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President Siles was compelled to announce elections for July 1985, one year ahead of schedule. A final attempt at stabilization came in February 1985, with a program that prompted a domestic march to La Paz and a month-long sit-in by 10,000 miners. Again the government capitulated to popular demands, after which it gave up even the pretense of attempting to stabilize before the arrival of a new government in August.

7 Ending the Hyperinflation, 1985–88

The end of the hyperinflation came swiftly, just three weeks after the new government of Victor Paz Estenssoro took office. A comprehensive stabilization program, labelled the New Economic Policy, was unveiled on 29 August 1985, and within days, the hyperinflation ended. Later in 1985, after several weeks of low inflation, there was another sharp run-up in prices associated with a large emission of money at the end of the year, but this blip in inflation was quickly brought under control in mid-January 1986.

7.1 The New Economic Policy

The main features of the New Economic Policy are shown in table 7.1. Note the program embraced widespread liberalization of trade and finance, as well as fiscal austerity. In principle, the stabilization measures are “short-term” measures, while the liberalization measures are oriented toward “long-run” growth. In fact, as we discuss later, the Bolivian government believes, with considerable reason, that the liberalization measures played a key role in permitting the stabilization policies to take hold.

The key stabilization measures (putting aside, for the moment, the question of liberalization policies) had four basic elements, two of which were to be implemented immediately and two of which were slated for implementation in the months following the beginning of the program. First, the government committed itself to a policy of a unified exchange rate, without capital controls or exchange controls. The exchange rate was initially floated, though with a maximum value of the peso beyond which peso appreciation would not be permitted, and then was managed in a dirty float during the following year. Second, the fiscal deficit was immediately reduced through a combination of (a) public sector price increases, especially for petroleum products; (b) a public sector wage freeze; (c) further

Table 7.1 Outline of Major Policy Initiatives in First Year of New Economic Policy

| Policy Area | Key Policy Initiatives | Implementation |
|--|---|---|
| Exchange rate | Unification of exchange rate on current and capital account; free convertibility of foreign exchange | Completed 1985 |
| Public sector pricing | Public sector prices (most importantly, energy and food) raised to world levels | Completed 1985 |
| Consolidated public sector budget | Target deficit of 6.3 percent GNP, of which 5.3 percent to be externally financed | Budget approved by Congress, May 1986 |
| Import regulations | Unification of tariffs to flat 20 percent rate; elimination of trade quotas and nontariff barriers | Quotas eliminated immediately; tariff reform, August 1986 |
| Private sector salaries and employment | Elimination of government restrictions covering private wages, except for national minimum wage; removal of restrictions on hiring and firing | Completed 1985 |
| Private sector pricing | Elimination of all price controls, except for public transportation and public utilities; elimination of previous monopolies in intercity transport | Completed 1985 |
| Public sector salaries and employment | Successive wage freezes (with one-step increases between freeze periods) during August–December 1985, December–June 1986, June–December 1986 | Implemented |
| | Employment reductions in state enterprises and central administration | Partial implementation |
| Public enterprises | Decentralization of major state enterprises | Most actions not taken |
| Taxation | Increases in taxes paid by YPFB | In effect |
| | Major consolidation and reform of internal taxes; establishment of VAT, patrimony taxes, and uniform income taxes | Approved by Congress, May 1986 |
| International financial organization | Negotiation of IMF standby agreement | Approved by IMF, June 1986 |
| | Reestablishment of creditworthiness with World Bank and IDB | Current on all obligations |
| Foreign creditors | Negotiation of Paris Club rescheduling | Terms of agreement approved, June 1986 |
| | Commercial bank debt | Negotiations extended beyond 1986 |
| Interest rates | Elimination of restrictions on commercial bank interest rates | Completed 1985 |

reduction in spending on public investment; and (d) budget austerities in other areas, such as subsidized credits to the private sector. Third, the program called for a tax reform to reestablish and broaden the tax base. The reform was enacted by Congress nine months after the start of the program, and implementation began one year after. Fourth, the government announced its intentions of reestablishing the country's creditworthiness with international financial institutions (official and private), especially the IMF, the World Bank, and the Inter-American Development Bank, while maintaining a suspension of payments to the commercial banks. Renewed creditworthiness required the government to eliminate arrears on its debt-servicing obligations to the international institutions and to negotiate an IMF standby agreement, which it did by June 1986. In June 1986, a Paris Club rescheduling was obtained. As described in chapter 8, Bolivia entered into a novel debt repurchase agreement with its commercial bank creditors in 1988.

