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# 1 An Overview of Macroeconomic Performance

In the first half of the 1980s, Bolivia experienced an economic crisis of extraordinary proportions. As seen in table 1.1, Bolivia's economic debacle in this period was striking even in comparison with the poor performance of Bolivia's neighbors. Like its neighbors, Bolivia suffered from major external shocks, including the rise in world interest rates in the early 1980s, the cutoff in lending from the international capital markets, and the decline in world prices of Bolivia's commodity exports. But the extent of economic collapse in the face of these shocks suggests that internal factors as well have been critical to Bolivia's economic performance. The Bolivian hyperinflation of 1984–85, for example, was one of the most dramatic inflations in world history and one of the only hyperinflations that did not result from the dislocations of war or revolution.<sup>1</sup>

In some ways, Bolivia's economic recovery since 1985 is as remarkable as the economic crisis during the first half of the decade. In the fall of 1985, the new government of President Víctor Paz Estenssoro succeeded in eliminating Bolivia's hyperinflation. The inflation was cut from 25,000 percent per year during the hyperinflation to a remarkable 10.7 percent per year in 1987.<sup>2</sup> As shown in figure 1.1, the disinflation was almost instantaneous: by early 1986 virtual price stability had been restored.

The stabilization is all the more amazing in view of the extremely large and adverse shocks which hit the Bolivian economy *after* the start of the stabilization program. As we discuss below, the prices of all of Bolivia's major exports (even the illicit exports such as coca leaf) plummeted in late 1985 and after. The terms-of-trade deterioration further squeezed real incomes, worsening the decline of over 25 percent in per capita income levels that had occurred in the first half of the 1980s. The terms-of-trade decline further embittered the political conflicts in Bolivia, which have always been acute, and also directly reduced government revenues, thus threatening the macroeconomic stabilization program.

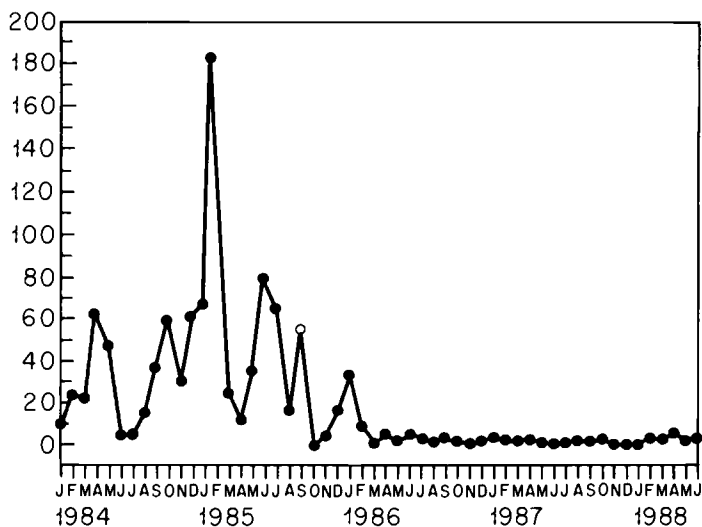
Table 1.1 Economic Performance in the 1980s, Selected Countries

Country	GDP Growth (annual rate), 1980-85	Inflation (annual rate), 1980-85	Debt-GDP Ratio,* 1985	Terms of Trade, 1985 (1980 = 100)
Bolivia	-4.5	569.1	136.8	86
Latin America				
Argentina	-1.4	342.8	56.4	88
Brazil	1.3	147.7	43.8	87
Mexico	.8	62.2	52.8	98
East Asia				
Malaysia	5.5	3.1	62.0	85
Indonesia	3.5	10.7	36.6	97
Korea	7.9	6.0	43.0	105

Source: World Bank (1988).

\*Medium- and long-term debt, public and private.

In 1987 Bolivia experienced its first positive GNP growth after seven years of decline, with an increase in GNP of 2.3 percent. Growth increased to about 3.0 percent in 1988. These positive growth rates during 1987-88 averaged about the same as population growth (2.7 percent per year), so that per capita income remained stagnant after eight years of sharp decline. The greatest disappointment of the stabilization experience after 1985 indeed has been the failure of Bolivia to resume solid and



○ First month of implementation of program

Fig. 1.1 Monthly inflation rates, 1984-88

Source: Institute of National Statistics, Bolivia.

positive per capita GNP growth. In our view, the continuing economic stagnation is not a result of the stabilization effort per se, but is rather a result of the recent external shocks together with internal disarray that preceded the stabilization program.

This monograph focuses on Bolivia's economic crisis and recovery in the 1980s, with a special emphasis on the role of external debt in the economic dynamics. The bulk of our attention is on the period from 1952 to 1985, from the Bolivian Revolution to the end of the hyperinflation. We do consider more briefly the period of economic recovery, 1986–88, but in view of the lack of perspective on recent events, we are not as comprehensive in our coverage of the years after 1985.

