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por
Juan Antonio Morales

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Bolivia experienced between the first quarter of 1982 and the fourth quarter of 1985, the highest inflation in the history of the Latin American republics. High inflation, but not at hyper rates had been present since the early months of 1982. Hyperinflation, if one uses Cagan's (1959) criterion, started approximately in April 1984 and ended in the first days of September 1985. In the seventeen months of hyperinflation, prices increased by a factor of 623 and the average monthly inflation rate was 46 percent. Sachs (1986) ranks the Bolivian hyperinflation as the seventh in the 20th century.

The stabilization program initiated on August 29, 1985 has put a dramatic end to the plight: the March 1986 to March 1987 (annual) inflation rate was 21 percent or equivalently an average monthly rate of 1.6 percent. Inflation carne to an end in two moments after the program began: in the first moment, the growth rate of prices fell rapidly to the point of becoming negative, but was followed by a strong upsurge in inflation three months after; this called for additional measures that only then, in a second moment, have effectively stopped the process.

As a background to the hyperinflation and stabilization, the following factors have to be taken into account. Bolivia is a poor country a per capita GNP of around U$ 500 and a very small industrial base (manufacturing was 1.2 percent of GDP in 1985). Bolivia is an export economy that relies on two major exports, one of which, tin, is subject to strong fluctuation in world markets, and the earnings of the other, natural gas, depend very much on political considerations unwinding in the context of a bilateral monopoly. Among Bolivia's legal exports (i.e. excluding cocaine), tin and natural gas accounted for 58 percent of merchandise exports in the 1970's, and 79 percent in the first half of the 1980's. This composition of exports gives high vulnerability to Bolivia's foreign trade and also reflects on internal stability, because of the weight of taxes bearing on the external sector. Axes related to the

* I am grateful to Michael Bruno and Jeffrey Sachs for their useful suggestions on an earlier version. I remain responsible for errors and viewpoints.

foreign trade sector constituted on average 55 percent of government revenue, between 1981-1985.

A mention of cocaine trade should be made in this presentation of the background. Bolivian economics and politics are significantly affected by the presence of trade in cocaine. Conservative estimates give about the same value for cocaine exports as for legal exports, and value added in cocaine and cocaine-related activities may represent around 12 percent of legal GNP. These and higher figures appear in Doria-Medina (1986). With regard to inflation and stabilization, there is some evidence that cocaine producers were major suppliers of foreign exchange to the crucial black market. It may be conjectured that, with a stable demand for foreign exchange, the characteristic price jerks in the black market were caused by supply shock derived from the vagaries of the cocaine trade. It should be stressed that failure to take strong action against the production of coca and cocaine hindered the flow of external resources to support the stabilization attempts on several occasions, between 1982 and 1985.

Bolivia was not a country chronic inflation before high inflation erupted in 1982, neither dad she have an abundance of built in mechanisms that tend to perpetuate inflation as happened in some of the countries of the region. Indexation was confined to the financial market. Between 1957 and 1981 the inflation rates were generally low, except when following devaluation and there were only two of them over the period. The genesis of inflation was somewhat different from the ones discussed in this book. Untreated fiscal ailments, hidden transitorily by access to foreign credits, were more clearly behind the origin of inflation than elsewhere. When the net flow of external resources became negative, inflation jumped upwards. High inflation interacted with the chronic Bolivian political instability, which in turn is partly explained by the acute distributive claims to the national income of a poor country. The Bolivian inflation had also two other distinctive characteristics. First, the rates were much higher than in Argentina, Brazil or Israel. Second, long-term peso contracts were inexistent and the short-lived wage indexation mechanisms were in shambles by the final months of hyperinflation. The economy had become indexed to the dollar in a very significant extent, although not completely, when the stabilization program was initiated in August 1985.

Note also that the smallness of the Bolivian manufacturing and modern mining sections, and more generally, the lack of industrial tradition, have important bearing on the economics and politics of stabilization. First, there are fewer markets with rigid prices in an

economy of this type than in one where the industrial sector, with ah its price-setting mechanisms, is large. Second, wage earners constitute only a small fraction of the labor force and their eventual opposition to stabilization measures may not be shared by the population is large. In Bolivia, strong militancy and mobilization made up for the small numbers but, in the long run, continuous confrontation with government was on the endurance of labor. Third, in most cases before the installation of indexation in 1982, labor contracts did not carry well-defined periods of validity. Money wages were negotiated by the unions, individually or coalesced in the Confederation of Bolivian Workers, and with Government arbitration, whenever they felt the need to recoup past losses in real wages. A prudent waiting interval was, however, always observed between two wage readjustments.

The Bolivian stabilization program is closer to the orthodox IMF package than to the heterodox approaches discussed in the other contributions to this book. It is a shock program, whose main thrust is fiscal correction. It was accompanied by a very ample program of market liberalization.

This paper is organized as follows. The discussion on the features and accomplishments of the program is preceded by some remarks on the nature of Bolivian hyperinflation in Section 1. Details of the stabilization program are given in Section II. Significant space has been devoted in Section III to the description of how the program has worked until now: its intended as well as its unintended results. In that section, a preliminary evaluation of the achievements and the costs is included. Section IV has a presentation of the policy issues as of June 1987. A short Section y includes some concluding remarks.

I. The Immediate Conditions: Open Hyperinflation

The means of stopping the Bolivian hyperinflation can be better evaluated after a description of the inflationary process itself. This section includes a short background. More complete accounts can be found in Sachs (1986), Kharas and Pinto (1986), and Morales (1986).

a) Allegro Vivace

High inflation was preceded by intense political turmoil. The four years from 1978 to 1982 witnessed several interim presidents, coups, and stalemated elections; there were a total of fine chiefs of state. The political chaos of the period had a paralyzing effect on the economy as the surrounding uncertainty delayed the recognition of the nature of the impending crisis, whose precursor symptoms were already there, and obstructed the decision-making process. Quite unfortunately for Bolivia, the internal political chaos and the onset of the world recession of 1981-1982 overlapped. The political conditions impaired the necessary corrections in the fiscal front and delayed the adjustments to redress the disequilibrium in the external accounts that had been aggravated by the international conditions. Indeed, by December 1981 the exchange rate was grossly overvalued, the fiscal deficit was large, the degree of external indebt ness in regard to GDP was already very high, and new and expensive short-term foreign loans had been added to the large debt to sustain consumption levels. The shaky political situation precluded the corrections out of fear of implications on income redistribution implications. Furthermore, Bolivia remained largely isolated from the discussions in international academic and official circles on the ways to cope with the crisis and many of the macroeconomic mistakes can be attributed to this.

Fatigue with the deterioration of the economy and the political instability, forced the military to reconvene the Congress elected in 1980, which in turn, acting as an electoral college named the civilian Hernán Siles Zuazo as president in October 1982. Siles Zuazo had been elected and governed with a coalition of center-left and leftist parties including, as a junior partner, the Communist Party of Bolivia. The composition of Siles Zuazo Cabinet had indeed far-reaching implications for the economics of inflation. The aggravation of inflation, culminating in hyperinflation, occurred during his term.

Table 1

Bolivia, Key Indicators, 1980-1985

	1980	1981	1982	1983	1984	1985	1986
A. Prices, Exchange Rates and Wages (1980=100)[a]							
1. Consumer Price Index	100.0	132.2	295.4	1.109.4	15.324.7	1.815.918.7	6.833.885.5
2. Official Exchange Rate	100.0	100.0	200.3	1.007.8	11. 389 .9	1.844.462.1	8.395.124.4
3. Parallel Market Exchange Rate	100.0	128.5	587.6	2.635.9	33 .814 .4	1.932.865.5	9.140.008.2
4. Nominal Wage	100.0	120.7	210.4	812.0	17.366.0	1.032.814.6	3.865.232.0
B. Annual Inflation Rate (%)[b]	47.2	32.2	123.5	275.6	1.281.4	11.749.6	276.3
C. Monetary Indicators							
1. Annual Rate of Growth of Base Money (%)[c]	-	11.4	125.2	242.5	585.1	7.820.4	355.6
3. Ml (% GDP)[d]	9.6	8.6	7.6	7.5	3.6	2.6	3.9
4. M2 (% GDP)[d]	9.6	8.8	7.4	6.4	3.4	2.6	3.9
5. Interest Rate [e]	15.8	15.4	14.3	11.0	4.7	4.9	7.7
	28.0	45.0	45.0	62.0	150.0	231 .1	65.1
D. Relative Price Levels (1980100)							
1. Real Effective Official Exchange Rate[e,i]	100.0	n.a	135.4	162.6	281.3	78.3	84.3
2. Terms-of-Trade	100.0	99.7	98.1	99.3	104.1	104.3	81.9
3. Real wage [e]	100.0	91.3	66.6	63.3	61.0	59.3	55.7
E. Consolidated Public Sector Deficit (% GDP)	9.0	7.8	14.7	19.1	27.4	9.1[g]	4.0
F. External Sector						623.4	
1. Exports FOB (millions of U$)	942.2	912.4	827.7	755.1	724.5	551.9	543-4
2. Imports CIF (millions of U$)	678.4	975.4	577.5	589.1	491.6	-9.2	717.5
3. Current Account Balance (% GDP)	-1.5	-12.7	-5.6	-5.5	-5.1	86.2	-10.7
4. Debt Outstanding & Disbursed (% GDP)[f]	62.9	69.2	71.2	82.3	84.1	457.2	88.4
6. Total Debt Services (% GDP)[f]	217.7	268.0	306.2	364.4	394.5	6.6	511.0
7. Total Debt Services (% Exports of Gods % NF Services)[f]	8.2	7.3	7.4	7.6	8.4	34.8	4-5
	28.4	28.1	31.7	33.3	39.5		26.2
G. Output, Investment, Savings and Employment							
1. GDP per capita (U$ dollars)	825.0	799.0	733.0	662.0	664.0	588.0	555.0
2. Annual Rate of Growth of Real GDP	1.2	-0.4	-5.6	-7.2	-2.4	-4.0	-2.9
3. Gross Fixed Capital Formation (% GDP)[h]	13.9	13.0	7.9	3.1	10.0	5.7	6.1
4. Gross National Savings (% GDP)[h]	13.4	4.2	7.4	4.0	6.9	0.8	0.9
5. Unemployment Rate (%)[I]	5.8	9.7	10.9	13.0	15.5	18.0	20.0

