

Edited by  
José M. Fanelli and Rohinton Medhora

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# **FINANCIAL REFORM IN DEVELOPING COUNTRIES**



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DEVELOPING COUNTRIES**

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Edited by

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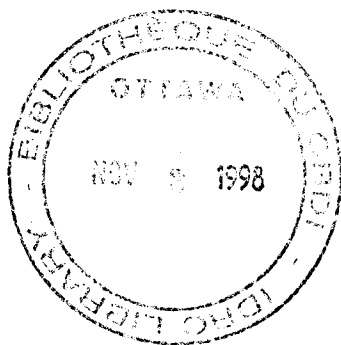
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Foreword by Lance Taylor



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**To my wife**

José M. Fanelli

**To my parents**

Rohinton Medhora

# Contents

<i>List of Tables</i>	ix
<i>List of Figures</i>	xi
<i>Foreword by Lance Taylor</i>	xiii
<i>Preface</i>	xv
<i>Acknowledgments</i>	xix
<i>List of Abbreviations</i>	xx
<i>Notes on the Contributors</i>	xxiii

## PART I INTRODUCTION

1 Financial Reform in Developing Countries: An Overview <i>José M. Fanelli and Rohinton Medhora</i>	3
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## PART II COUNTRY CASE STUDIES

2 Argentina <i>José M. Fanelli, Guillermo Rozenwurcel and Lucio M. Simpson</i>	31
3 India <i>Kunal Sen and Rajendra R. Vaidya</i>	57
4 Nigeria <i>Melvin D. Ayogu, Chidozie Emenuga and Charles C. Soludo</i>	90
5 Turkey <i>Erol M. Balkan and A. Erinc Yeldan</i>	129
6 Uruguay <i>Nelson Noya, Carlos Casacuberta and Fernando Lorenzo</i>	156

## PART III THEMATIC ISSUES

7	Micro- and Macro-Level Financial Reform in Canada <i>James Powell</i>	197
8	The 'Unforgiving' Market and the <i>Tequilazo</i> <i>Guillermo A. Calvo</i>	220
9	'Big Bang' versus 'Go Slow': Indonesia and Malaysia <i>Anwar Nasution</i>	245
10	Banking on the Transition <i>Rodney Schmidt</i>	296
11	Microeconomic Elements and Perspectives from Finance Theory <i>Varouj A. Aivazian</i>	328
	<i>Index</i>	353

# List of Tables

2.1	Argentina: main macroeconomic indicators	34
2.2	Argentina: IV. 1991 financial matrix	36
2.3	Argentina: III. 1995 financial matrix	37
2.4	Argentina: leverage	40
2.5	Argentina: short-run debt/total debt	41
2.6	Argentina: dollar debt/total debt	41
2.7	Argentina: interest rates and financial spread: annual interest rates on 30-day deposits and loans	50
2.8	Argentina: non-performing loans net of provisions as proportion of net worth	51
3.1	India: selected macroeconomic indicators	62
3.2	India: distribution of assets, banking and financial institutions	64
3.3	India: financial surplus or deficit by sector	65
3.4	India: non-financial sectors' sources of external funds	66
3.5	India: uses of funds by non-financial sectors	67
3.6	India: financing of large, non-financial enterprises in the private sector	69
3.7	India: structure of bank lending rates	74
3.8	India: institution-wise details of financial assistance to the industrial sector	76
3.9	India: foreign investment inflows	83
3.10	India: India's balance of payments	83
4.1	Nigeria: key reform measures and main outcomes	97
4.2	Nigeria: growth profile in the financial services industry	103
4.3	Nigeria: flow of loanable funds in the reform period	111
4.4	Nigeria: dynamics of corporate financing profile	112
4.5	Nigeria: dynamics of domestic national debt financing and external debt burden	117
5.1	Turkey: main economic indicators	135
5.2	Turkey: financial assets and monetary indicators	136
5.3	Turkey: public sector balances	141
5.4	Turkey: speculative short-term capital (hot money) flows and financial indicators	144
5.5	Turkey: main indicators in securities markets	149



5.6	Turkey: interest rates on deposit and government debt instruments	150
6.1	Uruguay: main macroeconomic indicators	159
6.2	Uruguay: credit to firms and deposits from households	162
6.3	Uruguay: structure of financial system	166
6.4	Uruguay: main macroeconomic policy orientations after financial liberalization	182
9.1	Malaysia and Indonesia: key macroeconomic indicators	248
9.2	Malaysia and Indonesia: structure of the financial sectors	251
9.3	Malaysia and Indonesia: financial ratios	254
9.4	Indonesia: reform in the banking industry	259
9.5	Malaysia: reform in the banking industry	262
9.6	Indonesia: Herfindahl index of banking industries	265
9.7	Malaysia: concentration in the commercial banks	267
9.8	Malaysia and Indonesia: money market instruments	279
10.1	Central and Eastern Europe: deposits and claims of the commercial banking system	300
10.2	Poland, Hungary and the Czech Republic: non-performing loans of the banking system	302
10.3	Poland, Hungary and the Czech Republic: sources of investment finance in enterprises	302
10.4	Czech Republic and Poland: share of loss-making enterprises	310
10.5	Czechoslovakia, Czech Republic, Slovakia, Hungary and Poland: government expenditures, subsidies, and arrears	319
11.1	Various countries: tax advantage of investment income relative to equity income.	337

# List of Figures

3.1	India: commercial bank real lending rate and spread between lending and deposit rates	73
3.2	India: real effective exchange rate – trade-weighted	85
4.1	Nigeria: financial reforms key performance indicators	109
4.2	Nigeria: real interest rate and financial savings	112
4.3	Nigeria: growth in private and public sector credit	113
4.4	Nigeria: financial reform and economic growth	114
4.5	Nigeria: net (public and private) capital flows through formal channels	119
4.A1	Nigeria: structure of the financial system	125
5.1	Turkey: short-term net capital inflows and central bank reserves	147
5.2	Turkey: speculative hot money inflows and ISE index	148
6.1	Uruguay: households assets in foreign currency	161
6.2	Uruguay: private banking offshore activity	167
6.3	Uruguay: banking spread on domestic currency	170
6.4	Uruguay: banking spread on dollars	171
6.5	Uruguay: long-run determinants – investment rate	179
6.6	Uruguay: spread between domestic and foreign assets	185
6.7	Uruguay: degree of dollarization	186
6.8	Uruguay: premium over national currency deposits	187
8.1	Uruguay: Krugman crisis	227
9.1	Malaysia and Indonesia: components of monetary base	283
9.2	Malaysia and Indonesia: developments of interest rates	284
9.3	Malaysia: market exchange rate, nominal exchange rate and real effective exchange rate	285
9.4	Indonesia: real effective exchange rate	287

# 6 Uruguay

Nelson Noya, Carlos Casacuberta and  
Fernando Lorenzo<sup>1</sup>

## 6.1 INTRODUCTION

This chapter reviews the financial liberalization reforms undertaken in Uruguay and their long-run effects. The reforms enacted in the 1970s created an institutional framework that has survived a deep recession and a severe financial crisis (1981–83), several negative external shocks (such as the debt crisis of the early 1980s) and the transition from the military dictatorship to democracy in 1985.

In the Uruguayan case, financial liberalization is neither a recent phenomenon nor an isolated reform. It was conducted in the context of a broader programme of economic reforms toward a market-oriented economy, similar to those implemented in the mid-1970s in other Latin American Southern Cone countries. The Uruguayan financial liberalization was a set of reforms that removed all restrictions on interest rates and on credit allocation to specific agents. The opening of the capital account and the deregulation of the foreign exchange market are also relevant, and impossible to disentangle from the deregulation of the domestic financial markets.

Section 6.2 outlines the contents of the reform and the economic evolution of the country in the period under study. Section 6.3 summarizes the main stylized facts in the evolution of financial markets and the changes in the regulatory framework. In Section 6.4 the long-run effects of financial liberalization are analysed. Section 6.5 is dedicated to the relations between macroeconomic policies and financial liberalization. Finally, Section 6.6 contains our conclusions.

## 6.2 FINANCIAL LIBERALIZATION MEASURES AND OVERALL EVOLUTION OF THE ECONOMY

The twenty years that preceded the financial liberalization reforms were characterized by economic stagnation and an upsurge in inflation

(Table 6.1). Controls on domestic interest rates caused a process of financial repression, with a sharp fall of the credit and deposit ratios to GDP. Financial disintermediation was aggravated by a major banking crisis in 1965.

The country experienced adverse terms of trade shocks in 1973–4. This prompted the military government, which took office after a *coup d'état* in 1973, to abandon government intervention. The financial market deregulation process started in September 1974 and lasted until 1979. The most significant policy measures were as follows:

- (1) Gradual deregulation of interest rates, on both loans and deposits, by raising their legal maxima until their complete removal in June 1979. In fact, by 1977 the maximum legal rate was no longer binding. Deregulation of interest rates on dollar-denominated deposits was even faster.
- (2) Abolition of exchange controls and adoption of full convertibility of national currency. Total freedom of capital movements was granted by September 1974. The opening of the capital account preceded the domestic financial market deregulation and was introduced all at once.
- (3) Elimination of the restrictions on allocation of bank credit to specific sectors. This included the rediscount system, which was removed in June 1977, also as a means to control money supply. Promotional credit to exporting firms was initially increased, but was eliminated in 1979. In June 1976 all restrictions on the banks' foreign-denominated net asset position were also removed.
- (4) Reduction of the minimum legal reserve requirements until they were eliminated in May 1979. Policies in this respect fluctuated: reserve requirements were increased from 1974 to 1978, and restored in November 1982, with the move to a floating exchange rate regime. This was the only liberalizing measure reversed.
- (5) Relaxation of regulations on entry of new financial institutions, allowing in 1976 the operation of banking houses, and in 1981 lifting the prohibition of entry to new banks.
- (6) Suppression of the so-called compulsory domestic currency 'legal tender' in March 1976, allowing real or financial contracts to be denominated in dollars or any other unit of account.

Along with financial reforms, trade liberalization started with the removal of non-tariff barriers to imports. In 1978 a tariff reduction program was announced to gradually unify them, but it was halted in 1983.

Additionally, tax reforms were undertaken in 1972 and 1974, simplifying the tax system, introducing a VAT and reducing the distortions. Price deregulation was also considerable. Between 1974 and 1978, active export promotion policies were pursued.