To appreciate the drama of the end of the hyperinflation, consider the situation on the eve of the new program. During August 1985, the official exchange rate stood at 67,000 pesos per dollar, while the black-market exchange rate was approximately 1.1 million pesos per dollar, for a percentage gap of some 1,600 percent (in fact, after averaging 1.1 million for most of the month, the black-market rate shot up to 1.5 million pesos on the eve of the program announcement). The internal price of petroleum was about 3 cents per liter, compared with a world price of 28 cents per liter. Inflation in the weeks leading up to the program was (at weekly rates):

| | |
|------------------------|------|
| August 5–11: | 18.4 |
| August 12–18: | 8.6 |
| August 19–25: | 6.1 |
| August 26–September 1: | 19.9 |

As the program began, the exchange rate was allowed to depreciate freely, before a new *de facto* peg was set. The market set the new unified rate at an opening level of about 1.1 million, giving a one-day depreciation of 1,600 percent relative to the previous official rate. Internal oil prices were immediately raised to 28 cents per liter, or by 833 percent. All other price controls in the economy were lifted by the decree of 29 August 1985.

These enormous changes took *only ten days* to work through the price system. Prices jumped immediately following the devaluation and increase in internal energy prices, but then inflation abruptly ended:

| | |
|-------------------------|------|
| September 2–8: | 36.8 |
| September 9–15: | -4.6 |
| September 16–22: | -.8 |
| September 23–29: | -2.5 |
| September 30–October 6: | .7 |

These data are reproduced in figure 7.1, where the remarkable break in the inflation from the second week of the program onward is clearly evident.

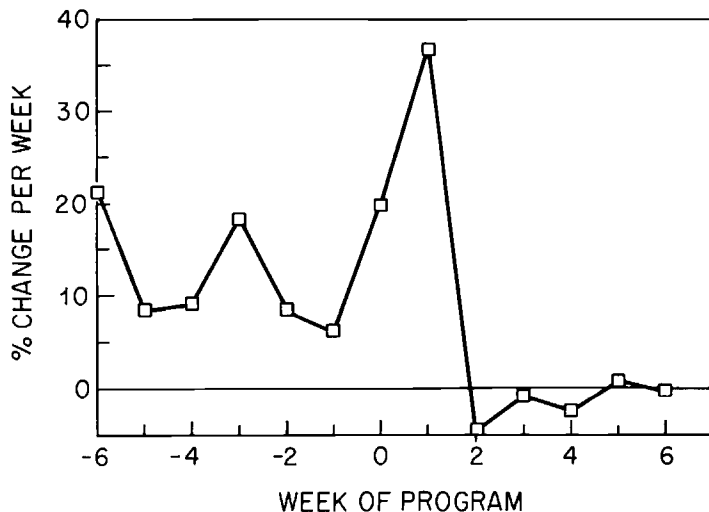


Fig. 7.1 Weekly inflation rates (week 0 = 8/26–9/1)

The inflation rate remained at relatively low levels during the following year, with the exception of a jump in prices during December 1985 and January 1986, following policy mistakes in monetary management at the end of 1985 (which resulted in a cabinet reshuffling and the reinforcement of fiscal austerity measures).

The leading trade union organization, the COB, which had opposed and mobilized against similar—indeed less dramatic—policy packages in the past, called for a general strike in opposition to the program. But after three years of accelerating inflation and the near chaos of early 1985, the new government clearly had the upper hand. A state of siege was declared (as a temporary and constitutional emergency procedure), and the strike was quickly disbanded, after which the state of siege was cancelled.

