Latin American Capital Flows: Living with Volatility

A Study Group Report

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Latin American Capital Flows

1. Introduction

With the containment of the debt crisis and the widespread adoption of liberal economic reforms, capital flows into Latin America grew rapidly in the late 1980s and the early 1990s. Then, for a combination of internal and external reasons, it seems that they fell sharply in the first half of 1994. Now, in the second half, there are early signs of a recovery.

Significant net inflows of capital should resume in the coming years, if progress with Latin American economic reform continues. Against a background of macro-economic stability, the countries of the region need to maintain the momentum behind their efforts at economic liberalization and structural adjustment. For many, this means moving from policymaking to what is often more difficult: full implementation of reforms.

Although foreign capital supplements domestic savings, it is no substitute for it. One of the most important goals of liberalization and adjustment should be to raise domestic savings and investment rates. Domestic capital market reform is vital in this context. Higher domestic investment rates are essential to raising Latin American GDP growth rates. While the main reason they need to be higher is to meet the economic aspirations of burgeoning populations, higher growth is also needed to ensure the capacity to service capital inflows in the long term.

Still, policies to accelerate long term economic growth will not be enough. Setbacks in domestic prospects and adverse changes in external circumstances will inevitably lead to sudden interruptions of capital flows from time to time in the future—just as they have this year. The countries of the region must expect such volatility. Policies that can offset these reversals and minimize their adverse effects are needed. Here too, reforms aimed at strengthening domestic capital markets and financial institutions will be especially important.
Organization of the Work

This report is based on the discussions of the Study Group, which was formed in 1993, on the analysis of several background papers commissioned for the Study Group that appear as annexes; and on analysis and discussions with other experts. It has been prepared by the Secretariat of the Group of Thirty. Membership of the Study Group does not imply endorsement of anything other than the recommendations in Section 4.

Structure of the Report

The report has three main sections. The next section, Section 2, discusses the scale and nature of capital flows. Section 3 examines issues that inflows create and some of the directions in which policy might go. Section 4 gives the policy recommendations of the Study Group—primarily for the governments of Latin America, but also for industrial country governments.

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The Study Group is also appreciative of the work of those who prepared the annexes: Timothy Doqunik, Professor of Accounting, University of South Carolina; Robert Gay, Managing Director, Bankers Trust; Atish Ghosh, Assistant Professor of Economics, Princeton University; Roberto Jurguito, Director, Banco de la República, Colombia; Felipe Lauraitis, Professor of Economics, Universidad Católica de Chile; Leonardo Leiderman, Professor of Economics, Tel Aviv University; Carmen Reinhart, Economist, International Monetary Fund; Juan Rivera, Professor of Accounting, University of Notre Dame; Marilyn Skiles, Vice President, Morgan Guaranty Trust Company; and Holger Wolf, Assistant Professor of Economics and International Business, New York University; and of those who provided statistical assistance: Jean M. de la Mata of Bankers Trust; and Witold J. Hensz and Jennelle Thompson of the Group of Thirty Secretariat.

The Group of Thirty gratefully acknowledges financial support for the staff work on this report from the Inter-American Development Bank.
2. The Surge in Capital Inflows

The Scale of Inflows

Capital flows to Latin America grew rapidly through the end of 1993. For much of the 1980s there was a net capital outflow from the region, even allowing for the effect of debt rescheduling. But by 1990, net inflows were $25 billion, then grew to $43 billion in 1991, and then $64 billion in 1992. They reached $69 billion in 1993. This capital went primarily to Mexico, Brazil, Argentina, Chile, Colombia, Venezuela and, recently, to Peru. Capital inflows to the largest ten capital-importing countries in the region averaged 1.6% of GNP in the last four years (Table 1).

Most of these inflows came from the private sector in the form of portfolio investment. About half of all net inflows were borrowings in international capital markets. Latin American international bond issues have increased from $833 million in 1989 to $23.8 billion in 1993—three quarters of all new bond issues by developing countries last year.

In addition, just over one sixth of inflows in this period

<table>
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<tbody>
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<td>1994-99</td>
</tr>
<tr>
<td>Argentina</td>
</tr>
<tr>
<td>Bolivia</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Chile</td>
</tr>
<tr>
<td>Colombia</td>
</tr>
<tr>
<td>Ecuador</td>
</tr>
<tr>
<td>Mexico</td>
</tr>
<tr>
<td>Peru</td>
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<tr>
<td>Uruguay</td>
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<tr>
<td>Venezuela</td>
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<tr>
<td>Average</td>
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<tr>
<td>Flows to Asia</td>
</tr>
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Note: "Asia" includes Indonesia, Korea, Singapore, Malaysia, Philippines, Sri Lanka, Taiwan and Thailand.

Source: Annex 1. Capital Inflows into Latin America by Lehman Brothers.
were portfolio investments in equities. International equity issues rose from nothing to $5.2 billion between 1989 and 1993, bringing portfolio flows of all kinds to two-thirds of total inflows over this period. The balance of one-third was dominated by direct foreign investment.

This is in sharp contrast to the 1970s, when Latin American capital inflows were dominated by commercial bank lending, which has been relatively unimportant in recent flows. Flows are now more prone to volatility. Whereas in most circumstances, a bank will withdraw financial support only when a loan matures by refusing to renew it, an investment in an equity market can be sold at any time. Moreover, institutional investors may often be obliged to liquidate positions if sentiment turns against a particular country or company, if they must finance withdrawals from their own funds. Whereas decisions to extend or renew financing are concentrated in a few hands in the banking sector, decision-making about investment in capital markets is widely dispersed. For countries in the region, the process of keeping foreign investors informed about developments is different when they are primarily bankers and when they are primarily institutional investors and their numerous clients.

The surge in financial flows to developing countries has not been confined to Latin America. Asia’s high performing economies have also enjoyed substantial inflows in recent years, reaching $150 billion in 1990-93. Asia’s experience is relevant for Latin America first because they compete in international capital markets for the same resources and, second, because they may have lessons to offer about sustainable growth strategies.

Reasons for Inflows

Capital flows to Latin America surged in the past five years for several reasons. Perhaps the most important was the sea change toward market-friendly economic policies in many countries. This has been underway for the past decade and acquired credibility in international capital markets toward the end of the 1980s.

Many of the elements of initial reform efforts were similar among countries: monetary and fiscal restraint; liberalization of both the current and capital accounts; reduction of government subsidies and deregulation of markets for both goods and services; the removal of interest rate controls and arrangements for directing credit to particular industries and enterprises; and privatization of state-owned enterprises.

From these changes, together with reforms in exchange rate policies, came lower inflation in many countries. Inflation rates in Mexico, Argentina and Chile are now close to, or in, the single digit range.
Peru and Uruguay have also had success in restraining inflation with recent rates in the range of 20-50%.

Even in Brazil, which has lagged in the reform process, the reform of its currency in July of this year has met with initial success, and early reports are that inflation has tumbled from an annual rate of over 4,000% to as low as 3% a month as a result. Only in Venezuela among the major capital importers of the region, has there been an adverse change in trend in inflation in the recent past; whereas it had been brought down and contained at below an annual rate of 40% until early this year, it has now moved up to over 60% (Table 2).

Fiscal reforms, including improvements in revenue collection, broadening the tax base and measures to improve the efficiency of government—notably privatization—led to substantial declines in fiscal deficits. Indeed, several countries—Argentina, Chile, Mexico, and Uruguay, have run surpluses. Brazil has run a surplus on its primary balance. These improvements in fiscal policy are of course complementary to the control of money supply in helping reigze in inflation. Others that have not achieved balance, such as Peru and Colombia, have nonetheless reduced their deficits markedly. Once again, it is Venezuela that is the exception, where the fiscal situation has deteriorated markedly (Table 3).

In the late 1980s and early 1990s, investor sentiment toward many Latin American countries was helped by their improved international debt situation. Rescheduling and reductions under the Baker and Brady plans and the associated buy-backs of outstanding external debt were instrumental. Recovery of GNP and export growth contributed, although export performance was not strong in much of the region, growing less rapidly than GNP in Argentina, Brazil and Mexico in the

<p>| Table 2. Inflation in Latin America |
| (percent change in consumer prices: 12 month rate) |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Up to</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1989</td>
<td>3.080</td>
<td>July</td>
</tr>
<tr>
<td>Brazil</td>
<td>1994</td>
<td>5.517</td>
<td>July</td>
</tr>
<tr>
<td>Chile</td>
<td>1990</td>
<td>25</td>
<td>July</td>
</tr>
<tr>
<td>Colombia</td>
<td>1991</td>
<td>30</td>
<td>July</td>
</tr>
<tr>
<td>Mexico</td>
<td>1990</td>
<td>27</td>
<td>August</td>
</tr>
<tr>
<td>Peru</td>
<td>1990</td>
<td>7.462</td>
<td>June</td>
</tr>
<tr>
<td>Uruguay</td>
<td>1990</td>
<td>112</td>
<td>April</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1989</td>
<td>84</td>
<td>July</td>
</tr>
</tbody>
</table>

*Currency reform in July reduced monthly inflation to under 3%.*

Source: International Monetary Fund, IFS, various issues, and Bankers Trust.
past ten years. Still, debt ratios improved dramatically for Brazil, Chile and Mexico. (Tables 4 and 5).

Opportunities for investment arose in the region, as a result of capital market liberalization and specific privatizations that were placed internationally. These trends encouraged the repatriation of flight capital by individual Latin American investors. At the same time, institutional investors in many industrial countries started to diversify their risks internationally. From this perspective, the historically low correlations between capital markets in Latin America and the rest of the world were attractive.

Investors were also attracted by high returns. In the three years 1991-1993, dollar denominated returns on equities in most major Latin American stock markets were exceptionally high (Table 6 and Chart 1). This was true before the run up in late 1993 and even after the correction in 1994. For example, the annualized mean return in US$ terms in Argentina was nearly 10% a year between 1988 and 1993. Dollar denominated returns on debt were also high. For example, a dollar return of nearly 20% was available in Colombia, Mexico, and Venezuela in 1993; it was above 20% in Peru. These returns were especially attractive when industrial country returns were depressed by recession.

One further point explains the surge in investment, at least as far as Mexico is concerned. NAFTA assures Mexican industry access to its principal export market. It also makes it more difficult for succeeding governments to reverse past economic liberalization that is now enshrined in international treaty.

Recent Reversals

The fact that there are many different reasons for the surge in investment into Latin America provides no insurance against a reversal in flows. Indeed, some of the forces that fueled the inflows through the end of 1993, changed abruptly this year.

In the industrial countries, as the US recovery continued and Europe began to move out of recession, the Federal Reserve's small increase in interest rates at the beginning of the year triggered a general increase in rates. The industrial country interest rate rise was
amplified in Latin American bond markets by the widening of some differentials as risk premia and liquidity premia increased.

In the region, it was political developments as much as economic ones that adversely affected flows early in 1994. In Mexico, the Chiapas revolt and the assassination of presidential candidate Donald Colesio damaged investor confidence. In Venezuela, the change of government from reformist to populist was perceived as auguring a deterioration in economic management and prospects. Doubts were also voiced about the political sustainability of reform in Argentina.

These factors, combined with the realization that a bubble had developed in Latin American equities, seems to have led many investors to delay or reconsider any plans to increase their investments in the region generally. Compared with the $28.3 billion of new bond issues for Latin America in 1993, there were only $10.5 billion in the first 9 months of 1994. Pressure on exchange rates and reserves were evident in Mexico, Colombia and Argentina (Chart 2). In dollar terms, Argentine stocks dropped 5% in the first four months of 1994 and Mexican stocks by 20%. There were one or two periods of withdrawals of funds—most notably in Mexico following the Colesio assassination—but they were not long. In that specific instance, the speedy arrangement of a foreign

### Table 4. Exports

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<tbody>
<tr>
<td>Argentina</td>
<td>11</td>
<td>2.1</td>
<td>110</td>
<td>113</td>
</tr>
<tr>
<td>Brazil</td>
<td>10</td>
<td>4.3</td>
<td>92</td>
<td>119</td>
</tr>
<tr>
<td>Chile</td>
<td>36</td>
<td>5.2</td>
<td>102</td>
<td>122</td>
</tr>
<tr>
<td>Colombia</td>
<td>21</td>
<td>10.9</td>
<td>140</td>
<td>84</td>
</tr>
<tr>
<td>Mexico</td>
<td>15</td>
<td>3.5</td>
<td>133</td>
<td>100</td>
</tr>
<tr>
<td>Peru</td>
<td>9</td>
<td>1.1</td>
<td>111</td>
<td>67</td>
</tr>
<tr>
<td>Uruguay</td>
<td>34</td>
<td>3.1</td>
<td>89</td>
<td>105</td>
</tr>
<tr>
<td>Venezuela</td>
<td>31</td>
<td>0.1</td>
<td>174</td>
<td>101</td>
</tr>
<tr>
<td>Taiwan</td>
<td>9</td>
<td>11.0</td>
<td>109</td>
<td>106</td>
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<tr>
<td>Thailand</td>
<td>38</td>
<td>14.4</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>China</td>
<td>29</td>
<td>11.5</td>
<td>109</td>
<td>111</td>
</tr>
<tr>
<td>Korea</td>
<td>29</td>
<td>12.2</td>
<td>109</td>
<td>108</td>
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### Table 5. External Debt/Exports (annual averages)

<table>
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<tr>
<th>Country</th>
<th>1992-93</th>
<th>1991-93</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>447.4</td>
<td>434.8</td>
</tr>
<tr>
<td>Brazil</td>
<td>342.4</td>
<td>303.3</td>
</tr>
<tr>
<td>Chile</td>
<td>351.8</td>
<td>149.6</td>
</tr>
<tr>
<td>Mexico</td>
<td>272.1</td>
<td>155.7</td>
</tr>
<tr>
<td>Venezuela</td>
<td>194.9</td>
<td>196.7</td>
</tr>
</tbody>
</table>

Source: Annex II: Sustainability of Latin America's Debt, Marilyn Briner.
Table 6. Latin America vs. Asia: Selected Markets

<table>
<thead>
<tr>
<th>Market Capitalization (US$ billions)</th>
<th>FCO Price Index (12 month % change)</th>
<th>Annualized Mean Return (US$ 5 yrs ending Dec. '94)</th>
<th>Bond Markets Rate of Return (US$ 1993)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>48</td>
<td>36%</td>
<td>94.4</td>
</tr>
<tr>
<td>Brazil</td>
<td>166</td>
<td>25%</td>
<td>43.7</td>
</tr>
<tr>
<td>Chile</td>
<td>52</td>
<td>45%</td>
<td>28.6</td>
</tr>
<tr>
<td>Colombia</td>
<td>13</td>
<td>131%</td>
<td>43.9</td>
</tr>
<tr>
<td>Mexico</td>
<td>188</td>
<td>26%</td>
<td>44.2</td>
</tr>
<tr>
<td>Peru</td>
<td>6</td>
<td>59%</td>
<td>39.4</td>
</tr>
<tr>
<td>Venezuela</td>
<td>5</td>
<td>37%</td>
<td>36.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>35</td>
<td>21%</td>
<td>9.8</td>
</tr>
<tr>
<td>Korea</td>
<td>160</td>
<td>37%</td>
<td>9.2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>179</td>
<td>35%</td>
<td>36.9</td>
</tr>
<tr>
<td>Philippines</td>
<td>43</td>
<td>54%</td>
<td>28.9</td>
</tr>
<tr>
<td>Thailand</td>
<td>122</td>
<td>50%</td>
<td>36.1</td>
</tr>
</tbody>
</table>


Chart 1. Stock Market Indices
(Data are through September 14, 1994)

Mexico
Index (1/400=100)

Brazil
Index (1/150=100)

Argentina
Index (1/400=100)

Chile
Index (1/400=100)

* Local indices are expressed in US$ terms, normalized to 1/400=100.
Source: Bankers Trust
exchange facility between the Mexican and US authorities helped reassure the markets.

Sentiment recovered, however, during the summer. In Mexico, it became clear in the middle of the year that Ernesto Zedillo was likely to be elected president, that great care was being taken to ensure that the elections would be fair and, more generally, that there were prospects for relative political stability. Indeed, subsequent more minor reversals, such as the closure of a major privatized bank by the authorities in early September, may have actually reinforced sentiment about Mexican prospects by providing the authorities with an opportunity to show determination in dealing with a financial impasse (Chart 3). In Brazil, the emergence of Fernando Enrique Cardoso as the leading candidate in the presidential elections and the relatively firm steps which have been taken to underpin this most recent currency reform though fiscal tightening seem to have boosted investor confidence.

In contrast, the situation in Venezuela during 1994 has been particularly difficult. The newly elected government has been confronted by deteriorating economic indicators and a serious banking crisis in which eleven of its major banks have gone bankrupt. This crisis triggered a drop in confidence and substantial capital outflows. To stabilize the situation, the government introduced a series of measures, including exchange controls, that have reversed the capital outflow but which have had a negative impact on investor sentiment in the near term.

These experiences in the past nine months serve to make four points: first, the correlation among markets in the region is still quite high; that is, policies and prospects of an individual country

![Chart 3. Real Interest Rate Differential Between Mexico and the United States](chart3.png)

*Percent per annum. 90-day Citibank and 3-month T-bills adjusted by previous monthly 12-month trailing inflation rate.*

Source: Bankers Trust.
can be sound and yet it can suffer a reversal because of a general decline in confidence in the region as a whole (Chart 1); second, volatility in capital inflows is to be expected, given the importance of portfolio investments; third, if policies and prospects are fundamentally sound, and that message can be conveyed to the markets, there is no reason why adverse turns in investor sentiment cannot be quickly overcome; fourth, when considering how different countries in the region are performing now, political support for reform is essential and, for that reason, it is important in a democracy that income distribution should not be affected adversely by movement toward market-friendly development strategies. Indeed, on this last point, the experience of East Asia suggests that increases in income equality and rapid development go hand in hand, because more efficient development strategies depend on widespread investments in human capital and these in turn tend to be associated with lasting improvements in income among the poor.

Looking ahead, there are some reasons for comfort about future capital inflow volatility. Most Latin American countries have diversified their debt across currencies in the past ten years, so that they are less vulnerable to any major swings in exchange rates among the major industrial countries than they were in the 1980s: dollar denominated debt peaked at 81% of all foreign debt outstanding for Latin America in 1985 and has since declined to just over 50%.

Second, the risks of reversals in equities, which now account for a significant part of the overall risk, are largely borne by the investor. In the case of foreign investors, this means that a drop in equity values reduces the obligations of the country to foreigners commensurately. (It may of course also raise the cost for the country's firms of raising capital internationally in the future.)

Third, direct foreign investment, which has remained significant in recent inflows, is relatively stable, even if there is a transitory reversal in sentiment. In the past, a useful distinction could be drawn between short and long term capital flows. Loans with a longer maturity, for example, would be a more stable source of foreign capital than short term loans which might not be refinanced. But, one of the costs of financial liberalization is that most types of financial flow can be reversed at short notice if there are reasonably liquid local secondary markets. Increasingly, such markets exist for every type of inflow, except direct foreign investment. Not only is direct foreign investment attractive from a developmental viewpoint—since it can be a vehicle for technology transfer—but also because it is illiquid and, therefore, stable.
The Impact of Flows
A side effect of capital inflows has been a real appreciation of the major Latin American currencies (Table 7). This has helped restrain domestic inflation, particularly in Argentina where the fixing of the nominal exchange rate against the US dollar in 1991 was a key part of the program to stabilize the economy. This established confidence in the domestic value of the currency. Generally, real exchange rate appreciation helps restrain inflation as imported goods become more competitive. However, appreciation also undermines the competitiveness of exports and import competing goods—a potentially serious cost in terms of the sustainability of the policy and long-term development prospects. This may help explain why export growth rates have been weak for all the major countries of the region except Chile and Colombia which have chosen to balance a comparatively competitive tradeable goods and services sector against a comparatively high rate of inflation.

The extent of real appreciation depends on the accumulation of reserves by the central bank. The more reserves accumulated, the smaller are both the nominal and real appreciation of the local currency. Many Latin American countries have used capital inflows in the past four years to rebuild their reserves—a prudent step, given the possibility of speculative flows reversals. But they have done so far less than some other developing countries. In particular, rates of reserve accumulation have been lower than in Asia, where far more emphasis has been put on export competitiveness. Since 1990, Asian countries have typically accumulated two-thirds to three-quarters of their capital inflows as reserves. In the second half of the 1980s, they accumulated all of the inflows.

A second important difference in the economic effect of these capital inflows between Asia and Latin America is on the rate of

<table>
<thead>
<tr>
<th>Table 7. Real Exchange Rates</th>
<th>1993</th>
<th>Percent</th>
<th>1995.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent peak</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>89</td>
<td>150</td>
<td>73</td>
</tr>
<tr>
<td>Brazil</td>
<td>86</td>
<td>106</td>
<td>75</td>
</tr>
<tr>
<td>Chile</td>
<td>90</td>
<td>134</td>
<td>107</td>
</tr>
<tr>
<td>Colombia</td>
<td>90</td>
<td>173</td>
<td>147</td>
</tr>
<tr>
<td>Mexico</td>
<td>87</td>
<td>145</td>
<td>85</td>
</tr>
<tr>
<td>Peru</td>
<td>87</td>
<td>71</td>
<td>24</td>
</tr>
<tr>
<td>Uruguay</td>
<td>88</td>
<td>88</td>
<td>55</td>
</tr>
<tr>
<td>Venezuela</td>
<td>89</td>
<td>171</td>
<td>140</td>
</tr>
</tbody>
</table>

investment. In Asia, they have been associated with a significant rise in investment, whereas they have not in Latin America. Latin American capital inflows rose by 4% of GNP between 1984-89 and 1990-93; investment rose by only 0.4%. Rebuilding currency reserves accounted for about 15% of recent inflows, or 0.6% of GNP, leaving an inflow of 3.4% of GNP that increased spending. Of this, only 12% supplemented investment rather than consumption (Table 8). *

How is it that in some countries the capital inflow has not yet led to an increase in investment? Much of the inflow has gone to the private sector—unlike the 1970s when most capital financed parastatals and the public sector deficits. There has been little scope for diverting the inflows into consumption directly. What appears to have happened is that foreign capital substituted for private savings in a substantial way. Private companies, which might have financed their investment through domestic borrowing or equity issues raised capital abroad instead. Foreign portfolio investment into local equity markets was substituting for domestic savings.

### Table 8. Increase in Capital Inflows and Investment

Changes between 1984-89 and 1990-93, expressed as a percentage of GNP

<table>
<thead>
<tr>
<th>Country</th>
<th>Investment</th>
<th>Capital Inflows</th>
<th>Reserve</th>
<th>Adjusted Capital Inflows</th>
<th>Percent Share of Capital Inflow to Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>-3.0</td>
<td>4.7</td>
<td>4.1</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>3.4</td>
<td>2.9</td>
<td>2.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>1.0</td>
<td>1.5</td>
<td>1.3</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>3.7</td>
<td>8.9</td>
<td>8.3</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td>5.0</td>
<td>3.5</td>
<td>2.9</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>3.8</td>
<td>6.5</td>
<td>5.9</td>
<td>64.4</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>2.9</td>
<td>7.2</td>
<td>6.6</td>
<td>43.3</td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td>1.9</td>
<td>2.2</td>
<td>1.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>-4.0</td>
<td>2.7</td>
<td>2.1</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>0.4</td>
<td>4.0</td>
<td>3.4</td>
<td>11.8</td>
<td></td>
</tr>
</tbody>
</table>

*Strictly speaking, the change in capital inflows, minus the change in the rate of accumulation of reserves plus the change in the savings rate is equal to the change in the investment rate.

* Such estimates;
Source: Annex E: Capital Flows in Latin America, Leiderman & Reinhardt, and staff estimates.
3. Issues

Large capital inflows create three kinds of policy issue: macro-economic, financial sector, and structural. The macro-economic issues are about monetary, fiscal and exchange rate policies and their likely effect on price stability. The financial sector issues are about institutional and policy reform and its impact on the efficiency of intermediation. And, of the many structural issues that Latin American governments face, among the most pressing are to raise savings and investment rates and to raise export growth rates.

Macro-economic Stability

The first question is, is inflation under control? The recent record on inflation is promising. Hyper-inflation no longer doggs any major country—although it is too early to tell exactly how successful Brazil’s latest currency reform will be. Rates have recently declined in most countries. However, the rate of inflation ranges from over 60% to low single-digit levels. Broadly speaking, those at the higher levels still have to get fiscal policies in order. Those at lower levels face more subtle structural adjustment problems—in the labor market, for instance.

There is general agreement among policymakers in the region that low single-digit, industrial country rates of inflation are desirable. Only rates in this range are compatible with exchange rate and inflation rate stability in the long term. But, for many countries, the benefits of reducing inflation rates must be below 10% seem slimmer and the costs seem greater than they were when reducing inflation from higher levels.
To help achieve price stability, many countries in the region have recently introduced laws to set up independent central banks. This, however, is not just a legal matter. While it is important that there be a proper legal basis for independent policymaking, that is not enough to protect central bankers from political pressures. As the experience of the German Bundesbank shows among the industrial countries, popular support for price stability is as important as any legislated mandate.

Independence can help with credibility. But that really depends on the resolve to combat inflation and communicating that resolve unambiguously to the general public. For this reason, several countries in the region have opted for short and relatively abrupt adjustment paths, judging that the long-term benefits of achieving low inflation would be worth any losses in output in the short term. Argentina stands out. Others, notably Mexico and Chile, have been able to choose a more gradual path and, as a consequence, have suffered less structural dislocation and output loss than they might otherwise have done.

Independence does not diminish the inherent difficulty of setting monetary policy for central banks. As capital market liberalization proceeds, the scope for an independent monetary policy diminishes. In exchange rate policy, central banks have to choose between more appreciation—with adverse consequences for competitiveness—and less appreciation—with adverse consequences for inflation. In many countries, their medium-term success depends on encouraging fiscal restraint, by raising interest rates enough when deficit financing threatens to get out of hand, but not so much as to create undue costs for the economy as a whole. And they have to prove their ability to maintain their independence in the face of political pressures.

Second is the outlook for a further reduction in structural fiscal deficits. Further privatizations are in prospect in several countries, which should help reduce subsidies, provided the difficult cases are sold, and on realistic terms. Future increases in revenues will require higher tax rates in many countries—more difficult than recently improving collections and broadening the tax base. It will be hard to improve efficiency in core public sector activities—national ministries, local governments. Pressure to increase expenditure on social programs is mounting in many countries, to combat the regressive distributional effects of economic liberalization.