Sources: Prices, Exchange Rates, Wages, Real Wages, Unemployment Rates and Monetary Indicators from UDAPE. Anexo Estadístico (La Paz: UDDAPE), December 1985. Unpublished UDAPE data, and Banco Central de Bolivia, Boletín Estadístico, various issues. Real Exchange from unpublished IMF and UDAPE data. Terms-of-Trade from CEPAL, Statistical Yearbook for Latin America and the Caribbean, various issues, and unpublished World Bank data. Balance-of-Payments from IMF, International Financial Statistics, Yearbook, February 1986 and unpublished UDAPE data. External Debt figures from World Bank, World Debt Tables, and 1986 edition. Fiscal Budget figures from IMF unpublished data and author's estimates. National Accounts from Banco Central de Bolivia, Boletín Estadístico, various issues and unpublished World Bank data.

Notes: [a] Annual averages
[b] Year-to-year changes of annual average price levels
[c] Year-to-year of annual average money stock
[d] Based on annual average money stocks
[e] End-of-year
[f] Based on end-of-year debt values, only public and publicly guaranteed long-term debt is included
[g] Preliminary estimates
[h] Derived from figures at current prices
[i] Increasing values indicate appreciation

The sudden reversal in the net flow of external resources, in the first months of 1982, as a consequence of the international debt crisis can be identified as the proximate cause of the high inflation rates. At the onset of the crisis, Bolivia found herself with a large foreign debt. The debt was moreover heavily concentrated in the public sector. In the second half of the seventies, foreign credits had been the main source of financing of public investment projects and, by substitution, of fiscal current account deficits. At the end of 1981, the ratios of Total External Debt to GDP and Exports of Goods and Non-Factor Services were 81 percent and 306 percent respectively; the same ratios for the Public Long Term Debt (Outstanding and Disbursed) were 69 percent and 268 percent, respectively.[1] Bolivia was already experiencing difficulties honoring her debts when the international crisis broke. For instance, arrears on amortizations to the private creditors had built up between the third quarter of 1980 and the second quarter of 1981.[2]

The reversal in external resources flows carne with this background of indebt ness. It should be underscored that Bolivia did not suffer a terms-of-trade shock, as other countries in the region when the crisis began. Unanticipated increases in the average interest rate during 1981-1981 and a shortening of maturities had a more important impact than the terms-of-trade deterioration, but the most important shock carne with the fact that Bolivia was rationed out of credit quite suddenly.

As the foreign exchange reserves dwindled, Bolivia had first to devalue very significantly and then speculation against the peso forced the monetary authorities to abandon in March 1982 the regime of unified fixed exchange rates for a while in favor of a dual regime, with an official rate reserved for wheat imports and public foreign debt servicing and a parallel free market rate for all other transactions. Exporters had to surrender 40 percent of their export proceeds to the Central Bank at the official rate.[3] The peso depreciated very rapidly in the parallel market between March 1982 and October 1982. (See Table Al in the Statistical Appendix). In the public sector, the negative net external resource flow met with a substitution of foreign sources by internal financing. The rapid peso depreciation in the parallel market worsened the fiscal deficit, which in turn was financed issuing money and this

[1] The figures are derived from World Bank Debt Tables, 1986 Edition.

[2] The resolution of the problem of arrears led to an onerous rescheduling of the Bolivian debt to private creditors in April 1981. On this point, see e.g. Ugarteche (1986).

led to more depreciation. The situation became clearly unstable by September 1982.

The process of inflation was already well on its way when the new government of President Hernán Siles Zuazo was installed in October 1982. A few weeks after his inauguration a stabilization plan was announced the first one of at least six attempts during his term. It is worth devoting some lines to this program for two reasons. First, the Bolivian press tends to attribute to the overhang of this initial move the failure of economic policy during the Siles Zuazo administration. Second, some important lessons can be drawn of its developments in the aftermath.

This first stabilization program was indeed the more heterodox of ah of them, containing on the hand standard measures to correct relative prices (including a strong devaluation of the official exchange rate by 78 percent and hikes in the prices of publicly provided goods and services), and on the other hand a return to a fixed exchange rate with controls, a set of ceilings for the prices of essential goods and interest rates, and the establishment for the first time in Bolivia of wage indexation with a "trigger" device of automatic readjustment of the minimum wage whenever cumulative inflation since the last wage correction hit 40 percent.[4] Foreign exchange controls were accompanied by "de-dollarization of contracts among Bolivian residents.[5]

The program of 1982 melted quite rapidly. While the Consumer Price Index grew at relatively low rates for two months, telling signs of forthcoming trouble appeared almost immediately in the by now flourishing black market for foreign exchange.[6] Indeed the premiums increased to more than 100 percent by the end of February 1983. (See Table A3 in the Statistical Appendix).

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[3] The collapse of the foreign exchange regime of March 1982, was an important proximate determinant in the emergence of inflation. See Morales (1986).

[4] The Bolivian plan of November 1982 can probably be classified in between heterodox and "poets" in the Dornbusch-Simonsen taxonorny. See Dornbusch and Simonsen (1986).

[5] "De-dollarization" converted de jute dollar-denominated contracts to peso contracts. In fact, the ultimate result, although unintended, was to rationalize the foreign debt held by the private sector. In the process, some small depositors in the banking system were also penalized. De-dollarization was one of the most controversial measures of the Sites Zuazo Administration.

[6] The Sites Zuazo administration never attempted to check seriously the expansion of the black market for foreign exchange. The market became semi-legal in November 1983, when some foreign exchange deals were allowed to go there. In February 1985, exporters were granted the right to sell between 20 and 30 percent in their proceeds, depending on the type of commodity exported, in the black (or parallel) market. This of course, increased their effective exchange rate very significantly. During the final months of hyperinflation, the percentage (in value) of imports brought in with dollars at the official exchange rate was very small. This feature facilitated unification of the exchange rates after the

After March 1983, inflation accelerated. The foreign exchange and price controls to check inflation proved themselves to be futile over the medium run and, worse, pernicious, with welfare costs as well as unbearable fiscal costs. A situation of excess demand at the controlled prices appeared with severe shortages and thriving black markets (including the one for contraband exports) of staples provided by the private sector. With reference to the fiscal sector, in addition to the familiar Olivera-Tanzi effects on the real tax base, the severe overvaluation of the official exchange rate had strongly negative repercussions both on the public export enterprises and on the Central Government, given the importance for tax revenues of the foreign trade.[7] Similarly, prices of publicly provided goods and services lagged inflation very significantly further contributing to the deterioration of the public sector finances. The extent of the fiscal catastrophe is shown in Table 2.

The public sector deficits were increasingly financed by the Central Bank, and by the building up of arrears on the public external and internal debt. The private sector producers under controlled prices besides diversion to black markets knocked on the door of government for subsidies. The most important mechanism of subsidization was that of Central Bank loans to the banking system, and ultimately to producers, at very negative real interest rates. In many markets, private producers were compensated by cheap credit for selling their production at the controlled prices that were completely below equilibrium prices. Money creation was the result as much of loans to the private sector, needed because of incorrect administered prices, as of financing of the public sector deficits. (See Table 3).

In the beginning months of Siles Zuazo Administration, the labor unions lent support to the government in exchange for significant wage increases. As inflation accelerated and austerity measures had to be taken, the original labor support became bitter opposition. The unchecked "wage race" in the public sector curtailed the many attempts to reduce real public expenditures. Public expenditures needed to fall in face of falling revenues.

The financing of the fiscal deficits and the subsidized loans to the private sector (that we may label quasi-fiscal deficits) with the issuance of money by the Central Bank lost its effectiveness rapidly as the demand for money decreased.

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stabilization plan of August 1985.

[7] References to the Olivera-Tanzi effects are, of course, Olivera (1967) and Tanzi (1977).

