

**Latin American Central Banking  
Have Reforms Made a Difference?**

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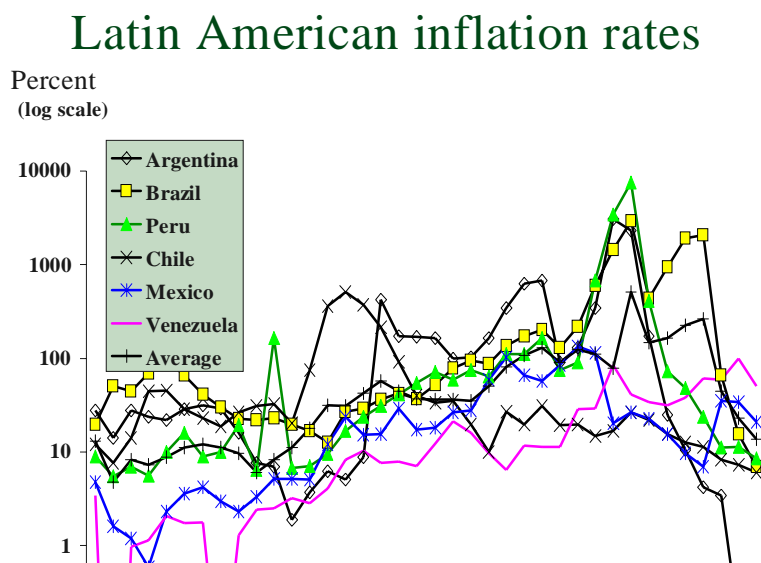
Since the last decade, many countries in Latin America have undergone fundamental changes to their political and economic structures. Democracies are beginning to take hold where authoritarian regimes were common, large state-run enterprises are being dismantled or sold off, and economic growth, which eluded the region for most of the 1980s is slowly returning. But perhaps one of the most important changes, are institutional reforms to central banking. Central banks have become more independent and policy is more transparent. Countries such as Chile, Mexico, and Peru have all taken steps to create more independent central banks. The desire has been to create a more credible anti-inflation program. Just by looking at inflation in the region over the last decade, recent reforms appear to be working.



## Have reforms made a difference?

As figure 1 shows, inflation in Latin American countries has declined from an average of over 500 percent in 1990 to just under 14 percent last year. The question is, however, how much of Latin America's success in fighting inflation is due to institutional changes in central banking and how much is due to more fundamental economic and political changes?

Figure 1



In today's presentation, Mary Rosenbaum and I will examine recent reforms to major Latin American central banks and assess their contribution to reducing inflation in the region. I'll begin by examining the arguments for central bank independence and then assess the evidence on whether independence reduces inflation. Mary will then examine recent Latin American central banking reforms and discuss the outlook for the region.

The bottom-line of our presentation is that the recent changes in Latin American central banking have created a more stable and credible low-inflation environment, at least in the near-term. In the longer-term, inflation ultimately is determined by underlying political and economic pressures. But after decades of extremely high and costly inflation, the consensus in many Latin American countries supports low inflation, so the outlook bodes well for long-run price stability.

## The Argument for Central Bank Independence

Why should the institutional framework of central banks make any difference in determining inflation? Presumably, if a government desires lower inflation, all it has to do is restrict fiscal spending and slow the growth of the money supply. The problem is, however, that often a government's promise to reduce inflation is not believable. People understand that governments have an incentive to create higher than expected inflation for temporary economic and political gains. If expectations of future inflation remain high, people will not accept wage adjustments less than the rate of expected inflation, so any attempt to reduce inflation will be costly in terms of increased unemployment.

Central bank independence may make a difference by making policy reversal more difficult and reducing the political influence over monetary policy. It helps reduce a problem that economists have dubbed by the rather obscure term "time-inconsistency."

