



*Inter-American Development Bank
Banco Interamericano de Desarrollo (BID)
Research department
Departamento de investigación
Working Paper #415*

**The New Wave of Capital Inflows:
Sea Change or Tide?**

by

Eduardo Fernández-Arias

Prepared for the Seminar

**The New Wave of Capital Inflows:
Sea Change or Just Another Tide?**

Annual Meetings of the Board of Governors, Inter-American Development Bank
and Inter-American Investment Corporation

New Orleans
March 26, 2000

The author would like to thank Ricardo Hausmann and Luis Rivera-Batiz for their valuable comments, Laura Dos Reis, Patricia Cortés, and Martin Cumpa for their excellent research support and Rita Funaro for editing this paper. The views expressed in this document are of the author and do not necessarily reflect those of the Inter-American Development Bank or its Board of Directors.

**Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library**

Fernández-Arias, Eduardo.

The new wave of capital inflows : sea change or tide? / Eduardo Fernández-Arias.

p. cm. (Research Dept. Working paper series ; 415)

“Prepared for the Seminar “The New Wave of Capital Inflows: Sea Change or Just Another Tide” 2000 Annual Meetings of the Board of Governors, Inter-American Development Bank and Inter-American Investment Corporation, New Orleans, United States.”

Includes bibliographical references.

1. Capital movements--Latin America. 2. Capital market--Latin America. 3. Risk--Latin America. I. Inter-American Development Bank. Research Dept. II. Title. III. Series.

332.042 F38--dc21

82000

Inter-American Development Bank
1300 New York Avenue, N.W.
Washington, D.C. 20577

The views and interpretations in this document are those of the authors and should not be attributed to the Inter-American Development Bank, or to any individual acting on its behalf.

The Research Department (RES) publishes the *Latin American Economic Policies Newsletter*, as well as working papers and books, on diverse economic issues. To obtain a complete list of RES publications, and read or download them please visit our web site at: <http://www.iadb.org/res/32.htm>

Introduction

Will capital inflows boom again in Latin America as countries recover from the 1998-99 recession? And will they bust again shortly thereafter repeating the cycle of the past? Is there something fundamentally different about the new wave of capital inflows to alter this historical pattern, a sea change in the way the region is financially linked to international capital markets? Or is nothing really new under the sun and will the new wave of capital inflows be just another tide, bringing in its wake a capital withdrawal and a financial market drought?

This paper addresses these important issues, over which there is much controversy. On the one hand, some think there will be no boom because recent international financial turmoil has dramatically changed the financial landscape for emerging markets. Some analysts argue that the market has changed for good as a result of these financial crises. Booms of the past were due to ignorance of the risks that recent financial turmoil has clearly uncovered and to moral hazard induced by implicit domestic and international guarantees that are now being slashed. Foreign investors who were burned are unlikely to return on the same scale and those who escaped unscathed now know that in the future, instead of being bailed out, they will likely be bailed in. And if foreign investors forget these lessons, policymakers are likely to impose capital controls to protect their economies from what is by now patently unreliable external finance.

On the other hand, some believe that history shows that investors and policymakers have short memories (or have incentives to be less than prudent) and will quickly generate another boom of capital inflows, to be followed by a cyclical bust. In this cynical view, nothing is new under the sun and history is bound to repeat itself, propelled by the exuberance of the market and weaknesses in political economy. Moral hazard was not the main driver of capital inflow booms, but if it was it will continue to be so because reforms to the international financial architecture will amount to nothing but cheap talk. In reality, lessons from experience are systematically wasted and nothing of substance can be effectively implemented to change the course of events.

Finally, there are the optimists, who partially share the opinions of both previous groups. Like the cynics, optimists also envision a new boom of capital inflows on the horizon. But in their view, they will not be the seed of future crises. The main defects of the past—moral hazard and lack of information to assess risk—are now being rectified. Recent experience did not magnify investors' perception of risk and the mistrust of policymakers. Rather, it was a learning experience by which the mistakes of the past will be avoided and the bust phase of the cycle will be prevented. In particular, optimists point to recent surges in foreign direct investment (FDI) as evidence of a transformed financial landscape. In their view, the new boom will be dominated by FDI and this will lend stability to the new wave of capital inflows.

This paper addresses issues concerning the future of capital inflows to Latin America by examining the factors that may lead to a structural change with the past. These factors can be grouped under two key questions: 1) What is new about recent

financial turmoil, i.e., what are its features as a shock that may permanently alter the historical pattern of capital inflows? and 2) Has the market and official response to this shock so far revealed a break with historical patterns? Whether the new wave of capital inflows is a sea change or a tide depends on the answers to these questions.

For discussion purposes, the outcomes are organized under four scenarios that consider the boom and bust probabilities of the new wave of inflows based on its level and stability. Accordingly, the waters of the wave of inflows may be 1) shallow and safe (SS); 2) shallow and dangerous (SD); 3) deep and dangerous (DD); and 4) deep and safe (DS). Scenarios SS and DD contain a trade-off between level and stability; scenarios SD and DS do not. Under scenario SS there is no boom but no bust either: stability is achieved at the cost of low capital inflows. By contrast, in scenario DD there is a boom-bust pattern: capital inflows are high but lead to crisis. The other two scenarios contain no trade-off. SD is the worst: capital inflows are low and yet crisis prone. DS is the best and corresponds to deep financial integration: there is a sustainable boom of capital inflows. Each one of the four scenarios results from a combination of some of the previously discussed factors.

The remainder of the paper is organized in four sections. The first three sections analyze the factors of structural change relevant to the region's external finance that will determine the four scenarios for future capital inflows. Section I (Recent Capital Inflows in Latin America) analyzes the new patterns of capital inflows to the region in the 1990s, particularly the new market risks revealed in recent financial turmoil. Section II (How Has the Region Fared?) assesses how the region conducted itself in coping with the shock. Section III (Has the Market Changed for Good?) looks at structural changes in the market that may have resulted from the experience, e.g., the shift of external finance towards FDI, either from within the marketplace or as a reaction to official sector policy. The four scenarios for the new wave of capital inflows are then discussed in Section IV (The New Wave of Capital Inflows).

I. Recent Capital Inflows in Latin America

Latin America has relied heavily on external market finance for the past 25 years (see Figure 1). However, this financing has been extremely volatile, following a boom-bust pattern with large reversals when supply was rationed. The most extreme example of this pattern was the debt crisis of the 1980s, following the largest boom on record. The Tequila crisis of 1995 and financial contagion after the Russian crisis of 1998 can also be detected easily in regional figures. Many individual country experiences are of course more dramatic.

Growth in the region has been strongly dependent upon the flow of private capital from abroad. Abundant capital inflows enabled the region to expand absorption, increasing consumption but also investment and growth. However, the positive effect of

external finance on growth grossly underestimates its significance for economic growth in the region. The swiftness of capital reversals at times of reduced access to financing has led to very inefficient adjustment processes and deleterious growth effects (see Calvo 1998 and Calvo and Reinhart, 1999). As a consequence, private net capital inflows and growth in Figure 1 are highly correlated. Private capital inflows are markedly procyclical mainly because growth is affected by supply conditions, especially negative ones.

In turn, supply is by itself highly dependent on volatile external conditions exogenous to the region. Many studies have found that external factors have been key in the revival of private capital flows to the region in the 1990s, especially lower international interest rates (see the seminal article by Calvo, Leiderman, and Reinhart 1993 and Fernández-Arias 1996 for an analysis of the channels of transmission). The borrowing phase of the mid-1970s was similarly motivated by negative real rates of interest. By the same token, the increase in US interest rates preceded the onset of the debt crisis. Similarly, adverse changes in terms of trade have at times precipitated a loss in access to external finance. More generally, capital inflows to the region have not served well the purpose of smoothing out changes to volatile terms of trade (see for example Figure 2). Terms of trade remain important economic factors in the region and for that reason are important factors for country creditworthiness. When they improve, external financing is eased and, when they worsen, external financing becomes tighter or unavailable, a perverse procyclical response. The strong dependence on external conditions and external market financing has made the region's growth quite fragile.

It is key to understand the causes of crisis. Downturns end up in very costly crises because beyond a certain point foreign investors are not willing to put at risk further capital and effectively ration the country. This is similar to situations of financial distress in corporate borrowing in near bankruptcy situations. Why would a country encounter such a situation at relatively low levels of liability-to-wealth ratios? One key insight is that the absence of applicable international law makes sovereign risk pervasive, which implies that external obligations will be fulfilled only if that is seen as protecting national welfare. If the effort to comply becomes too onerous, failure occurs. If effort is related to a relevant national resource base available to make payments in foreign currency such as a fraction of exports, then crises would be associated with high levels of foreign liabilities relative to exports. The critical fraction of the stream of exports would be in that case an implicit collateral in the same way that the stream of profits is the collateral in a corporate case.¹ Figures 1a and 1b show how traditional liability indicators have evolved over time, and Table 5 compares them with other regions.

¹ International interest rates would also be relevant for the value of the implicit collateral represented by the present value of a stream of resources. That is why higher interest rates would reduce creditworthiness, both in the sovereign and the corporate case alike.

The New Wave of Inflows in the 1990s

Reviewing the transformations in the new wave of inflows of the 1990s and the expectation placed on them in order not to repeat the experience of the debt crisis of the 1980s may contain lessons for today's questions.

Private capital inflows revived in the 1990s after Brady operations eliminated the commercial bank debt overhang and paved the way for a new era. Many interpreted the resumption of private capital as the market's recognition of the robustness of reformed economies. Rigorous examination of the evidence, however, revealed that a combination of external factors, especially low international interest rates, played a key role in that development (Calvo, Leiderman, and Reinhart 1993, etc). Even the increased creditworthiness of countries, held up as proof of an improvement in domestic factors, was reinterpreted as the result of lower international interest rates increasing the value of the countries' implicit collateral (Fernández-Arias 1996, Dooley and Fernández-Arias,). Therefore, the shift to a greater volume of private capital was not especially meaningful.

The new wave of inflows of the 1990s was a change from the low levels of rationing during the debt crisis, but the new volumes were not unprecedented. Table 1 shows that capital inflows in the region--both private and overall net inflows--were actually below those of the pre-crisis 1978-81 period. Also, the insignificance of official-source financing in overall net inflows replicated the borrowing phase before the debt crisis, and was remarkable only if compared with the debt crisis, in which official sources were important (see Table 1).

Even if the volume of private capital inflows varied little, it was widely believed that at least their changed composition could be regarded as a healthy break with the past. Three new characteristics of the new composition of private capital inflows stand out (see Fernández-Arias and Montiel 1996 and Montiel and Reinhart 1999 for further analysis): 1) a shift towards equity instruments, as opposed to debt instruments; 2) a shift towards portfolio flows, as opposed to loans and direct investment; and 3) a shift towards the private sector as a recipient of inflows, as opposed to the public sector. Table 1 shows these trends for both Latin America and the rest of the developing world.

Debt instruments were overwhelmingly important in net private inflows in the 1970s, at around 85 percent. Equity instruments became the main form of private financing during the debt crisis because of the drastic retrenchment of commercial bank lending, but its absolute volume actually declined. It was only in the 1990s that equity financing consolidated its position. In this recent period, equity tripled its volume, becoming the main form of private financing. These trends are not specific to Latin America: other developing countries follow the same pattern almost exactly (see Table 1).

Why did equity financing explode in the 1990s? One reason is the increase in FDI, which doubled its volume relative to the past. An equally important reason is portfolio equity investments, which surfaced in the 1990s and had great importance in

Latin America. While these are again widespread trends in the developing world, the relative importance of portfolio equity investment in overall equity investment was higher in the region.

More generally, in the region portfolio investment went from negligible in the past to becoming the main source of private financing in recent years. At the same time, private loans, which were the overwhelming source of private finance in the 1970s (bank loans in particular) dropped to an insignificant level in the 1990s. In fact, portfolio investment in general became more important in Latin America than in other developing regions (where they were one fourth of the total). At the same time, loans have remained important in other developing countries (about a third) but dropped to near nothing in Latin America.

Finally, Table 1 clearly shows the trend toward directing financing to the private rather than public sector (inclusive of loans guaranteed by the public sector). Leaving aside unallocated short-term lending, in Latin America the public sector has largely disappeared from the scene of private-source financing. The public sector used to be the main recipient of private capital to finance budget deficits in the 1970s, and became even more important as debts were nationalized in the 1980s. In the 1990s, however, it is the private sector that receives private capital from abroad. This trend is also clear in the rest of the developing world, although the prevalence of the private sector in the region is even higher than elsewhere.

Interestingly, during the 1990s the trends in the composition of capital inflows in Latin America have increasingly resembled those of the rest of the developing world. (see Figures 2a, 2b, and 2c). There was a remarkable convergence in the participation of foreign direct investment as Latin America started lower but caught up after the Mexican crisis. In terms of portfolio investment, Latin America started much higher but other regions progressively caught up over the decade. And in the importance of the private sector as a recipient of private flows, Latin America started much higher but other regions increasingly caught up.

The most striking break with the past in terms of the composition of net private capital inflows in the 1990s was the disappearance of the public sector as the main recipient of external financing. The prevalent diagnosis was that the debt crisis was a result of unsustainable borrowing to finance ever-increasing budget deficits, fuelled not by the attraction of productive investment opportunities but by perverse incentives to maintain discipline in macroeconomic policy. With the private sector in the driver's seat one could be sure that foreign investment passed the market test, i.e., it was applied to investment with a high expected rate of return. Therefore, private inflows were expected to generate the corresponding capacity to pay and preclude the boom-bust cycles ending in crises. As we know, the actual experience of the 1990s was not as rosy. What was wrong with this expectation?

There are at least three answers worth considering to the question of why market discipline did not eliminate the boom-bust cycles in external finance. The first reason is that in the presence of sovereign risk, market discipline is not powerful enough. Payment

capacity, and therefore creditworthiness, depends not only on the specific risk of a particular private project but also on country risk. If what is relevant for country risk is some fraction of an aggregate resource base, such as exports, then country risk may increase even if project returns are high. This distortion relaxes the bite of market discipline, which would be intermediated by the foreign-currency impact of projects and, more importantly, the macroeconomic effects resulting from the fungibility of savings at the aggregate level. This can easily make the process crisis prone. Furthermore, there are reasons to believe that country risk is not well internalized in private transactions, which may lead to systematic overborrowing and crises (see Harberger, 1984; and Fernández-Arias and Lombardo, 1998 for a formal model). This approach suggests that the most reliable course of action is to reduce sovereign risk by increasing the ability of governments to commit to repayment.

A second answer is that the market is distorted by moral hazard, which weakens the market test for productive investment and leads to overexposure and crisis. In turn, moral hazard would be caused by implicit official guarantees, be they by domestic governments or international bodies. This theory has become quite popular in reference to banking guarantees and IMF-led rescue packages. However, at the moment, coming from a debt crisis in which commercial banks lost money and the official sector wasted a decade before taking decisive action, it did not have much credit. (These two diagnoses—moral hazard and sovereign risk—will be addressed later in the context of discussing the reform of the international financial architecture.)

Finally, a third answer is that the risks realized in the 1990s were not foreseen. There is always the possibility that investment institutions underplayed risks they perceived because of agency problems, which may lead to herding behavior and boom-bust cycles. But more interestingly, there are reasons to believe that crises in the 1990s contained many new elements that were not and could not have been anticipated to their full extent. If so, their current recognition may be the basis for a structural change in market behavior looking to the future. The following section discusses briefly the new features of these crises.

The New Features of Recent Crises

The crisis in Mexico at the end of 1994 and its impact on Argentina and the rest of Latin America in 1995 was a first warning. Crises in some of the model economies of East Asia in 1997 clearly established that there were new risks in the world of international finance. Financial contagion after the Russian crisis in 1998, whose effects are still being felt in Latin America, made international policymakers rethink the issue of international financial architecture.

To repeat, one key lesson from recent experience is that private sector discipline in external borrowing does not do away with unreliable international financing and destructive financial crises. Getting rid of the public sector external borrowing to finance unsustainable fiscal deficits that led to the debt crisis of the 1980's was not enough to avoid the crises of the 1990s. The Mexican and East Asian crisis countries did not have

fiscal problems; neither did most of the countries affected by financial contagion in 1998-1999.

Why is it that high private returns on borrowed funds failed to build enough repayment capacity to maintain investors' confidence in East Asian countries? No doubt, one explanation could be that private returns were artificially inflated by distortions. For example, some analysts blamed moral hazard induced by implicit public guarantees to cover losses, in turn backed by readily available official financial rescue packages coordinated by the IMF. Weak banking sectors and the precedent of the Mexican rescue package lent credence to this story. However, it is difficult to reconcile the presence of a significant distortion of this kind with the fact that crises took most people by surprise. In fact, crises tended to occur in the countries that at the time were generally regarded as having strong fundamentals! Here the emphasis is on an alternative explanation that portrays recent crises and financial turmoil as fundamentally new phenomena (see Calvo and Fernández-Arias, 2000 for an analysis of the new features of recent crises).

