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**FOUR BANKING CRISES
THEIR CAUSES AND CONSEQUENCES**

**A dissertation submitted in partial satisfaction of the
requirements for degree Doctor of Philosophy in
Economics**

by

Daniel Enrique Vaz

1988

ABSTRACT

This dissertation studies four banking crises in the Southern Cone of South America. It provides historical accounts of the financial crises that erupted in Uruguay in 1965 and again in 1982, Argentina in 1980 and Chile in 1982. Then the antecedents of the crises as well as their development and lasting consequences are analyzed.

Major political changes had preceded the crises. Reacting to previous policy failures, the new governments introduced new market-oriented macroeconomic programs. The liberalization of capital flows combined with inadequacies in bank regulation and supervision significantly amplified the booms and busts that followed. The banking systems expanded rapidly particularly in loan volume. While new entrants often lacked banking experience, the established banks lacked experience in the new, freer environment. Thus the initial cyclical upswings were fueled by credit expansions that were later to be proved unsound.

All four crises were prompted by widespread insolvency problems in the private sector. This contrasts with the traditional banking literature that regards bank crises as typically due to liquidity problems arising from a maturity mismatch between the assets and liabilities of fractional reserve banks. Subsequently, in the two Uruguayan cases and in Argentina, the nationalization of the bad debts so destroyed the public finances as to cause lengthy periods of high inflation.

The crises, when they arrived, were entirely unexpected. Policy makers and businessmen had to adapt to the unforeseen situations which they did not understand at all well. These episodes cannot therefore be characterized as rational expectations equilibrium processes. This is indicated most conclusively by the facts that the policies improvised in response to very similar crises differed widely, that remedial measures had no basis in pre-existing law, and that the regulatory frameworks were entirely overhauled in light of the crises experiences.

The history of these crises throws doubt on the current enthusiasm for currency boards that are supposed to prevent a recurrence of such se-

vere instability by rigidly constraining the public finances. The theoretical presupposition is that the government is the source of instability. But these four banking crises had their origin in the private sector.

CHAPTER 1

ON THE BASIC IDEAS ORGANIZING THE WORK

I. INTRODUCTION

I.1 SUBJECT OF THE DISSERTATION

In this dissertation we study banking crises in four Southern Cone countries, their development, and their aftermath. The four episodes are: Argentina, 1980; Chile, 1982; and Uruguay, 1965 and 1982.¹

The study also has a theoretical theme: we consider the extent to which current theories of money and finance are adequate for an understanding and analysis of these episodes, and whether they lead to adequate policy prescriptions to deal with similar widespread solvency crises in the banking system.

I.2 CHARACTERISTICS OF CONTEMPORARY THEORY

Mainstream macroeconomics maintains that all observed sequences of macrostates should be interpreted as intertemporal (rational expectations) equilibrium processes. Rational expectations are required to keep the system on the equilibrium path, since all physical and human resources have to be priced consistently along that path. This, in turn, implies the economy-wide generalization of the Modigliani-Miller theorem. Thus, market values of assets are independent of the economy's financial structure, i.e., independent of who holds claims to them and of the forms these claims take. The values of such claims are derived from the value in production of the underlying capital assets when engaged in the equilibrium macroeconomic process. By making the financial structure

¹ The 1982 Uruguayan case will only be sketched in Chapter 3.

of the economy irrelevant, developments in the financial sector are never causal, never the driving force in macroeconomic processes. Specifically, the banking sector's behavior cannot cause disequilibrium of the economy.

I.3 THIS DISSERTATION AND RELATED LITERATURE²

We deal with economies where the banking system is the core of the financial sector. In general equilibrium theory, all assets and investment opportunities exist in the form of objectively knowable prospective cash-flows that rational agents in the economy can evaluate. Those are traded in open markets and are not the ones that make up the core business of banking.

We agree that asymmetric information is a pervasive feature of the economy, partly because the agents involved want to disclose as little information as possible,³ but mostly because of prevailing institutions and organizations.⁴ Thus, the literature on asymmetric information helps to guide the interpretation of many of the phenomena examined in this study.

The works of McKinnon and Shaw in the early 1970s, which inspired a whole generation of liberalization policies to phase out "financial repression", were intended to demonstrate that financial issues mattered. Their neglect of the problems arising from asymmetric information ultimately led them to think of competition in the financial sector as being analogous to commodity competition.⁵ This eventually defeated the very idea that the financial structure of the economy mattered.

2 The literature originated by Diamond and Dybvig [1983] has concentrated on the interpretation of bank panics. Panics, however, are not the central issue to this dissertation. I interpret this in a very broad sense, including the indirectly linked contributions by Williamson [1986, 1989].

3 See Campbell [1979] for an application of this idea.

4 For instance, joint-stock companies that do not go public. See also George C. Anayiotos [1994].

5 See Mary Zephirin [1993].

The most basic facts of the four episodes studied in this work cannot be accommodated by existing theory.⁶ Instead, we find a set of externalities arising from the behavior of banks which are capable of generating disequilibria that ultimately develop into widespread financial solvency crises. Moreover, they do so without having a bank panic as an intermediate step.

These and subsequent bank crises up to the present Asian crises have given rise to an applied macroeconomic literature that rationalizes the various bank crises as the consequence, not a cause, of “macroeconomic instability”. This approach, still prevalent, reinforces the view that such problems do not originate in the financial sector of the economy. As a consequence, policy doctrines and the theory of banking regulation still lack sound “fundamentals”; and practitioners find it difficult to communicate with academics. This dissertation seeks to fill the gap.

Some final words on the filiation of ideas. This dissertation provides examples that show the contemporary relevance of Wicksell’s cumulative process, Hayek’s theory of the business cycle, and Fisher’s debt deflation theory.⁷

I.4 POLICY DOCTRINES

The main policy implication of currently dominant theory is that the sole objective of monetary policy should be price stability. In the closed economy or floating exchange rate regime cases, the intermediate goals are thus central bank independence and inflation targeting. For the fixed parity case (or the small economy case), currency boards are often advised in the current literature. The conclusion is that central banks should

6 For instance, in Diamond [1984] banks are of an infinite size, and the pool of loans is represented as extractions from an i.i.d process. On the contrary, the interdependence of the economy and the finiteness of banks are central to understand the actual behavior of these economies.

Furthermore, moral hazard and adverse selection, the two main manifestations of asymmetric information in standard modeling are not sufficient to organize the discussion of these episodes. However, note that the very notion of “contingent good” (or “contingent claim”) entails the exchange of an actual quantity of things for a non-existent quid pro quo. In this particular sense, GE theory tacitly assumes perfect credit markets.

7 All devaluations and inflationary processes reviewed in this dissertation can be interpreted as dramatic deflations in the key currency, the dollar.

not meddle in credit markets, and that the behavior of the fiscal authority will be determined by the finance constraint.

Central banking policy doctrine flowing from this study is entirely different. We show that regimes pursuing inflation objectives as their main macroeconomic goal were forced to abandon it when confronted with the particular banking problems analyzed. This dissertation also aims to provide an explanation for such behavior. Our conclusion is that financial stability is the crucial goal that has to be followed by central banks in economies like the ones we consider here. Price stability cannot be achieved without close coordination between the fiscal and the monetary-credit authority. Price stability rests on the solvency of the public sector. This implies both that the public sector has to be solvent in the ordinary sense of the word, and also that it cannot have hidden contingent liabilities in the financial sector (e.g., banks and the social security sector have to be solvent).

II. BASICS

II.1 ON INTERMEDIATED CREDIT AND BANKS

When the financial structure of the economy is treated as an epiphenomenon it is assumed that it simply adapts to whatever happens in the “real” sector of the economy. Thus, the evolution of the real side cannot be influenced by what agents in the financial sector of the economy do or think. On the contrary, we believe that the cases in which financial issues can be disregarded, even as a first approximation, are both rare and rather uninteresting from a theoretical or a policymaking point of view.

We start with three observations which are difficult to assimilate into mainstream economics. First, debt contracts are pervasive all over the world. They are by far the most common vehicles used by people to transfer the possession of capital.⁸ In the second place, among debt contracts, those denominated in currency — mainly deposits, securities and loans — are the most abundant. Last but not least, in most debt

⁸ Stockholding has increased substantially in recent years in the United States, but even there stocks are not predominant in consumers’ financial portfolios.

contracts one of the parties to the transaction is a specialist in trading debt contracts.

Credit intermediation, which is mainly conducted by banks and bank-like firms, does matter in shaping economic evolution. Credit intermediation arises endogenously in the economy either because the possibilities for direct lending have been exhausted or because intermediated credit is cheaper than direct lending. Thus, if we think of two economies with identical fundamentals in which credit intermediation is profitable, the hypothetical equilibrium in each economy must be different if we do not allow credit intermediation in one of them. The reason is obvious: some investment projects that can be undertaken if there is intermediated credit will not be profitable if it does not exist. Moreover, if an investment's profitability depends on when it is implemented, or the yield of a sequence of investments is a function of the timing of the implementation of its different parts, the timely availability of funds to fulfill plans is crucial. Thus, a financial structure that allows for the concentration of resources in a timely manner to finance investment projects will facilitate development of the real economy and improvement of the population's welfare. A different line of argument, well known by practical bankers and entrepreneurs, is that an investment's profitability may depend on confidentiality in the process of raising funds.⁹ Consequently, investment opportunities are not independent of the financial structure of the economy.

For large classes of borrowers,¹⁰ apart from some funds that can be borrowed as trade credit or certain kinds of consumer credit or other special limited sources, there is no alternative to the banking sector for financing additions to their working capital or fixed capital. They cannot access other primary markets to raise funds. So, a substantial portion of savings is allocated through the banking sector. This portion is larger the less developed are the other segments of the financial industry (stock markets, mutual funds, etc.), and the less family firms and closely held private corporations choose to go public.

9 To my knowledge, the only paper in the theoretical literature that has analyzed this point is Campbell [1979].

10 Including some governments, of course.

In addition, banks are usually the lenders of next-to-last resort in open markets for securities. Normally, the prompt service of each new issue is guaranteed by the bank dealing with that particular issue. So, they are a significant factor behind the proper functioning of these open markets.

