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# Convertibility and *the banking system* in Argentina

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The system of currency convertibility has shown that it is effective in overcoming inflation in Argentina, but its capacity for supporting a stable growth process and acting as a monetary and exchange-rate system which does not involve intervention and heavy costs on the part of the State is currently being questioned. The present article deals with this aspect on the basis of an analysis of the 1991-1995 period and identifies some key features of the functioning of the system: its reactions to movements of foreign capital; its interrelations with the domestic banking system; the extent to which it is capable of operating automatically without any need for a lender of last resort, as claimed in the theory on which it is based; and the degree to which the currency issued really has effective backing to ensure its convertibility.

# I

## Introduction

Radical changes took place in the first half of the 1990s in the rules governing the Argentine economy. The immediate aim of these changes was to control inflation, but they also sought to establish a whole new framework for economic development. To this end, an effort was made to bring about lasting changes in the degree of openness of the economy, in the functions of the State, in labour relations, and in the monetary and financial system. Short- and long-term problems were tackled at the same time, and it seemed that the main measures would have to operate on both these levels. Thus, in the case of trade openness, it was desired to check domestic price rises through foreign competition and also to promote more efficient use of production resources. The privatization process, for its part, was designed to cover cash shortfalls, but it also formed part of a project to reform the State by reorienting State action from the production of goods and services to its "specific functions". Likewise, the monetary and exchange reforms (the core of which is the Convertibility Act) appeared to have a dual purpose: in the short term, to establish an exchange-rate anchor to check inflation, and in the longer term to establish a monetary system which would impose a well-defined rule on currency issues instead of permitting arbitrary actions by the monetary authorities, thus realizing a long-standing dream of the monetarist school, repeatedly expressed in the present century ever since the crisis in the Gold Standard.<sup>1</sup>

□ This article is based on document LC/R.1682 of the ECLAC Statistics and Economic Projections Division, the main hypotheses of which were discussed with Pedro Sáinz. The author also wishes to express his thanks for the valuable comments of Oscar Altimir, Gunther Held, Daniel Heymann, Luiz Claudio Marinho, Juan Martín, Edgardo Noya, Arturo O'Connell and Alejandro Ramos.

<sup>1</sup> Among the studies on this subject, special mention may be made of that by Simons, 1936, and –from a non-monetarist standpoint– that by Hayek, 1931.

This latter aspect of the convertibility system has aroused considerable interest both within Latin America and elsewhere. The region had witnessed other cases of systems similar to that of convertibility, with exchange freedom and fixed exchange rates, which did not manage to stabilize prices and led instead to devaluations and balance-of-payments crises. The present Argentine system, however, has lasted longer than any of its predecessors and successfully checked inflation, while it was accompanied by high economic growth rates between 1991 and 1994. Moreover, it survived the Mexican crisis and could therefore win fresh prestige and even become a model monetary system for other countries, provided the Argentine economy were able to resume its growth.

The way the convertibility system operated during the 1995 crisis is particularly interesting. Monetary history shows that systems like the Gold Standard do not suffer major difficulties when gold or convertible currency enter the country: the virtues or shortcomings of the system become clear when the opposite is the case. The outflow of capital from Argentina which took place during the first half of 1995, accompanied by loss of reserves and a decline in bank deposits, had this revealing effect. It is therefore interesting to see how the monetary and banking system reacted to this situation, how far it was possible to maintain the principle of convertibility and, in particular, whether the automatic adjustment that was to be expected in theory –which ruled out the use of a lender of last resort– actually operated in practice.

The convertibility system introduced a new form of operation for the banking system, whose main source of liquidity now became the inflow of foreign capital instead of the Central Bank. At the same time, what happened in the banking system was of crucial importance for maintaining convertibility. In the following sections we will analyse the mutual relations between the new monetary and exchange rate framework and the functioning of the banking system, in the light of the changing conditions on international capital markets.

## II

### Monetary reform

#### 1. The main measures adopted

When the peronist government took office in 1989, Argentina had suffered fifteen years of economic decline and was in the midst of an inflationary crisis. After a few months in which no definite strategy was followed, the economic policy authorities tackled the problem of inflation by trying to do away with exchange-rate speculation. The existing liquidity was exerting pressure on the foreign exchange market, and the devaluation of the currency was transmitted to all prices, even those of non-tradeable goods and services. The main instrument used to control inflation was the "Bonex Plan", adopted early in 1990. This compressed liquidity by replacing most of the bank deposits (concentrated in the short term) with medium-term public debt paper, denominated in dollars (Bonex, 1989 series).<sup>2</sup> At the same time, the public sector adopted stringent rules on expenditure which, by postponing some current payments, amounted to exacting forced loans from some of its suppliers and contractors.

The illiquidity resulting from these measures forced many resident agents to repatriate capital, and this gradually made it possible to halt the rise in the dollar and build up some US\$ 3.4 billion in international reserves: a figure which had risen to US\$ 6.2 billion by the end of 1990. After a big spurt in inflation between December 1989 and March 1990, price rises slackened in the rest of the year, reaching single-digit monthly inflation in the last quarter. The stabilization of the exchange rate gradually checked

inflation, but only with considerable delay: the consumer price index rose by 1,344% between December 1989 and December 1990, although the nominal exchange rate only rose by 287%. The perception of growing exchange-rate lags and problems in the fiscal sphere, together with the remonetization that had occurred in the economy, led to a new wave of speculation against the currency, causing loss of reserves and a resurgence of inflation in January and February 1991. In these circumstances, it was decided to replace the economic team.

The new economic authorities explicitly decided to adopt a fixed exchange rate in order to stabilize general price levels. Under the Convertibility Act which came into force on 1 April 1991, the Central Bank was required to sell all the foreign exchange that the market demanded at an exchange rate of 10,000 australes per dollar and to withdraw from circulation all the australes thus obtained; it was decreed that at no time could the international reserves be less than the total monetary base, defined in the Act as "currency in circulation, plus the demand deposits of financial institutions in the Central Bank, in current or special accounts"; and finally, all readjustments on the basis of changes in prices or costs were banned. The general idea of the Act was to take advantage of the indexing of prices to the dollar, which had become general practice after fifteen years of very high inflation, to avoid the inertial inflation that could result from the indexing of contracts (including wage agreements) on the basis of past inflation. Furthermore, the sectors producing tradeable goods were exposed to competition from imports, which was particularly severe because elimination of the possibility of resorting to devaluation was accompanied by reduction of tariff and para-tariff barriers.

The provisions of the Act were quite novel, not so much because of the introduction of a fixed exchange rate, set in advance, with free access to the foreign exchange market (since this had already been tried between December 1978 and April 1981 by Martínez de Hoz, then Minister of the Economy), but because of the restrictions on money issue and the legal form assumed by the measures. The aim was to

<sup>2</sup> In the first days of 1990, the Executive adopted Decree 36/90, which laid down that financial institutions must replace their clients' national-currency claims as of 28 December 1989—fixed term, readjustable or non-adjustable, special savings accounts, acceptances, deposits and loan security—with the corresponding value in terms of principal, interest and adjustments in External Bonds, 1989 series (BONEX 89). Payment in cash was permitted only up to a certain maximum; amounts exceeding this level were only permitted in respect of payments of wages, social allowances and pensions. See Argentina, Ministry of the Economy and Public Works and Services, 1994, p. 19.

give credibility to the exchange system in two ways. One was the rigidity of the measures: the exchange rate was fixed by law, which could only be changed by another law, although previously a mere administrative decision of the Central Bank was enough; the other was the announcement that the money issued must be backed by the international reserves: if the public so wished, it was stated, they could change their entire national currency holdings for dollars. The possibility of such conversion was ensured by the monetary rule: the Central Bank could only increase the monetary base in accordance with a corresponding increase in its international reserves.<sup>3</sup> The exchange rate selected must not give rise to expectations of fresh devaluations, since the criterion for its adoption was precisely its sustainability: in fact, with the dollar fixed at 10,000 australes the monetary base existing in March 1991 was approximately equal to the Central Bank's international reserves.<sup>4</sup> In response to the view that one last devaluation should be carried out before freezing the exchange rate, the economic authorities argued that such an adjustment would be pointless because it would be transferred to prices almost immediately in its entirety. Thus, it was decided to set the exchange rate anchor for the dollar at a relatively low level, compared with the real average level registered between 1983 and 1988.

As from 1 January 1992, the austral was replaced by the peso (1 peso = 10,000 australes). The Act amending the Charter of the Central Bank – a measure which complemented the monetary reform – was adopted in the same year. This Act provides that the Central Bank shall be independent of the other State powers; prohibits it from issuing securities or

certificates whose purchase is compulsory and from paying interest on bank reserves; prohibits it from “issuing guarantees ... to cover the commitments of financial institutions, including those arising from the receipt of deposits”; severely limits the Central Bank's capacity to grant rediscounts and temporary advances to financial institutions (their duration may not exceed thirty calendar days, and they must not exceed the body's net worth); and restricts the possibility of granting finance to the government, both as regards the total amount and the form assumed.<sup>5</sup> These provisions are designed to prevent uncontrolled money issues such as might occur through the monetary financing of a fiscal or quasi-fiscal imbalance or a massive rescue operation to aid the financial system.

## 2. The scope of the reform

Through these measures, the issuing function of the Central Bank was brought closer to that of a currency board which would issue or absorb money in line with variations in the foreign exchange reserves. It could still influence the money supply and bank liquidity by fixing compulsory banking reserve requirements, and in principle there was nothing to stop it from carrying out operations to reduce the monetary base. At the same time, the inclusion among the international reserves for backing the currency of a proportion of dollar-denominated government paper gave it some leeway for expanding the monetary base more than the accumulation of genuine international reserves would permit. Fundamentally, however, this set of reforms tended to deprive the Central Bank of its function as lender of last resort to the banking system and to severely limit the possibility of monetary financing of a fiscal imbalance.

The adoption of this set of rules meant giving up important economic policy instruments in the ex-

<sup>3</sup> Among the international reserves computed as backing for the monetary base the Government included gold, foreign exchange, accounts receivable, the net position with ALADI, and also dollar-denominated Argentine public securities in the hands of the Central Bank, valued at their market prices. Strictly speaking, these latter securities should not be considered as a component of the international reserves, regardless of the currency in which they are denominated, because they are not foreign claims. The special nature of this component of the reserves is implicitly recognized because it is laid down that they cannot account for more than 20% of the total reserves.

<sup>4</sup> Strictly speaking, this criterion only applies to the determination of a minimum value for the dollar: any higher value would naturally be even more sustainable. Other criteria could also have been used for defining a sustainable exchange rate: for example, the possibility of achieving a given balance of payments current account surplus.

<sup>5</sup> The Central Bank was already prohibited from granting direct loans to the national, provincial or local governments or backing their obligations. It could only provide finance to the government by purchasing National Treasury securities at their market value, up to an amount equal to one-third of its freely available reserves. Furthermore, its holdings of such securities could not increase by more than 10% per year. See Argentina, Ministry of the Economy and Public Works and Services, 1994, p. 20.

change-rate, monetary and financial fields. The decision to do this was due to short-term needs: it was imperative to give credibility to an anti-inflation programme after many others which it had not been possible to maintain. Convertibility, the legal parity of "one peso equals one dollar", and the commitment to back the money issued with foreign exchange reserves were all designed to transfer to the national currency the monetary qualities won by the dollar in the Argentine economy (it was already a unit of account, a store of value, and had gained considerable ground as a means of payment, especially during surges of inflation). These guarantees could be set aside: the currency could still be devalued by a decree of "*force majeure* and urgent need" (of which hundreds were adopted, both before and after the convertibility plan), and as we shall see below, the idea of backing the money issued is largely illusory. However, the adoption of rigid rules was necessary in order to convince the economic agents that this time the programme really was in earnest, and part of this impression of seriousness depended on the length of time that the system thus introduced was supposed to last.