Table 2

Summary of Public Sector Operations
(As percentage of GDP)

	1980	1981	1982	1983	1984	1985
1. Current Revenues General Government	13.1	15.3	10.9	6.9	4.6	11.1
a. Of which tax revenues	8.7	8.9	4.9	2.8	2.8	8.8
2. Current Expenditures of General Government	-16.5	-17.9	-21.6	26.0	-25.4	18.8
3. Current Account Balance of General Government	-3.4	-2.7	-10.7	-19.2	-20.7	-7.7
4. Current Account Balance of Public Enterprises*	1.2	2.1	3.0	1.3	-2.4	2.1
5. Current Account Balance of Consolidated Public Sector (Sum of Lines 3 and 4)	-2.2	-0.6	-7.7	-17.9	-23.1	-5.6
6. Capital Revenue of Consolidated Public Sector	0.2	0.5	0.6	4.5	0.3	0.3
7. Capital Expenditure of Consolidated Public Sector	-6.9	-7.4	-7.4	-5.7	-4.6	-3.6
8. Net Lending of Consolidated Public Sector	-0.1	-0.3	-0.2	0.0	0.0	0.0
9. Over-All Surplus (+) or Deficit (-) of Consolidated Public Sector (Sum of Lines 5 and 8)	-9.0	-7.8	-14.7	-19.1	-27.4	-9.1
10. Financing of Consolidated Public Sector Deficit	9.0	7.8	14.7	19.1	27.4	9.1
a. External Net	4.9	4.9	-1.0	-1.6	2.3	0.2
b. Internal Net	3.9	3.0	16.6	20.7	25.1	8.9
c. Short-Term Foreign Loans	0.2	-0.2	-0.9	0.0	0.0	0.0

Source: From unpublished IMF data tax Revenue of the Central Administration
* Non-Financial Public Enterprises

Table 3

Sources of Expansion of the Money Base 1982-August 1985[a]
(As percentage of GDP)

	Net Foreign Exchange Reserves (1)	Net Credit to Public Sector (2)	Credit to Banks (3)	Other (4)	Money Base (5)=(1)+(2) +(3)+(4)
1982	-8.9	11.4	2.6	4.7	9.8
1983	82	8.9	1.6	-10.6	7.9
1984	3.3	3.3	3.4	0.5	10.4
1985[b]	1.4	1.1	2.6	6.5	9.5

Source: Author's Estimates based on Central Bank of Bolivia data
a Annual average based on quarterly changes divided by quarterly GDP
From January 1985 to August 1985

b) Prestissimo

The situation degenerated in the second quarter of 1984 in a clear case of hyperinflation.[8] Between March 1984 and August 1985, prices increased by a factor of 623. This gives an average monthly rate of inflation of 46 percent. In February 1985, inflation beat all Latin American records: 182 percent.

Hyperinflation was the most visible element in a picture of general economic decline. Between 1982 and 1985, GDP fell by 18 percent and the investment rates diminished steadily to reach an all-time low of 5.7 percent in 1985. The accumulation of external debt continued mostly under the form of conversion of short-term loans in Medium and Long-Term loans and unilateral capitalization of interests. (See Table 1). There is no doubt that inflation, especially the government attempts to suppress its symptoms, and the surrounding uncertainly had important real supply-side effects. The real costs were compounded by the fact that a significant part of the economy went underground to escape the government controls. Inflation and controls were not of course the only culprits of the chaos: the external adjustment needs and the attendant foreign exchange constraints were as pernicious.[9]

In regard to real wages, it should be mentioned that between 1982 and 1985 the trend was of deterioration, but moving on a seesaw in the short run. The trigger mechanism of indexation was abandoned in April 1984 and replaced by a system with a fixed periodicity of four months. In the final months of hyperinflation, the adjustment interval was changed to a month. It must be said however that the wage regime was in shambles after the second quarter of 1984, with the government trying to buy time before any due adjustment, and the unions obtaining concessions outside the legally defined indexation interval. It is interesting to note that the unions never claimed forcefully for reductions in the pay periods as it happened with hyperinflationary experiences in other countries. Dollarization and the development of a vigorous retail market for dollars probably explain this.

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[8] The monetary dynamics of the Bolivian hyperinflation can be fairly well represented by models akin to he ones in Bruno and Fischer (1985) and Dornbusch and Fischer (1985). On this point, see also Sachs (1986) and Morales (1986). Kharas and Pinto (1986) have an explicit open-economy model of the Bolivian process.

[9] As has been mentioned, foreign debt service was a heavy burden during the period, although in May 1984, the government under strong pressure from the labor unions decided to stop payments to the foreign commercial banks. In

Inflation interacted with serious political instability. Numerous strikes and other forms of work stoppages marred both production and policy making. Cabinet reshuffles were frequent: over the thirty-three months of the Siles Zuazo Presidency there were seven ministers of finance and an equal number of Central Bank presidents.

There were six attempts at stabilization between November 1982 and August 1985 and all of them failed. Each stabilization package contained a devaluation (open or concealed) and other corrections of relative prices, and increasing liberalization of markets, except the first one. Two attempts, in April 1984 and February 1985, were fairly orthodox and close to the standard IMF package. In February 1985, a fiscal rescue operation was undertaken under the form of indexation of taxes and interest rates, but to no avail.[10] General strikes organized by the Confederation of Bolivian Workers gave a killing blow to the April 1984 and February 1985 stabilization attempts.

c) Adagio

The worsening of the situation obliged President Siles Zuazo to call for early elections in 1984. The election were won by center and center-right parties, with the left suffering a heavy defeat which at the same time weakened the labor unions. Víctor Paz Estenssoro succeeded Siles Zuazo in August 1985. Paz Estenssoro rules with the support of center-right and rightist parties in Congress, and several prominent businessmen hold key posts in his Cabinet.

By August 1985, the situation was ripe, both economically and politically, to try to stabilize once again. The low real value of the money base gave a favorable precondition for a new attempt. Long-term peso contracts had almost completely disappeared, the wage indexation mechanisms (and the labor unions) were discredited, and the economy had become very (but not fully) dollarized to the point of using dollars, indistinctly with pesos, in small transactions.[11] At the same time there was a strong social demand for stabilization, even for a

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addition, long delays in payments by Argentina for Bolivian natural gas sales frequently caused severe Liquidity problems.

[10] The failure of the stabilization attempts between 1982-1985 is examined in some detail in Morales (1987). Kharas and Pinto (1986) in a formal model show that the rule, typical in the packages of these years, of devaluing the official exchange rate towards the black market rate, led to a steady-state high inflation rate, exhibiting saddle-point stability. The result is indeed intriguing but depends on some strong assumptions.

[11] Dollars have been used as a medium-of-exchange for domestic transactions for some large deals, for instance in real state, since at Least the early fifties. Their use in ordinary transactions was very rare before the high inflation episode. In the

shock treatment, and whatever new government could enjoy a long honeymoon if set on suitable policies incorporating some imagination. The new government (and the public) became rapidly convinced that hyperinflation had to be stopped even at the cost of a full, but hopefully short, recession.

Supreme Decree 21060 announced on the 29th of August 1985 contained the main elements of the stabilization program and the underlying rationale. SD 21060 and the complementary measures included in the so-called "New Economic Policy" (NEP for short) have stopped inflation. Details of the program, the achievements and the unresolved problems appear in the following sections.

final months of hyperinflation, dollar bills in small denominations were employed and accepted alongside with pesos. There were also reports that in the Eastern City off Santa Cruz, the second largest in Bolivia, pesos were no Longer accepted in some hardware and grocery stores. Domestic currency was substituted in a very significant way, but substitution was far from complete. Payments to the government for taxes of goods and services, and of wages and salaries, with few exceptions, were always made in pesos.

II. Features of the Stabilization Program

The core of the stabilization program (and of the NEP) is given by: (1) Drastic measures of fiscal correction. (2) A unification of exchange rates and a return to full convertibility. A full liberalization of markets has accompanied the program. As a side comment, it should be mentioned that the Bolivian Congress approved a monetary reform in 1986, changing the national currency unit from the peso to the boliviano. One Boliviano equals one million pesos. The intention of the reform was to facilitate the accounting and day-to-day operations. This reform does not have a major role in the stabilization program.

a) The Fiscal Package

The fiscal measures deal with the revenue and expenditure sides of the accounts of central government and the public enterprises. The program did not state explicitly, when it was announced, a target on the fiscal deficit. There was however a declared intention that it be as close to zero as possible. Quantitative targets carne later, in April 1986, when the budget was passed and followed by a Stand-By agreement with the IMF.

In regard to revenue, a key measure was to raise the price of gasoline and other petroleum products -that are provided by the state enterprise Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) and were grossly undervalued at border prices- to levels slightly above the international ones. (Gasoline prices increased overnight by a factor or seven in real terms). This benefited very quickly YPFB and the Central Government with the collection of excise taxes. As important, the government called for immediate payment of the substantial back taxes, revalued at the new prices, owed by YPFB. Given the new prices, YPFB was in a position to make up for all tax liabilities. Taxes on gasoline and other oil products had two advantages when program was unveiled: First, they could be collected very rapidly and evasion was almost nil. Second, the initial prices were so low, that a correction provided a once-and-for-all significant jump in revenues. To prevent future lags in prices of oil derivatives (and other publicly provided goods and services) SD 21060 fixed them in dollar terms. Subsequently, the government indexed taxes to the dollar as well.

The de facto devaluation (93 percent) that accompanied the unification of exchange rates, to which we refer below, had also an important net positive impact. On fiscal revenues, given the importance of taxes on foreign trade and the presence of public enterprises in the export markets.

The steps taken to reduce expenditure were almost as dramatic. All wages in the public sector were frozen at their pre-stabilization (nominal) levels, after a consolidation of extra bonuses to the basic wage, with some ceilings hat actually reduced the annual money salaries of some specialized workers. The low wages induced, quite naturally, "voluntary' retirements from the public sector. In addition, the NEP called for a substantial reduction of employment in the public sector, both in the public enterprises and in the central government. Several state enterprises were dismembered and their parts transferred to local governments. The avowed intention in doing so was to facilitate their privatization.

The severe terms-of-trade shock suffered by Bolivia in the last quarter of 1985, soon after the stabilization program was announced, added a strong reason to the government to reduce employment in the main export state enterprises. In the last quarter of 1986, twenty-three thousand out of thirty thousand miners of the state-owned mining enterprises Corporación Minera de Bolivia (COMIBOL) were discharged. In YPFB employment was also reduced but in less dramatic proportions than in COMIBOL. By March 1987, employment in the public sector had decreased by 10 percent.[12]

To sum up, the real wage bill in the public sector has been reduced by the conjunction of lower real wages, and by dismissals and a significant number of desertions.