Thus, banks are specialists in granting loans. They can lend money to agents who cannot obtain credit from other sources or they can offer much better conditions to agents who have some access to more expensive sources of funds. In other words, banks are specialists in buying non-marketable assets. For this reason, they can offer¹¹ the public a debt contract, which for each individual depositor has the bank's capital as collateral. Collectively, the only collateral is the value of the pool of loans, which does not have a well-determined market value at any point in time. For all practical purposes, the value of the pool of loans is equivalent to the amount of deposits and other borrowings, if these loans can yield a return at least as large as the interest paid on the sources of funds. Thus, as mentioned by Hoover [1988 and 1991, Ch. 5], the functioning and profitability of financial intermediaries depend ex-hypothesis on their financial structure.

II.2 BANK LENDING TECHNOLOGY

Credit comes from the Latin verb "credere," to trust. This is a reasonable etymology, since credits are transactions in which one of the parties gives something in the present, but the quid pro quo comes in the future. The delivering party gets a promise (which need not be written to be valid), and thus has to trust that the promising party will fulfill the obligation assumed.¹² Loans are a kind of credit in which the object is money.

Since not everybody is going to keep their promises, information gathering is at the core of banking. Some lines of lending are almost like trading in commodities, in the sense that the information requirement for granting a loan is almost nil; financing the working capital of the branch of a multinational in a small country is an example. Other loans fall into

11 And they have the incentive to do so, because there are rents originating in the evaluation of these nonmarketable assets that can be appropriated by the lender, as we mention later.

12 Sanctions are just a threat to provide the borrower with adequate incentives to repay the debt.

risk-classes of similar cases, which means that lending to them can be routinized, as happens with consumer credit. In other cases both the would be borrower and the project matter. These differentiated products have larger margins, but are more demanding in terms of information. Lending to these clients gives rise to non-marketable assets chosen in a process in which local economies of scale can be exploited (relating both to the specific debtor and to the involved activities). This is a basic reason behind clientele relationships, which are pervasive in banking. It also explains why banks' portfolios tend to display a concentration of risks of a kind not found in mutual funds, for instance.

Cash flows analysis is called the "first way out" for loans in the jargon of the trade. The second way, which is clearly far less information-intensive than the former, is collateral. Of course, all existing physical assets are candidates for backing a loan. In a competitive environment with asymmetric information where credit rationing is bound to prevail, the use of collateral will alleviate this problem. Moreover, when the environment is not strictly competitive, the suppliers of credit usually rely on collateral as a discriminating device. Collateral also serves to speed up loan applications, in particular if agents display "loss aversion," instead of risk aversion, as some behavioral economists maintain. This collateral saves the bank time and money, in particular if the ratio between the loan and collateral is very small (as happens in many countries).

It is collateral, and not the kind of project to be financed, which induces the bank to grant the loan. But collateral is a poor substitute for "rational expectations." Betting on collateral means betting on the past. Banks can solve their inference problem by relying on a threat. This threat is credible if and only if the value of collateral is larger than the amount of the loan. Since taking control of collateral assets is a credible threat, it not only eases the process of granting a loan, but also decreases the expected cost of monitoring the borrower. In fact, if there is high collateral behind a loan, the prompt debt service (usually interest payments) is the only routine monitoring device. This is one of the roots of distress borrowing. If the value of collateral is much larger than the value of the loan, the borrower can incur losses to service the debt, and renew the loan at maturity. This can be a source of moral hazard. A sizable increase in the probability of losing the collateralized assets may give rise to different forms of gambling for resurrection on the part of the borrower, which cannot be uncovered by the routine procedure of watching debt service. Such

“gambling” will reduce and may eventually eliminate the contractual threat of grabbing the borrower’s collateral.

Moreover, as an empirical regularity, commercial bank lending — especially in unstable economies — is founded on the illusion that contractual short term lending is in fact short term. The short terms also form part of the screening device used by banks. Someone who is ready to pay off a short-term loan, he is undoubtedly regarded as a good risk for the bank. Foresight is needed because it is very easy to create a portfolio of short-term (say, 90 day) loans, but it takes much more than 90 days to dismantle it.¹³

III. BANKS AND BUSINESS CYCLES: THE UPTURN

III.1 BANK BEHAVIOR AND BUSINESS CYCLES: PRELIMINARIES

Banks matter during the business cycle because they affect its period and amplitude. For analytical purposes, we can identify two channels through which banks exert their influence. The first is mostly quantitative, the “lending channel,” which refers to the ways changing lending conditions impact the business cycle. More precisely, over the cycle we find noticeable variations in the type of agents — and implicitly the kind of projects — that obtain bank loans, the amounts traded and the yield on lending, as well as the relative significance of the different ways of granting loans. Most of these variables are controlled by banks. The second channel is qualitative. It refers to the information revealed by bank behavior and the way it helps shape the expectations of other agents in the economy. For the sake of symmetry we can call it the “information-expectations channel.”

Even in normal times bank behavior will influence the size and composition of aggregate demand and supply, which means that it also affects long run trends. In addition, bank behavior may end up feeding a bubble, which, ultimately, provokes a banking crisis. It, in turn, will have “abnormal” long-lasting consequences, whose dimensions will be a function of the magnitude of the banking crisis.

¹³ Partly because it is based on collateral.

Apart from the consequences that can be attributed to the credit cycle in isolation, depending on the context, bank behavior will be more or less relevant in producing information and contributing to the formation of expectations of other agents in the economy. This influence stems from the role of banks in the division of labor. Banks' opinions about the economy in general carry more weight than of other private agents. Furthermore, when both the lender and the client have to confront each other's opinions over whether the latter deserves a loan or not, and reach the same conclusion from different perspectives, the granting of a loan reinforces the client's expectations about the likelihood of her success. This is particularly important when, in the applied analysis, we do not rely upon the public having already formed rational expectations about macroeconomic variables.¹⁴ In particular, I refer to two different situations:

- a) when too many changes happen at once, as in the case of significant changes in the rules of the game engineered by a new economic policy;
- b) a truly unexpected shock, something that was not part of "the joint probability distribution of relevant variables," that affects the whole economy.

On those occasions experts' opinions carry large weight, especially when they are the foundation for a consistent pattern of behavior.¹⁵

III.2 THE UPTURN

How do banks influence the upturn stage of the cycle? First, their coordinated expansion allows the increase in aggregate demand to take place at a rapid pace. Such an expansion generates additional funding, which also means new customers for the industry as a whole. Second, because of this, asset prices will also increase. The increment is a positive function of both the magnitude and speed of the change in aggregate

14 See Lucas (1986), where rational expectations are introduced as the limit of adaptive behavior in steady state.

15 They need not be released by the press, but bankers' optimisms are often quoted by the media as experts on economic performance, nationally and internationally.

demand.¹⁶ Third, the banks are the ones choosing who is expanding, and the terms under which this lending will take place, so that they also affect the magnitude and the speed of change.¹⁷ Last but not least, there is the informational aspect. Through their behavior, banks are coordinating and reinforcing the expectations held by independent agents. Thus, not only “money” matters.

The first two factors are not strong enough to call much attention to the independent role of banks. There are, however, a couple of points to bear in mind. The first is that expansion of banking activities is costly. Because of barriers to entry, these costs are usually higher than strictly necessary to carry out those activities, since they include a lot of signaling and publicity, in addition to the costs imposed by banking regulation, such as minimum capital and the like. The second is that banks are the main vehicle for importing capital from abroad. If there are informational asymmetries between domestic agents and foreign banks, or foreign banks behave as if they were risk averse, lending to a bank, which by definition is an agent specializing in lending, is much safer than lending to a specific private project. In a sense, by lending to domestic banks (or enlarging their own branch facilities) foreign banks are decentralizing their lending to the foreign country. That is why the amount of money assigned to each branch heavily depends on the country in which it is located (quite apart from the branch’s own direct lending).

Since banks are choosing who will be allowed to expand, and under what terms, they are likely to introduce a wedge between principals and agents. These wedges are the main source of potential external effects brought about by banks’ lending activities.

16 The reason why the magnitude of the increase counts is twofold. On the demand side, what matters is the magnitude of the income effect. On the supply side, if the impact on lending interest rates is significant, the financial costs of new goods will be substantially

17 And they set one of the elements that will determine the burden of newly created debt.

The expansion of banking activities is induced by higher expected profits. Higher profits also attract new entrants into banking.¹⁸ The higher the fences raised by incumbents, the stronger the efforts of entrants to cultivate new client segments or to “steal” the less loyal portion of the incumbents’ clientele. As a consequence, there is a surge in the number of bank branches, outlets and employees so that a sizable amount of resources is invested in the enlargement of banking infrastructure. The introduction of new products and new technology may also be stimulated, but in the examples we study that was not the predominant response.

From the perspective of existing firms, there is simultaneously an expanding demand, and several new aggressive entrants. How do the incumbents react? They will try, at least, to protect their best client base, if not their market shares. This means making the entrants’ life as difficult as they can. So, they will have to be at least as good to their clients as the new banks promise to be. This implies betting on the past.

In order to keep their clientele happy incumbents have to do a better job of pricing their loans. Since they are the only firms with established relationships abroad (except in the cases where the entrant is a foreign bank), they can — by funding themselves in the international credit markets — keep the cost of their funds below their competitors’. So, it is the incumbents who initiate capital inflows as a competitive device to deter the expansion of the entrants.

In an expanding market, if marginal costs and prices are steady, increasing sales means higher profits, at least in the short run. If prices —

18 In the cases we study later, the liberalization of banking activities was intended to ease the entrance of new competitors into the sector. Higher than for goods currently being produced. Thus, current prices have to catch up to expected costs, as a proxy for expected prices. Speed counts because, even if demand increases proportionally among sectors, the production of some assets takes more time than the production of simple commodities and most non-durables, and the impact on market prices may be larger.

i.e., lending interest rates — can go up further, so much the better.¹⁹ The short run is relevant because of the widely shared perception of market trends.²⁰

Speeding up the granting of loans becomes a key ingredient for maximizing profits in such a setting. This can be achieved by concentrating intensively on previously existing clientele or other relationships, and by relying heavily on the use of collateral. Analyzing prospective cash flows is time-consuming and this becomes a pressing problem when the target is to preserve share in an expanding market. Consequently, banks tend to rely much more on collateral linked lending during an expansion. Asset prices usually go up in that period — not a minor point, because it may become the deep root of future complications. For instance, Larry Sjaastad used the expression “monetizing assets” in discussing Chile’s lending boom of the early 1980. In his writing, banks were not clearly differentiated from the private sector in general. However, the expression reminds us that collateral is an important ingredient in banks’ lending decisions.