Recent experience is humbling concerning the limitations of market discipline in the context of external financing of emerging economies. Most scholars agree that the element of surprise in the Asian crisis was mostly associated with the simple fact that it was not predictable on the basis of economic fundamentals.² A massive withdrawal of foreign investment hurts the real economy and may cause sound fundamentals to deteriorate enough to affect a country's ability to pay, which would then justify the behavior of foreign investors to withdraw (bad equilibrium). At the same time, in the absence of such withdrawal, fundamentals would have been strong enough to cover all payment obligations (good equilibrium). Multiple equilibria of this kind amount to a new risk in this new world of instant financial transactions.

The bad equilibrium above involves a liquidity crisis. As in a traditional solvency crisis, in the last stage of the game the country is unable to pay. However, contrary to a solvency crisis, which is the unavoidable result of weak fundamentals and puts an end to an inefficient allocation of resources, a liquidity crisis is avoidable and destructive. A liquidity crisis can be avoided through the provision of liquidity. It can also be made less likely if the massive withdrawal upon which it is predicated is slowed down, for example, making sure that the maturity profile of debt obligations is spread out over time and keeping substantial international reserves. Since the destabilizing effect of massive withdrawals is magnified by the need for drastic exchange rate depreciation when obligations are denominated in foreign currency, a currency mismatch would further contribute to the likelihood of liquidity crises. In fact, this exchange rate mechanism may by itself create the necessary conditions for liquidity crises.

A possible market reaction to the heightened risk of liquidity crises may be a future increase in the price of debt instruments without a corresponding increase in the

² Calvo's seminal paper on the role of liquidity in the Mexican crisis (Calvo, 1995) and the account of the Asian crisis in Radelet and Sachs (1998) were followed by a distinguished sequel of researchers, and joined by Krugman in Krugman (1999).

price of equity instruments. In fact, equity instruments are less prone to liquidity crises than debt instruments, which are subject to maturity and currency mismatches. The key reason is that equity liabilities, as opposed to debt liabilities, do not imply contractual obligations because of their residual claimant nature. The required collapse in ability to pay in a liquidity crisis is due to the mismatch between the long-term nature of project returns and financing that comes due prior to that, i.e., a maturity mismatch, which frustrates project fruition if it is not rolled over. By definition, such maturity mismatches cannot occur with equity. Similarly, foreign-currency denominated obligations would increase the risk of liquidity crises. Once again, this is not a factor relevant to equity investments because they do not entail obligations.³ Hence, external equity investment is a way of avoiding the debt maturity and currency mismatches at the root of liquidity crises. The evidence uncovered in a companion paper, Fernández-Arias and Hausmann (2000b), supports this conclusion.

Financial contagion after the 1998 Russian crisis was an even more sobering example for Latin America of the limitations of market discipline. Over the decade, Latin America was able to complete deep structural reforms that led to record high growth in 1997 and allowed it to withstand the adverse effect of the Asian crisis on external trade. Yet, the Russian default brought financial chaos to the region: risk spreads skyrocketed, access to external finance was curtailed, and most economies slipped into recession. Figure 3 shows the extreme values that spreads reached during both the Mexican and Russian crises. Traditional explanations for this experience did not work: Russia and Latin America have almost no trade relations and share no other real economic factor. This mysterious new disease was termed financial contagion for lack of a better word.

What is financial contagion? Clearly, its origin was external, since nothing in Latin America had changed. Still, the disease attacked countries according to their specific weaknesses: countries deemed less creditworthy beforehand were more affected by financial contagion, meaning relative valuations across countries were largely unchanged (see Figure 4). By now it is well understood that the common factor between Russia and Latin America is the identity of their foreign investors, specialized in high-yield investment in emerging markets. When they became overleveraged and found their capital constrained as a result of the crises, crowned by Russia, they were forced to withdraw from Latin America across the board at fire sale prices (see Fernández-Arias and Rigobón, 2000). This explains why, more generally, bond prices both inside and outside the region are so remarkably correlated (see Figure 5).

Interestingly, recent financial turmoil in the region took place at levels of indebtedness substantially below those prevalent during the debt crisis of the 1980s, which was clearly a “solvency” crisis (see Figures 1a and 1b). This evidence also supports the idea that recent turmoil corresponds to a new risk in which vulnerability to

³ Foreign investors may primarily care about equity values in foreign currency and would therefore be sensitive to exchange rate fluctuation, but this channel would not give rise to liquidity crises.

liquidity crises may be crucial even if the “insolvency” as measured by debt indicators is far away.

Since risk spreads and lack of access to external financing did not reflect the underlying fundamentals in Latin America, their deleterious effects were expected to be temporary. Figure 6 depicts the stages of this drama. The worst point was in mid-September 1998, two months after the onset of the slump. By year-end 1998, half of the increase in spreads had already been recovered. Despite the Brazilian devaluation in January 1999, which sent shock waves that are clearly detected in regional spreads in Figure 3, spreads quickly resumed their recovery. At the time of writing, March 2000, the effects in most countries and for the region as a whole have essentially vanished and spreads have returned to pre-Russian levels (see also Figures 3 and 4).

II. How has the Region Fared?

The region has proved to be resilient in both the Mexican crisis and in recent financial turmoil. In the first instance, Mexico itself quickly recovered from crisis with the help of an IMF-led financial package. Argentina suffered a banking run but was able to sustain the integrity of its banking system and its currency board with official financial help, and emerged with a stronger financial system. Access to external financial markets was curtailed but after six months, by the second half of 1995, conditions had improved substantially. The year 1996 was a normal year in terms of price and volume of private external financing, if anything stronger than 1994. With the help of official support, imports did not contract and the growth slowdown was contained.

Financial contagion starting in 1998 was more harmful, and caused a major recession in 1998 and 1999, especially among South American countries that benefited less from linkages with a booming US economy in the period (see Figures 7 and 8). This recession came after the consolidation of economic reforms and high growth in 1997—the highest in the last 25 years. Why was this recent recession deeper than in 1995? The first reaction would be to look at differences in private capital inflows, but that is not the answer. In fact, Figure 9 shows that net private capital inflows in 1995 were smaller and drop faster and deeper than in the recent episode.

Fast and decisive official financial support in 1995 certainly made a difference. Changes in terms of trade were another important difference: 1995 was a strong positive year and 1998 was strongly negative (for example, see non-oil commodity prices in Figure 2). Together, these factors helped avoid a contraction in imports in 1995 and contained the magnitude and extension of the recession. In turn, this fed into a more rapid and vigorous recovery in the price and volume of private capital inflows once the dust settled. By contrast, in the recent episode imports contracted and led to a deeper and more prolonged recession, which led to a slower and more tentative recovery in spreads and still depressed volumes of financing (see Figure 10).

In summary, the recession of 1998-99 was largely unnecessary. Arguably, it resulted from the combination of a fall in terms of trade (bad luck), financial contagion

and financial markets that dry up when they are most needed (bad international financial architecture), and slow and small official support in the face of this market failure (say, bad official policy). The situation was a perfect excuse for countries to roll back reforms, apply capital controls, or perhaps default, but none of that happened. On the contrary, reforms remained in place and financial systems were kept strong.

The region has been remarkably resilient and responsible with its foreign investors under very adverse circumstances, which would merit a favorable revision of market credit risk in the future. In fact, with the exception of Ecuador, there have been no systemic banking crises, no inflationary crises, no debt crises, and no currency crises.⁴ Table 2 shows that economic adjustment has already produced a real depreciation of the currencies (small in the case of Argentina's currency board) with the exception of Mexico and Venezuela, which benefit from a positive change in oil prices. Throughout the period, adjustment has enjoyed moderate levels of inflation and generally declining levels of short-term interest rates (see Table 3).

Looking to the future, 2000 is expected to be a normal growth year as the factors that led to recession are resolved. Terms of trade are expected to firm up. Risk spreads have returned to normal values. Structural and institutional reform has deepened rather than stalled. In fact, market expectations for domestic economies as reflected in stock market prices reveal confidence in future economic performance. Table 4 shows that domestic stock markets have recovered strongly from their low points in mid-September 1998 and have generally returned to their pre-turmoil levels (with the main exceptions of Colombia and Venezuela) even as their spreads have recovered.

III Has the Market Changed For Good?

Looking to the future, the new risks exposed by recent financial turmoil may lead to a negative structural change in market behavior. On the other hand, the resilience demonstrated by the region should be grounds for a positive reassessment. Still another source of input for market assessment is the impact that changes in the international financial architecture may have on the workings of the system, and in particular, on fixing the new risks. Whether these reforms will improve or worsen things and whether they will be market-friendly or unfriendly is an open question.

Reforms to the International Financial Architecture

Most reforms announced and being put into practice are based on the premise that recent crises have resulted from excesses provoked by moral hazard. Under this interpretation, market discipline cannot deliver because private returns are artificially inflated, exceeding true or social returns. Under this interpretation, moral hazard is caused by

⁴ Brazil's devaluation is best described as a realignment, given the low inflation environment in which it was implemented.

implicit government guarantees to the banking sector (or the private sector more generally) under conditions of poor domestic financial supervision.⁵ Importantly, moral hazard is also generated by the official financial rescue packages designed to solve crises, which among other things provide the resources to make good on the governments' implicit guarantees. The net result of these packages is to bail out foreign private investors, who therefore face less risk than they should.

The implications of this moral hazard diagnosis are clear. First, improve domestic financial regulation, including making certain standards part and parcel of regular official conditionality.⁶ Second, reduce the scope and volume of IMF-led financial rescue packages. Third, involve foreign private investors in the resolution of crises ("bail in" the private sector) to make sure that they also take a hit and assume the true risk of their actions. Involving the private sector may be *ex ante* through the use of contracts that allow for easy rescheduling or renegotiation or *ex post* by forcing default on private claims during times of crisis as a condition for parallel official support.

These three implications are the basis of most of the announced reforms. In fact, the case of Ecuador can be interpreted as an application of the new doctrine. In that case, the plan for official support included as a first step renegotiation (i.e., default) with Brady bondholders. Other directions of reform include regulating hedge funds in order to limit leveraging and increasing the regulatory price of risk of international banking operations. These reforms also seek to gain stability by making private flows more costly. Programs like the contingent credit line (CCL), made available by the official sector when consensus on the moral hazard diagnosis was less consolidated, contain a number of limitations of form and substance designed to limit moral hazard that have made it unattractive to countries and inoperative so far.

The expected results are lower volumes of private financing after eliminating the excess due to moral hazard and, consequently, a drastically reduced risk of crisis. Private risks would go up, but that would be good because the price would be the right price. External financing would go down, but that would be good because there is too much of it, which makes it unsustainable and crisis prone. This is, in fact, the conclusion if the moral hazard diagnosis is right. But is it? And what will happen if it is not? (The following draws from Hausmann and Fernández-Arias 1999a and 1999b, to which readers are referred for further elaboration.)

The moral hazard diagnosis contradicts the view that most recent crises were unnecessary liquidity crises of the kind explained in Section I. Eichengreen and Hausmann (1999) found that the composition of capital flows does not support the moral hazard hypothesis. The likelihood of the diagnosis being misguided is larger in Latin America where the premises of weak banking systems built on weak supervision and regulation are much less credible. Furthermore, the risks of a misdiagnosis extend not

⁵ Another source of moral hazard could be implicit guarantees of exchange rate risk in the form of commitment to a peg.

⁶ Implicitly, a recommendation to avoid exchange rate pegs also follows the diagnosis.

only to crises that may be left untreated to avoid creating moral hazard but also to emerging markets in general; no specific measure is being considered to prevent or contain international financial contagion if a crisis does occur.

If moral hazard is not the main reason for crisis, then there is no guarantee that any greater financial stability will be achieved. In fact, the risk of crisis may very well increase. If the main drivers of crises are the limitations imposed by sovereign risk or the faulty working of investment institutions, to name two alternatives discussed in section I, crises will still occur. If the new risks exposed by recent financial turmoil are considered—namely the pervasive risks of liquidity crises and of international financial contagion—then overall risk will be higher than before. Eliminating the sources of moral hazard, such as rescue packages to provide liquidity in a liquidity crisis, would have a positive effect only if moral hazard is an important distortion. If it is not, the loss of an effective instrument to deal with liquidity crises would lead to higher, not lower, risk. This additional risk would mean more and deeper crises as the official sector would be prevented from acting so as not to generate moral hazard.

In summary, reforms inspired by the moral hazard diagnosis will certainly lead to lower flows but not necessarily to more stability. In fact, if the diagnosis is wrong, the risk of crisis may very well increase. If policymakers perceive this to be the case, they will need to think about how to adjust domestic policy to protect their countries from heightened exogenous risks that are not being dealt with internationally. Interestingly, current principles of reform of the international architecture neither preclude nor discourage the application of capital controls. At the same time, if the market perception is also one of increased risk, flows may be much lower, possibly inhibiting growth.

An alternative diagnosis would focus on designing international institutions to attend to the risks of international private flows while controlling for moral hazard. This may require the establishment of an international lender of last resort, or a strengthened CCL, and an international bankruptcy court. An alternative diagnosis would also focus on enabling sovereigns to commit to repay by establishing monetary arrangements that eliminate or reduce the currency mismatch in external debt. It would also advocate reforming regulations on industrial countries' flows to emerging markets in order to eliminate regulatory-driven disruptions of flows and markets. If this alternative diagnosis is right, flows would be larger and also more stable.

Permanent Change in Risk Perception and Appetite?

How will markets settle once growth and demand from the region pick up? The first clue comes from looking at the market reaction after the Tequila Crisis, which appears to be the closest precedent to examine. In that case, spreads rebounded to what they were before the crisis and private capital inflows reached, and even surpassed, pre-crisis levels starting in 1996 (see Figure 12). This precedent would support the idea that recent financial turmoil will not have a lasting impact on the market.

However, the experience after the Tequila crisis and the announcement that Mexican-style rescue packages and official treatment will not be forthcoming may invalidate extrapolations based on that experience. A more recent example is Ecuador's default on Brady bonds. In that instance, the market reacted very little at the time, and effects appeared to be contained to the Brady bond class, which has traditionally traded at higher spreads. This experience suggests that the market did not generalize implications from the Ecuador experience. Rejecting it as the first example of a new doctrine, the market saw Ecuador as a special case, or perhaps an accident.

In examining the prospects for recovery, notice that sovereign spreads in the secondary market have generally come back to their levels before Russia. Recent launch spreads generally confirm that secondary spreads are a good guide to pricing. If spreads are adequate measures of the perception of country risk, supply can be expected to return to what it was in the "good years," i.e., 1996-1997, and to support a growth recovery in 2000-01. In fact, as a recovery takes hold there is a good chance that spreads will tighten even further.

The problem with this interpretation is that volumes of debt issues in recent transactions appear tentative (see Figure 11). In particular, they have not been as large as expected by those who thought that many countries would like to make a "stock adjustment" to their foreign liabilities given the limitations of their access up to this point. More generally, there appears to be a gap between the actual level of net private debt inflows and the level that would be predicted by historical experience.

One positive answer to the previous concern is that it is demand for credit that is constraining volumes, not any supply consideration.⁷ This may sound counterintuitive because a lack of financing caused the recession, but once recession sets in, the demand for funds declines, until it outstrips the recovery of supply and becomes a limiting factor of the volumes contracted. In this case, it is only a matter of waiting for demand and growth to recover in the coming months.

Another way in which low demand for debt may be the constraining factor is that nowadays most foreign investment takes the form of direct investment, which makes it natural to expect lower foreign debt inflows for any given spread. In fact, foreign direct investment has been consistently increasing its participation in net private capital inflows throughout the 1990s, and by 1999 accounted for essentially 100 percent of them (see Figure 12).

A more disturbing answer is that actual launch spreads are very sensitive to volumes and, therefore, secondary market spreads are not a reliable predictor of volumes in the primary market. This would be consistent with the market having become thinner and more segmented. This hypothesis is consistent with the fact that many funds dedicated to emerging markets have closed business or reduced operations, while

⁷ Lack of demand is certainly the reason why recovering East Asian countries are running capital account deficits at a time when their spreads have tightened sharply.

crossover investors may not be ready to take their place. Much lower liquidity in secondary markets, reflected in significantly lower volume and higher bid-ask spreads, is also consistent with this segmentation hypothesis. If true, the question is how permanent this withdrawal is. Economic reasoning would indicate that there is no reason for segmentation, certainly no more than what used to be before Russia, but agency problems in investment institutions may dictate otherwise.

