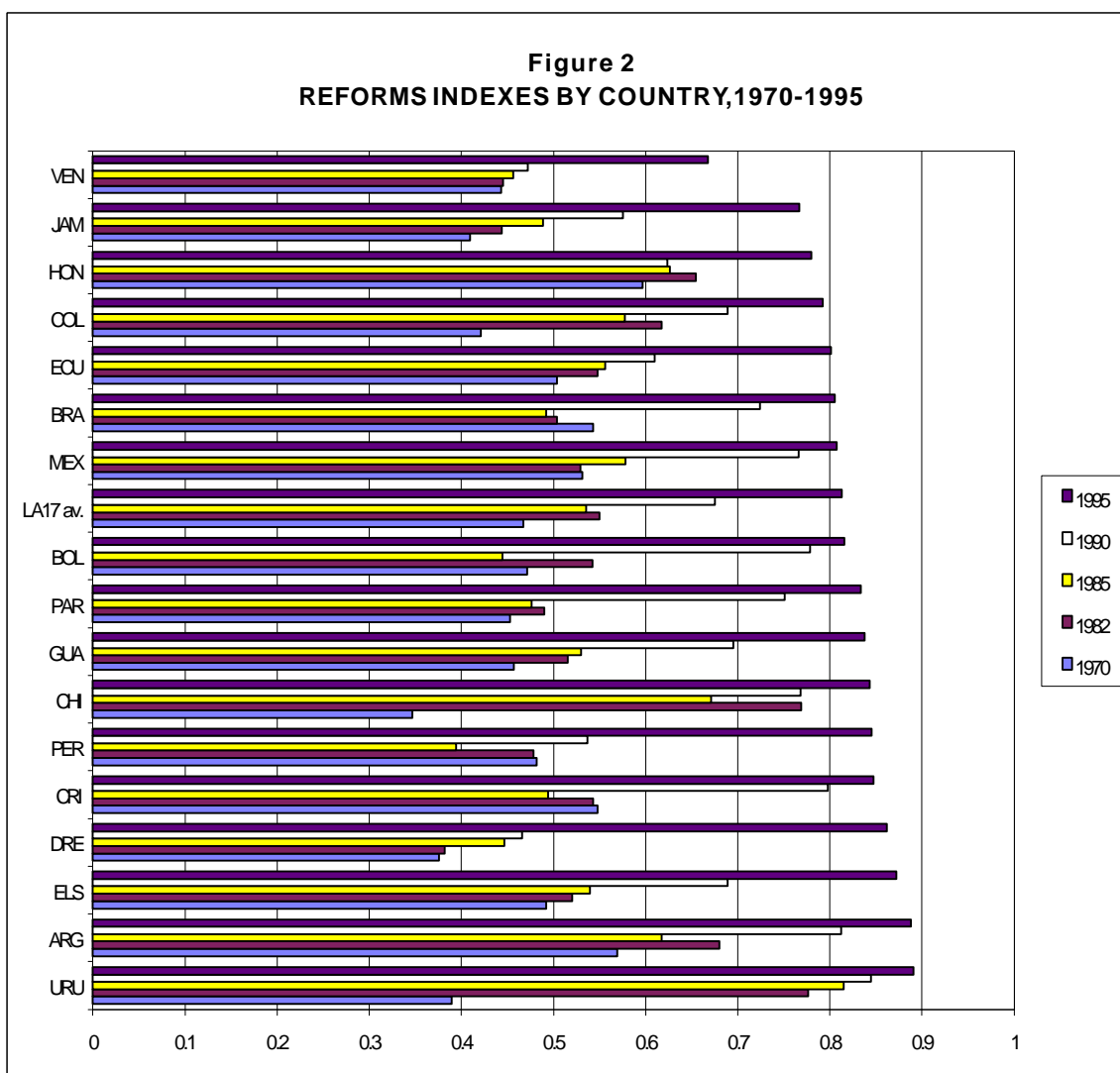
The second country to embark on a significant privatization campaign was Mexico under Salinas. By the end of his presidency in 1993, the number of state-owned enterprises had been reduced from 1155 to less than 80.<sup>10</sup> In both countries it should be noted that the government did not privatize their biggest mining companies (CODELCO in Chile and PEMEX in Mexico). As a result, there has been a far smaller change in the share of government enterprise in the value of production than in the number of such enterprises. In terms of the volume of transactions between 1985 and 1994, Bolivia, Argentina, Peru and Jamaica were other countries that embarked on significant privatization programs in the 1990s. In terms of the volume of sales, Mexico and Argentina were the largest reformers with sales representing between 1% and 2% of GDP.

Not all countries have been privatizers. For some like Guatemala, El Salvador or the Dominican Republic, government enterprise has never been a significant component in the economy. For others such as Venezuela, Jamaica, and Ecuador, it is because they have resisted privatizing important oil or mining enterprises.

**The reform process by country:** We now disaggregate the overall reform index by country to show more explicitly the timing and degree of reforms. (See Figure 2). For each country we show the level of its general reform index at five points: 1970, 1982, 1985, 1990 and 1995. The figure is ordered by the level of the indexes for the most recent period. There are some surprises

in the figure. In particular Uruguay appears as the most reformed country in the region, followed by Argentina and El Salvador. Chile, the quintessential early reformer, is only seventh by 1995.

There are several reasons for these results. One is convergence. Countries such as the Dominican Republic, Peru, El Salvador and Paraguay were relatively late in adopting reforms. Once they did however, they adopted reforms wholesale and across the board. In Chile reforms were more selective. It has low tariffs and a reformed tax system. However, Chile is below the average in capital account liberalization and only slightly above the average in privatization.