The third macro-economic issue is, are exchange rate regimes appropriate? The basic choices of regimes in Latin America—fixed, crawling peg, or managed float—have been influenced by what was credible as well as efficient. That in turn depends on investor confidence that whatever policy is chosen will be sustained by the government
and that it is fundamentally sustainable, providing a sensible trade-off between competitiveness and inflation.

Speculative capital flows present a particular problem as capital markets are liberalized. When markets attract undue capital flows, officials need to express concern and explain why such flows may be unsustainable. In addition, intervention may be needed to stem speculative flows, and it may be sufficient when it is supported by a preparedness to change monetary policy and by strong credit lines among central banks, as is the case now in Mexico. Chile has adopted an additional policy of selective discouragement to short-term speculative movements of capital by requiring deposits to be made in the banking system, which are put at risk if investment funds are withdrawn too quickly. The difficulty with such policies as a general matter is that they can lead to more heavy-handed controls and, when they do not, they can “wear out” as investors find ways around them.

Financial Sector Strength

Ten years ago, most domestic financial sectors in the region were weak and inefficient. They were dominated by large public sector banks lending to state owned enterprises, often at such preferential rates as to make the banks chronically unsound. Private banks had restricted charters—there were usually high barriers to entry for foreign banks. Financial intermediation was segmented and most financial institutions were undiversified. So weak were most banking systems that central banks regularly had to bail out major institutions, with the side effect of increasing the money supply and fueling inflation. High reserve requirements, which were typical, did not prevent these failures but rather interacted with inflation to create a sizable tax on banking. Capital markets were generally small and illiquid. Domestic institutional investors were largely unknown. For many savers negative real interest rates at banks forced them to put savings into real assets or abroad. For many private enterprises, retained earnings were a more reliable source of funds than the financial system.

Since then, much progress has been made on financial sector reform in most Latin American countries. There has been monetary stabilization and, as we have noted above, many countries have established an independent central bank, with limits on how much it may lend to government and with the power to intervene through open market operations rather than directions to the banking system. The capital account has been at least partially liberalized. New banking laws have reduced segmentation and barriers to entry. The share of the
public sector in banking has declined through privatization and liberalized entry. In some countries, notably Chile, pension privatization has created major new institutional investors and supported the development of larger and more active local capital markets. Real interest rates have turned positive, encouraging foreign inflows. Several issues remain, however:

**Are capital market valuations stable?** Even allowing for the corrections in recent months, it is arguable that regional stock prices remain too high, as a result of what is effectively speculative investing by both domestic and foreign investors (Table 9). Five and tenfold increases in price earnings ratios and market capitalization have been common in the past four years. Dividend yields of less than 3% on many stocks in an environment where interest rates are so high must reflect the expectation of further appreciation in equity values—something that cannot go on forever.

**Why are there so few new issues?** The number of new issues has been small in recent years, especially if allowance is made for privatizations. On the face of it, this is strange, since equity capital has been cheap. It suggests reluctance on the part of private firms to meet public disclosure requirements, which may be more rigorous than standards imposed by tax authorities or bank lenders and are certainly more public. It may also reflect concern about diluting control. Or it may be that for some firms, particularly smaller ones, the process of listing publicly is quite onerous. Combined with sizeable inflows into these markets, the small number of new issues has contributed to the extraordinary appreciation in the value of existing stocks late last year and at the beginning of 1994.

<table>
<thead>
<tr>
<th>Table 9. Stock Market Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price/Earnings</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Argentina</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Chile</td>
</tr>
<tr>
<td>Colombia</td>
</tr>
<tr>
<td>Mexico</td>
</tr>
<tr>
<td>Peru</td>
</tr>
<tr>
<td>Venezuela</td>
</tr>
</tbody>
</table>

Are banking systems strong enough? Banks are subject to capital standards in most Latin American countries. In many, these are modelled on the Basle standards. However, these standards may not adequately reflect the riskiness of local banks in relatively volatile economic conditions; these banks should expect a higher rate of loan losses than in most industrial countries. They need to be cautious about accepting collateral at a face value that may be inflated by speculative real estate or equity market conditions. There is a danger that banks will face maturity and currency mismatches as they intermediate savings and investment flows. In these circumstances, higher capital adequacy standards may be needed. Relatively common garden derivatives may usefully help banks hedge risk. Strict down-grading rules and loan loss requirements are needed and have to be implemented, to be sure that portfolio quality is maintained. There is a case for forbidding non-financial firms from owning banks, since these are open to abuse at times of financial stress. Capital standards need to be set for all financial institutions in relation to the risks they take. In general, tight and effective banking supervision has a critical role to play during financial liberalization.

Are markets sufficiently transparent? In general, the major countries of the region have quite good accounting standards reasonably well applied. Mexican and Chilean standards are amongst the highest. Accounting standard setting boards have in general set out reasonable methodologies for inflation accounting, which was a major issue in the past. Some areas, such as accounting for inventories in Mexico, still need attention. Accounting in firms that are not publicly quoted are less consistently high and perhaps banks should insist on an audit to generally accepted accounting standards before any lending as a way of encouraging more uniform adoption of high standards. In addition, markets have not always been policed adequately against such abuses as insider trading. Vigilance and adequate penalties to deter such abuses are necessary to establish credibility in capital markets and ensure they work efficiently and fairly.

Are there gaps in local capital markets? Local institutional investors, such as pension and mutual funds are increasing opportunities for savings and the availability of long term funding for investment, wherever they are becoming established. Where they are not yet in place, they need to be introduced and legislation to permit the creation of privately competing pension funds is a high priority wherever it is wanting.
Early this year, the Argentine government took an important step to encourage the development of the long end of the debt market. It set up a facility for Argentine banks to guarantee them the ability to refinance their borrowings against long-term loans that they might make. The government is using private credit agencies to help evaluate the eligibility of local banks for the scheme. Initiatives of this type help existing institutions—local banks and credit agencies—flesh out the range of financing available in local capital markets.

In many parts of Latin America, more might be done to mobilize savings from the poor and to finance investment by the poor. To do so profitably in other parts of the world, non-conventional methods of collecting deposits and of appraising creditworthiness have been used. To mobilize their savings, the poor need accessible institutions they can trust. Post office savings schemes have met this need in some countries. In pursuing market efficiency for relatively high income people, the development of the financial sector should not neglect servicing the poor.

Growth of GNP and Exports

Much of the urgency about financial sector reform stems from the need to raise domestic savings and investment rates. To stimulate growth of GNP, either investment rates must rise or the efficiency with which savings are channelled to investment opportunities must increase.

In comparing real growth rates with investment rates in Latin America and Asia, it is striking that both growth rates and investment rates have been higher in Asia. Since 1988, incremental capital output ratios have been quite comparable for the two regions. Higher Latin American growth rates may have to come largely from higher rates of investment and savings.

There is scope in several Latin American countries to boost public sector savings and work off public debt by running structural fiscal surpluses. There may well be opportunities to increase the share of public sector expenditure going into investment—including investments in human capital, through education and training. And the scope for encouraging more private sector savings and investment through reform tax and expenditure structures should be explored.

Growth of exports has been poor throughout much of the region with rates of growth being below 4% throughout the 1980s for all the major countries of the region except Brazil, Chile, and Colombia, which
fared slightly better. Terms of trade moved against the oil exporters but otherwise were stable or actually improved. A large part of the problem was that the region’s exports were still relatively concentrated in primary products (Table 10). The past emphasis on exchange rate policies to combat inflation has been expensive in terms of inhibiting export growth and import substitution.

Table 10. Composition of Exports
(1991: percent)

<table>
<thead>
<tr>
<th></th>
<th>Fuels, Minerals, and Metals</th>
<th>Other Primary Products</th>
<th>Other Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>8</td>
<td>64</td>
<td>26</td>
</tr>
<tr>
<td>Brazil</td>
<td>16</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>Chile</td>
<td>59</td>
<td>35</td>
<td>15</td>
</tr>
<tr>
<td>Colombia</td>
<td>29</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>Morocco</td>
<td>41</td>
<td>14</td>
<td>40</td>
</tr>
<tr>
<td>Peru</td>
<td>52</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Uruguay</td>
<td>1</td>
<td>59</td>
<td>40</td>
</tr>
<tr>
<td>Venezuela</td>
<td>98</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2</td>
<td>6</td>
<td>92</td>
</tr>
<tr>
<td>Thailand</td>
<td>2</td>
<td>32</td>
<td>66</td>
</tr>
<tr>
<td>China</td>
<td>9</td>
<td>15</td>
<td>76</td>
</tr>
<tr>
<td>Korea</td>
<td>3</td>
<td>4</td>
<td>93</td>
</tr>
</tbody>
</table>

4. Recommendations

In the light of this review of the issues, the Study Group has five recommendations. The first four are addressed to the governments of the region and the fifth to industrial country governments.

Central Bank Independence and Domestic Price Stability

The Study Group endorses the principle of central bank independence. Reducing inflation rates to low single-digit annual levels is a high priority. Central bank independence is an important element in achieving this and in making the commitment to price stability credible in the long term. Price stability contributes pivotally to international competitiveness and, at the same time, it is the underpinning for the development of the mature domestic capital markets that are needed to support sustainable growth.

Reform of Financial Institutions and Markets

The Study Group acknowledges that there has been great progress in financial sector reform in many countries of the region. Wherever they have not already done so, legislators and regulators should consider measures to encourage equal opportunities of entry and activity for foreign and domestic financial firms; the creation of competing private pension, insurance and mutual funds; and
development of longer maturity bonds for savings and investment purposes and derivative instruments for risk management purposes.

If they have not yet done so, governments should consider mandating: strict, consistent, objectively applied financial accounting and disclosure rules; disclosure by financial firms of own trading; capital adequacy standards applied consistently across different types of institution; and strict down-grading rules and loan loss reserve or mark down requirements for banks. In addition, they should consider introducing limited deposit insurance. Such measures are needed to build confidence, deepen capital markets and to strengthen local financial institutions.

Aside from such new initiatives, governments in the region need to direct serious effort toward implementing reforms that are already on the books. The effective supervision of banks and other financial institutions is a high priority, requiring the recruitment, training and deployment of a cadre of public servants with the appropriate skills, attitudes, knowledge and experience. And strong penalties are needed to deter insider trading and other abuses that can undermine confidence in the financial system.

Fiscal Surpluses and Incentives to Save and Invest

Domestic savings rates are low by international—especially Asian—standards and need to be higher throughout Latin America if GNP growth rates are to be sustained. Capital inflows can supplement domestic savings, but they cannot substitute for them on any scale. While in principle it may be possible to make up for low savings with efficient allocation of capital, in practice it is often the countries with high savings rates that use resources best.

The Study Group acknowledges the major achievements of many countries in the region toward fiscal consolidation. This trend should continue. However, at the same time, every effort needs to be made to raise public investment in human and physical capital, to complement and encourage investment in the private sector. And in general there is further room to lower deficits and even move toward structural surpluses, to raise domestic savings rates.
To encourage private savings, the scope should be explored for increasing incentives to save and invest through reform of institutional arrangements, and through changes in taxation and expenditure patterns. Several countries have passed legislation to establish private pension, insurance and mutual funds. Where they have not been implemented already, mandatory contributions to such funds should be considered. And taxation and expenditure patterns should not discourage—as they often do unintentionally—individuals or families from saving and investing.

Exchange Rate Policy, Competitiveness and Regional Integration

As domestic prices are stabilized, room is opening up in many countries in the region to use exchange rates for other purposes. The Study Group believes that most Latin American countries need to pay more attention to the competitiveness of their tradable goods sectors, to stimulate nontraditional export growth and efficient import substitution.

In addition, some exchange rate flexibility will be desirable when changes in fundamental prospects affect the balance of payments on the current and capital accounts. To cope with sudden changes in market sentiment without undue volatility in exchange rates, reserves and access lines to other central banks have to be sufficiently large.

The Study Group welcomes recent signs of quickening regional integration. Geographic proximity, complementary development challenges and common cultures and languages are all compelling reasons for accelerating regional trade and capital flows. Open economic development strategies should encourage deeper economic ties among the countries of the region.

Support from Industrial Countries

The Study Group believes that the industrial countries should actively support continued policy reform in Latin America. Most importantly, they should ensure open access for Latin American goods and services in their home markets. To that end, speedy ratification and liberal interpretation of the GATT Uruguay Round is urgently needed. The United States in particular should work actively to bring Latin American countries other than Mexico into NAFTA.
All industrial countries should ensure that legislative and regulatory restrictions on institutional investment in emerging markets, including those in Latin America are removed. And they should continue their support for the international financial institutions active in the region and their programs that complement and facilitate private capital inflows.

Despite some setbacks in 1994, the past five years have been promising for much of Latin America. To fulfill that promise, the momentum of economic reform has to be maintained. If reform continues, there is every chance that capital flows will be sustained at a reasonable level. Volatility, and any adverse impact it may have, can be moderated by sound economic policies. While there will be periods when capital flows reverse, the benefits of access to global capital markets will surely exceed the costs of living with volatility.
Annexes
I. Capital Inflows to Latin America
Leonardo Leiderman and Carmen Reinhart

Introduction
There has been a remarkable resurgence of international capital flows to Latin American countries. In the four years 1990-1993, these countries have received a net capital inflow of $166 billion. This represents a major change from the previous decade, when there was a debt crisis and little capital flowed to Latin American nations.

In fact, there has been a reentry of international capital flows to developing countries in other regions (such as Asia and the Middle East) as well. In the case of Latin America, both important external and internal factors have played a role in the sharp rise in capital inflows, which in turn have been accompanied by a renewal of economic growth.

Capital inflows are not an unmitigated blessing for the receiving region or country; in fact, they may pose serious dilemmas for economic policy. Large capital inflows are often associated with money and credit expansion, inflationary pressures, a real exchange rate appreciation, and a deterioration in the current account of the balance of payments. In addition, the history of Latin America provides ample evidence that massive capital inflows may also have strong impacts on the stock market, the real estate market, and the money market—impacts which may well threaten the stability of these markets and of the financial system as a whole. If the capital
inflows are of a purely short-term nature, these problems intensify, as the probability of an abrupt and sudden reversal increases. Accordingly, the design of effective economic policies for dealing with these capital inflows, and for ensuring their durability, is one of the key economic policy issues at the present time.

In this paper we discuss the principal facts, developments, and policies under the current episode of capital inflows to Latin America, as well as their implications for sustainability of the inflows. In particular, we deal with policy priorities that could ensure the persistence of these flows, as far as possible. The analysis draws heavily on previous work by Calvo, Leiderman, and Reinhart (1992, and 1993a,b,c) which used data for ten Latin American countries and eight Asian countries. The paper is organized as follows. Section II describes the main characteristics of capital inflows to the Latin American region. Section III discusses the important role of external factors in the present inflows episode. Various observed policy responses to the capital inflows are discussed in Section IV. Last, Section V deals with factors that will determine the durability of the capital inflows phenomenon.

**Capital Inflows: Main Characteristics**

**Some basic concepts**

Capital inflows are defined as the increase in net international indebtedness of the private and the public sectors during a given period of time, and are measured—albeit imprecisely—by the surplus in the capital account of the balance of payments. Therefore, except for errors and omissions, the capital account surplus equals the excess of expenditure over income (which, in turn, is equal to the gap between national investment and national saving) plus the change in official holdings of international reserves. Thus, increases in capital inflows can be identified with larger current account deficits and/or reserve accumulation.

The central bank of the receiving economy could react to increased capital inflows in various ways, depending mainly on the prevailing exchange rate regime. Under a pure float, the increased net exports of assets in the capital account are financing an increase in net imports of goods and services. In this case there is no foreign exchange market intervention by the authorities, and the inflows of capital from abroad would not be associated with changes in central
banks' holdings of official reserves. At the other extreme, the domestic authorities actively intervene to maintain a fixed exchange rate. In the presence of a capital inflow, they would purchase the foreign exchange that flows in, and the increase in the capital account surplus would be associated with an increase in official reserves.

**Stylized facts**

Table 1 presents a breakdown of Latin America's balance of payments into its three main accounts. The capital inflows under consideration appear in the form of surpluses in the capital account, of about $23 billion in 1990, about $39 billion in 1991, $59 billion in 1992, and $44 billion in 1993. Part of the increased capital inflows represent repatriation of previous flight capital, but there are also new investors in Latin America. A substantial fraction of the inflows (i.e., 40 percent) has been channeled to reserves, which increased by about $65 billion in the last four years. Interestingly, the extent of reserves' accumulation out of a given capital inflow has decreased over the years. This probably reflects the fact that at the start of the present capital inflows episode (i.e., after the debt crisis) there were relatively low levels of international reserves, and that most central banks used the initial inflows to build up their reserves. Overall, the sharp increase in official reserves indicates that the capital inflow was met with a rather heavy degree of foreign exchange market intervention by the monetary authorities in the region. Figure 1, which depicts monthly data on international reserves for the ten countries in our sample, shows that for most of the countries there is a pronounced upward trend in the stock of official reserves starting from about the first half of 1990.

The rest (i.e., 60 percent) of the capital inflows helped to finance a marked increase in the region's current account deficit—that is, an increased gap between national investment and national saving. In some countries, such as Chile and Mexico, an important part of the inflows has financed increases in private investment; yet, in others (such as Argentina) there has been a marked rise in private consumption. Thus, whether increased current account deficits have been associated with increased investment or reduced saving is mainly a country-specific matter.

Latin America has not been the only region receiving sizable capital inflows in recent years. In effect, capital began to flow to Thailand in 1988 and to a broader number of Asian countries in 1989-1990 (see Bercuson and Koenig (1993), Calvo, Leiderman, and
Figure 1. Latin America: Total Reserves Minus Gold
January 1988–November 1993
(billions of U.S. dollars)

Source: International Financial Statistics, IMF
Reinhart (1993b), and Chovan, Claessen and Mamingi (1993)). As Table 2 shows, capital inflows amounted to $130 billion during the 1990-93 period. The inflows were met with a heavy degree of foreign exchange market intervention: 73 percent of the inflows resulted in accumulation of official international reserves.

As far as their composition is concerned, the capital inflows of the 1990s have a radically different pattern from that of earlier periods. Commercial bank loans, which dominated the earlier period, have been replaced by foreign direct investment and by bond and equity portfolio flows—a change that is also evident for developing countries as a whole (see Figure 2). According to IMF data, uninsured medium- and long-term loan commitments to the region amounted to only $0.9 billion in 1992 and to $0.5 billion in the first five months of 1993.

In contrast to the limited use of syndicated bank credit, Latin American countries have become the main borrower in the international bond market, raising $12.4 billion in 1992 and $11.2 billion during the first half of 1993. Mexico has been the leading Latin American borrower. It raised about $6 billion in 1992 and a similar amount in the first half of 1993. In the last two years, Brazilian entities have raised considerable amounts as well (see Table 3). Terms on new issues have continued to exhibit considerable

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Figure 2. Developing Countries: Capital Flows (in percent of total)

![Figure 2: Developing Countries: Capital Flows](chart)

Source: MEO, IMF, October 1993.

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spreads, and these have been reflected in spreads in the secondary market for Latin American bonds, as shown in Figure 3.

Issuance of international equity by Latin American companies has shown a lower level of activity. It amounted to $4.1 billion in 1992 and to $2.6 billion in the first half of 1993. In particular, Mexico has issued about $7 billion in 1990-93 in international equity, followed by Argentina, which issued about $3 billion at the same time (see Table 3). At the same time, direct equity portfolio purchases on local stock markets, especially by institutional investors, have become the most important channel for equity inflows into various emerging-market countries. In recent years, total returns in Latin American stock markets have been considerably higher than in the U.S. and other industrialized countries (see Figure 4). International investors have viewed Latin America as fertile ground for raising their expected returns. In addition, international investors have shown increasing interest in fixed income instruments denominated in local currency. The leading example in this area are holdings of CEFES (Mexican
treasury bills) outside Mexico, which have reached approximately $20 billion at the end of 1993.

There has been a marked increase in the relative importance of foreign direct investment (FDI) inflows to Latin America. They constitute now about 25 percent of total capital inflows, compared to about 10 percent in the late 1970s. Again, this reflects an overall trend in global foreign investment going to developing countries. It is well known that foreign direct investment is guided by more medium- or long-term profitability considerations than portfolio investments, and hence it is probably subject to a smaller degree of sudden reversals than the latter. Moreover, FDI flows could have positive externalities for the receiving economy such as increased access to foreign markets, and increased scope for human capital development and for introduction of top-of-the-line technology. The United States has been the main source of FDI in Latin America, and the investment flows have been directed mainly to service sectors such as transport, telecommunications, and banking. Among various countries, FDI has been of greatest importance (relative to
total capital inflows) in Chile, and of increasingly lower importance in Mexico, Argentina, and Brazil.

Macroeconomic effects

In discussing the macroeconomic effects of capital inflows to Latin America it is useful to compare these against the Asian experience. First, as Table 4 illustrates, the swing in the balance on the capital account (as a percent of GDP) is of a similar order of magnitude for the countries under study in the two regions. For the Latin American countries in our sample, the change in the capital account amounts to 4 percent of GDP; for the Asian countries the capital account surplus increases by 2.7 percent of GDP. Second, as discussed, capital inflows have been associated with increased current account deficits and with a marked accumulation of international reserves. Third, during the early phases of the surge in capital inflows there are sharp increases in stock prices. Then, share price indices decreased during 1992, and a strong recovery was observed from late 1992 onward. Share price indices for selected Latin American and Asian emerging markets were higher (in U.S. dollar terms) at the end of 1993 than at the time of renewal of capital inflows to these regions (see Figure 4). Fourth, capital inflows have been accompanied by an acceleration in economic growth.

As shown in Figure 5, in most Latin American countries capital inflows have been associated with considerable real exchange rate appreciation, yet in Asia such an appreciation is less common. While the reasons for these differences in the response of the real exchange rate are likely to be numerous, important differences in the composition of aggregate demand may play a key role in determining whether the real exchange rate appreciates or not. As Table 4 summarizes, for the Asian countries investment as a share of GDP increases by about 3.5 percentage points during the capital inflows period, but the investment ratio remained stagnant for the Latin American region (though here there are marked differences across countries). In fact, for the Latin American region the inflows during 1990-93 are primarily associated with a decline in private saving and higher consumption. If the increased investment (in Asia) is tilted more toward imported capital goods, and the increased consumption (in Latin America) has an imported domestic component, other things equal, this would work in the direction of generating stronger real exchange rate depreciation in Latin America. The behavior of public-sector consumption is another element influencing
Figure 5. Latin America: Real Exchange Rate
January 1988–October 1993

Source: Information Notice System, IMF
Note: An increase in the index denotes a real exchange rate appreciation.
the real exchange rate by affecting both the level and composition of aggregate demand. Other things being equal, the more contractionary the behavior of fiscal expenditure at the time of capital inflows is, the weaker the extent of real exchange rate appreciation is likely to be. Several Latin American countries have had major fiscal adjustment programs, yet these predated the surge in capital inflows. In contrast, there were fiscal spending contractions in several Asian economies at the time of the inflows. In addition, very effective sterilization of capital inflows in Asia—which was successful in limiting the expansion in credit and money aggregates and in aggregate demand—may have contributed to the differences in real exchange rate behavior.

The Role of External Factors
In determining the main factors behind the resurgence of capital inflows to Latin America, it is important to distinguish between the external and internal factors that gave rise to this development. External factors are those which are outside the control of a given country. Thus, they are unrelated to policies followed in the country in question. Examples of such factors for “small” open economies are a decline in world interest rates and rest-of-world recession, both of which may be accompanied by reduced profit opportunities in the industrialized countries. A similar effect would arise from regulatory changes that provide incentives for further international diversification of investment portfolios at main financial centers. Some of these external factors are likely to have an important cyclical, or reversible, component. Internal factors, on the other hand, are most often related to domestic policy.

Examples of policies that would attract long-term capital inflows (possibly in the form of direct investment) are the successful implementation of inflation stabilization programs, the introduction of major institutional reforms, such as the liberalization of the domestic capital market and the opening of the trade account, and policies that result in credible increases in the rate of return on investment (such as tax credits). But domestic policies may also attract short-term capital of a highly reversible nature, especially when these policies are not fully credible. Thus, partial credibility about inflation stabilization or trade liberalization programs can result, in equilibrium, in relatively high returns on short-term investments in view of a nonnegligible probability that these programs would collapse. Foreign investors could obtain relatively high profits under these circumstances if they managed to reverse their original
inflows after they have produced high yields and before the collapse of these policy programs.

Several factors and underlying trends interacted in the late 1980s to make Latin America a potentially fertile territory for the renewal of capital inflows from abroad. First, there was a steep acceleration in the trends of institutionalization, globalization, and international diversification of investments in North America and other financial centers. This transformation is seen in the increasing amounts of funds being managed by mutual funds, pension funds, and life insurance companies. These entities began to attempt to raise expected returns and/or reduce overall risks by taking advantage of investments in emerging markets. Since the total assets of institutional investors are very large, even relatively tiny portfolio shifts consisting of flows of capital to emerging markets can constitute sizable capital inflows for the receiving areas. In addition, regulatory changes in the United States have made it easier for foreign private issuers of equity to place their issues under more attractive conditions to investors.

Second, several countries in the Latin American region made significant progress toward normalizing relations with existing external creditors and reducing concerns about debt overhang. This included reaching agreements with creditors for debt restructurings, such as Brady-type operations.

Third, several countries began to adopt sound monetary and fiscal policies in the context of major disinflation plans as well as market-oriented structural reforms. Fourth, the existence of a large pool of Latin American flight capital in foreign markets (mainly in the U.S.) certainly facilitated the re-entry of capital to the region, including through the new opportunities created by the extensive privatization programs that were undertaken. All these underlying factors contributed to re-establish Latin American credibility with foreign investors and provided the necessary conditions for the potential return of external capital to the region. Beyond these trends, key external factors in the present capital inflows episode are the unusually low interest rates that prevailed in the United States for the last four years. These low rates, combined with the persistent recessions in most industrialized countries, have attracted investors to the high investment yields, and improving economic prospects, of developing economies such as in Latin America. Low world interest rates have also improved creditworthiness indicators for various individual countries, especially those with considerable debt-service obligations.
Available empirical evidence for ten Latin American countries indicates that foreign factors have played an important role in the most recent episode; Calvo, Leiderman, and Reinhart (1993a) find that foreign factors accounted for 30 to 60 percent of the variance in real exchange rates and reserves, depending on the country. Similarly, Chuhan, Claessens, and Mamingi (1993) find that external factors explain about half of the bond and equity flows from the United States to a panel of six Latin American countries. Their results also indicate that while foreign factors also played a significant role in stimulating bond and equity flows to several Asian countries (a panel of seven countries was used in the study), external developments were much less important than domestic factors in that region. The findings by Fernandez-Arias (1993)—who used a panel of thirteen middle-income developing countries receiving portfolio flows after 1988—suggest that external factors per se had a substantial impact on country creditworthiness indicators.