After the reforms, the performance of the economy improved: GDP grew at 4.9 per cent annually from 1974 to 1980 and financial deepening increased, with high dollarization of assets and liabilities. From 1978 onwards a price stabilization programme based on the exchange rate as a nominal anchor reduced inflation, but real appreciation of the peso led to current account deficits. A recession started in 1981, and when capital inflows reversed, the exchange rate policy was unsustainable leading to a steep real devaluation of 120 per cent in November 1982 that triggered capital losses in dollar-indebted firms and fuelled a financial crisis. From 1982 to 1984 GDP fell by 13 per cent.

Although growth resumed during 1985–7, and the economy experienced several favourable external shocks, the late 1980s saw an upsurge in inflation and low growth. In 1990, after inflation rose to 130 per cent, a new exchange-rate-based stabilization program was launched. As a result, inflation receded slowly, falling to an annual rate of 40 per cent in 1994. GDP grew after 1991, led by domestic absorption, while domestic currency appreciated in real terms. A current account deficit emerged, balanced by private capital inflows. In 1990 Uruguay joined the customs union of MERCOSUR, and there were also further tariff reductions with respect to the rest of the world, which may be considered the main structural reforms of the 1990s.

### 6.3 STRUCTURE AND EVOLUTION OF FINANCIAL MARKETS

#### **Evolution of the Financial Structure**

In what follows we present briefly the institutional agents in the Uruguayan financial system, considering two main classes. The first is for public-owned banks and it includes the following:

- (1) Banco de la Republica (BROU), a commercial bank also with development bank functions. It grants medium- and long-term loans to finance firms' investment, obtaining short-term funds as a commercial bank, and holds a monopoly of deposits from the public sector.
- (2) Central Bank of Uruguay (Banco Central del Uruguay), founded in 1967.

Table 6.1 Uruguay: main macroeconomic indicators

Period	GDP growth <sup>a</sup>	Private savings <sup>b</sup>	Gross investment <sup>b</sup>	Fiscal deficit <sup>b,c</sup>	Inflation <sup>a</sup>	Terms of trade (1983 = 100)	Current account <sup>b</sup>	Real exchange rate <sup>d</sup>	M1/GDP <sup>b</sup>	M2/GDP <sup>b</sup>	M3/GDP <sup>b,e</sup>
1955-59	-0.4	10.0	12.6	0.7	14	159	-3.1	94	18	34	39
1960-64	1.3	13.4	11.5	2.0	24	164	-2.3	133	15	28	34
1965-69	1.6	14.6	9.2	3.4	63	174	2.2	134	15	20	24
1970-74	0.8	10.3	9.6	3.2	47	181	-1.5	111	15	22	22
1975	4.4	8.8	11.3	4.4	81	115	-6.2	119	11	17	20
1976	2.6	11.0	14.0	2.6	51	110	-2.2	99	11	18	26
1977	3.4	7.4	14.3	1.2	58	105	-3.8	101	10	17	28
1978	3.9	7.9	15.2	1.3	45	109	-2.5	98	11	18	30
1979	6.2	7.8	17.0	-0.2	67	111	-4.3	79	11	19	29
1980	6.0	7.5	17.3	-0.1	63	107	-6.5	72	10	21	30
1981	1.9	13.1	15.4	0.1	34	110	-4.5	72	8	24	36
1982	-9.4	16.8	14.4	14.7	19	110	-5.1	81	10	29	55
1983	-5.9	19.5	14.2	12.2	49	100	-3.5	108	7	22	43
1984	-1.1	17.8	12.1	8.9	55	99	-2.6	98	7	20	43
1985	1.5	14.9	11.4	6.8	72	95	-2.5	100	8	20	47
1986	8.9	14.0	11.2	5.2	76	112	0.9	96	8	20	47
1987	7.9	13.9	14.3	4.1	64	123	-1.8	95	7	17	43
1988	0.0	15.3	13.2	4.5	62	125	0.4	95	7	17	45
1989	0.5	17.2	11.3	6.2	80	122	1.6	98	7	16	52
1990	0.9	14.0	11.5	3.0	113	108	2.0	118	7	15	56
1991	1.9	11.0	13.0	1.8	102	111	0.4	106	7	14	51
1992	7.4	7.1	12.0	-0.3	68	114	-1.8	100	7	13	46
1993	2.5	8.5	13.3	1.7	54	124	-2.6	87	8	13	40
1994	4.2	8.8	13.1	2.8	45	134	-2.5	82	7	12	39
1995	-2.2	8.6	12.9	1.7	42	130	-2.7	84	7	12	39

<sup>a</sup> Annual rate in percentage.<sup>b</sup> % of GDP.<sup>c</sup> Since 1982 includes central bank losses, and since 1990 losses of government-managed banks.<sup>d</sup> Trade-weighted average of real exchange rates with nine main trade partners, using wholesale price indexes.<sup>e</sup> M3 is M2 plus savings and time deposits in foreign currency from residents.

- (3) Mortgage Bank of Uruguay (Banco Hipotecario del Uruguay, BHU) that lends on terms from 15 to 25 years for housing purposes, indexing its assets and liabilities by an accounting unit (Unidad Reajutable, UR) linked to the aggregate nominal wage.

The second group is composed of private institutions including:

- (1) Commercial private banks, which operate mainly with short-term loans and deposits, though they are not restricted from doing it in longer maturities. Since 1976, they have also performed offshore transactions.
- (2) Banking houses (Casas Bancarias or Casas Financieras), which are not allowed to hold savings from domestic agents, take dollar-denominated deposits from non-residents and are oriented to offshore activities, but grant a significant amount of credit to residents.
- (3) Financial cooperatives, which intermediate between their associates and have existed since 1972, growing in the 1980s as a result of mergers. Their share is significant only in the domestic currency loan market, particularly in agricultural and consumer credit.
- (4) External financial institutions (Instituciones Financieras Externas, IFEs), allowed since 1989 to operate exclusively in offshore transactions.

### *Financial Repression*

Uruguay offered in the 1950s and 1960s a clear case of financial repression. Nominal ceilings on interest rates and high inflation determined strongly negative real rates. A sharp disintermediation process took place, measured by the ratios of both credit and deposits to GDP. The banking system was reduced to a minimum, and in the second half of the 1960s financing outside the formal system flourished.

Though the banking system was shrinking steadily, the activity level did not fall in an order of magnitude comparable to that of the fall in financial intermediation. An explanation may be that the funds driven away from the banking system were redirected to informal credit markets or to purchases of foreign assets (as reflected by negative figures in balance of payments errors and omissions). Some degree of inter-firm or informal financing via larger firms' credit to customers and from suppliers allowed firms to continue their activity, although it was a less efficient intermediation. Evidence from firms' balance sheets shows that they resorted to extraneous means of financing such as unpaid taxes (Pascale

1978, 1982). Differences by firm size in access to bank credit indicate rationing in the credit market.

### *Financial Deepening, Portfolio Substitution and Dollarization*

After two decades of strongly negative values, real domestic rates slowly increased after the 1974 reforms, though they did not turn positive immediately nor permanently.

The banking system recovered after the reforms (Table 6.2). Deposits grew steadily after 1974, while total credit did the same after 1975. The proportion of financial wealth held as bank deposits rose systematically after 1974 until the 1982 crisis.

It must be noted that there was no significant increase in private savings. Thus, the main source of financial intermediation recovery was the reallocation of the domestic private sector financial portfolio from foreign assets to bank deposits. The second source of the recovery were capital inflows, mostly from Argentina, part of which was channelled to offshore loans, while the rest helps to explain part of the domestic credit expansion.

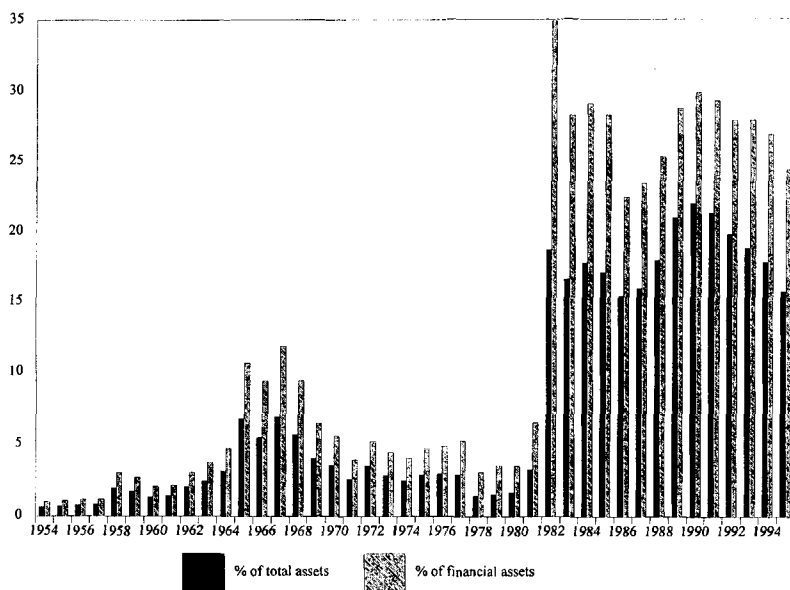


Figure 6.1 Uruguay: households' assets in foreign currency (%)



The financial intermediation recovery was carried out by increased dollarization of banking assets and liabilities. The proportion of dollar-denominated deposits rose, but the currency denomination structure of the household's financial portfolio (including foreign assets) was not significantly altered through the first years of the liberalization experience. Actually, dollarization of financial portfolios existed from the financial repression period on wards, as households had built up foreign assets via capital flight in the 1960s.