This raises the question of the time horizon of the convertibility system. Was it basically a set of measures designed to do away with inflationary expectations and to generate a virtuous circle of stabilization, reactivation and increased tax revenue on the basis of which it would subsequently be possible to restore more flexible monetary and exchange rules? Or was it designed to go further and to constitute a lasting monetary and exchange system capable of framing and furthering the development process in the long term? The economic and political authorities have not expressed completely clear views in this respect, and they may keep on changing. Some statements by the Ministry of the Economy hinted at a relatively short time horizon (just a few years), but others, by the Minister of the Economy and the President of Argentina himself, hinted at a system that would last for many decades.<sup>6</sup>

In this latter case, we would be dealing with a form of operation of the monetary and banking system that goes far beyond the bounds of a mere anti-inflation programme. We would be coming close to an automatic system such as was advocated by,

*inter alia*, Henry Simons. According to this latter author, "in a free-enterprise system we obviously need highly definite and stable rules of the game, especially as to money. The monetary rules must be compatible with the reasonable smooth working of the system. Once established, however, they should work mechanically... To put our present problem as a paradox -we need to design and establish with the greatest intelligence a monetary system good enough so that, hereafter, we may hold to it unrationally -on faith- as a religion, if you please."<sup>7</sup>

The time which has passed since April 1991 provides us with evidence on the basis of which we can gauge whether we are dealing with a system that satisfies Simons's demands or whether we need to restore in one way or another the function of lender of last resort or the possibility of amending exchange policy. It is a question of deciding how far and under what conditions the convertibility system may serve not only to favour monetary stability but also to provide a framework for sustained growth and for overcoming crisis situations.

<sup>6</sup> In a newspaper column circulated by Reuters on 2 February 1996, the Minister of the Economy, Domingo Cavallo, considered that "the system of full convertibility of the Argentine peso is proving to be successful not only as a key stabilization tool after hyperinflation, but also as a means of generating a climate favourable to sustained growth."

<sup>7</sup> Simons, 1936, p. 14. Taking a less ambitious attitude, Friedrich A. Hayek considered around the same time that "maintaining the semi-automatic system of the Gold Standard" was better than replacing it with a currency managed more or less arbitrarily: "I fear that at the present level of knowledge the risks involved in such an attempt would be much greater than the shortcomings of the system based on the Gold Standard" (see Hayek, 1975, p. 198 (published in English in 1931). Much later, in his proposal to denationalize the currency by introducing a free banking system, this author modified the suggested solution, but not the problem to be solved, which was the discretionary power of governments in monetary policy. On the contrary, he considered that this problem was now even more serious: "With the abandonment of the Gold Standard and fixed exchange rates, central banks have acquired even more discretionary power than they had when they were still trying to keep to firm rules" (Hayek, 1980, p. 179).

### III

## The banking system during the period of expansion: 1991-1994

### 1. The growth of bank deposits

Argentina entered the 1990s with an extremely low level of monetization. The effects of chronic inflation were compounded by the episodes of hyperinflation in 1989 (when the consumer price index rose by 5,000%) and 1990 (when it rose by over 1,300%). Furthermore, the Bonex Plan of January 1990 had frozen a large part of bank deposits for a fixed term. In 1990, the liquidity ratio (as measured by M3 as a percentage of GDP)<sup>8</sup> was only 5.4%, compared with 12% in 1987 and 24% in 1980.

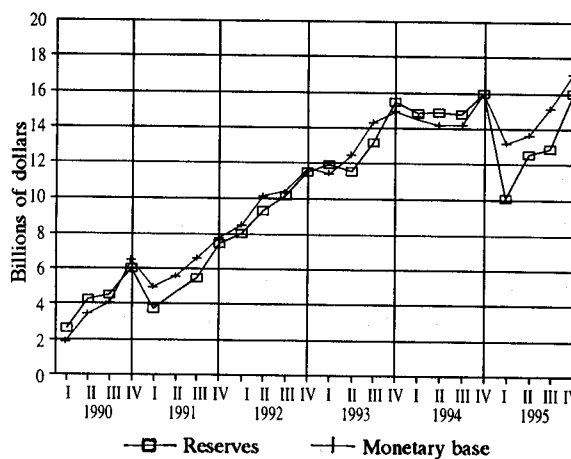
In these circumstances, the disinflation brought about by the convertibility programme, combined with the abundant supply of foreign capital, made possible rapid remonetization which brought the liquidity ratio up to 17% of GDP in 1994. The flow of foreign capital made possible the accumulation of substantial international reserves (figure 1), in spite of the explosive increase in imports of goods and services (US\$ 6.4 billion in 1990, US\$ 18.2 billion in 1992 and US\$ 25.1 billion in 1994) which turned the big 1990 trade surplus into a growing deficit as from 1992.

The monetary base grew side by side with the reserves, and with it there was an increase in the liquidity of the financial intermediaries. It was thus possible to expand the supply of credit to the private sector, taking advantage both of the greater loan capacity of the banking system and the initially low levels of indebtedness of many firms and families. Ultimately, the creation of bank money was reflected in an increase in deposits (figure 2).

Monetary and credit expansion is reflected in the balance sheets of the Central Bank, financial institutions and the non-banking private sector. Tables 1, 2 and 3 show the variations in the main classes of as-

FIGURE 1

Argentina: International reserves of the Central Bank and the monetary base, 1990-1995



Source: Based on figures of the Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

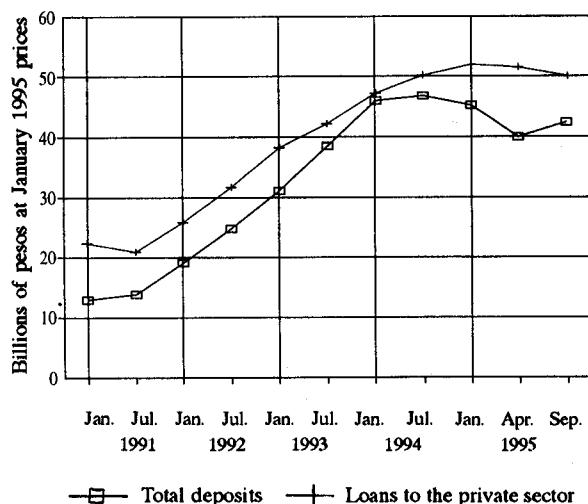
The international reserves do not include domestic securities in the possession of the Central Bank. "Monetary base" means currency outside banks plus peso deposits of financial institutions in the Central Bank between 1990 and 1994. As from 1995, because of the successive reforms in the regulations, the concept of monetary base was replaced first of all by "monetary liabilities of the Central Bank" and later by "financial liabilities of the Central Bank". These concepts are explained in footnote 17.

sets and liabilities of these agents between the beginning of the convertibility system (April 1991) and the eve of the Mexican crisis (November 1994).

The bank balances show a big quantitative increase (+57% in the assets and liabilities of the Central Bank and +123% in those of financial institutions), with a leading role being played by foreign-currency operations. In the balance sheet of the Central Bank, accumulation of international reserves accounts for 73% of the increase in assets. For financial institutions, loans in dollars represent 59% of the increase in total loans (including purchase of securities), while increased foreign-currency deposits

<sup>8</sup> We refer to the means of payment (currency outside banks plus current account deposits, i.e., M1) plus peso-denominated interest-bearing deposits (M2), plus dollar-denominated deposits. Some publications call this aggregate "broad M3".

FIGURE 2

**Argentina: Financial Institutions,  
deposits and loans to the private sector**

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues). The balances were converted to constant values on the basis of the general level of the Wholesale Price Index.

account for 55% of the total increase in private deposits (a further 35% corresponds to an increase in national-currency time deposits and 10% to increased current account balances).

The inflow of short-term foreign capital was a decisive element in this evolution. The balance of payments (in the new IMF presentation) registers an extraordinary net inflow of "other short-term debt" for the non-bank private sector in 1992 and 1993 (no comparable figures are available for 1994): this inflow was US\$ 7.9 billion in the first of these years and US\$ 10.5 billion in the second.<sup>9</sup> In view of the growth in foreign-currency deposits in the Argentine banking system (these rose from US\$ 5.5 billion in July 1991 to US\$ 20.5 billion in July 1994), it may be deduced that much of this capital was deposited in the banking system.

The process of remonetization that took place between 1991 and 1994 may be seen in the assets of the non-financial private sector (table 3), which increased its demand for M1 (currency outside banks and sight deposits) and M3 (M1 plus time deposits in

banks in pesos and dollars). Table 3 shows the variation in only a few balance sheet items of private non-financial agents (i.e., those items which are a counterpart of the operations of the local financial system) and therefore does not present an accounting balance. Broadly speaking, however, it may be noted that the increases in monetary assets and banking liabilities are of a similar order of magnitude: it is a process that is channelled through the local financial system. Furthermore, the fact that the assets in question have increased more than the liabilities suggests that the private non-financial agents have either increased their external liabilities or reduced their foreign assets (i.e., they have repatriated capital).

In order to gauge the soundness or fragility of this financial expansion we must look at the maturities and nature of the resources involved, on the banking liabilities side, and the destination and use made of the credit obtained, on the assets side.

The great majority of bank deposits are short-term, although the one-week fixed terms which predominated in the 1980s are no longer allowed. At the end of 1994, national currency resources consisted mainly of current account deposits (22%), savings bank deposits (28%) and fixed-term deposits (45%). The savings banks offer interest rates a good deal lower than those available on fixed-term deposits (3.3% per year in 1994, compared with 8.2%), but they provide high liquidity (several withdrawals per month are permitted); in the case of the fixed-term national currency deposits, 90% were for between 30 and 89 days and only 10% were for 90 days or more. Most of the deposits in dollars are fixed-term and almost all of them (99%) are for between 30 days and one year (no public information is available on the exact average term).<sup>10</sup>

The growth in foreign-currency deposits was the most important factor in the expansion of bank deposits, due to the massive inflow of foreign capital, mostly short-term. A high proportion of short-term foreign capital in the structure of bank resources is of course a factor of financial fragility, because as this money is attracted by the prospects of making profits on the stock exchange or through the differential between domestic and external interest rates, any reduction in these incentives can lead to its rapid withdrawal.

<sup>9</sup> See IMF, 1995a.

<sup>10</sup> Data taken from Banco Central de la República Argentina, Gerencia de Estudios Económicos, *Boletín estadístico*, various issues.

TABLE 1

**Argentina: Variation in Central Bank  
balances between April 1991 and November 1994**  
(Millions of pesos)

Assets		Liabilities	
Foreign assets	13 403	Liabilities to international organizations	-867
Finance provided to the Government	2 560	Official deposits	453
Loans to financial institutions	2 439	Miscellaneous accounts	8 760
		Money in circulation outside the financial system	6 311
		Money in circulation in financial institutions	1 051
		Deposits by financial institutions	2 695
<b>Total</b>	<b>18 402</b>	<b>Total</b>	<b>18 402</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

TABLE 2

**Argentina: Variation in balances registered in the consolidated  
accounts of financial institutions<sup>a</sup> between April 1991 and November 1994**  
(Millions of pesos)

Assets		Liabilities	
Cash	1 051	Net external credits	1 583
Current account in Central bank	3 051	Official deposits	4 951
Loans and securities, official sector	2 439	Private demand deposits in national currency	3 254
Loans and securities, private sector, in national currency	13 382	Private time deposits, in national currency	10 713
Foreign currency loans to private sector	20 679	Private foreign currency deposits	16 922
Other assets	8 054	Liabilities with Central Bank	4 862
		Other liabilities	-1 063
		Capital and reserves	5 946
<b>Total</b>	<b>47 120</b>	<b>Total</b>	<b>47 120</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

<sup>a</sup> Includes banks and savings banks, finance companies, savings and loan institutions for housing and other constructions, and credit institutions.

TABLE 3

**Argentina: Variation in some items of the consolidated accounts  
of the non-financial private sector between April 1991 and November 1994**  
(Millions of pesos)

Assets		Liabilities	
Money in circulation	6 311	National-currency bank loans	13 382
Demand deposits in banks	3 254	Foreign-currency bank loans	20 679
National-currency time deposits in banks	10 713		
Foreign-currency time deposits in banks	16 922		
<b>Total</b>	<b>37 199</b>	<b>Total</b>	<b>34 061</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

## 2. The use made of credit

With regard to the use made of bank loans (the expansion of which is reflected in the "assets" section of table 2), it may be observed that as the volume of finance provided increased, the use made of it

changed considerably. Table 4 shows the sectoral structure (by main activity of the borrower) at the beginning of the process of expansion of credit, and the way this structure subsequently evolved.