The stabilization of the exchange rate at the new depreciated level of 1.1 million pesos per dollar caused a gradual rebuilding of the public's real money balances. One of the central policy issues at the end of a hyperinflation is how that increase in real money demand should be accommodated—through domestic credit expansion to the public sector or to the private sector (e.g., via rediscounting of private paper), or through foreign reserve inflows through the balance of payments (i.e., Central Bank purchases of foreign exchange at a pegged rate or in a dirty float). The Bolivian government chose the third, and clearly most conservative, strategy of relying on the balance of payments. It was felt that with large Bolivian hoards of U.S. dollars, both in Bolivia and abroad, there was sufficient availability of foreign exchange holdings in the private sector to provide the

basis for the needed expansion of the domestic money supply. Moreover, with confidence in the peso likely to be a rising function of the extent of foreign reserve backing of the domestic money base, the conservative approach was felt to be the most consistent with a restoration of confidence in the new exchange rate and monetary regime. Net reserves climbed from approximately \$63 million at the end of August 1985 to about \$150 million by the end of December, exceeding the rise in the money base from \$64 million in August to \$112 million at the end of the year.

We have already noted the sharp rise in government revenue collection as soon as the program started (see fig. 6.1). The rise in domestic oil prices plus the renewed YPF tax payments on export earnings alone raised the rate of central government tax collection by about 7 percent of GNP. Adding in a small recovery of internal taxes and tariff collections, government revenues rose from about 1.3 percent of GNP during January–September 1985 to 10.3 percent of GNP during the remainder of the year. Overall, the central administration moved into a cash-flow surplus during October–December 1985. With a virtual elimination of domestic credit expansion to the fiscal sector, seignorage dropped off sharply after the program began (as was evident in fig. 6.1). Expressed as a percentage of GNP, the evolution of seignorage on a quarterly basis is:

| | | | |
|--------|------|--------|------|
| 1985:1 | 2.9% | 1985:4 | 1.9% |
| 1985:2 | 3.6% | 1986:1 | .1% |
| 1985:3 | 3.4% | 1986:2 | .8% |

Shortly after the stabilization program was announced, Bolivia faced the strong challenge of shocks to the external sector. Bolivian exports had depended heavily on three items in recent years. Tin and natural gas constituted about 90 percent of Bolivia's measured and legal exports, while processed coca leaf, to become cocaine, represented the third (illegal and unrecorded) export. The rough estimates for Bolivian exports in 1985 are:

| | |
|--------------|----------------------|
| Tin | \$ 150 million |
| Other metals | \$ 81 million |
| Natural gas | \$ 377 million |
| Others | \$ 22 million |
| Coca based | \$ 600 million |
| Total | \$1,230 million |
| | (approx. 31% of GNP) |

Once the stabilization program got started, there were profound disruptions in all three of the major markets. The price of tin collapsed by 60 percent at the end of October 1985, as the worldwide tin cartel crumbled in financial distress. Three months later, hydrocarbon prices collapsed, forcing a renegotiation of Bolivia's natural gas contracts with Argentina and resulting in a loss of dollar earnings on the order of \$75–100 million (the exact value is difficult

to compute because of a complicated barter arrangement between the two countries as part of the gas agreement). Finally, the Bolivian government began an interdiction effort against narcotics trafficking in the summer of 1986, disrupting the smuggling of coca-based products from the country; and, at the same time, the world price for coca paste fell sharply. A conservative estimate would put the terms-of-trade loss on the order of 10 percent of GDP.