The stabilization program enforced a temporary freeze on public sector investment. After two years of implementing the program, investment in the public sector is still very parsimonious. In addition to the freeze on investment, the state enterprises have been subjected to a very tight grip on their current operations that only recently is loosening somewhat.

In 1986 and 1987, the consolidated public sector budgets have been passed by Congress and they have been used effectively as guidelines for fiscal behavior. Strict

[12] The dismissal of more than 60 percent of the employees of the Central Bank of Bolivia illustrates the will of the government to reduce its size. Over-all figures on the reduction in public sector employment reflect its impact incompletely, since relatively few Lay-offs have taken place in the military and among public school teachers where the bulk of public employment is found.

obedience to the budget is a cornerstone of the stabilization program. For the first time in many years the state enterprises are generally respecting their budget constraints. These are significant regime changes in Bolivia, in contrast with the frequent discretionary behavior in the past, particularly during the high inflation period.

Bolivia has not been servicing her debt to the private foreign creditors, mainly commercial banks, and arrears with them are currently very substantial; but she has been negotiating, with a high probability of success, a partial debt cancellation and repurchase. Bolivia has normalized her situation with lending governments and official multilateral banks.[13] It should be underscored that during the first fine months, virtually the only external source of financing the program was the accumulation of arrears on the debt to private foreign creditors.

In mid-1986, a new tax law was approved by Congress. A Value Added Tax of 10 percent and some wealth taxes are in the core of the new legislation, and it can be easily verified that the tax incidence incorporated in the reform is essentially proportional to income, except for very low incomes. Fiscal expediency has been the dominant factor in the design and equity considerations seem to be absent.

b) Exchange Rate Unification

The unification of exchange rate is the other pillar of the stabilization package. This has been obtained through a rather ingenious mechanism of dirty floating that works as follows. Private agents are allowed to buy and sell foreign exchange at whatever price they agree, but the Central Bank sells foreign exchange to the public in a daily open auction. The Central Bank buys foreign exchange at the average price fixed in the last auction. The main suppliers to the Central Bank is the public enterprises. In principle, exporters are obliged to surrender 100 percent of their foreign exchange proceeds to the Central Bank, but in fact this rule is binding only for the public sector exporters, since private enterprises can repurchase their sales in the auctions of the Central Bank.

[13] Bolivia has renegotiated her debt with creditor governments in the Club of Paris in June 1986. Details on the agreement appear in Müller & Machicado (1986).

Intervention of the Central Bank in the auction has two prongs: (1) A base price for ah bids to participate in the auction. (2) The amount that is offered in each auction. Bidders do not know beforehand, neither the base price nor the amount offered by the bank, and thus they have to process the information provided by the previous auction. Since February 1986 the Central Bank has been intervening as another bidder. This poses the question of how flexible the exchange rate regime is in fact.

c) The Program of Liberalization

The stabilization program was accompanied by a very ample program of liberalization of markets. Price ceilings, except for publicly provided goods and services and a handful of public utilities, have been eliminated. There are no quantitative restrictions nor other barriers to domestic and international trade. Import tariffs have been fixed at a uniform rate of 20 percent and there is an ongoing discussion in government circles to lower them to a uniform level of 10 percent. To avoid anti-export biases in the tariff structure, about ah exporters are granted a uniform tax rebate on their inputs equal to 10 percent of the FOB value of their exports.

The extent of financial liberalization is also very significant. All ceilings (and floors) on interest rates have been eliminated. Bank is allowed to participate without restriction in the financing of foreign trade operations and in transactions of the capital account of the Balance--Payments. Depositors can open dollar and dollar-indexed accounts, and banks can make dollar and dollar-indexed loans, along with peso credits in any way they deem convenient. Moreover, dollar and dollar-denominated accounts have very small legal reserve requirements. An ongoing profound reform of the Central Bank should also be placed in the financial liberalization package.

In the labor market, legal restrictions to freely discharge workers in the private sector have been attenuated. The NEP has returned to the system of market adjustment in individual wage negotiations between employees and employers, eliminating the supervisory powers on labor contracts of the Ministry of Labor, and the peculiar ways of collective bargaining that prevailed before in Bolivia. Moreover, compulsory across-the-board wage indexation and, at first, minimum wage provisions were eliminated. Subsequently, a very low minimum wage

was fixed (currently around U$ 25 per month). The only significant practical implication for such a low wage is for Social Security Pensions where it serves as a baseline. The reservation wage (or supply price) of ah other workers in the labor force, even of unskilled teenagers, is presumably well above that minimum wage.

d) The Anchors for Inflation

Although de facto stabilization started in the foreign exchange market, as is shown in Section III, the stabilization program did not initially seek to use exchange rate to anchor inflation. In a somewhat rhetorical way SD 21060, that is the heart of the program, proposed the concept of "real, unique and flexible exchange rate". Real meant in the context of the decree "realistic". In the spirit of SD 21060, the exchange rate was intended to play a role as important for recovery as for stabilization. Notwithstanding the original position, after a short revival of inflation in December 1985 - January 1986, stabilization has focused very explicitly on the exchange rate.

In the beginning of the stabilization program, the government committed itself to drastically check the expansion of "monetary emission"; however no specific quantitative targets were fixed. The signal to the public was clearly of the rate of growth of money and given the nature of the fiscal correction, the commitment was credible. Monetary emission is of course a very primitive concept and, after a short-while, it had to be qualified and changed to "inorganic monetary emission", that is, expansion of the money base unbaked by foreign reserves.

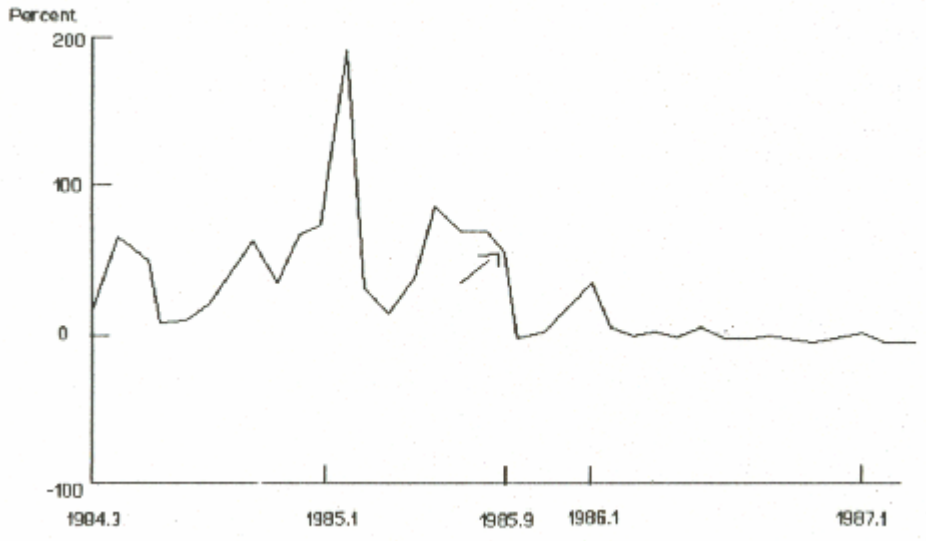
Last but not least, in a country like Bolivia, the freezing of wages in the large public sector and the tough stance towards the labor unions of the state enterprises added a strong ingredient to the credibility of the commitment to check "inorganic" money growth and, ultimately, inflation. For a sizable fraction of the public, the wage freeze became tantamount to controlled fiscal deficits and money creation.

III. Stabilization Results to Date

a) The Achievements

The most important achievement is the dramatic fall in the inflation rates as can be visualized in Figure 1 and in Table A2 in the Statistical Appendix. Except for the months of September 1985, and the period going from December 1985 to February 1986, to which a reference is made below, the monthly inflation rate has been systematically lower than 4.3 percent. The annual inflation rate from March 1986 to March 1987 was 21 percent, or 1.6 percent per month. In regard to the unification of the exchange rates, it can be seen in Table A3 in the Statistical Appendix that after March 1986, the premiums have generally been below 3 percent. (See also figures 2 and 3). This is in a clear contrast with what happened during the high inflation period.

Figure 1: Month-to-Month Changes of Average Levels, March 1984 – March 1987
Arrow Indicates Beginning of Stabilization



The September 1985 percent change (57 percent) in the Consumer Price Index was still very high, but can be explained by the fact that the hitherto repressed component of inflation became open with the adjustments in the prices of the public sector goods ad

services, the de facto devaluation of the official exchange rare, and the elimination of the few price ceilings that were still active. In fact, after an initial jump, prices diminished for some weeks starting in the second week of September 1985, and then the inflation rate was stabilized at the low rates mentioned above, except for a short-lived outburst that will be examined below. Table 4 shows the rapid end to inflation.