Who were the major reformers in different periods? Defining that term arbitrarily as changes in the reform index of more than 50% over a period, only Chile and Uruguay qualify during 1970-1982. Between 1985 and 1990 the significant reformers were Bolivia, Costa Rica and Paraguay. After 1990, Brazil, Peru, the Dominican Republic, and El Salvador all raised their



reform index by over 50%. In the remaining countries, either the process of reform was more gradual as in the cases of Guatemala, Jamaica, and Mexico, or it is because, like Honduras, they were already fairly liberalized at the beginning of the 1970s.<sup>11</sup>

**Convergence:** Examining the reform process across all countries of the region, one important pattern that can be seen is the degree of convergence over time. Countries that had relatively liberalized economies in 1985 tended to introduce fewer additional reforms, while those that were relatively unreformed in 1985 made a significant effort to catch up over the subsequent decade. This can be observed in Table 1 where we classify countries by their level of reform in 1985 and by their rate of change between 1985 and 1995.

All but three countries fall in either the northwest or the southeast quadrants or are at the regional average in 1985. Those above average in 1985 tended to reform less afterwards, while those below average reformed more. That of course means that there was a dramatic reduction in the variance across countries in the extent to which they had adopted the reform package. Presumably the successes of the early reformers, particularly Chile, Colombia, and Uruguay, were an incentive for others to accelerate their own reform process. By 1995, the main elements of the reform package had been adopted across almost all the countries of the region.

**Table 1**  
**LEVELS AND CHANGES OF REFORM**  
**LEVEL IN 1985**

Rate of Change 1985/1995	Below Average	Same	Above Average
Above Average	Bolivia, C. Rica, Brazil, Paraguay, Peru, D. Republic	Guatemala El Salvador	Argentina
Same			
Below Average	Venezuela Jamaica		Ecuador, Chile, Colombia, Honduras, Uruguay, Mexico

Note: In order to reduce the sensitivity of our classification scheme, we defined same as a band of plus or minus 1.5% from absolute equality.

Jamaica and Venezuela are the two important exceptions to the general pattern of convergence noted above. There are several reasons for this. One is the presence of big government enterprises in the mineral sector in these countries. Even though both of these countries raised their privatization indexes by over 30% after 1985, the level of the index is still low. A second reason is the tax reform index. As noted above, that index reflects the maximum tax rate on corporate and personal income, the value added tax rate, and the ratio of VAT collections to the legal rate. As reforms, all four of these components are regressive. Moving toward a proportional income tax and away from a more progressive rate structure shifts the burden of taxes away from high-income taxpayers, which none of these three countries were willing to do, to corporations. The same problem arises with both the value-added tax and collections because sales taxes in general are regressive.

**Reaching levels of reform:** When one speaks of countries as being reformers, one generally means that they adopted reforms or changed their reform indexes. But when thinking about whether an economy is or is not reformed, what is important to consider is the level of reforms, rather than the rate of change. Uruguay is a relatively liberalized economy even though it made few reforms after 1985, and so is Honduras although it has not changed much during the entire period since 1970. Conversely, the Dominican Republic is still relatively unreformed despite having made significant reforms after 1990. Therefore an alternative way of presenting the country evidence is by showing when countries reached a certain threshold of reform. Table 2 does this for our five areas of reform.

**Table 2**  
**CHRONOLOGY OF REFORM**

	Trade Reform (>.85)	Tax Reform (>.6)	Financial Reform (>.9)	Cap Account Liberalization (>..85)	Privatization (>.8)
1970	none	none	none	C. Rica Venezuela Argentina	Paraguay, Peru El Salvador Guatemala Honduras Uruguay Argentina, Brazil Colombia C. Rica Dominican R.
71-85	Chile Bolivia E. Salvador	Uruguay Chile	Colombia Uruguay Chile	Reversion in C. Rica, Venezuela, Argentina	Reversion in Paraguay, Peru, C. Rica, Colombia
86-90	Argentina Colombia C. Rica Guatemala Mexico Paraguay Uruguay Venezuela	Bolivia Brazil	Paraguay Bolivia El Salvador Brazil Argentina Mexico C. Rica	Bolivia C. Rica Guatemala Jamaica	Paraguay Peru
91-95	Brazil Dominican R. Ecuador Honduras Jamaica Peru	C. Rica El Salvador Paraguay	Peru Dominican R. Ecuador Guatemala Honduras Jamaica	Argentina Dominican R. Ecuador El Salvador Honduras Peru, Venezuela	Brazil Chile Colombia C. Rica Mexico

Source: Appendix Tables A-2-6.

It is clear from Table 2 that there are big differences in both the timing of reforms and the extent to which reforms have been accepted and adopted across the different countries of the region. The most widely adopted reforms have been tariff reduction and financial liberalization. There is a consensus that tariffs should be low and that interest rate controls serve little purpose and should be abandoned. By 1995 every country in the region had a commercial reform index value greater than .89 and all but one country, Venezuela, had decontrolled interest rates.

There is somewhat less convergence on decontrolling the capital account. Many countries introduced this reform, particularly after 1990, but there are still important exceptions. Four countries in the region --Chile, Brazil, Colombia and Paraguay-- still have indexes between .63 and .75. As such they are less than  $\frac{3}{4}$  as liberalized as the countries with the most open capital accounts, Costa Rica and Jamaica.

There has been much less reform and less convergence in the areas of taxes and privatization.<sup>12</sup> But patterns and reasons why are completely different. In terms of privatization, the table makes it clear that one of the reasons that there has not been much change is that the government sector was quite small to start with in many of our countries. Most of those countries have shown little interest in shrinking their public sector further. Another reason fewer countries have reached our privatization threshold is because of the importance and size of state-owned petroleum or mineral companies in a subset of natural resource intensive economies such as in Venezuela, Jamaica, Ecuador, and Bolivia. This factor also masks the privatization effort in Chile and Mexico in which Codelco and Pemex pull down the overall index despite the privatization of most of the rest of the public sector.