We view the hyperinflation as the culmination of deep trends in the Bolivian economy and society, rather than the result of short-run forces in the early 1980s. One pervasive theme of our work is that the recent economic crisis is a reflection of political and social conflicts in Bolivian society that have undermined the development process for decades. We thus lay great stress on the failures of politics in accounting for the failures of economic performance.

## **1.1 Some Basic Characteristics of the Bolivian Economy**

Bolivia is a landlocked country with the second lowest per capita income in Latin America (U.S.\$470 in 1985). All indicators of economic and social development in Bolivia lie well below the Latin American averages. The economy has been heavily dependent on two exports, tin and natural gas, for the past thirty-five years. Not surprisingly, the cycles of expansion and contraction of the Bolivian economy have followed quite closely the movements in the world market prices of tin and petroleum. Moreover, as we shall see, the accumulation of foreign debt up until 1980 took place in a procyclical pattern, in that Bolivia became able to attract foreign loans precisely during the phase of high international prices for its exports. At the same time, in the mid-1970s, a thriving underground economy developed based on coca-related exports, a development that has deep implications for the functioning of the economy and the country's political institutions.

Bolivia's long-term growth problems begin with the inherent difficulties of growth in a landlocked mining economy centered in breathtaking, yet forbidding, terrain more than 14,000 feet above sea level. Bolivia is a very large and sparsely populated country. Its area is greater than the combined areas of the United Kingdom, West Germany, and France, with a population of only six million. The country is divided geographically between the Andean highlands, where the mining industry is located, and the lowlands to the east, where petroleum products and commercial agriculture are situated. From the beginning of colonial development, Bolivia's political and economic

center of gravity has been in the highlands. The secular decline of the mining sector has led in recent decades to a shift in economic and political activity to the east. This shift, which is the cause of significant political conflict, was accelerated by the sharp crash of tin prices in October 1985.

Bolivia's economy since the colonial period has been based on mining, first silver from the colonial period until the late nineteenth century, and then tin in the twentieth century. With the population centered in the highlands and neighboring valleys, transport costs are extremely high. Therefore, while it has been profitable for Bolivia to export minerals such as silver and tin that have a high value added per unit weight, and therefore a low share of transport costs per unit value, Bolivia has been unable to overcome the transport costs for almost any kind of manufactured product. The problem of transport costs was greatly exacerbated by Bolivia's loss of its littoral on the Pacific Coast in the traumatic War of the Sea against Chile and Peru in 1879.

The requirement of high value added per unit weight in Bolivian exports helps to explain Bolivia's only real diversification of exports in recent years: coca leaf derivatives (the precursors of cocaine) and petroleum products. Petroleum products, particularly natural gas exported to Argentina, can be carried out of the country by pipeline, while coca leaf can be profitably transported even if carried on a peasant's back. Table 1.2 shows Bolivia's concentration of non-coca exports in recent years. Among Bolivia's measured exports (i.e., excluding coca), tin and petroleum products usually accounted for much more than half of total exports during the 1960s, 1970s, and 1980s. Coca exports in the 1980s are generally estimated to equal the sum of tin and natural gas exports.

**Table 1.2** Share of Tin and Natural Gas in Total Exports of Bolivia, 1952-84

Year	As % of Merchandise Exports	Year	As % of Merchandise Exports
1952	59.9	1969	57.3
1953	64.2	1970	52.0
1954	55.2	1971	58.4
1955	56.0	1972	61.3
1956	55.1	1973	57.2
1957	58.9	1974	46.6
1958	56.1	1975	48.1
1959	68.2	1976	47.9
1960	71.0	1977	62.4
1961	87.3	1978	72.0
1962	89.7	1979	65.9
1963	80.6	1980	63.6
1964	80.8	1981	68.3
1965	80.5	1982	73.5
1966	70.2	1983	77.6
1967	58.5	1984	86.1
1968	58.9		

Source: Central Bank of Bolivia, *Boletín Estadístico* (La Paz), various issues.

Many of Bolivia's problems can be seen as the tragic playing out of the secular decline in the mining sector, a process that has been underway for at least half a century.<sup>3</sup> Actually, Bolivia's first deep crisis came with the depletion of silver deposits and the fall of world silver prices at the end of the last century. Good fortune, however, pulled Bolivia out of crisis when a boom in world demand for tin followed the development of the modern canning process. The apogee of modern Bolivian economic development relative to the neighboring countries was reached in the first two decades of the twentieth century, when tin was intensively developed and when export earnings provided the basis for a major extension of the country's infrastructure, including roads and the railway system.