Our emphasis on the role of external factors does not imply that domestic factors, such as structural reforms and stabilization, have been of negligible importance. As discussed above, domestic policies have been part of the necessary conditions (i.e., prerequisites) for the reentry of international capital. However, and leaving aside the foregoing empirical evidence, domestic factors alone cannot explain why capital inflows have occurred in countries that have not undertaken reforms and have not stabilized or why they did not occur, until only recently, in countries where reforms were introduced well before 1990. A partial role played by domestic factors in attracting capital from abroad is evident in the marked differences across countries in the orders of magnitudes of the capital inflows. For example, Argentina, Chile, and Mexico (countries with important domestic reforms and disinflation) have attracted capital in orders of magnitudes well in excess of those recorded for other countries in the region. Furthermore, as discussed earlier, foreign direct investment has been most pronounced in those countries that were well advanced in their market-oriented reforms and stabilization.

Policy Response

The appropriate policy response to capital inflows clearly depends on the expected durability of the inflows, the availability and flexibility of various policy instruments, and the nature of domestic financial markets. In addition, the prevailing policy environment—e.g., whether or not an inflation stabilization plan is being implemented—and the
extent of policymakers' credibility are key determinants of the form and timing of the appropriate policy response.

The rationale for policy intervention emerges from the main concerns of policymakers: capital inflows can lead to inflationary pressures, real exchange rate appreciation and loss of competitiveness, and a deterioration of the current account. In addition, the inflows can have a destabilizing impact on domestic financial markets. These concerns have often led the authorities to react to the capital inflows by implementing a broad variety of policy measures. The remainder of this section examines the role of some of those policies.

**Monetary and Exchange Rate Policy**

Greater exchange rate flexibility. A capital-receiving country may opt to let the nominal exchange rate appreciate in response to a capital inflow. This option has three main virtues. First, it insulates the money supply, domestic credit, and more generally, the banking system from the inflows. Second, because of a pass-through from the exchange rate to prices it may help reduce inflation—precisely at a time that achieving disinflation is high on the policymaker's agenda. Third, allowing the exchange rate to fluctuate introduces some uncertainty that may well discourage some of the purely speculative (and highly reversible) inflows. The main disadvantage of a pure float is that massive capital inflows may induce a steep nominal and real appreciation of the domestic currency, which, in turn, may damage strategic sectors of the economy, like nontraditional exports. This is clearly the case if the real appreciation is persistent. But, even when the latter does not hold, the greater real exchange rate volatility per se may have negative effects on tradable-goods sectors, to the extent that financial markets do not provide enough instruments to hedge against such uncertainty.

There has been wide cross-country differences in the degree of exchange rate flexibility in the present episode. However, the common ground appears to be that all central banks intervene in the foreign exchange market to some degree and no country has operated under a free float. Chile and Mexico are among those that have allowed some degree of exchange rate flexibility in the context of their exchange rate bands. Both these countries have widened their bands, and especially in Chile the exchange rate has been allowed to extensively fluctuate within the band (Figure 8). Similarly, other countries, such as Colombia, have allowed for some appreciation of the nominal exchange rate. As indicated, one advantage of allowing
nominal exchange rate appreciation is that to the extent that market fundamentals call for a real exchange rate appreciation, the latter can be affected all at once through the nominal appreciation of the exchange rate, rather than gradually through increases in domestic inflation.

Sterilized versus nonsterilized intervention. Having decided to intervene in the foreign exchange market, the next policy question is whether such intervention should be sterilized or not. Sterilization—i.e., the exchange of bonds for foreign exchange—can help attenuate the impact of capital inflows on money and credit. Curtailing the growth on the monetary aggregates may be desirable for a variety of reasons: As the availability of credit increases, the quality of the loans made may well decline, placing the banking system at higher risk; a too rapid expansion may lead to “overheating” of the economy and fuel inflationary pressures; if the monetary authorities have announced monetary targets, growth in excess of those targets may damage their credibility.

However, at a minimum, sterilized intervention will keep domestic interest rates above what they would have been in the absence of sterilization. At worst, this measure may well raise domestic interest rates and provide incentives for further inflows.
In addition, sterilization results in an increase in the public debt and it entails quasi-fiscal costs to the extent that the interest rate on domestic bonds is higher than that on foreign exchange reserves. Annual estimates of these costs in Latin American countries range from 0.25 to 0.50 percent of GDP. The cross-country evidence reveals that sterilized intervention (in varying orders of magnitude) has been the most common policy response to capital inflows in both Latin America and Asia.

Nonsterilized intervention may be desirable if there is a perceived increase in the demand for money (due to, for example, a successful inflation stabilization program), which the authorities wish to accommodate. Under those circumstances, rapid monetary growth is not necessarily inflationary and no quasi-fiscal burdens are generated. However, nonsterilized intervention, as noted, runs the risk of increasing the vulnerability of the financial system, especially if there is a system of explicit (or implicit) deposit insurance and banking supervision is poor. From an overall macroeconomic perspective, such an option becomes more attractive the smaller the capabilities (or willingness) of the banking system to increase loans to the private sector. As we approach the limiting case, in which the banking system is unable to intermediate more funds, additional capital inflows through the banking system will exert a strong downward pressure on interest rates, slowing down the pace of inflows and lowering the fiscal cost of the outstanding domestic credit. However, this is not the case in most of the Latin American countries.

**Reserve requirements.** A viable policy option that limits the expansion of money and credit associated with the surge in capital inflows is to increase bank reserve requirements and curtailing access to rediscount facilities. This would be especially relevant in those countries where capital inflows have taken the form of substantial increases in local bank accounts. An increase in marginal reserve requirements (an option used by Chile and Malaysia), clearly lowers the capacity of banks to lend, thus diminishing some of the risks associated with nonsterilized intervention. Further, no quasi-fiscal costs are incurred. A drawback of this reserve-requirement policy is that over time it may promote disintermediation, as new institutions may develop so as to bypass these regulations. Eventually, those institutions could grow so large that they end up being under the insurance umbrella of the central bank (by the principle that they are “too large to fail”), recreating all the potential problems associated
with nonsterilized intervention. Therefore, increasing marginal reserve requirements is unlikely to be effective beyond the short run. Moreover, increasing bank reserve requirements amounts to a reversal of the underlying trends of financial liberalization in developing countries, which have recently resulted in sharp reductions in these requirements, and their convergence toward levels observed in industrial countries.

**Banking regulation and supervision.** A major concern about the intermediation of international capital flows through the domestic banking system is that individual banks are subject to free or subsidized deposit insurance; i.e., there is an implicit commitment by the authorities that banks—especially those of large size—will not be allowed to fail. It is well known that free implicit deposit insurance induces banks to increase their risk exposure. In several countries, there has been a sharp expansion of bank loans to finance private consumption. There is evidence that in some of these countries the percentage of nonperforming loans has recently increased over time. In addition, banks may pay little attention to the matching of the maturities of deposits against those for loans—the former being typically shorter than the latter. Similarly, there could be a mismatch between the currency denomination of bank loans and the currency denomination of profits and incomes of the borrowing sector; e.g., consider the producer of a nontradable commodity borrowing in U.S. dollars to finance his activity. All these factors increase the vulnerability of the financial system to reversals in capital flows—reversals that have the potential to end in financial crises.

It is the role of bank regulation and supervision to effectively diminish some of these risks. As discussed earlier, attempting to insulate the banking system from short-term capital flows is a particularly important goal in cases where a substantial proportion of the inflows are in the form of short-term bank deposits. Regulation that limits the exposure of banks to the volatility in equity and real estate markets could help insulate the banking system from the potential bubbles associated with sizable capital inflows. In this vein, risk-based capital requirements in conjunction with adequate banking supervision to insure such requirements are complied with could help insulate the domestic banking system from the vagaries of capital flows.

**Fiscal policy**

**Taxing short-term inflows.** Taxes on short-term borrowing abroad were imposed in some countries—Israel in 1978 and Chile in 1991
and 1992. This policy conveys the message that the authorities are concerned with the short-term (potentially speculative) inflows. Such policies can coexist with policies that encourage a different type of inflow, specifically foreign direct investment. Unlike other measures, it attacks the problem at the source. However, although this form of intervention could be effective in the short run, experience suggests that the private sector is quick in finding ways to dodge those taxes through over- and under-invoicing of imports and exports and increased reliance on parallel financial and foreign exchange markets. Further, initial conditions are not always conducive to implementing a policy that adds barriers to international capital movements. If a stabilization/adjustment program was recently undertaken and the authorities enjoy less than full credibility, the imposition of any capital account barrier may be interpreted as a signal that policies are reverting, and thus potentially undermine the success of the program.

Fiscal tightening. Another policy reaction to capital inflows has been to tighten fiscal policy; the clearest example of this policy is Thailand. The idea is to impose fiscal restraint, especially in the form of spending cuts on nontradables, so as to lower aggregate demand and curb the inflationary impact of capital inflows. Lower government expenditure on nontraded goods and services could have a direct impact on aggregate demand, which is unlikely to be offset by an expansion of private sector demand. However, contraction of government expenditure is always a sensitive political issue and it can not be undertaken on short notice, such delays increase the risk that, ex post, the policy is procyclical.

Further, fiscal policy is usually set on the basis of medium- or long-term considerations rather than in response to what may turn out to be short-term fluctuations in international capital flows. Thailand provides a timely example of this policy dilemma. The combination of booming growth and the substantive fiscal restraint of the past few years have generated a perceived need to improve the current infrastructure (which is no longer adequate if rapid growth is to be sustained). At the same time, the pressures on the real exchange rate that accompany the surge in inflows would warrant fiscal restraint. However, in cases where the authorities had envisioned a tightening of the fiscal stance, the presence of capital inflow may call for earlier and, perhaps, more aggressive action in this respect.
Structural measures

Various countries have adopted structural measures to directly or indirectly diminish the size of or the potential adverse effects of capital inflows. In several of the Asian and Latin American countries, capital account liberalization has either been undertaken already or is under consideration. The general principle has often been that by allowing domestic agents to hold foreign assets, some offsetting capital outflow is generated following the liberalization. However, the net impact of these measures on the capital account are, thus far, not conclusive. In some cases, as the recent experience of Colombia highlights, the liberalization measures increased the confidence of foreign investors and in so doing further stimulated inflows. There are also examples where the presence of capital inflows and the stronger economic activity were used to implement a more rapid pace of trade liberalization and of domestic financial reforms. While the trend is toward integrated goods and capital markets, in some countries there have been pressures for higher export subsidies to mitigate the effects of a sustained real exchange rate appreciation, a policy that is known to result in substantial fiscal costs and in deeper economic distortions. With regard to structural policies, it appears these should be designed so as to be consistent with longer-term objectives.

The bottom line

A reasonable sequencing of policies would consist of initially limiting the intermediation of these flows—by sterilized intervention, greater exchange rate flexibility, and/or increasing marginal reserve requirements. This could be followed by a gradual monetization of these flows (i.e. nonsterilized intervention), accompanied perhaps by an appreciation of the currency. The step to nonsterilized intervention, though, could be speeded up if credit availability is limited and/or if the quasi-fiscal costs are high, and if the implied creation of credit and money does not constitute a strong force toward an acceleration of inflation.

Durability of the Capital Inflows

Will external and internal developments combine to make the flows of capital into Latin America durable? Part of the answer to this question depends on the continuation of underlying trends in the international financial system: the globalization of markets and the
diversification of investment portfolios. The growing interest of institutional investors in Latin American (and other emerging) markets is likely to continue, in what could be a large portfolio shift to be effected throughout the rest of the 1990s. The movement of international capital into Latin America has been based not only on high expected returns, but also on the idea that diversification can reduce the overall risk in portfolios. The result is that Latin American securities are increasingly sold in the United States, as well as in European and Asian markets. As time passed, the reliance of individual countries on returning flight capital has been reduced and a broader investor base has been achieved. There is a growing trend in the area toward reaching regional trade agreements. Various countries have expressed their interest in following the lead of Mexico and joining the NAFTA in the near future. This trend is likely to encourage further flows of FDI (foreign direct investment) into Latin America.

Yet, other factors work in the opposite direction. In particular, the present global environment of low interest rates and weak activity in the industrial countries is likely to change. As a global recovery progresses, international interest rates may increase and capital market conditions may tighten. Further, new competitors are likely to emerge as economic and political conditions in eastern Europe and the FSU and other parts of the world improve. Such developments raise the possibility of reversals—especially in the most “bubbly” markets and in those countries where the inflows are mostly of a short-term nature. In the face of heavy sales of domestic securities by foreign investors the liquidity of financial markets in various countries would be put to a test. However, it is encouraging for the countries in the region that their markets dealt reasonably well with the financial volatility observed in 1992. The market optimism (and possibly price overshooting) in the early part of 1992 was offset by turbulence in the remainder of the year—turbulence that was reflected in a drop in share prices of about 30 percent in U.S. dollars, see Figure 4. The fact that the market mechanism worked well against this volatility, in what otherwise could have been an abrupt disruption of the market, certainly contributed to sustain an increasing influx of new investors to the region.

Durability also depends on internal factors. Sound macroeconomic policies, a strong commitment to market-oriented reforms, and outward-oriented trade strategies are likely to enhance the credibility of a given country's policymakers from the standpoint of international investors. Economically, countries make the most efficient use of capital inflows if the return on investment of these resources is
higher than their cost. Policies that promote high domestic saving and adequate returns on domestic investment would be beneficial in this context. As noted earlier, in some countries, the financial intermediation of capital inflows is a source of concern. For the individual investor, the possibilities for hedging against these risks are certainly limited in developing countries. Under those conditions, it is necessary to ensure an adequate regulation and supervision of the banking system to avoid currency or term-structure mismatches and excessive credit creation which could damage the ability of the financial system to deal with a reversal of capital flows.

Last, it seems essential for countries to have flexible policy instruments that can respond quickly to adverse events. Holding an adequate level of reserves, and allowing for some degree of exchange rate flexibility (e.g. through an exchange rate band) can work in this direction.

Table 1. Latin America: Balance of Payments
(1985–93)

<table>
<thead>
<tr>
<th>Year</th>
<th>Balance of goods, services, and private transfers* ($ billion)</th>
<th>Balance on capital account plus net errors and omissions** ($ billion)</th>
<th>Changes in reserves* ($ billion)</th>
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<tbody>
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<tr>
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<td>1982</td>
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<td>-6.0</td>
</tr>
<tr>
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<tr>
<td>1984</td>
<td>-13.3</td>
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<tr>
<td>1986</td>
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<tr>
<td>1988</td>
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<td>44.3</td>
<td>-84.0</td>
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</table>

* Data for Western Hemisphere from IMF's World Economic Outlook. A minus sign indicates a deficit in the current account. Balance on goods, services, and private transfers is the difference between current receipts and payments. This latter item includes income from official transfers. The latter item includes net errors and omissions. The latter item is defined as the residual that appears in the balance of payments account after the account has been adjusted for various types of errors and omissions.

** A minus sign indicates an increase.
### Table 2. Asia: Balance of Payments (1985–92)

<table>
<thead>
<tr>
<th>Year</th>
<th>Balance of goods, services, and primary incomes¹</th>
<th>Balance on capital account plus net errors and omissions²</th>
<th>Changes in reserves⁵</th>
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</thead>
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<tr>
<td></td>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
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<tr>
<td>1993</td>
<td></td>
<td>46.0</td>
<td>-21.0</td>
</tr>
</tbody>
</table>

¹ Data for Asia from IMF’s World Economic Outlook.

² Balance on capital account plus net errors and omissions is equal to the current account plus official transfers. The latter are treated in this table as external lending and are included in the capital account.

⁵ An entries signify an increase.

### Table 3. Bond and Equity Issues (1969–First Half 1993)

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<td>International Bond Issues</td>
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<tr>
<td>Western Hemisphere</td>
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<td>3,589</td>
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<tr>
<td>Argentina</td>
<td>-</td>
<td>21</td>
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<td>1,573</td>
<td>941</td>
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<td>China</td>
<td>-</td>
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<td>210</td>
<td>120</td>
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<td>Colombia</td>
<td>-</td>
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<td>290</td>
<td>120</td>
<td>323</td>
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<tr>
<td>Mexico</td>
<td>-</td>
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<td>3,373</td>
<td>5,910</td>
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<tr>
<td>Peru</td>
<td>-</td>
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<td>50</td>
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<tr>
<td>Trinidad and Tobago</td>
<td>-</td>
<td>-</td>
<td>80</td>
<td>140</td>
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<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>263</td>
<td>262</td>
<td>578</td>
<td>520</td>
<td>525</td>
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</tbody>
</table>

International Equity Issues

| Western Hemisphere | 99   | 4,120 | 4,063 | 2,611 |
| Argentina          | -    | 396   | 372   | 2,095 |
| Brazil             | -    | 121   | 134   | 144   |
| Chile              | -    | 99    | 139   | 87    |
| Mexico             | -    | 3,764 | 3,050 | 375   |
| Panama             | -    | 80    | 65    |
| Venezuela          | -    | 263   | -     |

Sources: IMF staff estimates based on International Financial Statistics, Eurostat, Financial Times, and OECD.
Notes

1 This paper was prepared for discussion at the study group on Latin American Capital Flows, The Group of Thirty. The authors would like to thank Guillermo A. Calvo for insightful discussions and previous joint work that is reflected in the present paper. Leonardo Leiderman is at The Einstein Berglas School of Economics, Tel Aviv University, and Carmen Reinhart is at the Research Department, International Monetary Fund. The views expressed are those of the authors and do not necessarily represent those of the Fund.

2 Exceptions among our sample are Bolivia, Brazil, and Ecuador; the last of these has only experienced a very modest improvement in its capital account.

3 For example, both Chile and Mexico have posted increases in investment during 1990-92. More recently, there are early signs that investment is rising in countries like Argentina and Colombia.

4 Very disparate initial conditions in excess capacity between the two regions may help explain why investment surges in Asia and not in Latin America. Most Asian countries enter the capital inflow episode closer to full capacity utilization than their Latin American counterparts (an exception is Chile), where growth had been sluggish or nonexistent.

5 For example, it is estimated that the assets of pension funds and life and casualty insurance companies reached $5.6 trillion in 1992.

6 On various aspects of exchange rate bands in Chile and Mexico, see Helpman, Leiderman, and Levin (1993).

7 In addition, to the extent that it reduces the government’s need to issue debt, a tighter fiscal stance is also likely to lower domestic interest rates.
References


Chuhan, P., S. Claessens, and N. Mamingi, “Equity and Bond Flows to Latin America and Asia: The Role of External and Domestic Factors,” (unpublished manuscript; World Bank, May 1993).


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II. Sustainability of Latin America's Debts
Marilyn E. Skiles

Introduction

Net external financing flows to developing countries have expanded substantially over the past several years, reversing a trend of net outflows for most of the 1980s. Much of the new capital inflow has been in the form of private portfolio investment, in both fixed-income securities and equities. These flows have been highly concentrated, with the five largest Latin American countries receiving nearly 60% of the portfolio flows to all developing countries in 1992. For these five countries—Argentina, Brazil, Chile, Mexico, and Venezuela—private portfolio inflows have become an important source of external financing for the first time since the 1920s.

The sudden and rapid rise in the flow of private portfolio investment to the major Latin American economies has raised concern that the region may be "overborrowing." This concern relates primarily to the build-up of external debt, given that servicing obligations are usually much less restrictive on equity investments than on fixed-income investments. It is therefore encouraging that a substantial fraction of capital flows into Latin America in recent years has gone into equity investments. Moreover, by nearly all criteria, the external debt burden of the largest Latin American countries is now considerably lower than it was in the early 1980s—especially if rescheduled bank loans, which are partially collateralized,
are excluded. Nonetheless, Latin America remains vulnerable to external shocks whether on the trade front or in the global capital markets. Neither risk appears urgent today. Either or both, however, could negatively affect the capacity of countries in the region to service their external debts at some point in the future.

Capital Flows to Latin America

Private portfolio investment includes investment in both fixed-income securities and equity. Although equity investment has grown substantially over the last few years, the bulk of private portfolio investment in developing countries in the 1990s has been in fixed-income securities. Indeed, according to a recent World Bank report, capital inflows for portfolio investment in all developing countries in 1992 amounted to $31 billion, of which $22 billion or more than 70% was for fixed-income investments.

The five largest Latin American economies have received the bulk of private portfolio investment in fixed-income securities. This is apparent from the rapid growth of bond issuance in these countries. From a slim starting point of $400 million in 1989, the market took off in 1990, when Latin American borrowers issued $1.5 billion worth of new bonds on the international capital market. Their new bond issuance soared in subsequent years, to a total of nearly $10 billion in 1992 and $23 billion in 1993 for these five countries alone. In 1993, Latin American external bonds accounted for more than 80% of the bonds issued by all developing countries.

Among the five major Latin American economies, Mexico has been the single largest borrower, issuing nearly $16 billion in new external bonds in the 1990-93 period. Brazil has been the second largest borrower during the same period, issuing more than $11 billion, and Argentina the third largest, issuing nearly $9 billion. Well behind these totals have been Venezuela, which issued $2.8 billion worth of bonds, and Chile, a modest $600 million.

The speed with which Latin American borrowers have been able to regain access to the international capital market over the past several years contrasts sharply with the experience of this same group of countries after the bond defaults of the 1930s. After issuing a large amount of external bonds in the late 1920s, primarily in the U.S. bond market, almost all Latin American sovereign and corporate borrowers suspended payment on their external bond obligations during the 1930s. Following extensive negotiations with external bond holders, the defaults were ultimately settled, in most cases by
issuance of new 30-year external bonds with below-market principal and, in some cases, below-market interest rates. Despite these settlements, Latin American sovereign borrowers were not again able to issue new international bonds until the emergence of the Eurobond market in the late 1960s, and even then access was limited to an extremely small group of countries.

Several developments have made possible Latin America's re-emergence as a major factor in the international bond market in the 1990s. First, despite the massive Latin American defaults of the early 1980s, which at first raised the specter of widespread bank failures, cooperation among policymakers, creditors, and debtors, along with sweeping liberalization of international capital flows, averted any major disruption of the global markets. (This contrasted sharply with the experience of the 1930s, when lack of policymaker cooperation and proliferating controls effectively destroyed the international capital market for all international borrowers, not just Latin America.) Instead, the 1980s witnessed a rapid expansion of the Eurobond market, which in turn has helped to ease Latin American's re-entry to the international capital market.

Second, because of the sharp drop in U.S. interest rates over the past few years, the investor base for Latin American and other "emerging market" securities has widened substantially. In particular, a portfolio shift is taking place among institutional and individual U.S. investors, who are beginning to diversify their investments on an international basis. For these investors, Latin American securities are attractive both because of their high current yields and because they serve as a means to diversify risks.

Finally, the implementation of economic reforms in a number of Latin American countries has substantially restored the external creditworthiness of these countries and, as a result, has increased the attractiveness of Latin America for external fixed-income investors. This argument is particularly compelling for Argentina, Chile, and Mexico, all of which have implemented highly successful economic adjustment programs that have included fiscal correction and substantial structural reform. Brazil, to be sure, has been the second largest borrower among Latin American countries in recent years without yet launching a convincing economic adjustment process. Yet even in Brazil, as well as Venezuela, some fiscal adjustment and structural reform has taken place since the early 1990s, as evidenced by the improved primary balances in both of these countries.

The sudden re-emergence of Latin America as a major external borrower has had positive effects on the domestic economies of
these countries. The sharp increase in capital inflows has allowed the governments concerned to pursue more expansionary macroeconomic policies than in most of the 1980s, when domestic policy options were severely constrained by the limited availability of external finance. The increase in foreign portfolio investment in Latin America has also contributed to higher domestic investment. In effect, external capital inflows are helping to compensate for Latin America’s historically low domestic savings rates and may, over time, allow Latin America to enjoy a sustained period of high economic growth.

The sharp rise in external capital inflows to Latin America has also had less beneficial effects. Latin American governments now have much less control over domestic monetary aggregates, since a large portion of the capital inflow is monetized. The increase in domestic credit resulting from the monetization of capital inflows has contributed to inflationary pressures, real exchange rate appreciation, and higher trade and current account deficits.

Defining “Capacity to Pay”

The concern that Latin America may once again be “overborrowing” can be addressed in part with the aid of broadly accepted statistical measures of “capacity to pay.” Prominent measures are the ratio of interest payments on external obligations to a country’s export earnings (the latter representing its capacity to generate foreign exchange), the ratio of the stock of external debt to GDP (GDP being a proxy for both income-generating capacity and accumulated wealth), and the ratio of external debt to export earnings. Of course, these

<table>
<thead>
<tr>
<th>Table 1. New issues of Latin American external bonds</th>
<th>billions of U.S. dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina*</td>
<td>0.2</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.0</td>
</tr>
<tr>
<td>Chile</td>
<td>0.0</td>
</tr>
<tr>
<td>Mexico</td>
<td>1.1</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.2</td>
</tr>
<tr>
<td>Total 5 majors</td>
<td>1.5</td>
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<tr>
<td>median All LOOs</td>
<td>2.2</td>
</tr>
</tbody>
</table>

* Excludes dollar-denominated domestic debt, such as Banex and Botes.
ratios—which are widely monitored not only in the markets but also by the international credit rating and regulatory agencies—can only give a rough indication of "capacity to pay." There are no definite levels for these ratios at which countries are obliged to stop servicing their external debts. More importantly, these ratios give no indication of a country’s willingness to pay, which in fact can only be determined ex post rather than ex ante.

With these caveats in mind, it is apparent from the evolution of the debt ratios in the main Latin American countries that their capacity to service their external debts has improved substantially since the early 1980s. Chile’s improvement has been the most dramatic, with its interest payments-to-exports ratio plummeting from 43% in 1985 to an estimated 11% in 1993. Chile’s external debt has also fallen sharply, declining from 125% of GDP to 50% of GDP, while its debt-to-exports ratio has fallen from more than 400% to 160%.

Table 2. Public sector fiscal balances
percent of GDP, annual averages

<table>
<thead>
<tr>
<th>Fiscal balance</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982-84</td>
<td>-13.9</td>
<td>-19.4</td>
<td>-3.5</td>
<td>-11.3</td>
<td>-4.3</td>
</tr>
<tr>
<td>1991-93</td>
<td>-9.3</td>
<td>-12.6</td>
<td>1.6</td>
<td>0.7</td>
<td>-5.1</td>
</tr>
</tbody>
</table>

Primary balance*

| 1982-84        | -5.9      | -4.5   | -0.6  | 0.6    | -0.3      |
| 1991-93        | 1.9       | 0.7    | 3.2   | 5.3    | 1.0       |

*Excludes all interest payments.