Curiously, tax reform is the area in which the smallest number of countries has managed to pass our arbitrary threshold of reform. None had a tax reform index greater than .6 in 1970, and only seven crossed that threshold over the next 25 years. That suggests that there is much less consensus on the nature of the optimal tax system than there is on the other areas of reform. Mainly, we suspect this is due to the conflicting goals of neutrality and equity. Every country in our sample has adopted the value-added tax, but not all of the countries have adopted the idea of reducing the marginal tax rate on income. As it is also the case that there are large differences in the size of the government across our sample, so also there are significant differences in the IVA rate needed to finance the government. For example, Guatemala has a low VAT rate (7%) because it has a very small government. It is important to note that the low VAT reduces its tax reform index.

#### **IV. CONCLUSIONS**

This paper has presented quantitative indexes of reform in five important areas for seventeen countries in the region. These indexes are an attempt to summarize the reform process in these countries and to make possible comparisons of the degree of reform across countries over time. The indexes show that the reform process has not been uniform across time, country, or area of reform. The reforms started in the 1970s in the Southern Cone stopped or even reversed after the debt crisis of 1982-1985, but spread to the rest of the region after 1985. Trade reform and domestic financial liberalization were the first components to be widely adopted with eleven countries reaching a level of 85% of the most liberalized by 1990, and all but one of the rest reaching that level by 1995. The period after 1990 witnessed a very significant opening of the capital account. Judging by the reform indexes, by 1995 there was widespread agreement and policy convergence in these three areas of reform. However, there is much less convergence and more variance in the indexes of privatization and tax reform. With respect to privatization, there have been significant sales of government enterprises in a number of countries, but the overall change in the regional index is still quite small. Partly that is because the government enterprise sector is small in quite a large number of countries, and partly it is because of the continuation or even the expansion of big state-owned enterprise in mining and petroleum in a few countries. With respect to tax reform, only seven of our countries reached the reform threshold that we set. Mainly we suspect that this is due to the conflicting goals of tax neutrality and equity, but it may also reflect differences in the size of the government sector as well.

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**Domestic Financial Liberalization:** Information on the timing of financial liberalization in the 1970-85 period was drawn from a number of World Bank country economic studies. For the later period we used the information from the Lora worksheets as well as independent information for Brazil, Argentina, Mexico, Chile, Costa Rica and Jamaica (taken from chapter 7 of Sebastian

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## **STATISTICAL ANNEX**

**Table A1**  
**GENERAL REFORM INDEX**

	ARG	BOL	BRA	CHI	COL	CRI	DRE	ECU	ELS	GUA	HON	JAM	MEX	PAR	PER	URU	VEN	LA17 av.
1970	0.569	0.471	0.543	0.347	0.421	0.548	0.376	0.504	0.492	0.457	0.597	0.409	0.531	0.453	0.482	0.390	0.443	0.472
1971	0.565	0.472	0.544	0.310	0.427	0.543	0.375	0.499	0.491	0.471	0.603	0.405	0.537	0.455	0.447	0.385	0.439	0.469
1972	0.564	0.480	0.553	0.309	0.430	0.540	0.380	0.503	0.488	0.481	0.611	0.401	0.538	0.458	0.423	0.380	0.440	0.469
1973	0.388	0.534	0.547	0.316	0.434	0.520	0.380	0.498	0.489	0.492	0.618	0.396	0.542	0.462	0.403	0.436	0.437	0.464
1974	0.385	0.540	0.525	0.409	0.459	0.506	0.377	0.492	0.489	0.502	0.623	0.392	0.550	0.465	0.391	0.465	0.441	0.471
1975	0.410	0.542	0.504	0.576	0.557	0.537	0.385	0.493	0.491	0.513	0.626	0.388	0.559	0.471	0.392	0.497	0.442	0.493
1976	0.408	0.539	0.495	0.640	0.555	0.539	0.374	0.493	0.496	0.509	0.641	0.392	0.602	0.472	0.426	0.501	0.446	0.502
1977	0.583	0.551	0.526	0.687	0.555	0.542	0.361	0.491	0.504	0.511	0.645	0.399	0.594	0.473	0.440	0.499	0.449	0.518
1978	0.631	0.552	0.525	0.726	0.616	0.552	0.349	0.502	0.515	0.513	0.649	0.401	0.586	0.473	0.439	0.679	0.451	0.539
1979	0.671	0.552	0.493	0.742	0.621	0.551	0.344	0.513	0.518	0.518	0.648	0.409	0.578	0.497	0.464	0.753	0.421	0.547
1980	0.698	0.551	0.493	0.748	0.610	0.559	0.343	0.518	0.504	0.520	0.646	0.408	0.598	0.502	0.460	0.759	0.404	0.548
1981	0.700	0.578	0.500	0.788	0.610	0.549	0.358	0.540	0.523	0.520	0.649	0.434	0.599	0.489	0.500	0.774	0.417	0.560
1982	0.680	0.542	0.504	0.768	0.617	0.543	0.382	0.548	0.520	0.515	0.654	0.444	0.529	0.490	0.479	0.776	0.445	0.555
1983	0.584	0.534	0.498	0.649	0.608	0.498	0.428	0.549	0.524	0.515	0.635	0.435	0.549	0.494	0.447	0.768	0.452	0.539
1984	0.574	0.510	0.490	0.646	0.591	0.487	0.427	0.543	0.531	0.512	0.633	0.452	0.557	0.470	0.414	0.795	0.433	0.533
1985	0.617	0.445	0.492	0.671	0.578	0.494	0.446	0.556	0.540	0.530	0.626	0.489	0.578	0.476	0.394	0.815	0.456	0.541
1986	0.608	0.555	0.489	0.705	0.579	0.524	0.440	0.549	0.548	0.628	0.620	0.509	0.609	0.556	0.437	0.809	0.476	0.567
1987	0.604	0.659	0.480	0.721	0.656	0.689	0.450	0.553	0.545	0.669	0.618	0.536	0.633	0.556	0.458	0.821	0.462	0.595
1988	0.664	0.655	0.517	0.741	0.599	0.760	0.438	0.548	0.547	0.694	0.620	0.548	0.668	0.563	0.479	0.835	0.467	0.608
1989	0.733	0.634	0.696	0.755	0.676	0.785	0.437	0.565	0.548	0.698	0.622	0.560	0.766	0.589	0.484	0.835	0.493	0.640
1990	0.813	0.779	0.724	0.768	0.689	0.798	0.466	0.610	0.689	0.695	0.624	0.575	0.771	0.751	0.537	0.844	0.472	0.683
1991	0.864	0.787	0.719	0.795	0.658	0.797	0.618	0.626	0.763	0.825	0.650	0.695	0.794	0.746	0.758	0.861	0.522	0.734
1992	0.884	0.810	0.739	0.812	0.755	0.830	0.712	0.782	0.821	0.830	0.731	0.708	0.796	0.804	0.809	0.873	0.562	0.780
1993	0.888	0.815	0.756	0.820	0.764	0.836	0.758	0.789	0.856	0.841	0.750	0.748	0.804	0.825	0.828	0.877	0.620	0.799
1994	0.889	0.830	0.795	0.833	0.713	0.842	0.802	0.795	0.856	0.843	0.764	0.759	0.813	0.832	0.841	0.883	0.641	0.808
1995	0.888	0.816	0.805	0.843	0.792	0.847	0.862	0.801	0.872	0.838	0.780	0.767	0.807	0.834	0.845	0.891	0.667	0.821