Tin lodes were increasingly exhausted in the 1920s, and Bolivia began to lose export competitiveness with other producers. When tin prices collapsed at the start of the Great Depression, Bolivia became the first country in that crisis to default on its sovereign foreign debt, in January 1931. Bolivia was also the last country in Latin America to settle these defaulted debts after World War II. The collapse of tin undermined both the economy and the political system, and eventually ushered in the Revolution of 1952.

#### 1.1.1 Aggregate Growth

Table 1.3 shows some indicators of long-term growth.<sup>4</sup> Real GDP grew between 1952 and 1985 at the average annual rate of 2.4 percent. If the crisis years of 1982–85 are left out, the average annual rate is 3.2 percent (or 0.4 percent in per capita terms). The growth, of course, was not smooth and was characterized by well-defined cycles. The years 1952–57, in the aftermath of the Revolution, showed negative rates of growth as important social changes prompted major dislocations of production. In particular, agricultural output in cash crops suffered a substantial reduction after the first year of an ambitious agrarian reform. The high inflation of those years, coupled with misguided policy measures that attempted to suppress the symptoms of inflation, also had important negative real effects.

After the inflation stabilization of late 1957 until the early 1960s, growth resumed at a moderate pace. In 1959 the negative rate of growth is explained by a sharp drop in tin prices brought about by the mild world recession of 1958–59 and the sales of tin in international markets by the Soviet Union. From 1962 to 1972, very healthy rates of growth are observed, higher on average than the growth rates of the "export boom years" between 1972 and 1977. The growth in the 1960s is due importantly to a favorable international environment, internal political stability under President Barrientos, and the payoffs on earlier investments in petroleum and commercial agriculture in eastern Bolivia. Appropriate use of foreign aid funds, entrepreneurship provided by the educated Bolivians who had fled from the Revolution and had returned in the mid-1960s, and the substantial investment expenditures made by the Bolivian Gulf Oil Corporation were also important sources of growth.

Table 1.3 Real GDP, Levels and Rates of Growth, 1952–88

Year	Real GDP	Growth Rate (%)	Five-year Average (%)
1952	7.600		
1953	6.000	-9.47	
1954	7.023	2.00	
1955	7.395	5.30	
1956	6.957	-5.92	
1957	6.726	-3.32	-2.27
1958	6.887	2.39	
1959	6.864	-.33	
1960	7.159	4.30	
1961	7.309	2.10	
1962	7.717	5.58	2.81
1963	8.213	6.43	
1964	8.608	4.81	
1965	9.202	6.90	
1966	9.847	7.01	
1967	10.470	6.33	6.29
1968	11.222	7.10	
1969	11.757	4.77	
1970	12.370	5.21	
1971	12.976	4.90	
1972	13.729	5.80	5.57
1973	14.646	6.68	
1974	15.400	5.15	
1975	16.417	6.60	
1976	17.418	6.10	
1977	18.151	4.21	5.75
1978	18.761	3.36	
1979	19.104	1.83	
1980	18.990	-.55	
1981	19.064	.35	
1982	18.528	2.81	.43
1983	17.314	-6.55	
1984	17.160	-.87	
1985	16.660	-1.75	
1986	16.375	-2.00	
1987	16.752	2.30	-2.00
1988	17.255	3.00	

Source: Central Bank of Bolivia, *Cuentas Nacionales no. 4, Departamento Cuentas Nacionales* (La Paz: 1983), and for 1984–88, IMF, *International Financial Statistics*.

Notes: 1988, estimated. Five-year averages are calculated as geometric averages over the period.

Growth remained relatively strong during the Banzer regime, 1971–78, but the bases of the observed prosperity became more tenuous. Bolivian growth was based importantly on heavy foreign borrowing from private banks, as well as a temporary commodity price boom which favored the country. The pace of growth started to sharply decline from 1978 on. The high inflation of 1982–85, to which we devote substantial attention in chapter 5, was accompanied by negative rates of growth.

In regard to the composition of output, shown in table 1.4, primary production, including agriculture, accounted for 47 percent of GDP in 1952;

Table 1.4 Sectoral Composition of GDP (percentages)

Sector	1952	1957	1962	1967	1972	1977	1982	1985 <sup>a</sup>
Primary	46.51	44.84	39.94	38.40	29.08	25.75	34.21	32.23
Manufacturing	14.15	12.34	14.05	15.28	14.60	15.86	11.96	9.83
Nontradables I	4.61	4.60	5.42	6.30	5.35	5.93	4.04	4.15
Nontradables II	34.73	38.23	40.60	40.02	50.97	52.46	46.15	50.69
Indirect taxes	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	2.64	3.10
GDP	100	100	100	100	100	100	100	100

Sources: Ministry of Planning, *Revista de Planificación y Desarrollo* (La Paz: 1970); Central Bank of Bolivia, *Boletín Estadístico* (La Paz), various issues.