The shortfall in export earnings threatened the stabilization program in several ways. Most importantly, the export shortfall resulted in a sharp contraction in living standards, which is attributed to a significant extent within Bolivia to the effects of the stabilization program itself. With great weakness in the domestic demand for nontradable goods as a result of the decline in national income, there was enormous political pressure to revive government spending, increase public wages, and “reactivate” the economy. Second, each episode of export shortfall provoked public expectations of a devaluation and helped to maintain high short-term nominal peso interest rates as a result of continued speculation against the exchange rate. After the tin price collapse in October 1985, the exchange rate was, in fact, allowed to depreciate by almost 50 percent over a period of two months. After the collapse of world petroleum prices, the authorities pegged the peso exchange rate, despite skepticism of the public, who speculated heavily on a depreciation. Similarly, after the start of the drug interdiction effort in the summer of 1986, the public again speculated heavily against the peso, pushing up short-term peso interest rates once more and converting domestic currency holdings into dollars at the rate pegged by the Central Bank. Once again, the authorities resisted a currency devaluation, but at the cost of further months of high *ex post* real interest rates.

7.2 Interpreting the Rapid Success at Price Stabilization

In his rightly celebrated and influential analysis of the ends of four hyperinflations, Sargent (1982) stressed that hyperinflations end when governments “change the rules of the game” regarding budget deficits and money creation. Sargent argues:

In each case that we have studied, once it became widely understood that the government would not rely on the central bank for its finances, the inflation terminated and the exchanges stabilized. . . . [t]he changes that ended the hyperinflations were not isolated restrictive actions within a given set of rules of the game or general policy. Earlier attempts to stabilize the exchanges in Hungary under Hegedus, and also in Germany, failed precisely because they did not change the rules of the game under which fiscal policy had to be conducted. (89–90)

How does the Bolivian experience fit into this schema?

At a trivial level, Sargent is certainly correct that without a change in budget practices, no noninflationary exchange rate management would have been successful for long in Bolivia. Sargent's real assertion is much deeper, however, in suggesting that the end of the hyperinflation occurs suddenly not just because the inflationary budget or monetary practices change, but also because the public expects and understands that these changes will persist. In other words, the rapid end of the hyperinflation is a signal of a restoration of confidence. At this level, we believe that the Bolivian experience is not strongly supportive of Sargent's view, in that the evidence suggests that stabilization proceeded well ahead of a complete restoration of public confidence.

In our interpretation, fixing the exchange rate was nearly a sufficient condition for a short-run stabilization because so much of pricing was tied to the nominal exchange rate. Moreover, it was possible to fix the exchange rate in the short run *despite the fact that the public lacked confidence in the ability of the government to fix the rate in the long run*. A temporary stabilization of the exchange rate was feasible because the Central Bank was willing to commit at least some international reserves (e.g., Bolivia's gold reserves) to pegging the exchange rate in the short term and because the emergency measures allowed the government to temporarily not have to resort to money creation.

Almost at the moment of stabilization, Central Bank credits to the public sector stopped rising, as revenues jumped in response to the higher domestic prices of petroleum products. During October and November 1985, increases in the money supply were due to increases in Central Bank holdings of foreign exchange reserves. The exchange rate stabilized at 1.1 million pesos per dollar, leading almost immediately to price stabilization. (Actually, the government did not peg the exchange rate, but rather intervened to prevent the rate from *appreciating* above the 1.1 million level. Given the pressures toward appreciation as households started to rebuild real money balances, the one-sided peg of the exchange rate worked as if the government were actually pegging the rate.)

Before showing the evidence that inflationary expectations were slow to decline, let us consider some reasons why we should not be surprised that expectations did not shift dramatically upon the announcement of the program. First, the stabilization program was the seventh attempt in four years and was being carried out by a president without a majority in Congress and with a direct electoral mandate of less than 30 percent of the voters. Second, the program promised many reforms that would take a considerable amount of time to negotiate and implement. Third, the program reflected a radical change from the past policies of the president's own party (which, as the vanguard of the Revolution of 1952, did not have a tradition of *laissez-faire* economics), and so could not be counted on to win the support of the governing party itself.