Table 3. Debt ratios in selected Latin American countries
percent, annual averages

<table>
<thead>
<tr>
<th>Interest payments/exports of goods and services</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982-84</td>
<td>53.9</td>
<td>44.4</td>
<td>42.4</td>
<td>34.6</td>
<td>19.8</td>
</tr>
<tr>
<td>1991-93</td>
<td>27.5</td>
<td>21.1</td>
<td>11.8</td>
<td>12.8</td>
<td>13.5</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>External debt/GDP</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982-84</td>
<td>41.9</td>
<td>41.1</td>
<td>84.9</td>
<td>52.1</td>
<td>57.0</td>
</tr>
<tr>
<td>1991-93</td>
<td>36.9</td>
<td>30.3</td>
<td>51.4</td>
<td>35.1</td>
<td>58.1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>External debt/exports of goods and services</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982-84</td>
<td>447.4</td>
<td>342.4</td>
<td>359.5</td>
<td>272.1</td>
<td>194.9</td>
</tr>
<tr>
<td>1991-93</td>
<td>434.8</td>
<td>302.3</td>
<td>149.6</td>
<td>185.7</td>
<td>196.7</td>
</tr>
</tbody>
</table>
The other countries have also shown considerable improvements in some of their debt ratios. The most unambiguous improvement for all five countries has been in the ratio of interest payments to exports, which has fallen by at least half in all five cases. The sharp decline in this particular debt ratio is primarily a reflection of the sustained reduction in international interest rates that has taken place since the early 1980s.

Other debt ratios have also improved, in many cases substantially. The debt-to-GDP ratios of Argentina and Brazil, for example, have fallen from 41% in the early 1980s to 30% in the early 1990s, while Mexico’s debt-to-GDP ratio has fallen from 52% to 37%. Of the five countries, Venezuela is the only one that has experienced no improvement in its debt-to-GDP ratio, which instead remained relatively constant between the early 1980s and the early 1990s.

Despite the impressive improvements since the early 1980s, debt-to-GDP ratios for some Latin American countries remain high relative to those of other advanced developing countries. Among the major borrowers charted above, the ratios for Chile and Venezuela, for example, are exceeded only by the Philippines. The ratios for Argentina, Brazil, and Mexico, however, are not substantially above those of, say, India or the Czech Republic.

Moreover, by one important criterion—the debt-to-export ratio—Latin America’s debt burden is higher than that carried by many other developing countries, particularly Malaysia, South Korea, and the Czech Republic. In addition, this is the debt indicator that has shown the least improvement for the major Latin American economies. Only Mexico and Chile have substantially lowered their debt-to-export ratios. For the other countries of the region, this ratio has remained relatively constant within the 200%-400% range. Argentina’s ratio is particularly high, a reflection of the relatively closed nature of its domestic economy.

The limited improvements in Latin America’s debt-to-export ratios are due in large part to the relatively poor performance of exports from the region, particularly in the past few years. In Argentina, Brazil, and Mexico, for example, exports were a smaller proportion of GDP in the 1991-93 period than in 1982-84. In Venezuela, exports were relatively stable as a share of GDP. Once again, Chile was the only country of the five that showed a substantial improvement, with its exports of goods and services rising from 23% of GDP in the 1982-84 period to 34% of GDP in 1991-93.
Is Latin America’s External Debt Sustainable?

Latin America's external debt burden, as measured by the various debt indices, has lessened substantially since the early 1980s. This is particularly true when the debt burden is measured by the interest payments-to-export ratio, which has declined sharply in all of the five largest Latin American economies. In addition to the lower debt

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**Figure 1. External Debt Ratios**

**External debt/GDP (1991-93 average)**
- Argentina
- Brazil
- Chile
- Mexico
- Venezuela
- Czech Rep.
- India
- Korea
- Malaysia
- Philippines
- Turkey

**External debt/exports* (1991-93 average)**
- Argentina
- Brazil
- Chile
- Mexico
- Venezuela
- Czech Rep.
- India
- Korea
- Malaysia
- Philippines
- Turkey

* Exports of goods and services.
burden, other characteristics of the new bonds being issued by Latin American borrowers in the 1990s suggest that the region may be less vulnerable to a sharp deterioration in its external payments capacity than it was in the early 1980s.

First, the investor base is considerably more diversified now than it was in the 1970s and early 1980s. Consequently, it is possible that investors may not move in unison, as the foreign commercial banks did in the early 1980s. Second, unlike the 1970s and 1980s, when the bulk of bank loans went to public sector borrowers, external financing flows in the 1990s are going predominately to private sector borrowers. In Brazil, Argentina, and Mexico, for example, public sector borrowers accounted for more than half of the Eurobonds issued in 1990. Since then, however, private sector borrowers have increased in importance, accounting for nearly 70% of the Eurobonds issued in 1993. In the aggregate, private sector borrowers accounted for more than 60% of the Eurobonds issued by the five major Latin American countries in the 1990-93 period. It is likely that the risks on these loans are reduced because the borrowers are less concentrated and less politically constrained than they were in the early 1980s.

Third, the wave of Eurobond lending to Latin America has been characterized by a reliance on fixed rather than floating interest rates. Indeed, only 4% of the Eurobonds issued by the five major Latin American countries in the 1990-93 period had floating interest rate coupons. Thus, unlike the bank loans of the early 1980s, most of which had floating interest rates, Latin American borrowers are currently protected against a sharp increase in international interest rates.

In addition to differences in the nature of the external capital flows, the current direction of economic policy in most of the largest Latin American countries differs substantially from that of the early 1980s. Although individual countries were following quite different economic policies in the late 1970s and early 1980s, ranging from Chile’s global monetarism to Mexico’s more pragmatic approach, almost all of the major Latin American economies exhibited large internal and external imbalances. Since the imbalances were financed to a large extent by foreign bank loans, all these countries were extremely vulnerable to a shift in portfolio preference among the banks.

Largely as a result of the implementation of successful economic adjustment programs, internal balances have improved substantially in all of the major Latin American economies in the 1990s. Rather
than large fiscal deficits, Argentina, Chile, and Mexico are now accumulating fiscal surpluses. Consequently, these countries are now much better able to service their external obligations than they were in the early 1980s.

Despite the improvement in Latin America’s internal balance, there are still areas of vulnerability. In particular, in many countries in the region external balances have deteriorated relative to the early 1980s. In some countries, this deterioration has been due both to trade liberalization programs and the renewed availability of external capital, which has helped to finance a surge of imports. While these current account deficits are readily financed at the present time, because of the availability of external capital, the deterioration in their external balances suggest that some Latin American countries may find themselves unable to generate sufficient foreign exchange earnings at some point in the future.

<table>
<thead>
<tr>
<th>Table 4. Export coefficients in Latin America</th>
<th>exports of goods and services as percent of GDP, annual averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina Brazil Chile Mexico Venezuela</td>
<td></td>
</tr>
<tr>
<td>1982-4 9.2 12.0 23.3 19.0 29.3</td>
<td></td>
</tr>
<tr>
<td>1991-3 7.1 9.6 34.3 18.2 29.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5. Eurobonds issued by public sector borrowers</th>
<th>percent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>0     57    17    32  32</td>
</tr>
<tr>
<td>Brazil</td>
<td>0     52    37    28  34</td>
</tr>
<tr>
<td>Chile</td>
<td>0     0     0     0    0</td>
</tr>
<tr>
<td>Mexico</td>
<td>44    65    31    34  39</td>
</tr>
<tr>
<td>Venezuela</td>
<td>84    79    91    67  86</td>
</tr>
<tr>
<td>Total</td>
<td>42    59    36    34  39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 6. Trade balances</th>
<th>percent of GDP, annual averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina Brazil Chile Mexico Venezuela</td>
<td></td>
</tr>
<tr>
<td>1985-92</td>
<td>0.8   -0.2  -3.6   0.3  9.9</td>
</tr>
<tr>
<td>1991-93</td>
<td>0.4   3.2    1.5   -3.8  5.3</td>
</tr>
</tbody>
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Latin America’s vulnerability to external shocks, such as a dramatic decline in commodity prices or a sharp increase in international interest rates, is not likely to disappear any time soon. Fortunately, no such extremity appears to be in the works at the present time. Nonetheless, individual countries remain vulnerable to either internal or external shocks. Over the longer run, the countries of Latin America will reduce their vulnerability only by eliminating internal and external imbalances. Although much progress has been made on internal balances, the external trade balances in many of the largest Latin American economies remain weak. The current availability of external finance provides these countries with an opportunity to develop competitive export sectors. Unless this happens, the countries may be vulnerable at some point in the future to a sudden shift in investor preferences.
III. Central Bank Independence
In Latin America
Roberto Junguito

Introduction
A major economic institutional change in Latin America is the drive toward central bank independence (CBI). It is part of the structural adjustment strategy being undertaken in the past few years, and an important tool to help the stabilization efforts in a region traditionally burdened with inflation. This paper reviews the origin and evolution of central bank independence in some major Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico and Venezuela). It also looks at some of these banks’ institutional framework, their importance, their remaining tasks, and the issues regarding their permanence.

Institutional Structure and Functions
Central bank independence in Latin America is a very recent phenomenon: Chile (1989), Argentina (1991), Colombia (1991), and Venezuela (1992). Mexico recently approved a constitutional reform that included the creation of an independent central bank and its corresponding Central Bank Law (1995). Bank independence is also being discussed in Bolivia, Ecuador, and Peru. Brazil is the only country analyzed here pending a serious move toward central bank independence. This should not come as a surprise considering that
it had not adopted until a few days ago a credible stabilization plan nor has it advanced on the road toward other structural reforms, except in trade liberalization. The situation concerning Brazil's shift toward CBI is that the regulatory law has not yet come forth, although its actual Constitution (1988) opens the possibility of creating an independent central bank. Latin America's commitment to CBI is illustrated by the fact that in some of the countries concerned (Chile, Colombia, and Mexico), the decision has come about from constitutional changes and not simply from a law that has been easily modified.

An important point about the newly approved central banks refers to their objectives. Chile and Colombia, for example, have a clearly unique Constitutional mandate: To preserve the value of the currency, which in simple terms means controlling inflation. In the same vein, the Mexican Constitutional Draft establishes that its "priority objective shall be to seek the stability of the currency, strengthening thereby the orientation of national development, which belongs to the state." The Mexican Bank Law adds two related objectives: the promotion of a healthy financial sector and the adequate functioning of its payments system. Regarding Venezuela, although the initial objective of its central bank law reform focused on the need to increase financial sector competitiveness, a consensus was reached on having an independent central bank that "could clearly support monetary stability and promote healthy public finances."

Venezuela's central bank law includes "economic equilibrium and the orderly development of the economy" as part of the monetary objectives, in a sense introducing economic growth as an additional central bank role. As to Argentina, the combination of an independent central bank and the adoption of the convertibility law permits the "convergence to international inflation." Brazil's actual institutional structure gives its National Monetary Council the capacity to define policies, to promote economic development, and the mandate to meet such goals through its monetary and credit policies "by adjusting the means of payment according to the real needs of the economy." Here one may say that the central bank's objective is exclusively economic growth. Thus in all cases, except Brazil, price stability is the major objective; for Argentina, Chile, Colombia, and Mexico it has become the major and unique goal of the newly independent central banks.

With reference to the institutional framework of the ICB's reviewed, all countries attempted to provide autonomy and stability
by designating full-time Board members and Governor for prudent
terms of office assuring a good degree of permanence and commitment.
Concerning Argentina, Chile, Mexico, and Venezuela, the Board
members are chosen by the Executive with the approval of Congress,
while in Colombia and Brazil these senior officials only require
Executive appointment. Most Board members of the ICB's are
"technocrats," rather than politicians or interest group representatives.
Brazil, however, maintains a wide representation of economic interest
groups. In all cases, save Brazil, the terms of office are long and with
little overlap with the political cycle; also, the Board members and
Governors cannot be removed for policy reasons.
Most countries have also attempted to give autonomy to their
central banks by allowing for financial independence. This has been
done mainly by granting them the returns on their international
reserve investments (capitalization of reserves), besides their own
equity. Chile and Colombia have a constitutional mandate, which
establishes an adequate capital base for their central banks. Venezuela's
bank manages its own budget and equity capital. Most of the Latin
American central banks reviewed transfer their profits to their
governments. Losses have to be covered through banks' reserves
and capital base. The loss of autonomy and higher dependence on
the government comes about when banks have inadequate capital
and register severe quasi-fiscal losses, originating from open market
operations.
As to central bank functions, all ICB Boards have been assigned
the direction of monetary policy and the regulation of domestic
credit. Less independent central banks, such as Brazil's and Ecuador’s,
continue to run monetary policy through an exclusively official
Monetary Board or Council. Regarding the orientation of credit and
financial policies, the specific roles of the ICB's are somewhat
varied. All the banks reviewed have the role of lenders of last resort
solely for liquidity purposes, although this role has deliberate
limitations in Argentina. In Colombia, for example, the regulations
on the financial sector's creditworthiness fall upon the Superintendency
of Banks. There are also differences regarding the role of financial
sector supervision. In Argentina, Brazil, and Mexico it is a major
task of the central bank, while in Chile, Colombia, and Venezuela
there are independent supervisory agencies.
The central banks of Chile, Colombia, Mexico, and Venezuela
are also very much involved in establishing foreign exchange
regulations. The Boards in Chile and Colombia are fully responsible
for exchange rate policy. Argentina has done away with capital
controls, and the exchange rate is pegged to the U.S. dollar on account of the convertibility law. In Mexico and Venezuela, the exchange rate policy is formulated between the bank and the government. In the Mexican case, exchange rate policy is formulated by an Exchange Rate Commission integrated in equal numbers with Treasury and Central Bank officials, but its decisions require, in any case, the favorable vote of at least one of the members of the Government. In Brazil, it is determined by the government; the bank is solely charged with managing the international reserves and the exchange rate, according to directives from the Executive.

One aspect of the new central bank law is promoting stabilization, is its capacity to limit lending to the government and to prohibit extending credit to the private sector, except concerning liquidity access through the financial sector. Argentina, for example, used to provide resources not only to the central government, but also to the provincial administrations. Under the new law, it is forbidden to carry out rediscount operations with the provinces, while there are quantitative limits to the funds lent to the central government. As it stands, the bank cannot hold more than 20% of the total issue of government bonds, with a cap of one-third of the monetary base after some years. In Chile and Venezuela, the financing of government expenditures are specifically prohibited; with regard to Chile, the prohibition extends to indirect ways. In Colombia, lending to the government is allowed but under extraordinary circumstances and only with the unanimous support of Board members. In Mexico its mandate establishes that no outside authority can order the central bank to extend financing through any means at all. Net credit to the Government is expressly limited and credit to the private sector permitted only to the financial sector for monetary regulation purposes.

In terms of relationships with the government, linked with the involvement of senior officials (i.e., Ministers of Finance) in Board decisions, the solution taken in all central bank laws, except Colombia’s, was to exclude them from being formal Members of the Board. Nevertheless, their opinion is to be heard, either by inviting them to the Board meetings, or in the wider spectrum of coordination of macroeconomic policy between the central bank and the Executive. In Colombia, the Minister of Finance presides over the Board, but has only one vote and no veto power in a majority rule decision-making body; in Chile, the Minister attends Board meetings without a vote, but may delay for up 15 days those decisions made. In Venezuela, while the Minister does not attend Board meetings, yet one of the Members of the Board has to be a senior government
official. In Mexico, the Minister is not a Member of the Board, but the Executive does have, as discussed above, much more influence in exchange rate policy decisions, as it is also the case with Venezuela. In Argentina, the most important decisions in terms of monetary and exchange rate policies were adopted by its convertibility law; hence, the lack of the Minister's presence at the Board meetings does not seem to be a fundamental issue.

It should be noted, however, that relationships between the banks and the governments are not limited to the presence of the Ministers or other officials at the Board meetings. The issue of coordination of macroeconomic policy is a topic dealt with in most bank laws. In Chile's case, for example, besides the attendance of the Minister at Board meetings, the central bank president participates at the governmental "Advisory Ministerial Committee on Economics" and at the "Foreign Debts Committee." In Venezuela, the central bank participates formally in the fiscal budgeting and borrowing decision-making process, in an advisory role. In Mexico and Venezuela, the Central Bank is compelled to reach an agreement with the government on exchange rate policies. Besides, in the particular case of Mexico, its political structure and the social "Pacto" system affords additional coordination in the fight against inflation. Finally, concerning Colombia, it is worth pointing out that besides the Minister's formal presence at Board meetings and the attendance of the Governor at governmental committees, such as the Economic Policy and Foreign Trade Councils, the coordination of macroeconomic policy with the government is a constitutional mandate. Should a conflict arise, the law establishes that the decision to be taken is the one that most favors the control of inflation.

A final aspect related with the institutional structure and functions of the newly formed ICB's in Latin America has to do with their accountability. Most of the central banks are answerable to Congress. In Chile, Colombia, and Mexico, twice a year the Bank has to present an economic report to the legislative branch. This "briefing" involves the policies adopted and their future targets. This takes place around the same time the Executive submits the annual budget. On its part, the central bank of Venezuela is an advisor to Congress on fiscal and budgetary matters. In all three cases, the banks have the opportunity to express before Congress their opinion on the government's fiscal policy. Beyond the legal requirements, central banks are accountable to society in terms of their success in controlling inflation. This criterion becomes quite objective in those countries where maintaining
the value of the currency is of central bank priority, and particularly those banks establishing explicit annual inflation targets.

**Formal and Effective Central Bank Independence**

The institutional structure and the various functions of central banks define, in broad terms, their degree of formal or legal independence. The economic literature on the subject suggests that a higher formal independence is reached when the group of directors and the Governor are chosen for long periods and by mandate have a full-time commitment to their responsibilities; where the Board is assigned the full direction of monetary policy; and, where the control of inflation is the single-minded or main objective. From the description given above, it appears that, quite probably, Chile would hold the highest degree of legal independence among the countries analyzed in this paper, with Brazil at the other extreme, Argentina, Colombia, and Mexico would follow Chile very closely.

In a comparative international basis, the new Latin American ICBBs would rank very high in terms of formal independence. In a recent article by Cukierman, Webb and Neyapti, the authors developed an index which measured the independence of the major central banks. However, such ranking did not measure CBZ in Latin American countries with their new legal independent structure. If one was to measure these banks' independence according to their new governing law, one would find that Colombia's central bank would rank among the highest independent banks of the world. Formal or legal independence, however, is not necessarily a good indicator of effective or operational independence, especially in developing countries, as shown by Cukierman et al above. They found, for example, that up to the middle 1980s some Latin American countries with very high inflation experiences such as Nicaragua, Honduras, and Argentina (under its old law) had central banks with very high legal independence. In developed countries, for example, there is a close relationship between legal independence and the control of inflation.

In this context, if we are to judge effective central bank independence, we should look at issues such as the actual operation of monetary policy (i.e., whether there has been a quantitative or price target); the extent to which exchange rate policy has been delegated to the central bank and the criteria for its management (i.e., the use of the exchange rate as a nominal anchor to control inflation); the limitation that has been really placed on central
bank's credit to the government; and, above all, the priority that has been given to control inflation.

As far as monetary policy is concerned, some brief comments are worth making. In Argentina the convertibility law makes monetary expansion endogenous and allows little room for action in carrying out a central bank monetary role. At the other extreme, Brazil's monetary policy has concentrated in promoting economic growth and interest-rate subsidies, together with the central bank's credit orientation to particular sectors. The monetary impact of supporting the exchange rate is expected to be sterilized through Treasury Bond placements by the Mexican Central Bank. In Mexico and Venezuela, interest-rate management has been directed to promoting capital inflows. On the contrary, both Chile and Colombia have attempted to safeguard some monetary autonomy by taxing capital inflows and meeting monetary targets through open market operations.

Also, there have been wide differences observed in the management of exchange rate policies. The use of the exchange rate as an anchor has been the major stabilization tool used by Argentina and Mexico. It has played much lesser role in Chile and Colombia. The latter two countries have adopted a flexible exchange rate sliding band system, with a center that involves a certain degree of nominal devaluation. All four countries have experienced a real exchange rate appreciation. Until very recently Venezuela and Brazil, maintained a full crawling-peg system, Venezuela, however, was recently forced into a maxi-devaluation in order to prevent capital flows and to consolidate a fiscal balance, and is actually managing its exchange rate through an auction system.

Fewer comments can be made on a central bank's funding of government expenditures. On the whole, it seems that legal limitations have been operational. A case in point is that of Argentina, whose bank used to fund both the central and provincial government deficits. Colombia's Board of Directors has not used its prerogative in financing government expenditures. In Chile and Venezuela, it is simply prohibited. Again here the major exception is Brazil, where the Central Bank permanently supports the state banks which finance the state governments' expenditures. The issue in the more independent ICB'S is whether central banks are facilitating government expenditures in indirect ways. The support of the exchange rate, for example, brings about a positive fiscal impact in Venezuela given that its fiscal resources are highly dependent on oil income, which are directly related to the nominal exchange rate. Indirect finance may also be provided when the central bank's open market operations
end up strengthening the price of government bonds. It is also true whenever its monetary and financial policies support the placing of
government debt in the domestic market.

The final proof of central bank independence is whether its policy management is primarily directed to controlling inflation
and the extent to which it is successful. In the past few years
Argentina and Mexico have been able to halt hyperinflations and to
reduce annual price increases to nearly ten percent. Such success,
however, cannot be ascribed solely to central bank independence. In
the case of Argentina, it is attributable less to its central bank
independence than to its convertibility law; whereas in Mexico, it is
due to its macroeconomic policies and not to central bank independence
per se, since the ICBM scheme is just starting. On the other hand, the
lowering of inflation observed in Colombia and Chile during the
past few years has coincided with the new operation of their central
banks, and is quite linked to their new institutional independence
and their policies. In this connection, one can observe that Chile has
been more successful in implementing macroeconomic policies to
control inflation—a success that seems to be related to having a
more independent central bank. Venezuela, with a less independent
bank, has had less or even no success in controlling inflation. Brazil
has neither adopted an independent central bank nor has it been
capable of halting hyperinflation. Its newly announced stabilization
plan is based on the introduction of a mechanism (URV) which
could lead to the elimination of backward-looking indexation, as
well as on a stronger fiscal position and tightening of credit, but no
advance in central bank independence is envisaged. It should be
stressed, however, that in Latin America not enough years have
elapsed under the new ICBM scheme to be able to test its definite
merits in controlling inflation.

An important issue being discussed recently in the literature is the
impact of Central Bank Independence on economic growth. Theory suggests that inflation affects growth by reducing the rate
and the efficiency of investment. From that perspective, it is expected
that the institutional structure of ICB’s and their emphasis on price
stability lead to higher longer term growth. While empirical results
indicate that there is a negative and robust relationship between
inflation and growth, the results linking central bank independence
and longer-term growth seem to be weaker. In the case of Latin
America, given the new nature of central bank independence, it is
yet impossible to relate the impact of ICB’s on longer-term growth.
However, as noted above, central bank independence has been

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adopted together with stabilization efforts, trade liberalization and other structural reforms which have resulted in the resumption of growth.

Sustainability of Central Bank Independence in Latin America

The sustainability of central bank independence in Latin America will depend on the credibility of the macroeconomic policies adopted by central banks. It also involves the reputation that ICB's acquire, in terms of their capacity to consolidate the control inflation as the priority goal, and to attain price stability.

There are at least five areas that challenge the survival of central bank independence in Latin America. In the first place, there is the issue of monetary rules vis-a-vis interest rate targeting. With the elimination of capital controls, there is less room for an independent monetary policy. In this connection, the major tool assigned to central banks for stabilization tends to lose much of its effectiveness. For those ICB's where monetary policy is the only tool to control inflation, there is a likelihood that inflation will not be reduced, which will mean a loss of credibility and reputation. Even where there is monetary independence, there may be limitation to its application if the central banks have a weak financial capital base to cover quasi-fiscal losses due to open market operations.

The second aspect is related to exchange rate management. If the ICB's go on to use the exchange rate as an anchor for stabilization purposes, there could well be a significant appreciation of the exchange rate. This would be particularly so if, due to inertia factors or fiscal mismanagement, there is not a rapid enough decline in inflation. In such situations, as has occurred in Argentina and Mexico, but also in a lesser scale in Chile and Colombia, there will be generalized pressure to backslide in stabilization efforts. There will also be the temptation for central governments to regain the management of exchange-rate policy. In such context, it is important to take account that for countries such as Chile and Colombia under managed floating rates, monetary policy affects the exchange rate and, thus, the Government can not have control over exchange rate policy while the central bank has control over monetary policy.

The third involves the capacity of ICB's to influence governmental fiscal behavior. Very little is gained with the restriction on central banks to direct credit to the government, when there is an wide
possibility of financing fiscal deficits through external and domestic credit. Even though central banks may compensate inconsistent fiscal behavior with monetary and exchange rate policies, such action may end up being too costly in terms of resource allocation. Central bank success would thus be dependent on their direct and indirect capacity to influence fiscal behavior.

The fourth aspect regards the negative impact of stabilization efforts on output fluctuations. Even if authorities accept that the control of inflation leads to higher longer-term growth rates, Governments, and specially incoming administrations which have not been responsible for the adoption of the new independent central banks and their emphasis on price stability may be adverse to the short-term output fluctuations implicit in strict monetary, fiscal and exchange policies, thus undermining stabilization efforts.

The final aspect to be analyzed, related to those mentioned above, is the importance of central bank coordination with the government and to solutions foreseen by the law, should conflicting situations arise. Given the short history of independent central banks in Latin America, there still remains, except for Chile, and more recently with Venezuela in a costly way the test of survival of CBI's when a new administration takes office, even for those countries where central bank independence was brought about by constitutional amendments. The experience in conflicting situations, although not serious, has occurred only between the newly independent central bank boards and those government officials who promoted their creation. In a sense, it has involved confrontation between parties that, after all, have shared the common view that controlling inflation is a priority, and that an adequate means to reach it is to have an independent central bank. CBI's in Latin America are likely to be more sustainable if there are legal provisions concerning steps to be taken, should a conflicting circumstance arise and, what is more important, if CBI's have acquired a sufficient reputation to be able to get the support of Congress and the general public, as the Bundesbank experience has so clearly shown.
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Venezuela
IV. Improvements in the Availability of Information on Publicly Traded Companies in Latin America

Robert Gay

Introduction

Information is the lifeblood of efficient markets. Without adequate disclosure of corporate financial results and rules of behavior for disseminating information, equity markets can be subject to manipulation, insider trading and even fraud. Emerging markets, in particular, have been prone to the vagaries and volatility of small illiquid markets, especially during the nascent stage of development when disclosure requirements may be substandard and local accounting rules may not be adequate to support sound financial analysis. Recognizing the need for greater transparency, regulators in a number of emerging countries have undertaken major initiatives to strengthen laws and regulations on reporting corporate financial information.