The more comprehensive the changes in the environment, the less reliable are strategies of depending on collateral or on reputation and long-standing clientele relations. Again and again, we see that the past is projecting itself into the “near” future. But, in a changing environment, nobody really knows what the future will look like (or when it will look like the way they think). It is self-reinforcing behavior to lend more, and more rapidly, to optimistic clients and expanding markets, which become more optimistic and expand faster because of banks’ own credit policies. The danger is that it all may end in a bubble.

19 Notice that this result is quite likely in the aftermath of financial liberalization, as we show in this dissertation. First, we assume there is an increase in aggregate demand. In the second place, even if the banking sector is quite oligopolistic before the regulatory change, since perfect discrimination is not possible, and regulatory restrictions were pervasive, credit rationing was widespread. Rationed clients were willing to pay more than the market rate if they were allowed access to bank credit (in particular when rates were controlled). Thus the liberalization of the banking sector need not entail lower observed interest rates.

20 In this situation a cautious manager will be taken for a chicken. As anecdotal evidence, let me mention that in Chile the professionalization of bank management reinforced herd behavior. In Uruguay, some of the most aggressive managers were the ones with international banks. They read market developments in the same way as their colleagues in Chile at the same time, facing similar circumstances. Also, as noted by A. Leijonhufvud, loan officers may be rewarded on the basis of volume.

The previous paragraphs should convey to the reader a rationale why:

- a) We believe it is important to describe in some detail the conditions regulating banking activities. Drastic changes in regulation — financial liberalization, for instance — are likely to affect both the behavior of banks and the pattern of the business cycle.
- b) Banks are quite important in a strong recovery. They are able to produce loans at much lower costs, and also much faster, than everybody else in the economy. Given the stance of public finances, the expansion of aggregate demand is limited mainly by the banks' capacity and willingness to become indebted abroad.²¹ Moreover, they do convey valuable information to less-informed agents. Their behavior is an integral part of the expansion.

There is nothing intrinsically fraudulent or perverse about bank behavior. Nor could a central planner do better ex-ante. Bankers cannot be blamed for lacking perfect foresight. If the rules of the game change, it is not likely that rational expectations are widespread. But the way banking works opens up the possibility of systematic mistakes. Bankers are not like computers, which are incapable of deciding certain problems; nobody can get an answer from them, not even for a price. Bankers will give an answer, especially for a price.²² Making profits is reassuring.

IV. BANKS, BANKING CRISES AND ECONOMIC PERFORMANCE

IV.1 INTRODUCTION TO THE SECTION

The second big issue we address in this dissertation is the role that banks play in the downturn following the emergence of banking crises, and the long-lasting consequences of these critical events on economic performance.

²¹ Forced savings cannot increase aggregate demand, only change its composition.

²² In summarizing a paper by Fox and Tversky on ambiguity aversion, Bernstein [1996], pp. 281 notes: «... people will bet on vague beliefs in situations where they feel especially competent or knowledgeable, but they prefer to bet on chance when they do not.»

In order to show that the banking sector was not just a passive transmitter of macroeconomic shocks originating elsewhere, we start by discussing the basic features of these crises, and later discuss their consequences. We intend to show that one of the important elements underlying macroeconomic instability is the (“mis”) behavior of the banking sector.

IV.2 THE DEFINING FEATURES OF THESE BANKING CRISES

a. The Nature and Magnitude of the Crises

In closed economy models banking crises are usually depicted as panics. A run against the whole banking sector suddenly increases the demand for currency. Everybody comes to realize that deposits and currency are not exactly alike. Paradoxically, an abrupt surge in the demand for one component of M1 ends up destroying its aggregate supply. This multiple destruction of money can be avoided by lending currency freely to those demanding it. If hoarding is not an end in itself, such a transitory jump in the demand for currency will reverse itself in the short run.

Diamond and Dybvig [1983] revived an old idea in the analysis of banking crises. In their model, banks provide “liquidity” to consumers, while they themselves invest in “illiquid” investment projects. The change in the expected maturity of deposits brought about by the run leads to a disruption in the production process. That is why the run has real effects. *After the run*, there is a solvency problem, in the sense that the nominal value of existing deposits is greater than the value of remaining assets.

The crises reviewed in this dissertation were different. They began as widespread solvency crises the depth of which was gradually revealed as it became clear that the net worth of all — or almost all — banks had become negative. This was the consequence of a progressive deterioration of banks’ loan portfolios, leading to mounting operating losses, which were hidden as “accrual interest earnings,” and financed by an expansion of bank deposits.²³ These situations surfaced once some of the banks

²³ Borrowing from A. Harberger’s terminology: “a false demand for credit which gave rise to a false supply of deposits”.

involved could no longer roll over their liabilities on an ongoing basis.²⁴ In Uruguay in 1965 and in Argentina in 1980 the outbreak of the crises was a run on leading banks. In Chile and in Uruguay in 1982 the outbreak of the crises coincided with difficulties in refinancing foreign liabilities.

So, these runs were not generalized phenomena. Nor were they the consequence of a sunspot that happened to coordinate agents' behavior in a bad equilibrium. No bank failed because of an "idiosyncratic" run. And no panic occurred as the outcome of a pure "contagion" effect. Instead, these runs simply revealed that the "emperor wore no clothes".²⁵ Thus, prima facie, banks cannot be thought of as being mere recipients of "bad news." Their behavior and (previous) choices are important factors behind the subsequent losses.

The difference between these episodes and a Friedman-like characterization of banking crises is substantial. In Friedman's view they are identified with the vast destruction of "money" that panics entail. The cases we review are not consistent with this approach. In widespread solvency crises the value of liabilities does not collapse because of an early unforeseen withdrawal of deposits that is not accommodated by the central bank. In these cases, the destruction of wealth had taken place before any run. It is later translated into a dramatic erosion of the value of (national) money, but not a destruction of (nominal) money.²⁶

In addition, and contrary to what could be inferred from either Friedman's or Diamond and Dybvig's model, the bailout of banks was not restricted to deposits but extended to all debts. Thus a concern for the fate

24 According to the free banking school, these bank crises can only happen when regulations create distortionary incentives and prevent competition from clearing the market quickly. The chapter on the Uruguayan banking crisis of 1965 is partly intended to provide an empirical counterexample to that position.

25 In 1982 there were runs in both Chile and Uruguay. In Chile in late December it became crystal clear that all banks were about to close. In Uruguay there was a short-lived run on non-resident deposits following the Mexican default — which was accompanied by nationalization of the banking sector — and a massive withdrawal of peso-denominated deposits after abandonment of the tablita, when the exchange rate jumped from less than Ur \$14 on November 26 to Ur \$47 on January 7, 1983.

26 In analyzing the Argentine banking crisis of the early eighties, Roque Fernández [1983] also made the point that the actual sequence of events was very different from the sequence in the Friedmanian model.

of uninformed depositors was not the reason behind the rescues. In these crises, as in the Diamond and Dybvig case, deposits were no longer immediately convertible into currency, and the assets backing them did not suffice to repay them as they matured. A sharp difference then arose between the nominal and actual value of those liabilities. However, there are three crucial differences between these cases and the Diamond and Dybvig model. Two of them are as follows:²⁷

- (i) In the cases reviewed, the solvency problems were not triggered by a panic;
- (ii) banks did not play a purely passive role. Both the magnitude of the losses and the timing of outbreak of the crises were heavily influenced by banks' behavior.

As a consequence, the remedies suggested by Diamond and Dybvig to cope with bank panics are not suitable for handling this kind of problems. The above discussion helps explain why we devote a lot of space to substantiate the assertion that these were solvency crises in whose development and dimension banks played a role of their own.

b. The Postulate of Rational Expectations

Before turning to the empirical analysis of these episodes, we have to consider another feature of modern modeling strategies: rational expectations.

Because of rationality on the part of agents, in the Diamond and Dybvig model you either have banks and no panics, or you do not have banks and the expected run is the unobserved phenomenon leading to the (non-banking) bad equilibrium. In other words, either there are institutions that prevent the eruption of panics and there are firms specializing in providing "liquidity" to consumers, or the economy does not have these institutions and, correspondingly, there is no banking sector. This perhaps can be interpreted as the limit of adaptive behavior in a steady state, as Lucas [1986] suggested. The important feature of this description is that

²⁷ The third difference is linked to the hypothesis about expectations. I will elaborate on this below.

the run is part of the ex-ante set of possible outcomes that the working of the economy may produce. In one case, because of institutional design, consumers decide not to play “run,” and then no run is observed. In the other case, that of the bad equilibrium, the panic is also not observed, but neither is the banking sector. That is, creating a bank is part of the strategy space of entrepreneurs, but nobody plays “create a bank,” because consumers are playing “run” (the action is not observed, however). Therefore, in neither of the two steady states of Diamond and Dybvig model can we observe a run. Nor can we observe some institutional redesign which would allow banks to exist, because this would imply the elimination of the “bad equilibrium”, which is the policy conclusion of the paper.

From the standpoint of the Diamond and Dybvig model, therefore, the mere occurrence of a “panic” would be strong evidence against the prevalence of rational expectations. *A fortiori*, if we manage to show that:

- (i) governments reactions to these crises did not abide by pre-existing rules;
- (ii) the crisis triggered a feverish redesign of existing institutions and regulations;
- (iii) some disruptive macroeconomic phenomena developed, such as credit crunches, balance of payments crises or devaluations; and
- (iv) no economic team of policymakers and no previous economic plan survived the crises.

Then, we can safely infer that these crises were “profoundly unexpected.” Specifically, we can conclude that these were not among the possible outcomes that the economy could produce according to the economic models entertained by the private and public sectors and embedded in existing regulations. Thus, the kind of phenomena described and analyzed in this dissertation are anomalous with respect to Diamond and Dybvig’s model.

Note that the government’s complete lack of contingent plans for these problems is entirely consistent with a model in which banking crises are not to be observed. Despite several similarities among the four crises,

government responses to each crisis were unique. It seems clear that the authorities reacted to the facts under the pressure of some common problems, but followed their own theoretical prejudices and not a clearly stated model. This is another way to view these events as completely unexpected.

While these crises are “non-equilibrium” phenomena, they deserve our attention, because of their grave social and economic consequences.

IV.3 CONSEQUENCES OF THE BANKING CRISES

The consequences stem from the two basic facts that characterize the crises:

- (i) All banks accumulated huge losses;
- (ii) the crises were completely unforeseen, “coming out of the blue.”