**Table A2**  
**COMMERCIAL INDEX**

	ARG	BOL	BRA	CHI	COL	COR	DRE	ECU	ELS	GUA	HON	JAM	MEX	PAR	PER	URU	VEN	LA17 av
1970	0.546	0.644	0.493	0.126	0.635	0.511	0.380	0.516	0.674	0.522	0.543	0.717	0.714	0.473	0.516	0.000	0.506	0.501
1971	0.546	0.644	0.525	0.184	0.638	0.511	0.380	0.523	0.667	0.533	0.576	0.717	0.745	0.477	0.506	0.000	0.506	0.511
1972	0.520	0.644	0.583	0.237	0.640	0.527	0.380	0.530	0.660	0.542	0.609	0.717	0.776	0.481	0.497	0.000	0.506	0.521
1973	0.493	0.793	0.583	0.280	0.648	0.530	0.380	0.538	0.673	0.543	0.639	0.717	0.810	0.485	0.481	0.000	0.506	0.535
1974	0.469	0.793	0.502	0.555	0.746	0.529	0.380	0.546	0.686	0.543	0.664	0.717	0.844	0.489	0.481	0.000	0.525	0.557
1975	0.445	0.793	0.466	0.685	0.739	0.527	0.380	0.554	0.699	0.543	0.687	0.717	0.880	0.493	0.481	0.000	0.545	0.567
1976	0.425	0.793	0.448	0.818	0.731	0.526	0.348	0.562	0.713	0.543	0.710	0.717	0.907	0.497	0.481	0.000	0.566	0.576
1977	0.737	0.793	0.499	0.919	0.737	0.524	0.315	0.570	0.726	0.543	0.733	0.717	0.926	0.502	0.481	0.006	0.589	0.607
1978	0.745	0.793	0.499	0.956	0.739	0.522	0.283	0.579	0.740	0.543	0.756	0.717	0.880	0.506	0.481	0.205	0.613	0.621
1979	0.753	0.793	0.467	0.974	0.753	0.521	0.250	0.588	0.755	0.543	0.779	0.717	0.862	0.511	0.678	0.535	0.644	0.654
1980	0.768	0.793	0.467	0.974	0.757	0.519	0.217	0.597	0.769	0.543	0.802	0.717	0.844	0.515	0.730	0.570	0.665	0.662
1981	0.785	0.810	0.430	0.974	0.737	0.517	0.185	0.606	0.784	0.543	0.825	0.717	0.827	0.520	0.750	0.566	0.685	0.662
1982	0.801	0.827	0.439	0.974	0.722	0.516	0.152	0.615	0.799	0.543	0.848	0.696	0.818	0.525	0.711	0.627	0.707	0.666
1983	0.753	0.844	0.439	0.926	0.706	0.514	0.261	0.625	0.815	0.543	0.761	0.674	0.801	0.525	0.678	0.658	0.729	0.662
1984	0.644	0.862	0.439	0.880	0.613	0.513	0.261	0.634	0.831	0.543	0.728	0.652	0.785	0.525	0.578	0.729	0.760	0.646
1985	0.810	0.880	0.485	0.835	0.555	0.511	0.235	0.644	0.853	0.543	0.696	0.625	0.760	0.521	0.561	0.776	0.793	0.652
1986	0.729	0.905	0.493	0.929	0.710	0.652	0.209	0.626	0.853	0.679	0.658	0.625	0.824	0.866	0.574	0.758	0.729	0.695
1987	0.713	0.919	0.566	0.945	0.705	0.804	0.183	0.632	0.853	0.815	0.646	0.656	0.887	0.866	0.557	0.793	0.717	0.721
1988	0.701	0.936	0.640	0.960	0.699	0.823	0.157	0.636	0.868	0.834	0.638	0.692	0.954	0.866	0.541	0.828	0.705	0.734
1989	0.795	0.948	0.705	0.961	0.774	0.842	0.130	0.700	0.884	0.853	0.632	0.728	0.953	0.880	0.552	0.838	0.782	0.762
1990	0.890	0.961	0.770	0.961	0.849	0.861	0.257	0.765	0.900	0.872	0.674	0.765	0.953	0.895	0.563	0.848	0.858	0.803
1991	0.909	0.975	0.822	0.972	0.900	0.880	0.384	0.861	0.917	0.891	0.717	0.801	0.954	0.927	0.745	0.886	0.905	0.850
1992	0.929	0.988	0.874	0.984	0.952	0.899	0.511	0.955	0.933	0.910	0.761	0.837	0.953	0.958	0.929	0.918	0.952	0.897
1993	0.914	0.988	0.905	0.984	0.953	0.918	0.638	0.956	0.950	0.929	0.804	0.873	0.952	0.962	0.935	0.928	0.952	0.914
1994	0.898	0.988	0.936	0.984	0.953	0.938	0.765	0.953	0.968	0.948	0.848	0.909	0.951	0.965	0.941	0.937	0.951	0.931
1995	0.934	0.988	0.930	0.984	0.952	0.960	0.893	0.953	0.958	0.970	0.892	0.951	0.909	0.957	0.941	0.957	0.950	0.946
70-95 av.	0.717	0.850	0.593	0.806	0.752	0.650	0.343	0.664	0.805	0.668	0.716	0.734	0.864	0.661	0.630	0.514	0.706	0.687