In Latin America, accounting practices have been heavily influenced by the U.S. GAAP. Nevertheless, the amount and quality of financial statement data provided by Latin American companies varies greatly from country to country. For instance, the disclosure standards for Mexican, Brazilian, and Chilean companies are very close to accepted international standards. Brazilian securities law
dates back to 1976 when the Comissao de Valores Mobiliarios (CVM) was created to regulate the capital markets. The CVM, which is equivalent to the U.S. Securities Exchange Commission, initially set requirements for issuing stocks and debentures that included publishing quarterly and annual financial statements. For major listed corporations, the quality of these reports is considered to be quite good. The financial reports of Chilean companies are also considered to be among the best in the region in terms of disclosure, quality of audits, timeliness, and accounting quality. Meanwhile, the disclosure practices of companies in Peru, Uruguay, Colombia, and until recently Argentina, are still so primitive that their financial statements are not as useful to investors. Both Argentina and Peru, however, have recently upgraded reporting standards, and Venezuela is studying a potential overhaul of its accounting rules.

**Necessary Compliance**

With a growing number of Latin American companies interested in listing their stock for public trading in the United States, their disclosure and accounting practices have had to change in order to comply with the stricter regulations of the exchanges in the United States. Previously, most Latin American companies preferred private placements or sales of restricted 144A shares in the United States. Sales of 144A stocks, which are reserved for large institutional investors, have less rigorous accounting and disclosure requirements. Many companies in Latin America, especially those that are family-owned, sold shares through the 144A rule because they did not wish to provide U.S.-style disclosure for privacy or tax purposes. These circumstances are changing. Pressure from regulators, the prestige associated with public offerings, and improved liquidity and investor awareness are some of the reasons why more and more Latin American companies have recently decided to list publicly on international exchanges. As a result, the quality and availability of financial information about the companies in the region has improved significantly.

An increasing number of privatizations of public enterprises also are being done through international stock offerings, notably through American Depositary Shares or Receipts which must meet the disclosure standards of U.S. stock exchanges. As a result, governments have often had to reconstruct financial records in line with U.S. requirements prior to the sale. In some cases, notably Mexico’s public sales of the state-owned telephone company and
commercial banks during the early 1990s and Argentina's sale of the national oil company in 1993, large privatizations have been the catalyst for transforming local stock markets into more broadly held international markets, in part by raising standards for providing financial information. A vast number of privatizations in Peru during the next two years may serve as a similar stimulus to improvements in corporate reporting in the country.

By contrast, the main force behind better disclosure and stricter oversight of Chile's equity market has been the advent of the country's private pension plan. Funded by mandatory payroll deductions, Chile's pensions are vested with the employee, who can direct their investment to various private fund managers, who in turn are subject to regulatory oversight. Most notably, fund managers are not permitted to invest in shares of companies that do not meet strict reporting and other requirements. Chilean regulators continue to refine the rules regarding pension funds. Legislation pending in congress—the so-called "Deal 3500" for example—would regulate who can be on the board of directors of local pension funds and would set new (higher) limits on the holding of foreign shares. Most South American countries have studied the Chilean pension system for possible adoption and some, including Argentina and Peru, have fashioned their new pension plans on the Chilean model.

Regulators have also played a major role in changing attitudes about disclosure. In June 1993, the Council of Regulators of the Americas (COSRA) was formed with the purpose of exchanging information about the members' respective markets and to develop ideas to improve market efficiency. Other functions of the COSRA include reviewing accounting, disclosure and the surveillance systems of the member countries. At the first organizational meeting of the group, the issues of market transparency and insider trading were frequently raised. Conference emphasized the need for last sale reports and firm quotations at the best prices disseminated on a timely basis so that all market participants have an accurate reading on the current price of a security. In addition, they acknowledged that insider trading continues to be a problem since it is not a criminal offense in most Latin American countries.

Argentina is one of the countries in the region that has begun to aggressively tackle the issues of insider trading and market transparency in recent years. For instance, the Buenos Aires stock exchange will soon inaugurate a computer matching order system based on the Canadian CATS. This system will include a "stock watch" that will automatically raise a red flag if equities start to
trade at ranges that are out of line with the rest of the market. The National Securities Commission (Comisión Nacional de Valores—CNV) will investigate whenever there are suspected violations. Furthermore, a new law was presented to the Argentine Congress, the "Law of Transparency of the Markets," that intends to raise fines for insider trading offenses from the current maximum of $8,000 to $3 million.

Availability of Information

Besides the tougher regulations that are being implemented to control insider trading, there has been a great improvement in the availability of information provided by companies to investors. The improvements have come about as a result of stricter requirements imposed on companies by regulatory agencies, as well as an increase in the willingness of local companies to provide financial and strategic information on a timely basis. For example, many Argentine blue-chip companies already have or are planning to establish investor relations departments. As recently as two years ago, this function did not exist at most companies in Argentina.

Martin Redrado, the president of the National Securities Commission, is well known for his efforts to impose more stringent regulations during the last two years. The Commission has begun to use its power to enforce regulations and has tried to appear tough in some high visibility cases. It has already initiated more than 80 investigations. In 1993, it fined at least 34 directors of publicly listed companies and took away the licenses of twelve securities firms. A much publicized case involved Acindar Industries S.A., a large steel maker and one of the most heavily traded issues on the Buenos Aires Stock Exchange. The regulators accused the company of diverting profits to controlling shareholders through a separate company. Acindar has denied any wrongdoing, and the case is still under investigation.

Other changes imposed by the regulatory agencies of stock exchanges in Argentina include the shortening of the financial disclosure period, the elimination of a 5-day settlement period, the identification of short sellers, and the consolidation of equity trading on the Buenos Aires stock exchange and of government bond trading on the OTC market. All these changes are geared toward increasing the credibility of the Argentine exchange.

Some examples of changes in the accounting and disclosure practices of Colombian companies can also be cited. The government
of Colombia implemented new accounting rules for private and public companies effective January 1, 1994. In general, the new rules are meant to increase market transparency by requiring companies to disclose additional information in their financial statements. For instance, Colombian companies will now be required to submit a cash flow statement. Under the previous rules, the notes to the financial statements, but not a cash flow statement, were included as part of the basic, required financial statements. Furthermore, a permanent Council was created to evaluate accounting regulations and practices. The new council will be part of the Ministry of Economic Development (Ministerio de Desarrollo Economico). In addition, the new rules define new items to be included in the balance sheet and income statement such as pension liabilities and the depreciation of assets. Significant, albeit less sweeping, changes in accounting standards can be found in Venezuela. The professional accounting associations in the country now require inflation-adjusted information in supplementary statements. The information, which may take the form of parallel statements or an extensive note, will consist of inflation-adjusted statements based on the consumer price index, with an option to incorporate replacement values.

Uniformity Needed

Although the accounting practices of Latin American countries have been modeled after the U.S. GAAP, the amount and quality of information disclosed is not uniform throughout the region and is still less specific and detailed than in the United States. For instance, the Mexican Institute of Public Accountants (IMCP), through its Accounting Principles Commission, has issued a number of formal statements on generally accepted accounting principles, which are, in substance, similar to those followed in the United States, except in the areas of accounting for inflation and income taxes. Nevertheless, some significant areas have not yet been covered including the treatment of interest on receivables and payables, translation of foreign currency transactions, specialized industry practices, real estate sales, and off-balance-sheet financing. One area of Mexican accounting that has recently been altered to be consistent with U.S. GAAP is the treatment of pension liabilities. Companies are now required to follow a set of standardized rules when disclosing their pension expenses.
and liabilities. Previously there was no uniform set of rules governing the employer’s accounting treatment of pension plans.

Even though a lot has been done to improve the quality and availability of information on publicly traded companies in the region, a lot of work remains to be done. As mentioned above, the Council of Securities Regulators of the Americas recognizes the need to increase market transparency and impose controls on insider trading. Similarly, the accounting associations of many countries in Latin America have acknowledged the need for further improvements in the quality of financial reports and are implementing changes. The increased exposure to international markets should heighten awareness of accepted standards for the quality of information, which in turn should promote the continued evolution of standards of Latin American exchanges.
V. Improvements in Accounting and Disclosures
Juan Rivera and Timothy Doupink

Improvements in Accounting and Disclosures—Mexico

The issuing of accounting standards in Mexico rests on the Accounting Principles Committee, a unit of the Mexican Institute of Public Accountants which is the professional association grouping all the state accounting societies. The committee is integrated by prominent practitioners, academicians and financiers, but different from the U.S. Financial Accounting Standards Board (FASB), it is not an independent body. The process of preparing a new accounting norm in Mexico follows steps that resemble those applied in the U.S., such as preparing an initial draft of the principle for discussion, receiving comments from the membership, deliberations by the principles committee, and final approval and publication by the Institute’s Executive Board. A new standard must be approved by at least two-thirds of the members of the Accounting Principles Committee before passing to the Executive Board of the Institute for final consideration. The committee is also in charge of revisions, interpretations or recommendations affecting the standards outstanding.

As per regulations from the National Securities Commission, observance of accounting principles and disclosures is compulsory
for those companies whose securities are listed on the Stock Exchange. Use of accounting standards by non-listed companies is generally observed, and needed for businesses applying for commercial loans or credit from suppliers. Mexican certified public accountants can opt for registration with the Office of Federal Taxation which enables them to issue an additional tax attestation that is similar in nature to the auditor’s report on the company’s financial statements. For the company, the benefit of the added tax report is the comfort of having been reviewed by an independent tax specialist, and the implied reduced likelihood of being audited by the tax authorities.

The influence of U.S. accounting is evident in several areas, partly due to the presence of numerous affiliates of U.S. multinational corporations, and also due to the prominence of local representatives of the Big Six U.S. accounting firms. For those areas where a Mexican accounting principle is not yet available—such as earnings per share or line of business disclosures—it is customary to find the corresponding U.S. standard being applied. Still, there are characteristics of the economy—not atypical of those found in the rest of Latin America—that call for addressing special accounting issues, such as inflation accounting. In addition, there are distinctive accounting practices and disclosures for regulated industries—banking, insurance, trusts—that go beyond the mold of generally accepted accounting principles as currently known.

The general characteristics of financial accounting information as known in the U.S.—such as objectivity, freedom from bias, timely information, usefulness, and consistency—serve as a general framework upon which the accounting principles are formulated. These basic concepts are referred to as Series A in the published official standards. Three other series comprise standards for the financial statements in general, principles applied to specific items and accounts, and special issues on income measurement, respectively. The required financial statements include the balance sheet, the income statement, the analysis of changes in owners’ equity, the changes in financial position, and the corresponding footnotes.

**Inflation Accounting**

Up until the middle 1970s inflation rates were kept in Mexico at such low levels that it was unnecessary for the accounting profession to abandon the historical cost model for reporting financial information. An initial attempt to recognize the effects of inflation occurred in 1979, when a new principle called for disclosing gains or losses
resulting from holding non-monetary assets and liabilities. Also, the concept of capital maintenance in financial terms required the creation of a special reserve account in the equity section. The new accounting principle borrowed many of the features of the FASB's standard No. 33 on inflation accounting and, like it, asked for additional disclosures without modifying the original historical data recorded on the accounts. The new principle never received general acceptance and was subsequently eliminated by the Accounting Principles Board in the early 1980s—and reached 160% in 1987—there was a valid need for a mechanism that would adjust for the impact of inflation on the company's reported operations. Thus, the accounting profession came up with a standard that replaced historical cost and included the adjustments for inflation within the body of the financial statements.

Mexican standard B10 on the effects of inflation on financial information became compulsory for all companies in 1984. Its four amendments since then have served to fine-tune the basic structure laid down in the prescribed accounting treatments. The standard is built around three angular concepts, namely, the effect of inflation on the net monetary (assets minus liabilities) position, the resulting gains or losses from holding non-monetary assets, and the preservation of capital in financial terms. The method prescribes the reexpression of all financial data in terms of monetary units as of the closing date of the current reported period, and all comparative financial statements from prior years should also be restated to constant pesos as of the date of the most recent balance sheet presented.

To adjust for inflation, companies can use a consumer price index published by the central bank or restate the asset values to current replacement costs. The National Securities Commission requires listed companies to revalue physical assets according to valuations by independent registered property appraisers. When a business follows this approach, the difference between the restated values and those that would result if a general price index were applied is reported as a gain or loss in holding non-monetary items. This special account appears in the owners' equity section. The cost of sales and depreciation in the income statements should reflect the values adjusted for inflation, or the replacement values if the specific cost restatement option is followed. The owners' equity accounts need also to be adjusted for the effect of changes in the general price index. For purposes of consolidated financial statements, all the
accounts of the controlled subsidiaries must be in inflation-adjusted
terms prior to proceed with consolidation.

A novel concept introduced by the accounting principle on
inflation is the "integral cost of financing" which is disclosed in the
income statement. This is the net result of the nominal interest
expense, the gain or loss due to price level changes on the net
monetary position, and the differences in exchange rates affecting
monetary items denominated in foreign currencies. Capital
maintenance in constant peso units is thus achieved by accounting
for inflation and exchange rates effects in the net income for the
year, and reporting the cumulative result of holding non-monetary
items in a special account within the owner's equity section of the
balance sheet.

Assessment

After several attempts, Mexican accountants have been successful in
accounting for inflation through a mechanism that is comprehensive
and adheres to the idea of capital maintenance in real terms. The
system of reporting the inflation adjustments on the cost of financing
is similar to the integral correction method used in Brazil, with the
added benefit that the various elements impacting that cost are
properly and separately disclosed in the Mexican model. In addition,
the consumer price index published by the central bank is the
prescribed factor to use, thus standardizing the adjustment applied
by all the reporting firms. Comparability among companies is thus
enhanced.

Users of published financial information have become accustomed
to the reported adjusted data and are pleased to know that the
accounting income figures represent amounts in real constant pesos.
However, as this system has been perfected, there is the impending
alternative that it might be soon dismissed or left as an optional
mechanism in the future. Certainly if the experience of FASB's
statement No.33 is a pattern, the Mexican accounting profession
might be contemplating this option. However, there is a positive
side of this potential outcome. The government has been very
effective in controlling inflation in the last two years and it is
thinkable to see it abated to single digits in the near future. At what
threshold it would be low enough to revert back to the traditional
historical cost accounting model is difficult to determine, but indeed
that must be a check mark on the agenda of the accounting principles
board members.
Other Accounting Issues

The majority of existing accounting principles in Mexico are not in disagreement with the precepts of the International Accounting Standards nor with coverage of those topics in the FASB's norms. There are just some areas where standards are simply not available. For instance, there is not an accounting principle to disclose segmental information, nor a standard to translate to local Pesos a subsidiary's financial data denominated in a foreign currency. Moreover, there are no accounting standards requiring such disclosures as earnings per share, extraordinary earnings or earnings from discontinued operations. Some of the companies listed on the exchanges voluntarily disclose sales figures for their main lines of business, but this is only an exceptional practice. The disclosure of segments by geographical areas is probably not essential at this point because only a few of the major Mexican corporations have controlled affiliates abroad, but that is likely to change as a spillover effect of NAFTA and the open market policies lately embraced by the Mexican government. In regards to earnings per share, the practice of presenting the primary (common) earnings per share for the period is widespread.

Valuation rules for the many items included in the financial statements are evidently affected by the dictated adjustments to constant prices, but there are a few accounts that deserve attention. Cash, investments, and receivables or payables that are denominated in a foreign currency are translated to Mexican pesos at the exchange rates available on the date of the ending balance sheet, thus being in general agreement with the accounting treatment for these items under FASB statement No. 52. However, there is not a discussion of accounting for hedging instruments or transactions in the available Mexican accounting principles. Inventories can be measured and reported at cost adjusted for inflation, at last-purchase prices, at standard cost, or even at direct costing, with the only limitation that the reported values on the balance sheet must not exceed replacement cost. On the other hand, the existing accounting principles are emphatic in recording research and development costs as expenses of the period when incurred.

One of the unique features in the income statement of Mexican firms is the annual profit sharing amount owed to all personnel of a company. Profit sharing has been in place for over twenty years, results from binding legislation and is generally regarded as another cost of doing business in the country. This item which is not really an expense is appropriately disclosed at the bottom of the income
statement, just before net income. Other relevant labor costs have included a provision for severance payments to dismissed employees. This is because the labor laws are onerous for a company when any of its employees is dismissed without a justifiable reason, and proving a just cause here is a burdensome task for any company.

Pension accounting has been introduced through a recent accounting standard effective for fiscal periods starting in 1993. The content of this principle follows pretty closely the accounting for pension plans as conceptualized and practiced in the U.S. Up until recently pension plans have been rare in Mexican business, and retirement funds for employees have consisted mainly of social security benefits. Also of recent vintage is a standard on accounting for leases, effective in 1991, which again resembles much of the treatment for leases found in FASB’s Statement No. 13, including the conditions that qualify for a lease contract to be capitalized.

Accounting for investments in affiliated companies is configured in the traditional mold found in the FASB or the International Accounting standards. Thus, consolidation is required when control exceeds the 50% mark, although it is possible to effect consolidation with less than 50% of capital ownership when agreements with other shareholders or similar arrangements effectively produce majority control on the investee. Participation by the equity method is called for when the investor exercises significant influence—but not majority control—on the decisions of the investee. Significant influence is assumed to exist when participation in the voting shares of the associated company represents more than 10% and up to 50% of the total shares outstanding. The purchase method is the one authorized for acquisitions of existing business and pooling of interest is not referred to in the existing accounting norms. The difference between the cost and the fair value of the net assets acquired could originate a positive or negative goodwill which is normally amortized in the income statements during a period not to exceed twenty years. Under certain conditions the standard permits the immediate disposal of the difference between the cost and the fair value of the net assets acquired in the purchase of an established business.

Income tax expense for Mexican companies is computed according to the partial liability method. Under this approach, deferred income taxes are provided for identifiable, non-recurring timing differences—expected to reverse in the future—at rates in effect when those differences arise, and reversed at those same rates when reversal occurs. A peculiar characteristic of Mexican accounting practice is
the recognition of gains—and, though rare, potentially losses as well—in treasury stock transactions with the company’s own shares. Contrary to a normal accounting doctrine that would preclude recording income gains from transactions with the company’s shareholders, the Mexican Law of the Securities’ Market dictates this specific accounting treatment. A company that purchases its own shares must then keep them as part of the short-term assets. Under normal treatment in U.S. accounting standards the differences resulting from treasury stock transactions must be included as Paid-in-Capital in excess of par or stated value.

Disclosures
Notwithstanding the lack of pronouncements in areas such as segmental disclosures, off-balance-sheet financing, hedging instruments, etc., the degree of disclosure provided in the published financial statements of Mexican listed companies is more than adequate. The content of footnotes typically include contingencies, related party transactions, list of major financial commitments, analysis of pension expenses, explanation of the integral cost of financing, liabilities denominated in foreign currencies, list of affiliated companies, etc. The statement of changes in financial position or fund statement—like its counterpart in the U.S.—constrained the concept of funds to cash and cash-equivalent short-term investments, thus eliminating the option of working capital as a fund in the preparation of the statement.

Conclusion
The Mexican accounting practice, although still in the process of adapting to increasing demands for measurement and disclosures, has achieved a good level of mature competence. In their quest to find solutions to subjects not yet covered by their existing framework of accounting norms, the Accounting Principles Committee has paid close attention to the U.S. GAAP and the principles advanced by the International Accounting Standards Committee. In addition, new legislation introduced in 1993 produced a new Law of Securities’ Market intended to create or reinforce the needed mechanisms to guarantee a healthy operation of the market, and to increase the transparency of transactions and financial disclosures of the companies whose securities are traded in the market place.
Improvements in Accounting and Disclosures—Argentina

Accounting in Argentina has been adversely affected by a proliferation of organizations that have engaged in the issuing of accounting norms. Different than the majority of countries in Latin America, the profession of accounting has been associated more with economics than with pure public accounting, and until recent years its practitioners invariably held a university degree in economics because there was not a degree in public accounting granted.

Argentinian legislation recognizes twenty three Professional Councils of Economic Sciences in the respective states and the federal capital as the official agencies entitled to issue accounting principles and auditing standards that regulate the practice of the profession. This is implemented at the national level, where the state councils are grouped into a Federation whose Center for Scientific and Technical Studies (CECYT) issues Technical Statements. Some of these statements represent accounting principles, thus making the CECYT one of the various sources of accounting standards in Argentina. Another important source is the Technical Institute of Public Accounting (ITCP), a special committee of the Argentinian Federation of Graduates in Economic Sciences, a private association of some twenty local professional accounting institutes. The ITCP issues Recommendations, Professional Norms, and Statements of Opinion on accounting issues. In addition to these two main technical committees other government agencies such as the National Securities Commission, the Central Bank, and the Superintendency of Financial Institutions, among others, are authorized to rule on accounting measurement and disclosures applicable to those companies they are in charge of regulating or overseeing. Lastly, the office of the Inspector General of Justice (IGJ) has issued regulations on the format and content of mandatory financial statements and schedules that must be filed by limited liability corporations (SAs).

Notwithstanding this multi-tiered approach by regulatory and professional groups to financial reporting, there are some common accounting rules that can be identified as applied in practice. Thus, all financial statements must be adjusted for inflation. The accounts must be expressed in constant units as of the date of the most recent balance sheet being reported. The reporting valuation rules are built on the concept of capital maintenance in financial terms. Financial statements consist of the balance sheet, the income statement, the statement of changes in financial position and the corresponding notes. A statement of changes in financial resources—which can be
prepared with working capital as the concept of resources—and comparative financial statements for two years are obligatory for certain types of corporations, namely, companies that:

• publicly offer capital stock or debt securities,
• surpass a minimum amount of capital stock, fixed by the federal government,
• are incorporated and have government participation,
• are engaged in investment, saving, or similar operations with cash, securities or funds from the general public,
• offer public services through concessions granted by the government, or
• control, or are controlled by corporations that fit any of the types listed above.

Inflation Accounting
As it is in Brazil, Mexico, and the majority of countries in Latin America, the quality of financial reporting in Argentina is very much determined by the way in which the effects of inflation are incorporated in the reported accounts. After several Argentinian approaches to adjust the historical cost, there is still not a single sanctioned formula to treat the effects of inflation. This might be due to the multiplicity of regulatory and professional bodies with an interest in dictating accounting norms. It is then permitted in Argentina to use a current value and/or purchasing power factor adjustments to portray financial data in assumed constant currency units. The most common procedures separate first monetary and non-monetary items. Monetary items are restated using a factor that is normally represented by a consumer price index. Still, marketable securities can be valued at net realizable value. Inventories can be reported at the lower of current replacement cost or net realizable value. Fixed and intangible assets are adjusted at current cost, by independent assessment, or by applying an inflation index. Owners' equity accounts have to be reported in constant dollars using a general price index. The general objective of the system is to express all the financial information in terms of current pesos, i.e., those as of the date of the last balance sheet being reported. Tax authorities generally recognize inflation adjusted financial statements for purposes...
of assessing the income taxes that Argentinian companies are subject to.

The resulting purchasing power gain or loss on net monetary items is reported as a single line in the income statement. This disclosure differs from the one used in Brazil where the adjustment is applied to the various components of the income statement affected by the change in the purchasing power of the currency. It is also different from the method used in Mexico where the gain or loss from monetary accounts is associated with the total cost of financing. Consequently, the Argentinian system is less informative. Given the fact that there are acceptable options when companies adjust their financial data for inflation, the comparability of financial information among different companies is limited.

Other Accounting Practices and Disclosures

Accounting principles also address the participation in controlled or associated business units. Consolidation takes place when a firm has the majority of voting rights by ownership of shares of the controlled business, or by any other indirect means. Consolidation is exempted when the related companies are in very heterogeneous activities. Invariably, the financial statements of the separate controlling company must be included as additional information to the consolidated ones. When no majority, but significant control on the investee exists, the equity method of partial participation applies.

There are many areas where there is a lack of accounting principles, or where a single solution does not exist. For instance, in accounting for income taxes, companies may use the deferral or liability methods. Goodwill might be recorded in the purchase of an existing business, but no guidelines regarding the period for its amortization are given. No accounting standard exists for translating financial statements originally denominated in a foreign currency. The recognition of Research and Development costs as an asset is permitted, but conditions that call for its deferral and the time for its amortization are lacking.

The disclosures in Argentinian financial statements are not as extensive as those found in Mexico or in Brazil. Footnotes make reference to issues such as valuation principles used, post balance sheet events, discontinued operations, and companies being consolidated. Contingencies such as those derived from possible severance payments for dismissal of employees are often included as an accrued liability. On the other hand, the presentation of
earnings per share is not required, neither is the reporting of related party transactions. Segmental disclosure by lines of business or geographical areas is also missing.

In summary, accounting in Argentina is in a developing stage when compared to the more complete models of Mexico, Brazil, and even Chile. The lack of a complete and sound financial accounting reporting process is due in part to the existence of multiple organizations attempting to issue statements to guide the way accounting ought to be. Also, the amalgamation of accounting with economic sciences in the university curricula have hindered the maturity of an accounting profession on its own. All these factors impose limitations to the usefulness of financial information reported by Argentinian corporations, and generate areas of potential conflict with the measurements and disclosures that international accounting standards support.

Improvements in Accounting and Disclosures—Brazil

Generally accepted accounting principles (GAAP) for public companies (SA's) are derived from various sources. The Corporation Law of 1976 contains the basic requirements for financial statement presentation and disclosure. The Securities Exchange Commission (CVM) is responsible for developing accounting standards for public companies. The Brazilian Institute of Accountants (IBRACON) issues pronouncements which if approved by the CVM become obligatory.

Public companies must publish and file with the CVM audited comparative financial statements. Compliance with GAAP is monitored by the independent auditor who must be registered with the CVM. Most Brazilian companies are organized as "limitadas" and as such do not fall under the purview of the Corporation Law or CVM. Limitadas are not required to publish financial statements and, unless subject to independent audit, tend to use accounting rules acceptable for tax purposes which may not be in accordance with GAAP.

Inflation Accounting

The most important consideration is assessing the quality of financial reporting in Brazil is the way in which inflation is incorporated into the accounts. With inflation since 1990 running at over 1,000% per year (40% per month currently), unadjusted historical cost accounting is meaningless.
Since 1976, public companies have published financial statements using a system of monetary correction (SMC) required by the Corporation Law. "Limitadas" also prepare inflation-adjusted statements as monetary correction is also required for tax purposes.

The SMC has two major conceptual problems. The first is that inventories are not adjusted for inflation, which causes assets (inventories) to be understated and income to be overstated. The second problem is that various inflation adjustments (restatement of income statements items and purchasing power gain/losses) are aggregated in a single monetary correction account reported in income which results in a loss of information.