Table 6.2 Uruguay: credit to firms and deposits from households (in percentage of GDP)

Period	Banking credit to firms				Deposits from households			
	Private banking <sup>a</sup>	Central bank	BROU	Total	Private banking <sup>a</sup>	BROU	BHU	Total
1954-1963	21.2	0.0	8.7	30.0	15.8	3.9	0.2	19.9
1964-1973	9.7	0.2	6.5	16.5	5.7	1.7	0.7	8.1
1974	8.1	0.6	8.6	17.3	2.1	1.4	1.4	4.9
1975	8.9	0.8	8.3	18.0	2.3	1.7	1.7	5.7
1976	9.9	0.6	9.3	19.8	3.3	2.4	1.8	7.5
1977	13.7	0.2	9.3	23.3	4.5	2.7	1.6	8.8
1978	16.7	0.1	9.1	25.9	4.9	3.2	1.6	9.7
1979	21.3	0.1	8.3	29.6	6.0	2.9	1.3	10.1
1980	24.3	0.0	7.7	32.0	8.2	3.3	1.6	13.1
1981	24.6	0.0	8.4	33.0	12.5	4.4	2.1	18.9
1982	47.1	2.5	10.6	60.2	21.0	8.0	3.4	32.4
1983	30.2	9.7	13.7	53.7	16.3	7.4	3.4	27.1
1984	26.0	10.3	13.0	49.4	15.8	9.6	4.2	29.6
1985	22.5	8.2	14.5	45.1	18.5	13.0	4.7	36.2
1986	20.8	5.2	13.3	39.3	17.3	12.4	4.6	34.3
1987	18.1	4.0	11.9	34.0	16.2	12.9	4.5	33.6
1988	18.3	2.9	13.1	34.3	17.7	14.3	5.7	37.7
1989	15.9	0.3	13.5	29.7	22.1	17.0	6.8	45.8
1990	13.1	1.3	13.6	28.0	24.4	18.7	8.0	51.0
1991	11.3	0.3	11.1	22.7	21.5	17.2	7.5	46.2
1992	12.4	0.3	10.2	22.9	18.1	14.8	6.2	39.1
1993	11.6	0.2	9.1	21.0	14.9	12.6	5.7	33.2
1994	10.6	0.2	9.0	19.7	14.3	12.1	5.3	31.7
1995	12.9	0.1	10.8	23.8	13.5	11.9	5.8	31.2

<sup>a</sup> Includes private banks and banking houses.

Source: Estimated from central bank.

Dollarization of deposits led to dollarization of credit. In the years that followed, despite price stabilization attempts, dollarization of credit was not reversed, as shown in Figure 6.1.

A specific consequence of dollarization of domestic intermediation was to turn more fragile the whole financial system. Domestic households became net creditors, in dollars, of the banking system, and the banks in turn lent these funds to non-financial firms, keeping the same currency structure in their assets and liabilities. Non-financial firms accepted bank indebtedness in dollars, because it was the main credit source available to them, and assumed an exchange rate risk that they, specially those in non-tradable industries, were not facing before.

Another consequence of dollarization is that the leverage of firms became correlated with the real exchange rate. When the real exchange rate is below long-run equilibrium, the solvency of firm's as measured by leverage apparently improves, even though this is only a transitory effect.

As a result of the recovery of financial intermediation, the balance sheet data of firms show a relative loosening of the financial constraints after the liberalizing reforms, particularly for medium-size firms, which increased their leverage coefficients more than the larger ones. Firms' leverage increased immediately after the reforms and until the 1982 crisis.

### *Financial Crisis and Government Intervention*

A crucial aspect of the Uruguayan experience was the 1982 financial crisis. After the recession started in 1981, signals of a crisis were given by the increase in non-performing loans of private banks. Lack of confidence in the exchange rate policy grew, and was reflected initially in an increase in the spread between interest rates in pesos and in dollars. This fuelled the recession, through its impact on the loan interest rates. When depositors switched from pesos to dollars, banks forced the firms to renew their formerly contracted loans in pesos for new loans in dollars. The firms' position became increasingly risky. Finally, in 1982, the preannounced exchange rate system was abandoned, which led to a substantial real devaluation. Insolvency of firms, aggravated by the capital losses arising from devaluation, led most of the banks to financial trouble.

The crisis led to a massive government intervention. First, the central bank bought from bankrupted nationally-owned banks their uncollectible portfolios for 413 million dollars (4 per cent of GDP) before the end of 1982, to improve their balance sheets so that they could be sold later. Four banks were sold to banks of European origin. Second, the central bank bought from local branches of international banks some portfolios of loans

(not necessarily nonperforming) in exchange for international credit in dollars granted by their headquarters, as the government needed to recompose its depleted international reserves. While these purchases amounted to 215 million dollars (2 per cent of GDP), the debt the central bank acquired totalled 540 million dollars (5.5 per cent of GDP). This was not destined in principle to rescue banking institutions, but the central bank actually incurred in considerable losses during the 1980s, as loan collection was virtually nil. Total portfolios purchased by the central bank were 11 per cent of GDP at the end of 1984. A third type of government intervention took place between 1985 and 1989. The main three nationally owned commercial banks were seriously affected by the crisis, and, though insolvent, continued their activity until they had severe liquidity problems in the mid-1980s. They were bought out by government agencies to clean up their portfolios and leave them in condition to be resold to the private sector. These banks, known as 'government-managed' (*bancos gestionados*), held almost 30 per cent of total private banking deposits.

Another area of government intervention was the several laws passed (the last of them in 1992) imposing compulsory debt restructuring and suspending the enforcement of judiciary sentences to bail out firms from bankruptcy. Firms' debts were rescheduled several times throughout the 1980s. This fact set an atmosphere of uncertainty over the value of collateral and the enforceability of contracts.

From 1982 to 1989 there was an overall contraction of the private banking system (total credit to private sector fell by more than 10 per cent of GDP), but it did not return to the levels pertaining in the financial repression. Less credit was provided, owing to increasing default risks from the recession period, and also for fear of government intervention impeding loan collection.

Total deposits, however, did not fall and, in fact, they even increased in GDP terms. The financial rescue by the central bank and public sector agencies might have been perceived as an implicit insurance on deposits. This helps to explain why banks kept on attracting funds.

### *Government Financing*

Financial liberalization was associated with changes in government financing, basically related to the structure of public sector liabilities. In the years of financial repression, fiscal deficits were financed mainly through monetary expansion and foreign credit, while national-currency-denominated public debt was steadily shrinking. Dollar-denominated bills and bonds started to be issued domestically in 1968. From 1974 to 1976,

when high fiscal deficits were run, all dollar-denominated liabilities, and especially domestic bills and bonds, increased. These means of financing probably would not have been available without the financial liberalization.

As financial liberalization played a significant role in the creation of a domestic market for dollar-denominated bonds, it helped to ease the government's financial constraint after 1974, and reduced the urgency of fiscal deficit adjustments. It is a remarkable fact that even in the midst of the 1982 episode, a domestic financial market for public debt survived. Because of this, during the 1980s, when foreign credit was not available, fiscal crises did not lead to hyperinflation.

As in the case of non-financial firms, the government balance sheet position started to be correlated to the real exchange rate. As the public sector is a net debtor in dollar-denominated assets, it benefits temporarily from a real exchange rate that is below its long-run equilibrium level. This, however, has consequences particularly for the performance of stabilization attempts.

## **Structure and Performance of the Banking System**

Financial liberalization in Uruguay was basically the liberalization of the banking system. Non-banking financial markets, that is, the stock markets, were not important, except as secondary markets for public debt.<sup>2</sup> Given the importance of banking markets, it is worth while to recall some basic features of their structure and evolution after liberalization. In Table 6.3 the main structural indicators by type of agent are shown.

There are three main periods in the banking system after financial liberalization: (1) the initial phase, which lasted until the 1981–3 crisis; (2) the adjustment period that followed this crisis and continued approximately until 1987, when the last nationally owned private bank fell; and (3) the period starting 1987 until the present.

The first stage is characterized by an increase in the number of institutions, in their branch network, the amount of funds intermediated and the development of an offshore segment of the market. Commercial banks could take deposits from abroad, but in 1977 the opening of banking houses specializing in offshore transactions (Figure 6.2) was authorized and their number grew.

However, the idea of promoting an international financial center was a low priority in the overall public policy strategy.<sup>3</sup> Uruguay became a regional financial centre in spite of itself, and mainly because of high capital flight from Argentina in those years. Evidence is given by the fact that offshore credit transactions, which increased after the mid-1980s, fell

Table 6.3 Uruguay: structure of financial system, by type of institution (1994)

	Publicly owned		Private			
	BROU	BHU	Commercial banks	Banking houses	Cooperatives	External financial institutions
Physical network						
Number of institutions	1	1	22	11	8	8
Branches	106	27	225	19	73	8
Personnel	5 685	1 740	4 940	n.a.	n.a.	n.a.
Loans (million USD)	1 756	1 774	2 333	326	219	200
National currency	450	1 774	444	4	98	0
Foreign currency	1 306	0	1 889	322	121	200
Deposits (millions USD)	2 161	836	4 098	872	246	333
National currency	246	410	535	0	94	0
Foreign currency	1 915	427	3 563	872	153	333

n.a. = not available.

Source: Central Bank.

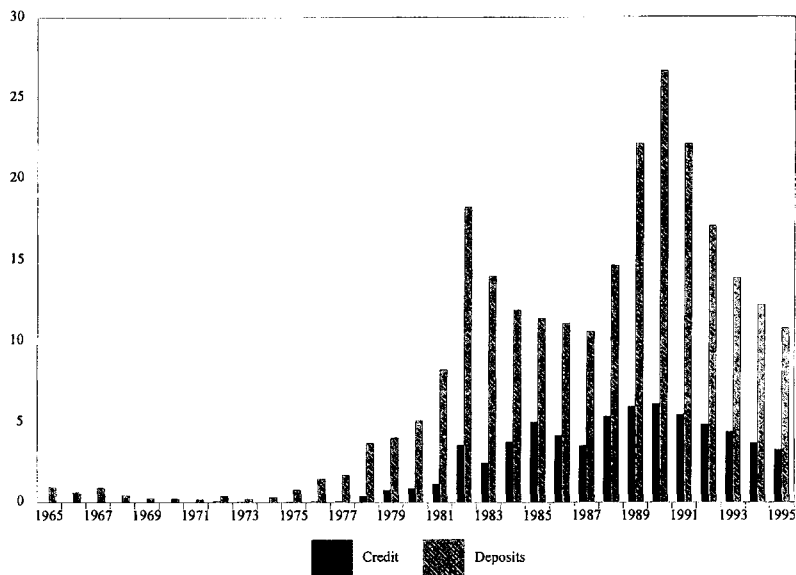


Figure 6.2 Uruguay: private banking offshore activity (% of GDP)

sharply after 1990. Behind these movements lie Argentina's financial system cycles, the origin of most offshore deposits.

The second period started with the 1982 financial crisis. As a result, by the end of the 1980s, all private banking institutions were foreign-owned, with the sole exception of the financial cooperatives (which were growing fast, but had a share of less than 2 per cent of total banking deposits). This structure of property was reinforced by an implicit licensing policy of the central bank, which restricted access to the banking system to international banks' branches. This would exempt it from being responsible for potential losses due to the insolvency of institutions. The physical network of the surviving private institutions contracted, a sign of the adoption of a 'wholesale' business strategy. This strategy implied increasing concentration in the private banking credit supply, particularly in corporate credit.