When the convertibility programme was launched, there was a rapid increase in loans to families

TABLE 4

**Argentina: Distribution of finance, 1990-1995<sup>a</sup>**  
(Percentages)

At end of first quarter of:	1990	1991	1992	1993	1994	1995
Primary activities	8.8	9.4	11.5	12.4	11.5	10.7
Manufacturing	36.5	25.7	20.4	19.6	19.1	17.8
Construction	6.8	6.7	5.8	5.1	4.1	4.2
Electricity, gas and water supply	4.7	3.5	2.8	1.4	2.3	1.9
Wholesale trade	5.2	4.3	5.5	5.7	6.1	5.1
Retail trade	2.0	2.5	6.8	9.0	10.1	10.0
Services and finance	23.8	23.6	21.1	22.7	24.1	24.3
Families	9.9	21.0	22.7	20.3	18.0	20.3
Others	2.3	2.3	3.4	3.7	4.7	5.7
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

<sup>a</sup> Includes finance (in both pesos and dollars) provided by banks and savings banks, finance companies, savings and loan institutions for housing construction, and credit institutions.

and retail trade, whereas the share accounted for by loans to manufacturing firms went down to less than half. This big increase in consumer credit favoured the recovery of the economy, but it also contributed to the rapid increase in imports and was a factor in the decline in national saving registered between 1990 and 1992. The relative reduction in credit to industry did not mean a reduction in absolute terms in the finance provided to these activities: quite the contrary, in view of the overall growth of credit. Nevertheless, these figures show the low priority given by the banking system to the restructuring of a sector which was facing radical changes in the rules of the game, especially as regards the opening up of the economy and the changes in the exchange-rate system.

Important data for inferring the use made of loans are those regarding the maturities and interest rates at which these are taken out. No precise infor-

mation is available on the total amounts of loans by maturity,<sup>11</sup> but it is possible to gauge the relative importance of some typical forms of short-term finance, such as current account advances (20% of total loans in mid-1995), signature loans (30% of the total), and personal loans (10%), while the overall balance of mortgage and secured loans, taken together, was 24% of the total.<sup>12</sup>

Interest rates stood at levels which, in a context of very low inflation, may be considered quite high (see figure 3). During 1993 and 1994 (i.e., before the Mexican crisis broke out), annualized real interest rates for current account advances and personal loans were between 25% and 55% in general terms. At these rates, it may be conjectured that these funds were not used to finance investment but rather to cover firms' short-term liquidity requirements and consumer credit. The rates were lower for secured loans and signature loans—between 15% and 30% per year in real terms—but these costs also seem excessive for financing investment projects. Rates on dollar loans, for their part, although somewhat lower in nominal terms, were also relatively expensive, especially bearing in mind the existence of some exchange risk (see figure 4).

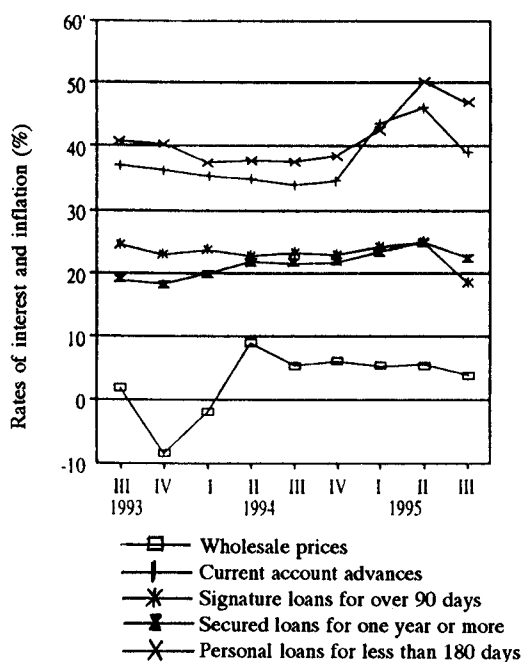
This does not mean that the convertibility plan has been responsible for the high real interest rates: indeed, rates on both deposits and loans went down

<sup>11</sup> Data are available, however, on the credit flow: i.e., the amounts lent each month to the non-financial private sector, and short-term operations predominate overwhelmingly in these totals. In November 1994, out of the total operations in national currency (75% of all the loans taken out that month), 81% of the total flow corresponded to current account advances, 14% consisted of signature loans with a term of less than 90 days, and 3% were personal loans for less than 180 days: these three categories thus account for 98% of the total. In the case of foreign-currency loans, where these three categories accounted for 59% of the total, the maturities were somewhat longer. Naturally, the rotation of short-term loans is much faster than long-term operations, so it is not possible to infer from these data the structure of total loan balances by maturities.

<sup>12</sup> See Banco Central de la República Argentina, 1995a. An undetermined proportion of secured loans were for less than one year.

FIGURE 3

**Argentina: Annualized nominal interest rates on loans in pesos by the financial system, and rate of variation of nationwide wholesale price index**



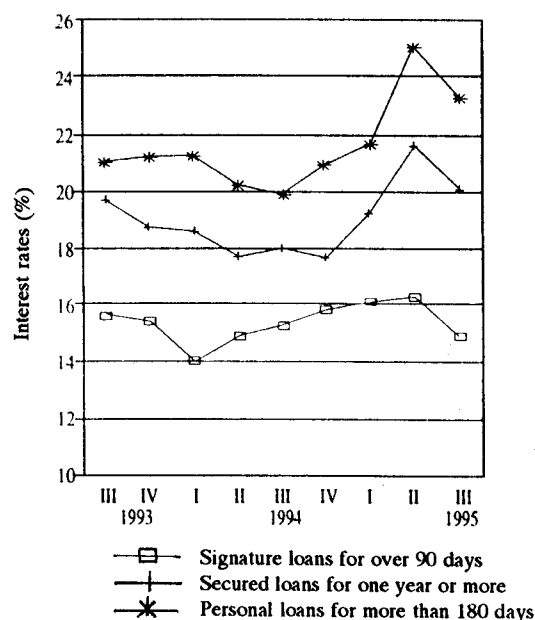
Source: Based on figures of the Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues) and INDEC, *Estadística mensual* (various issues).

significantly as from April 1991. Even so, however, interest rates on loans remained far above international levels and this has had various repercussions on the banking system. Thus, for reasons of both cost and maturities, firms with direct access to foreign credit have generally preferred it to that offered by the local financial system, thus depriving the banks of part of their first-line clients, while other borrowers (typically small and medium-sized firms) have been put under heavy pressure by the economic openness and restructuring process, all of which has tended to adversely affect the quality of loan portfolios.

An analysis of the reasons for these high interest rates on loans is beyond the scope of this article, but it is worth highlighting the big difference between the rates on loans and on deposits (a persistent problem of the Argentine economy during the last twenty years), together with a variety of commissions and service payments which also make bank services more expensive. These financial intermediation costs cannot be attributed, as in the 1980s, to extreme de-

FIGURE 4

**Argentina: Annualized nominal interest rates on loans in dollars by the financial system**



Source: Based on figures of the Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues) and INDEC, *Estadística mensual* (various issues).

monetization and the rapid turnover of bank money caused by inflation (although it is true that there is still a great deal of room for increasing the use made of the banks in the Argentine economy). The banks have attributed part of their high costs to the irregular nature of the portfolios they have to put up with, which was a considerable problem even before the 1995 crisis, for their difficulties in recovering the credits granted force them to transfer the costs to other credits or set aside funds to cover bad debts, which means that they must obtain high operating revenues.<sup>13</sup> If this is so, then it means that there is a vicious circle in which the high interest rates are both the cause and the effect of the high rates of non-recoverability.

<sup>13</sup> A report by Goldman, Sachs & Co. refers to "the apparent inconsistency between the big interest spreads and low rates of profitability" of banking institutions, explaining this by "the direct and indirect costs of low-quality loans", together with high operating costs. See Corrigan and Stocker, 1996, pp. 32-33.

It would not be in order to make generalizations on the basis of aggregate figures, especially for such a highly segmented banking system as that of Argentina. Such a vicious circle would not appear to exist in the case of the segment of the banking system made up of the big private banks, foreign banks and some official institutions, but it would indeed appear to exist in the case of a large sector of the provincial and cooperative banks and certain types of borrowers (small and medium-sized enterprises and families). This differentiation within the banking system became very clear during the 1995 crisis.

All in all, because of the general orientation of its financing and the levels of its interest rates, the financial system as a whole does not seem to have channelled much of its credit for financing invest-

ment, and from this point of view it does not seem to be an effective agent for consolidating an accumulation process. The expansion of the volume of credit did support the 1991-1994 reactivation by providing backing for the pent-up demand for consumer durables and supplying firms with operating capital (although at a high price), and from this standpoint the financial system indirectly helped firms to finance their investments from their own resources: the main source of finance for Argentine firms in the past.<sup>14</sup> Nevertheless, there is still no solution for the problem of the gap between the operations which are most profitable for the banking system and the investment needs of enterprises and of the economy in general, or the very high spread between interest rates on loans and on deposits.

## IV

### The 1995 crisis

#### 1. Convertibility is put to the test

Even before the Mexican crisis occurred in December 1994, the Argentine economy was showing some disquieting symptoms. Its current account imbalance was continually growing, and in 1994 it amounted to US\$ 10 billion, equivalent to 54% of the country's exports of goods and services.<sup>15</sup> The public accounts showed a significant deficit in the second half of 1994, after having turned in surpluses in 1992 and 1993. Current resources (tax and social security receipts) stagnated and even tended to decrease during that same half-year, because of the pension reform (in force since August 1994), which reduced the government's income, and a slackening in the rate of economic activity. Against this background, open unemployment came to 12.2% in October, while underemployment came to 10.4% (compared with rates of 9.3% in both cases one year earlier). The capital market, for its part, was affected by the rise in international short-term interest rates, and in November the stock exchange index was already 25% below the February level (the peak for the year). The Argentine economy was faced with a contradiction: its levels of activity and growth were giving rise to a growing external imbalance, but any

slackening of growth could worsen the fiscal situation and affect the already insufficient rate of creation of jobs. The country depended more and more on the inflow of capital to cope with this contradiction.<sup>16</sup>

It is therefore not surprising that the Mexican crisis had a bigger and longer impact on Argentina than on other countries of the region: "Argentina was the first country to feel the pressure of the financial markets, probably because it had some of the same macroeconomic features as Mexico, including a fixed exchange rate, a low rate of domestic saving, a weak banking system, and a significant current account deficit" (IMF, 1995b, p. 64). Within this context, there

<sup>14</sup> See Feldman, 1978.

<sup>15</sup> By way of comparison, in the same year the current account deficits (as a percentage of exports) were 3% for Brazil, 7% for Chile, and 24% for Colombia. In Mexico, in contrast, the figure was 58% (excluding assembly-type operations).

<sup>16</sup> For an overview of the economic consequences of the convertibility programme and the challenges which it faced even before the Mexican crisis, see Porta, 1995.

was a flight of capital, with a consequent fall in the reserves and, to a lesser extent, in the monetary base<sup>17</sup> (see figure 1).

Resources for the purchase of foreign exchange came mainly from private sector time deposits, which went down by a little more than 18% between November 1994 and April 1995. At first, depositors were not confident in the stability of the exchange rate, and peso deposits were converted into dollar deposits; total balances at the end of January 1995 were 5% below those of the end of November 1994, but dollar deposits registered moderate growth. Thereafter, there were fears about the solvency of the financial system and both types of deposits went down; part of the remaining balances was redirected to the banks which were considered to be the soundest.

The banks considerably raised their interest rates on deposits in an effort to retain their depositors: thus, in the Federal Capital and Greater Buenos Aires

annual rates doubled, rising from 9% in November 1994 to 20% in April 1995 for fixed-term peso deposits and from 6% to 11% for dollar deposits. Interest rates on loans rose to an average of 50% per year for current account advances, and in the interior of the country and for second-line borrowers (especially small and medium-sized enterprises) they reached levels of 80% or more. Loans not only became more expensive but also harder to obtain, even for many rollovers of short-term loans. Many borrowers were thus faced with the spectre of default, leading to a deterioration in the banks' portfolios. Table 5 shows this evolution of the situation, at least in part.