The most important problem, however, has been the government's manipulation of the monetary correction index. (This problem peaked in 1990 when consumer prices rose 1,795% but the index was increased only 845%.) Suppression of the index leads to an understatement of assets and owners' equity and overstatement of income. An analysis of the income statements of 20 banks in 1990 found that they paid three times as much in taxes as would have been reported in pre-tax profit if an accurate inflation index had been used.

Since 1990, the government has refrained from manipulating the monetary correction index. This greatly improves the quality of the SMC's financial statements. However, the noncorrection of inventory and loss of information problems remain.

The CVM introduced a system of integral correction (IMCS) in 1987 to overcome the SMC's conceptual problems. Inventory and all income statement accounts are adjusted for inflation and the various effects of inflation are allocated to their related income statement accounts.

Suppression of the index adversely affected the IMCS also. In 1992, the CVM separated the index used for the IMCS from that required for the SMC in case the government manipulates the monetary correction index in the future.

With the IMCS Brazil has made significant improvements in its method of accounting for inflation. The IMCS provides an accurate measure of "real" profit. (Real profit is the amount that can be withdrawn from the company—taxes and dividends—while maintaining the purchasing power of owners' capital that existed at the beginning of the year.) Because the individual items in the income statement are adjusted for inflation, ratios such as return on sales and the gross profit ratio are more meaningful than under the SMC. The IMCS itself does not appear to have any problems, either conceptual or practical.
A problem which remains is that both SMC and IMCS financial statements are published which could provide conflicting information to readers. It is not uncommon, for example, for a company to report operating profit under the SMC and an operating loss under the IMCS. In December 1993, the CVM passed a regulation that exempts publicly traded companies from publishing SMC accounts in the future. Brazilian companies should be encouraged to discontinue publishing this information.

The other major problem is that the SMC continues to be used for tax purposes and as a result Brazilian companies continue to be taxed on inflation-induced profits caused by the non-indexation of inventory. Convincing the government to use the IMCS for tax purposes is the logical next step in the evolution of inflation accounting in Brazil.

Revaluation of Assets
In addition to the required indexation of historical cost of permanent assets, the Corporation Law also allows revaluation of assets to a higher market value. Over the years, some companies have availed themselves of this option primarily as a means to compensate for the understatement which results from suppression of the inflation index. Revaluation has not been carried out by all companies, however, which leads to noncomparability of financial statements across companies. To enhance comparability, revaluations should either be required or not allowed at all. With the IMCS, revaluations do not appear to be necessary.

Other Accounting Issues
Brazilian accounting is at odds with International Accounting Standards with regard to allowing capitalization of research and development costs and noncapitalization of capital leases by lessees. However, as the amount of R&D costs capitalized must be disclosed and lessees must disclose the amount of asset and liability if the lease had been capitalized, readers should be able to make appropriate adjustments.

The most important deviation from international standards is in the translation of foreign currency financial statements, where Brazilian GAAP requires all translation gains/losses to be taken to income. Translation gains/losses from foreign subsidiaries which
operate relatively independently of the parent should be deferred in the balance sheet.

Brazilian companies have limited ability to smooth or hide income through the creation of provisions. (General provisions are not allowed.) This enhances the quality of financial statements.

One troublesome aspect of Brazilian accounting is that companies are required to prepare consolidated financial statements only if investments in affiliates makes up at least 30% of the company's net worth. Companies should be required to prepare consolidated statements whenever one company exerts control over another.

Disclosure

Brazil has fairly extensive requirements for disclosures such as valuation principles, related party transactions, post balance sheet events, contingencies, and earnings per share. There are detailed disclosures related to the IMCS, and a reconciliation between SMC and IMCS income and owners' equity is required. A statement of changes in financial position must be published and financial statements must be accompanied by a report of the administrative council. One very positive aspect of Brazilian financial reporting is that the CVM requires quarterly reporting on a timely basis (45 days after end of quarter).

Segment reporting is an area in which Brazilian disclosure is lacking. There are no requirements for disclosures on an industry or geographic segment basis. At a minimum, Brazilian companies should be required to disclose sales on a segmental basis. Even better would be the disclosure of profits and assets also as is required in the U.S. Other areas in which disclosure is not as extensive as in the U.S. related to financial instruments, pensions, and other post employment benefits. In general, however, Brazilian disclosure requirements compare well with those in the U.S.

Improvements in Accounting and Disclosure—Other Countries

The status of accounting in Latin American countries is shaped and conditioned by factors such as the degree of development of their domestic capital markets, the participation of direct foreign investments in their economies and the acceptance of free market mechanisms in the orientation of the governments' economic policies.
As a general rule, the design of accounting principles is a prerogative of the organized accounting profession which appoints an ad hoc technical commission to carry out that task. The accounting principles commission is invariably a subunit or committee of the national association of public accountants. In exceptional cases accounting norms are prescribed by government regulation, as it is the case in Colombia where a law enacted in 1988 lists the accounting and auditing standards that ought to be observed by business enterprises. Likewise, in 1987 the Peruvian government created the Regulatory Accounting Council, a government agency in charge of promulgating accounting standards applicable to a range of entities, including those in the private sector.

Chile is probably the country among those in Latin America where accounting practices and financial disclosures have achieved a pretty good standing. A very comprehensive set of technical standards formulated by the Chilean Institute of Public Accountants is in place. Areas covered in the accounting pronouncements include adjustments for inflation, contingencies, pension accounting, related party transactions, leases, research and development costs, etc. The concept of capital maintenance is observed, and valuation of fixed assets is practiced. Adjustment of financial data to constant Chilean pesos has been necessary because of high inflation in past years, but a consistent trend to control it is observed. Similar to Mexico, the annual inflation in the past year was reduced to a level of about 11 percent. The typical set of financial statements, i.e., balance sheet, income statement, changes in owners' equity accounts, and changes in financial position—plus the corresponding accompanying notes—comprise the required accounting reports. As it is also typical in the majority of the countries in the region, the concept of funds used to prepare the statement of changes in financial position still corresponds to net working capital.

In perspective, advancements in Chilean accounting and disclosures have been favored by privatization of state enterprises and a proliferation of public placements of stock by domestic companies. The local stock exchange has been very active in this process, and timely financial data of listed companies is readily available for review at the exchange's facilities. Undoubtedly the modernization process in Chile has been aided by the presence of institutional investors engaged in managing pension funds which were introduced in the country only in recent years.

At the other side of the spectrum there are some countries in Latin America where there is a lack of written accounting standards.
An example of this is Honduras. In cases like these the practice of accounting is guided mainly by fiscal regulations and procedures, although practitioners tend to follow U.S. and Mexican accounting norms whenever feasible.

There is a commonality of concepts and issues among those accounting pronouncements currently applied in Latin American countries. Thus, basic concepts such as entity, accruals, going concern, realization, consistency, objectivity, relevance, conservatism, etc., are easily found. Also, adjusting historical cost to reflect price level changes and thus preserve capital maintenance is a prevailing practice. If there is not a sanctioned standard, countries—for example, Costa Rica—have borrowed and applied the Mexican model to recognize adjustments for inflation on the accounts. There is here evidence of another common denominator in Latin American accounting, namely, the adaptation of Mexican, U.S., or International accounting principles in those areas not yet addressed by the local accounting pronouncements. Finally, there is the implied assumption that the existing standards apply invariably to all business enterprises. It is very rare to find small or medium size companies exempted from their observance, with Bolivia being the only exception to this finding.

The most recent proposal to update and upgrade the field of accounting principles in the Latin American countries has been advanced by the Inter American Accounting Conference (IAAC), the regional association that groups accounting institutes from twenty-three countries in the Western Hemisphere. The official recommendations from its last meeting held in October of 1993 include a call for the establishment of a Permanent Commission on Accounting Standardization as a unit within IAAC. The Commission would keep close links with IASC and other international accounting principle setting organizations, and would serve to disseminate accepted pronouncements for their likely adaptation to the local economic contexts. Indeed, a challenging proposal but difficult to implement in the near future. In the meantime, it is believed that the advancement of accounting will keep pace with the opening of economic opportunities and the correspondent development of capital markets at the individual country level.
VI. Exchange Rates and Reserve Management with Large Capital Inflows
Felipe Larraín

Introduction

Latin American economic authorities face important policy dilemmas in the scenario of heavy capital inflows of the 1990s. The basic trade-off is between stabilization and the health of the tradeable sector. Most economies in the region are attempting to reduce inflation, some from quite low levels (even single-digit rates in Argentina, Mexico, and Bolivia in 1993 and 1994). At the same time, they aim to maintain export competitiveness. The exchange rate is a crucial element for both goals, but acts in opposite directions. An appreciation helps to reduce inflation but hurts competitiveness in the tradable sector, and vice versa. And large capital inflows tend to appreciate the exchange rate.

This dilemma has major policy implications. On the one hand, the aim to defend export competitiveness requires that the domestic interest rate not be allowed to deviate “too” far from the world rate so as to prevent further inflows of capital that would appreciate the local currency. On the other hand, the aim to preserve macroeconomic stability requires a domestic real interest rate consistent with a path

* Special thanks to Pablo García for efficient research assistance.
for aggregate demand that would allow for a gradual reduction in inflation. In a context of increasingly integrated financial markets, it is no easy task to reconcile these two objectives.

Another important aspect of capital flows is their composition. After the scarcity of foreign resources that followed the debt crisis, countries in the region are happy to receive significant net inflows of long-term capital, much needed to supplement the local saving effort in the financing of higher levels of investment. But they are much less happy to have to cope with massive flows of short-term speculative capital, which may lead to excess volatility in key economic variables such as domestic interest rates and the real exchange rate.

Pursuing stabilization, aiming to maintain export competitiveness in the face of abundant capital inflows, and trying to attract the “right” kind of capital are difficult tasks. To attain these goals, economic authorities have carried out measures in several different fronts, such as exchange rate policy, reserve accumulation and sterilization of capital inflows, restrictions on particular capital inflows, and selective liberalization of capital outflows. This paper is focused on exchange rates and reserve management policies in Latin America, to which we now turn.

The paper is organized as follows. The next section deals with exchange rate policy and the behavior of exchange rates in Latin America during recent years. It analyzes conceptual aspects in the choice of an exchange rate regime, including the effects on monetary policy, and the concerns over the real exchange rate. Then, it turns to the recent experiences of three of the major countries of the region: Argentina, Chile, and Mexico. “International Reserves and Sterilization” deals with international reserve management and the evolution of reserves in the region. It also discusses sterilization as a way to avoid monetization. A conclusion closes the paper.

**Exchange Rate Policy**

After the collapse of Bretton Woods in 1973, many countries, especially in the industrialized world, moved to flexible exchange rate regimes. But not in Latin America. As Table 1 shows, by the end of the 1970s the overwhelming majority of countries in the region were under fixed exchange rate schemes pegged to the U.S. dollar.

Since the early 1980s, however, there has been a progressive move away from fixed exchange rates, towards managed regimes and even floating currencies. This was to some extent a result of the
greater flexibility needed in exchange rate management to cope first with the foreign debt crisis, then with large capital inflows. In other cases, increased flexibility has been sought after the initial stage of stabilizations with fixed exchange rates, that have prompted significant appreciation of the local currencies. Chile, Mexico and Colombia, for example, have favored exchange rate bands with some form of crawl.1

By the late 1980s, floating rates continued to gain ground, and have become the most popular exchange rate arrangement during the 1990s. Interestingly, by March 1994, 13 out of 17 countries in Latin America were classified as having flexible exchange rate regimes, 8 of them independently floating schemes with the other 5 under managed floating.2 Among the major countries, only Argentina and Brazil since the inauguration of the “Plan Real” in July 1994 have today a fixed exchange rate scheme. This progressive move away from fixed exchange rates is quite clear in Table 1.

**Conceptual aspects in the choice of an exchange rate regime**

The dispute between competing exchange rate regimes has not been settled in economics, reflecting the basic trade-offs involved in this choice. Thus, many different exchange rate regimes coexist in the world. Latin America attests to this wide variety. Table 1 presented four basic exchange rate regimes, but in reality the choice is much richer, since considerable differences exist within each of them.

A comprehensive analysis of the elements behind this choice is clearly beyond the scope of this paper.3 Our purpose here will be to discuss some of the main issues involved.

**Elements for the choice** A wide agreement exists at least on a basic point: it is impossible to sustain a fixed exchange rate in an economy with a significant money-financed fiscal deficit. But even if the fiscal deficit has been eliminated, inflationary inertia may doom a scheme where the exchange rate is used as an anchor to stabilize prices. In such a case, the resulting appreciation of the real exchange rate may lead to an unsustainable current account deficit, and could result in a speculative attack against the local currency (just as in the case of a significant fiscal deficit). This was precisely the experience of Chile in 1979-82, when a fixed exchange rate collapsed while the public budget was in surplus.

Fixed exchange rates have been advocated as a way to provide discipline and credibility to economic authorities (e.g. Calvo, 1978).
Table 1. Exchange Rate Arrangements in Latin America

<table>
<thead>
<tr>
<th>Currency pegged to US Dollar</th>
<th>Adjusted according to a group of indicators</th>
<th>Managed floating</th>
<th>Independent floating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Chile, Colombia</td>
<td>Ecuador, Mexico, Uruguay, Venezuela</td>
<td></td>
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<tr>
<td>(As of September 30, 1983)</td>
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<tr>
<td>El Salvador</td>
<td>Brazil, Chile</td>
<td>Argentina, Costa Rica, Ecuador, Mexico</td>
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By reducing discretion in exchange rate management, the argument goes, the economy may avoid unexpected devaluations aimed at reducing real wages and expanding output. Empirically, Edwards (1992) has presented evidence suggesting that the adoption of a fixed exchange rate has introduced discipline in countries with a history of stability (but, unfortunately, here is precisely where the fixed rate is less necessary).

Conceptually, however, there are several drawbacks in this view. First, credibility will only be attained under a regime in which
economic authorities somehow tie their hands to move the exchange rate (such as the case of Argentina since 1991, as discussed below); merely fixing the exchange rate will not do. Second, the exchange rate may be correctly used as a response to changes in its fundamentals, such as changes in the terms of trade, and not merely as a device to reduce real wages. And third, credibility may be gained with instruments other than the exchange rate, such as the money supply (Edwards, 1993).

The alternative to a fixed rate scheme is a floating exchange rate or some kind of crawling peg regime. Crawling pegs were pioneered in Latin America in the 1960s, and have become quite popular since. In an active crawl, the exchange rate is adjusted according to a table, so as to achieve some nominal target such as a reduction in the rate of inflation. A passive crawl aims to maintain the real exchange rate, and adjusts the nominal rate by the difference between domestic and international inflation. Crawling pegs may also be used in a band that allows some fluctuation of the exchange rate according to market forces.

Williamson (1981) has been a leading advocate of crawling peg regimes, whose main advantage is that they may be used to protect the real sector of the economy from the volatility of financial flows and other outside shocks. Crawling pegs, however, have the drawback of creating inflationary inertia, and thus tending to perpetuate inflation. This is especially the case for passive crawls with backward looking rules.

In a small and financially integrated economy, as the larger Latin American economies may be characterized today, there is a basic trade-off between the choice of exchange rate regime and the effectiveness of monetary policy, on the one hand, and exchange rate stability, on the other. We turn to these issues now.

Monetary policy and the choice of exchange rate regime. Under a fixed exchange rate regime, perfect asset substitution and free capital mobility, domestic authorities of a small economy lose total control over monetary policy. This is the basic Mundell-Fleming result. In other words, such a scenario precludes the authorities from simultaneously setting the interest rate (or the money supply) and the exchange rate. The ineffectiveness of monetary policy is complicated when fiscal policy is inflexible in the short run, as it happens to be in general.

If assets are not perfect substitutes or capital movements are not totally free (as in practice) monetary policy maintains some of
its effectiveness under a fixed exchange rate regime. A well-known work by Kouri and Porter (1974) studied this issue for Australia, Italy, Netherlands, and West Germany in the 1960s, at a time when these countries were operating under fixed exchange rates; they found a surprisingly high degree of effectiveness in monetary policy.

A flexible exchange rate (or a wide band) is also a way to maintain control over monetary policy, but at the cost of increased exchange rate volatility. Increased nominal exchange rate volatility leads to higher real exchange rate volatility, which is of special concern, as discussed below.

**Real exchange rate volatility**

Most countries in Latin America have turned to development strategies based on the expansion of exports and efficient import substitution, within the context of an (increasingly) open trade regime. Maintaining a stable and competitive real exchange rate (RER) is an intermediate objective which must receive central priority in achieving this goal. Such is the lesson from the experience of the East Asian economies that have been successful for decades with outward-oriented strategies.

The exchange rate, however, is both the price of an asset, subject to the volatility that is common to financial markets, and a variable which plays a central role in medium term resource allocation. A stable path for the RER means an evolution for this variable which is more related to medium term fundamentals than to short run financial flows.

A growing theoretical and empirical evidence suggest that excessive instability of the RER has a depressive impact on exports (Caballero and Corbo, 1990) and on private investment (Larrain and Vergara, 1991). Krugman (1979) and others, have suggested protecting the tradable sector from short run stabilization policy and other transitory shocks, due to the more permanent effects that these can have on the tradable sector through changes in the RER. In the same direction, excessive instability on the RER and/or real interest rates caused by short run speculative capital flows can have a negative impact on productive investment of the irreversible type, and thus on economic growth (Torres, 1990).

On the other hand, both economic theory and international evidence indicate that the process of economic development may bring a strengthening of the domestic currency and, thus, a sustainable increase in welfare (Dornbusch, 1989). Therefore, it may be "too" costly to try to sustain the RER over its "long run" equilibrium for
a long period of time, not allowing it to reflect these structural changes. A country would also suffer a higher inflation rate if it tries to sustain the RER over its equilibrium value.

Some Latin American Experiences

The major Latin American countries have suffered a significant real appreciation of their currencies since the mid to late 1980s, a trend that has continued in 1994. Figure 1 shows the real exchange rate appreciation since 1988 in the main countries of the region, which ranges from almost 50% in Argentina and 24% in Mexico to 17% in Chile and 16% in Colombia. Since its annual peak in the second half of the 1980s, as shown in Figure 2, the RER has appreciated 53% in Argentina, 39% in Mexico, 32% in Brazil, 27% in Colombia, and 18% in Chile. Figure 3 shows the evolution of the real exchange rate in Argentina, Chile and Mexico from 1989 to July 1994.

Not only has Chile’s RER experienced the lowest appreciation among the 5 countries, but also it has been the most stable. Figure 4 shows the coefficient of variation (CV) for the same group of countries from 1985 to July 1994. The figure reveals that Argentina’s RER was 3.5 times more volatile than Chile’s during the period, followed by Mexico and Brazil (around 2.5 times) and Colombia (2 times).

The RER has many determinants, some of them largely exogenous to a country (such as the terms of trade) and other under the direct

![Figure 1. Real Exchange Rate Appreciation (1988-July 1994)](image)
control of the authorities (such as fiscal policy and nominal exchange rate management). In what follows, we look more closely at the experience with exchange rate management in three of these countries: Argentina, Chile, and Mexico. Other than Brazil, these are the countries that have experienced the largest inflows of foreign capital in the region. They also provide an interesting look at different strategies: Argentina has a totally fixed exchange rate; Chile and Mexico have bands of fluctuation for the exchange rate where important differences exist.

Argentina

Argentina is today the only major country in the region that has a fixed exchange rate, other than Brazil since July. A quick look at the country's past experience helps to explain this policy. Argentina suffered extreme exchange rate instability in the 1980s, and tried several different forms of exchange rate management. Major devaluations were used profusely—and unsuccessfully—to stem capital flight and as part of stabilization programs. By the end of the 1980s, the country reached hyperinflation and economic chaos. Argentinians lost all confidence in their currency.

In March 1991, the government implemented several dramatic economic changes through the "Convertibility Law." This Law eliminated all restrictions to buy and sell foreign exchange, fixed the exchange rate to the dollar, and established the validity of

Figure 2. Real Exchange Rate Appreciation
(Peak-July 1994)
contracts denominated in any currency. The Central Bank became allowed to increase the money base only as a result of reserve accumulation, thus practically eliminating monetary financing of fiscal deficits. Moreover, the value of the exchange rate was set by law, so that changing it would require congressional approval.

The policies of early 1991 represented a dramatic departure from the recent past. Their rationale was the belief that something radical was necessary to regain the lost confidence in the currency and stabilize the economy. Thus, the recovery of credibility is the main element that explains the uniqueness of Argentina’s exchange rate policy. Fixing the exchange rate was not enough, because it had been tried and failed repeatedly in the past. Full convertibility and legislative approval to change its value were added.

The Argentinian exchange rate policy—supported by the structural reforms implemented—has scored important successes. The economy has been stabilized, and the inflation rate has been reduced to single-digit levels (7.3% in 1993, and around 4% expected for 1994); the authorities have defeated speculative attacks against the currency, most prominently that of late 1992. The trade-off, however, has come in the form of a sharp appreciation of the exchange rate, coupled with a significant deterioration of the current account. In fact, as Figure 2 shows, the real exchange rate has declined by more than 50% since its peak in 1989. Although the 1989

![Figure 3. Real Exchange Rate (1989-July 1994)](image)

Figure 3. Real Exchange Rate (1989-July 1994)
RER is considered an "overshooting," the appreciation is still very considerable measured from more "normal" years.

This does not mean, however, that an exchange rate crisis is bound to occur. A number of policy measures (on trade, labor markets, transportation, and infrastructure) have deregulated and liberalized the economy. They provide increased competitiveness to the tradeable sector, that at least partially offset the losses from the exchange rate appreciation. The risk still exists, however, that the gained competitiveness from these measures may not be able to offset the exchange rate losses. A key issue here is how soon the Argentinian inflation converges to international levels which it seemed to be approaching; in the meantime, the real exchange rate will keep appreciating.

**Chile**

Since 1983, Chile’s exchange rate was tied to the dollar in a narrow band whose amplitude started at +2% of the central rate and was progressively raised, reaching +5% in June 1989. The central rate has been (generally) adjusted monthly in the difference between domestic inflation and an estimate of international inflation. In essence, this policy has aimed to maintain the real exchange rate, while letting a small breathing room for monetary policy.

The combination of macroeconomic adjustment in January 1990 (when ex-ante real rates on long-term Central Bank bonds reached 9.7%), and increased capital mobility due to a lower perception of country risk, promptly prompted massive capital inflows that quickly moved the exchange rate to the bottom of the band. At that point, and with still downward pressure on the exchange rate, the country operated de-facto under a pegged exchange rate regime, and the band was sustained only by central bank intervention. After a significant increase of reserves in 1991, the Central Bank revalued the central rate by 5% and widened the band to +10% in January 1992. Again, in spite of the Bank’s efforts, the exchange rate quickly converged to the lower point of the band.

Part of the pressure on the real exchange rate was attributed by the authorities to transitory factors (e.g. low interest rates in the U.S.), but another part was thought to come from permanent (i.e. structural) factors. Among the latter were the consolidation of the export sector, the reduced burden of foreign debt, and the increase in net foreign investment. In other words, part of the capital flows were attracted by a reduction in Chile’s perceived country risk.
Hoping to add more “market uncertainty” to capital movements, the Bank not only increased the amplitude of the band in early 1992, but also changed the peg of the central rate to a basket of currencies in July 1992 (with weights of 50% for the dollar, 30% for the deutsche mark, and 20% for the yen). At the same time, the Bank announced that it would intervene within the limits of the band. This is the scheme that prevails today. With this, the relevant international interest rate for arbitrage operations is no longer the U.S. rate, but rather a combination of the German, Japanese and U.S. rates. This reduces vulnerability of the Chilean economy to fluctuations in U.S. interest rates, which reached record lows in the early 1990s.

Chilean exchange rate management has been more worried about the competitiveness of the tradable sector than in Argentina or Mexico. Of course, the central bank controls just the nominal exchange rate, which may affect the real exchange rate only during the short- to medium-term. But exchange rate management helps to explain why Chile’s real exchange rate appreciation has been more moderate than in Argentina or Mexico. Between its peak in 1990 and 1993, the country’s real exchange rate has appreciated “only” by 15%.

At the same time, Chile’s current account deficit has been quite moderate (it even had a surplus in 1990). Only in 1993 has this deficit increased significantly (to 5.2% of GDP), but this was mostly the result of a substantial terms of trade deterioration, and will decline to around 2.5% of GDP in 1994. The trade-off, however, is

![Figure 4. Coefficient of Variation of Real Exchange Rate (1985-1994)](image-url)
reflected today in Chile’s inflation rate which, after declining significantly since 1990, will end 1994 still in double digits (around 11%). Deindexing the exchange rate from past inflation would help to reduce inflation further, although running the risk of significant real exchange rate appreciation.

Mexico

In the mid to late 1980s, Mexico started using its exchange rate policy as a stabilization device. In 1988, the exchange rate was fixed to the dollar, and in January 1989 the scheme moved to a crawl, with a preannounced rate of devaluation. More precisely, the exchange rate depreciated by one peso per day in 1989, 80 cents per day in 1990 and 40 cents per day in 1991. Since then, Mexico’s exchange rate management has become more flexible after large capital inflows started to come into the country.

A major overhaul in the exchange rate regime occurred in November 1991, when the scheme of exchange controls implemented in 1982 was eliminated. In the new environment of large net capital inflows, the regulations placed to deal with a shortage of foreign exchange had clearly become obsolete. At that time, the free and controlled exchange rates had virtually converged.

The scheme to determine the exchange rate also changed in November 1991. The band in which the exchange rate was allowed to fluctuate was widened, allowing the band’s ceiling a continuing depreciation of a fixed nominal amount per day, but fixing the floor of the band at 3.06 pesos per dollar, the level that it had on that date. And intervention inside the band by the Central Bank (dirty float) became normal. Almost one year later, in October 1992, the path of depreciation of the ceiling accelerated, while the floor remained fixed.

By widening the band, the changes implemented since 1991 have added flexibility to the exchange rate policy, thus buying breathing space for monetary policy. Mexico’s exchange rate scheme, however, has not been primarily aimed at maintaining the real exchange rate (such as Chile’s). Rather, it has been more concerned with stabilization. The trade-off is, once again, extremely clear. The Mexican peso has appreciated 39% in real terms since its peak in 1987 (see Figure 2). The effects have been felt on the current account, whose deficit has soared to $22 billion—on average—in 1992-93. In these years, about 90% of the capital account surplus has been used to cover the current account deficit.
Mexico’s scheme has some common features with the Chilean system, but there remain important differences:

- The floor of the band is fixed in Mexico, while it moves upward in Chile according to a pre-set rule.
- The width of the band is constant in Chile (+10% of the central rate), while it moves up in Mexico.
- The Mexican peso is pegged to the dollar; the Chilean peso is pegged to a basket of currencies, where the dollar has only a 50% weight.
- There is no central rate in Mexico, just the upper and lower limits of the band.