**Table A3**  
**FINANCIAL REFORM INDEX**

	Argentina	Bolivia	Brasil	Chile	Colombia	C. Rica	Rep.Dom.	Ecuador	El Salv.	Guatemala	Honduras	Jamaica	México	Paraguay	Perú	Uruguay	Venezuela	Promedio
1970	0.309	0.254	0.301	0.590	0.265	0.281	0.218	0.252	0.253	0.278	0.632	0.316	0.298	0.226	0.295	0.288	0.295	0.315
1971	0.290	0.248	0.292	0.534	0.271	0.281	0.215	0.249	0.255	0.281	0.631	0.315	0.302	0.221	0.303	0.262	0.286	0.308
1972	0.309	0.267	0.301	0.496	0.274	0.280	0.239	0.250	0.255	0.274	0.640	0.317	0.266	0.222	0.292	0.240	0.288	0.307
1973	0.038	0.240	0.301	0.416	0.266	0.286	0.241	0.244	0.257	0.278	0.644	0.310	0.254	0.224	0.311	0.264	0.283	0.286
1974	0.045	0.254	0.307	0.474	0.271	0.294	0.224	0.244	0.257	0.278	0.643	0.309	0.248	0.227	0.297	0.258	0.284	0.289
1975	0.000	0.253	0.317	0.800	0.601	0.292	0.263	0.241	0.255	0.276	0.638	0.314	0.244	0.228	0.316	0.266	0.295	0.329
1976	0.003	0.243	0.303	0.859	0.596	0.289	0.261	0.241	0.253	0.256	0.644	0.308	0.435	0.229	0.289	0.263	0.289	0.339
1977	0.559	0.249	0.289	0.869	0.592	0.283	0.248	0.242	0.257	0.265	0.640	0.312	0.387	0.229	0.285	0.257	0.291	0.368
1978	0.609	0.255	0.287	0.909	0.884	0.298	0.243	0.241	0.280	0.275	0.636	0.293	0.393	0.228	0.286	0.957	0.296	0.434
1979	0.640	0.265	0.285	0.932	0.874	0.274	0.250	0.249	0.282	0.281	0.636	0.307	0.394	0.230	0.263	0.985	0.294	0.438
1980	0.649	0.265	0.284	0.947	0.892	0.277	0.269	0.252	0.271	0.291	0.642	0.273	0.389	0.236	0.243	0.987	0.302	0.439
1981	0.641	0.268	0.294	0.973	0.904	0.249	0.244	0.262	0.273	0.294	0.642	0.300	0.393	0.225	0.254	0.988	0.297	0.441
1982	0.458	0.230	0.288	0.989	0.910	0.274	0.257	0.271	0.271	0.287	0.646	0.332	0.192	0.232	0.251	0.963	0.302	0.421
1983	0.480	0.211	0.298	0.896	0.919	0.278	0.251	0.275	0.274	0.299	0.657	0.310	0.520	0.214	0.242	0.904	0.290	0.430
1984	0.549	0.193	0.302	0.900	0.921	0.273	0.254	0.263	0.276	0.292	0.651	0.410	0.536	0.215	0.231	0.922	0.300	0.441
1985	0.568	0.103	0.313	0.888	0.920	0.251	0.266	0.276	0.283	0.281	0.650	0.605	0.573	0.221	0.202	0.925	0.301	0.448
1986	0.624	0.253	0.295	0.894	0.585	0.250	0.248	0.273	0.298	0.277	0.652	0.577	0.599	0.210	0.228	0.901	0.306	0.439
1987	0.647	0.303	0.192	0.897	0.917	0.577	0.286	0.284	0.284	0.282	0.656	0.588	0.633	0.201	0.241	0.890	0.310	0.482
1988	0.979	0.285	0.308	0.978	0.584	0.900	0.243	0.272	0.276	0.274	0.650	0.581	0.609	0.197	0.248	0.892	0.308	0.505
1989	0.905	0.261	0.975	0.985	0.916	0.901	0.258	0.271	0.281	0.278	0.645	0.571	0.983	0.232	0.282	0.897	0.637	0.605
1990	0.945	0.965	0.965	0.986	0.913	0.898	0.273	0.291	0.925	0.274	0.649	0.580	0.990	0.925	0.264	0.886	0.604	0.725
1991	0.951	0.952	0.972	0.981	0.578	0.880	0.914	0.291	0.932	0.942	0.641	0.933	0.993	0.933	0.943	0.913	0.591	0.843
1992	0.966	0.965	0.980	0.976	0.918	0.891	0.936	0.955	0.933	0.951	0.970	0.918	0.994	0.932	0.929	0.922	0.605	0.926
1993	0.964	0.962	0.981	0.980	0.922	0.898	0.930	0.964	0.922	0.942	0.983	0.926	0.996	0.934	0.932	0.922	0.617	0.928
1994	0.972	0.977	0.959	0.977	0.600	0.891	0.942	0.978	0.921	0.956	0.978	0.928	0.995	0.933	0.930	0.937	0.589	0.910
1995	0.986	0.973	0.971	0.983	0.950	0.861	0.944	0.980	0.927	0.928	0.971	0.925	0.946	0.926	0.929	0.943	0.612	0.927
70-95 av.	0.580	0.411	0.475	0.850	0.702	0.477	0.381	0.370	0.421	0.407	0.695	0.495	0.560	0.386	0.396	0.724	0.380	0.512