*The time-inconsistency problem.* Basically, the time-inconsistency problem is that a government's incentive today to keep inflation low does not mean that a government will have the same incentive tomorrow. The government cannot credibly commit to a low inflation policy.

To get a better feel for what the time-inconsistency problem is, let me present a simple example. Suppose a political party is elected on the promise that it will reduce inflation. After a few years in office, but before the next election, the party, now the government, may begin to reconsider its original position. It will realize that it can gain additional political support if it increases the money supply to pay for extra social programs without directly taxing citizens. Moreover, inflation will not become apparent until after the elections.

The problem for the government is that people are not stupid. Individuals will anticipate, at the very beginning, the government's incentive to inflate before its term is over and will never lower their inflation expectations in the first place. The problem is compounded when the government in power today may not be the government in power tomorrow.

Consequently, any anti-inflation statements that a political party makes will not be believed. This is the essence of the time-inconsistency problem and why governments, in order to create a credible anti-inflation policy, may want to have an independent central bank that does not have the same incentives to inflate as do elected members of government. An independent central bank can make it more difficult for current and future governments to change course on monetary policy.

Latin America has been a textbook example of the time-inconsistency problem. Figure 2 shows Argentina's inflation history from 1970 through 1990, the year just before they began their recent central bank reforms. As the figure shows, every time the government made low inflation promises as inflation hit a peak—in 1966 (which is not on the graph), in 1975, and 1985—the promises were reneged on. What followed were inflation rates higher than previous periods because the country no longer believed that government's policies were going to be carried through. In order to surprise the country with higher than expected inflation, each subsequent inflation burst had to be higher than the previous one. Ultimately, inflation peaked at over 3000 percent a year in 1989.

The same scenario has occurred in Mexico during the same period. Figure 3 shows that each subsequent inflation burst in Mexico was higher than the previous one as the government's credibility in reducing inflation disappeared.

Figure 2

## Argentina's inflation rate

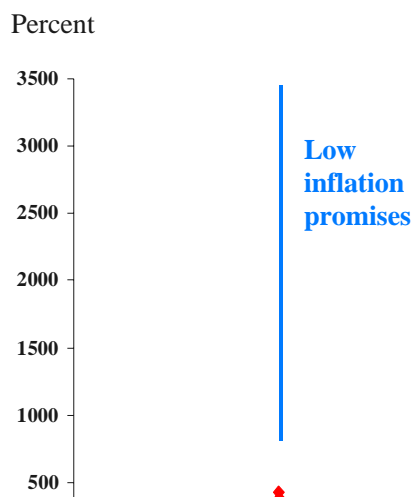
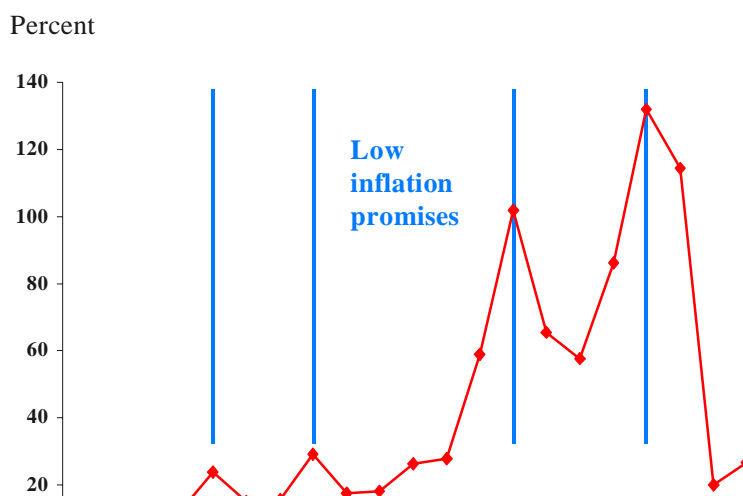


Figure 3

## Mexico's inflation rate



### Central Bank Independence

Given the incentive that elected governments have to surprise the private sector with higher than expected inflation, central bank independence may be a good institutional framework to implement. Basically, the central bank is removed from political control and policy reversal is made more difficult and costly.