Another window through which to glean transformations relevant for the future is the trend in the composition of private inflows (see Figure 12). Once again, the historical record surrounding the Tequila Crisis may offer lessons for the future. In that case, the types of flows that recovered the most were those that experienced the largest declines during the crisis, namely, portfolio flows. Nevertheless, the crisis did have some lasting effects on the composition of flows. First, private debt inflows in 1996-97 were more subdued than they were before the crisis (although the same trend is observed in other regions too). Second, the substitution of loans for bonds observed during 1995 was only partially undone afterwards; portfolio flows were much more subdued after the Tequila. Both changes in the composition would be consistent with an interpretation of the Mexican crisis as a liquidity crisis, based on the notion that debt flows are more conducive to liquidity crises (as well as currency crises, see Fernández-Arias and Hausmann 2000), especially (short-term) portfolio debt flows.

Extrapolating from this experience suggests that in the years ahead the share of FDI in net private capital inflows should decline, and portfolio flows, including portfolio equity flows, and loans should increase. This is in line with most projections, including those in Figure 12a based on IIF (2000). Their FDI share is projected to fall to 60%.

Finally, the fact that FDI has not declined in 1998-99, but rather increased slightly, has not gone unnoticed. In fact, it represented essentially all of the net private capital inflows in 1999. The fact that the region has attracted FDI despite the financial difficulties and recession has been generally interpreted as an excellent sign, which presages a bright recovery. This interpretation is unwarranted, however. In a companion paper, Hausmann and Fernández-Arias (2000) show that a change towards more FDI in the composition of private inflows is associated with negative, not positive, developments. For example, an increase in uncertainty can be expected to have that effect because the price of debt financing would rise faster because it is more risky.

To the extent that debt markets do not work well because of contagion, or simply because they become riskier, it is natural to expect FDI to be a preferred form of financing, a tendency that would be reversed when factors come back to normal. This is what happened during the Tequila Crisis, when FDI did not decline, and what is being forecast now. With expensive or inaccessible debt markets, firms find it more profitable to sell their assets to foreign investors, who place a larger value on the firm because they are not constrained in their financing. This is economic jargon for “bottom fishing,” whereby foreigners take advantage of the distortions in debt markets to buy domestic companies cheap. The fact that a large proportion of recent FDI has been to conduct mergers and acquisitions confirms the relevance of this idea (see Figure 15). Since this

activity is largely opportunistic, it is reasonable to expect the trend to change in the recovery phase.

The Financial Environment

The fragility implied by the level of the stock of liabilities provides another source of information on the likelihood of recovery scenarios (see Figures 13 and 14). Equity liabilities have been growing fast and are at an all-time high (see Figures 1a and 1b). How much crisis risk do they pose? Traditionally their risk is neglected because FDI liabilities are “bolted down” and cannot “fly away.” A companion paper provides evidence supporting the low-risk quality of FDI stocks in developing countries, but for reasons of not being conducive to liquidity crises. According to this finding, and especially because of the high relevance of liquidity considerations in modern crises, it makes sense to neglect equity stocks as a risk factor and concentrate on debt stocks. However, as equity stocks build up this conclusion needs to be viewed with increasing caution.

Debt stocks are generally lower than in the past. However, the observed indicators are not inconsistent with fragility. The natural interpretation of these indicators is as “solvency” gauges. Under this interpretation, if critical levels have not changed over time—which is a big if—solvency today is much higher than it was before the debt crisis of the 1980s. Perhaps a better reference point is 1990, the year in which flows resumed, presumably because solvency was regained. Relative to that point, indebtedness is marginally or substantially lower depending on the indicator. However, liquidity crises do not require that the degree of “solvency” be too low to occur. The prevalence of liquidity crises in recent experience should be a warning that the situation may be more fragile than it appears if only traditional indicators are considered. In any event, stocks remain around their mid-1998 levels, so for that reason alone they should be interpreted as consistent with fragility.

The evolution of US interest rates has an important bearing on the likelihood of future scenarios. Changes in these interest rates have a disproportionate effect on bond yields, far more than one for one.⁸ The reason for this magnified effect is that international interest rates are relevant for the value of the implicit collateral represented by the present value of the stream of resources available for payment. That is why higher interest rates would reduce creditworthiness, both in the sovereign and the corporate case. This effect increases in highly leveraged situations, which in the sovereign case corresponds to high risk spread. It is important to note that this large effect on Latin American yields is not merely a matter of prices; higher interest rates have a major

⁸ Previous research showed that a change in US short-term interest rates translates into an even larger change in Latin American long-term sovereign bond yields (for example, in Argentina by a factor of 1.5 and in Mexico by a factor of 6). This magnifying effect also holds true when changes in US long-term interest rates are considered (in this case, by a factor of 3 in Argentina and 2 in Mexico).

impact on the volume of capital flows to the region and can, potentially, cause countries to lose access to international financial markets (credit rationing).⁹

Therefore, the expected increase in US interest rates this year by as much as 100 basis points over 1999 levels, in order to arrest inflationary pressures conspires against recovery. The direct comparison between this increase and, for example, the decline of hundreds of basis points in yields over the last several months, would not reflect the true measure of this effect. However, whether these changes are anticipated or not should be fundamental for the significance of their effect on spreads. In this case, this level of increase is perfectly anticipated by the market and should be already factored into spreads. In fact, recent increases in U.S. interest rates were anticipated and did not have important effects.

The strength of world growth and trade, which is at the root of firmer commodity prices, especially industrial inputs, is a key supporting factor for recovery. East Asian economies are recovering strongly, reversing the adverse consequences of their collapse in 1997. Strong growth in Europe and the United States is expected. In fact, while the increase in U.S. interest rates is bad news taken in isolation, if higher rates shore up sustainable growth in the United States they actually benefit the region. The exception to this general rule is if rising rates were to bring a fragile financial situation to the breaking point. Right now, however, the most important risk to recovery appears to be a hard landing in the US economy, perhaps accompanied by a stock market crash. Under the likely scenario of a soft landing for strong U.S. growth, there are blue skies for recovery.

IV. The New Wave of Capital Inflows

Four scenarios consider the level and stability of the new wave of capital inflows to explore whether there will be a boom and a bust. The waters of the wave of inflows may be 1) shallow and safe (SS); 2) shallow and dangerous (SD); 3) deep and dangerous (DD); and 4) deep and safe (DS). Deep and shallow refer to whether capital inflows are higher or lower than they were in the period 1996-97, before turmoil. Nevertheless, in the case of shallow waters the concern is with discriminating between whether flows constrain or support full growth recovery.

Scenario 1: Shallow and Safe (SS).

Previous booms were driven by moral hazard, springing from implicit government guarantees and, importantly, official bailouts. The reforms to the international financial architecture currently underway, especially official policy concerning how to deal with crises, will successfully eliminate the problem. By eliminating the root problem, we will finally assure stability. After the elimination of excessive capital inflows sustainability is achieved: shallow and safe.

⁹ Short-term U.S. interest rates are also important for the composition of flows. Montiel and Reinhart (1999) have shown that interest rates are important determinants of portfolio flows but not of FDI.

The results are already visible. East Asian crises occurred after the official sector gave a generous rescue package to Mexico effectively bailing out private investors, who fled the country as official financing came in. The expectation of an official bailout lent credibility to implicit government guarantees in unsupervised East Asian financial systems and emboldened private investors joined a speculative bubble. By contrast, the decision not to grant a bailout package to Russia led to the collapse of bloated financing to emerging markets, supported by the deep pockets of the official sector rather than honest returns. The case of Ecuador, where the official sector refused to give financial support unless the private sector joined in the work out, is a clear signal that the new doctrine is well established and will be fully internalized by the market.

The market is showing signs that it understands the nature of the problem and will support the SS scenario. Current market caution is a clear sign. The disappearance of hedge funds and other dedicated institutions is symptomatic and will mean less churning of portfolios and more asset price stability. The switch to FDI is in part due to the drying up of forms of financing affected by moral hazard, such as short-term portfolio flows. This switch in composition will further strengthen stability. The lessons from recent turmoil concerning the importance of safeguarding liquidity, e.g., keeping international reserves high enough to cover short-term debt or mandating strong liquidity requirements to banks, will further add to stability. The cost of capital will increase, but stability is worth it.

An interesting question within this scenario is how shallow is shallow? Will capital inflows constrain growth? The case can be made that if moral hazard is the “problem,” then eliminating it is the “solution” and faster growth would not be sustainable. However, if either the market or domestic policymakers do not perceive it that way and fear that too much risk remains, their unilateral actions may lead to very shallow waters. For example, the market may be afraid that it will be subjected to arbitrary or opportunistic expropriation under the shadow of the bailing in doctrine, which would be equivalent to an increase in sovereign risk. Current reluctance on the part of the market could be interpreted as an overreaction in fear of hidden risks. Or domestic policymakers may fear that official disengagement leaves too much risk and decide to protect their countries from the new risks with capital controls. Either case could lead to financial autarky.¹⁰

Scenario 2: Shallow and Dangerous (SD)

Moral hazard is not the reason for crises. The diagnosis upon which the new architecture and official policy is predicated is wrong. Private capital flows are attracted by legitimate and high return investment opportunities. The reason for crisis is sovereign risk and missing markets, which leaves the situation fragile and makes it prone to crisis. For example, sovereign risk causes original sin and with it the dual currency and maturity mismatches, which make it impossible to cope with shocks without generating crises.

¹⁰ One good reason why agents may not believe that the elimination of moral hazard will solve the problem of crises is that, in fact, it will not. This case of a misdiagnosis is covered in the SD scenario.

Flow is not unduly excessive; the problem is the plumbing to handle it. Perhaps the moral hazard view is plausible in emerging countries in other regions, but it is certainly irrelevant in Latin America where supervision and regulation are generally adequate.

The problem is not that market discipline is distorted, but that market discipline is not powerful enough to compensate the systemic distortions. For example, the market may internalize to some extent the risks of currency and maturity mismatches in its debt structure, but at the end of the day aggregate mismatches cannot be avoided in the presence of original sin. The net result is less flows but still a fragile structure. Similarly, FDI may be a market response to this fragility but it is costly (equity investment requires more knowledge and institutions) and rather insufficient: equity flows are larger but still too small relative to debt stocks. Furthermore, treasurers of foreign companies should not be expected to play any differently from domestic players: they will hedge their exposures at the first sign of trouble and will crowd out other domestic borrowers when they need loans to short the currency.

The application of policy measures inspired by the elimination of moral hazard will generate an SD scenario. Why flows will be shallow is easy to see, since the private sector will still face the additional risk of being bailed in and official disengagement in the case of crisis. Furthermore, since moral hazard is a misdiagnosis, crises will occur frequently, which will further discourage private investment.

In this case, however, shallow does not imply safe. The elimination of supporting financial institutions in order to eliminate moral hazard, (e.g., official disengagement concerning rescue packages) or the failure to create those institutions in order to prevent moral hazard (e.g., a financial contagion facility to sustain emerging markets) leads to even more risk. At least in Latin America, where the scope for moral hazard is limited, the elimination of supporting financial mechanisms to encourage flows and avoid illiquidity will be counterproductive and lead to more risk of crisis.¹¹ A negative shock such as a hard landing in the US economy, at a time when the financing situation remains fragile, would further contribute to this scenario.

Scenario 3: Deep and Dangerous (DD)

In this scenario the past repeats itself: capital inflows boom and then go bust. The easiest case is that market exuberance is incurable because it is not based on rationality. Investment institutions have agency problems generating excess and herd behavior, and policymakers have political economy pressures that put a premium on overoptimism. Since moral hazard was not the reason for booms and crises, changes to official policy addressing this “problem” will not make any difference. Lessons from experience, e.g.,

¹¹ This environment will lead in turn to further perverse results. For example, liquidity in this environment will have to be closely monitored. Exchange rates will not be allowed to move much. The market’s anticipation of that restriction will lead to highly procyclical monetary policy: lower interest rates when capital inflows are strong (to avoid further appreciation) and higher interest rates when they are weak (to prevent depreciation). Hence economic activity will be unstable, aggravating the risks in the banking and fiscal sectors.

the importance of liquidity, will be forgotten. The switch to FDI or any other change that may improve the risk profile of foreign liabilities will be undone as long as relative prices of financing return to normal. That is why crises kept occurring over the last 25 years irrespective of circumstances and why a new cycle is unavoidable.

Alternatively, moral hazard may very well be an important factor but it is based on implicit guarantees that no policy change can credibly eliminate. This also applies to official policy. When push comes to shove, official financial rescue packages which make sense *ex-post* and have political support will be granted. The market anticipates this reality of actual policy inaction and the past repeats itself.

Scenario 4: Deep and Safe (DS)

This scenario of deep financial integration cannot be generated under current circumstances. Increased capital flows on a sustainable basis require a reduction of the risks in the system, and that calls for redesigning the “plumbing” to make it able to handle more flow. This approach is inconsistent with the view that the problem of crisis is excess flow due to moral hazard; in that sense, reform efforts undermine the likelihood of this scenario.

Instead, this scenario would require a different set of reforms to deepen financial integration. It would require lending of last resort at the international level in order to prevent and solve liquidity crises and a contagion facility to support emerging markets during these temporary downturns of the market. (In order to control for moral hazard, eligibility would be restricted on the basis of *ex-ante* criteria and when objective criteria are met.) It would also require the creation of an international bankruptcy court in order to deal with private sector involvement in a coordinated fashion not subject to arbitrariness or opportunism. Dealing with these risks internationally would free national authorities from second-best policies aimed at protecting their countries from these new systemic risks, which may lead to financial autarky. A key element to make this scenario possible is to find ways of implementing currency arrangements that help countries move out of original sin by developing the ability to borrow long term in the domestic currency, both domestically and internationally, shifting the composition of the stock of debt accordingly.

References

- Calvo, G. 1995. "Varieties of Capital Market Crises". Working Paper No 306. Washington, DC, United States: Research Department, Inter-American Development Bank.
- . 1998. "Capital Flows and Capital Market Crisis: The Simple Economics of Sudden Stops". University of Maryland, College Park, MD, United States. Mimeographed document.
- Calvo, G. and E., Fernández-Arias, E. 2000. "The New Features of Financial Crisis in Emerging Markets". In: E. Fernández-Arias and R. Hausmann, editors. *Wanted: World Financial Stability*. Washington, DC, United States: Inter-American Development Bank and Johns Hopkins University Press.
- Calvo, G. and Reinhart, C. 1999. "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options." University of Maryland, College Park, MD, United States. Mimeographed document.
- Calvo, G., Leiderman, L. and C. Reinhart. 1993. "Capital Inflows and Real Exchange Rate Appreciation in Latin America: The Role of External Factors". IMF Staff Papers. 40 (1).
- Eichengreen, Barry and R. Hausmann. 1999. "Exchange Rates and Financial Fragility." Paper prepared for the Federal Reserve Bank of Kansas City's Conference on Issues in Monetary Policy, Jackson Hole, Wyoming, United States.
- Fernández-Arias, E. 1996. "The New Wave of Private Capital Inflows: Push or Pull?" *Journal of Development Economics*. 48 (2): 389-418.
- Fernández-Arias, E. and R. Hausmann. 1999a. "What's Wrong with International Financial Markets?" Paper presented at the Tenth International Forum on Latin American Perspectives. Inter-American Development Bank and OECD Development Center. Paris, France.
- . 1999b. "Getting it Right: What to Reform in International Financial Markets." Paper presented at the Tenth International Forum on Latin American Perspectives. Inter-American Development Bank and OECD Development Center. Paris, France.
- . 2000a. *Wanted: World Financial Stability*. Washington, DC: Inter-American Development Bank and Johns Hopkins University Press.
- . 2000b. "Is FDI a Safer Form of Financing?" Paper prepared for the Seminar *The New Wave of Capital Inflows: Sea Change or Just Another Tide?* in conjunction with the

Annual Meetings of the Board of Governors, Inter-American Development Bank and Inter-American Investment Corporation. New Orleans, United States.

Fernández-Arias, E. and D., Lombardo. 1998. "Private External Overborrowing in Undistorted Economies: Market Failure and Optimal Policy." Working Paper 369. Washington, DC, United States: Inter-American Development Bank.

Fernández-Arias, E. and Montiel, P. 1996. "The Surge of Capital Inflows to Developing Countries: An Analytical Overview". *World Bank Economic Review*. 10 (1): 51-77.

Fernández-Arias, E. and Rigobón, R. 2000. "Financial Contagion in Emerging Markets" In: E. Fernández-Arias and R. Hausmann, editors. *Wanted: World Financial Stability*. Washington, DC, United States: Inter-American Development Bank and Johns Hopkins University Press.