This table should be viewed as merely an approximate representation of the situation. In particular, it should be borne in mind that banks habitually tend to renew some of the loans that they would like to collect, but cannot. Before declaring a debtor to be delinquent, they often prefer to keep the debt on normal terms, especially when the debtor is an important or long-standing client. In a crisis, it is not a good idea to reveal the deterioration of one's own loan portfolio in all its gory details (for example, this would make it harder to gain access to inter-bank loans), and moreover banks try to avoid having to make heavy provisions for possible losses.

Furthermore, it is difficult to compare the figures for 1994 and 1995. Between mid-1994 and early 1995 there was a change in the method of classifying loans, so that for several months one part of the portfolio was presented according to the old criterion and the other part was classified according to the new one. At the time of writing this article, one-third of the November 1994 portfolio was still classified according to the old method. However, although there is a lack of homogeneity in the components of the questionable loan portfolio, this does not seem to alter the respective orders of magnitude or, consequently, the main lines of the analysis. Thus, for the financial system as a whole, the percentages of loans in the doubtful portfolio were practically identical in both sub-groups: that classified according to the old system and that calculated in line with the new rules.

In table 5 it is worth noting not only the big increase in the doubtful portfolio but also the high levels of dubious loans which already existed in November 1994. This could confirm the views of those who asserted that "a banking crisis was already brewing before the Mexican crisis".<sup>18</sup>

<sup>17</sup> A warning is in order in this respect, since the very concept of the monetary base changed during 1995. On 12 January 1995, the Central Bank "dollarized" the peso-denominated compulsory deposits of the financial institutions, with the announced intention of "doing away with market fears of a possible devaluation" because from that moment "the money frozen in the Central Bank was free from any risk of possible devaluations which would adversely affect the financial institutions" (see Argentina, Ministry of the Economy and Public Works and Services, Department of Economic Planning, 1995b). This change in monetary denomination served to justify the withdrawal of these deposits from the "monetary base" aggregate, which was reduced solely to money in circulation. One of the pillars of convertibility – the quantitative link between the international reserves and the monetary base – was thus altered by a mere change of definition. From then on, however, the international reserves served as "backing" for another aggregate, termed the "monetary liabilities" of the Central Bank, which comprised the money in circulation plus the financial institutions' dollar-denominated current account deposits. Subsequently, there was a further change in the rules, whereby the non-interest-bearing compulsory deposits were replaced with "liquidity requirements" consisting of interest-bearing holdings of given foreign or domestic assets; the latter included Bank Liquidity Certificates issued by the State or Central Bank certificates of deposit. This new alteration led to a change in the aggregate "backed" by the reserves, which was termed "financial liabilities of the Central Bank", consisting of the "monetary liabilities", plus the net positions as regards the Central Bank certificates of deposit, the Bank Liquidity Certificates, and government deposits (defined as "those effected by the Treasury, corresponding to the amounts collected from financial institutions in respect of sales of Bank Liquidity Certificates, plus deposits in operational accounts of the National Government in the Central Bank of the Argentine Republic". For a detailed explanation, see Argentina, Ministry of the Economy and Public Works and Services, Department of Economic Planning, 1995a, p. 138.

<sup>18</sup> See Corrigan and Stocker, 1996, p. 55.

TABLE 5

**Argentina: Portfolio of doubtful loans of financial institutions, as a percentage of total loans and of net worth, and corresponding values in pesos (as at November 1994 and November 1995)<sup>a</sup>**

	In millions of pesos		As percentage of loans		As percentage of net worth	
	Nov. 1994	Nov. 1995	Nov. 1994	Nov. 1995	Nov. 1994	Nov. 1995
Domestically-owned public banks	3 200	3 812	26.1	28.3	73.0	79.6
Banco de la Provincia de Buenos Aires	1 532	1 614	21.8	21.3	141.4	132.5
Other provincial and municipal banks	4 454	4 999	41.6	49.2	330.0	579.8
Domestically-owned private banks	2 042	3 037	8.4	12.9	54.2	75.4
Foreign-owned private banks	868	1 263	6.9	9.1	52.2	56.5
Cooperative banks	845	730	14.7	23.3	84.1	120.7
Finance companies	121	186	11.2	24.0	71.2	120.8
Loan offices	21	25	15.5	23.6	34.9	44.6
<i>Total for financial system</i>	<i>13 084</i>	<i>15 667</i>	<i>17.6</i>	<i>21.6</i>	<i>97.9</i>	<i>112.4</i>

Source: Prepared on the basis of Central Bank of the Argentine Republic, *Estados contables de las entidades financieras* (various issues).

<sup>a</sup> Loans were considered to be doubtful when, according to Central Bank Bulletin A 1112 (under the old system), they were "subject to special arrangements", "in arrears", "in danger of insolvency", "in process of legal recovery" or "in bankruptcy or liquidation". In the case of commercial loans, they were considered to be in the same situation, according to Central bank Bulletin A 2218, when they were "potentially at risk", "suffering from problems", "with a high risk of insolvency" or "irrecoverable", while consumer or housing loans were considered doubtful if they were "poorly fulfilled", "hard to recover" or "irrecoverable".

The convertibility system had reached a crucial point in both theoretical and practical terms. The loss of reserves should spark off an automatic adjustment through monetary and credit restriction. This would cause interest rates to rise and reduce domestic spending; the adjustment in the level of activity would turn the trade deficit into a surplus, thanks to the reduction of imports, and capital would be attracted back into the country by the high financial returns. The international reserves would thus be restored and there would be a recovery in domestic credit.<sup>19</sup>

Even if this adjustment were insufficient to stop the outflow of capital, it was believed that convertibility would be in no danger, provided that the international reserves were sufficiently large. According

to an IMF study, "If the outflows of capital are sufficiently large, a currency board could collapse because of the lack of external assets. If the whole of the national currency was not covered at the start, the currency board could find itself without reserves before the whole stock of national currency was converted. If there really was full backing, massive outflows of capital could lead to the elimination of the national currency from circulation and its replacement by the foreign reserve currency. The currency board would continue to exist –albeit with a much reduced balance– and it would still be ready to change external assets for national currency at the original exchange rate."<sup>20</sup> That study warns that the situation would give rise to costs, especially for the financial system, because of the "sharp rises in interest rates, which would degrade the quality and liquidity of assets precisely when liquidity is most needed. Consequently, rigid adherence to a currency board in the event of a large-scale outflow of capital could mean instability for the banking system" (IMF, 1995b, p. 125). In the final reckoning, massive conversion of pesos into dollars was not desirable, but it was not inconceivable that it might take place without the need to abandon convertibility. The message

<sup>19</sup> "The adjustment to excess spending is automatic. If the inflow of capital goes down, then expenditure also goes down automatically, without any need for devaluation, and proof of this is provided by the reductions in imports registered in January and February of this year, while exports have continued to rise, so that the current account deficit has been practically halved. This is an adjustment process which does not need to subject the population to drastic redistributions of income through measures such as devaluations ... Through the rise in interest rates ... an adjustment is taking place in the levels of both consumption and investment in Argentina". See the interview of the Minister of the Economy, Domingo Cavallo, in *El Mercurio*, 1995.

<sup>20</sup> IMF, 1995b, p. 124.

of the economic team towards the end of 1994 was that if the public wanted to exchange their pesos for dollars the Government was perfectly able to satisfy their wishes. The national currency might disappear, but not the convertibility system.

In order to ensure this invulnerability of the system to a massive demand for dollars, it had been asserted—with a certain degree of ambiguity—that the currency issued had full backing. Let us look at this more closely. To begin with, what currency are we talking about? We are certainly not talking about the stock of money in the hands of non-financial agents (M3), which was at all times much greater than the international reserves, even if we accept an unjustifiably broad definition of the latter. According to the convertibility system, the size of the reserves should be at least equal to that of the monetary base, but it is not the latter which can exert pressure on the foreign exchange market. The monetary base is a Central Bank liability made up of the currency in circulation and the banks' deposits in the Central Bank. None of these monetary aggregates are speculative balances. Both the public and the banks use them for their most elementary needs: the public use them for their everyday transactions and the banks employ them for their inter-bank payments and the formation of their legal reserves. Thus, it is not the existing monetary base which can make a run on the dollar and absorb the Central Bank's international reserves: it is basically the short-term interest-bearing deposits, which are not included in the monetary base but nevertheless represent the bulk of the M3 aggregate.

This distinction has practical consequences. One of these is of a quantitative nature: when the crisis broke out, at the end of 1994, M3 was three times the size of the reserves. Another consequence concerns the mechanisms involved in a run on the dollar: "if the dollars were purchased by using the monetary base, the buyers would be giving up their liquidity in australes, which could lead to a rapid reversal of the run: normal liquidity requirements would make it necessary to change dollars back into australes. If, however, as we have already noted, the aggregate used for the purchase of dollars is not the monetary base but M3 (and, within M3, basically interest-bearing bank deposits), then those who speculate on a rise in the dollar because of the unsustainability of the legal exchange rate are not giving up their liquidity: they had already done so before. Thus, the specula-

tors do not lose their freedom of action, but they do reduce that of the banks, which will soon be short of currency (i.e., the monetary base) for returning deposits. The banks will raise their interest rates to try to stop the run, will seek inter-bank loans at rising interest rates, and will finally have to turn to the Central Bank".<sup>21</sup> This is what happened in the early months of 1995.

The Central Bank was thus faced with an old dilemma, but now with a further complication: the new rules had left it with fewer instruments at its disposal. Sticking to the theoretical mechanism of the automatic adjustment meant leaving the banks to meet the withdrawal of deposits with their own liquid resources, their capacity for indebtedness (with the exterior or with other more liquid banks), and their capacity for recovering the credits granted.

These responses are not sufficient in the face of a more or less generalized withdrawal of deposits. The total liquidity of the financial institutions, after putting together their cash in hand, their deposits in the Central Bank and their compulsory reserves on foreign currency deposits, amounted in November 1994 to 9.1 billion pesos, or rather less than 20% of the total deposits. The banking system would be in the red well before the total exhaustion of its liquidity because it would not be able to pay the compulsory reserves on deposits. Inter-bank loans serve to facilitate the normal functioning of the banking system rather than to cope with a stampede, since in such a situation the institutions with some degree of liquidity try to ensure their own solvency rather than take advantage of opportunities for financial gains. At all events, even if the entire liquidity of the banking institutions were socialized for the general good, it would still be insufficient to deal with massive withdrawals, and this is so in the case of both peso and dollar deposits. In November 1994 the compulsory reserves in respect of the latter did not amount to even US\$ 3 billion, for a total of US\$ 21 billion in dollar deposits. It is true that the banks have access to the Central Bank reserves under the Convertibility Act, but in order to buy those dollars they have to present central bank money (base money), which is precisely what they lack.

<sup>21</sup> See Calcagno, 1991, p. 14.

There remains the possibility of calling in the loans granted by them. The practical difficulties involved in this are obvious, however: bank loans are less liquid than deposits, to the extent that the banks fulfill one of their functions, which is convert (prolong) the maturities of financial assets. Furthermore, suddenly demanding the repayment of a large number of loans will lead to an economic depression which will make their effective recovery impossible. It must also be borne in mind that in order to obtain liquidity in central bank money (base money) or in dollars, which is what the depositors who want to withdraw their savings from the local financial system demand, it is not enough simply to collect a loan for a similar amount to that demanded by a depositor. If the debtor repays the loan by drawing on his account in the same bank A which lent him the money, then the bank will simultaneously suffer reductions in its assets (the loan) and its liabilities (the debtor's deposit), without obtaining any liquidity in central bank money; likewise, if the debtor firm or family draws on another bank (B), bank A can demand the corresponding amount in central bank money from bank B through the clearing house, thus simply passing on its own liquidity needs, and the banking system as a whole continues to require base money.<sup>22</sup> This money will appear if the debtor pays in cash or by drawing on an account maintained in another country. The fact is that, conceptually, it is necessary to call in an amount of credits greater than the amount of central bank money initially required, in a process which is transmitted to other banks. This would bring on a process of debt deflation.<sup>23</sup>

## 2. Handling the crisis

Let us now see what actually happened in practice: how the balances of the various agents evolved in the first months of the crisis (tables 6, 7 and 8) and, in particular, the response of the Central Bank.