Fourth, there were profound unknowns at the time of stabilization. The overhang of foreign debt remained crushing, and the stabilization in the intermediate run would remain possible only with new foreign funds from the official creditors. But would the IMF consent to a program without the immediate resumption of interest payments to the commercial banks? Would the Paris Club respond with generous debt rescheduling terms? Internally, the situation was as murky. Under Siles, the central administration had reneged on many financial commitments to regional governments. Would those claims by the regional entities now be honored, thereby threatening the solvency of the central government? Would tax reform measures be implemented? Would the unions be able to crush this stabilization program as they had, in part, the early ones? As of 9 September 1985, there were no budget accounts, reliable tax forecasts, or even statistics on Bolivia's international reserve holdings (the data were in a mass of confusion because of several complications with bilateral payments arrangements with Argentina). There was simply no basis for an informed opinion about the longer-term prospects of stabilization.

7.2.1 Inflation Expectations in the Wake of the Stabilization

We have suggested that the hyperinflation ended immediately because of the stability and unification of the exchange rate, even though inflationary expectations, at least regarding the intermediate run, did not drop instantaneously. In other words, the program was successful even though the measures were not immediately credible. The key to this seemingly paradoxical view, we have suggested, is the fact that it is possible to peg an exchange rate in the short run, even if there are widespread expectations that the exchange rate will collapse in the future. There is one excellent source of evidence on exchange rate expectations, and that is from nominal interest rates on peso- and dollar-denominated assets in La Paz in the aftermath of the stabilization. Nominal peso interest rates remained extraordinarily high during much of the year after the beginning of stabilization. Nominal interest rates fell after the stabilization program began, but only gradually and with a long lag in response to the end of currency depreciation. Some data on nominal lending rates are shown in table 7.2.

Under the deregulated financial system in place since the stabilization program began, loans could be contracted in either dollars or pesos, at unregulated interest rates. The spread between peso- and dollar-denominated borrowing reflects mainly the *expected rate of depreciation* of the peso vis-à-vis the U.S. dollar. Note that despite the sudden cessation of price increases in September 1985, nominal interest rates in pesos remained on the order of 20 percent per month from October 1985 to March 1986, compared with dollar-denominated interest rates of 1½ to 2 percent per month. The expectations of continued currency depreciation proved to be appropriate during December 1985 and January 1986, when policy mistakes led to a

Table 7.2 **Peso- and Dollar-Denominated Thirty-day Loan Rates, April 1985–October 1986 (beginning of month)**

| | Peso | Dollar | Ex Post Dollar Rate on Peso Loan | Excess Cost of Peso Loan |
|----------------------------------|------|--------|--|--------------------------------|
| 1985 | | | | |
| April | 34 | | | |
| May | 35 | | | |
| June | 44 | | | |
| July | 50 | | | |
| August | 45 | | | |
| September (stabilization begins) | 45 | | | |
| October | 31 | | | |
| November | 22 | 1.4 | 10.2 | 8.8 |
| December | 21 | 1.6 | -6.7 | -8.3 |
| 1986 | | | | |
| January | 19 | 1.6 | -8.1 | -9.7 |
| February | 20 | 1.7 | 34.5 | 32.8 |
| March | 20 | 1.7 | 16.8 | 15.1 |
| April | 19 | 1.7 | 17.5 | 15.8 |
| May | 13 | 1.8 | 13.0 | 11.2 |
| June | 8 | 1.9 | 8.4 | 6.5 |
| July | 8 | 1.9 | 8.0 | 6.1 |
| August | 8 | 1.9 | 7.5 | 5.6 |
| September | 7 | 1.9 | 6.8 | 4.9 |
| October | 7 | 1.8 | 6.8 | 5.0 |
| November ^a | 3 | 1.8 | | |

Note: The ex post dollar rate on a peso loan is calculated at $(1 + i_t)E_t/E_{t+1}$, where E_t is the beginning-of-month exchange rate (pesos per dollar) and i_t is the beginning-of-month t interest rate.

^aLast week of October.

sharp depreciation of the peso. However, from February to September 1986, the interest rates remained extraordinarily high (see table 7.2), despite the absence of any further currency depreciation. Thus, it is clear from the data that there was *not* a decisive restoration of confidence in the peso at the beginning of the program, despite the fact that ex post, the stabilization succeeded.