The story of how inflation was stopped abruptly is more controversial. Stabilization started in the parallel market for foreign exchange, where quotations of the dollar decreased immediately after the plan was announced (See again Table 4). But this had happened also during the failed stabilization attempts of the previous government when hyperinflation was well alive and file real value of the stock of pesos was already very low with regard to past patterns (See the May 1984 June 1984 and March 1985 figures in Table A2 in the Statistical Appendix). My explanation for this phenomenon is rather simple: the strong devaluation of the official exchange rate and the steep hikes in public sector prices produced en additional contraction of the already low real money stock, measured in terms of domestic prices (and the official exchange rate). The once-and-for-all high jump in administered prices and the official exchange rate caused a liquidity crunch. With the liquidity shortage, expectations of inflation or further depreciation over the short-run abated, the demand for money increased and the Central Bank started to build up foreign exchange reserves. Lower (peso) liquidity and lower expectations had their most immediate impact in the parallel foreign exchange market. Notice that in the previous stabilization attempts, for instance in April 1984 and February 1985, in the immediate month after the stabilization programs were initiated, foreign exchange in the parallel market was stabilized and the real money stock, using the CPI deflator, initially diminished. In the following months the real money stock increased rapidly, but only for a while, until inflationary expectations awoke again. (See Table A4 in the Statistical Appendix). These dynamics of the interaction between money creations, free market exchange rates, and big jumps in official exchange rates and administered prices explain transitory stabilization.

Figure 2: Month-to-Month Changes of Average Foreign Exchange Rates In the Parallel Market, March 1984 – March 1987 Arrow Indicates Beginning of Stabilization

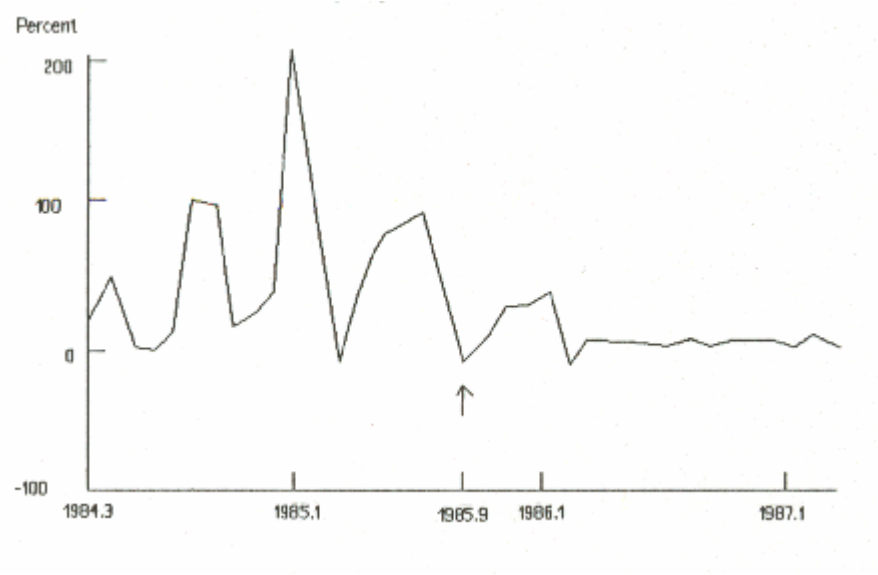


Figure 3: Premiums in the Parallel Market Exchange Rates, March 1984 – March 1987 Arrow Indicates Beginning of Stabilization

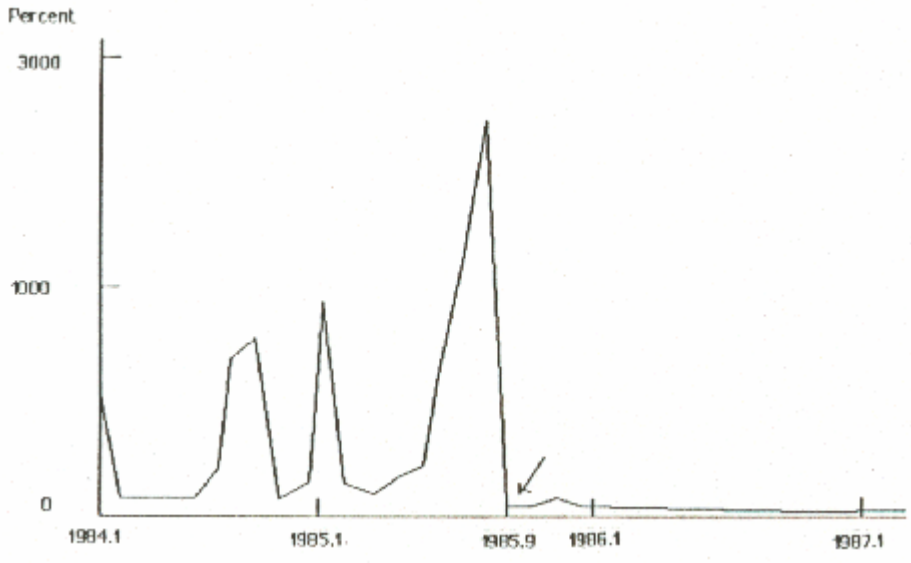


Table 4

Week-to-Week Percentage Changes in Prices and Free Market Exchange Rates, August 1985 – September 1985

	CPI	Exchange Rate
August 5 - August 11	18.37	4.91
August 12 - August 28	8.57	2.42
August 19 - August 25	6.15	9.26
August 26 - September 1	19.87	12.81*
September 2 - September 8	36.82	-12.96
September 9 - September 15	-4.60	9.78
September 16 - September 22	-0.84	3.15
September 23 - September 29	-2.51	8.09
September 30 - October 6	0.74	1.87

Source: From unpublished data of the Bolivian National Institute of Statistics
* The Stabilization program was announces on August 29

Table 5

Quarterly Central Government Tax Revenue, 1985

	1st. Quarter	2nd. Quarter	3d. Quarter	4th. Quarter
Total Tax Revenue (as % of GDP) of which:	1.1	1.12	1.6	11.3
Taxes on Hydrocarbons (as % of GDP)	0.4	0.0	0.4	8.4
Taxes on Hydrocarbons (as / of GDP) Tax Revenue	39.0	2.2	22.1	74.1

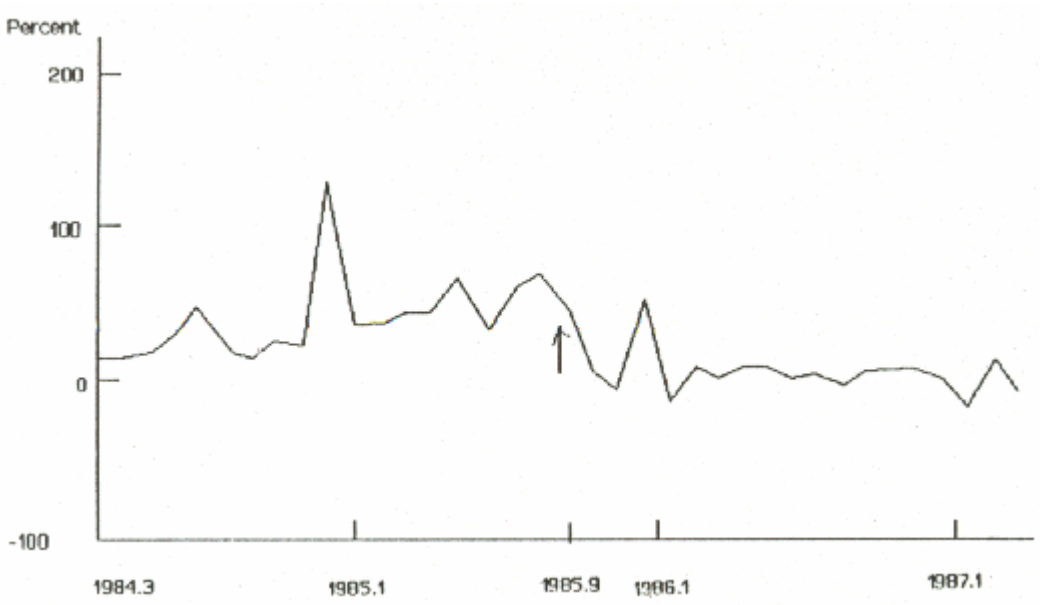
Source: UDAPE (1986) and estimates of author

The stabilization kick-off given by super tight liquidity needs to be emphasized, and the fact that this affected expectations over run short run. Notice the parallelism with other experiences, particularly the one in Germany. See Dornbusch (1986a) and Dornbusch (1986c). Sachs (1986) has a somewhat different view. He analyses in detail the features of short-run stabilization starting in the foreign exchange market, and he develops several models where immediate cessation of inflation is consistent with no immediate change on inflationary expectations, even over the short term. In those very interesting models, stabilization, could proceed even without a return of confidence.[14]

[14] This viwe differs from Sargent´s classic paper.

After initial stabilization, the problem was how to sustain the effort. It is here that the fiscal correction entered the scene. Tax revenues generated in the domestic market for oil products and payments of arrears on tax liabilities started to replenish the government coffers already in October 1985. In the last quarter of 1985, taxes from the oil sector constituted 74 percent of all Central Government revenues and 8 percent of quarterly GDP. Table 5 shows the importance of revenues in the quarters surrounding the announcement of the program. The quick fiscal recovery was possible because of the discrete jump upwards in public prices from the very low initial levels. The combination of high prices for oil derivatives, high taxes, tight control of current expenditures in YPFB and the freeze in its investments, retired money, from the public and made room for other factors of expansion of the monetary base, which then grew at a moderate pace. (See Figure 4 and Table A2 in the Statistical Appendix). Notice the "crowding out" of credit on the public sector.

Figure 4: Monthly Rates of Growth of the Money Base,, March 1984 – March 1987
Arrow Indicates Beginning of Stabilization



It should also be mentioned that speculation against the program when the government made public its preparation, led to defensive price increased and supply shortages sector.