But the factors that characterize independence are not precise and they vary quite a bit across countries. Actual, as opposed to formal, central bank independence depends on the degree of independence conferred on the bank by law, but also on many other factors such as informal arrangements between the bank and other parts of government, the quality of the bank's research department, and the personalities of key individuals in the bank and other economic policy making departments, like the treasury. It's obviously hard to quantify independence in a completely objective manner.

There are, however, some elements of independence that are more relevant and easier to observe than others. Alex Cukierman of the University of Tel Aviv, has put together a measure of central bank independence that depends on four factors. The first is the type of independence. In other words, How is independence granted? If central bank independence is granted through a country's constitution, it will carry more weight than a law enacted by a congressional body, and a law will carry greater weight than a tradition of independence developed over time.

Secondly, how is the governor, or head of the central bank, chosen and for how long is the appointment? If the governor of the central bank is a political appointee and has a term that is less than that of the government's executive office, the central bank will be less independent. A governor with a long appointed term chosen by the private sector is likely to be more independent. Third, what is the policy mandate? If the central bank has a clear mandate to achieve price stability, it will tend to be more independent than a bank with mandate that attempts to balance price stability and full employment. Finally, are there limitations to central bank lending? A central bank that is prohibited from buying government debt directly from the treasury is less likely to be pressured to buy that debt and subsequently increase inflation.

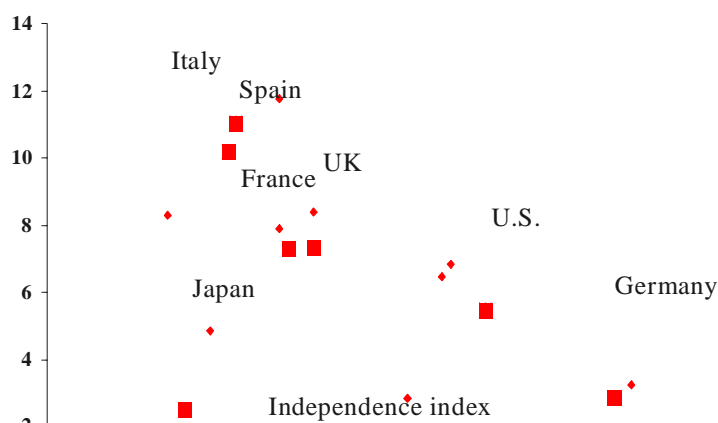
*Evidence on central bank independence and inflation.* Is there evidence that central bank independence is associated with lower inflation rates? Figure 4 shows average inflation rates from 1980-89 for 21 developed countries mapped against an index of central bank independence according to the four factors discussed above. As the figure shows, there does appear to be a rough negative relationship between inflation and central bank independence for developed countries. Although central bank independence may appear to be associated with lower inflation for this group of countries, the evidence is not that strong. Japan's central bank, for example, is

Figure 4

## Inflation vs. independence

### Developed countries

Average inflation 1980-1989



not that independent, but its inflation rate was among the lowest in the 1980s.

In general, the relationship between independence and inflation does not hold. Figure 5 shows the same measures as Figure 4, but includes an additional 47 developing countries. When developing countries are added to the sample, there does not appear to be even a weak relationship between central bank independence and inflation. Of the Latin American countries listed here, Argentina has had slightly more independence than Mexico, but has had an inflation rate several times greater. Apparently, there is no strong relationship between independence and inflation.

Figure 5

## Inflation vs. independence

All countries

Average inflation 1980-1989



Why isn't independence typically associated with lower inflation? First, as mentioned earlier, a legal definition of independence does not always mean that a bank is independent in practice, nor does it mean that a bank without legal independence is completely run by the government.