Similar evidence against an instantaneous recovery of confidence is offered by the time path of real money balances in the wake of the stabilization program. Holdings of real balances increased only gradually during 1986 and remained significantly below historical levels throughout the year.

7.3 Was the Stabilization Recessionary?

The evidence on the recessionary effect of the program is ambiguous, since during the year of the stabilization program the economy was hit remarkably hard by a series of external shocks, whose overall effect was a loss of export earnings on the order of 10 percent of GNP. Such an enormous

loss of export earnings would normally be enough to create a deep recession, even in an economy starting from a position of macroeconomic stability. Moreover, during 1981–85, measured real GDP had declined every year, by 2.9 percent on average, so that the continuing economic stagnation and falling GNP in 1986 could not in any event be attributed easily to the stabilization program.

In the event, GDP fell by 2.9 percent in 1986, but then began rising in 1987 and 1988 (by an estimated 2.3 and 3.0 percent, respectively), despite the sharp fall in the terms of trade. There is absolutely no evidence, therefore, that the effects of stabilization were in any way contractionary—if at all—for more than a very brief period.

It should be stressed in any event that the “austerity” fiscal actions undertaken in ending a hyperinflation are not necessarily contractionary on balance, since the contractionary effects of a rise in tax revenues are balanced by the expansionary effects of the elimination of the inflation tax. Basically, the stabilization program does not involve a rise in overall taxes, but rather a shift from one tax (the inflation tax) to other, more efficient taxes. In addition, the reduction in uncertainty and the elimination of price distortions brought about by the stabilization program should have important supply-side effects.

Moreover, the stabilization program made possible a restoration of net inflows of financial assistance from the rest of the world. Thus, the stabilization measures significantly eased the national budget constraint, if account is taken of the hundreds of millions of dollars of financial assistance that were made available by the IMF, the World Bank, the Inter-American Development Bank, and the bilateral creditors as a result of the success of the stabilization program. We have noted in chapter 1 that as a result of stabilization, the net resource transfer shifted from a significant negative amount (approximately 6 percent of GNP net outflow in 1983) to a large positive amount in 1987 (approximately 5 percent of GNP net inflow).

One possible source of contractionary impulses from the stabilization program has been the high real interest rates in Bolivia since the beginning of the stabilization. As noted by Dornbusch and Fischer (1986), high ex post real rates have been present in the aftermath of most hyperinflations because of a scarcity of money as the demand for money rises sharply following stabilization. We have suggested that the high interest rates reflect lingering inflationary expectations, and so do not necessarily signal high ex ante real interest rates.

7.3 Further Lessons from the Hyperinflation

We conclude our discussion of the hyperinflation by discussing some of the central issues that have been debated in the design of stabilization programs and in the interpretation of their success or failure. We turn to two

topics in particular: the case for an “orthodox” versus “heterodox” shock program, and the linkages of short-run macroeconomic policy and long-run structural policies.

7.3.1 Orthodox versus Heterodox Anti-Inflation Programs

Much of the debate in Latin America in recent years has centered on the question of the appropriateness of “orthodox” policies in ending a high inflation. Advocates of the “heterodox” shock approach have argued that tight monetary and fiscal policies alone are insufficient to end a high inflation. They suggest that incomes policies, wage and price controls, and even monetary reform should play a central role in a stabilization program.¹ Extreme advocates of heterodoxy go even further: they suggest that orthodox policies have no role to play in inflation stabilization. In this view, inflation is an “inertial” process, in which prices and wages rise because of self-fulfilling expectations. The goal of policy, in that view, is to break those expectations through wage and price controls.

The Bolivian experience sheds some light on this debate, although the lessons from Bolivia must be read with care. The most obvious point is that Bolivia was successful in stabilizing inflation without recourse to any elements of heterodox wage or price policies. There were no wage or price controls, and no monetary reform. Indeed, at the beginning of the program, virtually all existing price controls were removed, with the goal of liberalizing the price system.