**Table A4**  
**CAPITAL ACCOUNT LIBERALIZATION INDEX**

	Argentina	Bolivia	Brasil	Chile	Colombia	C.Rica	R.Dom.	Ecuador	El Salv.	Guatemala	Honduras	Jamaica	México	Paraguay	Perú	Uruguay	Venezuela	LA av.
1970	1.000	0.811	0.638	0.417	0.198	0.875	0.329	0.619	0.401	0.394	0.716	0.561	0.733	0.436	0.774	0.596	0.911	0.588
1971	1.000	0.820	0.620	0.334	0.220	0.850	0.330	0.590	0.400	0.450	0.716	0.540	0.730	0.450	0.600	0.596	0.900	0.574
1972	1.000	0.840	0.600	0.311	0.230	0.820	0.330	0.560	0.390	0.500	0.716	0.520	0.740	0.460	0.500	0.596	0.900	0.545
1973	0.420	0.860	0.580	0.311	0.250	0.790	0.330	0.530	0.380	0.550	0.716	0.500	0.740	0.470	0.400	0.596	0.890	0.508
1974	0.420	0.880	0.550	0.436	0.270	0.760	0.330	0.500	0.370	0.600	0.716	0.480	0.750	0.480	0.350	0.730	0.890	0.520
1975	0.423	0.883	0.526	0.461	0.288	0.732	0.329	0.483	0.365	0.655	0.716	0.454	0.763	0.503	0.340	0.729	0.887	0.543
1976	0.420	0.880	0.520	0.525	0.288	0.760	0.310	0.510	0.380	0.655	0.716	0.480	0.760	0.503	0.320	0.729	0.870	0.547
1977	0.420	0.870	0.510	0.589	0.288	0.790	0.290	0.540	0.400	0.655	0.716	0.510	0.750	0.503	0.300	0.729	0.860	0.552
1978	0.600	0.870	0.500	0.653	0.288	0.830	0.270	0.570	0.420	0.655	0.716	0.540	0.750	0.503	0.270	0.729	0.840	0.567
1979	0.700	0.860	0.480	0.731	0.288	0.860	0.250	0.610	0.420	0.655	0.716	0.570	0.740	0.610	0.240	0.729	0.820	0.559
1980	0.800	0.859	0.464	0.760	0.270	0.893	0.240	0.649	0.436	0.655	0.716	0.598	0.739	0.611	0.216	0.729	0.798	0.567
1981	0.800	0.860	0.460	0.774	0.330	0.890	0.400	0.700	0.490	0.650	0.716	0.700	0.740	0.611	0.310	0.800	0.800	0.602
1982	0.800	0.860	0.460	0.793	0.360	0.890	0.560	0.720	0.510	0.650	0.716	0.740	0.740	0.611	0.310	0.800	0.800	0.617
1983	0.380	0.600	0.410	0.484	0.360	0.680	0.560	0.720	0.510	0.550	0.716	0.740	0.620	0.611	0.310	0.800	0.780	0.539
1984	0.376	0.586	0.411	0.484	0.365	0.667	0.561	0.721	0.507	0.547	0.716	0.746	0.626	0.620	0.311	0.800	0.780	0.539
1985	0.400	0.590	0.420	0.480	0.370	0.670	0.570	0.730	0.507	0.550	0.725	0.760	0.650	0.620	0.311	0.800	0.780	0.545
1986	0.400	0.800	0.430	0.500	0.400	0.700	0.580	0.740	0.507	0.950	0.734	0.780	0.650	0.620	0.311	0.800	0.780	0.584
1987	0.400	0.930	0.440	0.520	0.410	0.800	0.590	0.750	0.507	0.960	0.744	0.800	0.680	0.620	0.311	0.800	0.780	0.603
1988	0.400	0.930	0.450	0.530	0.420	0.850	0.600	0.760	0.507	0.970	0.753	0.820	0.700	0.620	0.311	0.800	0.780	0.612
1989	0.700	0.930	0.460	0.550	0.430	0.900	0.610	0.770	0.507	0.980	0.763	0.840	0.790	0.770	0.311	0.800	0.780	0.649
1990	0.821	0.930	0.461	0.567	0.454	1.000	0.608	0.799	0.507	0.982	0.773	0.857	0.786	0.774	0.631	0.800	0.781	0.683
1991	0.950	0.920	0.480	0.600	0.550	1.000	0.610	0.810	0.850	0.970	0.802	0.900	0.800	0.770	0.850	0.810	0.850	0.745
1992	0.980	0.920	0.500	0.640	0.600	1.000	0.650	0.820	0.900	0.960	0.833	0.900	0.820	0.760	0.900	0.820	0.900	0.771
1993	0.990	0.910	0.530	0.680	0.650	1.000	0.700	0.830	0.900	0.950	0.865	1.000	0.840	0.760	0.900	0.830	0.910	0.800
1994	0.990	0.900	0.600	0.720	0.700	1.000	0.800	0.840	0.910	0.950	0.898	1.000	0.850	0.760	0.900	0.840	0.920	0.824
1995	0.986	0.887	0.639	0.745	0.726	1.000	0.962	0.860	0.915	0.948	0.932	1.000	0.875	0.759	0.912	0.840	0.928	0.848