Harberger, A. 1985. "Lessons for Debtor Country Managers and Policymakers". In: G.W. Smith and John T. Cuddington, editors. *International Debt and the Developing Countries*. Washington, DC, United States: World Bank.

Hausmann, R. and Fernández-Arias, E. 2000. "Foreign Direct Investment: Good Cholesterol?" Paper prepared for the Seminar *The New Wave of Capital Inflows: Sea Change or Just Another Tide?* in conjunction with the Annual Meetings of the Board of Governors, Inter-American Development Bank and Inter-American Investment Corporation. New Orleans, United States.

Institute of International Finance. 2000. *Capital Flows to Emerging Market Economies*. Washington, DC: Institute of International Finance.

International Monetary Fund. *Annual Report on Exchange Arrangements and Exchange Restrictions*. Various issues. Washington, DC, United States: International Monetary Fund.

Krugman, P.R. 1999. "Balance Sheet, the Transfer Problem, and Financial Crises". Paper presented at the IMF Conference in Celebration of the Contribution of Robert Flood. January 1999. Washington, DC, United States.

Montiel, P. and Reinhart, C. 1999a. "Do Capital Controls and Macroeconomic Policies Influence the Volume and Composition of Capital Flows? Evidence from the 1990s". Mimeographed document. Williams College.

----. 1999b. "The Dynamics of Capital Movements to Emerging Economies During the 1990s". Paper prepared for the UNU/WIDER Project on Short-term Capital Movements and Balance of Payments Crises.

Radelet, S. and Sachs, J. 1998 "The Onset of the Asian Financial Crisis". Harvard Institute for International for International Development, Cambridge, MA, United States. Mimeographed document.