The effects of each of these factors were reinforced by the magnitude of the other.

a. The Consequences of Bank Losses

Leaving aside for the moment the expectational issue, which is the source of most short-run externalities arising from the crisis, the solvency aspect of the crises was important for at least two reasons:

- (i) The credit crunch. When banks realize that their cash flow is deteriorating and face increasing problems in rolling over their debt, they tend to cut losses in order to improve cash flows. This can be done by asking some borrowers to pay off their debts. If this can be accomplished, the best part of the loan portfolio disappears, as Wojnilower [1997] notes. As a consequence of credit crunches, consumer loans, for example, are usually greatly contracted. But consumer credit is normally one of the highest yield portions of bank loans, with one of the lowest rates of default. When the suspicions of bank supervisors are aroused, they also ask for further reductions in operating losses and improvements in cash flows. Thus, managers and supervisors combine to engineer a process of adverse selection, which leads to a further weakening of bank profits

in the near future. This also means that existing loans are rolled over at higher rates of interest, just to keep expected returns from being negative.

Once the government makes up its mind and steps in, the credit crunch is not stopped immediately. Funds poured in by the government go first to banks' creditors, and also to finance "creative" operations intended to save the bank.²⁸ This cut in external financing to nonfinancial firms leads to a contraction of the latter's level of activity. Much later, when things "get back to normal," riskier groups of borrowers tend to be rationed (as in the case of mortgages, or the agricultural sector in Latin America), because of lenders' increased risk aversion. The financing of well-established exports is the only item that quickly recovers from a credit crunch.

- (ii) The Tough Recovery. A widespread bank solvency crisis means that part of the economy's perceived wealth has evaporated. The loss is at least as large as the size of the banking sector's losses. But it is bound to increase.

Suppose it is socially and politically feasible to do nothing and the government lets the market do its job. What is the likely outcome of this decision? Existing banks will have to go under. This has several implications:

- Depositors will be unable to recover a single peso or dollar until the bankruptcy procedure of their bank is finished. Thus a huge excess demand for money will arise at given prices and income. This by itself will produce a recession.
- All the economies of scale in managing reserves are lost, increasing the excess demand for money and other highly liquid assets.
- All the information capital accumulated at the failed banks disappears.²⁹

28 Sometimes, as is well known, money is fraudulently diverted abroad taking it out of the jurisdiction of both regulators and courts.

29 Note that the crisis itself had already reduced the value of those assets.

- The most important “primary market” disappears. This is really the key consequence of closing the banking sector. Since there is no alternative to the intermediation of credit, a new set of intermediaries has to be created. This takes time and real resources.³⁰

The world has recent experience on this subject. The Latin American debt crisis, which did not bring about the generalized insolvency of lenders, but did cut these countries off from international markets, took ten years to solve. The solution included introduction of a new set of credit experts, investment banks, which are now major market makers in primary international markets for sovereign debt.³¹ The lenders are pooled by institutional investors, who buy the new bonds. The costs of these arrangements for borrowers and ultimate lenders are fairly high and probably higher than the costs prevailing when private banks were the predominant lenders.

Uruguay’s recent experience may be of some interest. After the 1982 crisis, private banks drastically cut their portfolio of loans to agricultural producers. Credit cooperatives, which did not fail in 1982, and whose hard-core clientele comes from the agricultural sector, have only reached a market share of about 4% of the banking industry 15 years later.³² In contrast, consumer credit (which is closer to a commodity) was supplied by finance companies, and expanded dramatically during the same period, to the extent that those domestic companies have been able to forge joint ventures with Visa and Mastercard.

This, still, does not give us a full picture of the total expected social costs of a banking crisis. Why? Is the “market solution” an orderly process

29 Note that the crisis itself had already reduced the value of those assets.

30 The alternative to a set of experts intermediating credits is not a perfect credit market in the spirit of Arrow and Debreu. If traders who have appeared endogenously because of market incompleteness go bankrupt, and there is nothing in the economic environment completing the set of markets, an Arrow-Debreu world cannot be the outcome of this process. Notice the analogy with money: the actual historical alternatives to a monetary economy have not been barter economies.

31 Except, of course, multilateral credit agencies such as the World Bank or the IADB.

32 The share of agricultural GDP in total GDP has declined from about 12-13% in the early 1980s to 9-10% in recent years.

whose result can be reasonably well foreseen?³³ An immediate consequence is an intensive use of the courts. The legal system and the courts are devices created to deal with problems on an individual basis. Can this mechanism be changed to examine a flood of new disputes, many of which involve domestic and foreign parties? At what cost? How long would it take? What could be the effects on the conditions of competition among nonfinancial firms? The legal and judicial reality of Latin American countries induces an overwhelming pessimism in answering all these questions.

It is not surprising that after a short period of procrastination governments decided to intervene. But in so doing they opened a Pandora's box.³⁴ These interventions created a long-lasting legacy in the structure of regulation and institutions as well as in the finances of the public sector. The deterioration of the latter, in turn, led to an immediate jump in public sector external debt (and later to higher flows per year) and to a higher inflation tax (associated with higher devaluation rates), and the subsequent abandonment of domestic currencies by the public.³⁵

So, from the onset to the end of these banking crises, a period measured in years and not in weeks as with a panic, the economic environment changed dramatically, in ways nobody could foresee at the beginning, and which made the economies perform quite poorly. One way or another, the population had to put up with the long-lasting costs of these critical episodes, during periods that usually were longer than the banking crises themselves.

33 Even the Coase Theorem cannot be relied on in this context. First, property rights on deposits and collateralized assets are not well defined under the circumstances. Second, observed market prices, which are a focal point for the bargains, are likely to be out of equilibrium. Third, because of the banking crisis, most non-financial agents lack an external source of credit and are credit constrained. Thus, a massive bargaining process need not lead to assigning the objects (including promises) under dispute to those who value them most.

34 It seems that the runs «helped» governments make up their mind.

35 In the case of Chile, the inflationary impact of the banking crisis was comparatively low. Nevertheless, up to the present, long-term contracting is denominated in UF (unidades de fomento), which is a unit of account linked to the CPI.

IV.4 INFORMATION AND EXPECTATIONS

The occurrence of these crises revealed much information to the public. People learned that the working hypotheses entertained by everybody the day before were wrong. Specifically, the plans of the government and the banking sector, the two players that have the most diversified interests in the economy (in that sense of being macro or “global” players), were mistaken. This realization served to coordinate expectations in one respect: previous plans could not possibly be carried out as conceived.

Government intervention meant transferring resources to prevent the failure of the banking sector. In the very short run these resources could only be obtained by increasing public sector debt³⁶ or by increasing the monetary base (or a mix of both). Note that expanding the monetary base in an inside money regime, as the tablitas were, is almost equivalent to a reduction in international reserves.³⁷ Banks’ deposits became contingent public debt, and the runs turned part of them into actual debt. In fact, the fiscal assumptions sustaining the exchange rate eroded rapidly. As a consequence, speculative attacks were made against national currencies and private capital outflows mounted. Thus the probability that the government’s macroeconomic program would succeed soon converged to zero.

In handling the crises the authorities departed from the preexisting rules. In so doing, they confirmed the widespread feeling that the solutions implicit in the legal order contradicted “common sense” or some widely shared sense of justice. At the same time, they were creating precedents that were to be invoked when later demands for further rule breaking were made. Moreover, this feverish rewriting of the legal framework in itself generated an environment which facilitated the formation of coalitions which created a complete fiscal disarray in the case of Argentina, and in

36 To be precise, the possibilities are: placing new debt either domestically or abroad, or running down international reserves, which means an increment in the net public sector external debt.

37 In equilibrium it is, as the Monetary Approach to the Balance of Payments (MABP) shows. In disequilibrium the increase in the base financed the speculative attack against national currencies. In Uruguay in 1982 we were able to match on an almost daily basis the fall in international reserves that followed an autonomous increase in the monetary base.

Uruguay something close to it, while in Chile, with the strongest public finances of the three, they eventually produced enormous fiscal problems, public sector external debt crises, and surges in the inflation rate.

V. CONCLUDING REMARKS

We start with an approach in which the financial structure of the economy matters. More precisely, we focus on the role of banks. In insisting on their relevance, we want to stress:

- a) The payments system is organized around the circulation of bank liabilities. This, of course, is a familiar proposition. What is less often recognized is the following:
- b) Banks are specialists in granting loans. For large classes of borrowers, these loans are the only substitutes for the primary markets that they cannot access. In addition, they also finance the transfer of existing assets, and back up other primary markets. So the efficient working of the economy as a whole depends heavily on the performance of banks.

The standing tradition of calling banks “intermediaries” is, in a sense, misleading. It suggests that mainstream economics is right in giving banks the same treatment it gives to most middlemen, i.e., neglecting them. This is wrong since the mere presence of banks in an economy is evidence of the fact that intermediated lending is more profitable than direct credit in a vast number of cases. Banks are producing a valuable service — assuming some of the risks of the failure of the intertemporal coordination of activities that no open market is willing to assume. What banks sell is quite different from what they buy as input, even though it seems to be the most homogeneous commodity of all, i.e., money. The relevance of these activities ultimately depends on beliefs about what the future looks like. If the future is basically foreseen as a repetition of the present, one may feel comfortable with mainstream theory. If not, one cannot ignore banks when trying to make sense of market economies.

The reaction of governments all over the world to deep widespread solvency crises in the banking sector is an indicator of the significance that both the authorities and the private sector in general attach to well-

functioning banks. This, in turn, may be either rational or irrational from an economic point of view. In either event mainstream economics faces an anomaly.

Furthermore, the reaction of the governments can hardly be explained except on the assumption that the authorities regard those banking crises as supremely disruptive. Therefore, there has to be a set of externalities that is not appreciated in normal times, but become relevant in truly bad times, as in the case of generalized deep solvency crises. Our understanding is that the main sources of these externalities are threefold:

- * The lending role of banks;
- * The influence of bank performance and bankers' opinions on expectation formation, which stems from the particular place of banks in the division of labor.
- * The role of bank liabilities in the payments systems, which ultimately arises and depends on the role of banks as lenders.

Other aspects that are likely to be very important for the policymaker basically derives from the ones just mentioned. Among them, it is worth while mentioning two:

- * Banks are the most important private sector link with international capital markets, at least in the economies that are the subject of our analysis.
- * The immediate impact of the banking sector's failure is broader than we have suggested, because banks are multi-product firms carrying out a variety of activities organized around their core business.