### International Reserves and Sterilization

**Reserve accumulation**

Capital inflows have not only financed current account deficits in Latin America, but also have allowed for a major build-up of foreign exchange reserves. This has been a welcome development for the region. Foreign resources have allowed both the increase of investment rates well above the saving capacity of countries, and the reconstitution of foreign exchange reserves from the low levels attained during the 1980s.

All major countries in the region have accumulated significant amounts of foreign exchange reserves in the present decade, as shown in Table 2 and Figures 5 and 6. This trend has continued in early 1994. In dollar terms, Brazil stands at the top of the list, with $23 billion of reserve accumulation from 1990 to the end of 1993, more than half of which came into the country in 1992. Mexico is not far behind, with $18.5 billion; then comes Argentina ($12.6 billion), Chile ($6 billion), and Colombia ($3.9 billion).

Relative to the size of each country’s economy, however, the largest accumulation of reserves has occurred in Chile. Indeed, as shown in Table 2 and Figure 6, Chile has increased its foreign exchange holdings by more than 10% of GDP since 1989. Reserve accumulation during the same period has been 7.1% of GDP in Colombia, 4.2% in Brazil, 3.8% in Mexico, and 3.5% in Argentina. (Note that these figures are measured relative to each year’s GDP.)
and that significant growth has occurred in real GDP, as well as a substantial appreciation of the local currency.

Another comparative measure of reserves is related to a country’s annual import bill. As Table 2 and Figure 5 show, reserves have grown much more than imports in all these countries. In Argentina, Brazil, and Chile, the ratio of reserves to imports has typically doubled since the late 1980s. Increases in this indicator are more modest, but still significant, in Colombia and Mexico.

Six months of imports is a rule of thumb of what is considered a prudent holding of foreign exchange reserves for a country. By 1993, all these economies—with the exception of Mexico—had surpassed this level. In fact, Brazil and Chile had one year of imports in reserves, while Argentina and Colombia had some 10 months. Mexico, at the lower end of the scale, still had 5 months of imports in reserves.

The use a country gives to foreign capital inflows has a number of interesting economic implications. Take two polar cases. If the complete capital inflow is accumulated as reserves at the Central Bank, no change in the net foreign debtor position of the country is registered. In this case, the economy would be better prepared to face external shocks, which has been a major source of macroeconomic instability in Latin America. If, on the other hand, the inflow of capital is used to finance a current account deficit, there would be an increase in the net debtor position of the country, a rise in its

![Figure 5. International Reserves (as percent of imports)](image)

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vulnerability to external shocks and a sharper appreciation of its real exchange rate (through some combination of nominal exchange rate appreciation and higher inflation). Nevertheless, if the larger current account deficit reflects higher capital formation, this supports future growth.

The countries examined here have used capital inflows both to cover current account deficits and to accumulate reserves, but in quite different proportions. Argentina and Mexico have used most of the inflow to cover current account deficits, while still accumulating substantial reserves. Brazil, Colombia and Chile have mainly used the resources to accumulate reserves.

In spite of these differences, the overall trend is a significant accumulation of foreign exchange reserves in all major countries. This is quite prudent policy, especially after the low levels of reserves reached in the 1980s. Today, however, the issue in some countries seems to be whether the level of reserves attained may be too high. Although the “optimal” level of reserves for a country is hard to determine, it is reasonable to think that one year of imports in reserves may be on the long side. On the one hand, there are alternative uses for them, such as the prepayment of debt at a discount, an option that is still available for some countries in the region. On the other hand, there is a public finance consideration in the accumulation of reserves when this is accompanied by sterilization. We turn to this issue now.

![Figure 6. International Reserves (as percent of GDP)](image)
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<td>201</td>
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**Sources:** International Financial Statistics, IMF, various issues. Balance de pagos de la Economía de América Latina y el Caribe, ECLAC, various issues.
Sterilization

Several countries in the region have tended to sterilize through open market operations the monetary effects of foreign reserve accumulation so as to control inflation and prevent a sharper appreciation of the local currency. The most notable examples of this trend in the 1990s have been Chile and Colombia.

As a result of sterilization, the composition of the central bank’s balance sheet changes, with more reserves on the asset side and more domestic bonds on the liability side. Because the interest rate on central bank bonds has been substantially above the rate that could be earned on foreign exchange reserves, the central bank’s financial position has worsened. Rodriguez (1991), for example, has estimated that the operating loss attributable to sterilization in Colombia was half a point of GDP in 1991. In Chile, the accumulated loss during the period 1990-93 has been slightly higher than 0.5% of GDP (Labin and Larrain, 1990b).

Sterilization is clearly no panacea on other grounds too—as it tends to maintain the differential between domestic and foreign rates, thereby perpetuating the capital inflows. Calvo et al (1992) report that the reduction of local interest rates in Latin America has been much slower in countries that have sterilized vis-a-vis those which have not. Theoretical analyses have also shown that sterilization may reduce social welfare.31

Summary and Conclusions

This paper has analyzed the Latin American experience with exchange rate and reserve management policies in the context of heavy capital inflows during the 1990s. The basic policy dilemma here is between stabilization and export competitiveness. Capital inflows tend to appreciate the exchange rate, which helps stabilization but hurts competitiveness.

Over the last 15 years, a major shift has occurred with exchange rate policy in the region, away from fixed exchange rates, towards managed regimes and floating currencies. This was largely a result of the greater flexibility needed in exchange rate management to cope first with the foreign debt crisis, then with large capital inflows, and with the appreciation after the initial phase of stabilization programs. Among the major countries, only Argentina and Brazil since the Plan Real (July 1994) have a fixed exchange rate regime.

Advocates of fixed exchange rates point to the discipline and
credibility they provide to economic authorities by reducing discretion in exchange rate management. Fixing the exchange rate helps to stabilize, but at the cost of significant real exchange rate appreciation which may ultimately undermine the exchange rate scheme. The fixed exchange rate cannot be sustained either in an economy with a significant money-financed fiscal deficit.

Crawling pegs are a popular alternative to fixed exchange rates, which may be used to protect the real sector of the economy from the volatility of financial flows and other outside shocks. Crawling pegs, however, have the drawback of creating inflationary inertia, and thus tending to perpetuate inflation. This is especially the case for passive crawls with backward looking rules.

With large capital inflows, it is not surprising that all the major Latin American countries have experienced substantial real appreciations in their currencies. The extent of appreciation, however, is significantly influenced by the choice and purpose of the exchange rate policy.

In Argentina, a fixed exchange rate set by law (with full convertibility) has been used as the main instrument to achieve credibility and stabilization. Inflation has successfully declined to levels of 7.4% in 1993, but the real appreciation has surpassed 50% since 1989 and the current account deficit has suffered a major rise. Mexico, too, has privileged the role of the exchange rate as a stabilization device and has suffered both a real exchange rate appreciation of 30% since 1987 and a large increase in its current account deficit. At the same time, it has been able to reduce inflation to single digit rates. In both Argentina and Mexico, however, the exchange rate started from an overly depreciated level which provided some cushion for the appreciation.

Chile and Colombia provide an interesting contrast. Both countries have privileged real exchange rate stability, and have suffered milder—although still significant—appreciations (in the order of 18% and 27% from the peak, respectively). But they have made less progress in the inflation front, especially in Colombia, whose inflation rate is still above 20%. At the same time, their current account deficits have been much smaller than Argentina’s and Mexico’s during the 1990s (in fact, both countries have scored surpluses in this decade).

All major countries in the region have accumulated substantial foreign exchange reserves in the 1990s. In nominal dollars, Brazil and Mexico show the largest increases in reserves. But relative to the size of the economy, Chile and Colombia present the greatest
reserve accumulation. The countries which have used most of the capital inflows to accumulate reserves have also suffered the lowest real exchange rate appreciations.

The use a country gives to foreign capital inflows has a number of interesting economic implications. If a significant part of capital inflows is accumulated as reserves at the Central Bank, the country buys a cushion that reduces its vulnerability to external shocks; these shocks have been a major source of macroeconomic instability in Latin America.

To offset the monetary effects of reserve accumulation, several countries of the region, especially Chile and Colombia, have used sterilization. This practice changes the composition of a central bank's balance sheet, towards more low-yielding reserves on the asset side, and more high-yielding domestic bonds on the liability side. As a result, operating losses mount, as attested by both Chile and Colombia in recent years. Sterilization also tends to maintain the differential between domestic and foreign interest rates, thereby perpetuating the capital inflows.
Notes

1 Chile and Colombia pioneered crawling pegs in the 1960s.
2 Additionally, one may wonder why Chile's is not classified as a regime of managed floating by the IMF.
3 A more detailed treatment of these issues is provided, for example, by Sachs and Larrain (1993).
4 One should not exaggerate the inflexibility of fiscal policy. Most countries set the budget yearly, and this is an opportunity to alter the course of fiscal policy. Within the year, however, most budgets leave the excess of actual over budgeted fiscal revenues to the discretion of the finance minister. Moreover, a part of the budget is generally set aside for emergencies.
5 This idea runs along the lines of the hysteresis argument.
6 The only exception has been Mexico in the first half of this year, but this appears to be a short-term movement, mainly related to the Chiapas insurrection and the assassination of the PRI's presidential candidate.
7 Some discrete changes of the central rate have taken place also since 1983.
8 Due both to improved economic indicators and a smooth transition to democracy, see Labán and Larrain (1993a).
9 Before, Central Bank intervention was triggered only when the exchange rate touched the limits of the band.
10 With the exception of Argentina, which shows a minor reserve accumulation in the first two months of 1994.
11 In fact, these three countries have had current account surpluses during some years of this decade, while Argentina and Mexico have had significant current account deficits in every year.
References


VII. Financial Sector Reform in Latin America
Atish Ghosh and Holger C. Wolf

Introduction

Over the last few years, most Latin American countries have made large strides towards financial market liberalization. The removal of many restrictions and distortions in domestic financial markets complements the liberalization of domestic factor markets and the external trade regime. The potential benefits in terms of higher domestic savings and investment rates, enhanced access to world capital markets, improvements in the quality of investment projects, and wider scope for international financial diversification by domestic residents, are significant.

Yet the process of financial market liberalization carries substantial risks for the solvency and stability of the domestic financial system, arising from the fiscal implications of higher interest rates and the dangers of sudden reversals of international capital flows. These dangers should not be taken lightly: historically, attempts at liberalization have often ended in financial crises and policy reversals, not least in Latin America during the southern cone liberalization of the late 1970s. Financial liberalization thus involves a tradeoff between increased efficiency and increased systemic risk. To ensure a maximal benefits with a minimal risks, liberalization measures must therefore be accompanied by measures to safeguard the integrity of the
financial sector. This report reviews the attributes of the financial system which are desirable in this context, examines the pitfalls in the liberalization process, discusses the systemic issues common to all Latin American economies and evaluates the extent to which the recent steps taken by seven countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela) fulfill the requirements of successful reform.

Desirable Attributes of the Financial System

We begin with a capsule outline of the desirable characteristics of efficient financial systems before turning to the obstacles of transition.

- At a fundamental level, contestability of financial markets maximizes efficiency and minimizes costly disintermediation. Limits on activities which a particular type of financial institution may undertake should thus be grounded solely in economic and prudential considerations. Similar considerations apply to opening the financial system: foreign participation provides additional incentives for domestic firms to adopt efficient practices while increasing capitalization; it should not be discouraged.

- Beyond prudential considerations, financial institutions should be allowed to structure their balance sheets according to their own best judgement. Empirically, three issues are of particular importance here. First, requirements on minimum financial sector holding of public sector debt should be solely motivated by prudential considerations, not by the attempt to finance fiscal deficits at below market rates. Second, industrial policy should take place through the public budget, not through directed loans or imposed preferential interest rates.

- A significant portion of directed lending often takes place via publicly owned financial institutions. Following the abolition of directed lending, public ownership of these institutions is no longer warranted, rendering a sharp reduction in the role of publicly owned financial institutions desirable.

- Enhanced liquidity improves the efficiency of allocation. Again, subject to prudential concerns, financial institutions should be permitted to participate in the full range of available markets. In this respect, allowing the competitive provision of retirement benefits through mutual funds and private pension funds can achieve a particularly pronounced deepening.
Financial liberalization tends to initially increase asset price volatility and hence the demand for hedging instruments, particularly derivatives. It is thus desirable that financial liberalization extend to standard derivatives, subject to enhanced monitoring, reflecting the new credit and counter-party risks.

- Credit markets suffer from informational asymmetries, widening rate spreads. Strict disclosure requirements on financial institutions—in particular in the absence of deposit insurance—and traders—especially regarding own account/client account trades—and the imposition of strict penalties on insider trading activities reduces these spreads, enhancing allocative efficiency.
- The same payoff accrues to clear, consistently, and objectively applied accounting standards with disclosure requirements (particularly in regard to the valuation of questionable claims) as well as regular and externally conducted audits. The standards should be competitively neutral, avoiding biases against particularly types of institutions, customers, or assets. In particular, a competitive bias against public listing should be avoided.

**Risks of Transition and Liberalization**

While desirable in terms of its final outcome, the process of financial liberalization carries a number of significant risks. On the micro side, new market structures and expansion of activities requires an adjustment of prudential standards, often involving a game of catchup on behalf of the regulating institution. On the systemic side, financial liberalization changes the yield structure and poses potential problems for financial institutions that inherit weak balance sheets. And on the macro side, financial reform may affect fiscal revenues adversely, and trigger destabilizing capital flows.

**Prudential Issues**

Financial liberalization typically entails—and should entail—a broadening of the overall range of active markets as well as—for most individual entities—a broadening of the markets in which the particular entity operates. A fundamental overhauling of prudential and supervisory regulations is thus required to ensure that capital adequacy standards are maintained relative to the increased risk. The revised prudential standard should be applied consistently
across types of financial institutions (with some paperwork relief for smaller entities) to achieve competitive neutrality and to avoid disintermediation. Differential prudential and capital adequacy standards by institution type should be the exception and should be economically justified.

Ownership of financial institutions by their main debtor has been a major reason for subpar performance of highly interventionist financial markets. Furthermore, experience suggests that this exposure will worsen substantially during periods of structural adjustment. In the context of financial reform, strict upper limits on exposure to affiliates are thus required to ensure financial system stability.

Financial liberalization typically entails a steep increase in real interest rates, raising the share of doubtful debt. Strict debt grading rules complete with loss reserve requirements should be imposed during the reform process to avoid systemic contamination as banks opt for automatic debt rollover to postpone the day of reckoning.

The post-reform rise in interest rates, coupled with the relatively longer maturity of the asset relative to the liability side of the balance sheet, generates a post-reform profit squeeze on established banks and thus tilts the playing field towards new entrants starting with fresh balance sheets. To maintain viability of existing financial institutions, a differentiated reserve requirement system with preset expiration date may thus be desirable.

Interventionist banking systems are often characterized by de facto full deposit coverage through bailouts of failing banks. Concerted efforts towards replacing implicit insurance with a—privately financed—deposit insurance system thus forms an integral part of financial reform.

Macro Issues
Financial liberalization, along with the shift from direct credit control to market based instruments, sharply raises monetary system uncertainty. This suggests that monetary authorities should proceed very cautiously, relying on a wide array of indicators, including the equity and real estate markets as indicators of the emergence of speculative booms.

Financial repression allows the funding of fiscal deficits at advantageous rates through debt issue at regulated rates or money issue. Financial liberalization, by freeing captive domestic savings to diversify across a wider spectrum of assets, drastically reduces the fiscal revenues that can be extracted from the financial system.
Interest rate increases in the wake of liberalization further aggravate the fiscal problem by increasing public debt service. Financial reform and stabilization are thus—on impact—conflicting objectives. Undertaking financial reform requires additional efforts at fiscal stabilization.

**External Issues**

Financial liberalization, particularly if coupled with a relaxation of external payment restrictions, may result in substantial capital flows. If reforms are credible, large capital inflows may result as foreign investors avail themselves of the opportunity to diversify portfolios. If credibility is lacking, domestic investors may instead shift capital abroad. Latin America has—to date—been in the former camp, with significant inflows. While principally desirable additions to the domestic savings pool, large capital inflows carry a number of potential problems in the form of maturity mismatch and contagion effects.

Reflecting uncertainties at the beginning of a reform process, most initial lending is short term (87% of new Latin American bond issues have maturities of less than 5 years), with all but prohibitive risk premia on longer-term lending. The resulting mismatch between the asset and the liability side requires future refinancing. Trend changes in world interest rates coupled with a likely partial reversal of capital flows may render the refinancing of the current flood of short-term debt difficult, potentially creating a significant credit crunch with substantial bond defaults. Strict limits on financial sector maturity mismatch in foreign currency are a standard and necessary part of a well-drafted prudential system. The increased importance of direct borrowing by enterprises suggests the need for additional regulatory attention to non-financial sector maturity mismatch.

The maturity mismatch problem is aggravated by the possible of contagion effects resulting in capital flow responses independent of domestic fundamentals. The near complete cessation of new issues for the entire Latin market in the Summer of 1992 following unrest in Venezuela suggests that the Latin bond market is still far from mature and subject to very sizeable contagion effects. To date, only Mexico and Chile appear to have attained sufficient product differentiation in the minds of international investors to provide some immunity.

Capital inflows are typically associated with stock and real
estate market bubbles. Higher asset prices in turn increase the collateral of enterprises and the capital of financial institutions. History suggests that neither group is sufficiently aware of the temporary nature of this run up, nor do regulatory authorities tend to fully appreciate the dangers of an over-lending boom based on a temporary increase in collateral. Thus, both credit demand and supply tend to increase dramatically in the initial liberalization period. After the—inevitable—crash, a period of retrenchment with above normal bank and business failure rates and very tight credit erosion. Some attention should thus be given to raising capital adequacies measures in the presence of capital inflow induced asset market booms.

As liberalization measures lead to economic integration among the Latin Economies and pressures to sign onto the NAFTA bandwagon increase, financial markets in Latin America will increasingly look towards each other rather than to the outside for their financing needs and for portfolio diversification. The integration carries many potential benefits from specialization, allowing, for example, beneficial cross issues of Colombian equity in Venezuela’s well developed stock markets and Venezuelan debt issue in Colombia’s better developed fixed income markets. The degree to which regional financial integration proceeds depends crucially on the permissible activity of the new breed of pension funds. The opening of Chilean fund portfolios to foreign portfolios provides a first sign of things to come. However, increased regional financial integration also poses additional risks in enhancing incentives for borrowers and lenders to seek out the least restrictive prudential system. Common prudential standards—as envisaged by the Cartagena accord—are thus desirable.

The Latin Reform Process

Before turning to the individual country discussions it is worthwhile to point out some of the common characteristics of the "Latin Model".

The Starting Point

The financial sector reform process began against a background of highly segmented and regulated capital markets. There are a variety of typical features. A large share of publicly owned banks engaged in lending at preferential rates to specific sectors and state owned enterprises, frequently in precarious financial positions and regularly bailed out by the central bank, feeding the inflationary process.
Private financial institutions facing a myriad of restrictions, often limited to operate in very specific segments of the capital market. The segmentation tends to result in a high dispersion of risk-adjusted interest rates, constrained by binding limits on maximum lending rates effectively rationing credit to the non-preferred sectors. Foreign banks typically face prohibitive entry barriers.

Full implicit or explicit deposit insurance is not matched by adequate supervision, resulting in frequent bailouts. High inflation taxation of both public and private institutions through non-prudentially motivated non-remunerated reserve requirements is another entry barrier. Diversion of private sector savings into real and foreign currency assets, with capital flight and currency substitution proceeding at rapid rates, gradually diminishes the inflation tax base and eventually provides the incentive for reform.

Common Features

The common starting point, coupled with the role model function assumed by early reformers Chile and Mexico, has led to the emergence of a “Latin financial reform package”, sharing a number of common features:

- Financial liberalization followed monetary stabilization, including the introduction of a more or less independent central bank with limits on permissible credits to the government and a move from monetary policy through direct intervention to open market based operations.
- Partial capital account liberalization and legal foreign currency deposits.
- A sharp reduction of capital market segmentation.
- A sharp reduction in the share of public sector banks in the financial system.
- Attempts to enhance liquidity by introducing private pension funds.

The shared starting point and the commonality of measures generated substantial similarities in terms of outcomes. Real interest rates increased significantly from large negative to positive levels, resulting in a return of flight capital as well as capital inflows. To date, the revival of productive investment remains limited, capital
inflows have predominantly been channeled into existing equity and real estate.

Country Comments

Based on the above considerations, we now turn to an assessment of the individual country experiences.

Argentina

The double malady of a repressed financial system, and repeated hyperinflationary episodes, led to a continual shrinking of the Argentinean financial system throughout the postwar period as savers shifted increasingly to real and external assets. Financial sector size, as measured by M2 or bank credit relative to GDP, declined from 40% in 1940 to 5 and 10% respectively in 1990. By the end of this period, banks provided less than 10% of business finance, with debt and equity markets moribund.

Meanwhile, increasing levels of intervention tilted the remaining market in favor of public sector financial institutions pursuing non-profit objectives. Accumulating sub-standard loans amounting on some estimates to as much as 52% of their total portfolio, public sector banks had to be repeatedly bailed out by a central bank which increasingly deviated from sound prudential and monetary policies. While private banks performed somewhat better than their public counterparts—with merely 9% of assets sub-par—the restrictive environment discouraged efficiency growth, reflected in steadily increasing employee/deposit ratios.

The financial reform package has gone a long way towards reversing the gradual decline. The introduction of full convertibility has—at least temporarily—reduced inflation uncertainty and allowed portfolio allocation decisions to be made on the basis of longer-term fundamentals. In line with the stabilization effort, the revenue generating functions of the central bank have been de—and the prudential functions reemphasized. The role of public sector financial institutions has been sharply curtailed, levelling the playing field. New auditing and publication rules have enhanced financial market transparency.
Table 1. Basic Statistics: Argentina

<table>
<thead>
<tr>
<th>Year</th>
<th>Sav.</th>
<th>Inv.</th>
<th>ID</th>
<th>RER</th>
<th>R(L)</th>
<th>R(D)</th>
<th>dGDP</th>
<th>M/1Y</th>
<th>M/1Y</th>
<th>L/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>22.0</td>
<td>18.6</td>
<td>1.9</td>
<td>383</td>
<td>-1.4</td>
<td>-0.2</td>
<td>-1.9</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1989</td>
<td>22.0</td>
<td>15.5</td>
<td>2.5</td>
<td>336</td>
<td>5.5</td>
<td>-8.1</td>
<td>-6.2</td>
<td>191</td>
<td>118</td>
<td>148</td>
</tr>
<tr>
<td>1990</td>
<td>19.7</td>
<td>14.0</td>
<td>3.3</td>
<td>499</td>
<td>18.5</td>
<td>-12.0</td>
<td>0.1</td>
<td>30</td>
<td>39</td>
<td>84</td>
</tr>
<tr>
<td>1991</td>
<td>16.4</td>
<td>14.6</td>
<td>2.6</td>
<td>679</td>
<td>0.1</td>
<td>-2.3</td>
<td>8.9</td>
<td>95</td>
<td>35</td>
<td>72</td>
</tr>
<tr>
<td>1992</td>
<td>15.2</td>
<td>16.7</td>
<td>1.5</td>
<td>772</td>
<td>1.2</td>
<td>-0.7</td>
<td>8.5</td>
<td>121</td>
<td>47</td>
<td>84</td>
</tr>
</tbody>
</table>

id: Debt service to GDP
R(L/R(D): Real lending and deposit rate.
RER: Real effective exchange rate.
L: Private sector liabilities of banking system.
Source: IMF.

Financial entities are principally permitted to engage in any activity except if specifically prohibited to do so. Prohibitions—
 focusing on interest conflicts and alterations of attachment rights—
are motivated by prudential concerns and the contestability of
financial markets is generally satisfactory. Reserve requirements
and risk provisions are likewise in accordance with prudential
concerns and do not introduce spurious distortions. Exposure limits
on individual non-guaranteed and guaranteed loans are within the
bands of international practice (15 and 25%), as are exposure limits
on loans to individual affiliated customers (5 and 10%) and the
overall ceiling of 20% of equity.

Table 2. Argentine Banking System

<table>
<thead>
<tr>
<th></th>
<th>Total Deposits</th>
<th>Pesos</th>
<th>Forex</th>
<th>Total Loans</th>
<th>Pesos</th>
<th>Forex</th>
<th>Total Assets</th>
<th>Pesos</th>
<th>Forex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pesos</td>
<td>36291</td>
<td>16013</td>
<td>20256</td>
<td></td>
<td>31610</td>
<td>11903</td>
<td></td>
<td>46211</td>
<td>7050</td>
</tr>
</tbody>
</table>

Source: LatinFinance

Stabilization and structural reform have resulted in a substantial
improvement in financial sector performance, with deposits per
employee increasing tenfold in real terms. Meanwhile reduced inflation
led to a recovery of asset/GDP ratios. However, currency substitution
remains very high (Table 2) and raises concerns about a potential
maturity mismatch once Argentinean and foreign investors have reached their target portfolio share in Argentinean assets, and capital inflows terminate. The small monetary base and the sophistication attained by investors through decades of inflation may trigger a monetary crunch complete with very high real interest rates and protracted recession endangering the continuation of the reform process. Close monitoring of foreign exchange exposure is thus required.

Over the longer haul, Argentinean capital markets stand to benefit substantially from the introduction of private pension schemes. Some of the regulations discussed, in particular minimum returns for funds relative to the industry average and minimum guaranteed returns on the public sector pension fund however raise some concerns. The former provision distorts incentives for funds below the minimum towards more risky assets and condenses the overall risk-return offering schedule. Private investors voting with their pesos will be sufficient to punish underperformers while permitting individuals to diversify in closer accordance with their own risk tolerance. The latter provision could prove very costly if the currently rapid growth stalls—not too infrequent a recurrence after the immediate post-liberalization boom.

Despite the relatively good overall performance, a number of problem areas remain. First, the role of the public sector needs to be further reduced in the financial markets, in particular with regard to provincial banks. Second, the abolition of deposit insurance—even with the enhanced prudential standards adopted in Argentina—while attractive in principle, has rarely been credible in practice since the potential systemic costs of large financial entities failing are too high. In effect, the abolition of deposit insurance is binding—in a credibility sense—only for small banks which are thus placed at a disadvantage.