(Compare this with what happened in Germany in the final months of hyperinflation, according to Cagan (1956) and LaHaye (1985)). When the program came to light, some prices actually decreased from their previous levels. This implied an immediate and crucial political capital gain for the program.

Last, although it may not seem very clear at once, liberalization had a non-negligible role in disinflation since it provided natural checks to domestic speculative behavior and, furthermore, reduced the need to finance fiscal quasi-deficits. The latter effect was probably more important than the former.

The collapse of the tin market in the London Metal Exchange in the end days of October 1985 put a severe strain on the stabilization effort. Anticipations of shortages of foreign exchange awoke speculations against the peso. In addition, a clearly incorrect handling of the foreign exchange auctions in the Central Bank, with sudden strong reductions in the amounts offered, sent the wrong messages to the public increasing speculation. To this already unfavorable background, a one-step increase in the monetary base due to the need to finance the traditional Christmas bonus of civil servants in December 1985 was added at the same time that the state petroleum company YPFB was trying to escape from the tight control on its current expenditures imposed by the government. The confluence of all those factors reunited inflation in December 1985 and January 1986, at very high rates (See Table 6). Those two months were the most dangerous ones for the stabilization program.

To overcome the situation, the government took two steps, one rather conventional and the other considerably riskier. First, it tightened even more its fiscal and monetary policies. On the fiscal front, more controls were imposed on the current revenues and expenditures of the state enterprises. Furthermore the government delayed for almost a month the payment of wages and salaries due to its workers, increasing hence the floating internal debt but diminishing the recourse to monetary emission. In fact, public sector workers made an involuntary rotatory loan to the Government that lasted for several months. Another monetary measure was a very temporary increase in the legal reserve ratio of the banking system to 100 percent on instructions of the Central Bank. In January 1986, all nominal monetary aggregates decreased. (See Table A1 in the Statistical Appendix).

Second, the government took the risky measure of increasing very significantly the amounts of foreign exchange offered in the auctions of the Central Bank, making at the same

time the announcement that it expected a fall in the peso price of the dollar of around 35 percent in the following three weeks. The announcement was credible, in view of the tightness of the monetary policy, and speculative bubbles disappeared. In fact, almost immediately, the dollar fell in both the official and the parallel market at a percentage slightly lower than the target, and this was obtained with very little loss in foreign reserves. (See again Table 6). The peso appreciation penalized speculators in the foreign exchange market and made them more cautions than during the high inflation period. This has been a very important explanatory factor of stabilization in the following months. In February 1986, stabilization was back on its feet. Note that once again, stabilization started in the foreign exchange market.

Table 6

Week-to Week Percentage Changes in Prices and Free Market Exchange Rates, November 1984 - February 1986

	CPI	Exchange Rate
November 11 - November 17	-1.19	10.97
November 18 - November 24	2.27	2.00
November 25 - December 1	2.98	20.73
December 2 - December 8	10.44	6.81
December 9 - December 15	0.51	-2.41
December 6 - December 22	5.47	-1.38
December 23 - December 29	3.83	10.39
December 30 - January 5	3.63	3.94
January 6 - January 12	13.32	23.90
January 3 - January 19	8.92	14.64
January 20 - January 26	10.38	-18.30*
January 27 - February 2	-5.32	-9.40
February 3 - February 9	0.14	-3.65
February 10 - February 16	0.01	-0.63
February 17 - February 23	-0.34	0.92
February 24 - April 2	-0.31	0.37

Source: From unpublished data of the Bolivian National Institute of Statistics

* Mr. Sánchez de Lozada, Minister of Planning, announced measures of Disinflation in the foreign exchange market on January 18

The virtuous circle was initiated: a budget was passed by Congress with a targeted ceiling for the overall consolidated public sector deficit equivalent to 6 percent of GDP. In fact, the fiscal year of 1986 ended with a deficit slightly below 4 percent. As stabilization continued, the government was able to regain credibility and access to foreign sources of finance. Bolivia has been able to source new loans from official lending institutions for more

than 1200 million dollars; however. the major part has not been as yet disbursed. In June 1986, the government reached a Stand-By Agreement with the International Monetary Fund, to this followed a Compensatory Finance Loan and a Structural Adjustment Loan.

The net international reserves of the Central Bank increased from a low of U$ 30 millions at the end of August 1985 to 350 millions by December 1986.[15] A significant fraction of the increase in reserves was due to the repatriation of capital by Bolivians induced by the high rates of interest.

The growth in the money base has been sustained but relatively parsimonious as can be observed in Table A2 in the Statistical Appendix and in Figure 4. Data in Table A4 in the Statistical Appendix show increases in the demand for (real) M1, but they are not spectacular, given the extreme de-monetization of the economy suffered during hyperinflation. The expansion of the broader definition of money, M2, id significantly more important but it should he recalled that dollar and dollar denominated deposits constitute the major component. Short-time deposits in dollar and dollar-indexed accounts have increased very significantly, going from less than U$ 28 million in September 1985 to an estimate of U$ 270 million in March 1987. High interest rates plus a regaining in confidence explain this inflow. Most of the deposits are however 30-days deposits.

The extreme tightness of money is the beginning of the stabilization program led to very high real rates of interest. (See Table 7). Interest rates have come down since then but are still very high now, explained in part by tight money and in part by expectations. Interest rates are high not only in pesos but also in dollars. For instance, time-deposits in the banking system as of June 1987, were 15 percent per annum in dollar accounts and 18 percent per annum in dollar-indexed accounts.

[15] Sources of information on monetary variables are the Statistical Bulletins of the Central Bank of Bolivia, the IMF International Financial Statistics, UDAPE (1986), and unpublished data from UDAPE.

Table 7

Interest Rates, Inflation an Premiums on Dollars, September 1985-December 1986
(Percent per month: Inflation refers to the following month)

	Interest Rate	Inflation	Premium
1985			
September	32.0	-1.9	0.9
October	22.5	3.2	1.7
November	21.6	16.8	14.1
December	19.2	32.9	8.0
1986			
January	20.0	7.9	8.8
February	19.8	0.1	4.4
March	18.5	3.6	4.0
April	13.1	1.0	1.2
May	8.5	4.3	3.1
June	6.5	1.8	2.2
July	6.5	0.7	1.5
August	5.4	2.3	1.3
September	5.4	0.6	0.5
October	4.6	-0.1	0.7
November	4.6	0.7	0.7
December	4.5	2.4	1.3

Source: Data from UDAPE and Central Bank of Bolivia

b) The Costs

There is some evidence that the costs in foregone output and employment have been substantial upon the implementation of the program. Unfortunately, disturbances spanned in the external sector impede reaching clear-cut conclusions.

Estimates of the decrease in Gross Domestic Product (GDP) in 1986 range from 2.9 percent to 3.5 percent. The investment rate in 1986 reached one of its lowest values since data are recorded (6.1 percent as is shown in Table 1). The open unemployment rate increased in 3 points, reaching 20 percent by the end of 1986.[16] Underemployment has also increased from 56 percent to 60 percent. Unemployment is highly concentrated in the highland cities, where the public sector was very important.

The picture on real wages is somewhat clouded. In the aftermath of the stabilization program, real wages fell substantially, even when netted of the inflation tax, but they recovered quite rapidly until the second quarter of 1986 (See Table 8). Since then, they have been stagnant. Differences across sectors are also very important: there has been a very slow growth in the sectors where public activity is important, while increases in the personal services sector have been substantial.

The public sector services hove received the severest blow: there is a noticeable deterioration in their scope and quality. Many middle level civil servants have quit the sector, impairing a normal functioning of government. In the education sector, around 25 percent of rural teachers have abandoned their schools. The longer run costs of this should be evident.

Table 8

Real Wage Index 1982 - 1986
(Base: November 1982 = 100)

Quarter ending in:	Wage in final month of quarter	Average wage over the Quarter with one month Backward lag[b]
1982 December	92.8	74.2
1983 March	103.4	87.3
June	88.2	93.5
September	80.9	79.5
December	91.9	81.4
1984 March	65.5	72.3
June	69.5	67.2
September	65.5	65.4
December	150.5	81.2
1985 March	122.0	139.0
June	100.5	102.3
September	34.0	49.2
December	67.8	38.6
1986 March	71.1	59.6
June	70.1	72.0
August[a]	73.6	74.1

Source: Author's estimates based on data from UDAPE
[a] July - August
[b] The indicator approximates the real wage net´ of the inflation tax

[16] Data on employment are notoriously bad in Bolivia, hence the numbers have to be interpreted with caution. The figures

It if frequently argued that the losses in output, investment rates, and employment cannot be attributed to the stabilization program, since: (1) The economy suffered severe external shocks in the last quarter of 1985, and in 1986 when sales of natural gas to Argentina declined significantly and the intervention of American troops curtailed the (illegal) cocaine export. (2) Hyperinflation had disorganized production, and hence some time had to be allowed for recovery. In this view, the negative rate of growth of GDP only means the continuation of a downward trend since 1980. (3) The stabilization program only substituted the inefficient inflation tax for more efficient taxes, leaving aggregate demand unchanged, hence its effects on the level of activity should be neutral (Sachs, 1986).

It is indeed true that the terms-trade fall in 1986 amounted, ceteris paribus, to an income loss of 3.8 percent. But, on the other hand the very significant increase in external loans should have offset this loss, given the potential increase in the capacity to import that it furnished. In fact the severe foreign exchange constraint that faced the (legal) economy between 1982 and 1985, was significantly lessened during 1986. As a proof, for the first time in five year, the Bolivian Balance-of-trade was negative and interestingly enough, most imports were of consumer goods. The increase in the capacity to import, after stabilization, potentially removed one of the most important constraints to investment, and yet this has not been taking place. Higher investment, even with high import content, would have had significant spillover effects on the demand for home goods. To be sure, the external shocks have important and relatively permanent repercussions in the economy, and not only a once--and-for-all fall in the terms of trade. The collapse of the traditional exports markets, with its long run sequels, impair indeed expected investment returns.