From my own experience during the time I spent as a visiting economist at the central bank of Mexico in the summer of 1994, I can tell you that a legal definition of independence is not necessarily what takes place in practice. Although the central bank was made constitutionally independent in the spring of 1994, with a clear mandate for price stability, my impression was that economic growth was still a big concern for the central bank. I don't think that the central bank was taking direct, or even indirect, orders from the treasury. It was just that the people in the central bank worked closely with individuals in the treasury, and everyone knew each other very well from past associations or schools.

There was a sensitivity in the central bank to political pressures that the government was subjected to, especially in that election year. Political pressure was not overt, but nonetheless the political environment did have an effect. In general, it is particularly difficult in developing countries, like Mexico, to have the level of independence that you might see in a developed country such as the United States—even though, legally, the central bank of Mexico would now be considered more independent than the Federal Reserve.

Consequently, the degree of central bank independence is sometimes difficult to measure, and can be subject to varying degrees of political pressure. Moreover, fiscal spending matters. Countries with large public sectors and huge budget deficits are likely to exert tremendous pressure on the monetary authorities to print money to pay down existing debt. With enough political pressure, even constitutions can be changed. And in countries with less stable governments and shorter histories of price stability, legally declaring a central bank independent may not mean that much.

The bottom line is, there is no quick fix to gaining a credible anti-inflation program through institutional changes to the central bank. Credibility can only be achieved over time with a demonstrated commitment to keep inflation low.

## Central Bank Independence Can Help

In addition to other reforms, central bank independence can help. It can send a powerful signal to the private sector that the elected government is serious about reducing inflation by making policy reversal more difficult. If central bank independence is pursued along with other policies, such as improvements to banking regulation and supervision, more transparent operating policies, and a reduction in fiscal spending, a low inflation policy is much more credible.

After years of costly high and variable inflation, polls in many Latin American countries indicate overwhelming support for fiscal and monetary restraint despite periods of high unemployment. Consequently, much of Latin America's recent central banking reforms reflect the desire to keep inflation low. Changes are occurring that are designed to make monetary policy more transparent and create stability in the banking system.

## Institutional Framework in Latin America: Selected Countries

Overall, a number of countries, both developed and emerging economies, have come to recognize the long-term benefits of low inflation. In this view, price stability is not an end in and of itself, but is essential for the achievement of a number of important economic and social goals: it provides the best environment for the efficient allocation of resources that supports economic growth. This understanding explains and justifies central bank focus on price stability.

Moving from an environment of high and variable inflation (see *Figure 1*) to one of low and stable inflation carries obvious temporary costs and promises delayed but substantial benefits. It has been this willingness and ability to focus on the long-run benefits that has made low inflation politically feasible in Latin America.

Throughout Latin America, we have seen a number of institutional changes designed to support low inflation and attract foreign capital.

## Central Bank Independence

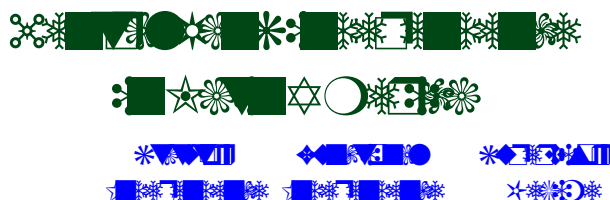
In the short run, the pursuit of price stability often competes with other central bank objectives, especially when explicit, multiple objectives are part of the central banks's mandate (as in the U.S.). These objectives can include assuring full employment, managing the government's financial transactions, financing government deficits, allocating credit, financing development projects and bailing out banks and government enterprises.

Although most governments recognize the long term benefits of price stability, other goals often dominate in the short run. Consequently, assuring price stability usually requires ensuring that the central bank is not compelled to pursue short run goals.