Notes: Percentages are computed from basic data in real terms. Nontradables I = energy and construction. Nontradables II = commerce, transportation, and other services.

<sup>a</sup>Estimated figures.

<sup>b</sup>Indirect taxes are included in each sector.

the corresponding percentage was 32 in 1985. The share of manufacturing in GDP in 1952 was 14 percent, compared with a low 9 percent in 1985. Construction and energy accounted for almost 5 percent of GDP in 1952 and for 4 percent in 1985. Commerce, transportation, and other services (denoted "nontradables II" in the table) constituted 35 percent of GDP in 1952, with that share rising to 51 percent in 1985. This latter group of industries, which experienced such a dramatic increase in share, are generally nontradables. Between 1967 and 1977, services increased its share in the economy from 40 percent to more than 50 percent of GDP. This change in the composition of GDP, with a higher share of nontradables (services plus a significant but unknown percentage of agricultural and manufacturing output), became in the 1980s an important explanatory factor of the difficulties of servicing the accumulated foreign debt.

### 1.1.2 Foreign Trade

Bolivia's growth and development have been very strongly tied to foreign trade. With the exception of a few years in the period 1952–82, generally associated with strong political disruptions, exports amounted to more than 20 percent of GDP in current prices (table 1.5). The dependency on imports is obviously very high with import-GDP ratios rarely below 20 percent (in some years, the ratio is over 25 percent).

As we noted in table 1.2, Bolivia's legal exports during 1952–85 were highly concentrated in two major exports, tin and natural gas, with natural gas exports beginning in 1972. In some years, more than 70 percent of measured exports are in these two commodities. Export diversification was one of the principal economic policy goals of the revolutionary period of 1952–56. However, after the stabilization program of December 1956, the policy was largely abandoned and the export concentration on tin increased substantially. After 1966 the share of tin in total exports declined because of the growing importance of petroleum and agricultural exports. The cycle of



Table 1.5 Trade as a Percentage of Bolivia's GDP, 1956–85<sup>a</sup>

Period	Exports	Imports	Total
1956–60	17.7	24.6	42.3
1961–65	18.5	25.0	43.4
1966–70	20.7	24.0	44.7
1971–75	26.8	22.5	49.3
1976–80	20.7	23.4	44.1
1981–85	15.5	13.7	29.2

Sources: For 1956–80, Central Bank of Bolivia, *Boletín Estadístico* (La Paz), various issues; for 1981–85, unpublished data from the World Bank.

<sup>a</sup>Annual averages. Percentages are derived from National Accounts data in *current* prices.

*decreasing* dependency on tin and natural gas ended around 1977. During the crisis years of 1982–85, natural gas became the most important export. In 1985 natural gas and tin constituted almost 90 percent of all exports.

The performance of exports was rather dismal from 1952 to 1985, as can be observed in table 1.6, but again very definite cycles of expansion and contraction can be distinguished. Between 1952 and 1961, the average annual rate of export growth was negative. In the quinquennium 1962–67 there was a healthy recovery that then slowed down between 1967 and 1971. The big boost in the dollar value of exports occurred between 1972 and 1977 because of higher prices, but in volume terms the growth of exports was negative during 1970–75 and very low during 1976–80. It is notable that despite the uniformly good real prices for exports during most of the 1970s, the output response was weak.

The year 1974 has been called by some observers a “miraculous” one for Bolivian exports. The index of export prices almost doubled from its level of the previous year. In the export basket, the price of tin increased 70 percent in nominal terms and 40 percent in real terms. Tin prices would remain high with a slight downward trend until the collapse of the market in 1985 (figure 1.2).

Imports generally followed the growth path of exports, though in the 1980s, imports fell sharply as export earnings were devoted increasingly to debt servicing. Transportation and insurance costs loom large in the CIF value of imports, given the geography of Bolivia and its rudimentary transportation network. Transportation costs are also a very important determinant of the structure of Bolivian exports. As mentioned earlier, because of the high costs of transportation, exports have to be of high value added per unit of weight.

### 1.1.3 Capital Formation and the Sources of Funds

The share of fixed investment in GDP varied widely during 1952–85, as is shown in table 1.7. The long-run value of this rate seems to be, however, above 15 percent. In the two years following the Revolution of 1952, the investment rates fell below this long-run value, but there was a substantial recovery in 1955 and 1956 despite extremely high inflation. In fact, contrary to what occurred during the 1980s, forced savings (i.e., the inflation tax) helped to sustain a high investment rate.