**Table A5**  
**PRIVATIZATION INDEX**

	ARG	BOL	BRA	CHI	COL	COR	DRE	ECU	ELS	GUA	HON	JAM	MEX	PAR	PER	URU	VEN	LA17 av.
1970	0.794	0.448	0.810	0.483	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.737
1971	0.794	0.448	0.810	0.377	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.731
1972	0.794	0.448	0.810	0.383	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.731
1973	0.794	0.448	0.810	0.458	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.735
1974	0.794	0.448	0.810	0.528	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.739
1975	0.794	0.448	0.810	0.525	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.739
1976	0.794	0.448	0.810	0.582	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.743
1977	0.794	0.448	0.810	0.607	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.744
1978	0.794	0.448	0.810	0.641	0.850	0.813	0.923	0.715	0.908	0.972	0.850	0.321	0.770	0.868	0.798	0.816	0.387	0.746
1979	0.853	0.448	0.745	0.586	0.850	0.822	0.942	0.715	0.908	0.963	0.850	0.321	0.755	0.874	0.773	0.828	0.227	0.733
1980	0.847	0.448	0.804	0.558	0.792	0.828	0.963	0.715	0.908	0.963	0.850	0.321	0.663	0.887	0.742	0.813	0.138	0.720
1981	0.819	0.567	0.883	0.696	0.733	0.822	0.936	0.715	0.933	0.966	0.840	0.321	0.666	0.828	0.779	0.807	0.184	0.735
1982	0.883	0.414	0.874	0.574	0.733	0.755	0.914	0.715	0.887	0.951	0.825	0.321	0.552	0.822	0.724	0.801	0.298	0.708
1983	0.874	0.635	0.905	0.479	0.709	0.641	0.902	0.715	0.887	0.945	0.807	0.321	0.433	0.862	0.638	0.804	0.340	0.700
1984	0.868	0.534	0.871	0.494	0.690	0.620	0.887	0.684	0.908	0.948	0.819	0.321	0.469	0.730	0.641	0.844	0.206	0.678
1985	0.850	0.261	0.798	0.460	0.678	0.678	0.985	0.702	0.920	0.939	0.810	0.321	0.537	0.758	0.601	0.868	0.288	0.674
1986	0.819	0.294	0.745	0.512	0.717	0.669	0.985	0.635	0.948	0.926	0.807	0.321	0.601	0.822	0.733	0.868	0.445	0.697
1987	0.801	0.494	0.699	0.555	0.758	0.718	0.985	0.623	0.945	0.926	0.794	0.321	0.561	0.831	0.810	0.902	0.383	0.712
1988	0.804	0.436	0.699	0.561	0.801	0.678	0.985	0.607	0.948	0.939	0.810	0.335	0.647	0.871	0.887	0.914	0.423	0.726
1989	0.840	0.334	0.739	0.620	0.773	0.730	0.985	0.617	0.934	0.926	0.819	0.348	0.663	0.804	0.859	0.905	0.150	0.709
1990	0.890	0.347	0.745	0.635	0.742	0.715	0.985	0.660	0.920	0.902	0.773	0.362	0.635	0.899	0.804	0.942	0.000	0.703
1991	0.933	0.381	0.669	0.758	0.756	0.709	0.985	0.632	0.923	0.883	0.777	0.383	0.730	0.837	0.816	0.945	0.144	0.721
1992	0.949	0.418	0.702	0.778	0.770	0.732	0.985	0.640	0.925	0.865	0.780	0.391	0.753	0.844	0.827	0.945	0.181	0.734
1993	0.965	0.458	0.737	0.798	0.784	0.756	0.985	0.647	0.928	0.847	0.784	0.410	0.776	0.851	0.839	0.945	0.228	0.749
1994	0.981	0.503	0.774	0.819	0.798	0.781	0.985	0.655	0.930	0.830	0.781	0.428	0.800	0.858	0.850	0.945	0.287	0.765
1995	1.000	0.552	0.813	0.840	0.813	0.807	0.985	0.663	0.933	0.813	0.791	0.428	0.825	0.865	0.862	0.945	0.362	0.782
70-95 av.	0.851	0.444	0.788	0.589	0.790	0.761	0.949	0.683	0.917	0.934	0.822	0.341	0.692	0.848	0.783	0.860	0.299	0.727