Independence is one way of limiting demands on a central bank. Several Latin American countries have taken that route. But others have chosen different types of institutional reform. (see *Figure 6*)

- a. In *Argentina*, a currency board was established in April 1991. The currency board guarantees a 1:1 convertibility of the peso into dollars, prohibiting money creation not fully backed by foreign reserves. In effect, the central bank has neither independence nor discretion. The monetary policy actions of the central bank are automatic and mechanistic.

Figure 6



After experiencing several hyper-inflationary periods during the mid to late 1980s, and several failed stabilization programs, a currency board had an obvious appeal: it would curtail the central bank's discretionary power, limit the ability of the government to finance its deficit through inflation and make the exchange rate more stable. However, the currency board system also means that the central bank has no power to intervene in a banking crisis such as occurred in the aftermath of the Mexican financial crisis in 1995. There has been considerable success in reducing inflation: it dropped dramatically in 1991 and has remained in single digits over the last several years.

- b. *Brazil*. The Banco Central do Brasil is neither institutionally nor operationally independent from the Brazilian government. The Ministry of Finance largely determines economic policy goals; monetary policy decisions flow from those guidelines. After years of ruinous inflation plus five failed attempts at reform from 1985-1993, the Real Plan was introduced in 1994. The Real Plan attacked inertial inflation (the phenomenon of price increases motivated by the perception that indexation did not provide complete protection from inflation). It did so by eliminating indexation and controlling money creation. It has brought an unprecedented period of low inflation to Brazil. This has been a political windfall for President Cardoso, suggesting that the population would support measures that they believe would preserve economic stability.
- c. *Chile*. The Central Bank of Chile was re-chartered in 1989 with an independent Board of Directors, separate from the government with the explicit objectives of price stability and maintaining an efficient payments system. This formal independence was granted just as General Pinochet was leaving office. The General was concerned that the center-left coalition that eventually took office would rush to raise social spending, thus increasing government deficits and the growth of the money supply.
- d. *Mexico*. In August 1993, the Mexican Congress amended the Constitution to grant autonomy to the central bank and mandate it to maintain price stability. (Its six-member board is appointed by the President to overlapping staggered terms.) However, the Finance Ministry retains jurisdiction over foreign exchange policy. This is a main point of contention regarding the effectiveness of the central bank's independence in Mexico. Furthermore, the Finance Minister can attend central bank board meetings, call a meeting, and introduce agenda items, but cannot vote.

- e. *Peru*. The independence of the Central Bank of Peru was established in 1993, when the Constitution was amended. The seven-member Board of Directors has four members selected by the President and three named by the Congress. The central bank is an autonomous institution charged with preserving price stability; it is *not* allowed to finance the public sector, guarantee any public debt or establish multiple exchange rates, all common practice in the 1980s. The central bank establishes inflation targets each year. After experiencing hyperinflation during the late 1980s, Peru experienced its lowest inflation rate in 25 years, 6.5% in 1997.
- f. *Venezuela*. The central banking law in Venezuela was re-written in 1992, providing for an independent central bank not obligated to finance government debt. It had very little time to demonstrate its effectiveness before the banking crisis of 1994, since which time most of the central bank's operations have been done by decree.

On balance, we see that central bank independence is neither necessary nor sufficient for reducing inflation and maintaining a low inflation rate. However, within some settings (political, social, historical), central bank independence can be an indispensable tool for implementing a policy of price stability. Independence can signal a commitment that would otherwise be difficult to communicate.

## **Exchange Rate Regime**

We cannot consider the statutory independence of the central bank in isolation from the exchange rate regime. Even with a well-defined and long established independence, a central bank is subordinate to the government. (Even the Bundesbank could not defy the German government's decision about the initial exchange of Ostmarks for DMs at the time of German reunification, knowing well the inflationary implications.) Consequently, if a government's exchange rate policy is inconsistent with the central bank's low inflation mandate, that inconsistency eventually will be resolved in favor of the exchange rate policy.