Meanwhile, in the aftermath of the crisis, public banks increased their share. From 1980 to 1990, BROU became the largest bank in the market, increasing its share in total deposits from 4 to 20 per cent of GDP, particularly in time deposits in dollars, and to a lesser extent in corporate credit (from 8 to 15 per cent of GDP). This can be explained by a relative lack of confidence in the private banking sector after the financial crisis, while

government backing of BROU's deposits made it seem relatively safer to the public.

The most recent stage, starting between 1987 and 1990, shows a reversal of the declining trend in the banking physical network, an expansion of consumer credit, but not of corporate credit, and a reduction in the public bank's share, particularly in the credit market. Even though there were significant capital inflows in this period, they were not channelled to the banking system. If we take the sign of errors and omissions in the balance of payments as an indicator of a decrease in foreign assets then its counterpart can only be domestic absorption expansion. This means at least partial improvement in the firms' balance sheets, which is consistent with data reported by Pascale (1993, 1994), because the government was then reducing its net liabilities.

After two decades of financial liberalization, the main problems of the banking system may be summarized as follows:

(1) The relatively small role of private national agents in the ownership of institutions. The main explanation is related to the private national bankers' structural vulnerability to financial crisis in a context of high dollarized intermediation. As the crisis implied important capital losses to banks, their viability depended on equity contributions. However, in the midst of a balance of payments crisis, those contributions could not come from a domestic credit expansion from the central bank. Therefore, rescuing these private national banks needed a mix of increased foreign indebtedness of the central bank and their sale to foreign banks. The above-mentioned implicit licensing policy also explains why entry of national agents after the crisis was nil.

This constitutes a problem, because as an almost general rule, private foreign institutions are more restrictive in credit granted to nationally owned firms (not in personal credit). This leads to credit market segmentation, particularly for medium-sized and small firms and sectors where foreign firms show little interest. The recent growth of financial cooperatives (from 1 per cent of total credit in 1990 to 4.7 per cent in 1994) may be seen as a market reaction to this increasing segmentation.<sup>4</sup>

(2) A high financial intermediation spread. This spread, about 35 per cent to 40 per cent in domestic currency credit, and 9 per cent to 12 per cent in dollar credit<sup>5</sup> to prime rate and non-prime-rate clients respectively, explains the high real loan rates, since real deposit rates have been negative or slightly above zero. In Figures 6.5 and 6.6 are shown the evolution of the BROU and private banks spreads, net of the financial cost of

mandatory reserves. The cost of mandatory reserve requirements explains only about 10 per cent of spreads in national currency. The high spread is due basically to the high costs of BROU and the lack of competition in the private banking sector. Evidence is provided by the fact that when in 1991 a series of implicit subsidies to the BROU were eliminated, it was forced to increase its spreads. Then, private banks followed that increase in the spreads without facing any additional cost (Figures 6.3 and 6.5), which can be interpreted as a rent-capturing situation by private banks with smaller costs.

Further evidence on the low degree of competition in the credit market is provided by Bergara and Cladera (1995), from an analysis of interactions in credit and deposit private markets at a micro level. They find that a competitive model cannot be accepted and that some degree of market power exists, in the sense of a finite price elasticity of demand at the banking firm level.

(3) The low development of the long-term credit market, particularly by private banks. Only public banks (BROU and BHU) constitute the long-term credit market. Just recently, in the 1990s, some private banks started to develop long-term lines, basically in personal credit to purchase of durable goods and real estate.

(4) The absence of a definite role for public banks. In contrast to their clear objectives during the financial repression period, the public banks' function is not well defined in the financial liberalization context. This is aggravated because as a result of higher public trust after the crisis their market share increased. There is an increased need to improve their efficiency and to define which market failure are they set to correct. In principle, in the Uruguayan case the lack of intermediaries catering for small and medium-sized firms or long-term credit may give a first approach to the answer, but high operative costs and lack of managerial skills prevent them from performing this function efficiently.

## 6.3 THE REGULATORY FRAMEWORK

### **Evolution of Regulations**

Until the mid-1960s banking regulation was based on a 1938 Banking Law. This law provided neither deposit insurance mechanisms nor lender-of-last resort arrangements. It was also especially liberal regarding the



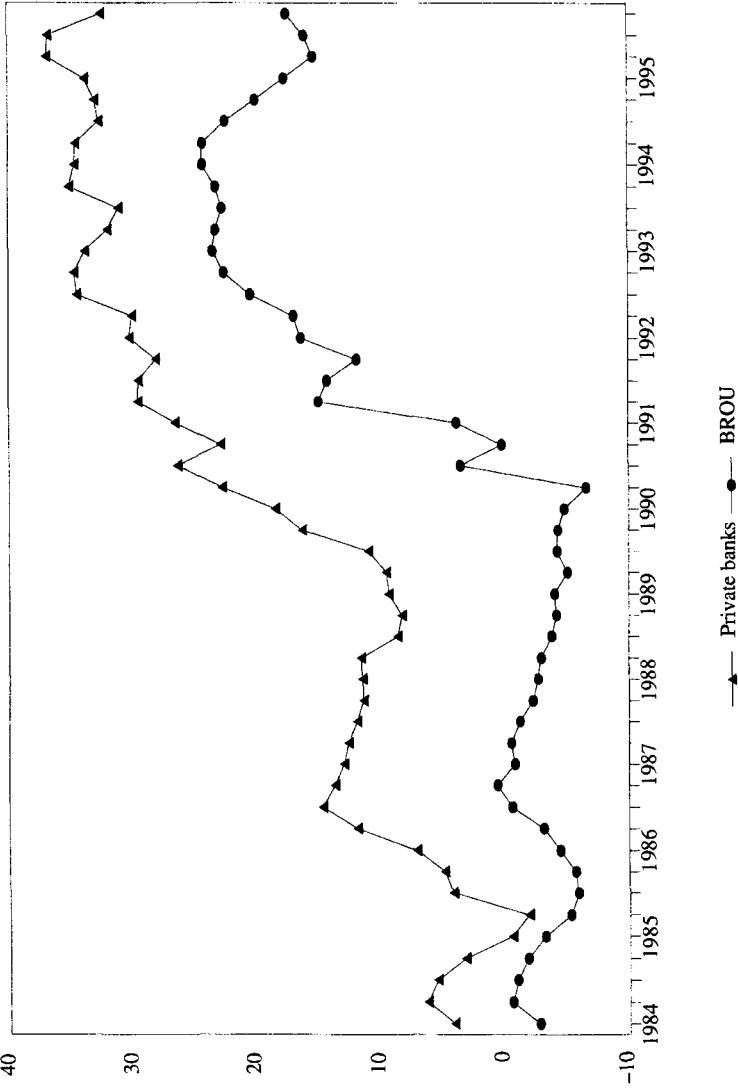


Figure 6.3 Uruguay: banking spread on domestic currency (annual percentage)

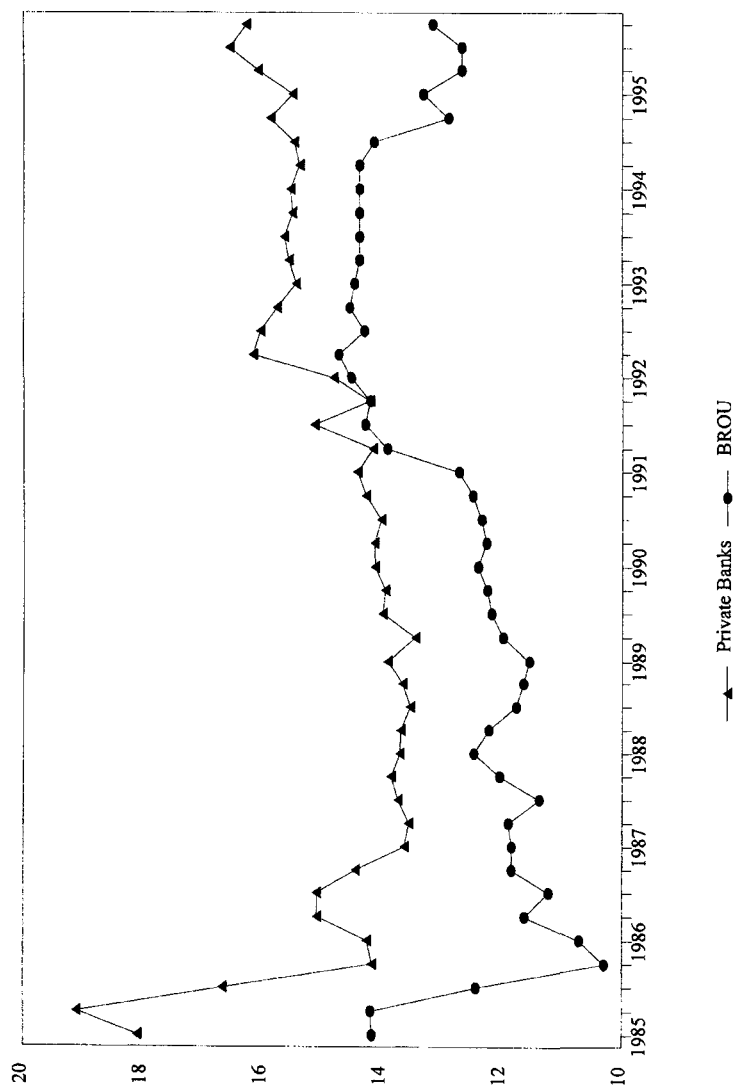


Figure 6.4 Uruguay: banking spread on dollars (annual percentage)

banks' portfolio structure. In practice, there were no limits to entry to the banking market. Furthermore, there was no central bank, and the monetary authority role was played by the issue department of the BROU.

As a reaction to the 1965 banking crisis, a deposit insurance scheme was established, but the fixed, peso-denominated ceilings on the amounts covered implied a rapid erosion of the effective coverage, given the inflationary environment. A set of measures were designed to decrease the high number of financial institutions and their physical network, which were seen as expressions of excessive competition. These measures include prohibitions of entry, official encouragement to mergers and acquisitions, a ceiling on the number of branches, and a ban on curb market subsidiaries. From an institutional point of view, an important innovation was the creation of the central bank in 1967. Despite the new regulations, new banking crises occurred in 1970 and 1971. The BROU purchased five bankrupted institutions that had a 27 per cent share of the credit market.