<sup>22</sup> The mechanism is essentially the same for deposits and loans in dollars: if a credit is repaid by drawing on another foreign currency account in the local banking system, the liquidity requirement is transferred from one bank to another but is not eliminated for the system as a whole.

<sup>23</sup> Such processes are typical of deflationary crises which have occurred when, in a situation of economic and banking crisis, the banks are unable to obtain support from a lender of last resort. See the classic analysis by Fisher, 1933.

Table 6 shows the fall in the international reserves (-2,706 million pesos), which was greater than the contraction in the monetary base (-886 million pesos). The loss of reserves was extremely intense between the end of December and the end of March: -5,832 million pesos (dollars), or 36.3% of the balance at the end of 1994. In April 1995 Argentina began to receive external financial aid from multilateral agencies (+1,909 million pesos (table 6)), but the outflow of deposits from the banking system and the net demand for dollars by private individuals nevertheless continued. This loss of deposits continued until the mid-May elections (in which the outgoing government was re-elected) cleared up the political doubts which had existed in addition to the prevailing economic uncertainty.

Tables 7 and 8 show the decline in bank deposits. This decline affected all types of deposits, but to very unequal extents. Official deposits and private demand deposits went down relatively little (-312 and -170 million pesos, representing reductions of -4.5% and -4.1% respectively), but time deposits fell much more severely: -26.6% in the case of peso deposits and -12.5% for foreign currency deposits, making a total of nearly 6.5 billion pesos. The different rates of decline of private deposits (in dollars or pesos) point to the existence of exchange risk.

It may also be observed that the consequent pressure on the international reserves came from time deposits, which went down sharply, and not from M1 (the total amount of which remained unchanged, since the slight reduction in demand deposits was offset by a slight increase in the currency in circulation). Furthermore, the fact that all deposits went down (regardless of their currency denomination) shows that there was mistrust not only of the stability of the exchange rate but also of the solvency of the financial system.

In order to cope with the reduction in their deposits, the financial institutions had to make use of their available resources in both pesos and dollars. They used their cash balances and their reserves in the Central Bank, and there was also a reduction from US\$ 3.0 billion to US\$ 1.4 billion in their reserves on dollar deposits, consisting mainly of deposits in the New York branch of the Banco de la Nación Argentina and other banks abroad. It may be seen from table 7 that this decline coincides with an increase in one item ("net external credits") of the

TABLE 6

**Argentina: Variation in Central Bank  
balances between November 1994 and April 1995**  
(Millions of pesos)

Assets		Liabilities	
Foreign assets	-2 706	Liabilities to international organizations	1 909
Finance provided to the Government	-1 786	Official deposits	60
Loans to financial institutions	2 063	Miscellaneous accounts	-3 512
		Money in circulation outside the financial system	367
		Money in circulation in financial institutions	-572
		Deposits by financial institutions	-681
<b>Total</b>	<b>-2 429</b>	<b>Total</b>	<b>-2 429</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

TABLE 7

**Argentina: Variation in balances registered in the consolidated  
accounts of financial institutions<sup>a</sup> between November  
1994 and April 1995**  
(Millions of pesos)

Assets		Liabilities	
Cash	-565	Net external credits	1 581
Current account in Central bank	-750	Official deposits	-312
Loans and securities, official sector	-475	Private demand deposits in national currency	-170
Loans and securities, private sector, in national currency	-1 309	Private time deposits, in national currency	-3 829
Foreign currency loans to private sector	989	Private foreign currency deposits	-2 622
Other assets	-1 870	Liabilities with Central Bank	1 778
		Other liabilities	-869
		Capital and reserves	464
<b>Total</b>	<b>-3 980</b>	<b>Total</b>	<b>-3 980</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

<sup>a</sup> Includes banks and savings banks, finance companies, savings and loan institutions for housing and other constructions, and credit institutions.

TABLE 8

**Argentina: Variation in some items of the consolidated accounts  
of the non-financial private sector between  
November 1994 and April 1995**  
(Millions of pesos)

Assets		Liabilities	
Money in circulation	367	National-currency bank loans	-1 309
Demand deposits in banks	-170	Foreign-currency bank loans	989
National-currency time deposits in banks	-3 829		
Foreign-currency time deposits in banks	-2 622		
<b>Total</b>	<b>-6 254</b>	<b>Total</b>	<b>-320</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

banks' liabilities.<sup>24</sup> Their use of their own liquid resources was not sufficient, however, to meet the demand for the return of deposits, although it was excessive with respect to their obligation to maintain the minimum legal reserve requirements. The automatic adjustment would have led to a process of debt deflation and, most likely, to a chain reaction in the form of the collapse of many banks and enterprises, but in fact there was no such adjustment. Thus, it may be observed from table 7 that although there was a decline of some 7 billion pesos in bank deposits between the end of November 1994 and the end of April 1995, the global balance of credits to the private sector (both peso and dollar credits) only went down by 320 million. There are many possible reasons for this: some credits were not immediately due, and many which *were* due (such as renewable short-term credits for firms' working capital) could not be collected in the midst of an economic crisis. These defaults are often not made public, and give rise to forced renewals of the loans in question.

If we compare bank movements with the consolidated balance of the non-financial private sector (table 8), we see that the reduction in assets (bank deposits and currency outside banks) does not match the variation in liabilities (debts owed to banks). The counterpart of this reduction in assets must be sought outside the local financial system, in the establishment of foreign-currency assets abroad or assets kept "under the mattress". It should also be noted that the M1 monetary aggregate (currency outside banks and demand deposits) in the hands of the non-financial private sector does not go down (it actually increases slightly). In other words, it was time deposit balances, not the currency normally used for transactions (part of which is base money), which were used to buy dollars.

There was thus no automatic adjustment to deal with the reduction in bank deposits. There was, however, strong intervention—by action and omission—on the part of the Central Bank. On the one hand, it considerably reduced the minimum reserve requirements. Thus, the minimum reserve percentages on

current account deposits and regular savings deposits went down from 43% in December 1994 to 33% between January and July 1995 and 20% in August, while the reserve requirements on fixed-term deposits (in both dollars and pesos), which stood at 3% in December 1994, fell to 1% in January-February, subsequently rose to 2%, and disappeared altogether in August 1995.<sup>25</sup> Furthermore, the interest rates on the missing reserves charged by the Central Bank to institutions which were unable to meet the reserve requirements were far below those currently being demanded in the inter-bank market, and banks were also allowed to use their available cash resources to account for up to 50% of the minimum requirements.

These measures proved to be insufficient. Under the pressure of their lack of liquidity, the banks tried to collect their outstanding credits and to sell their public securities or use them as collateral. Both types of assets went down, as may be seen from table 7. However, it is no simple matter for banks to collect debts from firms which are suffering from serious contractions in sales, in the general level of activity, and in the supply of credit, and in contrast the consequences of even an incipient debt deflation process are extremely costly for the economy.<sup>26</sup> In these circumstances, the Central Bank was gradually resuming its role of lender of last resort, which—as we saw earlier—was supposed to have been severely limited—though not completely abolished—in the current monetary system.

<sup>25</sup> As from November 1995, the system of non-interest-bearing compulsory reserves was replaced with "minimum liquidity requirements" in respect of total liabilities, which may take the form of interest-bearing financial instruments that can be domestic (Bank Liquidity Certificates issued by the National Government or Central Bank certificates of deposit) or external (deposits in an account of the Deutsche Bank in New York, bonds issued by OECD governments, etc.). These requirements range from 0% to 15%, depending on the maturities of the various bank liabilities.

<sup>26</sup> "The problems of illiquidity [of the banks] resulted in the almost complete disappearance of private credit. Financial institutions began to renew loans for periods of between one and seven days, at rates reaching 70% per year in pesos and 55% in dollars. These rates were increased by up to ten percentage points in the case of institutions which, because of their pressing need for funds to cover liabilities, pressured their clients in this way to pay their debts ... Small and medium-sized enterprises, which had obtained credit the year before at rates of a minimum of 4% per month, had to renegotiate their debts at rates of a minimum of 8-9% per month, while they had practically no access at all to new lines of credit" (See FIEL, 1995b).

<sup>24</sup> The financial institutions' resort to external funds is also reflected in the new presentation of the balance of payments, which shows an inflow of US\$ 1,566 million to the banking sector (excluding the Central Bank) during the first quarter of 1995.

To begin with, the monetary authorities encouraged the functioning of a safety net for the private banks, whereby the banks with greatest liquidity purchased the portfolios of the neediest institutions. However, the abuses committed with regard to the discount rates applied to good portfolios led to the establishment of a new safety net through the State-owned Banco de la Nación. For this purpose, the Central Bank established a non-disposable deposit equivalent to 2% of the total deposits at 30 November 1994, to be paid into the Central Bank's account in the Banco de la Nación. On this basis, the Banco de la Nación was able to help institutions suffering from illiquidity by purchasing some of their loan portfolios. Assistance granted in this way during the first quarter of 1995 came to 982 million pesos.<sup>27</sup> Finally, on 1 March a decree was adopted to reform Act 24144, which laid down the Charter of the Central Bank. This reform facilitated the provision by the Central Bank of "advances to financial institutions to deal with temporary situations of illiquidity". These advances were not subject to any mandatory terms or guarantees, which were left to the discretion of the Central Bank. The latter institution was also empowered to transfer or sell loans acquired from illiquid institutions to other institutions which had surplus liquidity. The Central Bank thus indirectly took on the management of the bank safety net, and when we add to this the Central Bank's heavy injection of liquidity into the banking system through its operations with public security swaps,<sup>28</sup> we see that by March 1995 it had largely resumed its functions as a lender of last resort. By May 1995 the financial system had received nearly 3.5 billion pesos from the Central Bank in rediscounts and swaps. This was equivalent to some 50% of the deposits lost since the end of November 1994.

The history of this rediscovery of the importance of having a lender of last resort does not end here. At the end of March it was announced that a Bank Capitalization Trust Fund would be set up, to be financed (in the amount of some US\$ 2.6 billion) by World Bank loans and the issue of Argentine bonds underwritten by local financial institutions and foreign

banks (about US\$ 1 billion by each group).<sup>29</sup> This Fund was intended to facilitate and partly finance the capitalization, restructuring or sale of financial institutions suffering from problems. At the same time, the formation of the Provincial Development Trust Fund was announced, for supporting the privatization of provincial banks. It was to be financed by using the YPF shares in the possession of the State (US\$ 1.3 billion) as security and obtaining loans from the IDB (US\$ 750 million) and the World Bank (US\$ 500 million). Finally, in December 1996 an agreement was signed with thirteen international banks, led by the Chase Manhattan, for a stand-by credit of up to US\$ 6.1 billion which would be available "if there was generalized lack of confidence in the Argentine financial system or the system required additional international liquidity over and above the funds already at the disposal of the banks".<sup>30</sup> In such an event, the banks will automatically extend a line of credit at the request of the Central Bank, against collateral of Argentine securities. The cost of this programme will be shared by the Central Bank and the banks wishing to have access to this finance, and will consist of a retaining fee of around 0.6% as long as the funds are not used, and LIBOR plus 2.2% if the line of credit is used.

The Central Bank's intervention to tackle the banking crisis was also designed to check the outflow of deposits. On the one hand, it reinstated the official guarantee on deposits which had been abolished when the Central Bank's Charter was reformed in 1992. On the other hand, it passively tolerated the *de facto* suspension of the return of deposits by many financial institutions.<sup>31</sup> In financial slang, these in-

<sup>29</sup> See FIEL, 1995c, p. 18.

<sup>30</sup> Statements by Roque Fernández, Minister of the Economy, on 20 December 1996 (*Reuters*).