In this sense, it is clear that orthodox policies were sufficient to end the hyperinflation. And as already indicated, the end of the inflation was virtually instantaneous, with the runaway inflation being eliminated in a matter of a couple of weeks and remaining low for several years. This success stands in sharp contrast to the failed “heterodox” plans in Argentina, Brazil, and Peru. In those countries, inflation was held down by the stabilization programs for a few months, only to explode at very high rates after a short period of time.

The long-term success of the Bolivian program compared with the failures elsewhere is clearly related to the greater fiscal stabilization achieved in Bolivia, and thereby in the lesser recourse to money financing of budget deficits. The links between the budget deficits and inflation in all of the countries mentioned is clear enough. Large deficits are financed by money printing, which in turn causes a downward pressure on the foreign exchange rate. If the exchange rate is allowed to depreciate, then the domestic prices of tradable goods (importables and exportables) rise in line with the exchange rate depreciation. If the exchange rate is pegged in order to avoid the inflationary consequences of depreciation, the central government loses reserves over time, which eventually forces it to devalue the exchange rate, but at a later date.²

Typically, as happened in Argentina, Brazil, Peru, and Bolivia during 1982–85, the government tries to avoid outright depreciation or devaluation of the exchange rate, even as it runs out of reserves. Rather than devalue the official rate, the government rations foreign exchange, thereby creating a spread between the official exchange rate and the “market” (black or parallel) rate. In the end, the inflationary consequences are the same as if an official devaluation had occurred. *On the margin*, imports are purchased at the highly depreciated black-market rate, so that the internal prices of importables rise in step with the depreciated black-market rate, rather than the official exchange rate. Eventually, the gap between the official and the depreciated black-market rate becomes so large and produces so much cheating and corruption (in the form of overinvoicing of imports and underinvoicing of exports, bribes to get Central Bank allocations of foreign exchange, etc.) that the official exchange rate is grudgingly devalued.³

Of all of the high-inflation countries in Latin America in the 1980s, only Bolivia after 1985 was able to break this circle of budget deficits, depreciating currency, and high inflation. The orthodox tight monetary policies in Bolivia, made possible by a major reduction in the budget deficit, was the key that allowed Bolivia to maintain a stable and unified exchange rate vis-à-vis the dollar. In other countries, the large budget deficits that continued after the stabilization programs were put in place prevented the establishment of a stable and unified exchange rate for any period longer than a few months.

While the Bolivian case illustrates powerfully the need for significant budgetary adjustment, it does not really settle the case for or against wage and price policies *in addition to* the more orthodox budgetary policies. In Bolivia, inflation stopped immediately without any additional “heterodox” pricing policies, but we should not make overly strong inferences from this. Part of the Bolivian experience reflects the special characteristics of a hyperinflation rather than a mere high inflation.

In Bolivia, the inflation ended as soon as the exchange rate was stabilized because the preceding hyperinflation had eliminated all long-term price contracts from the Bolivian economy. By August 1985, most prices in Bolivia were set on a spot-market basis. Often, the prices were quoted in dollars, with the Bolivian peso price being determined by the dollar price multiplied by the black-market exchange rate at the moment. In these circumstances, inflation is basically equal to the rate of depreciation of the black-market exchange rate. If the exchange rate can be stabilized, inflation will immediately revert to the rate of increase of *dollar* prices. Indeed, in early September 1985, the exchange rate stopped depreciating and the Bolivian inflation was over.

In other countries, however, it may happen that the exchange rate is stabilized but that domestic prices continue to rise. Such was the case of

Chile during 1979–81.⁴ The difference between Bolivia and these other cases seems to lie in the nature of hyperinflation, in which all vestiges of long-term pricing in the domestic currency disappear. For less rapid inflations, staggered price contracts denominated in the domestic currency, or backward-looking indexation to the domestic CPI, can break the tight link between inflation and the exchange rate. Thus, countries with high inflations but not hyperinflations might be wise to combine exchange rate stabilization with other pricing measures in order to achieve a rapid return to price stability.