Financial liberalization modified the financial system regulation. All constraints on the allocation of loanable funds were lifted early. Regulations affecting credit concentration by debtor were also loosened, raising the maximum allowed ratio of credit to a single firm to the bank's net wealth. In 1979 all the restrictions were lifted, only to be re-established in 1980. The minimum liabilities-to-net-worth ratio was increased from 16 in 1974 to 30 in 1979. Only in 1981 was a programme approved to progressively lower this limit to 22 in 1984.

In 1977 the central bank revised the interpretation of the ban on entry, under the 1965 law, prompting the creation and rapid development of banking houses. In November 1981, the prohibition to establish new banks was finally replaced with a ceiling on the number of new entrant institutions, set as 10 per cent of the number of incumbent banks in the previous year. The 1982 Banking Law compiled the regulatory framework that emerged from the reform.

After 1989 new reforms were undertaken, aimed at strengthening the central bank's overseeing prerogatives and preventing the occurrence of new crises. Prudential regulations and capital adequacy requirements were revised along the Basle Committee guidelines. The new regulatory scheme was gradually introduced between 1989 and 1993, in the context of structural adjustment agreements with the World Bank and the Inter-American Development Bank.

Shares were required to be nominative, and every transference had to be authorized by the central bank. The minimum net worth requirements were linked to the quality of the bank's assets. A compulsory classification of loans on the basis of their risk, a corresponding scale of provisions for

default, new capital adequacy requirements on the basis of a net-worth-to-risk-weighted-assets ratio, and a limit to credit concentration were established. The prohibitions of bank's holding of shares in non-financial activities were maintained. More analytic compulsory accounting standards were introduced, and banks were required to keep up-to-date and detailed individual debtor information.

In 1992, additions to the Banking Law of 1982 were made to counteract the generalized perception of an implicit insurance policy that was prompted by the central bank's behaviour during the financial crisis. The 1992 law stated explicitly that no government agency would be liable for any failure to comply on the part of any private financial institution. The law, however, has also allowed the central bank to grant financial assistance to threatened institutions up to their net worth.

The resulting scheme was not, in fact, one of absolute lack of any insurance mechanism. It must be kept in mind that state-owned banks held a very significant share of the overall amount of deposits, and all the commercial banks were then branches of international institutions, so the government and the international banks would act as *de facto* insurers in case of crisis.

The functions of the central bank were specified in its 1994 charter, and the maintenance of monetary stability was defined as its main, although not exclusive, objective. Though the lender-of-last-resort function scheme, stipulated in the 1992 law, was maintained, the elimination of any reference to financial assistance limits may amount to an authorization to bail out troubled private institutions. Hence, the 1994 charter allows for a perception of implicit deposit insurance ruled out in 1992. Less determined was the move toward greater independence of the central bank with respect to the Treasury. An ambitious package – including changes in the rules on board members' tenure, bank's duties and greater fiscal and monetary policy prerogatives – failed to pass Congress. Also removed from the original proposed charter were stipulations to increase the subordination of the rest of the state-owned financial institutions to the central bank. Quantitative ceilings on the amounts lent to the Treasury and more stringent interest rate parameters were defined to improve the central bank's ability to avoid financing fiscal deficits.

Though the legal norms on licensing and entry are dominantly those contained in the 1982 law, the central bank's discretionary decisions have become more relevant in recent years. The implicit rule seems to be that no new institution will be allowed to enter without significant support from well-known banking institutions established in industrialized countries.

**Financial Crisis and Regulation**

We may draw the conclusion that in each financial crisis the regulation scheme had only part of the responsibility. It has been argued that as deregulation of the economic aspects of the financial system proceeded, the absence of reinforcement of prudential regulations and supervision of the banking activity had a key role in determining the 1982 financial crash (Roldós, 1991; Roldós and Viana, 1992). Though measuring the extent to which this contributed to the financial collapse is difficult, it was an important element in aggravating the instability of the system as a whole. However, it seems clear that the causes of the crises, both in the 1960s and in the 1980s, are given by the coincidence of macroeconomic instability and laxity of regulation.

Before the 1965 crisis, the regulation scheme was enacted for more than twenty-five years without any disruption. Only in the late 1950s did the conjunction of inflation and fixed deposit interest rates stimulate more risky (and sometimes fraudulent) behaviour by the banks, at the same time as they became more vulnerable. Probably that behaviour might have been limited by better supervision rules, but the incentives provided by strongly negative real interest rates could hardly have been compensated completely. Changes introduced as a result of the 1965 crisis, seeking to explicitly limit competition, stimulating bank concentration and banning entry to the system, are important background for understanding the facts after financial reforms, especially the lack of competition in private banking.

Financial liberalization eliminated or made more flexible some prudential regulation items introduced in the 1960s. It is, however, difficult to claim that more stringent prudential rules would have avoided the consequences of the 1982 abandonment of the exchange rate policy – with a real devaluation that implied bankruptcy of firms – for the solvency of financial institutions. These consequences were generated by high exposure to exchange rate risk due to dollarization and strongly negative external shocks, combined with errors in macroeconomic policies management. The need for capital adequacy of insolvent institutions, even if anticipated, could not have been fully met through foreign-currency-denominated funding. Furthermore, in such a context, the regulatory authority would have been in a dilemma, because anticipating policy inconsistency would have reinforced lack of confidence in exchange rate policy.

These questions are also relevant in evaluating the ability of the new regulations against the ones in late 1980s should such events occur. However, under the present structure of property of the private banks,

the role of last-instance insurer of the system is played by the foreign headquarters of local branches, and not by the central bank. The role of the central bank would be limited to the state-owned banks. Taking into account the *de facto* rules excluding nationally owned banks from entry, prudential regulation along the Basle guidelines would be then redundant.

## 6.4 LONG-RUN EFFECTS OF FINANCIAL LIBERALIZATION

According to the McKinnon–Shaw perspective, three main effects are to be expected from financial liberalization: an increase in domestic savings, an increase in investment and an improvement in its quality. Here we review the results of some research on trying to measure these effects.

### Financial Liberalization and Savings

The original liberalization literature predicted an increase in the savings ratio, once the real interest rates were allowed to reach their non-repressed market levels. However, such a positively sloped savings function was not explicitly derived from microfoundations, and standard models (as the simple life-cycle model of consumption) yield ambiguous results in this respect (see Deaton, 1992). A comparison of the savings ratio in Uruguay before and after the reforms shows no significant changes (Table 6.1), suggesting in a crude approximation that the McKinnon–Shaw predictions were not fulfilled in this case.

De Melo and Tybout (1986) find very limited sensitivity of private savings to the real interest rate in Uruguay. They conclude that the real exchange rate appreciation played an important role in discouraging savings throughout the 1970s. Furthermore, slight decreases in the private savings rate are observed immediately after the reforms, when absorption was stimulated by low real exchange rates.

Recent analysis suggests that liquidity constraints are relevant to explain the behaviour of aggregate private savings in Uruguay after 1955 (Noya *et al.*, 1996a). Empirically, this is reflected in a significant positive coefficient for income changes in a consumption function derived from a standard life-cycle model, where a fraction of the population is assumed to consume all their income owing to a liquidity constraint (Campbell and Mankiw, 1988). In this framework, financial liberalization could have an effect not fully anticipated by the McKinnon–Shaw theory. Specifically, the credit expansion allowed by the liberalization would lift the liquidity

constraint and, perhaps, induce an expansion in consumption and hence a fall in savings.

The hypothesis of changes in the sensitivity of consumption (and savings) to income changes is tested by interacting the explanatory variable with dummy variables reflecting three relevant periods (1955–75, 1976–81 and 1982–94). The results present some econometric difficulties<sup>6</sup> and relate to changes and not levels, so they do not allow us to be conclusive about the impact of the reforms on the rate of private savings. After 1975, changes in consumption (and savings) were affected by changes in current income (that is, there is a significant ‘liquidity constraint effect’). However, the parameter reflecting the liquidity constraint proportion of population is shown to have decreased with credit expansion from 1975 to 1994. But the results show an intriguing pattern, implying the absence of a liquidity constraint in the period before the financial reforms. Interpreting these results deserves further research.

### **Financial Deepening and the Quality of Investment**

The expected effect of financial liberalization on the quality of investment is positive, because at higher real interest rates the relatively low-yielding projects cease to be lucrative. Additionally, efficiency gains are predicted to result from the extension of banking activities and its impact on pooling, spreading and trading of risk, information-gathering and distribution, screening of investment opportunities, etc. Both the investment level and its efficiency determine the long-run rate of economic growth. The McKinnon–Shaw view would predict a significant effect of liberalized interest rates on the rate of growth, in both the short and long runs.

There is no consensus on the best method to assess these effects. A recent approach (King and Levine, 1992, 1993) relies on standard growth accounting methods to assess the extent to which the financial reforms impact on the rate of growth of the economy. Starting from a very general production function, the growth rate of potential output is decomposed into an employment component, a capital stock component and a production function shift component. The empirical implementation consists in regressing the latter on the interest rates and other variables reflecting financial depth, in conjunction with other policy variables and measures of changes in the stock of human capital.

Our approach consists in directly evaluating the effects of financial liberalization on productive efficiency by estimating the impact on the coefficients of a Cobb–Douglas aggregate production function of changes

of credit to the private sector as a fraction of GDP using annual observations for the period 1955–94. All the details of the econometric analysis of this section can be found in Noya *et al.* (1996b).<sup>7</sup>

We find only one significant cointegration relationship between the variables, when the traditional Cobb–Douglas labour and capital coefficients are dependent on the credit over GDP ratio:

$$\log GDP_t = (0.123 + 1.212CRE_t) \log K_t + (0.793 - 0.958CRE_t) \log L_t + A_t,$$

where  $K_t$  is machinery and equipment stock,  $L_t$  is hours worked,  $CRE_t$  is the ratio of credit to GDP and  $A_t$  is a term capturing the transitory dynamics in the model. In other words, credit expansion did not affect factor productivity neutrally.

This result does not imply that financial deepening explains higher observed per capita output growth after financial liberalization. The net impact of credit in per capita output growth is related to changes in both labour and capital, and can be positive or negative, depending on relative changes in both inputs. For instance, the years 1974–79 show GDP per capita growth, with increases in capital stock, but even higher growth in labour input. But strikingly, as capital/labour ratio declines, the contribution of financial deepening to output growth in this period was negative.