Figure 1

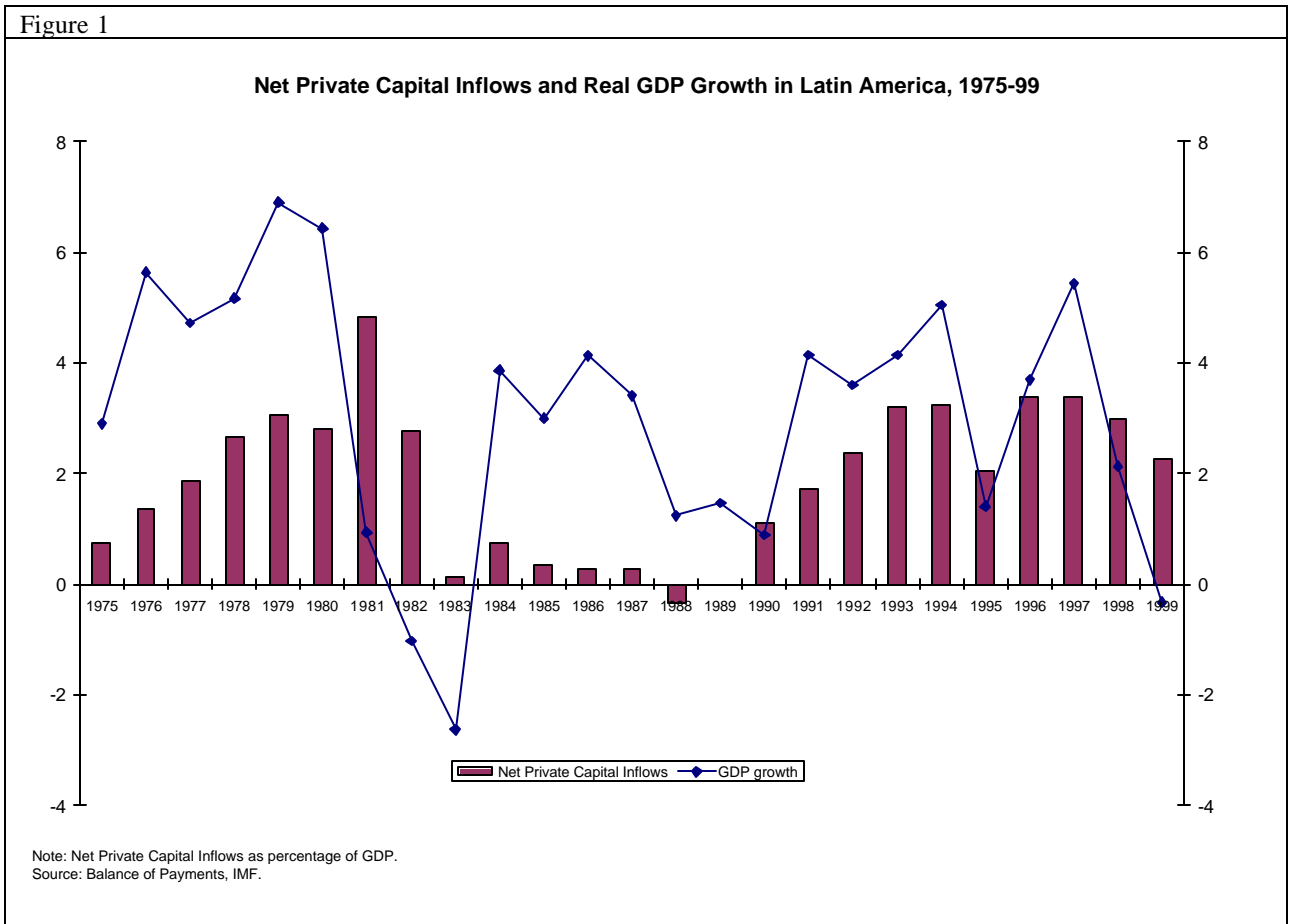


Figure 1a

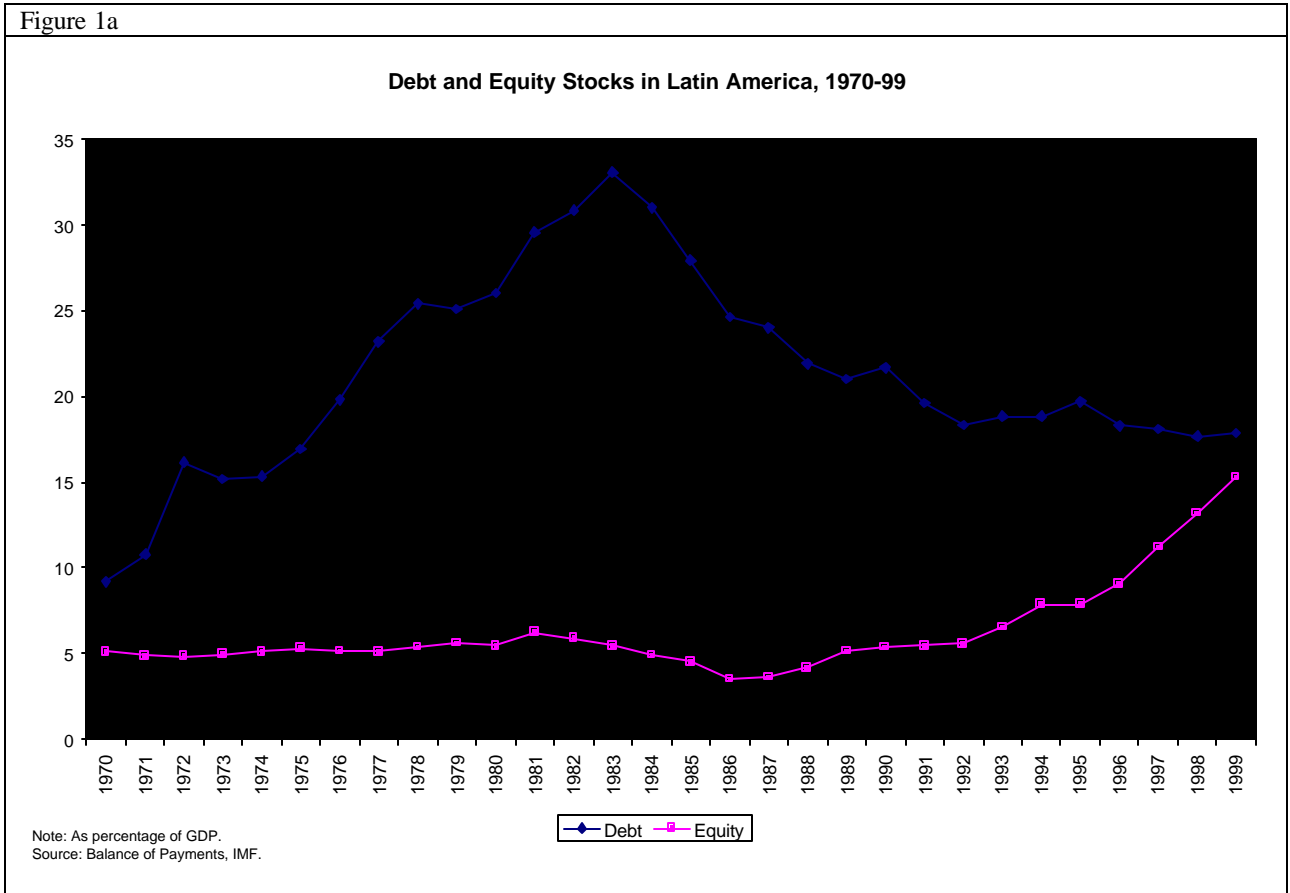


Figure 1b

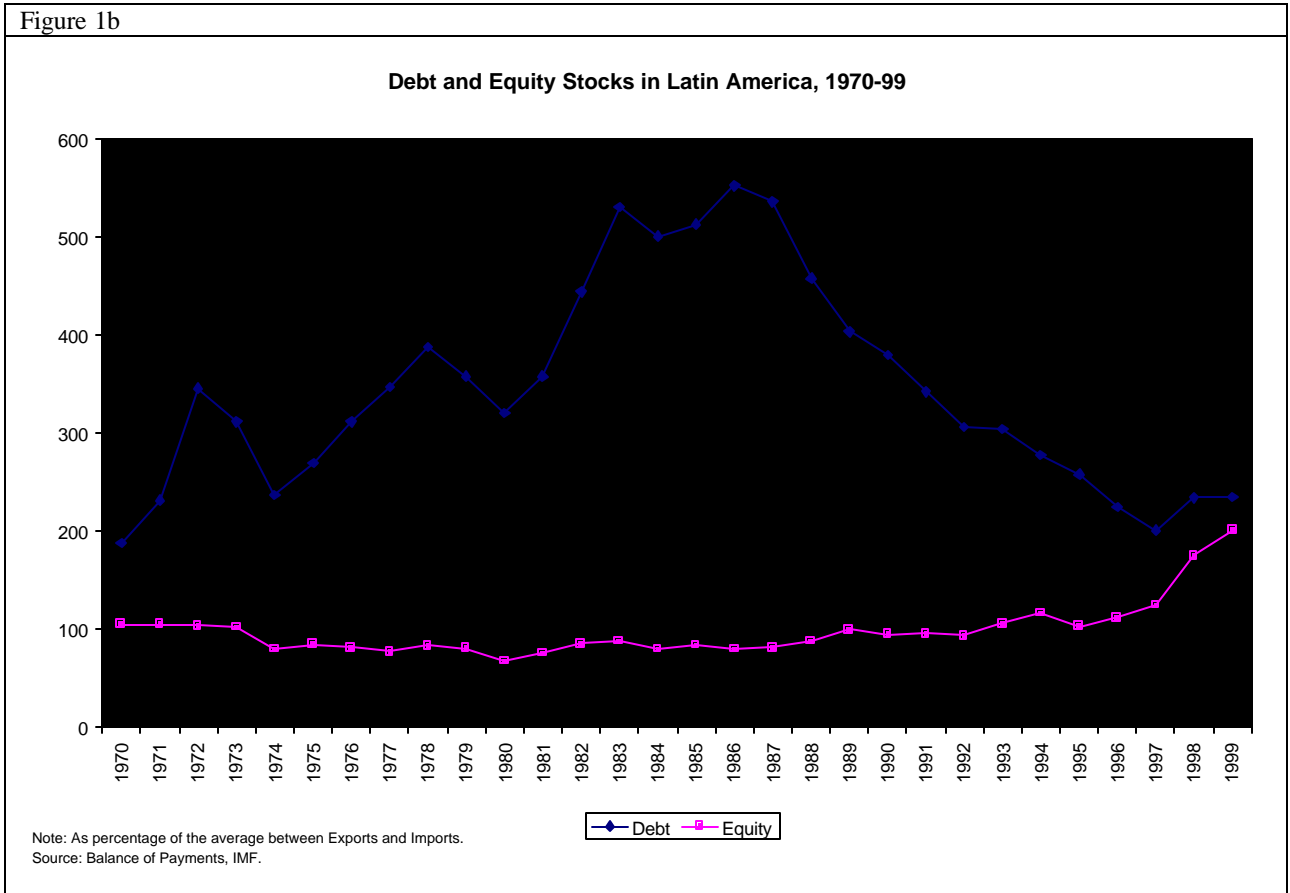


Figure 2

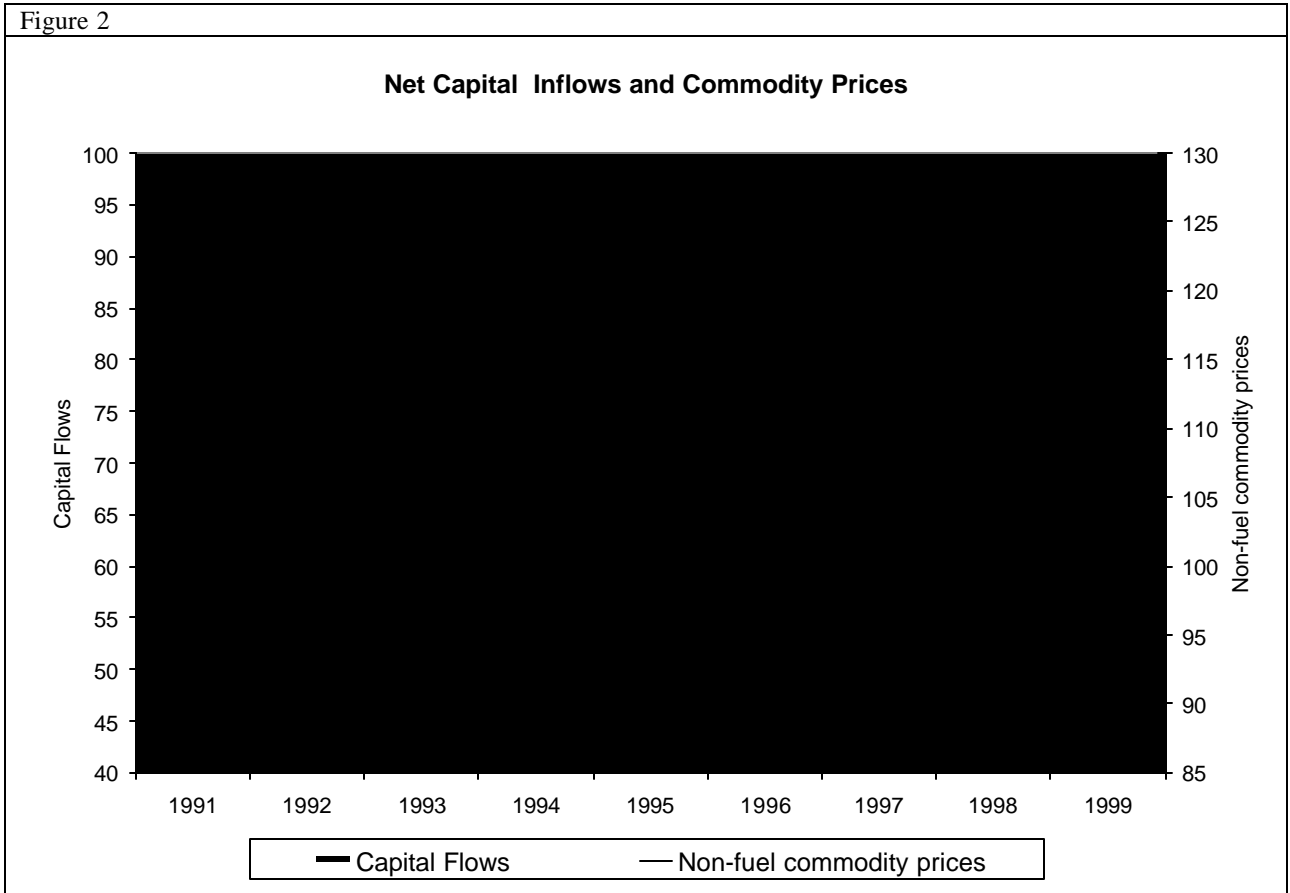


Figure 2a

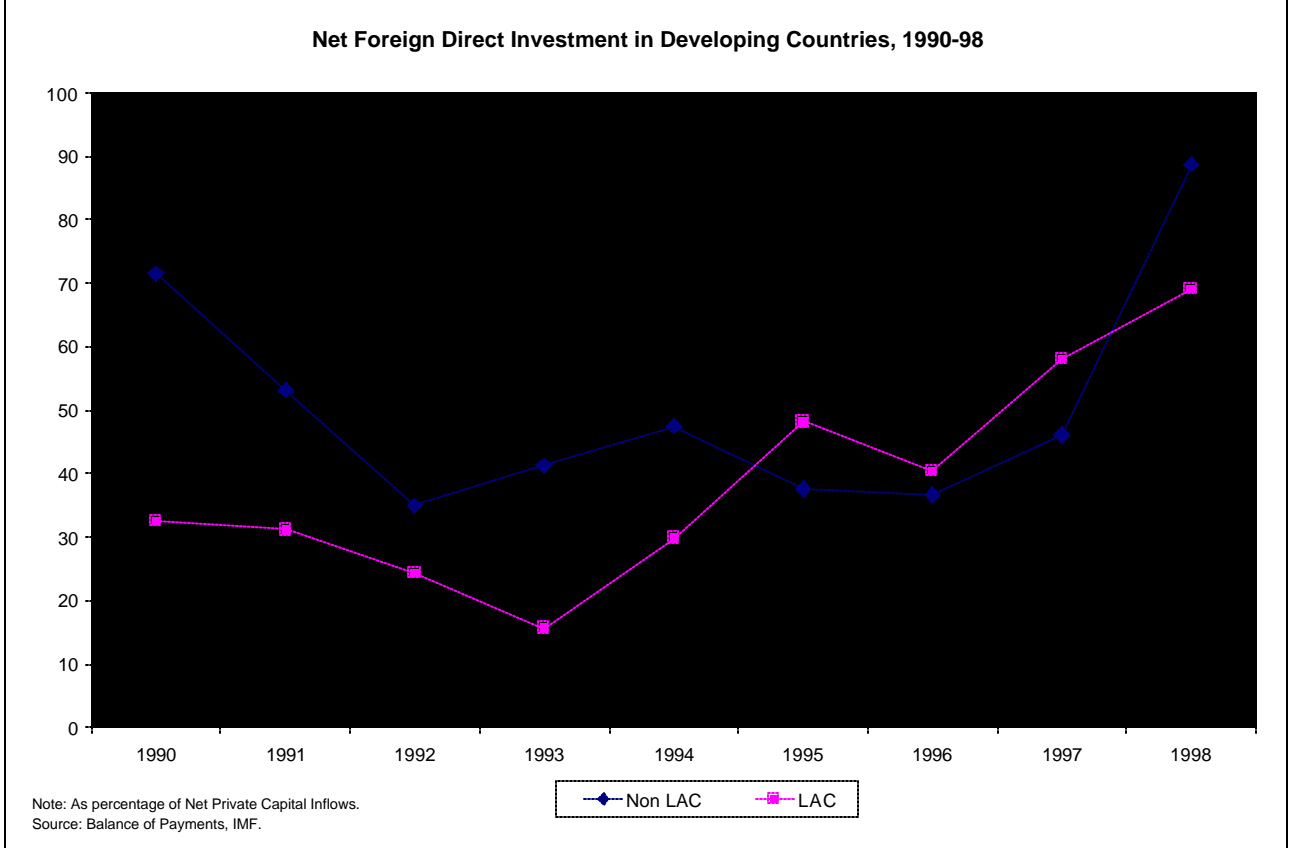