The extent of these externalities depends on institutional design. That is the main reason why the supervision and regulation of the financial industry is so important, not only for the industry, but also because of its contribution to overall macroeconomic stability.

CHAPTER 2

THE URUGUAYAN BANKING CRISIS OF 1965

I. A HISTORICAL ACCOUNT OF THE CRISIS

I.1 ANTECEDENTS OF THE CRISIS

The system of banking regulation originated in the late 1930s with a couple of acts that were subsequently modified in the late 1940s. These regulations were rather loose. In fact, the government was only allowed to control the lawfulness of bank operations. No other kind of supervision was foreseen. There were two supervisory bodies — the most important one being the Treasury. Everyday supervision was in the hands of the Issue Department of the BROU.³⁸ There was no provision for lender of last resort or for deposit insurance.

Three different types of banking firms were allowed: banks, *cajas populares* and *casas bancarias* (banking houses). The law did not prohibit direct investments by banks in other financial or nonfinancial firms. Thus, it established a “multi-purpose banking” system. The “*cajas populares*” were small, countryside banks that were “handicapped” in that they were not allowed to have branches. The banking houses were allowed neither to issue check nor to receive deposits from the public. Foreign banks were allowed to open branches in Uruguay if the country of residence of their headquarters allowed Uruguayan banks to open branches there. Moreover, apart from the charter, there was no limitation to the opening of

38 Administratively the Issue Department worked under the Board of Governors of the BROU, but its political head was the Consejo Honorario, a council whose members were the governors of the BROU (five members), two delegates from private banks, one from the Rural Association and one representing the Chamber of Commerce. Because of its composition and the evident conflict of interests, the Council was very often sidestepped by the Governors of the BROU. This implies that the Banking Department did many of the traditional central banking activities.

subsidiaries of foreign banks or to the opening of banks whose capital was completely in the hands of foreigners.

Maximum deposit interest rates were fixed by law in the late 1930s: 0.25% for demand deposits; 4% for saving accounts; 5% for time deposits. The latter ceiling was violated in the early 1960s. The market rate was about 8% in 1959/60, 10% in 1961/62, 12% in 1963 and 11% in 1964. The lending rate was basically free, since the few existing regulations were not seriously enforced. We do not have information about what the lending rates were.³⁹

Since the early 1950s, gold and other precious metals were considered money and traffic in them was subject to practically no control. Dollar denominated deposits in the banking sector were allowed by that time. This was partly a conscious strategy to transform Montevideo into a regional financial center, taking advantage of the political troubles that abounded in the area at that time.

In the early 1960s, the trend was to give both the Banking Department and the Issue Department of the BROU more powers in the regulation and control of the private banks and the Treasury lost some of its previous functions. Yet, prior to 1964 BROU's supervisory powers were still very limited.⁴⁰ In February 1964, drawing on recent experience of bank failures, the Issue Department of BROU was given the power to take over distressed banks. This was the highest peak in supervisory powers prior to the crisis.

39 The largest failed bank in the 1965 crash had a prime rate of 17% in 1961 (Banco Transatlantico del Uruguay [1965]). This is the only piece of information I have in this area.

40 A specific case illustrates the regulatory environment. In 1958 a small bank failed. Then, by the end of 1960 the Congress passed a law empowering the Banking Department of the BROU to back up some of the bank's operation and — "because of the assumed liabilities" — to place an observer in the bank in question. Thus the BROU became involved in the administration of the failed bank. Any capital losses to the BROU that could arise from this law would be immediately charged to the Treasury. Note that a special law was required, that it was the Banking Department, not the Issue Department, that was put in charge of the operation, and that no provision was made for deposit insurance. Uruguayan authorities of the time seem to have thought of the Banking Department as a delegate of the Treasury in the management of the failed bank.

I.2 ON BANKING BUSINESS

The rapid growth of the banking sector started in the mid-1940s. It is natural to link it both to the development of other sectors of the economy and to the real bills doctrine regime. The 1940s and 1950s were the years of the “second wave” of industrialization induced by import substitution policies. The share of industrial product in GDP grew from about 15% to 23% in this period. This process came to an end in the late 1950s.

The centerpiece of the monetary regime was the discount (rediscount, literally) mechanism. According to the act passed in November 1950, the Issue Department of BROU could not deny private banks to re-discount their commercial paper (“real bills”) as long as the bills fulfilled specified legal requirements. The second part of the 1950s was the boom period of the *redescuentos*, also known as the era of “paper calves” (*novillos de papel*), because the same cattle were sold again and again with each operation producing a bill to be discounted at the BROU (See Table 2.1). For many years the Issue Department determined the rate charged on the re-discount. Later, when the inflation rate jumped, the Issue Department also determined the interest rate that banks were allowed to charge their clients. The latter regulation was never really enforced, however. That, in turn, meant that the subsidy implicit in the redescuento was mainly captured by the banks and their major clients.

The Exchange and Monetary Reform Act of 1959 eliminated the automaticity of re-discounts, allowing the possibility of limiting such operations. The policy goal was to restrain the use of rediscounts by private banks. This, in turn, meant that the subsidy granted to them was significantly reduced.

The ratios of money and credit aggregates to GDP declined during the period 1958-64 (see Tables 2.2 to 2.4). On the monetary side, the legally fixed interest rates combined with the jump in inflation since the late 1950s, plus the stagnation of economic activity over the cycle, account for this outcome. On the credit side we also have to consider the reduction in redescuentos. The recorded decrease in these aggregates may exaggerate what actually took place, because it does not include curb market operations, which were growing rapidly during these years.

During the early to mid-1960s, the banking sector showed the following characteristics:

TABLE 2.1

REDISCOUNTS AS A SHARE OF CURRENCY (percent)			
	BROU-Bank Dept	Private Banks	Total Comm. Banks
1955 Dec.	9	34	43
1956 Dec.	8	40	48
1957 Dec.	7	43	50
1958 Dec.	5	53	58
1959 Dec.	0	31	31
1960 Dec.	5	26	31
1961 Dec.	21	18	39
1962 Dec.	7	21	28
1963 Dec.	19	6	25
1964 Dec.	36	7	43
1965 Dec.	58	5	63
1966 Dec.	55	15	70
1967 Dec.	63	4	67
1968 Dec.	61	2	63
1969 Dec.	47	1	48
1970 Dec.	53	2	55

Source: Estadísticas Monetarias y Bancarias, BCU [1971].

TABLE 2.2

MONETARY AGGREGATES IN NOMINAL TERMS (December 1959 = 100)				
	Currency In Circulation	Demand Deposits	Time Deposits	Dollar Deposits
1958	81	66	86	87
1959	100	100	100	100
1960	136	126	118	112
1961	173	137	149	128
1962	197	116	166	133
1963	244	157	215	170
1964	337	223	302	218
1965	669	440	362	275
1966	1021	514	425	366

Source: Estadísticas Monetarias y Bancarias, BCU [1971].

TABLE 2.3

MONETARY AGGREGATES AS A SHARE OF GDP (percent)				
	Currency In Circulation	Demand Deposits	Time Deposits	Dollar Deposits
1958	81	66	86	87
1959	100	100	100	100
1960	136	126	118	112
1961	173	137	149	128
1962	197	116	166	133
1963	244	157	215	170
1964	337	223	302	218
1965	669	440	362	275
1966	1021	514	425	366

Source: Estadísticas Monetarias y Bancarias, BCU [1971].

TABLE 2.4

BANKING CREDIT TO THE PRIVATE SECTOR						
	A. Nominal Terms (December 1959 = 100)			B. As a Fraction of GDP (percentage)		
	Pesos	Dollars	Total	Pesos	Dollars	Total
1958	79	80	79	36.5	4.6	41.1
1959	100	100	100	34.5	4.4	38.9
1960	125	150	128	28.1	4.2	32.3
1961	147	179	151	26.0	4.0	30.0
1962	176	190	178	28.5	3.9	32.4
1963	217	207	216	29.4	3.5	32.9
1964	318	410	329	20.9	4.9	34.8
1965	378	535	395	22.0	4.0	26.0
1966	507	719	531	15.6	2.8	18.4

Source: Pt. A, Estadísticas Monetarias y Bancarias, BCU [1971].

- (1) Most banks had a very concentrated portfolio. This was known by the bank supervisors, yet nothing was done about it. Bank supervisors did not have enough information about the quality of banking risks (see BROU [1965]).
- (2) Private banks increased their dollar-denominated debt substantially. These liabilities amounted to U.S. \$66 million at the end of 1964. However, banks did not have much incentive to make placements in dollars in the domestic private sector, with the exception perhaps of established importers and exporters. Offshore banking had not developed either. Thus, it was the public sector, and more particularly the BROU, who were the main recipients of foreign currency raised by the banks. Even though we do not have much information about this, two indicators are germane: first, in May, 1965, the BROU rolled over a debt with private domestic banks of U.S. \$100 million, and it also had another debt with residents for U.S. \$90 million. Second, the amount of swaps showed a sizeable increase after 1960 (BROU [1965]). The U.S. \$90 million referred

to may correspond to this item.⁴¹ Third, in the case of the Banco Transatlantico del Uruguay, to be examined later, placements with the BROU amounted to about 65% of its external debt and 23% of its total placements in foreign currency.

- (3) There was a marked expansion in the supply of non-traditional services, especially real estate management and foreign exchange. The banks were moving into more fields in response to the decline of profits generated by the reduction of the subsidy granted via rediscounts.

I.3 THE BANKING SECTOR: FIRMS, OUTLETS AND EMPLOYEES

As can be seen from Tables 2.5 and 2.6, the expansion of the banking system was noticeable since the mid-1940s. Even though the number of firms did not increase much after the mid-1950s, the number of outlets continued to grow until 1963 and the number of bank clerks expanded up to 1965 (see Table 2.7). Clearly, these data do not suggest disintermediation. CIDE [1964] saw this banking expansion as a form of non-price competition (see also Daly [1967]).

41 The swap was an operation by which the BROU borrowed dollars from the private sector, mainly banks, and lent pesos to the borrower. A special exchange rate and a low interest rate were used in such operations. At the beginning of 1965, the official exchange rate was U.S. \$18.70 per dollar, and the exchange rate for swaps was Ur \$14.5 per dollar (C. Quijano [1965], quoted by Dupetit and Martinez [1965]).

About the evolution of those operations, the 1965 Annual Report of the BROU said that the Bank started using them in 1960. They accounted for 7% of the Bank's placements and about 3% of total banking placements. In 1964 those figures were 23% and 11% respectively. This development was explained by the increased foreign exchange needs of the Bank (see BROU [1965], p. 80). Notice that the above information refers to the peso counterpart of the dollar liability of the BROU.