### Effects on the Investment Rate

According to proponents of financial liberalization, investment would be affected via two main channels. The first is the increase in credit availability that would follow the freeing of interest rates. The second is that a rise in interest rates from the repressed to market equilibrium levels will ease the need of the firms to accumulate money to finance investment (McKinnon, 1973).

We analysed the determinants of aggregate investment trying to test whether firms have been subject to binding credit constraints before and after financial liberalization, based in the models of investment determination in different disequilibria regimes.<sup>8</sup> An aggregate investment function can be derived by considering representative firms that maximize their net market value, subject to technology and product demand. Credit shortages imply an additional constraint, that is, net investment must not exceed available funds.

The ratio of machinery and equipment investment over capital stock,  $I/K_t$ , is the dependent variable determined by Tobin's average  $q$  (proxied



by an index of the market value of shares deflated by industrial equipment prices), capturing the changes in the expectations of the return on future investment; the difference between marginal and average  $q$ , measured by the output capital ratio and the output – capital price relation, which can be interpreted as capturing the accelerator effect; and the availability of loanable funds, defined as the change in total deposits adjusted by legal reserve requirements,  $F_t$ .

Our econometric analysis is again based on Johansen (1988), and the model is estimated with annual series for the period 1959–94. The results do not allow us to reject the existence of only one cointegration relationship among the variables. Further exclusion tests determine that the accelerator variable can be excluded from the cointegrating relation. Exogeneity tests performed on the variables in the model suggest that the model can be interpreted as an investment function. The long-run equilibrium relationship is characterized by

$$(I/K)_t = 0.067 + 0.07q_t + 0.155F_t + A_t$$

Beyond the statistical significance, it is interesting to decompose the contributions of each of the determinants of the investment rate. This is done only with respect to the long-run relationship, excluding a constant (Figure 6.5). These results suggest that investment in Uruguay after 1959 is ‘explained’ partly by the availability of loanable funds. Thus, to the extent that fluctuations in this variable can be attributed to the financial reforms, the liberalization would have had the expected effect on the level of investment.

Though investment closely follows the evolution of Tobin’s  $q$ , the available funds variable shows a non-negligible explanatory power. There seem to be two different situations, before and after the financial reforms. In the period before the reforms, the contribution of Tobin’s  $q$  is rather flat, probably reflecting the poor prospects for investment. It would seem as if, in those years, changes in the investment rate were linked more closely to the variation in available funds, which is consistent with the idea of a rationed credit market. On the contrary, in the years after the reforms the pattern of the investment cycle looks closely determined by the Tobin’s  $q$ . There are theoretical reasons to think that the parameter of the availability of funds might not be constant through time, a higher one corresponding to financial repression and a possibly smaller value after liberalization. However, it was not possible to test such a hypothesis, given the size of the available sample.

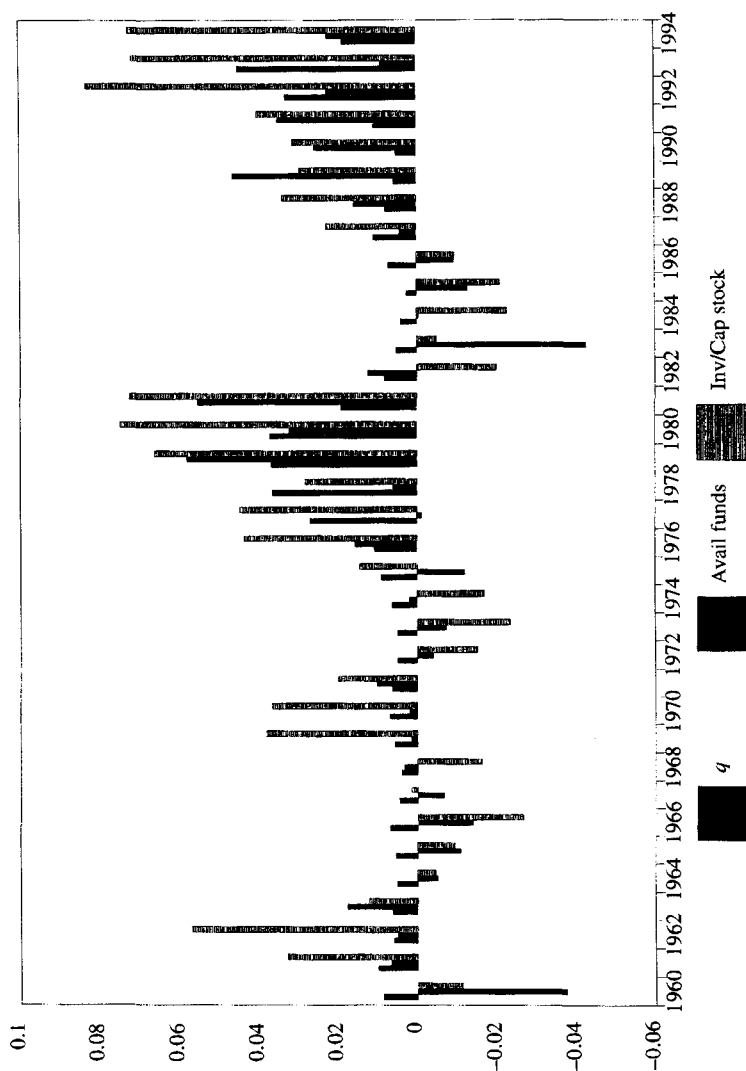


Figure 6.5 Uruguay: long-run determinants – investment rate; estimated contributions (minus constant)

## 6.5 MACROECONOMIC POLICY AND MONETARY FACTORS

In this section, we make a brief summary of the main macroeconomic policy orientations along the two decades of the Uruguayan financial liberalization experience. We then consider a set of analytical issues on the structural consequences that financial liberalization and an environment of openness brought to the conduct of monetary policy.

### **Basic Features of Macroeconomic Policies after Financial Liberalization**

After financial liberalization, Uruguay experienced many kinds of macroeconomic policy. In Table 6.4 we summarize their main features.

The main concerns of macroeconomic policies varied between price stabilization and external equilibrium. The latter was particularly significant during the implementation of financial liberalization as well as in the external debt crisis of 1982–5. In the remaining periods, anti-inflationary objectives were pursued. During 1978–82 and after 1991, gradualist stabilization programmes, based on the exchange rate as an anchor, were implemented.

Policy-makers perceived as early as 1977 that old-style stabilization, which is based on monetary control, had difficulties. In the each 1970, the fixed exchange rate regime with a real exchange rate target forced the monetization of capital inflows, leading to the loss of control of monetary aggregates. Neither management of reserve requirements nor open market operation was a useful instrument. As higher reserve requirements implied higher loan interest rates, their usage ceased to be convenient. Open market operations were used to sterilize capital inflows in 1976–7, but those attempts altered the yield differentials between peso- and dollar-denominated assets, inducing further capital inflows. When emphasis was progressively shifted to price stabilization, this loss of autonomy of monetary policy was one of the explicit reasons stated for the adoption of a programme based in a nominal exchange rate anchor after October 1978.

Though the period 1983–4 was marked by external equilibrium and fiscal adjustment rather than price stabilization objectives, a monetary anchor was adopted again when the pre-announced exchange rate policy was abandoned in 1982 and the currency was devaluated. It was soon evident that pure flotation implied excessive volatility. Compulsory reserve requirements were restored, but such measures had only transitory effects. Policy-makers attempted to control monetary aggregates by issuing monetary regulation bills, and by the sterilization of the increasing

BROU's deposits. This policy continued by discretionary management of the mandatory reserves of the BROU, as well as by establishing a target for the BROU's nominal credit to the private sector in the late 1980s.

By 1990 a new stabilization programme, based on exchange rate fixation, was launched and the innovation was the setting of targets for the foreign-currency-denominated credit than the BROU granted to the private sector. This stabilization programme was modified in mid-1991 to more gradual targets, explicitly setting the exchange rate as a nominal anchor and again abandoning the control of monetary aggregates. A band for exchange rate flotation was introduced, and its bounds evolved at a monthly rate of 2.5 per cent, then reduced to 2 per cent in October 1992. Though there was no formal commitment to such devaluation pace, in practice, private agents assumed that it would be the future devaluation and adjusted their expectations accordingly. The exchange rate was always near the lower limit of the band.

The Mexican crisis at the end of 1994 did not impact on Uruguay through capital outflows as it did on many Latin American countries (such an impact was known as the 'tequila effect'), but it did indirectly, through the current account. Given Uruguay's large share of trade with Argentina and Brazil, the tequila effect was channelled by a fall in foreign demand. Not only was there no capital outflow, but there were even larger inflows, basically to the offshore segment of the banking market (with no effects on the domestic credit market).

This different reaction is explained by the different nature of the previous capital inflows in the 1990s. Though there are no systematic statistics, the limited data available show that there was neither large-scale direct nor portfolio investment flows. The stock market did not experience a boom similar to that of the so-called 'emerging markets'. At the same time, the relatively high creditworthiness of the Uruguayan government, which never failed to comply with its foreign commitments – even in the most difficult moments of the 1980s – must be borne in mind.

### **Some Analytical Issues**

The Uruguayan experience of macroeconomic policy in a financial liberalization context allows us to draw some significant lessons related to monetary policy autonomy, the effects of dollarization on such autonomy and the sustainability of exchange-rate-based stabilization plans.

Liberalization and financial openness tightly integrated the domestic financial markets to the international markets, in such a manner that the ability to conduct autonomous monetary policy was reduced.