The argument concerning the trend of falling GDP growth rates is difficult to reconcile with some facts. First, while high inflation, the accompanying non-price rationing of some goods and the surrounding uncertainty were conducive to severe misallocations of resources, penalized production and reduced aggregate supply, some very expansionary factors on the aggregate demand side were simultaneously present, namely, government consumption and illegal exports. Actual trades were constrained on the supply side, but aggregate demand was strong, indeed there was a situation of excess demand. Second, it can be conjectured that the high inflation caused more than a fall in GDP, a process of the economy going underground

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in the text are sourced in UOAPE.

with agents trying to escape foreign exchange and price regulations. Third, during the high inflation period, the economy suffered a severe foreign exchange constraint having been severed from international capital flows. This was an important determinant of the fall in output.

With the stabilization program most of the above factors that hindered supply have disappeared and yet production is not recovering. The only, but very important, remaining hindrance is given by the overhang of the low investment rates during the previous five-years. The current low level of activity (and the fall in GDP last year) seems due now to a conventional Keynesian demand in insufficiency, un both the goods and the labor markets. In other words, the nature of the factors determining low-recorded output and employment has changed between the inflationary period and its aftermath.

That substitution of the inflation tax by more efficient taxes should entail no decrement of aggregate demand is not really the argument. Rather, the point is that the stabilization program has decreased governments real expenditure, and this has been done by-and-large by cutting expenses on non-traded namely on the real wage bill. The overall effect should be recessive.

IV. Outstanding Policy Issues

Nineteen months after the program there are two outstanding issues, namely the consolidation of stabilization and reactivation of the economy as well as resumption of growth.

a) Consolidation of Stabilization

However important the gains in stabilization, it is yet far from being completely solidified.[17] The fiscal sector continues to present some telling weaknesses. On the revenue side, shortfalls of taxes on the foreign sector may occur. Revenues for the state oil enterprise and government taxes are likely to suffer from the present situation on the sales of natural gas to Argentina. Moreover, implementation of the tax reform is facing more difficulties than exported. The fiscal problem is clearly to raise more revenues. There is not much room for more substantial cuts in expenditure. Additional lay-offs in the public sector will lead to almost complete paralysis in government, and to social tensions in the public enterprises, some of which cannot be afforded. A symptom of the fiscal difficulties is given by a rapid increase of the internal floating debt that is now around 5 percent of GDP.

A top priority for the government is to generate savings to be used as local counterpart funds to the disbursements of the contracted foreign loans. This is a formidable challenge, given the circumstances and the difficulties coming ahead.

The current situation of very low average real wages in the public sector is giving rise to a potentially unstable situation over the medium run. Many experienced functionaries have already left, badly needed middle managers cannot be attracted, and general unrest in the public sector labor force is hindering the work effort. Up to now, strikes and other work stoppages have been controlled by the Government with the threat -credible, given the high rate of unemployment- of dismissals. But this may not be sustainable.

b) The Recovery of Economic Activity and Growth

There a currently a strong social demand for economic reactivation and resumption of growth. There is a feeling in the public that the fiscal and monetary equilibriae have been obtained at a very low level of activity. Top priorities in the reactivation agenda are to increase the investment rate from the current excessively low base, and to expand exports.

The external shacks have positioned Bolivia in the uneasy situation of trying or stabilize and make structural adjustments simultaneously. In particular, the recovery of exports requires very important shifts in resource allocation that in turn require "activist" fiscal policies, but stabilization places rigid constraints on their scope.

Bolivian authorities do not overlook the fact that public investment has to play a major role in the recovery, but the dismantling of the administration has lowered the resource absorption capacity of the public sector expansion of investment also calls for the unfreezing of the operations of the state enterprises. The tight Central Government grip on them needs to be unfastened if they are to behave as efficient enterprises. They also have to regain access to internal credit Sensible as those prescriptions may seem, they involve heavy risks to the stabilization program. The treatment of the state enterprises poses difficult policy dilemmas, given the size of the public sector in the economy, even after the privatization impulse of SD 21060.

The persistently high interest rates are holding bock economic activity in the private sector. The poor demand prospects, internally and externally, have to be added to this feature and that is not all. There are also the problems associated with the high domestic transportation and energy costs, due in turn to the high domestic prices of oil and the high interest rates.

Exchange rote overvaluation has creped in after the disinflation of the dollar in February 1986 that was mentioned o Section III. Estimates range between 7 and 13 percent taking as a base the last quarter of 1985.[18] While the extent of overvaluation is not yet severe, a further and likely accumulation will hinder Bolivia´s recovery prospects. Short-term capital

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[17] Müller % Machicado (1986a) provide a good evaluation of the fiscal outlook.

[18] There ere indeed several examples in Latin America where bringing down inflation with exchange rate manipulation led to destructive overvaluation. See Dornbusch (1986b). However, overvaluation may be unavoidable in the aftermath of extreme inflation.

inflows, attracted by the high interest rates, are contributing to this phenomenon. In fact, the Central Bank has had to intervene to avoid a greater revaluation of the peso.

The substantial balance-of-trade deficit in 1986, the first in five years, sent a warning signal (See Table 1). The problem is not so much the trade deficit in itself but the factors that have caused it. Imports of durable consumer goods were well above trend. Backlogs may have played a role but also expectations on the maintenance of the policy of openness and en the exchange rate. This surge in imports of consumer durables may be transitory, but could easily become more permanent, especially if overvaluation becomes mare severe.

The health of the banking sector is also an outstanding issue, and is partially behind the problem of high interest rates as well as a result of them. Banks benefited significantly from the inflation tax during the preceding years but the rapid disinflation has removed this source of profits. They find themselves new overstaffed and with high operating costs. Worse, a problem of solvency has surfaced in some banks.

At the end of hyperinflation many banks were left with very small portfolios of loans, most of them bad, but given their very smallness, this was not a serious problem. The problem of conversion of loans (and other contracts), given the change in the inflationary environment was not of major concern for debtors nor for creditors. In fact, hyperinflation and de-dollarization had liquidated most of the debt of the private non-banking sector. However, with the persistent high interest rates there has been a rapid accumulation of debt in the non--banking sector and as an imago of this, a deterioration of the quality of the loan portfolio of the banks has been observed. Indeed, arrears have been building up rapidly in the last twelve months in many banks. The high volatility of the dollar and dollar-indexed deposits in the banking system compounds the dangers.

The weakness of the banking sector has fallout in the design of macroeconomic policy. The Government has received several official development credits intended for the private sector that are not being used because of the state of the (public and private) banks. Disbursements of these development credits could, of course, lower interest rates across-the board.

The foreign debt overhang with private creditors continues to be a major policy issue. This condition hurts even some day-to-day financing operations like short-term trade loans. The situation with the commercial banks has been, in addition, a source of strain with the IMF.

Notwithstanding, at this point Bolivia cannot honor her commitments, without risking the stabilization program. Fortunately, Bolivia has found some degree of understanding among the private creditors and fruitful negotiations are under way.

c) The Political Prospects of the Program

Stabilization has imposed extreme austerity on several segments of the population (miners, teachers, pensioners, …). This has been taken rather calmly because there is the perception that in spite of the costs, the situation has improved in regard to the last chaotic months of hyperinflation. However, the lasting recession is taking its toll and an increase in workers restlessness has been observed in the last months: the number of strikes has been going in crescendo and the labor unions have been able to gather largo (and angry) crowds in the streets to protest against the economic policies. These pressures may hinder the decision-making process, lead to premature excessively activist policies to reactivate or worse a return to money printing as a temporary safety valve. It there are no indications of recovery soon, the government may not be able to withstand the pressures.

V. Concluding Remarks

The severity of inflation in Bolivia and the drastic stabilization steps has few parallels in the century. The preliminary results on stabilization are indeed impressive: very low inflation, small budget deficits, and significant accumulation of foreign exchange reserves. There is also an attendant modest improvement in some sectors of the economy, in comparison with the situation prevailing right before.

Comparison with the past, however, constitutes a poor evaluation criterion for the stabilization program.. Hence, a more relevant question is what would have been achieved with an alternative program, less drastic and with a more careful design. After all the stabilization program of August 1985 contains o heavy (and may be unwarranted) dose of overkill.

The current program, in essence, has bought time for policy-making, and this is a substantial accomplishment given the initial conditions, but is not enough ants moreover, the program was probably too costly. The problem of a true and consolidated disinflation remains a there are still deep unresolved problems that jeopardize the current stability. In the fiscal front, the program initially benefited from the slack given by untaxed resources that could be and were drawn rapidly. But now, the necessary increases in tax collections face more difficult problems related to the external sector -that the government cannot control- and to the low level of economic activity. Sustained stability requires indeed a recovery of the level of economic activity and economic growth. This is a difficult challenge, given the fact that the crucial external markets continue to be weak and their long-term prospects are dim. Also, since inflation is being held back to a great extent by a very tight monetary policy, this is causing more delays in the recovery than expected. In this context, high interest rates continue to be a major problem. Notwithstanding all the difficulties mentioned above Bolivia does not lack trump cards, at least from the perspective that is open at the moment of finishing this paper. Among the trump cards are the foreign loans, secured by Bolivia thanks to the stabilization effort, but not yet disbursed. Those credits, if correctly used, could play the role that similar loans had in the stabilization of the European hyperinflation after the First World War. The road to consolidated stabilization and economic recovery is still full of obstacles but they are not insurmountable. It must be also said that the Bolivian economy has shown more resilience than what was expected by outside and inside analysis.