A third problem is the concentration of the equity market, with a few stocks dominating trading and hence suggesting a spurious degree of liquidity not really enjoyed by many smaller stocks. While clarification and standardization of reporting requirements and the removal of most barriers to international investors have increased liquidity and the success of privatization has enlarged the number of traded firms, the small size of the float relative to market capitalization and the large fraction of the float held by foreigners renders equity prices particularly sensitive to extraneous shocks. Continued efforts at enhancing volume and broadening the domestic equity owner base are thus important. Fourth, insider trading
apparently remains widespread despite an increase in fines to more meaningful levels. Part of the problem appears to be crossstrades through Uruguay, again pointing to the importance of developing shared prudential and supervisory standards.

**Brazil**

While substantial progress on the macroeconomic front has been achieved, the long history of temporary stabilization followed by renewed inflation outbursts continues to place constraints on financial sector reforms.

| Table 3. Basic Statistics: Brazil |
|---|---|---|---|---|---|---|---|---|
| Sav. | Inv. | d | RER | R(L) | R(D) | dGDP | M1Y | M4Y | L1Y |
| 1988 | 20.7 | 17.9 | 4.3 | 726 | 0.4 | -0.5 | -0.1 | 100 | 100 | 160 |
| 1989 | 20.1 | 16.6 | 6.4 | 914 | 4.6 | 0.9 | 3.3 | 65 | 73 | 97 |
| 1990 | 18.0 | 16.0 | 0.7 | 1056 | 11.9 | 0.1 | -4.4 | 122 | 65 | 139 |
| 1991 | 15.6 | 15.2 | 1.5 | 858 | 3.8 | 1.8 | 0.9 | 87 | 62 | 121 |
| 1992 | 18.5 | 14.9 | 4.5 | 770 | 5.5 | 2.1 | -0.9 | 74 | 81 | 93 |

*Source: IMF.*

The relaxation of entry controls in 1988 has led to a broadening of financial activities, a sharp increase in the market size of multiple banks and a slight improvement in overall banking system profitability (Table 4). Yet the allocation of credit on preferential terms by public sector financial institutions persists, and continues to distort the resource allocation process. The non-profit motivation of public sector lending has, furthermore, brought many of the public banks—in particular, the federal savings banks as administrator of the troubled income and mortgage assistance funds with unfunded liabilities exceeding 6% of GDP—to the brink of financial insolvency. There are substantial systemic risks to the banking system.

The private and public capital markets continue to exhibit segmentation on both the demand and the supply side, with public sector banks satisfying the demands of the public sector and vice versa (Table 5). The foreign presence continues to be very small—reflecting regulatory restrictions—reducing the incentive and pressure
for efficiency gains, and cementing the uncompetitiveness of the majority of medium and small financial entities.

Table 4. Credit Shares By Bank Type: Brazil

<table>
<thead>
<tr>
<th></th>
<th>1988</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>49.9</td>
<td>16.9</td>
</tr>
<tr>
<td>Multiple</td>
<td>0.0</td>
<td>44.6</td>
</tr>
<tr>
<td>Development</td>
<td>13.8</td>
<td>7.9</td>
</tr>
<tr>
<td>Savings</td>
<td>16.0</td>
<td>19.8</td>
</tr>
</tbody>
</table>

Source: IMF.

Intervention on interest rates and portfolio restrictions on certain liabilities complete the picture of substantial market intervention. To a large extent, the Brazilian financial system thus remains mired both as a source of fiscal revenue, and as a means of implementing industrial/sectoral policy. Fundamentally, Brazil remains handicapped by an inflation process favoring short-run inflation tax avoidance, rather than long-term productive investment, while hampering access to foreign capital markets.

On the equity market, charges of rampant insider trading, coupled with the accounting difficulties associated with hyperinflation have placed limits on market liquidity. Apart from a handful of stocks, daily trading volume has remained very small, rendering the market particularly susceptible to large price swings. Further development of pensions funds can be expected to reduce the volatility by increasing liquidity. Anti-insider trading rules remain very loose, with little probability of detection. Transparency, likewise, leaves much to be desired. Re-emphasizing the privatization program would—in addition to its intrinsic appeal—carry systemic benefits for the financial markets by enhancing liquidity and broadening the available portfolio.

Table 5: Credit Allocation (% of Totals) Brazil

<table>
<thead>
<tr>
<th>Lending to</th>
<th>Public Sector</th>
<th>Private Sector</th>
<th>Private Banks</th>
<th>Public Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>By Private Banks</td>
<td>30.3</td>
<td>60.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Public Banks</td>
<td>69.7</td>
<td>39.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Central Bank</td>
<td></td>
<td>0.5</td>
<td>99.5</td>
<td></td>
</tr>
</tbody>
</table>

Source: Central Bank of Brazil.

Before meaningful financial sector reform can be undertaken, the foundation for a sound and efficient financial system must be
laid through fiscal stabilization and a return of the central bank to its original role of implementing monetary policy and providing prudential supervision. Beyond the basics, the full range of steps undertaken by the "model" reformers Chile and Mexico still needs to be implemented.

**Chile**

Following the severe banking crisis of 1983-87, Chile has made large strides towards the reestablishment of sound domestic financial markets and has enjoyed fairly uninterrupted access to international capital markets. The recovery of the financial system is illustrated by the growth of liabilities to the private sector, increasing from 25% of GDP in 1983 to 70% of GDP, as well as by the recovery of banking system profitability to a comfortable level of 17%. These improvements reflect, in part, the buoyant macroeconomic situation, and in part the competitive pressures towards rationalization generated by a very sizeable foreign presence in the financial markets.

**Table 6. Basic Statistics: Chile**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sav.</th>
<th>Inv.</th>
<th>ID</th>
<th>RER</th>
<th>R(L)</th>
<th>R(D)</th>
<th>dGDP</th>
<th>M1Y</th>
<th>M3Y</th>
<th>L/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>16.2</td>
<td>17.0</td>
<td>3.9</td>
<td>100</td>
<td>7.5</td>
<td>4.6</td>
<td>7.3</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1989</td>
<td>17.3</td>
<td>20.3</td>
<td>2.2</td>
<td>102</td>
<td>9.4</td>
<td>6.8</td>
<td>10.9</td>
<td>93</td>
<td>104</td>
<td>111</td>
</tr>
<tr>
<td>1990</td>
<td>18.1</td>
<td>20.2</td>
<td>2.3</td>
<td>100</td>
<td>8.5</td>
<td>5.5</td>
<td>9.5</td>
<td>92</td>
<td>106</td>
<td>126</td>
</tr>
<tr>
<td>1991</td>
<td>19.3</td>
<td>20.8</td>
<td>2.5</td>
<td>102</td>
<td>8.5</td>
<td>5.4</td>
<td>6.0</td>
<td>106</td>
<td>116</td>
<td>146</td>
</tr>
<tr>
<td>1992</td>
<td>19.8</td>
<td>21.3</td>
<td>2.7</td>
<td>108</td>
<td>9.1</td>
<td>5.3</td>
<td>10.8</td>
<td>104</td>
<td>125</td>
<td>148</td>
</tr>
</tbody>
</table>

- ID: Debt service to GDP.
- R(L), R(D): Real lending and deposit rate.
- RER: Real effective exchange rate.
- L: Private sector liabilities of banking system.

Source: IMF.

Substantial progress has been made in the prudential and supervisory area, including the classification of the 400 largest loans by risk group into four categories with separate provision ratios. While loan limits to single borrowers for guaranteed and non-guaranteed loans (25 resp. 5%) are comparable to other countries, the limit on loans to affiliates, at 25%, exceeds normal levels. Chile has imposed fairly strict requirements on foreign currency activities—including Tobin taxes—partly reflecting prudential concerns, and partly reflecting the desire to reduce capital inflows. Last, but not least, Chile—in contrast to most Latin countries—has mounted a very aggressive campaign against insider trading.
The development of domestic financial markets has benefitted tremendously from the move towards private pension funds. The pension funds today hold 60% of all public sector bonds, 60% of credit letters, 40% of central bank bonds, 20% of all term deposits and 10% of the stock market. Initially highly restricted, pension funds have been gradually granted permission to diversify into more risky assets. While still being mainly invested in government paper (40% of total assets) and central bank instruments (25%), the share of private sector fixed income and equity instruments is slated to increase; further increases in equity market liquidity can therefore be expected. Reaching limits on domestic holdings, pension funds have also been granted permission to invest up to 5% of their portfolio in foreign assets, with the limit set to increase to 10% and with similar permissions granted to insurance and mutual fund entities.

<table>
<thead>
<tr>
<th>Table 7. Asset Distribution Chile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Currency</td>
</tr>
<tr>
<td>Demand Deposits</td>
</tr>
<tr>
<td>Savings Deposits</td>
</tr>
<tr>
<td>Letters of Credit</td>
</tr>
<tr>
<td>Forex Deposits</td>
</tr>
<tr>
<td>Pension Funds</td>
</tr>
</tbody>
</table>

Source: Central Bank of Chile.

Overall, Chile provides in many respects a role model for other liberalizing economies, with problems limited to an excessively harsh restriction on ADR issues and excessively lax limitations on lending to affiliates and cross ownership between financial and non-financial enterprises.

Colombia

Since the mid-1980s Colombia has undertaken a range of reforms aimed at increasing the efficiency and competitiveness of its financial sector, while shifting monetary policy towards market-based instruments. Unlike many of its neighbors, Colombia does not suffer from macroeconomics instability, the reform process was thus implemented in a moderate inflation environment (steady at around 30% per annum) with real growth of 3-4 percent. Real interest rates have generally been positive prior to reforms, although
spreads between lending and deposit rates have been upwards of a thousand basis points.

<table>
<thead>
<tr>
<th>Year</th>
<th>Inv.</th>
<th>ID</th>
<th>RER</th>
<th>LL</th>
<th>GDP</th>
<th>M1/Y</th>
<th>M2/Y</th>
<th>L/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>21.3</td>
<td>22.0</td>
<td>8.0</td>
<td>100</td>
<td>5.4</td>
<td>5.4</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1989</td>
<td>19.6</td>
<td>20.0</td>
<td>8.6</td>
<td>95</td>
<td>5.7</td>
<td>4.1</td>
<td>96</td>
<td>92</td>
</tr>
<tr>
<td>1990</td>
<td>20.0</td>
<td>19.5</td>
<td>9.4</td>
<td>86</td>
<td>7.8</td>
<td>4.9</td>
<td>3.4</td>
<td>122</td>
</tr>
<tr>
<td>1991</td>
<td>22.2</td>
<td>16.8</td>
<td>8.7</td>
<td>95</td>
<td>15.8</td>
<td>4.7</td>
<td>4.3</td>
<td>148</td>
</tr>
<tr>
<td>1992</td>
<td>19.4</td>
<td>17.8</td>
<td>7.5</td>
<td>102</td>
<td>15.1</td>
<td>-0.4</td>
<td>2.1</td>
<td>217</td>
</tr>
</tbody>
</table>

at: Debt service to GDP
R(L)/R(D): Real lending and deposit rate.
RER: Real effective exchange rate.
L: Private sector liabilities of banking system.

Source: IMF.

The reforms which are, or have been, undertaken by the government include a phasing out of the use of Agricultural Development Fund and Housing Bank Bonds as non-prudentially motivated reserve assets; interest rate liberalization; privatization of state-owned financial enterprises; a radical overhaul of the prudential system; and a reduction in non-prudentially motivated restrictions on permissible financial institutions activity. The Banco de la Republica was endowed with greater independence in 1992 and a new regulatory framework was enacted in 1993, limiting central bank credit to the government.

A number of problems persist, however. The central bank remains legally entitled to impose mandatory credit allocations, while the government is authorized to impose (temporary) directed credits restrictions covering up to 30% of the total assets of any financial institution. Neither restriction is desirable. On the macro side, Colombia has not attracted substantial capital inflows, largely a reflection of a bias towards unlisted companies, thus restraining the growth of the local equity market. Recent laws levying the tax and regulatory field among listed and unlisted companies, and introducing consolidated reporting may go some way towards revitalizing the stock market, as might the ongoing reform of the pension system.

Mexico

Since the late-1980s Mexico has undertaken a series of bold, and generally successful, steps to reform its financial sector. In many
ways the Mexican program, like the Chilean one, serves as a model for liberalization, privatization, and reform. At the same time, the Mexican experience illustrates some of the potential problems and pitfalls that rapid deregulation can entail.

Table 9. Basic Statistics: Mexico

<table>
<thead>
<tr>
<th>Year</th>
<th>DEBT SERVICE TO GDP (%)</th>
<th>Lending and deposit rate (%)</th>
<th>Real effective exchange rate (%)</th>
<th>Private sector liabilities of banking system (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>5.8</td>
<td>21.8</td>
<td>12.0</td>
<td>9.0</td>
</tr>
<tr>
<td>1990</td>
<td>5.8</td>
<td>21.8</td>
<td>12.0</td>
<td>9.0</td>
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<td>9.0</td>
</tr>
<tr>
<td>1992</td>
<td>5.8</td>
<td>21.8</td>
<td>12.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Source: IMF

In the pre-reform period, monetary policy was conducted by direct quantitative credit restrictions on the three-tier financial system (consisting of the Central Bank, the commercial banks, the financieras and the development banks) and through regulated interest rates, aided by the nationalization of 36 of the 60 commercial banks during the 1982 debt crisis. The financial sector was characterized by significant financial disintermediation: commercial banks were used primarily to finance budget deficits via reserve requirements and liquidity rules. Private sector borrowing—particularly consumer credit and housing mortgages—turned increasingly to the informal credit markets while private sector savings were channeled into real and foreign currency assets.

The objectives of the reform program included a revival of domestic saving and investment; increased efficiency of the financial sector and the intermediation process, and a shift to monetary policy based on open market operations. Liberalization of domestic interest rates to market-determined rates began in 1988. Credit quotas that had been used to target high priority sectors (especially agriculture, small enterprises, and development banks) were eliminated for bank liabilities (except for those arising from checking and savings deposits which were exempted in 1989) and were replaced by a 30 percent government bond portfolio restriction, gradually relaxed since.

The process of liberalization was far from painless. Real interest
rates on Treasury certificates (CETES) remained above 20% for much of 1989 (and, at annual rates, peaked at above 30%) until a measure of confidence in the economy was restored following the successful negotiation of the external debt package, initiation of the NAFTA talks, and the achievement of monetary and fiscal credibility.

An important element of the reform process was the expansion of the range of financial instruments available for intermediation. While much of this innovation was done by the private sector (commercial paper, bankers' certificates, and long-term bonds), the government played an important role in expanding the menu of public sector securities across maturities and introducing securities indexed to the dollar exchange rate (Tesobono) and the CPI (Ajustobono).

<table>
<thead>
<tr>
<th>Type</th>
<th>Maturity</th>
<th>Indexed to</th>
<th>Face Value</th>
<th>Foreign Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cetes</td>
<td>26-364 days</td>
<td></td>
<td>142 bn</td>
<td>57</td>
</tr>
<tr>
<td>Bondes</td>
<td>1-2 years</td>
<td></td>
<td>16 bn</td>
<td>17</td>
</tr>
<tr>
<td>Tesobono</td>
<td>1-3 months</td>
<td>Exchange</td>
<td>5.6 bn</td>
<td>83</td>
</tr>
<tr>
<td>Ajustobono</td>
<td>3-5 Years</td>
<td>CPI</td>
<td>26.3 bn</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: INERER.

The process of liberalization and innovation was accompanied by a number of regulatory legislative steps including the Credit Institutions Act and the Stock Market Act, both intended to increase competition and reduce market segmentation by expanding the range of services offered by different financial institutions and allowing greater integration to exploit economies of scale.

Under the Credit Institutions Act, banks are incorporated as companies, with foreign participation permitted up to 30 percent of capital (with no individual holding more than 5—or exceptionally—10 percent of the equity). The Act also seeks to limit the concentration of credit risk and the separation of banks from their customers. In December 1989, moreover, these Acts were amended to encourage integration of financial entities into groups under a holding company. Under the legislation, the holding company is responsible for the liabilities and losses of any member of the group but individual entities are not responsible for the losses of the holding company or
other entities belonging to the same group (nor are they allowed to invest in the holding company or each other).

Financial sector supervision is undertaken by the National Banking Commission (CNB) and the CNFS (for insurance and bonding companies). Amongst the weaknesses of the regulatory framework identified in the late 1980s was a poor loan classification system. The new system requires financial institutions to review the quality of (most of) its portfolio each quarter according to a five category classification system, with differential provision rates and restricts capitalization of unpaid interest.

While in line with international practice, the factual performance of the loan provisioning and supervisory scheme rests on the quality of auditors who, in Mexico as in other recently liberalized markets, tend to lag rather than lead financial innovation. Continued training of bank supervisors (as undertaken in conjunction with the Latin American Center for Monetary Studies (CEMLA)) is required, as is further upgrading of the computerized surveillance systems.

A significant reform of the pension and social security system, begun in 1992, is expected to have a major beneficial effect on the domestic financial markets. Modelled partly on the Chilean system (though intended to supplement rather than replace the old scheme and managed by any financial institution rather than by the special pension fund management companies exclusively), the SAR was implemented in two steps. In the first, money was deposited in corporate accounts which were managed by the Banco de Mexico and guaranteed a positive real rate of return. In the second stage, individuals could transfer their funds to any financial institution of their choice. This stage was delayed because of administration problems encountered by banks which had made rather exorbitant claims in order to attract funds (the two largest banks, Bancomer and Banamex, received almost 70% of the approximately $1.3bn in initial deposits).

The Mexican bank privatization program was judged to be highly successful, raising some $12bn against an initial expectation of $7bn (after restructuring $1.2bn of interbank credit lines which had been rolled over since 1982). Although the ownership structure has changed (with over 130,000 shareholders as against fewer than 10,000 prior to 1982) the structure of the industry remains largely oligopolistic. The three largest banks hold more than 60% of the system’s assets and there are relatively high minimum capital requirements (to charter a new bank 0.5% of the paid capital and reserves of the banking system). These barriers to entry have resulted
in significant inefficiencies within the financial sector, as reflected in the high interest margins and low average returns. Competitive impulses are however expected as US and Canadian banks enter the Mexican market following NAFTA.

In summary, the Mexican financial system has been transformed from a highly controlled system to one based primarily on market forces. Financial intermediation, which fell sharply in 1987/88 (M2/GDP from 32% to 22% and M4/GDP from 43% to 33%) has been restored with the M2/GDP and M4/GDP ratios well above their 1987 values. Though saving and investment rates have risen, the inflow of foreign direct investment was disappointing in the early years of reform. Following NAFTA a significant increase is expected. However, as the 1992 crisis showed, the Mexican financial system is far from robust, careful attention to systemic risks, in particular on the external front, will be required for some years to come.

Peru

Peru began to actively liberalize its financial system in the early 1980s, introducing convertibility, reductions in required reserves and increases in interest rate ceilings. Following a worsening macroeconomic performance, these measures were repealed in 1985. Convertibility was suspended, interest rate ceilings reduced, reserve requirements raised, and multiple exchange rates introduced, in conjunction with quantity limits on foreign exchange liabilities and credit allocation policies.

The increased distortions were placed atop an already highly segmented financial system with rigid limits on the maturity and sectoral structure of lending and borrowing activities of financial institutions. Public sector financial institutions, notably the four development banks, accounted for a large share of overall lending and were perennially facing solvency crisis, with around 60% of the total loan portfolio non-performing. Supervision throughout this period was highly inadequate, with insolvent banks continuing to operate and low public confidence in the overall soundness of the banking system. Confidence was not enhanced by an attempted nationalization in 1987. Inadequate loss reserves and easy rollover of non-performing loans gradually eroded the health of the private as well as of the banking system.
In conjunction with persistent hyperinflation the distortions reduced the size of the Peruvian financial system dramatically in the five years leading up to 1990; by end 1989, real broad money and real credit had fallen to a quarter of their 1983 values as individuals shifted to real and external assets. The year 1990 saw a return to the theme of financial liberalization—pursued in the context of a broader stabilization program—with exchange rate unification and floating, a halving of reserve requirements to prudentially rather than fiscally motivated levels, domestic and—in 1991—foreign currency interest rate liberalization and a dramatic reduction of the role of public sector banks. Segmentation was substantially reduced with the 1991 Banking law, liberalizing entry of domestic and foreign banks, establishing universal banking, setting new capital adequacy ratios modelled on international standards and replacing the previous implicit 100% deposit guarantee with a privately financed deposit protection scheme for small savers. The Capital Markets Law of 1991 tightened disclosure standards, set the stage for mutual funds and prepared the ground for the subsequent reform of the pension system modelled on the Chilean example.

The reforms succeeded in reversing the trend. Time and savings deposits increased by over 50% in real terms, credit and foreign currency loans and deposits likewise logged large real increases. The liberalization of interest rates on foreign deposits, resulting in large increases, stimulated capital inflows and accelerated the process of currency substitution. With a 60% share of foreign currency deposits in broad money, Peru today de facto operates on a bimetary standard, mirroring the process in Bolivia in the mid 1980s.
While Peru achieved a quite remarkable turnaround relative to expectations, several problems areas remain. The high degree of interlinkage between financial and non-financial entities and the high concentration of loans—the top ten percent of borrowers account for 90 percent of the outstanding credit volume—raises the specter of a Yugoslav type financial crisis. Despite recent progress, the supervision of banks has been inadequate, reflecting a shortage of skilled manpower. The issue of insider trading has not been addressed and remains a stumbling block on the road to increased equity market liquidity while more rapid privatization is required to increase the number of tradable securities.

**Venezuela**

In 1989 Venezuela embarked on a macroeconomic stabilization program including fiscal retrenchment, exchange rate unification and liberalization, trade reform and financial sector reform. After a promising start, the reform process has lately encountered significant difficulties.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sav.</th>
<th>Inv.</th>
<th>ID</th>
<th>RER</th>
<th>R(L)</th>
<th>R(D)</th>
<th>dGDP</th>
<th>M/Y</th>
<th>L/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>18.4</td>
<td>28.0</td>
<td>9.5</td>
<td>100</td>
<td>-16.6</td>
<td>-20.5</td>
<td>5.8</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1989</td>
<td>17.7</td>
<td>12.7</td>
<td>5.9</td>
<td>85</td>
<td>-50.1</td>
<td>-48.3</td>
<td>-6.6</td>
<td>43</td>
<td>139</td>
</tr>
<tr>
<td>1990</td>
<td>20.6</td>
<td>18.7</td>
<td>7.0</td>
<td>82</td>
<td>-4.8</td>
<td>-12.1</td>
<td>8.5</td>
<td>139</td>
<td>202</td>
</tr>
<tr>
<td>1991</td>
<td>21.8</td>
<td>51.2</td>
<td>13.1</td>
<td>76</td>
<td>-3.7</td>
<td>-3.0</td>
<td>10.4</td>
<td>193</td>
<td>159</td>
</tr>
</tbody>
</table>

**Source:** IMF

Prior to the reform, the Venezuelan financial system suffered from the same problems as the other Latin American countries with repressed financial systems: numerous structural rigidities, protected domestic markets, and widespread state intervention inhibited Venezuela from fully capitalizing on her oil endowment. The collapse of oil prices in 1986 exacerbated an already poor macroeconomic situation with sharply rising (monetized) fiscal and current account deficits. The consequent accelerating inflation resulted in rapid financial disintermediation, with the ratio of M2/GDP fell from 37.5% in 1986 to 27% in 1989. Monetary policy remained loose.
reflecting not only credit extension to the government, but also subsidization of public and private sector enterprises through foreign exchange guarantees at overvalued exchange rates; a liberal rediscount facility, and subsidized directed credit.

As a first step in the financial sector reform program interest rates were liberalized in early 1989 only to be—peculiarly—reconstrained below maxima in response to a Supreme Court ruling. The limits on occasion prevented interest rates from reaching market clearing levels (the real deposit rate in 1989, for example, was 0.0%), resulting in credit rationing. Since March 1993, the interest rate ceiling has been expressed as the Central Bank bill rate plus a 20 percent margin.

After an initial shift from reserve requirements to open market operations as the means of monetary control—using central bank bills sold in weekly auctions—the central bank returned to relying on reserve requirements as the primary means of monetary control following an expensive effort to sterilize the expansionary effects of a sizeable fiscal deficit and capital inflows in 1991. Reserve requirements were raised from 12 to 15 percent and later to 25 and 80 percent for private and public sector deposits in commercial banks. Not surprisingly, financial disintermediation resulted. While reliance on reserve requirements was later diminished again, private sector disintermediation was not completely undone.

Further problems arose in October 1992 when the central bank reduced its intervention in the foreign exchange market to prop up the bolivar, triggering widespread capital flight and a liquidity crisis in the banking system. After returning to heavy intervention in the foreign exchange market the central bank was able to stabilize the situation with a 10% depreciation at the cost of a reserve loss amounting to almost $600m and an increase in domestic interest rates of 15 percent.

Attempts at expanding the menu of government securities and lengthening their maturity have likewise been largely unsuccessful. While between July and September 1992 the central bank managed to increase the average maturity of bills from 110 to 154 days, the October crisis undid these efforts and sharply raised the risk premium on longer term bills.

Overall, monetary policy conduct has been less than exemplary, with continuing decisions to intervene and an apparent lack of understanding in the link between interest rate premia and public confidence in the prudence of monetary and fiscal policy.

The central bank has been somewhat more successful, however,
in reducing credit to commercial banks and other financial institutions since 1991. The new Central Bank Law prohibits the central bank from extending direct credit to the government or the nonfinancial public sector. There are a number of issues regarding the implementation of that law, however, which still need to be resolved. For instance, the law prohibits the acquisition of public sector bonds by the central bank in the primary but not the secondary market, opening a glaring loophole further impairing credibility.

On the prudential front, efforts to clarify responsibilities between various supervising agencies, to strengthen prudential regulations and introduce standards for loan classification, provisioning, capital requirements, and lending to related parties have made some progress but remain far behind the examples set by Mexico and Chile.

In summary, Venezuela financial reform remains far from its stated goals in terms of widening, deepening, prudential quality and deregulation.

Conclusions
The past few years have witnessed a remarkable transformation of the financial sectors of many Latin American countries, and an equally remarkable shift in the attitudes of policymakers to such liberalization. In many countries, financial sector reform is well under way and, barring catastrophic events, is largely irreversible. Yet the potential risk of a crisis, possibly with disastrous regional contagion effects, should not be dismissed. The regulatory and supervisory framework remains weak in several of the countries reviewed here, and in some instances, there are already ominous signs that current account deficits may be becoming unsustainably large. To the extent that recent capital flows continue, the regulatory and supervisory bodies will need to avoid allowing financial bubbles, and non-productive asset inflation, to develop. But equally, as the major industrialized countries pull out of recession, and world interest rates rise accordingly, recent capital flows to Latin America could be reversed very rapidly. Either challenge may severely test the resilience of these recently reformed, and reforming, financial sectors.
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