Table 6.4 Uruguay: main macroeconomic policy orientations after financial liberalization

Period	Global orientation	Macroeconomic policy			External environment		
		Monetary	Exchange rate	Fiscal	Incomes and prices	Trade	Capital
Oct. 1974– Sept. 1978	Initial objective: external equilibrium. Gradual movement towards price stabilization	Active control, with reserve requirements and open market operations	Active crawling peg (constant real exchange rate target)	Expansive expenditures (investment and subsidies) and higher taxes	Extensive and gradual price deregulation. Nominal wage control, with declining real wage	Sharp decrease in terms of trade in the previous months	Capital inflows (reparation) mainly to public sector debt
Oct. 1978– Nov. 1982	Exchange rate based stabilization program (gradual)	Passive. Expansive deregulation of reserve requirements at the beginning	Preannouncement of devaluation lower than past inflation ('tablita')	Low fiscal deficit from the beginning (1% of GDP) till 1981. Expansive expenses in 1982, mainly in public banks	Lasting major price deregulation made as a shock at the beginning. Nominal wage deregulation but with minimum periodical compulsory adjustment (lower than past inflation)	High external (regional) demand till 1981, followed by a strong reversal	Capital inflows (reparation and non-residents) till 1981, directed to private sector. Reversal in 1982; high capital flight; high international interest rate (1981) and credit constraint (Mexican crisis)
Dec. 1982– Feb. 1985	Objective: balance of payments adjustment	Active control, with reserve requirements	Floating, purely or with some intervention	Severe fiscal adjustment, through expenditures reduction	None		External credit constraint (Latin American debt crisis)
March 1985– March 1990	Mixed objectives of external equilibrium and domestic recovery	Active. Issuing of regulatory bills and targeting of public banks credit	Accommodating crawling peg (constant real exchange rate target)	Discretionary component was expansive	Sectorial wage bargaining with global guidelines resulted in <i>de facto</i> indexation to past CPI	Real external favourable shocks in 1985/86; higher external (regional) demand	External credit constraint but some reparation. Lower international interest rates

Table 6.4 *Continued*

Period	Global orientation	Macroeconomic policy			External environment		
		Monetary	Exchange rate	Fiscal	Incomes and prices	Trade	Capital
April 1990–	Exchange rate based stabilization program (gradual)	Passive since 1991	Floating within a band since mid-1991. Exchange rate almost always equals lower limit	Severe fiscal adjustment through tax increases. Expenditures grew	Deindexation through suppression of sectorial wage bargaining (since 1991)	Strong external (regional) demand: terms of trade favourable shock	Capital inflows (repatriation)

Additionally, dollarization of financial assets reduced still more the monetary base demand, and with it the possibilities of practising sterilization policies. The clearest evidence is provided by the very slight margin between rates of return of domestic dollar-denominated assets (both bank deposits and public debt instruments) and international interest rates (as the Eurodollar market rate). This measure of country risk (Figure 6.6) has at times even been negative after 1985.

This integration with the international currency market was questioned in the debt crisis period, basically between 1982 and 1984. But then, both demonetization and the widening of the public deficit made active monetary policy even more difficult.

The loss of autonomy of monetary policy is reflected in the fact that only for a very brief period before 1978 was there an active monetary policy in its strictest sense, attempting to control monetary aggregates to attain inflation targets. When the priority is stabilization, monetary policy has been passive and the influence on the price level is pursued through a fixed exchange rate mechanism.

Another sign of this is that, except during the most dramatic moments of the debt crisis between 1982 and 1984, the monetary authority exceeded its international reserves targets under the stabilization plans as well as in the rest of the period. The origin of this success was always an unexpected private capital inflow.

As to the effects of dollarization on demand for monetary aggregates, all research findings show a persistency in the degree of dollarization beyond the explanation given by interest rate differentials. Evidence of this is the fact that the interest rate differential between peso and dollar assets is a stationary process, while the degree of dollarization is non-stationary. This can be seen on Figures 6.7 and 6.8.

Dollarization limits the use of instruments to control domestic credit. An attempt to sterilize an increase in international reserves by raising mandatory reserve requirements in national currency will stimulate intermediation in dollars. If we assume loan rates and intermediation margins as given then higher reserve requirements in domestic currency will imply less return on domestic currency deposits. If, on the other hand, we assume equal yields in both types of deposits and fixed intermediation margins then higher mandatory reserves in national currency will determine less demand of domestic currency credit. Either way, an increase in reserve requirements in domestic currency will lead to increased dollarization, that is, substitution of domestic currency by foreign ones, reducing the demand for monetary base. The alternative would be to compensate the banks for the additional cost of reserves, but then the consequences

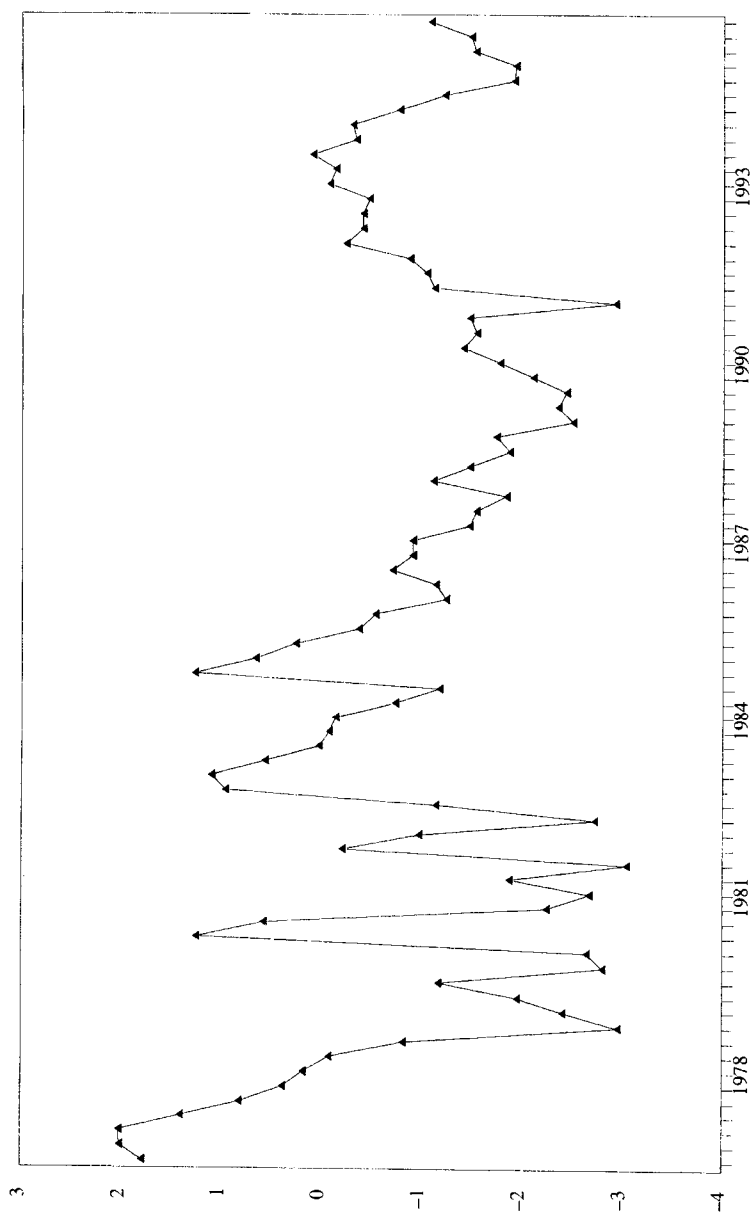


Figure 6.6 Uruguay: spread between domestic and foreign assets - USD domestic deposits (Eurodollar)



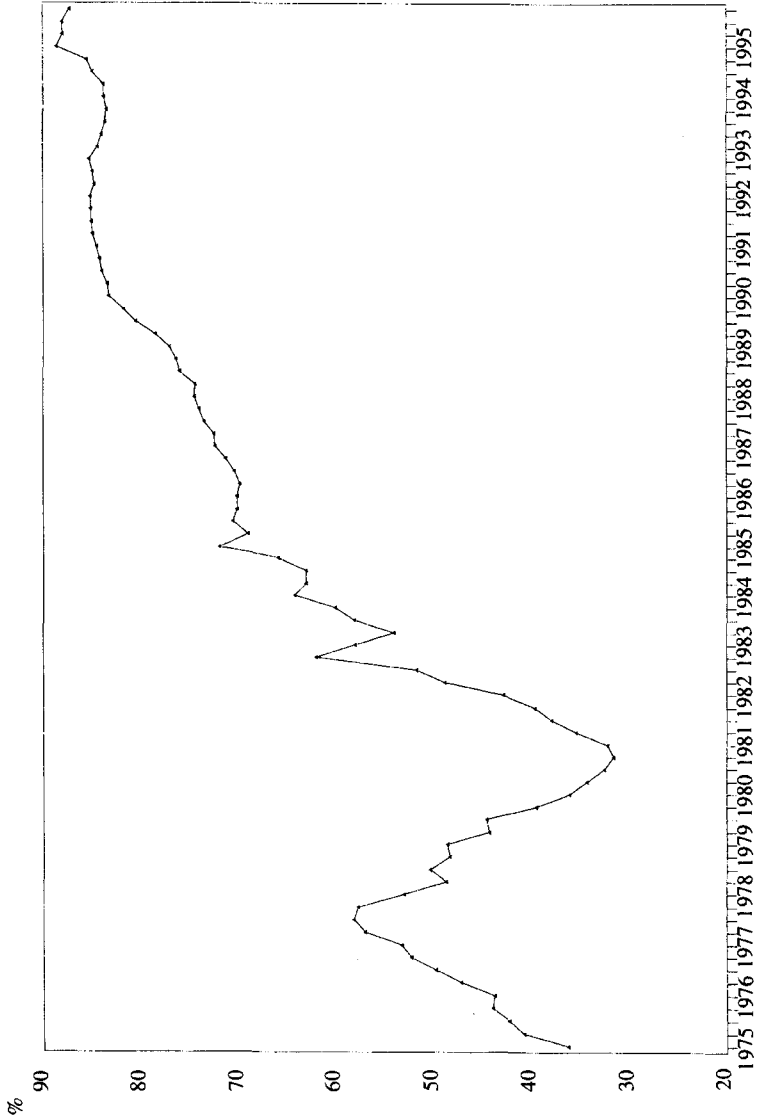


Figure 6.7 Uruguay: degree of dollarization – private sector deposits and public bonds