The 1985 Israeli stabilization is a clear example of the combination of orthodox stabilization policies combined with elements of “heterodoxy” in order to achieve a rapid disinflation. As in Bolivia, the key to Israel’s stabilization program was a dramatic and sudden cut in the budget deficit. And as in Bolivia, the stabilization of the exchange rate provided the “nominal anchor” in the stabilization, that is, the key price whose fixity was central to price stability throughout the economy. But in Israel, as opposed to Bolivia, the government also negotiated an agreement with the Histadrut, the national trade union movement, which called for a short-term freeze of wages and prices. Notably, the union agreed to this freeze *conditional on the continued stability of the nominal exchange rate*. Thus, as in Bolivia, the Israeli stabilization was, at the core, built upon nominal exchange rate stability.

7.3.2 Stabilization and Structural Adjustment Policies

One of the continuing debates among economists and policymakers is the appropriate mix of “stabilization” policies (budget cutting, tight monetary policy, etc.) with “structural” policies (trade liberalization, privatization, etc.). Some argue that stabilization should precede structural adjustment policies, while others say that the stabilization and structural adjustment policies should be pursued in parallel. Once again, the Bolivian case sheds some light on these arguments.

The Bolivian stabilization program began with the remarkable presidential Supreme Decree 21060, which instituted a wide-ranging liberalization program in conjunction with the short-run stabilization measures. It is important to understand the motivations for this joint action. To a significant extent, to be sure, the designers of the stabilization program were aware that Bolivia needed to undergo major structural adjustments, especially to develop new export markets, in order to compensate for the long-term secular decline of Bolivia’s major export, tin. But the motivations for the liberalization went beyond the textbook arguments for outward trade orientation and an efficient allocation of resources.

The designers of the stabilization program were aware of the enormous administrative overload that Bolivia’s model of state capitalism had created.

The state sector was not only financially bankrupt but administratively bankrupt as well. There was little administrative capacity to carry out the most basic functions of government, much less to implement a refined program of industrial policy based on an elaborate scheme of price controls, transfers, and subsidies. Price controls that were in place were haphazardly enforced, subject to enormous corruption, and often had bizarre and unintended consequences. Grain subsidies, for example, resulted in enormous smuggling of flour to neighboring countries and the enrichment of millers, rather than any significant benefit to the poor.⁵ Significant amounts of cheap gasoline were being smuggled in tanker trucks across the border with Peru. Cheap credits to agriculture were simply fueling the black market, rather than creating any additional agricultural output. Under these circumstances, much of the economy was already de facto liberalized, with many prices—even those under formal controls—effectively being determined by world market conditions. Price controls often had bizarre and regressive effects, with powerful or clever middlemen able to arbitrage the gaps between official prices and world prices.

For these reasons, the liberalization of prices was viewed as a basic part of the *short-term* stabilization strategy, as well as a part of the long-term development strategy. By freeing up prices and withdrawing from the business of setting a wide range of quotas and prices, the government therefore hoped to accomplish many things: to free top government officials to focus on the crucial fiscal measures in need of immediate implementation; to eliminate many of the costly and distributionally perverse income transfers implicit in the existing system of price regulation; to reduce the need to monitor government policies, so that the scarce administrative machinery could focus on tax collection and budget cutting rather than on the administration of a complicated system of wage and price controls; and finally, to send the right price signals needed to encourage the movement of resources into new tradables sectors.

As discussed below, the long-term structural adjustment to the liberalization policies is still in the early phases, despite several years of stabilization. While there has been some rise in nontraditional exports, there have still not developed major new export sectors that can compensate for the collapse of tin exports. Bolivia has still not generated the needed internal savings to finance the development of a major new export sector, and external savings are unlikely to make up the difference in view of Bolivia's enormously high country risk. At the same time, Bolivia remains stuck without its most obvious new market: Brazil. It is only very recently that Brazil has shown an interest in easing its heavily protectionist policies to allow an increase in imports from Bolivia.