TABLE 2.5

INFLATION AND DEVALUATION (percentage)			
	Change in GDP Implicit Price Level	Devaluation Official Rate	Devaluation Parallel Rate
1958	7.2	n.a	114.5
1959	48.5	167.6	16.6
1960	44.5	0.2	-1.6
1961	20.7	-0.4	0.5
1962	14.3	0.0	1.3
1963	22.7	49.4	55.1
1964	39.3	14.0	36.8

NOTE: The inflation rate, as defined, is centered in the middle of the year. Devaluation rates are December vs. December figures.

Source: Banco de la Republica Oriental del Uruguay.

TABLE 2.6

BANKING SECTOR – NUMBER OF FIRMS AND OUTLETS								
	Number of Firms				Number of Outlets			
	A	B	C	D	A	B	C	D
1920	3	20	0	23	n.a.	n.a.	0	n.a.
1930	3	20	6	29	n.a.	n.a.	6	n.a.
1940	3	18	10	31	n.a.	n.a.	10	n.a.
1944	3	21	33	57	n.a.	n.a.	33	n.a.
1950	3	26	47	76	n.a.	n.a.	47	n.a.
1955	3	41	31	75	69	250	31	n.a.
1960	3	56	20	79	109	616	20	745
1963	3	61	20	84	116	801	20	937
1964	3	56	22	81	119	759	22	900
1965	3	50	22	75	120	651	22	793
1966	3	46	21	70	120	619	21	830

A – State-owned Banks; B – Private banks C – Cajas populares

NOTES:

- (i) The data on state-owned banks for 1955 includes the BROU alone.
- (ii) In 1960 the first “banking house” was created so that an extra unit has to be added to the total number of firms and outlets.
- (iii) The number of branches of foreign banks (the only ones recognized as “foreign” by the regulation) were 10 in 1920, 7 in 1950, 9 in 1960, and 7 in 1965. They are included under B.

Source: Estadísticas Monetarias y Bancarias, BCU [1971]; A. Banda and L. Mugica [1977].

TABLE 2.7

BANKING SECTOR – NUMBER OF EMPLOYEES			
	State-Owned Banks	Private Banks	Total
1952	n.a.	4067	n.a.
1955	3680	5243	9587
1960	4779	8046	12825
1963	5910	9542	15452
1964	6142	9757	15899
1965	6470	9570	16040
1966	6752	8876	15628

Source: Estadísticas Monetarias y Bancarias, BCU [1971].

Moreover, beginning in the late 1950s, finance companies expanded, most of them backed by private banks.⁴² Many of them were just “paper” firms, but some became important and required autonomous headquarters. There are no dependable estimates of the volume of their operations but they probably amounted to 25-30% of private banks’ volume.⁴³ The Treasury was in charge of supervising these firms. The BROU was not allowed to control them because they were not “banking” firms from a legal standpoint. Even after the financieras started offering deposits in the newspapers, the government did not want the BROU to step in. Neither did private banks.

I.4 ON THE FINANCIAL POSITION OF NON-FINANCIAL FIRMS

The only available information on this topic comes from a study for the period 1961-63 of the sources and uses of funds of 53 manufacturing

42 In the national slang of the time, those firms were referred to as “financieras” or as “colaterales”, that is, subsidiaries (implicitly: of the banks).

43 The 1964 Annual Report of the BROU mentioned that the increase in private banks’ loans recorded in 1964 which quadrupled the figure for the previous year, was partly explained by the introduction for tax reasons into the bank’s account, of accounts coming from the financieras.

firms that had their stocks quoted in the stock market 1961-63 (CIDE [1964]). These firms represented 18% of gross production by the manufacturing sector. The study showed that both gross investment and financial investment of these firms in 1962 and 1963 were mainly financed by “external sources”, i.e., sources foreign to the firm, part of which were non-paid taxes. It also showed a marked decline in trade credit granted by the firms. The data for the 14 biggest firms in the sample showed a clear decline in non-paid taxes as a source of funds, and in the trade credit they granted. They also showed an important increase in the use of bank credit. This information suggests that the more sophisticated part of the business sector, which also has the most bank-intensive financial technology, had suffered a weakening of its financial position as a consequence of the 1962-63 recession.⁴⁴

After reviewing some of the development presented in this section, a foreign analyst commented on “the pathological growth of Uruguayan banks” (Daly [1967]).

II. THE BANKING CRISIS

This section provides a historical account of the crisis. It includes a brief prologue and a digression on the main character of the drama, the Banco Transatlantico del Uruguay. This episode is also known as “the crisis of the Transatlantico”. Next, we proceed to a description of the bank run, and then present the most important institutional and political changes that followed it. The section ends with a short chronicle of how the financial distress evolved.

II.1 PROLOGUE

In spite of the “pathological growth” of the sector and the “competition” coming from the financieras, there were very few cases of failures among Uruguayan banks in this century prior to 1965. As mentioned before, in the midst of the 1958 recession a small bank failed. It took until 1963/64 for it to be definitively closed. In May 1962 another small bank went bankrupt. By the end of 1963 another small bank that

⁴⁴ GDP fell by 4% over those two years.

was about to be opened was not allowed to do so because of its lack of capital.⁴⁵

In April 1964 the Banco Regional, also a small to medium-size new bank which had few contacts either with the Bankers Association (Asociacion de Bancos del Uruguay, ABU) or with the Bank Clerks Trade Union (Asociacion de Empleados Bancarios del Uruguay, AEBU) began to have problems and suffered a run. The BROU took care of the problem without any formal notice to the Council in charge of the Issue Department. A well-known independent CPA was asked to audit the bank. The auditor produced his report on December 11, 1964. The bank's future did not look particularly dire to him. On December 17th BROU replaced the top management of the bank with its own management,⁴⁶ which then closed it on December 21st; this was the first episode of a crisis that exploded four months later, when the situation of the Banco Transatlantico del Uruguay was no longer tenable.

II.2 A DIGRESSION ON THE BANCO TRANSATLANTICO DEL URUGUAY (BTU)

The BTU was acquired by a new economic group in November, 1961. In three years, the new management managed to transform a medium size bank into the 2nd or 3rd largest bank in the country. Its aggressive management developed an extended network of small savers (small farmers and business people from the suburbs and towns surrounding Montevideo, and low and middle income people in general). By the time of its failure it was estimated that the BTU had about 160-170 thousand depositors (6% to 7% of the total population of the country!) Its network of foreign lenders and correspondents consisted mainly of American banks and finance companies, some of which were relatively unknown.

45 The banks referred to in the text were the Banco Italiano, the Banco de Comercio Minorista y Agrario and the Banco Industrial, respectively.

46 The displacement of a bank's top management, the board of directors included, and its replacement with people appointed by the BROU is a disciplinary measure. In the language of the Uruguayan law this is called "intervencion". The institution in charge of the "intervencion" remains responsible for the bank's performance and its management can be attacked by the stockholders. This was the first time the Issue Department of the BROU used this power, originated in the 1964 law mentioned before.

The funds obtained were channeled by the BTU mainly to a ring of firms owned by the same economic group that controlled the bank. According to a BROU report finished in early March 1965; by December 31, 1964, 46% of BTU's total placements and 80% of total guarantees given by the bank had been directed to subsidiaries and controlled firms. When it closed, the BTU had about 40 subsidiaries as well as interests in 20 other firms, including one bank in Argentina and two in Uruguay. The economic group was the owner of 9 big ranches in Uruguay, 90% of some suburbs in Montevideo, an airline covering the Montevideo-Buenos Aires route, and a myriad of dispersed real estate properties. In order to keep the quotation of BTU stocks high, the "colaterales" bought that stock with money obtained from the bank. A report prepared by independent auditors appointed by the BTU concluded on April 5, 1965, that the capital position of the colaterales at the end of February was negative, and that the deficit amounted to 77% of their assets. A more realistic accounting of the dollar denominated debt of those firms would have produced a deficit larger than the value of the assets. According to BROU [1965], the capital deficit of the colaterales was about 3.75 times the BTU's capital position as it appears in the bank's balance sheet of December 31, 1964.

In 1963, after an on-site examination, BROU's auditors had discovered that the BTU had a very concentrated portfolio, but they still thought that the economic position of the bank was solid. The Council of the Issue Department had the same opinion as its advisors. Furthermore, by mid-1964 Price Waterhouse Peat & Co. audited the BTU balance sheet and made no objections to it. Shortly afterwards, the BTU bought a second bank, the Banco Uruguayo de Administracion y Credito, that was facing troubles. The purchase was made with the agreement of the BROU.

In August 1964 the BTU purchased an old and well established real estate firm. The plan was to make the firm buy all the real estate in the hands of the BTU, financing that purchase with the issue of a bond paying 16% a year. This figure was clearly above the legal banking deposit rate, but probably in line with the rate surreptitiously paid by the Bank to its better customers.⁴⁷ The reason for the purchase was that the bank was

⁴⁷ C. Quijano [1985] mentions that in 1965 the BTU paid its better customers an interest rate of 20% under the table. There were two sets of accounting books, one for the authorities and one for the bank. The under-the-table operations were recorded in the latter.

facing increasing difficulties in getting rid of the property it had bought in previous years and, even though it still obtained accounting profits by the re-evaluation of that property, its current income was not enough to finance its current expenditure. Given that open interest rate competition was ruled out by law, the only way to obtain additional fresh money was to have a new subsidiary issuing debt at “market” rates.

The BTU also incurred a sizable dollar denominated debt, both external and domestic (see Table 2.8). Nevertheless, by November 1964 it was ready to lend U.S. \$3 million to the BROU, without asking for a swap, something unusual at the time. On the other hand, this may help us to understand why the BROU seemed surprised by the BTU’s troubles.

II.3 THE RUN

After the Banco Regional was taken over by the BROU (see paragraph II.1), on Monday December 21, 1964, the run then spread to other banks. The impact was larger on the BTU than on other firms, probably because of the characteristics of its depositors. The withdrawals from the BTU were further stimulated by an ad published in a major journal on December 24, offering BTU’s stock at half its “market” price.