Table 1.6 Annual Rates of Growth of Main Export (volumes), 1950-85

Period	Tin	Natural Gas <sup>a</sup>	Total Exports
1950-55	-2.3	—	-.3
1955-60	-7.0	—	-6.1
1960-65	4.2	—	3.0
1965-70	2.8	—	9.4
1970-75	-2.2	—	-5.5
1975-80	-2.0	5.6	1.5
1980-85	-6.4	1.7	-2.9

Source: Data are export volumes reported in the IMF, *International Financial Statistics* (Washington, DC), various issues.

Note: Growth rates calculated as geometric averages of period shown.

<sup>a</sup>Natural gas exports began in 1972.

In the 1960s, investment rates were very high, comparable to those of the high-growth period of Brazil. However, these rates were sustained to a very significant extent by the contribution of foreign savings. Between 1975 and 1978, there was another upsurge in the investment rate, sustained similarly by foreign savings, leading to increased indebtedness. The investment rate fell in 1981 in line with the increasing difficulties in obtaining foreign financing. From 1982 onward, the investment rate fell precipitously as disbursements of foreign credits almost disappeared.

As shown in table 1.8, the contribution of domestic savings to gross capital formation has been substantial and should not be underestimated.

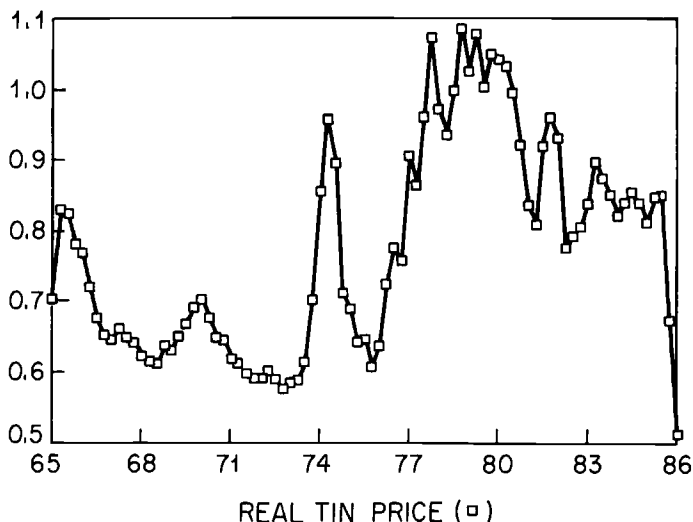


Fig. 1.2 Relative price of tin in world markets (1980 = 1.0)

Table 1.7 Investment Rates (percentage of GDP), 1952–85

Year	Investment Rate	Year	Investment Rate
1952	16.0	1969	20.0
1953	10.0	1970	14.0
1954	13.0	1971	15.0
1955	20.0	1972	16.0
1956	20.0	1973	15.0
1957	19.0	1974	15.0
1958	15.0	1975	17.0
1959	15.0	1976	17.0
1960	17.0	1977	17.0
1961	14.0	1978	18.0
1962	21.0	1979	17.0
1963	20.0	1980	14.5
1964	20.0	1981	12.4
1965	20.0	1982	9.8
1966	17.0	1983	6.6
1967	18.0	1984	8.8
1968	25.0	1985	6.5

Sources: Ministry of Planning, *Revista de Planificación y Desarrollo* (La Paz: 1970); Central Bank of Bolivia, *Boletín Estadístico* (La Paz), various issues; and unpublished World Bank data.

Note: Investment rates are computed as real investment divided by real GDP.

A high share of foreign savings in total investment was concentrated in a few subperiods: the 1960s, with foreign aid provided by the Alliance for Progress and with important foreign direct investment in the petroleum sector; and the late 1970s, with credits from commercial banks and suppliers. Gross national savings (i.e., domestic savings less net factor income plus current transfers) as a percentage of GNP experienced large fluctuations over the years 1958–85. During most of the 1970s, the saving rate was over 15 percent, and in 1974, it rose to more than 20 percent. From 1978 on, however, the rate began to fall, eventually to very low levels in the years of the economic crisis. A picture emerges in which two features stand out: first, the Bolivian economy can generate respectable national saving rates and, second, these high rates are generally the product of high growth in the economy supported by a favorable terms of trade or by access to foreign loans. The public enterprises played an important role in generating domestic savings during these high-growth years.

The domestic financial system, constituted mainly by commercial banks, has played an important role in the formation of private savings. The data in table 1.9 indicate that financial deepening reached its maximum in the mid-1960s. It is interesting to note that the real value of monetary balances (measured as M2) in 1965 was the highest in the entire 1952–85 period and that this peak was obtained without the dollar-indexed savings deposits that were the most common form of deposit after 1975. The evidence seems to indicate that the most important factor that induced savings in the banking system in the 1960s was the low and stable inflation rates of those years.