**Table A6**  
**TAX REFORM INDEX (0-1)**

	ARG	BOL	BRA	CHI	COL	CRI	DRE	ECU	ELS	GUA	HON	JAM	MEX	PAR	PER	URU	VEN	LA17 av.
1970	0.196	0.199	0.473	0.118	0.158	0.261	0.027	0.417	0.226	0.117	0.242	0.131	0.138	0.261	0.027	0.249	0.119	0.198
1971	0.196	0.199	0.473	0.118	0.158	0.261	0.027	0.417	0.226	0.117	0.242	0.131	0.138	0.261	0.027	0.249	0.119	0.198
1972	0.196	0.199	0.473	0.118	0.158	0.261	0.027	0.462	0.226	0.117	0.242	0.131	0.138	0.261	0.027	0.249	0.119	0.200
1973	0.196	0.327	0.462	0.118	0.158	0.181	0.027	0.462	0.226	0.117	0.242	0.131	0.138	0.261	0.027	0.503	0.119	0.217
1974	0.196	0.328	0.458	0.050	0.158	0.136	0.027	0.455	0.226	0.117	0.242	0.131	0.138	0.261	0.027	0.520	0.119	0.211
1975	0.387	0.334	0.403	0.408	0.309	0.320	0.027	0.473	0.226	0.117	0.242	0.131	0.138	0.261	0.027	0.676	0.096	0.269
1976	0.398	0.329	0.396	0.418	0.309	0.307	0.027	0.437	0.226	0.117	0.285	0.131	0.138	0.261	0.245	0.695	0.119	0.285
1977	0.406	0.394	0.524	0.453	0.310	0.299	0.027	0.388	0.226	0.117	0.285	0.131	0.138	0.261	0.336	0.690	0.119	0.300
1978	0.407	0.396	0.529	0.469	0.318	0.295	0.027	0.406	0.226	0.117	0.285	0.131	0.138	0.261	0.359	0.686	0.119	0.304
1979	0.412	0.393	0.486	0.489	0.342	0.278	0.027	0.402	0.226	0.145	0.258	0.131	0.138	0.261	0.368	0.687	0.119	0.304
1980	0.424	0.387	0.443	0.503	0.342	0.278	0.027	0.379	0.135	0.145	0.221	0.131	0.357	0.261	0.367	0.694	0.119	0.307
1981	0.454	0.387	0.435	0.523	0.346	0.265	0.027	0.418	0.135	0.145	0.221	0.131	0.368	0.261	0.404	0.708	0.119	0.315
1982	0.458	0.381	0.458	0.513	0.362	0.282	0.027	0.418	0.135	0.145	0.236	0.131	0.341	0.261	0.397	0.692	0.119	0.315
1983	0.435	0.380	0.439	0.459	0.346	0.375	0.168	0.409	0.135	0.237	0.236	0.131	0.371	0.261	0.369	0.674	0.119	0.326
1984	0.431	0.376	0.425	0.472	0.368	0.361	0.175	0.415	0.135	0.227	0.250	0.131	0.372	0.261	0.307	0.679	0.119	0.324
1985	0.458	0.390	0.444	0.691	0.366	0.360	0.177	0.428	0.135	0.337	0.250	0.131	0.372	0.261	0.297	0.703	0.119	0.348
1986	0.465	0.520	0.481	0.689	0.485	0.347	0.177	0.474	0.135	0.307	0.250	0.242	0.372	0.261	0.339	0.716	0.119	0.375
1987	0.458	0.647	0.501	0.687	0.490	0.545	0.209	0.474	0.135	0.362	0.250	0.312	0.402	0.261	0.371	0.723	0.119	0.409
1988	0.437	0.686	0.485	0.677	0.490	0.550	0.207	0.465	0.135	0.452	0.250	0.312	0.428	0.261	0.409	0.740	0.119	0.418
1989	0.427	0.694	0.599	0.658	0.490	0.554	0.203	0.470	0.135	0.452	0.250	0.312	0.441	0.261	0.417	0.734	0.119	0.424
1990	0.517	0.690	0.678	0.691	0.488	0.515	0.206	0.534	0.192	0.446	0.250	0.312	0.490	0.261	0.423	0.746	0.119	0.445
1991	0.579	0.707	0.650	0.663	0.506	0.517	0.199	0.538	0.192	0.440	0.314	0.457	0.492	0.261	0.437	0.752	0.119	0.460
1992	0.597	0.759	0.640	0.682	0.536	0.627	0.478	0.542	0.412	0.464	0.314	0.495	0.458	0.528	0.458	0.758	0.170	0.525
1993	0.607	0.758	0.626	0.658	0.514	0.610	0.538	0.547	0.581	0.536	0.314	0.532	0.454	0.618	0.534	0.759	0.395	0.563
1994	0.604	0.785	0.708	0.663	0.514	0.600	0.518	0.551	0.553	0.530	0.314	0.532	0.467	0.644	0.583	0.756	0.459	0.575
1995	0.534	0.678	0.674	0.663	0.520	0.609	0.525	0.551	0.626	0.531	0.314	0.532	0.480	0.661	0.583	0.769	0.485	0.573
70-95 av.	0.418	0.474	0.514	0.487	0.367	0.384	0.159	0.459	0.238	0.268	0.261	0.236	0.309	0.315	0.314	0.646	0.158	0.353

## NOTES

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<sup>1</sup> Sebastian Edwards, *Crisis and Reform in Latin America: From Despair to Hope*, (Oxford University Press, 1995)

<sup>2</sup> Eduardo Lora and Felipe Barrera, "Structural Reforms in Latin America: Measurements and Growth Effects", Inter-American Development Bank, Office of the Chief Economist *Working Paper*, No.348, June 1997 and Eduardo Lora, "A Decade of Structural Reforms in Latin America: What Has Been Reformed and How to Measure it", Inter American Development Bank, Office of the Chief Economist *Working Paper*, No.350. The indexes themselves are presented in IADB, *Economic and Social Progress in Latin America-1997 Report*, Part II (Washington, 1997).

<sup>3</sup> Shahid Javed Burki and Guillermo E. Perry, *The Long March: A Reform Agenda for Latin America and the Caribbean in the Next Decade* (World Bank, 1997).

<sup>4</sup> Note that the zero and one observations do not generally appear in the indexes displayed in the annex because they are averages of the raw indexes.

<sup>5</sup> There was a substantial liberalization of the capital account in Chile after 1985. However, thanks to the encaje and other restrictions, even in 1995, Chile's capital account reform index was still the second lowest in the region.

<sup>6</sup> For an excellent discussion see Chap. 3 in World Bank, *Beyond the Washington Consensus: Institutions Matter* (Washington, 1998).

<sup>7</sup> See Dani Rodrick, "Who Needs Capital Account Convertability?" (processed, Feb. 1998), and Ricardo Ffrench-Davis and Helmut Reisen (eds), *Flujos de Capital e Inversión Productiva: Lecciones para América Latina* (McGraw Hill, 1997).

<sup>8</sup> Operating losses by government enterprise do not necessarily indicate inefficiency. Some result from government price controls on the goods or services these enterprises provided to the public.

<sup>9</sup> Edwards, op.cit., pp 171, 186.

<sup>10</sup> Edwards, op.cit., p. 191.

<sup>11</sup> Honduras had the very highest reform index of .597 in 1970. It has made very little change over the subsequent decades.

<sup>12</sup> There is also no significant movement on labor reform as shown by Lora's labor reform index. Only three of his countries (Dominican Republic, Jamaica and Paraguay) had an index value over .75 in 1985 when his index starts, and no additional country reached level over the next ten years. See Lora, "A Decade of Structural Reform in Latin America: What Has Been Reformed and How to Measure it", in Inter-American Development Bank, Office of the Chief Economist *Working Paper*, No.348, June 1997.