<sup>31</sup> This official permissiveness was quite explicit. When he was asked: "Is it possible that a bank which does not return deposits will nevertheless not be suspended?" the President of the Central Bank (and later Minister of the Economy), Roque Fernández, answered: "That is quite possible. There is no law which calls for the mandatory suspension of a bank suffering from an isolated problem" (report published in *Ambito Financiero*, 1995c, p. 25). Thus, as in the case of the Bonex Plan, some deposits suddenly lost their liquidity. The difference between the two episodes is that in the second case this measure was not general and resulted from the toleration of certain situations rather than a formal decision. Would more drastic measures have been taken if the outflow of deposits and the fall in reserves had continued? This possibility was repeatedly denied, but many depositors feared that the government might resort to a Bonex Plan II.

<sup>27</sup> See FIEL, 1995a, pp. 16-17 and 1995d, p. 17.

<sup>28</sup> These swaps consist of the purchase of securities for cash and their simultaneous sale on a futures basis.

stitutions "sat on" the deposits and simply decreed the forcible reprogramming of fixed-term maturities or imposed ceilings on withdrawals. This permissiveness on the part of the Central Bank permitted the survival of institutions which had technically become insolvent. In its Bulletin A 2319 of 21 March, the Central Bank went a step further in this tactic of transferring the problems of the banks to their clients. From that date on, instead of excluding from the clearing house all institutions which did not have sufficient liquidity to cover (in Central Bank money) the amounts owed by them to other institutions, it decreed that cheques issued by non-financial agents could be rejected, even when there were funds in the account on which they were drawn.

Thus, by action and omission, the Central Bank exercised decisive influence in order to control the banking crisis and avoid the closure of various institutions. As became clear later, the authorities' aim was to avoid a chain of failures which would foment a run on the banks, rather than to preserve all the institutions indefinitely. On the contrary, the clearly announced aim was to promote greater concentration of the banking system.<sup>32</sup>

The loss of reserves was stopped through the agreement with the International Monetary Fund: in April 1995 the Fund deposited US\$ 1.64 billion and pledged a further US\$ 1.2 billion, to be disbursed in several quotas. Although the amounts pledged were much smaller than those made available in the rescue operation for Mexico, they made possible a change in expectations and a recovery in the levels of the capital markets, which had been sinking since December 1994 (indeed, the downward trend in the stock market began in the first quarter of that year, with the rise in United States interest rates). The outflow of bank

deposits persisted for a little longer, more or less up to the Presidential elections in May 1995.

The resort to external finance by the national government and the Central Bank was a decisive factor in containing the exchange-rate crisis at its most critical point and then restoring the international reserves and remonetizing the economy. Thus, during the last three quarters of 1995 the Central Bank increased its external indebtedness by US\$ 1.93 billion (mainly in respect of disbursements by the IMF), while the national government increased its indebtedness by US\$ 5.36 billion (basically through the issue of securities and the disbursements of multilateral agencies) even though it paid off loans amounting to US\$ 2.3 billion. In the second half of the year, the national government also received almost US\$ 1 billion through privatization operations. This total of US\$ 8.3 billion may be compared with the increase in the Central Bank's international reserves, which rose from some US\$ 10 billion at the end of March 1995 to almost US\$ 16 billion at the end of December.

### 3. Some consequences of the crisis for the financial system

When the possibility of both devaluation and the generalized failure of banks became more remote, in the second half of the year, there was a return movement of deposits and a decline in interest rates. However, the situation did not return to what it had been before the crisis, which affected the various types of banks in different ways. The financial system was left with a lower-quality portfolio and less capacity or willingness to set about expanding the supply of credit.

The 1995 crisis gave rise to significant restructuring of the financial system. The rapid outflow of deposits between November 1994 and March 1995 affected almost all the institutions, but to very different degrees. Over that period, the financial system lost 15.2% of its total deposits (both in pesos and in dollars), and these funds were used mainly to form foreign exchange holdings outside the financial system, but in addition to this general movement there was another involving the redistribution of the remaining deposits: depositors who wished to remain in the local financial system chose banks according to their perceived solvency. This was reflected in a loss of deposits which was smallest in the case of the biggest financial institutions (table 9).

<sup>32</sup> The declaration by the Minister of the Economy that there were "a hundred institutions too many" (half the total number existing at that time) did little to tranquillize depositors. The Minister then clarified his statement by showing that even in the midst of the crisis he did not lose sight of his long-term objectives: "there are too many banks, but this does not mean that there are banks which are going to have to disappear through bankruptcy. They must be absorbed by other large banks, or merge with each other. There must be a process that leaves us with a smaller number of institutions, but with banks that are stronger and above all have lower operating costs. This process is already under way, and we are going to give it the fullest support." (See *Ambito Financiero*, 1995a, p. 2).

TABLE 9

**Argentina: Loss of deposits between November 1994 and March 1995,  
by size of financial institutions**

Institutions, in order of size <sup>a</sup>	Deposits in November 1994 (millions of pesos)	Deposits in March 1995 (millions of pesos)	Percentage variation
1 to 10	23 984	22 469	-6.3
11 to 30	10 672	9 181	-14.0
31 to 50	4 753	3 468	-27.0
51 to 100	6 427	4 102	-36.2
101 to 204	2 619	1 840	-29.7
<i>Total for financial system</i>	<i>48 454</i>	<i>41 060</i>	<i>-15.3</i>

Source: Based on figures from Central Bank of the Argentine Republic, *Estados contables de las entidades financieras* (various issues).

<sup>a</sup> The institutions are listed in order of their total deposits in November 1994.

TABLE 10

**Argentina: Indicators of shares of different types of institutions in the  
financial system, November 1994 and November 1995**

Institutions, grouped by legal status and ownership	Number of institutions in November 1994	Number of institutions in November 1995	Number of branches <sup>a</sup> in Nov. 1994	Number of branches <sup>a</sup> in Nov. 1995	Share of deposits in 1994	Share of deposits in 1995
National public banks	4	4	594	578	13.9	14.9
Banco de la Provincia de Buenos Aires	1	1	306	306	9.5	11.2
Other provincial and municipal banks	28	25	810	697	15.6	13.3
Domestically-owned private banks	66	56	1 255	1 491	33.4	33.5
Foreign-owned private banks	31	31	397	419	16.1	21.2
Cooperative banks	38	11	877	479	10.3	5.2
Finance companies	21	18	32	32	1.0	0.7
Loan offices	15	12	21	19	0.2	0.1
<i>Total for financial system</i>	<i>204</i>	<i>158</i>	<i>4 292</i>	<i>4 021</i>	<i>100.0</i>	<i>100.0</i>

Source: Based on Central Bank of the Argentine Republic, *Estados contables de las entidades financieras* (various issues).

<sup>a</sup> Including both head offices and branches.

It must be noted that some institutions had to unilaterally suspend the return of deposits, and this suggests that, for some groups, the rates given in table 9 underestimate the withdrawals actually demanded by depositors. Once the worst of the crisis was over and the Central Bank became less passive in the face of those institutions' inability to meet their obligations, the process of concentration began to gather momentum, for either institutions returned depositors' funds, which were then transferred to other banks perceived to be more solvent, or else they were unable to return them, in which case they were suspended, closed down, split up or merged. Thus, whereas in November 1994 the fifteen biggest institutions received 58.2% of total deposits, one year later the percentage was 67.4%.

Table 10, which compares the situation before the crisis with that existing a year later, shows an-

other aspect of the restructuring of the financial system sparked off, or at least hastened, by the crisis.

In November 1995, total deposits were still 6% below their level of one year before. Between these two dates, there was a slight increase in the proportion of deposits accounted for by the most important public banks (basically the Banco de la Nación and the Banco de la Provincia de Buenos Aires) and a larger increase in the proportion of deposits in foreign banks. The biggest declines were in deposits in cooperative banks, followed by provincial and municipal banks (excluding the Banco de la Provincia de Buenos Aires). As we shall see below, domestic-capital private banks underwent substantial restructuring, but this did not affect their share of the market.

The most striking change was in the cooperative banks, which lost almost a third of their deposits between November 1994 and March 1995 and went

down in one year from 38 banks to only 11. Because of the loss of deposits, a number of institutions decided to merge: five cooperative banks merged into one new institution (Argencoop), and another eight set up a private bank in the form of a limited company (BISEL). Other banks in this sector were absorbed by other institutions or had to close down, subsequently selling off their branches and in some cases transferring their assets and liabilities. The most notable case was that of the Banco Integrado Departamental, which absorbed two other cooperative banks with official support in February, but was suspended soon after and finally liquidated in August 1995, its main purchasers being the Bank of Boston and the Banco de Galicia, with financial support from the Trust Fund, the Banco de la Nación and the Central Bank.<sup>33</sup>

Some other cooperative banks (the largest) purchased other institutions or took part in the liquidation of failed banks: this was so in the case of the Banco Mayo,<sup>34</sup> and in those of the Hogar de Patricios Coop., Bica, Credicoop, Coopesur and Cooperativo de Caseros. Except for the last-named,<sup>35</sup> these banks managed to restore their levels of deposits during the second half of 1995.

Of the private banks operating as limited companies, fourteen closed down or were absorbed during 1995. The same thing occurred in the case of six new institutions, among them three privatized provincial banks (those of Entre Ríos, Misiones and

Formosa) and two from the cooperative sector, as mentioned earlier. The main private banks participated to varying extents in the purchase of branches of institutions put up for sale; this was so in the case of the banks of Galicia, Crédito Argentino, Francés and Río, all of which are among the top ten financial institutions in terms of deposits. Similar action was taken by foreign banks which are also among the top ten, namely Citibank and the Bank of Boston. All these banks significantly increased their levels of deposits during 1995.

The foreign banks emerged from the crisis as the main winners. Their growing share in banking activities seems to be a reflection of the advantages they enjoy in a system of convertibility and openness to capital movements. Their links with the exterior give them access to lines of foreign credit on better terms than their competitors, and in a context of convertibility this is an important consideration. As far as the 1995 crisis was concerned, not only were they not affected by the withdrawal of deposits (between November 1994 and the same month in 1995 their deposits increased by 23.7% and their financing by 9.4%) but the big foreign banks were indirectly favoured by the flight of deposits from other institutions, as they were the main recipients abroad of the money fleeing the country. Their growing weight in the Argentine banking system was dramatically strengthened by the acquisition of a number of major private banks: Banco Vizcaya acquired a controlling interest in Banco Francés and Banco Crédito Argentino, Banco Santander did the same with Banco Río, Banamex bought 31% of Bansud, HSBC acquired Banco Roberts, and Scotiabank absorbed Banco Quilmes. As a result, by the second half of 1997 only one of the 10 largest private banks was still Argentine-owned.

The finance companies and credit institutions suffered a further decline in their already scant importance in the financial system: in November 1995 their volumes of deposits were respectively 34% and 38% lower than the levels of a year before.

Finally, let us look at the situation of the public banking system. The Banco de la Nación provided active support for the restructuring of the private banking system. In the midst of the crisis it was seen as a refuge from the fragility of the financial system, so that by November 1995 it had already recovered the whole of the deposits lost at the height of the crisis. Few public banks managed to avoid losing de-

<sup>33</sup> "The Bank of Boston took over 93 branches and undertook to return deposits of up to 3,000 pesos (75% of the total), while in the case of larger deposits 40% of the money would be returned immediately and the rest would be returned to the extent made possible by the resources of a trust fund made up of available assets and accounts receivable. It received 210 million in aid from the Trust Fund, the Banco de la Nación and the Central Bank. The Banco de Galicia, for its part, took over 40 branches, whose depositors were to be repaid along the same lines as those of the Bank of Boston. Finally, Exprinter acquired two branches and the remainder went to BISEL" (see FIEL, 1995e, p. 19).

<sup>34</sup> In 1995 this bank absorbed the Caudal, Provencor and Olavarría banks (domestic-capital private banks); the Cooperativa de la Plata and Noar (cooperative banks) and the Dardo Rocha credit institution. In November 1995 it had a total of 530 million in deposits, compared with 320 million a year before.

<sup>35</sup> The Banco Caseros, which ceased to operate as a cooperative, received aid from the Central Bank (102 million pesos) and the Trust Fund (43 million), but it was not able to recover from its loss of deposits and the high rate of delinquency of its loan portfolio, and on 19 October 1996 the Central Bank suspended its permission to operate.