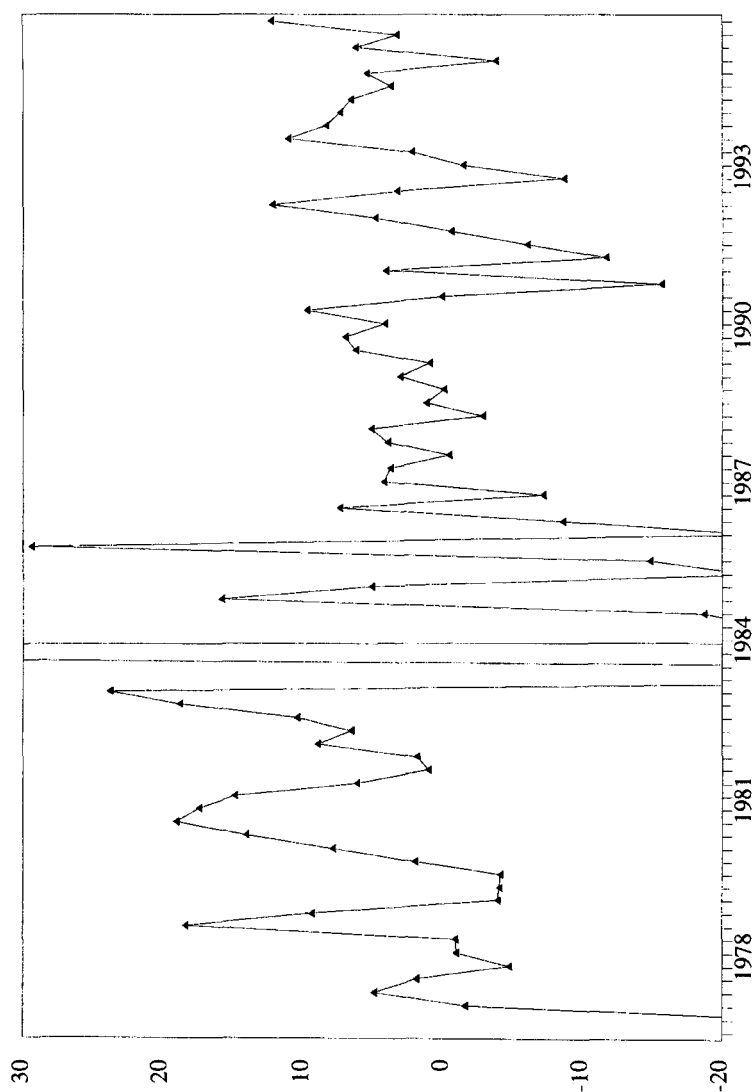


Figure 6.8 Uruguay: premium over national currency deposits (annual rate with expected devaluation)

would start to affect the fiscal situation, which would be reflected in the flow of interest payments in the central bank's balance sheet, just as in the case of open market purchases.

Both exchange-rate-based stabilization attempts in Uruguay followed a similar evolution, along the pattern already characterized in the literature (Kiguel and Liviatan, 1992; Végh, 1992). Briefly, this kind of stabilization plan generates an initial expansion, led by domestic absorption, together with capital inflows and real currency appreciation. Increasing dependency on capital inflows is the counterpart to the fall in domestic savings originated in a fall in private savings (since the fiscal deficit is generally reduced as the activity level grows). Then, a contractive phase follows the expansion, in which fiscal deficit rises and the economy becomes highly vulnerable to capital flow reversals.

From an economic policy view, as long as dependency from foreign savings seems to be the weakest point of this strategy, the fall in private savings must be avoided. If the initial private consumption expansion is, however, associated with increases in credit to the private sector, as the results by Noya *et al.* (1996) seem to show, then a conflict arises, at least in the short-run, between financial deepening and sustainability of the stabilization program. Control of domestic-currency-denominated monetary aggregates, beyond the issue of feasibility, would not be enough to avoid such initial expansion.

## 6.6 SUMMARY AND CONCLUSIONS

The financial liberalization process of the mid-1970s had important effects on the performance of the Uruguayan economy. Some of those effects coincide with the original predictions of the McKinnon-Shaw approach, but there are also others probably more important that were not foreseen in such literature. Within those unexpected effects are those related to dollarization and its consequences on the financial system fragility.

Particularly, financial liberalization seems to have had positive effects on capital investment efficiency. But the final effect on economic growth depends on the evolution of the capital/labour ratio. Because of this, the final contribution does not seem to be relevant to explain the relatively higher GDP per capita growth of the 1970s and 1990s, in contrast with the stagnant 1960s. Also, the reforms reduced to some extent, though did not eliminate, credit rationing to firms. This fact allowed firms to attain a higher investment rate and hence permitted the economy to reach a higher pace of economic growth. Even though the private investment cycle in the

period that followed financial liberalization is explained basically by the entrepreneur's profitability expectations, the bank credit expansion plays a positive role, and is important in explaining investment at some particular stages.

Both effects operate via the recovery of the degree of formal financial intermediation, and are relevant when compared in a long-run perspective to the highly distorted conditions of the period of financial repression. Financial deepening was not a result of a major change in savings. The main effect of the deregulation measures was, instead, a reallocation of the financial portfolio of private agents from the informal curb market and from assets accumulated abroad by capital flight toward the domestic financial system.

Given that deregulation was implemented in a context of a balance of payments crisis, the authorities had strong incentives to legally allow and even promote financial intermediation in foreign currency. For that reason the recovery of financial intermediation proceeded basically in dollar-denominated assets. However, the degree of dollarization of the household's asset portfolios was not a consequence of financial liberalization itself, but rather one of the phase of financial repression phase. This currency structure of financial assets had already been built up in the most acute financial repression years, basically between 1964 and 1973.

The fact that the reconstitution of financial intermediation proceeded by dollarization led to a higher financial fragility that had overwhelming negative consequences when the economy faced adverse external conditions. Dollarization became a factor that magnified the effects of unexpected adverse external shocks and macroeconomic policy reversals. As the absorption of such shocks required unpredictable adjustments in the exchange rate, it led to substantial capital losses on the part of firms. Those were later transferred to banks, leading them into insolvency. In turn, the capital losses of the financial system were absorbed by the public sector and constituted a serious fiscal problem.

Therefore, one of the lessons to be drawn from the Uruguayan case is related to the options available to economic policy to recover the financial intermediation levels. If there is high inflation at the starting point and liberalization precedes stabilization then the recovery of intermediation is more feasible when based in an asset free of inflation risk, that is, an indexed asset. If the starting point is such that assets held by the households are already dollarized and if additionally there is a foreign exchange shortage then it is evident that strong incentives arise for economic policy to accept and even promote the making of the recovery in financial intermediation in foreign currency.

However, from a normative view the optimal financial asset menu must, in the long run, minimize the systemic risk or financial fragility. In the Uruguayan case, indexation to the exchange rate of the overwhelming majority of financial assets has made the economy more prone to critical situations in the face of negative external shocks. Diversifying the indexes seems to be the natural economic policy recommendation. A sound recommendation would be the use of indexes inversely correlated to the exchange rate movements, the nominal wage being the obvious candidate.<sup>9</sup>

In case dollarization becomes inevitable, economic policy must clearly consider the increased systemic risk that it brings about. The only agent that may counteract such a systemic risk to a certain degree is the public sector, which hence should be auto-insured. That would imply increases in public savings destined to build up international reserves, which seems unlikely in contexts such as those in which liberalization reforms proceed.

The various negative external shocks or inconsistencies in policies in subsequent years may have induced further portfolio substitutions towards dollar financial assets. When such adverse conditions were reversed, they did not seem to have consequences on such substitutions, and private portfolios did not return to domestic-currency-denominated assets. Private agents seem to have a lasting memory on past events, which led them to an apparently irreversible portfolio substitution. The microeconomic rationale of such behaviour is a basic issue for future research.

From a macroeconomic policy point of view, the structure of financial relations emerging after financial liberalization and openness seriously limited the possibility of making an active monetary policy. All stabilization attempts since then were based on exchange rate fixation. The monetary programme became part of fiscal policy, and was basically oriented to coordinate the financial needs of the public sector with the international reserve targets. The ability to sterilize capital inflows was limited, and the available instruments, both mandatory reserves and open market operations, had very reduced effectiveness. Given high dollarization of the economy, it seems difficult to think that any kind of control of capital movements may give additional scope to monetary policy.

On the other hand, the creation of a deep domestic market for dollar-denominated public debt, which was parallel to financial liberalization, gave larger flexibility to fiscal policy, allowing the smoothing of the the impact of the crisis of the 1980s. Such a market, for instance, allowed the maintenance of an average deficit of 5 per cent of GDP throughout the decade, without risks of hyperinflation in spite of the reduced money

demand, during a period of strong constraints in international credit, which was in sharp contrast to other Latin American experiences.

Regarding central bank regulation, financial liberalization was accompanied by the relaxation of prudential norms. This fact undoubtedly had a role in the development of the crisis in the 1980s, though more stringent supervision would hardly have avoided it.

Another lesson arising from the Uruguayan experience is that financial crises in a context of high dollarization make nationally owned banks more vulnerable, except those backed by the government. The authorities' reaction since then has been to restrict those institutions from entry, in a policy aimed at preventing future crises. However, this seems to have as a counterpart the higher segmentation of the credit market and high intermediation margins in some of the segments.

## Notes

1. We are grateful to Erol Balkan, José Fanelli, Silvia Laens and Guillermo Rozenwurcel for helpful comments on previous versions of this chapter, and for the research assistance given by Fernando Borraz and Luis Sténeri.
2. The stock market lacks relevance in private firms, funding. Private equity issues amounted to only 0.1 per cent of GDP in 1994. Transactions in the secondary market on private equity represent less than 0.3 per cent of GDP since 1960. Only 20 firms quote their shares in the Stock Market, 4 of them concentrating 80 per cent of the operations.
3. New banking houses were allowed by reinterpreting a 1965 ban on new entrants, excluding non-resident deposits from the legal definition of 'national savings'. There was a *de facto* government in office, so the lack of amendments to the Bank Law could be interpreted as a sign of weak political support to the international financial centre project.
4. Banking regulation made the functions of financial cooperatives increasingly like those of banks, the differences between them being small at the beginning of the 1990s.
5. Spreads are expressed as  $(1 + i_c)/(1 + i_d) - 1$ , where  $i_c$  and  $i_d$  are the interest rates on credit and deposits. They should cover operating costs, the financial cost of reserve requirement immobilization, default risks and bank profits.
6. The different order of integration of the involved series makes it difficult to interpret the interest rate coefficient. while variations in consumption and income are  $I(0)$ , the interest rate enters the equation in levels and is  $I(1)$ .
7. Econometrically, the estimation is based on the methodology proposed by Johansen (1988), which allows the determination of the number of long-run (cointegration) relations among a set of integrated ( $I(1)$ ) variables.
8. We follow the approach of investment functions of Artus and Muet (1990), adapted and surveyed for developing countries by Rama (1990).
9. Evidence that a long-run asset with such characteristics may be accepted by the public and complete with dollar-denominated assets is given by UR bonds (indexed to nominal wage), issued by the BHU since 1968 to finance

housing credit. They amounted to 3.7 per cent of GDP by 1979, losing share recently for supply reasons. The recent reform in the social security system provides the government with the possibility of issuing wage-denominated bonds again.

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