Statutory independence means nothing if monetary policy is artificially divided between exchange rate policy run by the Ministry of Finance and domestic policy run by the central bank. This fundamental inconsistency is much less in evidence in Latin America today than in the previous 30 years. Fortunately, those countries with a fixed or managed exchange rate have a commitment to price stability that avoids that inconsistency (Argentina, Brazil). (*Figure 7*)



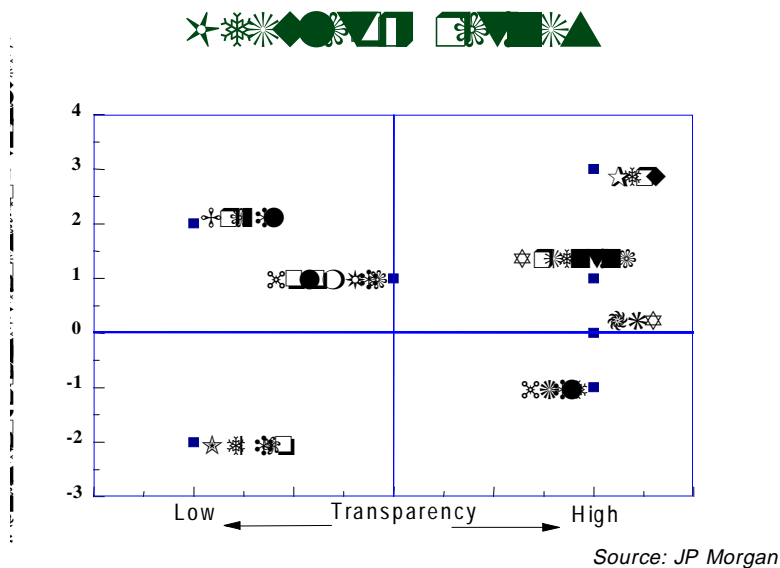
whole still has inadequate regulations and only skeletal supervision when compared to the United States. In the case of emerging markets, we can argue that certain standards should be higher than in the U.S. (Capital requirements, for example). The need to remedy these inadequacies has been made clear given Latin America's vulnerability to macroeconomic shocks in Asia.

Within Latin America, only Peru and Argentina are considered to have regulatory regimes that are, on average, comparable to the U.S., while Brazil's and Mexico's are clearly inferior, despite recent improvements.

Figure 8 shows a summary comparison of regulatory ratings and transparency by country, with the U.S. as a benchmark.

The numerical regulatory ratings from J.P. Morgan are based on loan allowances, capital adequacy, investment reserves and liquidity requirements. (Figure 9) These are relatively objective comparisons of quantitative measures in the written regulations. The rating compares regulation in each country vs. the U.S. and ranks them as worse "-1", the same "0", or better "+1" in each of the four categories. The overall rating is the sum of the four. In general, Latin American regulations are stricter in capital adequacy and liquidity but less so for loan and reserves allowances.

Figure 8



Transparency is by necessity quite subjective because it involves qualitative judgments on, for example, the comparability of bank performance across time and the ability, experience and enforcement effectiveness of the bank regulators. Weighted by GDP, we would have to see high risk in the region as a whole since the riskiest countries—Brazil and Mexico—are by far the two largest economies. Furthermore, they have the lowest transparency ratings.

There are however, reasons to be optimistic. As a whole, the region’s rankings have been migrating toward the U.S. position, and there is continued momentum for that process. Consequently, we can anticipate a time when banking system problems will not pose an outsized risk to either price stability or the payments system in Latin America.