TABLE 2.8

BTU – FOREIGN CURRENCY POSITION (millions of dollars)	
Assets	
BROU	6.5
Importers	2.5
Other Clients	8.0
Correspondents	0.5
Contingent Claims (Guarantees)	11.0
Total Assets	28.5
Liabilities	
Foreign Banks	8.0
Foreign Investors	2.0
Domestic Investors	3.0
Contingent Liabilities	11.0
Total Liabilities	24.0
NET POSITION	4.5
Balance	28.5

NOTES: (i) Figures rounded in the original.

(ii) No date in the original. Presumably, either end of December, 1964 or end of March, 1965.

Source: E. Dupetit and R. Martinez [1965], p. 28.

The Issue Dept. launched another on-site examination in January 1965, and its first findings (too much non-banking activities, significant external debt both short and long term, and severe liquidity problems), were leaked to the media. The run could not be stopped. Furthermore, the news reached the foreign lenders. In January BTU was unable to roll over its short-term external debt.⁴⁸ On February 26, 1965, a prestigious weekly wrote an editorial entitled “Is the building shaking again?”, in which the editor, a man of solid reputation, commented on some information that had leaked from BROU. In December the BROU had given special support to an unmentioned bank of Ur \$95 million, about 2.4% of the currency in circulation, and equal to U.S. \$3.6 million at the ruling parallel market exchange rate. This article exacerbated the run. According to BTU’s management, the withdrawals amounted to Ur \$150 million. This figure amounts to almost 4% of the February 1965 level of currency issued. Even though by mid-March the run seemed to concentrate on the BTU and a couple of small banks, the increase of currency in private bank’s vaults pointed to a more generalized phenomenon. In fact, the cash in bank’s vaults increased 7% in the first two months of the year, 24% in March and 11% in April. In a public statement, BROU promised its widest support to the private banks.

The government asked the Bankers Association, ABU, to collaborate in order to finance the stopping of the run. Private banks answered that they were in no position to give financial support in foreign exchange, and could do so in pesos only to a small extent.

The foreign banks refused to roll over BTU’s credit lines. On March 28, the largest newspaper, one close to the government, commented on the persistence of “irregular and inconvenient” situations, including the flight of a top banker with a lot of money. The article referred to the trip of one top executive of the BTU, but in fact no such escape had occurred.

In that year Easter went from April 9 to 19, meaning a ten-day holiday for the banking system. The report on the “colaterales” had been finished by April 5, and some of the findings may have been disclosed.⁴⁹ Legally,

48 U.S. \$5.0 million were maturing in March, for instance.

49 I do not have any precise confirmation on this, but one of the most important clients of the Bank, who also had some interest in it, refrained from using BTU’s safety boxes, and on April 19 took its money to a different bank.

the money taken into the banks during Easter was not considered a deposit, and therefore, the banks were not allowed to use it after Easter without a special deposit order. It soon became apparent how expectations with regard to the BTU had evolved during that week. Withdrawals on April 20 and 21 totalled Ur \$40 million, 1% of the level of currency at the end of March, and Ur \$37 million came from BROU. This funding was equivalent to 10% of BROU's cash holdings at March end. The BTU was taken over by the BROU on Tuesday evening, April 21, 1965. That measure led to a generalized run on the banking system and on April 22, AEBU decided to launch a general strike, the only "legal" way to close the whole system.

The strike ended and banking activities resumed on May 17, 1965. Six banks had been closed. New laws on the organization of the banking sector had been passed (including the formal establishment of a lender of last resort facility and a partial deposit insurance scheme.). Private banks decided to form a pool of resources to fight the eventual revival of the run. In spite of all that, everyone was afraid of such an event. Lloyds Bank, whose headquarters were in front of the BROU's headquarters, displayed a huge amount of small denomination peso bills in its front windows the day of the reopening. No withdrawals occurred that day.⁵⁰

Let us review the measures undertaken by the Issue Department that either addressed directly the problem of the run or helped diminish liquidity problems in the economy. In December 1964, in order to cope with traditional end of the year liquidity problems, the Issue Department established the following:

- a special line of discount (linea especial de redescuento) for Ur \$60 ("object": wheat processing)
- a special discount line to finance the simultaneous payment of the 12th and 13th monthly wages and salaries. In fact, the Bank was used to launch this kind of special discount line every year.
- new regulations for normal discount operations that allowed the banks a more intensive use of the facility.

⁵⁰ I owe this anecdote to the former chief lawyer of the Central Bank and then an attorney with BROU, Dr. Carlos Maggi.

To deal with the immediate crisis, the Issue Department also provided the banks with an overdraft that could not be larger than 35% of the legal reserve position, and was to be reimbursed in 90 days. The overdrafts had to be collateralized as ordinary “redescuento” operations. In the first four months of 1965 the Issue Dept. opened several special discount lines and enlarged the use of the existing ones. Decisions were taken on February 23, March 24, April 26 and April 29. Two of them came after the suspension of banking activities due to the strike. Another small discount line was established in June.

In the specific case of the BTU, BROU’s financial support started with an overdraft of Ur \$1.5 million authorized on December 21, 1964, but the overdraft kept on increasing. Then the BTU swapped the dollars it had loaned the BROU in November. On January 15, 1965 the Banking Dept. of BROU opened a special rediscount line for Ur \$15 million in order to cancel the overdraft. On February 3, another overdraft was granted, this time for Ur \$40 million; eight days later it was increased to Ur \$55 million. Then on February 18, 19, 24 and 25, the Banking Dept. of BROU broadened its financial support to BTU. On the latter date, the Bank decided to modify the exchange rate used in some swaps, Ur \$25 per dollar, from Ur \$14.5 per dollar. The operation would mature in six months. The additional funding amounted to Ur \$22 million. On March 8 BROU bought the dollars swapped by the BTU before the maturing of the operation at Ur \$28 per dollar. Thus, the purchase meant an additional cash flow to the BTU of Ur \$3 per dollar swapped, about Ur \$19 million. At that moment BROU decided to officially communicate to the Council of the Issue Department the BTU situation. They also agreed that the Banking Department should grant any new credit in the form of overdrafts. BROU’s financial support reached Ur \$281.6 million by April 21, 1965. The maximum amount agreed upon informally by the governors of the BROU by March was Ur \$200 million.

As a consequence, the rate of currency expansion increased. Even though 1965 was a year of severe fiscal deficit, according to BROU’s Annual Report, more than 80% of the monetization of the public deficit took place in the second half of the year. Thus, the increase in currency in circulation due to monetization of the fiscal deficit during the first semester, about Ur \$350 million, amounted to 9% of the end 1964 stock of currency. Also, the monthly gross of BROU’s credit to the government in the first half of the year averaged less than Ur \$100 million. Thus the support to

BTU was equivalent to more than 2.5 months of government gross funding and about 75% of the fiscal deficit for the first part of the year. The increased rate of currency expansion that occurred in the first half of 1965 and the high increase in December 1964 were very much influenced by the banking crisis. Table 2.9 shows that, even though in 1965 currency followed its traditional seasonal pattern, the rates of monthly expansion since December, 1964 were systematically higher than before.

TABLE 2.9

CURRENCY EXPANSION					
	1961	1962	1963	1964	1965
a. Cumulative Rates (%)					
December/November	17.1	11.2	14.3	28.5	14.1
January/December	-5.9	-2.9	0.0	-0.8	0.3
February/December	-4.4	-0.7	0.5	-0.5	1.4
April/December	4.4	-2.4	13.2	3.4	12.3
June/December	6.5	1.9	5.6	10.6	25.3
b. Monthly Average Rates (%)					
June/June	n.a.	n.a.	1.6	2.4	4.4
December/December	n.a.	n.a.	2.0	3.3	5.6

Source: Estadísticas Monetarias y Bancarias (BCU [1971])

II.4 THE REGULATORY, POLITICAL AND ADMINISTRATIVE IMPACT OF THE CRISIS

a. Regulatory Changes

By late April 1965, during the bank strike, laws No. 13330 and 13331 establishing important changes in bank regulation, were enacted. The following modifications should be mentioned:

- (i) The establishment of a deposit insurance facility, to be financed by a special fund formed with premiums paid by private banks, computed as a small percentage of their deposits. The state would cover any deficit of the fund. The insurance covered peso denominated deposits up to Ur \$50,000 approximately U.S. \$2083 at the official exchange rate and U.S. \$1,400 at the parallel market rate. If converted into gold and at present day prices, the insurance amounted to today's U.S. \$18,000. The insurance scheme focused on people who usually form lines in front of the cashiers: small to medium savers. According to the law, the deposits were to be reimbursed after the bank was legally declared bankrupt. Thus the depositors were not supposed to receive their money back immediately after the "intervention" or closing of the firm. In fact, the first reimbursements occurred in October 1965. Given the post-April 1965 inflation, the failed bank's depositors suffered a far-from-negligible implicit tax. Inflation in the period from April to October 1965 was almost 43%; by December 1965 the price rise had reached 66%, and the average level of prices in 1966 was 110% higher than in April 1965. Later the facility was extended to depositors of banks that failed before 1965. This was, of course, less than a consolation prize.
- (ii) A timid advance in the establishment of a lender of last resort was the "backing" of the deposit insurance facility by BROU. It was mandated to issue money in order to fill any gap in the finances of the insurance fund. During 1965 the insurance covered Ur \$177 million, just 9% of the increase in the government's net credit in the BROU. In 1966 the payments totaled Ur \$191 million. This institution was broadened and reformulated in 1967, following the creation of the Central Bank of Uruguay.

- (iii) The creation of new banks and “cajas populares” was forbidden and mergers and acquisitions were stimulated. Finance companies were also prohibited, but this regulation was hardly effective.
- (iv) Banks and cajas populares were not allowed to:
- participate in firms or operations foreign to banking activities.
 - invest in stocks, debentures or any other financial asset issued by private firms.
 - have real estate property that is not required for the normal functioning of the firm.
 - lend money to their top management, unless certain requirements were fulfilled.
- (v) A “quasi nationalization” of deposit was also enacted. Banking firms were not allowed to use their deposits unless they followed the instructions given by the Issue Department. The latter, in turn, was not allowed to permit bank portfolios in which the share of loans to the agricultural and industrial sectors was less than 65%. This was the first legal provision for credit selectivity as a policy tool.
- (vi) The firing of bank clerks was prohibited.

Some months later the Issue Department was allowed to determine the interest rates that the firms under its supervision had to use.

b. Political Changes

The BROU was taken over by the government and its board of governors removed on May 26, 1965. The government also asked for the resignation of the private sector members of the Consejo Honorario del Departamento de Emision, the hierarchy of the Issue Department. The general manager of the Bank was also removed by the new administration.