Figure 2b

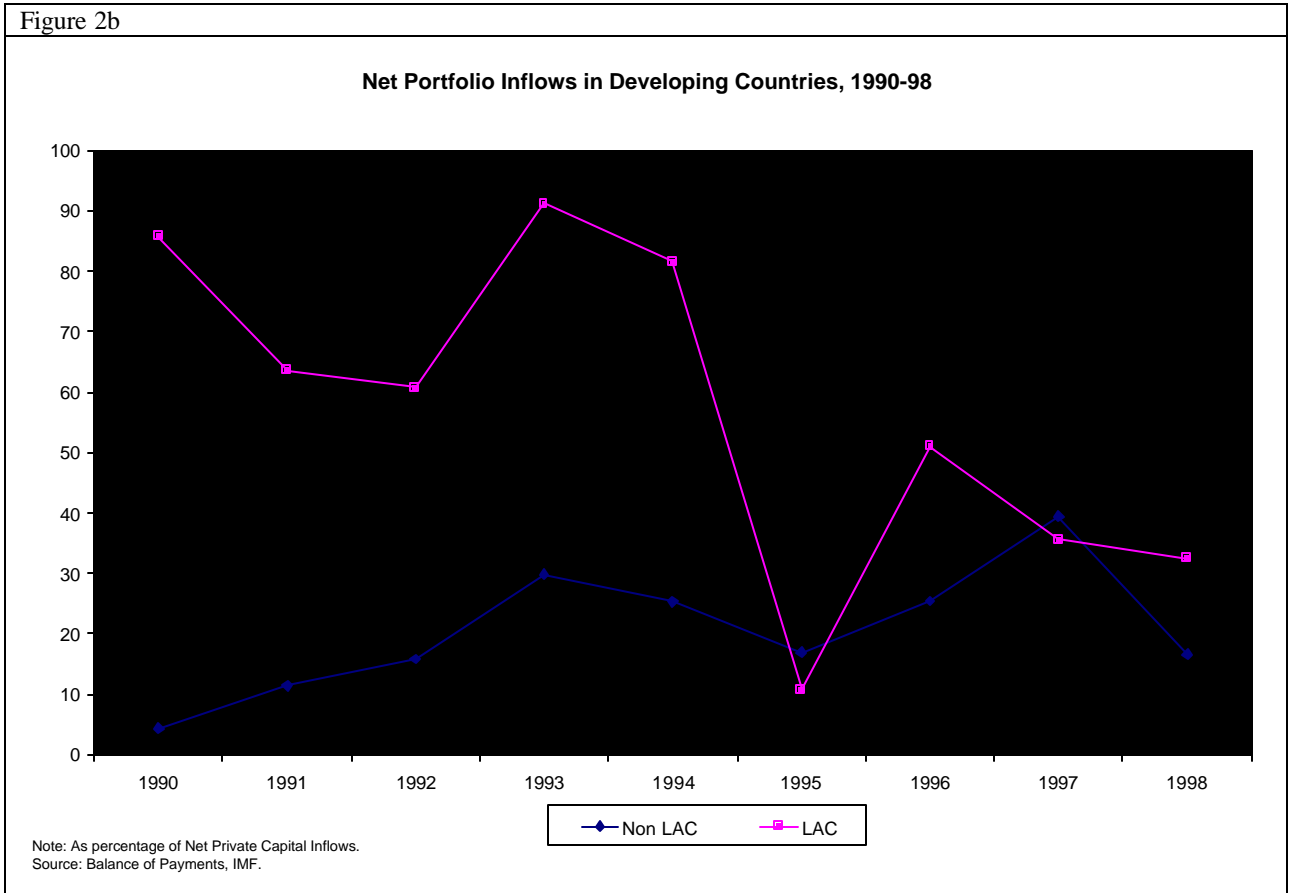


Figure 2c

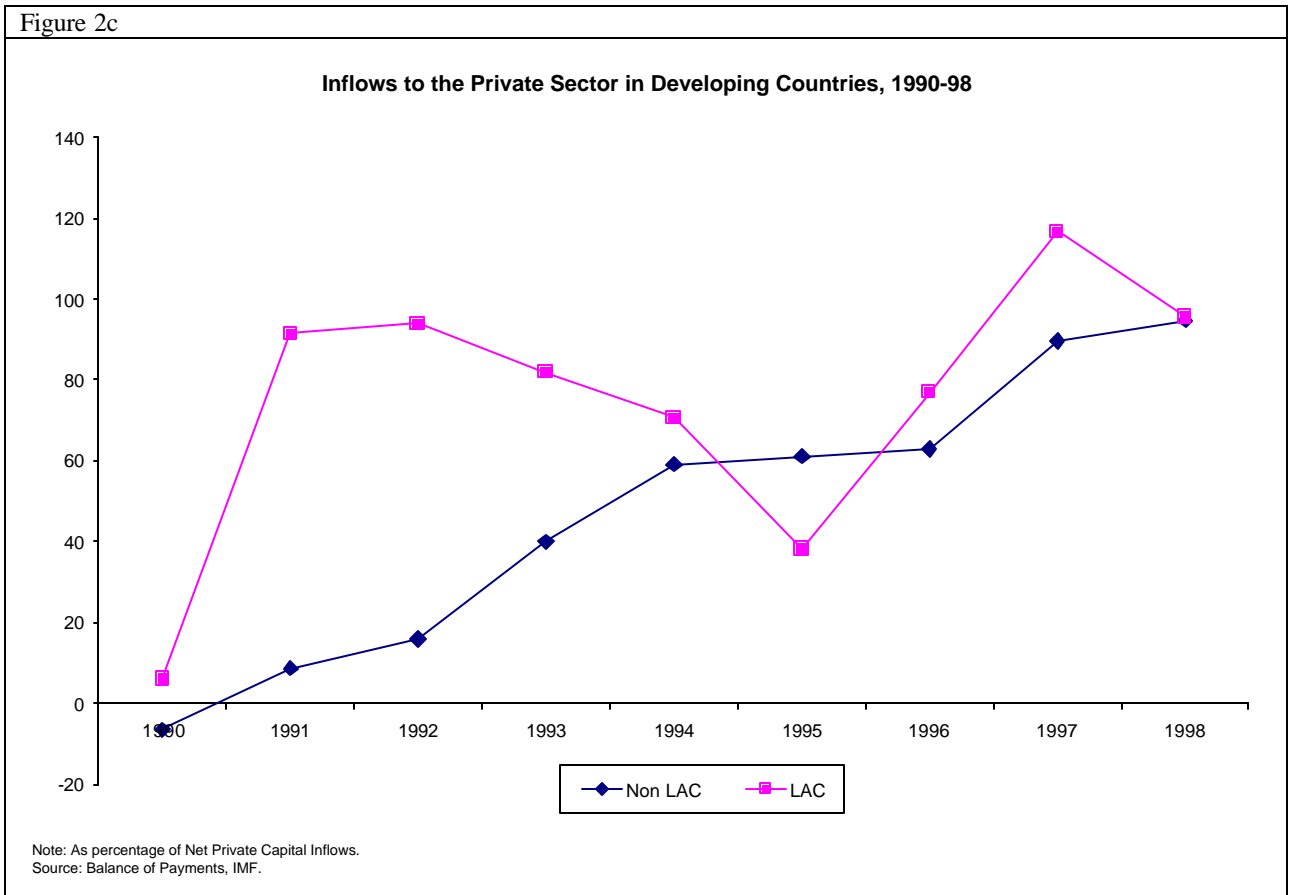


Figure 3

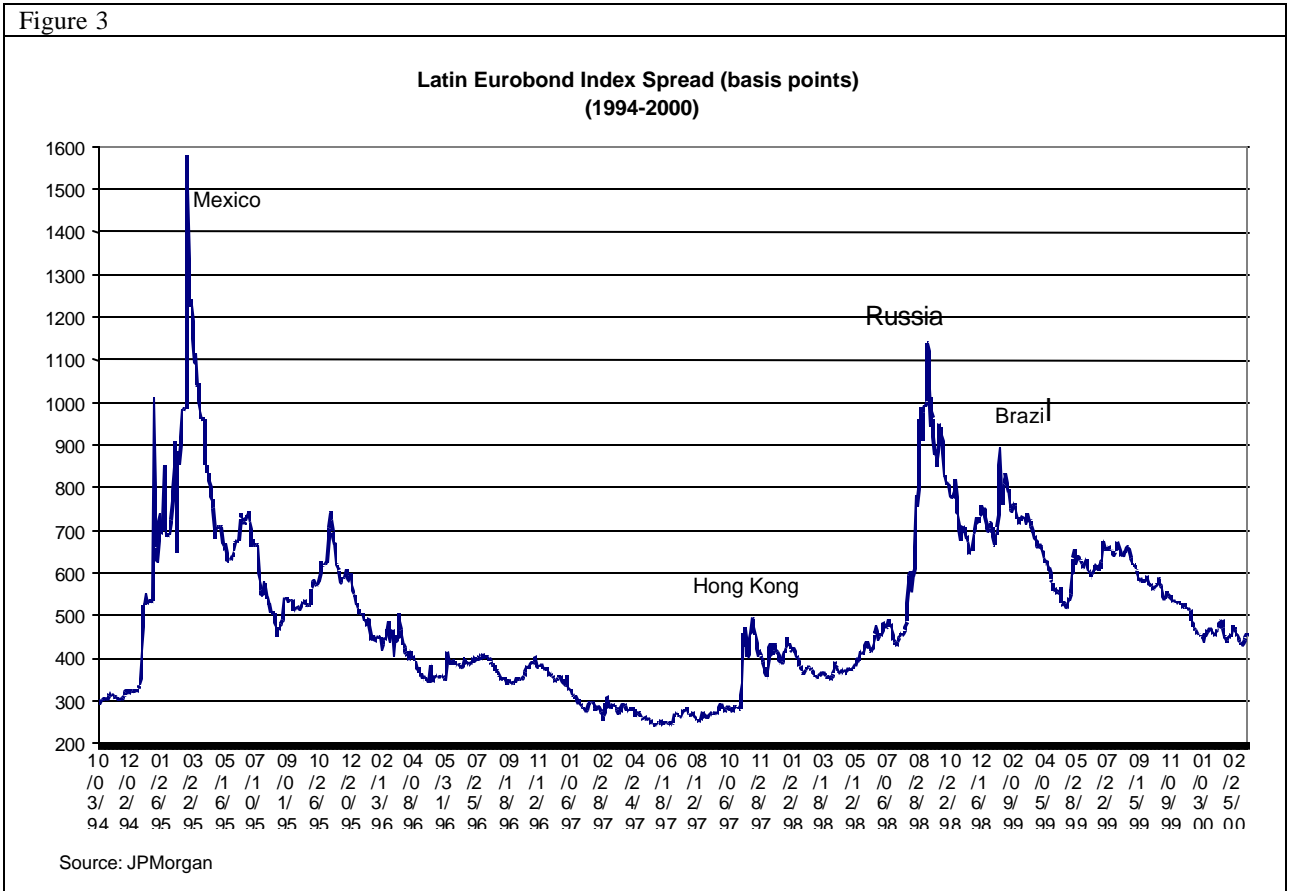


Figure 4

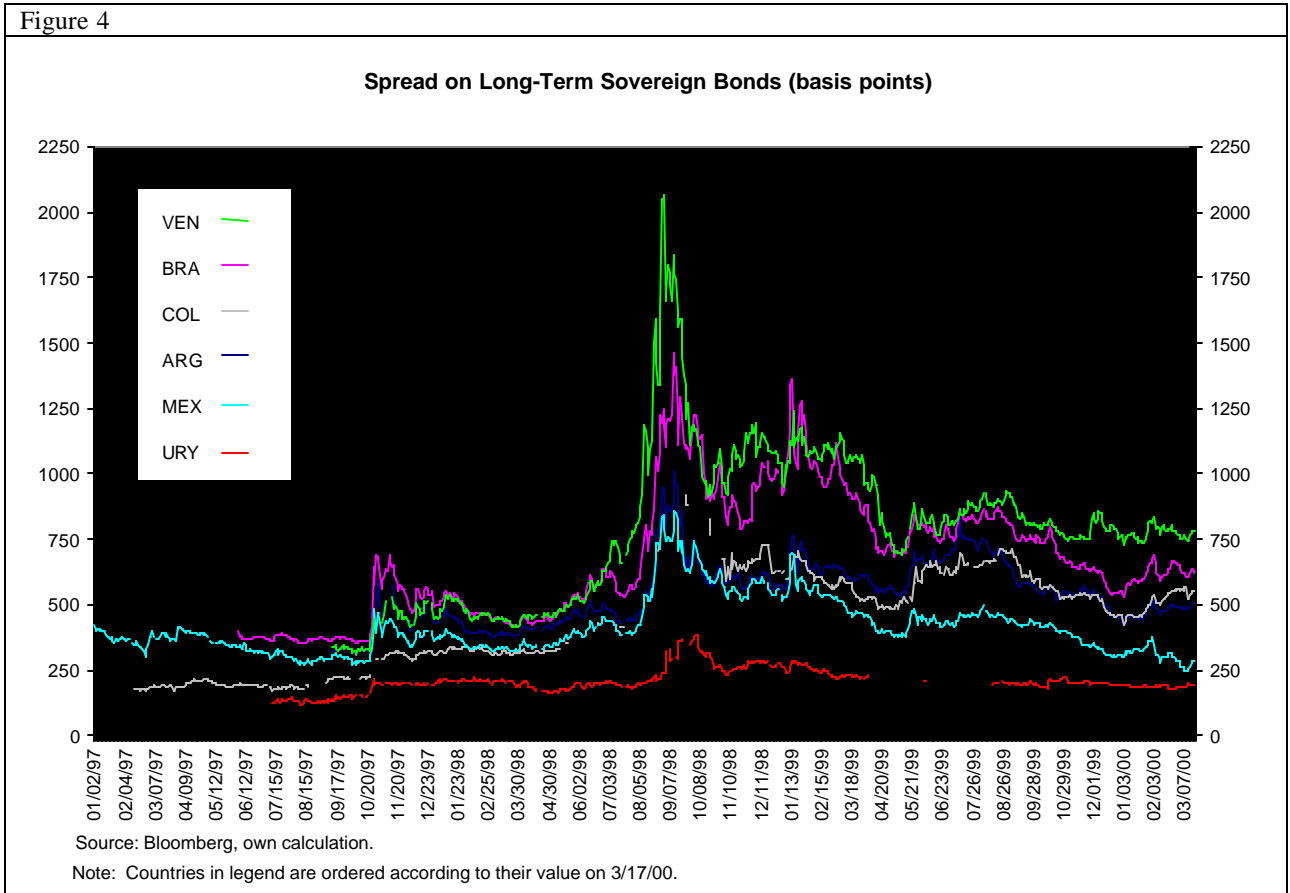


Figure 5

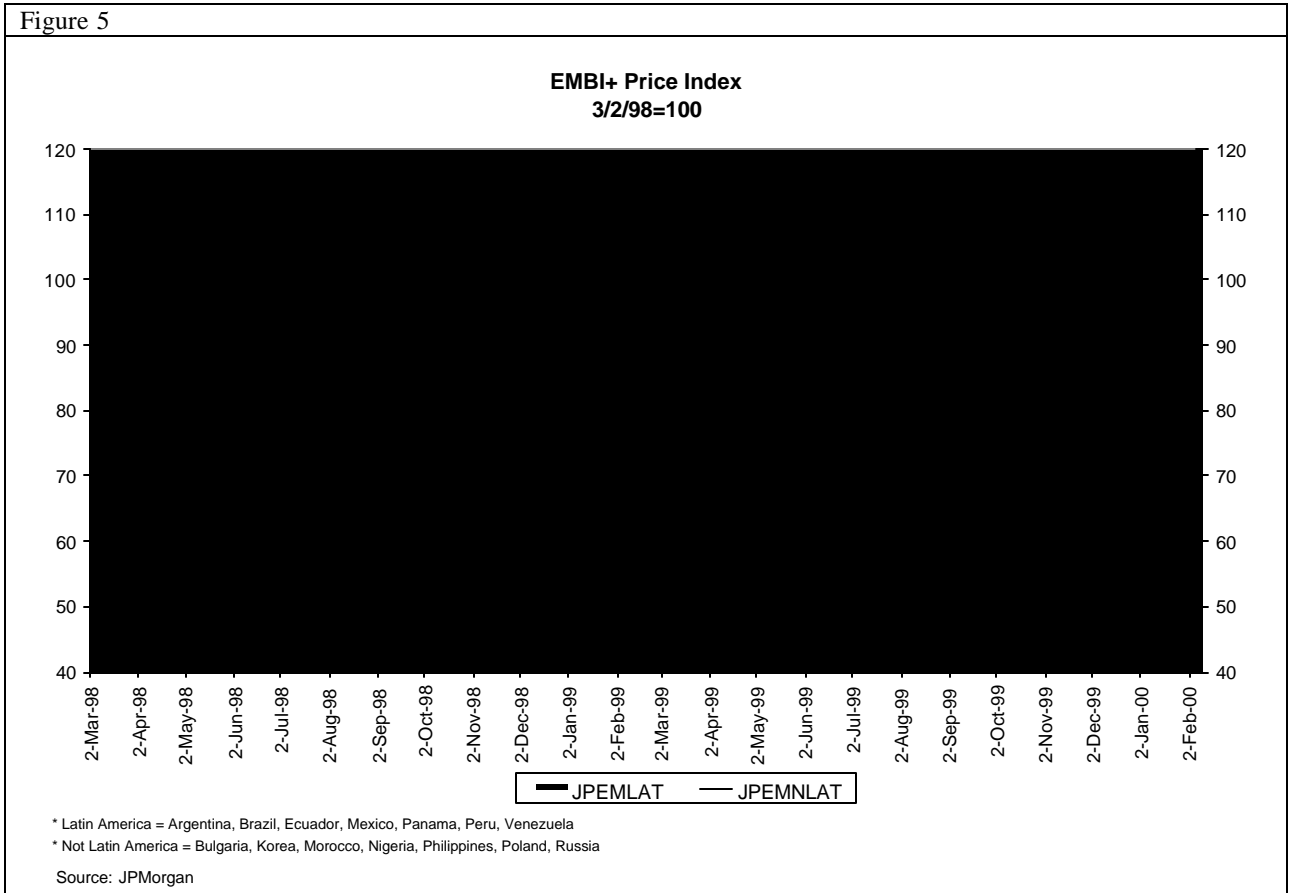