**Table 1.8** Sources of Financing for Gross Capital Formation (as a proportion of total), 1952–85

Year	Domestic Savings	Foreign Savings
1952	94.4	5.6
1953	79.4	20.6
1954	98.9	1.1
1955	99.1	.9
1956	98.9	1.1
1957	93.2	6.8
1958	78.2	21.8
1959	83.4	16.6
1960	76.0	24.0
1961	81.9	18.1
1962	75.3	24.7
1963	73.4	26.6
1964	105.3	-5.3
1965	78.7	21.3
1966	80.7	19.3
1967	77.5	22.5
1968	66.4	33.6
1969	64.2	35.8
1970	87.8	12.2
1971	79.7	20.3
1972	82.5	17.5
1973	92.3	7.7
1974	132.1	-32.1
1975	72.1	27.9
1976	84.3	15.7
1977	76.8	23.2
1978	56.3	43.7
1979	50.7	49.3
1980	67.4	32.6
1981	94.7	5.3
1982	128.5	-28.5
1983	84.7	15.3
1984	100.3	-.3
1985	63.0	37.0

Sources: For 1952–79, Central Bank of Bolivia, *Cuentas Nacionales no. 4*; for 1980–82, *Departamento de Cuentas Nacionales*; for 1983–85, elaborated with data from the World Banks.

#### 1.1.4 Inflation

The annual inflation rates during 1952–88 are shown in table 1.10. It will be observed in that table that Bolivia had a bout with high inflation in the wake of the Revolution of 1952, that lasted until the stabilization of 1957. At that time, Bolivian inflation rates were the highest ever known in Latin America. Inflation ended with an IMF-sponsored stabilization plan and with loans and subsidies from the U.S. government to support the budget. Details on that inflationary episode and how it was ended are given by Eder (1968).

The 1960s and 1970s were characterized by low inflation, except after the devaluations of late 1972 (and the protracted relative price adjustments that lasted until the first months of 1974) and of late 1979. From 1980 onward

**Table 1.9** Monetary Variables as a Percentage of GDP, 1961–85 (selected years)

Year	Money Base	M1	M2
1961	8.0	8.6	13.7
1965	10.0	11.8	17.6
1969	10.6	11.2	14.0
1973	8.7	9.4	12.5
1977	10.4	10.4	14.5
1981	8.6	8.9	15.5
1985	2.3	2.3	3.5

Source: Elaborated with data from Central Bank of Bolivia, *Memorias Anuales* (La Paz), various issues.

Note: Monetary indicators are annual averages.

**Table 1.10** Annual Inflation Rates, 1954–88

Year	Inflation Rate	Year	Inflation Rate
1954	124.8	1972	6.5
1955	77.9	1973	31.4
1956	181.2	1974	62.8
1957	115.5	1975	8.0
1958	3.0	1976	4.4
1959	20.3	1977	8.1
1960	11.5	1978	10.4
1961	7.5	1979	19.7
1962	5.8	1980	47.2
1963	-.7	1981	32.1
1964	10.1	1982	123.5
1965	2.9	1983	275.6
1966	6.9	1984	1,282.4
1967	11.1	1985	11,857.1
1968	5.4	1986	276.3
1969	2.2	1987	14.6
1970	3.8	1988	16.0
1971	3.6		

Sources: For 1953–70, Central Bank of Bolivia, *Memorias Anuales* (La Paz), various issues; for 1971–81, Instituto Nacional de Estadística, *Resumen Estadístico* (La Paz: 1982); for 1982–85, Unidad de Análisis de Política Económica (UDAPE), *Anexo* (La Paz); for 1986–88, IMF, *International Financial Statistics*.

Note: Rates are calculated as year-to-year changes of annual average price levels.

until the fall of 1985, inflation rates were very high, crossing the 100 percent barrier in 1982. Inflation reached hyperinflationary levels in 1984 (i.e., monthly price changes in excess of 50 percent), with the hyperinflation lasting from May 1984 to September 1985. The inflation ended dramatically with the New Economic Policy of the Paz Estenssoro government, which was launched on 29 August 1985.

The Bolivian inflations of 1953–57 and 1982–85 had their roots in weak fiscal budgets. Importantly, Bolivia (unlike Brazil, for example) did not have the institutional mechanisms that produced inertial inflation. Wage indexation was implemented only in 1983, when high inflation was well on its way, and

lasted until August 1985. The labor unions have had little experience in collective bargaining, and there have been very few formal labor contracts with escalator clauses or even with well-defined periods of validity. The practice in the labor unions has frequently been to ask for wage increases whenever there has been a significant erosion in real wages and to go to the Ministry of Labor for arbitration if the unions do not reach a settlement with the employers. During the last months of the hyperinflation, wages in many private sector firms, especially for qualified labor and in the service sector, were linked to the dollar in informal arrangements that were not legally binding.