TABLE 11

**Argentina: Loans with a high risk of insolvency, or irrecoverable, in terms of absolute value and as percentages of total loans and net worth (November 1995)**

	Value of portfolio (millions of pesos)		As percentage of total loans		As percentage of net worth	
	High risk	Irre- coverable	High risk	Irre- coverable	High risk	Irre- coverable
National public banks	813	935	6.0	6.9	17.0	19.5
Banco de la Provincia de Buenos Aires	479	182	6.3	2.4	39.3	14.9
Other provincial and municipal banks	1 364	2 247	13.4	22.1	158.2	260.7
Domestically-owned private banks	1 193	400	5.1	1.7	29.6	9.9
Foreign-owned banks	327	125	2.4	0.9	14.6	5.6
Cooperative banks	281	102	9.0	3.3	46.4	16.9
Finance companies and savings and loan companies for housing construction	47	34	6.0	4.5	30.2	22.5
Loan offices	8	5	7.7	4.2	14.7	8.0
<i>Total for financial system</i>	<i>4 511</i>	<i>4 032</i>	<i>6.2</i>	<i>5.6</i>	<i>32.4</i>	<i>28.9</i>

Source: Based on Central Bank of the Argentine Republic, 1995b.

posits during 1995. Notable exceptions from this were the Banco de la Provincia de Buenos Aires and the Banco de la Ciudad de Buenos Aires, which are not only the biggest of the provincial and municipal banks but also stand out in that group on account of the relatively high quality of their portfolios. Both these banks increased their share of the market, as also did the Banco de la Pampa, which absorbed the Banco de Coronel Dorrego y Trenque Lauquen.

This extensive restructuring process was actively supported by the Ministry of the Economy and the monetary authorities. It was decreed that the Trust Fund would finance banks that purchased institutions put up for auction (or their portfolios) to the extent of up to 25% of the cost of the operation. Such banks would also be given special facilities as regards minimum liquidity levels and refinancing of rediscounting operations on advantageous terms. It was also decreed that a bank which purchased a financial institution would receive any rediscounts and advances already granted by the Central Bank to the institution in question, to be financed over 140 months at an interest rate equal to the average savings bank rate of around 3% per year: the lowest rate on the market.

The restructuring of the financial system, which is still under way, is not the only effect that the crisis has had on that system. The banking system as a whole now bears the burden of a large portfolio of doubtful debts (see table 11) which obliges it to adopt more conservative credit policies and is one of the factors that keep interest rates on loans high.

The combination of all these factors has aggravated the discrimination against small and medium-sized enterprises and the regional economies. The disappearance of a high proportion of the cooperative banks (many of which are regional institutions), which traditionally directed their credits to these types of firms and to the regions,<sup>36</sup> and the crisis suffered by many provincial banks, have deprived many small borrowers and regional producers of their habitual sources of credit. Furthermore, the fact that these borrowers are seen as less solvent is reflected in credit which is harder to obtain and more expensive. On the part of the possible lenders, "a situation has arisen where the banks prefer to invest funds in swaps with the Central Bank at 5% per year rather than lend them to small and medium-sized enterprises at not less than 5% per month".<sup>37</sup>

<sup>36</sup> Based on a sample of 46 private banks, it was determined that in 1986 the cooperative banks with headquarters in the Federal Capital granted 68% of their credits to small and medium-sized enterprises and 8% to other small borrowers, while in the case of the cooperative banks located in the interior the corresponding percentages were 57% and 33%. By way of comparison, it may be noted that the foreign banks devoted 9% and 1% of their loans to these purposes, while in the case of private banks operating as limited companies, with headquarters in the Federal Capital and Greater Buenos Aires, the respective figures were 13% and 3%. These figures were calculated by the author on the basis of data from the Central Bank of Argentina.

<sup>37</sup> See FIEL, 1995f, p. 18.

TABLE 12

**Argentina: Variation in balances registered in the consolidated accounts of financial institutions<sup>a</sup> between April and September 1995**  
(Millions of pesos)

Assets		Liabilities	
Cash	244	Net external credits	-606
Current account in Central Bank	-1 385	Official deposits	-764
Loans and securities, official sector	4 179	Private demand deposits in national currency	110
Loans and securities, private sector, in national currency	-1 076	Private time deposits, in national currency	1 046
Foreign currency loans to private sector	297	Private foreign currency deposits	2 425
Other assets	4 146	Liabilities with Central Bank	-104
		Other liabilities	4 281
		Capital and reserves	16
<b>Total</b>	<b>6 404</b>	<b>Total</b>	<b>6 404</b>

Source: Based on Central Bank of the Argentine Republic, Gerencia de Estudios Económicos, *Boletín estadístico* (various issues).

<sup>a</sup> Includes banks and savings banks, finance companies, savings and loan institutions for housing and other constructions, and loan offices.

Another factor which delayed the recovery of the levels of bank credit to the private sector was the repayment of rediscounts and foreign lines of credit, while moreover part of the banks' loans went to the public sector, which was seeking to finance its deficit (see table 12). As far as the potential borrowers are concerned, the risks involved in entering into new debts are now greater, not only because their level of indebtedness is higher than it was in 1991 but also because of the general economic climate, which makes their capacity to repay such debts more doubtful (thus, the high levels of unemployment seem to have inhibited the demand for credit by families). All this explains why the gradual recovery in deposits

was not matched by a similar increase in loans to the private sector (table 12).

It was only in 1996 that this finance showed a quantitative recovery, but even so its growth lagged behind that of bank deposits and the system was now more highly segmented because during the crisis "there was a change in the configuration of the financial system, with an increase in the proportion of loan potential corresponding to institutions that tend to direct their finance to big, important clients ... there was probably an increase in the differentiation of credit markets, so that at certain times there were signs of an excess supply of funds in some sectors, while liquidity was very tight in others".<sup>38</sup>

## V

### Summary and conclusions

#### 1. The broader implications of convertibility

When Argentina adopted its system of convertibility, there were very few countries that had a monetary system similar to a Currency Board. These countries (Bermuda, Brunei, the Cayman Islands, the Faeroe Islands, the Falkland Islands, Gibraltar and Hong Kong) are very small, with very open economies, and in a number of cases they are former colonies.<sup>39</sup> In

the final analysis, their experience was not a relevant example for larger countries with economies that are naturally much less open. This goes a long way towards explaining the interest aroused by the case of Argentina.

In Argentina, the prime objective in establishing the convertibility system was to bring a stubborn process of inflation under control. The authorities gradually began to see convertibility as more than just a means of escaping from the inflationary spiral, however, and they began to view it as a system capable both of favouring a sustained long-term process of growth with stability and of absorbing possible short-

<sup>38</sup> See ECLAC, ECLAC Office in Buenos Aires, 1996, p. 23.

<sup>39</sup> See Williamson, 1995. Estonia (1992) and Lithuania (1994) may also now be added to this list.

term upsets (through the automatic adjustment). If it did indeed possess these qualities, then it would be a model that other countries might try to adopt, especially if they were following a development strategy based on an open economy (as regards movements of both goods and capital) and were seeking to minimize government action in the field of monetary policy. If the effectiveness of convertibility were limited to the stabilization of prices, however, the adoption of this model would only be justified for a limited period, in countries which were trying to escape from a process of high inflation and had not found less radical solutions for generating the necessary credibility. Furthermore, in order for this system to be preferable to other means of stabilization such countries would have to display certain conditions such as the existence of generalized indexing of prices on the dollar and a plentiful supply of foreign exchange.<sup>40</sup>

The present study does not aim to give a final answer in the debate over the real nature of the Argentine convertibility system (whether it is a short-term anti-inflation measure or a lasting monetary system), but it does seek to provide some useful background elements through an analysis of the functioning of the banking system under convertibility. In particular, it seeks to establish whether this monetary system serves as a suitable framework for the smooth operation of the banking system and, when necessary, makes possible an automatic adjustment which obviates the need for direct intervention by the monetary authorities, or whether, on the contrary, it tends to amplify credit cycles and thus affects the functioning and solvency of financial institutions, which may subsequently call for the massive intervention of a lender of last resort.

## 2. Convertibility and the banking system

The possible existence of a special relationship between the convertibility-based monetary and exchange system and the functioning of the banking

system has not always received the attention that we feel it deserves. Instead, there has been a tendency to separate the two spheres and even present them as contrasting elements: this is so in the case of Minister Cavallo himself, who asserted a few days after leaving office that "the lesson taught to us by the tequila effect is that ... we have a very good monetary system but are far from having a high-quality financial system".<sup>41</sup> In the face of this apparent dichotomy, however, we must ask ourselves how, and how far, the convertibility framework affected the "poor quality" of the financial system.

Some of the measures whereby the convertibility system was set up obviously directly affected banking activity: this is so, for example, in the case of the elimination of the guarantee on deposits, the severe restrictions imposed on the Central Bank's power to provide liquidity to financial institutions, the prohibition of interest-bearing bank reserve requirements, and the declaration of the Central Bank's independence. Although these measures were designed essentially to prevent the uncontrolled issue of base money, in order to ensure that it was backed by international reserves, they established a new framework for the (admittedly highly unregulated) activities of financial institutions. It was expected that these would operate under three-fold control: that of the depositors (who now no longer enjoyed State guarantees), that of the Central Bank, and that of the financial institutions themselves, which had been forewarned of the restrictions they would face in trying to obtain rediscounts. However, subsequent experience was not marked by effective control of the banking system or austere self-discipline. That experience was affected by the vagaries of international capital movements at least as much as by the above-mentioned rules.

The Argentine experience shows two clearly differentiated stages, the succession of which is a classic example of a credit cycle. The first stage (1991-1994) was marked by the rapid expansion of credit and bank deposits, based largely on the inflow of short-term foreign capital, which introduced an element of volatility that was potentially dangerous for the stability of the financial system. As far as bank assets

<sup>40</sup> For John Williamson, there are three good reasons why a country might want to adopt the system of a currency board: if they were small or open economies; if there was no other way of restoring public confidence in the economic policy; and if they wanted to use their exchange rate as a nominal anchor. "In the first case, there is no reason why a currency board should not become a permanent monetary system, but in the second (and perhaps the third) case a currency board would be an unnatural arrangement and hence could probably only be a temporary solution" (Williamson, 1995, p. 34).

<sup>41</sup> See Domingo Cavallo's presentation at the Seminar on policy rules and the lessons of the tequila effect, in *El Cronista*, 1996, p. 11.

are concerned, the cost of credit and the rapidity of its expansion in a context of financial deregulation seem to have conspired against the quality of the loans granted, for these were not channelled, within a development-oriented approach (in which investments and innovations are prerequisites for sustained growth), towards the best uses and the best borrowers. In fact, the types of credit which grew fastest were those oriented towards consumer credits (for families and retail trade), while the share of manufacturing in the banks' portfolios fell by half (from 37% to 18% of the total), although it increased in absolute terms.

The second stage covers the year 1995. It begins with the Mexican crisis in December 1994, and is marked by simultaneous and matching reductions in bank deposits and in the international reserves, although bank loans remained unchanged. Analysis of this stage shows that the pressure on the international reserves was due to changes in time deposits in banks (in both pesos and foreign currency), while the means of payment (M1) remained unchanged and the monetary base (or "monetary liabilities of the Central Bank", as defined in footnote 17) went down only slightly. The conversion mechanism was not limited to accounting entries whereby the Central Bank simultaneously reduced an asset (the international reserves) and a liability (the monetary base). The banking system was in the limelight: the incipient exchange crisis, in which the Central Bank lost over a third of its reserves in three months, was also a crisis of bank liquidity.

Many banks had to use their reserves of central bank money and foreign exchange much more than the requirements for minimum levels of liquidity originally allowed. Some institutions also tried to recover loans from their clients by sharply increasing the interest rates on loan renewals. This pressure was not very effective in reducing the size of the loan portfolio but it did bring down its quality, since it adversely affected economic activity and the solvency of many non-financial agents. As they were unable to cope with the outflow of deposits (in spite of the sharp rise in the interest rates offered), dozens of financial institutions unilaterally suspended the repayment of deposits and the payment of cheques (even when they had sufficient funds), with the acquiescence of the Central Bank, which restored the insurance of deposits and played an active role as

lender of last resort, through swaps, advances and rediscounts in favour of banks that were in difficulties. For this purpose, the provisions (some of them with the status of Acts of Parliament) which prohibited these functions were revoked through decrees and resolutions. At the same time, the Central Bank lowered the reserve requirements and charged interest rates far below market levels in cases of non-compliance with these rules.