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Table Al

Prices. Exchange Rates. and Money 1982.2 - 1987.1[a]

	Consumer Price Index (Base 1982=1)	Parallel Market Exchange Rate (Pesos per U$)	Official Exchange Rate (Pesos per U$)	Money Base (Billions of pesos)	M1 (Billions of pesos)	M2 (Billions of pesos)
1982. 2	0.7	90	43[b]	26	25	49
3	1.1	197	43	38	38	76
4	1.7	244	145	68	57	99
1983.1	2.1	416	196[c]	75	67	117
2	2.7	398	196	97	84	145
3	3.8	663	196	123	101	179
4	6.4	1.108	399	195	175	266
1984.1	10.8	2.181	500	250	238	345
April	21.1	3.576	2.000	289	270	388
May	31.1	3.512	2.000	345	330	461
June	32.3	3.342	2.000	449	440	624
July	34.0	3.570	2.000	659	599	864
August	39.1	7.030	2.000[d]	812	718	1.071
September	53.7	13.685	2.000	935	889	1.314
October	85.5	15.205	2.000	1.188	1.194	1.647
November	112.4	18.469	9.000[e]	1.492	1.495	1.985
December	180.9	24.515	9.000	3.345	3.296	3.986
1985 January	305.3	73.016	9.000	4.570	4.630	5.635
February	863.3	141.101	50.000[e]	6.375	6.455	7.734
March	1.078.6	128.137	50.000	9.084	9.089	10.971
April	1.205.7	167.428	50.000	13.036	12.885	16.438
May	1.635.7	272. 375	75.000	21.500	21.309	26.612
June	2.919.1	481.756	75.000	28.558	27.778	37.804
July	4.854.6	885.476	75.000	45.042	47.341	60.952
August	8.081.0	1.102.300	75.000	76-503	74.306	98.701
Stabilization Beings						
September	12.647.6	1.087.440	1.077.890[f]	111.746	103.272	138.862
October	12.411.8	1.120.210	1.102.060	128.550	132.550	184.600
November	12.809.1	1.366.720	1.197.370	128.090	140.440	216.325
December	14.961.5	1.715.870	1.588.610	190.078	198.678	290.318
1985 January	19.893.3	2.240.220	2.057.650	170.404	180.255	273.471
February	21.475.1	1.916.880	1.835.790	190.283	191.061	311.999
March	21.489.3	1.962.670	1.886.760	198.143	189.252	336.160
2	22.724.3	1.946.367	1.904.760	245.637	240.441	483.379
3	24.135.0	1.930.580	1.909.580	286.188	286.188	620.927
4	24.732.1	1.940.823	1.923.860	373.310	384.633	816.566
1987.1	25.700.0	1.982.387	1.955.300	369.425	387.025	969.565

Sources: Derived from Central Bank data. Boletín Estadfstito (Various issues from 1982 to 1987)

Notes: [a] Prices and exchange rates are quarterly and monthly averages. Money data ore outstanding stocks at end of period, month of quarter

[b] Effective rate higher for all imports and exports, except higher for non-essential imports

[c] Effective rate close of official rate legal exports and imports

[d] Effective rate higher for non-essential imports

[e] Effective rate higher for exports

[f] Administered float

Table A2

Average Month-to Month Percentage Changes in Prices, Exchange Rates and Money
1982.3 - 1987.1

	Consumer Price Index	Parallel Market Exchange Rate	Official Exchange Rate	Money Base	M1	M2
1982. 3	14.9	29.6	0.0	12.7	14.0	15.7
4	16.0	7.5	49.9	21.7	14.7	8.9
1983.1	7.4	19.4	10.6	3.2	5.6	5.8
2	8.9	-1.4	0.0	9.1	7.9	7.3
3	12.8	18.5	0.0	8.3	6.3	7.4
4	18.8	18.7	26.6	16.6	20.3	14.1
1984.1	18.8	25.3	7.8	8.6	10.8	9.0
April	63.0	40.6	300.0	15.6	13.4	12.6
May	47.0	-1.8	0.0	19.5	22.4	18.7
June	4.1	-4.8	0.0	30.3	33.3	35.4
July	5.2	6.8	0.0	46.6	36.1	38.5
August	15.0	97.1	0.0	23.3	19.1	24.0
September	37.3	94.4	0.0	15.1	23.9	22.6
October	59.1	11.1	0.0	27.1	34.3	25.4
November	31.6	21.5	350.0	25.5	25.2	20.5
December	60.9	32.7	0.0	124.2	120.4	100.8
1985 January	68.8	197.8	0.0	36.6	40.5	41.4
February	182.8	93.2	455.6	39.5	39.4	37.3
March	24.9	-9.2	0.0	42.5	40.8	41.8
April	11.8	30.7	0.0	43.5	41.8	49.8
May	35.7	62.7	50.0	64.9	65.4	61.9
June	78.5	76.9	0.0	32.8	30.4	42.1
July	66.3	83.8	0.0	57.7	70.4	61.2
August	66.5	33.5	0.0	69.8	57.0	61.9
Stabilization Beings						
September	56.5	-8.0	1.337.2	46.1	39.0	40.7
October	-1.9	3.0	2.2	15.0	28.4	32.9
November	3.2	22.0	8.6	-0.4	5.9	17.2
December	16.8	25.5	32.7	48.4	41.5	34.2
1985 January	33.0	30.6	29.5	-10.4	-9.3	-5.8
February	8.0	-14.4	-10.8	11.7	6.0	14.1
March	0.1	2.4	2.8	4.1	-0.9	7.7
2	2.7	-1.6	-0.4	9.7	8.8	16.3
3	2.0	-0.3	0.1	5.2	6.0	8.7
4	0.8	0.2	0.2	9.3	10.4	9.6
1987.1	1.3	0.7	0.5	-0.3	0.2	5.9

Source: Derived from Central Bank of Bolivia data. Boletín Estadístico (Various issues from 1982 to 1987)
Note: Quarterly figures are monthly averages over quarter

Table A3

Premiums in the Parallel Market for Foreign Exchange, March 1982 - March 1987
(Percentage of parallel market over official exchange rate)

	1982	1983	1984	1985	1986	1987
January		73.5	260.0	711.3	8.9	
February		119.3	340.0	182.2	4.4	1.0
March	11.8’	142.0	408.6	156.3	4.0	
April	641	IQZ.3	78.8	234.9	1.2	3.1
May	104.9	86.1	75.6	263.2	3.1	
June	139.1	119.9	67.1	542.3	2.2	0.2
July	2~9	159.0	78.5	1.080.6	1.5	
August	327.2	265.7	251.9	1.476.4	1.3	
September	495>	287.6	~a4.3	0.9~	0.5	
October	405.5	34V0	660.3	1.7	0.7	
November	18.2[b]	142.6	105.2	14.1	0.7	
December	44.1	48.8	172.4	8.0	1.3	

Source: Derived from Central Bank of Bolivia data
Notes: [a] Beginning of dual exchange regime
[b] Official end of dual regime, parallel market becomes black
[c] Stabilization begins and parallel market is legal again

Table A 4

Real Money Aggregates, March 1982 - March 1987[a]

	Official Exchange Rate	Money Base	M1	M2
1982. 1	29.88	372.95	60.04	749.37
2	31.76	227.35	62.56	447.79
3	27.80	36.76	56.43	277.59
4	27.75	18l .74	49. 54	324.48
1983.1	27.64	33.72	46.05	236.32
2	28.38	84.56	46.92	318.17
3	21.36	127.21	37.91	225.77
4	18.61	118.85	29.36	187.49
1984.1	15.89	81.03	24.48	124.85
April	12.01	70.98	7.33	102.43
May	9.65	85.38	3.65	120.81
June	11.91	115.21	6.77	162.25
July	15.27	145.49	21.87	208.35
August	16.83	93.53	24.73	137.46
September	14.96	58.71	22.20	87.13
October	12.19	68.50	7.32	97.36
November	11.96	72.80	16.15	98.32
December	13.24	97.71	14.50	121.77
1985 January	12.98	54.27	5.76	65.86
February	6.42	39.28	7.74	47.37
March	7.21	60.65	8.67	72.99
April	9.11	65.62	11.37	81.85
May	10.45	62.77	13.16	79.03
June	8.41	50.95	11.03	66.86
July	7.74	42.42	10.17	55.76
August	7.53	51.45	9.00	67.52
Stabilization Beings				
September	7.02	81.65	9.39	109.23
October	9.50	105.26	13.03	144.36
November	10.65	99.86	5.65	146.67
December	11.33	98.81	16.93	147.63
1985 January	9.52	84.57	4.17	125.63
February	8.65	96.85	13.63	52.71
March	6.65	96.89	15.08	65.12
2	10.01	120.53	19.55	235.41
3	11.17	142.55	23.84	304.23
4	14.46	184.18	31.33	395.47
1987.1	4.27	184.67	35.39	450.12

Source: Derived from Central Bank data. Boletín Estadístico (Various issues from 1982to 1987)

Notes: a Real aggregates computed according to (M+M(-1)/2P where M is the end-of-month relevant monetary variable and P is relevant monthly average price. Dollar values are derived using the parallel market exchange rate. Quarterly data are outstanding stocks at end-of-quarter