Figure 6

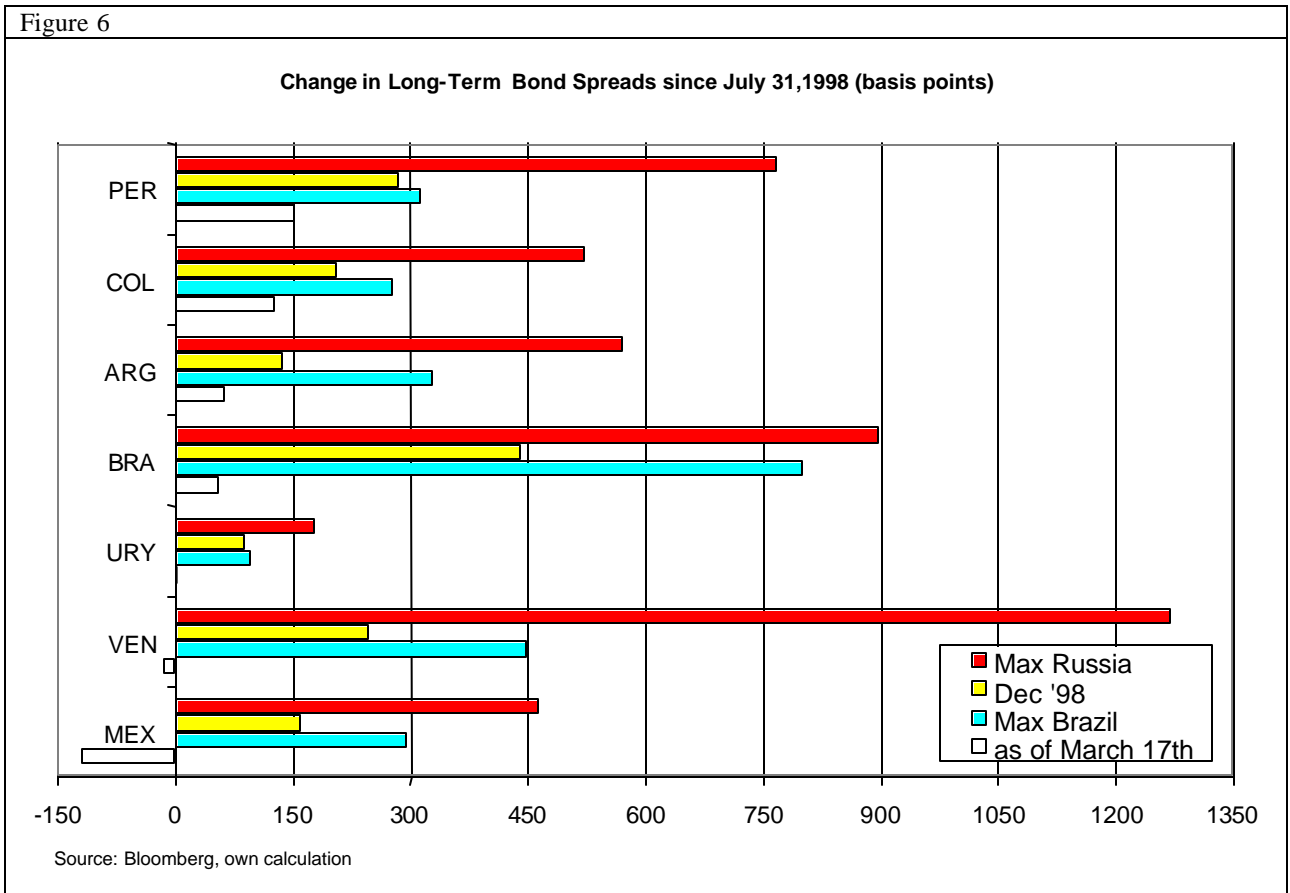


Figure 7

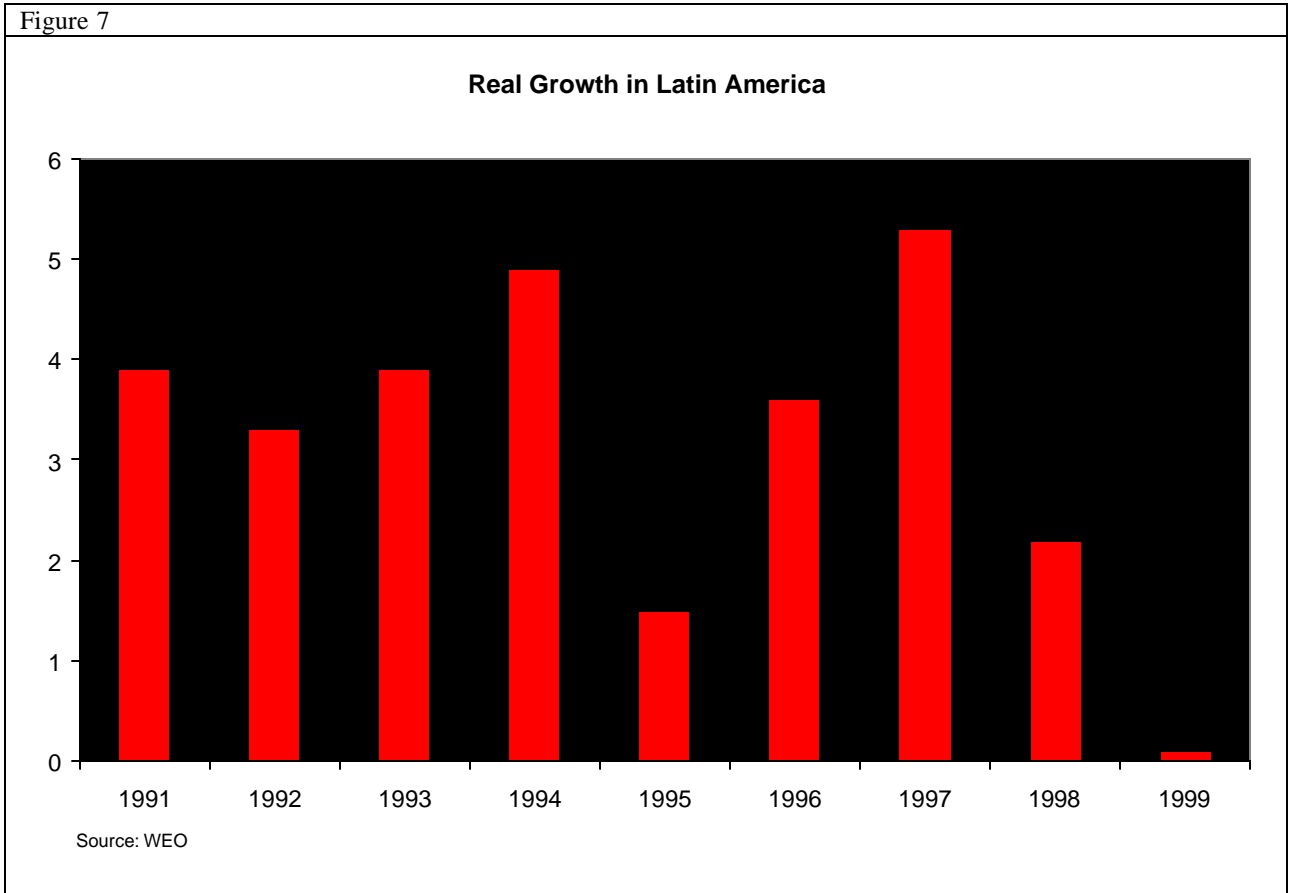


Figure 8

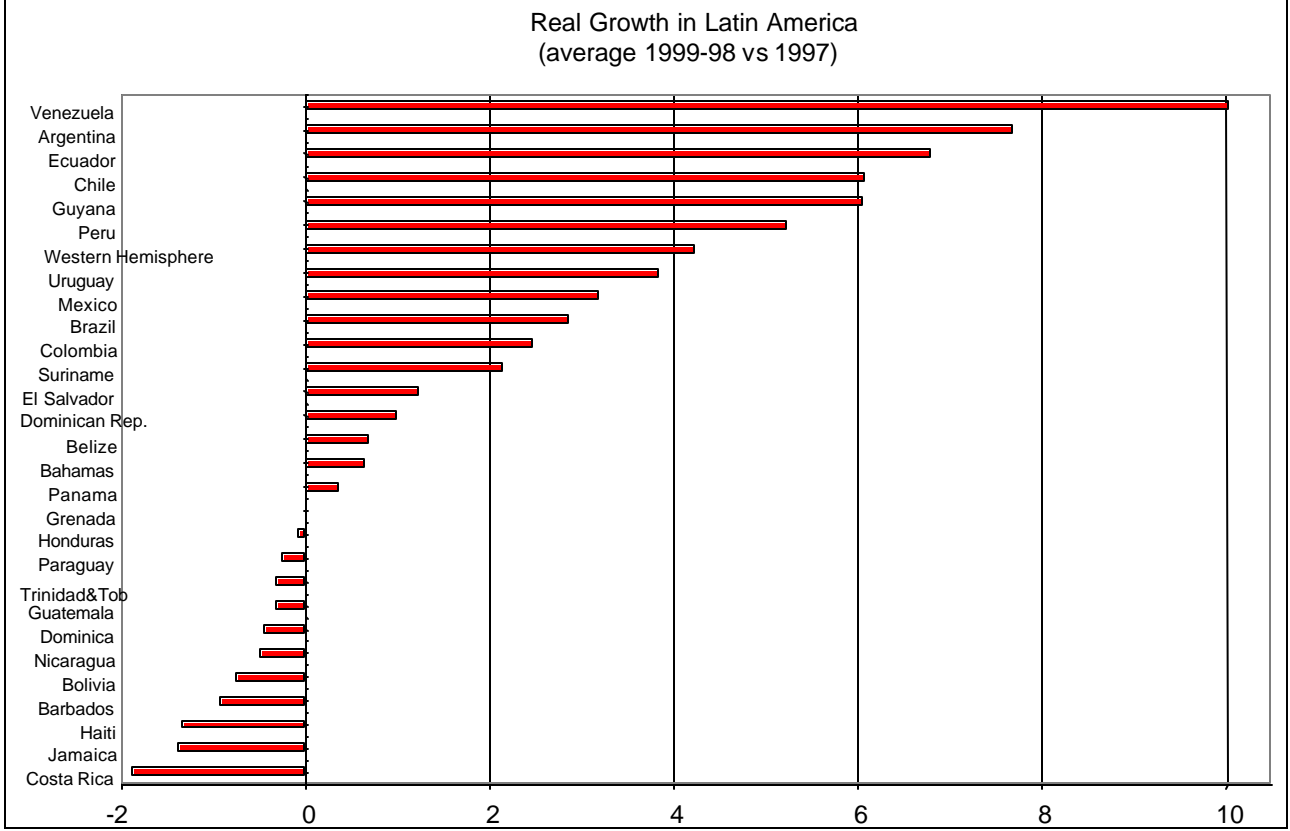


Figure 9

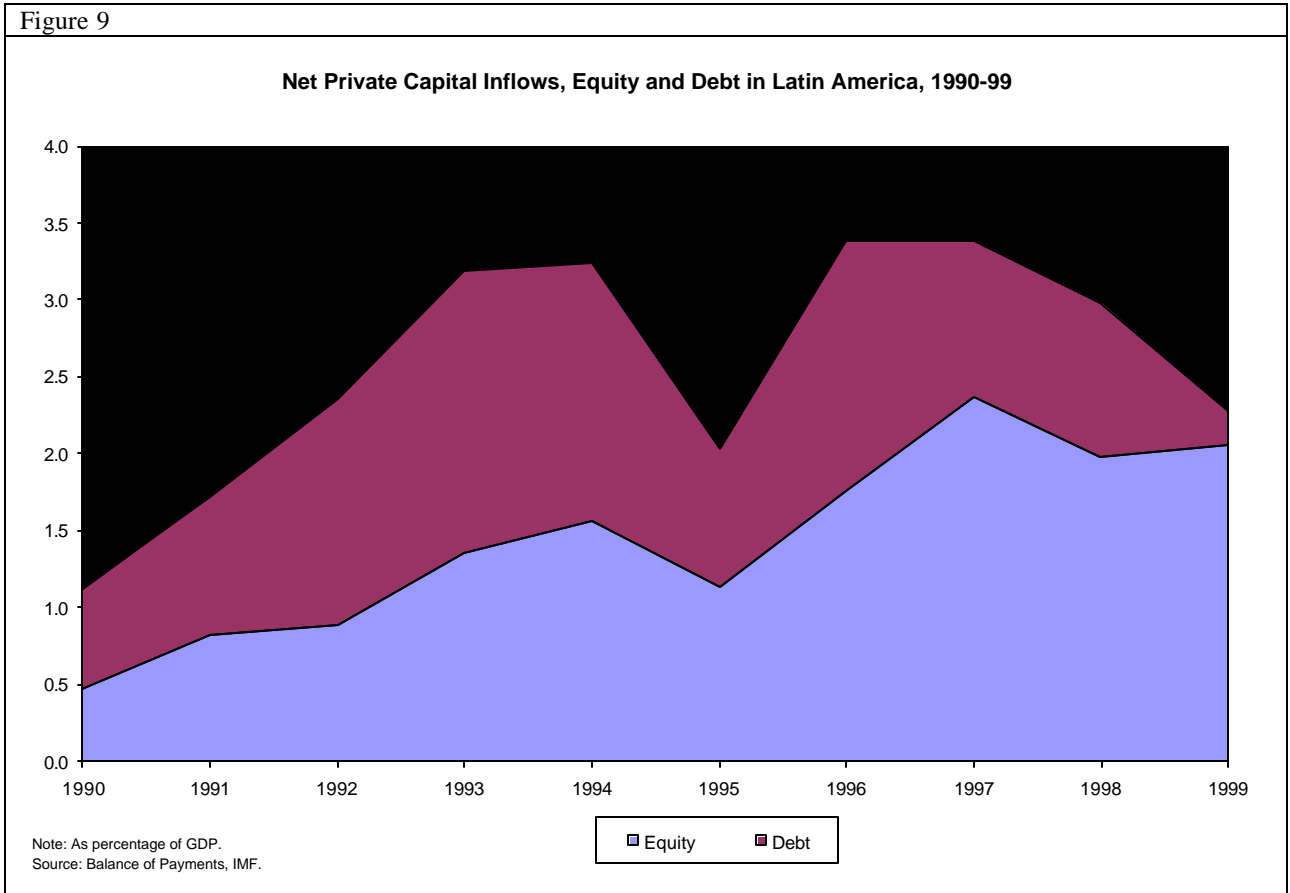
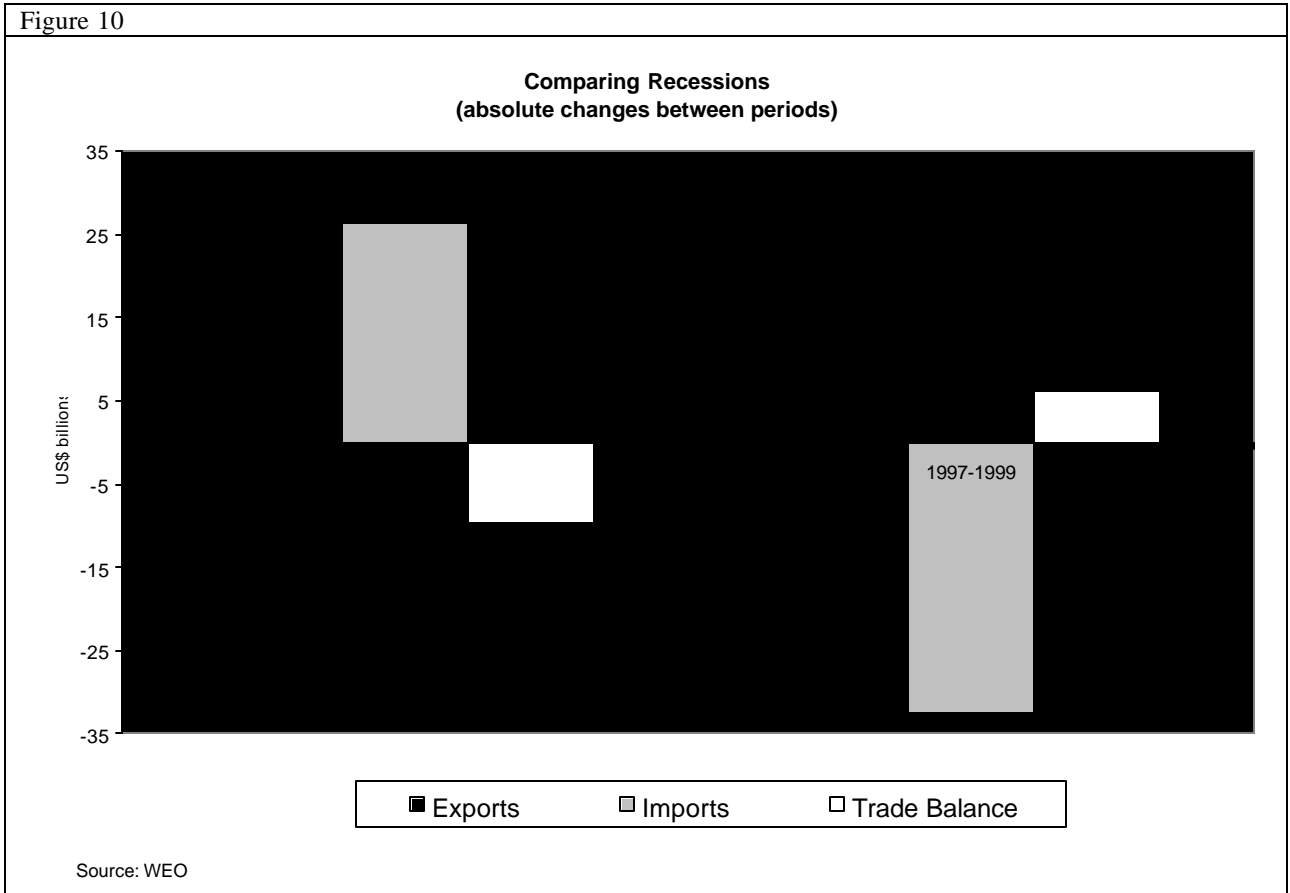