Figure 9



	Overall rating	Loan Allowances Required	Capital Adequacy	Investment Reserves	Liqui
Argentina	+1	-1	+1	0	+]
Brazil	+2	+1	+1	-1	+]
Chile	-1	-1	0	0	0
Colombia	+1	-1	+1	0	+]
Mexico	-2	-1	-1	-1	+]

Source: IFC

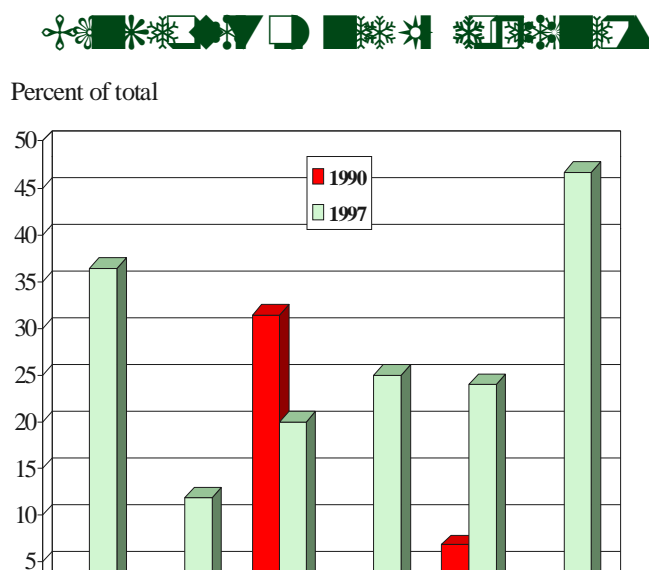
## Greater Foreign Ownership of Financial Institutions

Latin America as a region has gone from an extreme hostility towards or outright prohibition of foreign ownership of banks to one of relative openness in principle and limited but growing openness in practice. In several countries, this process accompanied the privatization of previously nationalized banking industry (for example, Peru, Mexico).

A number of countries have changed laws limiting foreign participation and/or providing equal regulatory and tax treatment for all financial institutions regardless of ownership. They did so in an effort to attract foreign capital and to bring in best practices and better technology to stimulate previously moribund banking industries.

As figure 10 indicates, the increase in foreign participation has been substantial, although it started the 1990s at a very low level, except in the case of Chile.

Figure 10



## Fiscal Reform

A prime source of pressures on central banks to pursue inflationary policies has been the necessity to finance the government's deficit spending. This has been true throughout history, over many different countries and across a variety of institutional settings.

A commitment to low inflation, especially in countries that have experienced extended periods of high inflation, or hyperinflation, must be accompanied by or must begin with fiscal reform. The process of fiscal reform has taken hold, belatedly, in Latin America, but now has substantial momentum. A good deal of the new central bank legislation limits the power of the government to finance its deficit through the central bank.

For example, a number of countries (Brazil, Chile, Peru, Mexico) have undertaken aggressive privatization of state-owned enterprises to relieve the government from the burden of funding their operating budgets and servicing debt. On average government consumptions has declined in the last 15 years.

Other efforts in Brazil, Peru and Mexico to move toward a more “rational” public sector are a mixed bag. Here, rational means a sustainable, economically viable government apparatus, guided by principles of limiting government’s role to areas where the private market outcome is inefficient or inappropriate. There have been legislative agendas (in Brazil, Chile, Mexico, Peru) to limit the business of the government directly through privatization, and indirectly through reform of public administration and social security programs.

It will require a generation before the viability of these restructured programs can be evaluated fully. Latin America started with a large ineffective federal and state government sector. The region has a long way to go to achieve genuine reform and remove the specter of fiscal policy imperatives from long-run inflation forecasts.

## **Conclusion**

Ultimately, inflation is determined by underlying political and economic pressures and social choices. Recent developments in some Latin American countries illustrate this: the right/correct policies are more important than institutional arrangements. Of course, some institutional arrangements are more supportive than are others when price stability is a policy goal.

In recent years, Latin American countries have provided a fascinating set of case studies in institutional reform designed to reinforce and signal a profound change in policy. The extent and scope of reform we have observed is ambitious and, in many cases, courageous. A number of Latin American countries started this process late and from a position of enormous disadvantage, both structural and reputational. While progress to date is encouraging, the region continues to be one where risk is high and where otherwise minor imbalances can easily lead to systemic problems.