In the high-inflation episode of 1953–57, the fiscal troubles were the result of deliberate policies to enhance production diversification projects in the eastern region of Santa Cruz with deficit financing, that is, by printing money. Inflation was used to generate forced savings to finance capital expenditures in a growing public sector. In the more recent experience of the early eighties, the replacement of foreign financing by internal financing to cover prolonged fiscal deficits was the most important explanatory factor of high inflation.

### 1.1.5 The Expansion of the Coca Economy

An important question that arises when studying the Bolivian economy of the late 1970s and early 1980s concerns the role played by coca production and exports of processed coca leaves in the form of cocaine paste or refined cocaine. After 1978, illegal cocaine exports became a very important source of foreign exchange. A booming underground economy developed around the coca trade, with far-reaching consequences for the legal sectors of the Bolivian economy and for the international relations of Bolivia.

Until around 1975, coca leaves were marketed essentially for legal domestic uses.<sup>5</sup> The sharp increase in demand for cocaine (and other drugs) in the United States that started in the 1970s and emerged later in other industrial countries strongly increased the demand for coca leaves. Production responded rapidly to the demand shift. Coca paste was transported from Bolivia to Colombia, refined there, and marketed in the United States by Colombians. By 1980 some Bolivians started to refine the paste and market it without intermediaries in the U.S. market. Bolivia's involvement in the cocaine business increased rapidly and took several forms: production of coca leaves, coca paste, and refined cocaine.

It is very hard to come up with precise figures concerning Bolivia's production and exports of coca-based products given the illegality of the activity, but preliminary estimates of the FOB value of cocaine chlorohydrate have been computed by Doria Medina (1986) using data on acreage prepared by the Earth Satellite Corporation and information on the technology of deriving cocaine from coca leaves. The figures, in 1980 dollars, are 412.2 million for 1980, 563.9 for 1981, and 758.5 for 1982. In 1980 this represented 40 percent of recorded exports of goods and services; in 1981, 56 percent; and in 1982, 83 percent. These estimates are fairly conservative.

If export values are difficult to estimate, gross value added in the cocaine industry (and related activities) are even harder to come by. Under the rather arbitrary assumption that material inputs other than coca leaves are 20 percent of gross output in cocaine chlorohydrates, the gross value added estimates would represent 5.7 percent of GDP in 1980; 7.5 percent of GDP in 1981; and 10.8 percent in 1982. If one considers cocaine and coca production as vertically integrated industries, these percentages increase to 7.3, 8.8, and 12.7, respectively. Undoubtedly, these figures are very high, but significantly less than the wild estimates sometimes given in the press.

## **1.2 Summary of the Monograph**

With this basic introduction to the Bolivian economy, we now turn to a summary of the remainder of the monograph. The outline of the work is as follows. Chapter 2 provides an overview of the political economy of macroeconomic policymaking in Bolivia since the 1952 Revolution. Great stress is put on the weakness of fiscal institutions in the face of heavy social and sectoral demands. The chronic fiscal weakness led to a remarkably overextended public sector, one that reached effective bankruptcy by 1985. During the period of hyperinflation, 1984–85, the government paid its way almost entirely through money printing.

Chapter 3 highlights some of the main directions of development policy during 1952–85, especially involving public investment spending and trade policy. We show that most of the period is characterized by a development strategy of “state capitalism,” in which the public sector is called upon to be the leading engine of growth through public sector investment spending and overall guidance of the private sector. The paradoxical result, however, is that as the government tried to control too much, it ended up controlling very little indeed. The model of state capitalism was particularly undermined by the chronic instability in policymaking that resulted from the rapid turnover of governments.

In chapter 4 we consider important characteristics of Bolivia’s international trade, focusing both on structural features (e.g., the heavy dependence on a small number of primary commodities), as well as policy choices. Our analysis of trade policies since 1952 makes clear that Bolivian governments continued to focus on primary commodity exports as the key to Bolivian growth, despite the secular decline in tin and the mixed fortunes regarding petroleum exports.<sup>6</sup> Bolivian governments typically spent more time and energy on attempting to improve the terms of trade for tin (mainly through the International Tin Agreement, which collapsed in 1985) than on a diversification of the export base into manufacturing.

Import policies have generally been ill-focused, leading to an enormous range of effective protection across sectors, with little discernible long-term

strategy in the distribution of incentives and with little attention to the indirect effects of import policies on the profitability of exports. Similarly, exchange rate policies were often pursued for fiscal purposes (e.g., overvalued exchange rates allowed the central government to appropriate some of the rents from export-oriented state enterprises that were otherwise hard to tax), rather than for the purpose of stimulating nontraditional exports.