Figure 10



Source: WEO

Figure 11

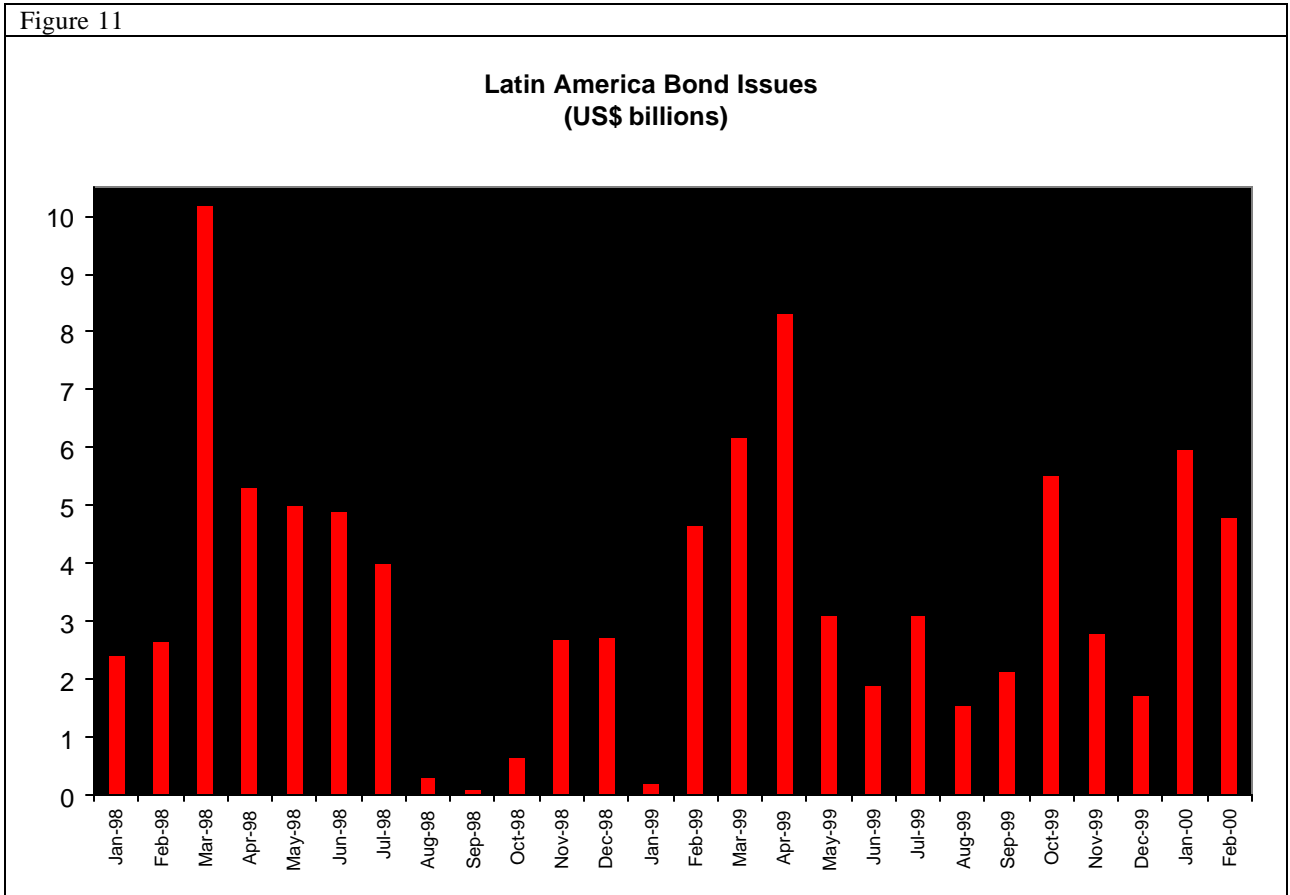


Figure 12

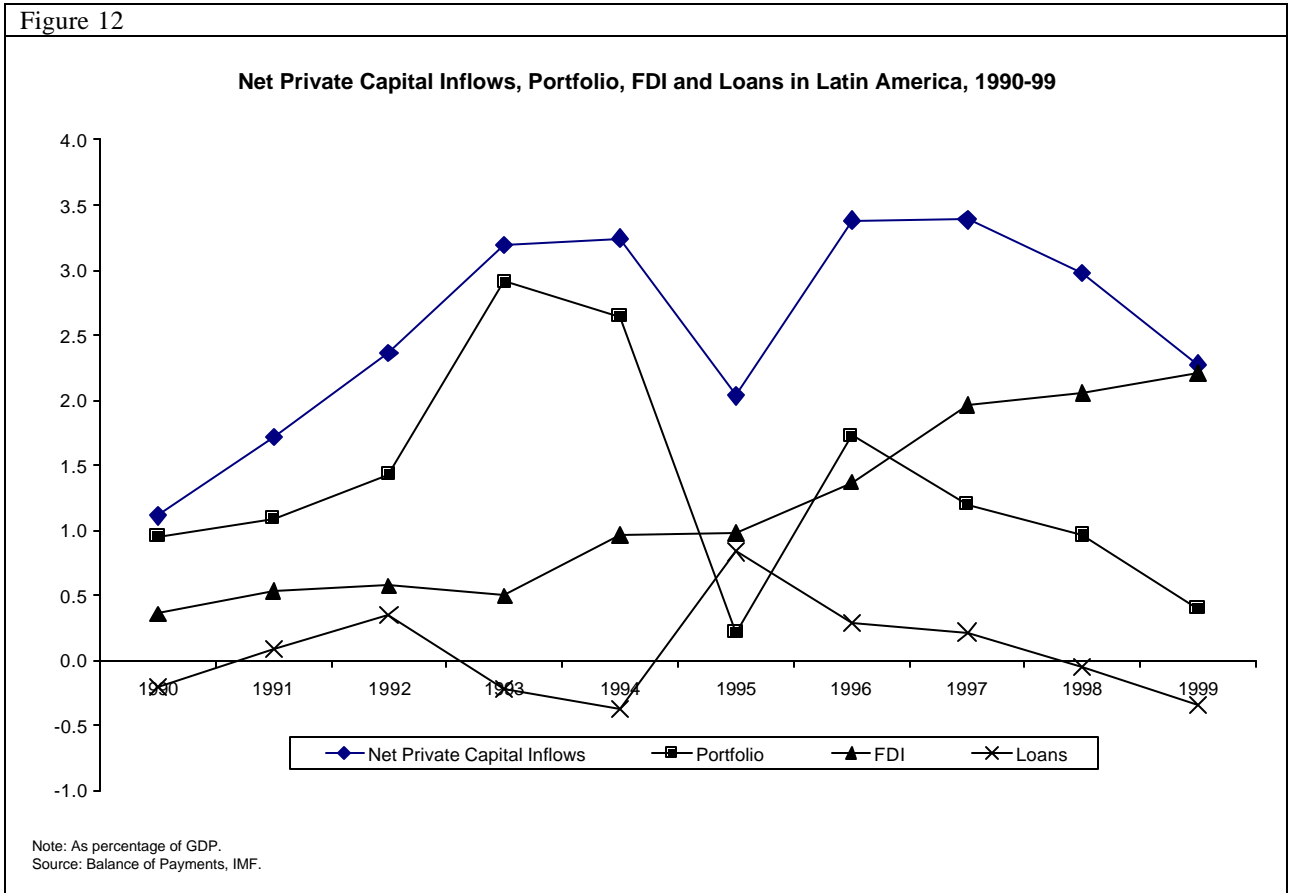


Figure 12a

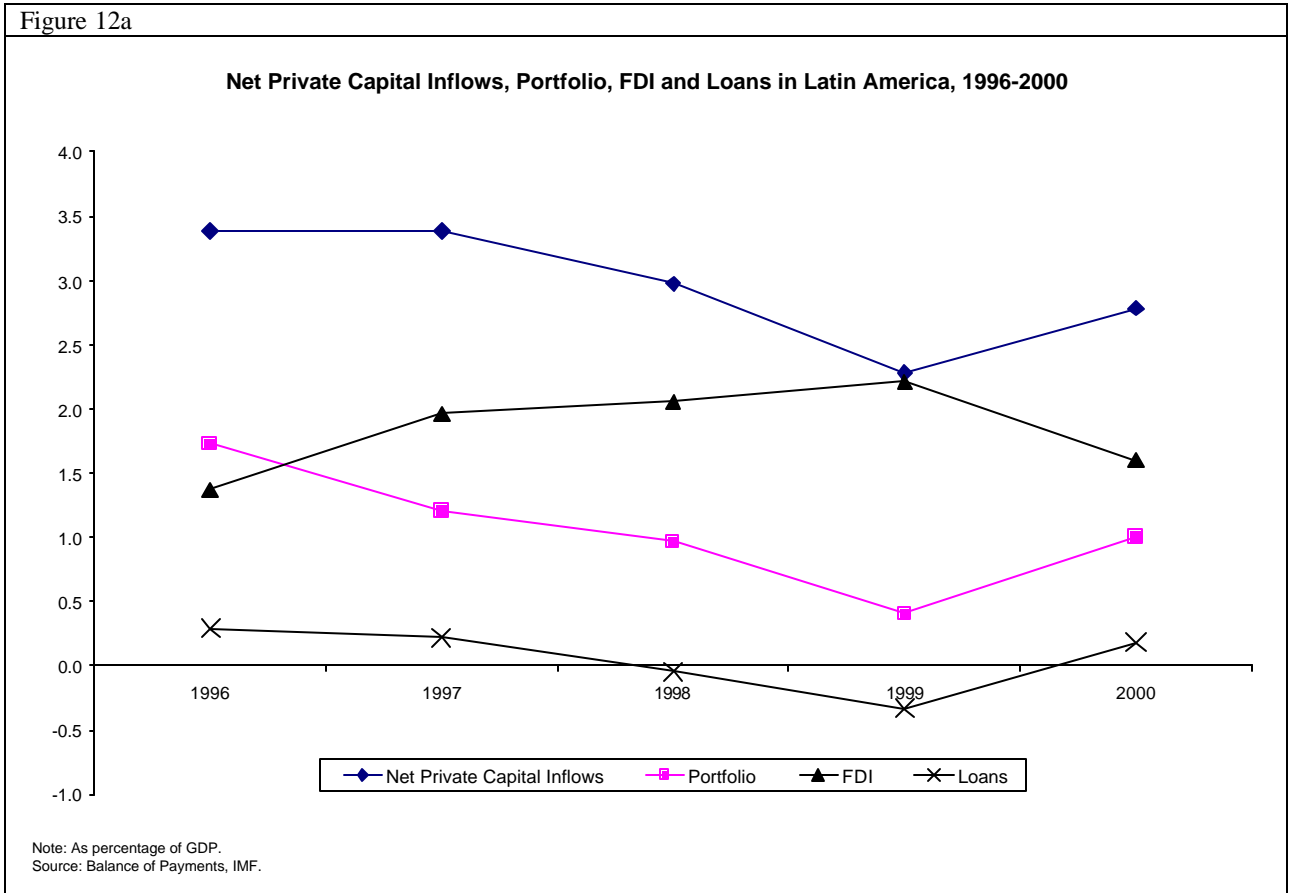


Figure 13

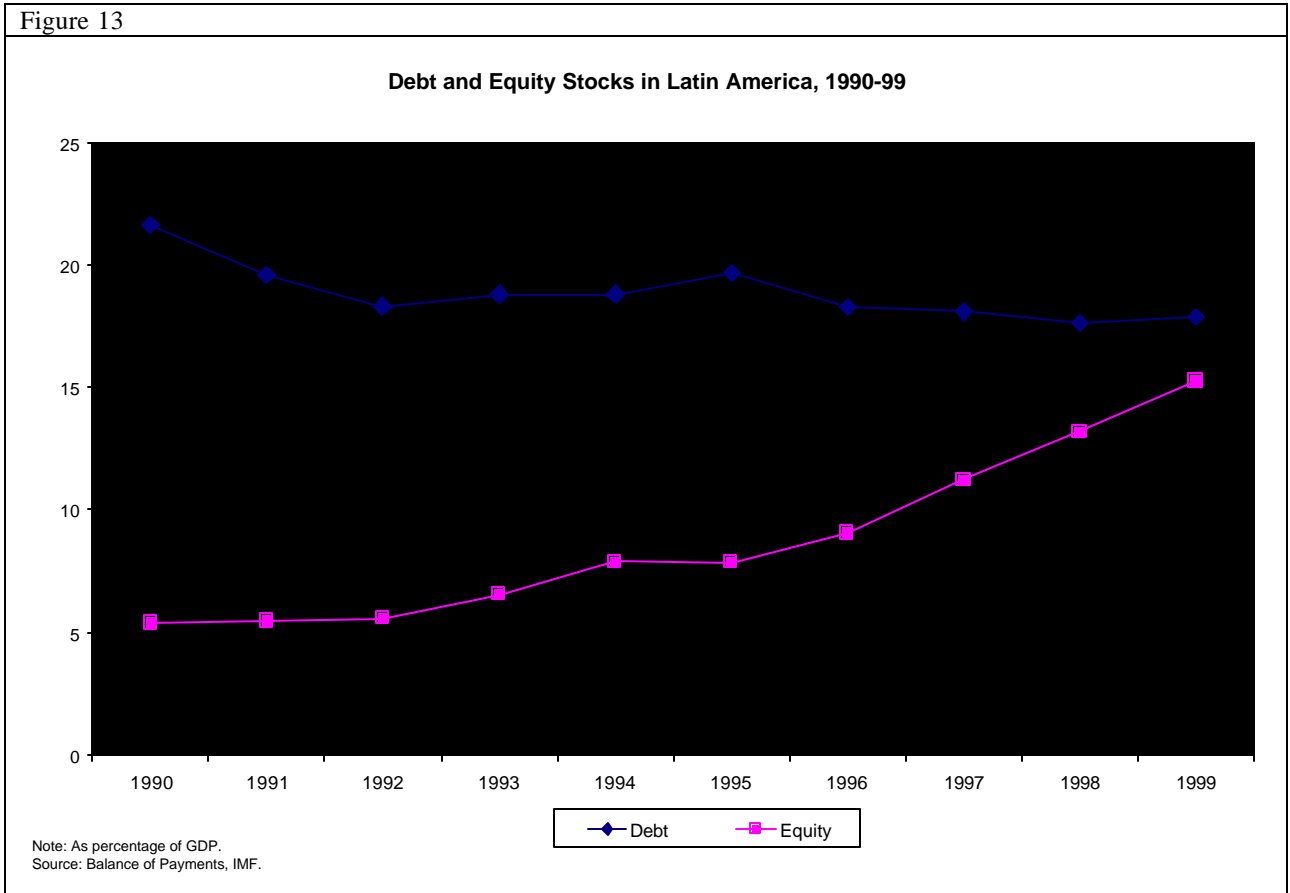


Figure 14

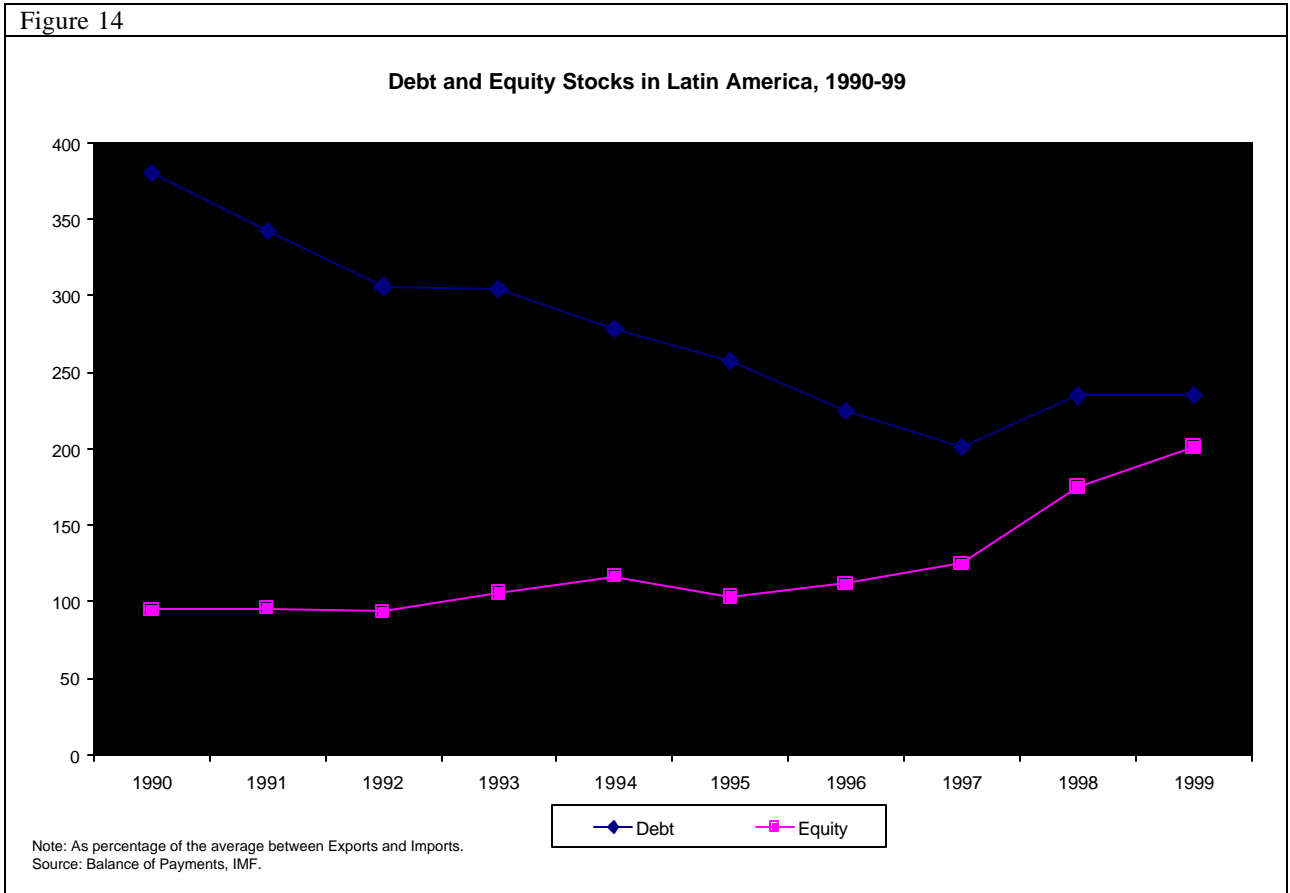


Figure 15

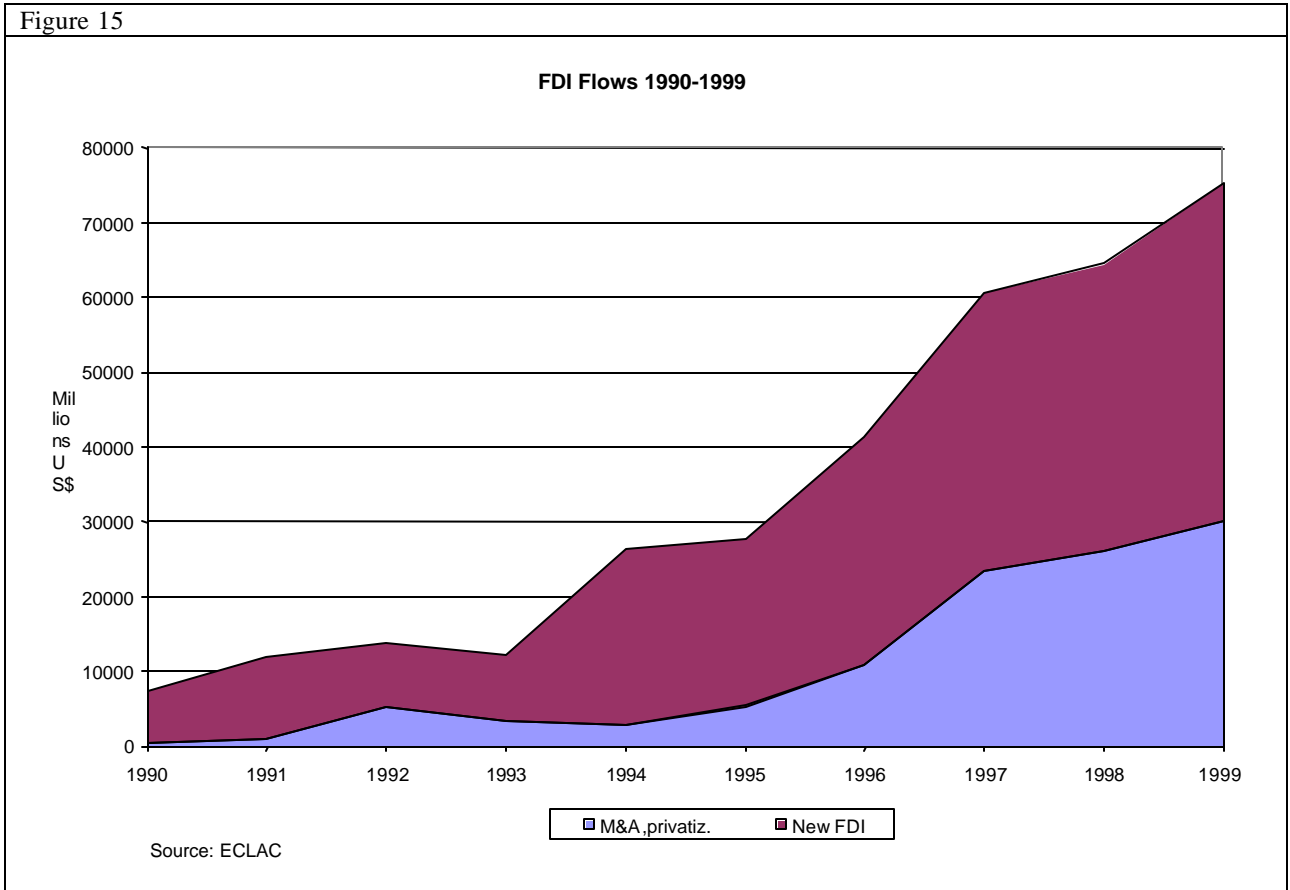


Table 1
Average Capital Flows for Developing Countries, 1978-98

	1978-81				1982-89				1990-98			
	LAC		Non LAC		LAC		Non LAC		LAC		Non LAC	
	% GDP	%	% GDP	%	% GDP	%	% GDP	%	% GDP	%	% GDP	%
Private Capital Inflows	3.3	100.0	1.2	100.0	0.5	100.0	0.8	100.0	2.6	100.0	1.5	100.0
Equity	0.5	14.5	0.2	15.0	0.4	68.6	0.3	38.2	1.4	52.7	0.8	54.8
Debt	2.9	85.5	1.0	85.0	0.2	31.4	0.5	61.8	1.2	47.3	0.7	45.2
Portfolio	0.1	3.6	0.0	2.5	0.0	9.6	0.1	10.6	1.5	56.2	0.4	23.8
FDI	0.5	14.5	0.2	14.5	0.4	67.8	0.3	37.4	1.0	39.8	0.7	46.1
Loans	2.7	82.0	1.0	83.0	0.1	22.6	0.4	51.9	0.1	4.0	0.4	30.1
Private	0.8	33.7	-0.5	-72.2	0.0	-1.3	-0.2	-42.6	2.1	87.5	0.8	72.9
Public	1.6	66.3	1.2	172.2	0.8	101.3	0.7	142.6	0.3	12.5	0.3	27.1
Unallocated Short term	0.9	n.a.	0.5	n.a.	-0.2	n.a.	0.3	n.a.	0.2	n.a.	0.3	n.a.
Capital Inflows	3.6	100.0	1.9	100.0	0.9	100.0	1.2	100.0	2.7	100.0	1.7	100.0
Private Capital Inflows	3.3	92.4	1.2	61.9	0.5	57.3	0.8	65.0	2.6	96.7	1.5	86.2
Official	0.3	7.6	0.7	38.1	0.4	42.7	0.4	35.0	0.1	3.3	0.2	13.8

Note: LAC comprises countries from Latin America whereas Non LAC comprises the rest of Developing countries.

Source: Balance of Payments, IMF.

Table 2 Real Exchange Rate (Mar 98=100)

	Mar-98	Sep-98	Mar-99	Sep-99	Mar-00
Argentina	100	100	102	105	106
Brazil	100	105	149	166	146
Chile	100	101	105	115	110
Colombia	100	108	101	131	120
Mexico	100	113	97	92	89
Peru	100	107	117	121	120
Venezuela	100	96	89	89	92

*Note: Real exchange rate is end of period nominal exchange rate multiplied by US CPI and divided by country
Source: Bloomberg, own calculation.*

Table 3 Nominal Interest Rates (end of period)

	Mar-98	Sep-98	Mar-99	Sep-99	Mar-00(**)
Argentina	7	13	6	10	8
Brazil	27	40	39	19	19
Chile	7	16	8	8	13
Colombia	26	37	21	16	8
Mexico	22	38	24	22	15
Peru	21(*)	30	26	12	12
Venezuela	26	54	24	12	13

(*) 7/31/98

(**)3/20/00

Source: Bloomberg, own calculation.

Table 4 Stock Price Index (Mar 98=100)

	Mar-98	Sep-98	Mar-99	Sep-99	Mar-00
Argentina	100	53	60	76	86
Brazil	100	55	87	88	134
Chile	100	66	82	91	101
Colombia	100	68	68	68	65
Mexico	100	67	83	82	122
Peru	100	72	83	104	96
Venezuela	100	44	42	54	53

Note: real returns, deflected by CPI

Source: Bloomberg, own calculation.

Table 5
Average Stocks for Developing Countries

	1982		1990		1999	
	LAC	Non LAC	LAC	Non LAC	LAC	Non LAC a/
Debt/GDP	31	19	22	14	18	11
Debt/((X+M)/2)	445	146	380	179	235	127
Equity/GDP	6	4	5	3	15	6
Equity/((X+M)/2)	85	31	95	35	201	62

a/ Values from 1998.

Note: LAC comprises countries from Latin America whereas Non LAC comprises the rest of Non Developing countries.

Source: Balance of Payments, IMF.