The Banco de la Nación Argentina also took part in this rescue operation, and safety nets and trust funds were set up to provide liquidity for the banking system and finance its restructuring. In the process of restructuring of the banking system, which is still under way, the Central Bank is playing a decisive role by suspending the operations of some banks and providing finance on very favourable terms for their potential purchasers. This is a process which is greatly increasing the degree of concentration of the banking system and in which the foreign banks are the main beneficiaries. Within the context of the convertibility system, these banks have their own lenders of last resort, and moreover they were not only much less affected by the wave of withdrawals at the height of the crisis but have also managed (both inside and outside the country) to win a substantial part of the deposits withdrawn from other institutions.

Finally, the national government and the Central Bank obtained foreign loans during the last three quarters of 1995 which enabled them to restore the international reserves and favoured the remonetization of the economy: together, they increased their indebtedness by US\$ 7.3 billion, although they paid off loans for US\$ 2.3 billion. Despite the Central Bank's assistance and the external indebtedness assumed by the government, the product nevertheless fell by 4.4%, unemployment rose to over 18% of the economically active population, there was a significant increase in the level of delinquency of bank portfolios (which already stood at a high level even before 1995), and 53 financial institutions had to close down (through bankruptcy, absorption or mergers) between November 1994 (when they totalled 204) and November 1995.<sup>42</sup>

<sup>42</sup> However, new institutions appeared as the result of mergers or the establishment of new firms, so that the total for this period only reflects the disappearance of 46 institutions.

We thus see that the demand for foreign exchange by holders of monetary and quasi-monetary resources gave rise to an adjustment process very far removed from the automatic reactions that were supposed to take place. This process also shows that backing the monetary base with an equivalent amount of international reserves does not serve the purpose it was supposed to ensure, which was to guarantee that any person who wanted to change his pesos into dollars could do so, and that even in the extreme situation where all holders of national-currency resources wanted to change them entirely into dollars, the economy would keep on functioning, but in a completely dollarized form. On the contrary, we saw that this backing is not sufficient for changing the entire liquid assets (M3) and that the banking system enters into crisis long before the exhaustion of the Central Bank's reserves: it is not capable of carrying out a large-scale debt deflation process, nor can it withstand a sustained outflow of deposits without the aid of a lender of last resort. As in other episodes of monetary history, we see that the various types of backing that may be assigned to the currency—except for the backing represented by the inherent stability of the economy as a whole—only work as long as they are not called into play: their real function is merely to reduce the probability that the currency thus “backed” may be rejected and that there may be a massive demand to change it into foreign exchange.

### 3. “Pure” and “dirty” convertibility

There is no record in social science of any pure, perfectly controlled experiments: economic phenomena are the result of a host of simultaneously acting factors, and they take place in a changing context, so that it is always possible to maintain that in other circumstances the results of a given experiment would have been quite different. In the case under analysis here, it may be asked to what extent the financial instability observed in the Argentine experience is inevitable in a context of convertibility. Or, to put it a different way, might it not be possible to endow convertibility—which has an inherent tendency to be procyclical—with some policies capable of preventing or moderating such instability? For this purpose, controls could be imposed on external capital flows and more instruments could be provided for the application of an active monetary policy (such instruments were in fact used during the 1995 crisis).

In Argentina, it was decided to permit absolute freedom of capital movements, on the basis of arguments ranging from complete confidence in an automatic and painless adjustment in the event of a reversal of capital flows to the denial that such flows could possibly have any harmful effects.<sup>43</sup> However, this policy was probably due much less to doctrinaire considerations than to the economic programme's dependence, from the very beginning, on the inflow of capital. The Government's strategy was to take advantage of the economic conditions prevailing in 1991 (generalized indexing of prices to the exchange rate, extensive idle capacity, existence of a trade surplus and the abundant supply of foreign capital)<sup>44</sup> to fix the exchange rate, stabilize prices and reactivate the economy. This big inflow of capital was indispensable for consolidating the convertibility system, by making possible both an increase in the international reserves and a rapid recovery in growth, the latter being of crucial importance for increasing tax revenue. The use of the nominal exchange rate as an exchange-rate anchor, however, could not avoid some degree of inertia in inflation (especially in non-tradeable goods and services), and in a context of expansion of credit and recovery of aggregate expenditure this gave rise to a growing balance of payments current account imbalance. From then on, the Government was in a position where it could not keep the economy growing without a growing inflow of foreign capital, while it could not maintain fiscal balance without sustained growth. It could not, therefore, indulge in the luxury of “filtering” the capital

<sup>43</sup> “I am not worried about the capital account position” is one of the phrases used by Domingo Cavallo which sums up the official attitude during the 1991-1994 period in the face of the concern expressed about the current account imbalance. Even during the crisis, Minister Cavallo asserted at the IDB Assembly in Jerusalem that “capital inflows were highly beneficial (in supporting the rapid economic growth of recent years), and now the outflow of capital is equally favourable” [because it hastened the structural adjustment of the provinces and, in particular, facilitated the Governors' decision to privatize the provincial banks] (see *Ambito Financiero*, 1995b).

<sup>44</sup> This situation combined two factors: one of them—which had nothing to do specifically with Argentina—was connected with the availability of capital for all the emerging economies, while the other was typical of cases of stabilization based on the use of an exchange-rate anchor: with a fixed exchange rate and the possibility of high financial yields in the short term (either through interest rates much higher than international levels, or through the recovery of stock exchange prices), there naturally tends to be a sudden influx (or repatriation) of capital.

received: its option was to achieve a positive adjustment which would keep up growth rates and, through improvements in productivity and the expansion of exports, make the real economy adjust to the prevailing exchange rate.

Passing on now to a more general level, we may distinguish between a full or "pure" convertibility system, which does not allow of controls over capital flows or the adoption of an active monetary policy, and a limited or "dirty" system which does include such elements. The possibility of controls over capital flows represents a restriction of convertibility insofar as it would deprive certain economic agents of the possibility of converting their external assets into national-currency assets, or vice versa. In the case of the first-named system, the Argentine Convertibility Act does not prohibit this possibility: indeed, that Act leaves no room (in its spirit or its letter) for refusing to sell all the foreign exchange that is requested at the fixed exchange rate (doing so would mean abandoning the fixed rate). To put it briefly, some attempt could be made to moderate the capital flows in the stage where they are flowing into the country, but it would be much more difficult to do so in a period of loss of reserves without simply abandoning the principle of convertibility. Another possible policy would

be to reserve some margin of freedom to tackle situations of bank illiquidity by reducing the compulsory reserves (or liquidity requirements) or by issuing currency against dollar-denominated public securities, within the permissible limits. This would mean introducing some degree of anticyclical monetary policy, and although in the Argentine experience this did not succeed in markedly moderating the severity of the economic cycle, it was an important factor in handling the crisis. Naturally, to the extent that the quality of the "backing" for the monetary base deteriorates (i.e., when the share of the genuine foreign reserves goes down and the share of domestic public securities in those reserves goes up), the image of convertibility tends to weaken. Thus, the introduction of a monetary policy means abandoning the idea of the automatic adjustment and the predominance of fixed rules over decisions taken by the authorities (discretionality). Because it is more flexible, this system of "dirty" convertibility may not comply with the need to inspire sufficient confidence in the early stages of an anti-inflation plan, but it is a system worth considering as part of a strategy for gradually leaving convertibility without being forced to do so by loss of reserves or a banking or fiscal crisis.<sup>45</sup>

(Original: Spanish)

### Bibliography

- Ambito Financiero* (1995a): Buenos Aires, Editorial Amfin, 3 February.
- (1995b): Buenos Aires, Editorial Amfin, 4 April.
- (1995c): Buenos Aires, Editorial Amfin, 17 April.
- Argentina, Ministry of Economic Affairs and Public Works and Services (1994): *Argentina en crecimiento. La reforma económica y sus resultados. El programa "Argentina en Crecimiento, 1993-1995"*, Buenos Aires.
- Argentina, Ministry of Economic Affairs and Public Works and Services, Economic Planning Department (1995a): *Informe económico*, No. 15, Buenos Aires.
- (1995b): *Informe económico*, No. 16, Buenos Aires.
- Central Bank of the Argentine Republic (various issues): *Estados contables de las entidades financieras*, Buenos Aires.
- (1995a): *Estados contables de las entidades financieras*, Buenos Aires, November.
- (1995b): *Estados contables de las entidades financieras*, Buenos Aires, June.
- Central Bank of the Argentine Republic, Gerencia de Estudios Económicos (various issues): *Boletín estadístico*, Buenos Aires.
- Calcagno, A. F. (1991): El nuevo régimen cambiario y monetario: un análisis crítico, *Realidad Económica*, No. 99, Buenos Aires, Instituto Argentino para el Desarrollo Económico (IADE).
- Corrigan, E. G. and T. Stocker (1996): *Building a Progressive and Profitable National Banking System in Argentina*, New York, Goldman, Sachs & Co., 30 April.

<sup>45</sup> Along the same lines, John Williamson suggests a gradual policy for abandoning the currency board system once sufficient credibility has been gained. This policy would consist of "gradually adding (to the model) features that allow it to carry out the normal tasks of a Central Bank in defence of the banking system, thus resulting in progressive erosion of its automatic nature, which is a key feature of a currency board" (see Williamson, 1995, p. 35).

- ECLAC (Economic Commission for Latin America and the Caribbean), ECLAC Office in Buenos Aires (1996): *Nota sobre la evolución de la economía argentina en 1995*, Documento de trabajo No. 69, LC/BUE/L.152, Buenos Aires.
- El Cronista* (1996): Buenos Aires, Sociedad Anónima de Ediciones e Impresiones, 13 August.
- El Mercurio* (1995): Santiago, Chile, Empresa Editorial El Mercurio, 5 March.
- Feldman, E. (1978): *Foreign and domestic banks in Argentina (1958-1970)*, Oxford, U. K., Oxford University, Ph. D. dissertation, *mimeo*.
- FIEL (Foundation for Latin American Economic Research) (1995a): *Indicadores de coyuntura*, No. 342, Buenos Aires, February.
- (1995b): *Indicadores de coyuntura*, No. 343, Buenos Aires, March.
- (1995c): *Indicadores de coyuntura*, No. 344, Buenos Aires, April.
- (1995d): *Indicadores de coyuntura*, No. 345, Buenos Aires, June.
- (1995e): *Indicadores de coyuntura*, No. 346, Buenos Aires, August.
- (1995f): *Indicadores de coyuntura*, No. 347, Buenos Aires, September.
- Fisher, I. (1933): The debt deflation theory of great depression, *Econometrica*, vol. I, No. 4, New York, Econometric Society, October.
- Hayek, F. A. (1975): *Prix et production*, Paris, Calmann Lévy (originally published in English in 1931).
- (1980): *Desnacionalización de la moneda*, Buenos Aires, Fundación de la Bolsa de Comercio de Buenos Aires (originally published in English in 1978).
- IMF (International Monetary Fund) (1995a): *Balance of Payments Statistics, Yearbook*, Washington, D. C.
- (1995b): *International Capital Markets. Developments, Prospects and Policy Issues*, Washington, D. C.
- National Institute of Statistics and Censuses (INDEC) (various issues): *Estadística mensual*, Buenos Aires.
- Porta, F. (1995): *Cuatro años con tipo de cambio fijo: ¿ajuste estructural o ajuste recesivo?*, Documento de trabajo No. 21, Buenos Aires, Research Centre for Industrial Transformation (CENIT).
- Simons, H. (1936): Rules vs. authorities in monetary policy, *Journal of Political Economy*, vol. 44, Chicago, IL, University of Chicago Press, February.
- Williamson, J. (1995): *What role for currency boards?*, Policy Analysis in International Economics, No. 40, Washington, D. C., Institute for International Economics (IIE), September.