Chapter 5 describes the process of foreign debt accumulation, which was the counterpart of the large budget deficits of the public sector in the 1970s and early 1980s. Bolivia's external debt, particularly from the private financial markets, rose dramatically in the 1970s, mostly during the Banzer era. Bolivia's rapid accumulation of external debt in the 1970s reflected three forces at work. First, part of the foreign borrowing financed a plausible attempt to generate a more diversified export base through various investment projects. Some of these projects were successful, but more often the investments proved to be expensive failures. Second, the foreign borrowing also reflected an attempt to finesse internal distributional conflicts by using borrowed money to pay for social demands for spending. Third, some of the foreign borrowing had the purpose and effect of enriching a narrow set of private interests through the public sector's access to foreign loans. Similarly, an overvalued exchange rate, maintained through foreign borrowing, became a channel for capital flight for wealthier individuals.

By the late 1970s, the precariousness of Bolivia's financial situation was clear. Banks pulled back from new lending, and in 1980 Bolivia began to miss payments due to the banks. Note that this occurred almost two years ahead of the global debt crisis, usually dated to Mexico's suspension of principal payments in August 1982. Bolivia signed a rescheduling agreement with the banks in April 1981, which fell apart when Bolivia missed payments due in September 1982. Payments were restarted in 1983, but then suspended again in mid-1984. Since then, Bolivia has made no interest payments to the commercial banks.

Chapter 6 lays out the dynamics of the hyperinflation during 1982–85, focusing on the complex causal links among the budget deficit, the money supply, the exchange rate, and the price level. President Hernán Siles Suazo therefore inherited an extraordinarily difficult financial position in October 1982. In the event, the Siles government was too weak and often too confused in its policies to restore fiscal order. Siles tried several times to implement a comprehensive stabilization program (during November 1982, November 1983, April 1984, August 1984, November 1984, and February 1985), but in each of these cases, some combination of Siles' political opponents in Congress and his ostensible "allies" in organized labor torpedoed the adjustment efforts. As the inflation accelerated, tax collections fell sharply in real terms, thereby exacerbating the fiscal crisis. The inflation under Siles went from annual rates of several hundred percent in 1982 and



1983 to several thousand percent in 1984 and 1985. The hyperinflation began in May 1984 and ended in September 1985, upon the accession to power of the Paz Estenssoro government.

In chapter 7 we detail the process of stabilization since 1985 and discuss some of the general lessons about ending high inflation that might be applied to other economies in the region. The successful stabilization program was carried out by the newly elected centrist government of Paz Estenssoro. The economic program, which was unveiled just three weeks after the government came to office, was remarkably wide ranging and indeed radical, encompassing not only plans for macroeconomic stabilization but also for trade liberalization, administrative and tax reform, and deregulation and privatization in the domestic market. The so-called New Economic Policy constituted nothing less than a program to dismantle the system of state capitalism that had prevailed over the previous thirty years.

Chapter 8 describes the novel arrangements that Bolivia has negotiated in order to escape the severe overhang of external debt. Bolivia took one "heterodox" step in its stabilization program: it maintained a *total suspension* of interest payments on its commercial bank debt, pending a longer-term settlement on the debt. For this reason, the Bolivian program might be characterized as "internal orthodoxy, external heterodoxy." The debt suspension was an integral piece of the political and economic strategy of the government.

The Bolivian debt strategy paid off. After years of negotiations, Bolivia's creditor banks ultimately accepted the argument that the debt should be reduced. Bolivia won the right to buy back part of its debt at the secondary market price, under the condition that it use money donated by donor governments to pay for the buyback. In May 1988, Bolivia repurchased \$308 million in principal (approximately 47 percent of the outstanding debt) from the commercial bank creditors, at a price of about 11 cents on the dollar. Bolivia continued to repurchase debt at 11 percent of par and by mid-1989 had repurchased in total about 70 percent of the outstanding debt.

In the concluding chapter 9, we discuss briefly the challenges facing Bolivia in the future, once stabilization has been accomplished. The key fact that we focus on is the weakness of Bolivia's traditional export base and the consequent need for the development of new sources of export earnings. Bolivia will have to diversify beyond mineral exports to new agricultural exports and light manufacturing. The latter could be spurred importantly by an opening of the Brazilian market to Bolivian light manufacturing exports. We stress that accomplishing this transition will require careful and sensitive attention to regional and social conflicts which remain powerful in the country. The government will probably have to contemplate specific measures to address these conflicts so that the structural transformation can proceed with internal political stability.