The removal of the governors gave rise to a political scandal. One governor argued that, because of the BROU’s autonomy, the government did not have constitutional powers either to assume the management of BROU, or to ask for his resignation. This episode resulted in the inclusion in the new Constitution voted in 1966 of a provision allowing for the

removal of the governors of state-owned enterprises by the government under certain circumstances. It also allowed the government discretion to block some decisions made by such firms.

More important was the provision of the new constitution which established the Central Bank of Uruguay. The Bank started its activities on the basis of the old Issue Department of the BROU on March 1, 1967.

c. Administrative Changes

Apart from the removal of the general manager of BROU, partly an administrative change, the new Board decided to change the officials in charge of the Issue Department and also appointed two persons as co-general managers. The new officials in charge of the Issue Department gave first priority to the reorganization of the supervisory body and created a special unit whose main task was the “permanent control” of the banking system. New auditors were appointed, so as to increase substantially the number of on-site examinations that the Issue Department was able to do during a year. The Council of the Issue Department was periodically informed of the development of that reorganization.

It could be argued that the removal of the board of governors of BROU was mainly a consequence of the foreign exchange market crisis, an issue that will be covered later. The fact that the new authorities concentrated on the reorganization of the Issue Department, that was not directly responsible for the exchange problems, reinforces the opinion expressed here: the main factor underlying the removal of the governors was the banking crisis.

II.5 THE PROXIMATE AFTERSHOCKS

Stopping the run did not end all financial problems. While the liquidity position of the banks improved greatly in the 6 months that followed the run, some troubles lasted for many months. In fact a strong trend toward disintermediation started with the crisis and a sizeable credit crunch developed after the run. These two phenomena help explain the fall in the growth rate experienced by the Uruguayan economy in 1965.

a. **Private Banking Reserves**

In spite of the increased monetization of the fiscal deficit that took place in the second part of the year, the liquidity of private banks did not recover rapidly. Their reserve position was normal by late December, however. ABU's Annual Report also noted that liquidity problems were not significant at that moment (see Table 2.10). It can also be inferred that private banks' liquidity had improved at the beginning of 1966, since in April the authorities decided that the checks in the hands of the banks, but not yet sent for clearing, could no longer be counted as part of their reserve position. Reserve requirements were also increased: from 16% to 20% for demand deposits (of less than 30 days), and from 8% to 10% for time deposits.

But the financial distress lingered. In a letter to the IMF dated May 19, 1966 the government wrote: "... the authorities consider that a temporary increase in reserve requirements is needed. ... The measure has been postponed, however, in order to help some banks recover from the crisis of 1965." That measure was never taken. Moreover, six days later another small bank failed.⁵¹ In October 1966, about two months before the elections, a labor conflict in the banking sector induced another run. Deposits fell by 15% in September and October and the decline was matched by an increase in currency. The situation was back to "normal" by the end of the year (see Table 2.10). The amount of emergency loans granted by BROU during this panic was reflected in the increase in rediscounts to private banks recorded in December 1966, a figure that otherwise looks abnormally high (see Table 2.10).

51 It was the Banco del Sur del Uruguay.

TABLE 2.10

PRIVATE BANKS – RESERVE POSITION					
	Dec. 1963	Dec. 1964	Dec. 1965	June 1966	Dec. 1966
A. Data in Millions of Pesos					
Deposits	3419	4946	7417	9070	8180
Cash	n.a.	394	906	875	1037
Dep. BROU	n.a.	264	744	856	369
Treasury Bills and Public Debt	n.a.	70	71	76	104
Total Reserves	711	728	1721	1807	1510
Reserve Requirements	471	540	1182	1585	1199
Excess Reserves	240	188	539	222	311
B. Some Ratios (%)					
Reserve Req./Deposits	13.8	10.9	15.9	17.5	14.7
Total Reserve/Deposits	20.8	14.7	23.2	19.9	18.5
Excess Reserve/Deposits	7.0	3.8	7.3	2.4	3.8
Excess Reserves	34	26	31	12	21

Source: Asociacion de Bancos del Uruguay, ABU [1966].

b. The Trend Toward Disintermediation

Given the magnitude of the decrease in both dollar and peso denominated deposits in the banking industry and the instability of the environment, it is not clear that the funds withdrawn from the banks were immediately reallocated through the informal sector. Instead, once the environment became less uncertain, the public may have opted to place its financial resources in the informal sector to an extent not seen before.

(i) Dollar Deposits. The run on dollar-denominated deposits did not stop. These deposits amounted to U.S. \$69 million in December 1964, falling to U.S. \$60.5 million in March, U.S. \$41.7 in June and U.S. \$31.7 in September 1965. Since deposit insurance did not cover dollar-denominated deposits, this indicates that the public both lacked confidence in the banking system and feared the confiscation of such deposits in the midst of the BROU's crisis. This raised the specter of a run against private banks or against the government, or against both. These possibilities are observationally equivalent, since we cannot tell whether private banks were actually hurt by the recorded drain in deposits. This is not a play on words. Since every bank had a ring of "colaterales", they could perhaps convince its depositors to place their money with the bank's subsidiaries, some of which had headquarters abroad, without serious damage to the liquidity position of the parent company. From the BOP statistics and BROU [1965], we know that the capital flight amounted to about U.S. \$90 million in 1965, and that the flight was partly reversed in the last two months of that year (see Section III). ABU [1965] states that: "to a large extent the capital flight seems to be caused by a psychological factor created by the shutdown of some banking firms, the delay in the payments of the 'coberturas' [an implicit exchange insurance for importers]; and the fears of the possible blockage of public's foreign exchange banking accounts" (meaning also the posterior conversion of the balances into pesos). We conclude that the run on dollar-denominated deposits in 1965 was in large part induced by the crisis of the banking system.

(ii) Peso deposits The end of the run did not imply normalization of the demand for deposits (see Table 2.11). There was a noticeable difference in the behavior of demand and time peso-denominated deposits in the banking system and also between the deposits in BROU and in private banks. In the case of the BROU, demand deposits fell by 14% in May with respect to April. This shows that even the BROU suffered from

the panic. Over the entire year nominal deposits grew by 57%, which implies a 16% decrease in real terms.

Most notably, December's level was 25% below September's. This strongly indicates that public perceptions of the health of private banks had changed, since at that time demand deposits in private banks started to increase rapidly. These deposits had regained their March level in August. But they grew by 55% in the last four months of the year, more than doubling their 1964 December level. This shows a strong shift in the public's portfolio, consistent with the information presented in the previous paragraph.

TABLE 2.11

PRIVATE SECTOR PESO DEPOSITS IN THE BANKING SECTOR (millions of pesos)				
	BROU		Private Banks	
	Demand Deposit	Time Deposit	Demand Deposit	Time Deposit
1963 I	251	405	732	1921
II	205	410	771	1990
III	191	438	847	2148
IV	181	495	977	2331
1964 I	204	537	1113	2568
II	262	591	1141	2894
III	304	557	1210	3201
IV	301	658	1338	3306
1965 1	356	832	1453	3448
2	302	907	1500	3548
3	309	901	1712	3639
4	439	1163	1555	3318
5	377	1054	1545	3084
6	499	1204	1552	2953
7	497	1340	1675	3028
8	519	1432	1784	3132
9	630	1391	2018	3235
10	509	1253	2230	3195
11	507	1234	2407	3347
12	474	1363	2762	3396
1966 I	616	1660	3334	4183
II	789	1987	3223	4533
III	712	2158	3266	4687
IV	739	1693	3040	3887

Source: Estadísticas Monetarias y Bancarias, BCU [1971].

BROU's time deposits more than doubled and peaked in August; in December its level was 5% lower. The behavior of time deposits in BROU was influenced by the new import regulations. Importers were obliged to make a deposit with BROU for at least six months. Since imports had been closed for a while and people were anticipating a huge devaluation, this explains the abnormal behavior of time deposits in the BROU. And this explanation also shows that the previously mentioned change was not associated with any correlative change in the demand for deposits per se.

Time deposits in private banks declined in nominal terms in the second quarter, ending the year at just 3% above the previous year's level, with an 88% inflation rate. Interestingly, time deposits in private banks had normally been about twice demand deposit levels. This portfolio shift became even more pronounced in the following years. This strongly suggests the development of a significant curb credit market. As an aside, the only benefit that banks may have obtained was the lowering of their operational costs.

The move away from private banks can also be seen in terms of the rise in the ratio of currency in circulation to deposits in private banks (see Table 2.12). In 1965, the impact of the crisis is shown as an increase in the demand for currency relative to deposits. But later figures have to be interpreted as reflecting the permanent development of the curb market.

TABLE 2.12

CURRENCY IN CIRCULATION AND PRIVATE BANKING DEPOSITS						
	C. in C/Dem. Dep.			C. in C./Total Dep.		
	1964	1965	1966	1964	1965	1966
January	202	297		60	58	
February	204	209		62	63	
March	198	183	204	60	58	90
April	195	229		57	73	
May	201	248		58	83	
June	186	258	209	53	89	87
July	207	252		55	90	
August	203	243		56	88	
September	183	224	223	50	86	92
October	202	217		52	89	
November	201	212		53	89	
December	229	220	305	66	99	134

TABLE 2.13

PESO DEPOSITS IN THE PRIVATE BANKING SECTOR IN REAL TERMS (millions of pesos in 1963)			
	Demand Deposit	Time Deposit	Total
1964 12	798	1971	2769
1965 1	838	1990	2828
2	837	1980	2817
3	913	1941	2854
4	811	1730	2541
5	788	1572	2360
6	739	1406	2145
7	773	1398	2171
8	775	1405	2180
9	808	1279	2087
10	857	1228	2085
11	859	1195	2054
12	876	1077	1953

c. The Credit Crunch

Tables 2.14 and 2.15 (see also Table 2.4) present information on this issue. The first shows the evolution of the annual rate of growth of banking credit in nominal terms. Since the nominal increase in credit lagged behind the increases in prices, a noticeable credit shrinkage in real terms resulted. Even the BROU, whose nominal expansion was clearly larger than that of the private banks, mentions in its 1965 Annual Report (BROU [1965]) that “loans granted to the public and banking sectors restricted the available funds for the private one.” Later it adds: “In the period 1956-62 the use of rediscounts by the private banks was larger than the banks’ deposits in the BROU and in 1963-65 the opposite happened. Besides, in 1965 the emergency credit granted by the BROU to the private banks — as a consequence of the banking crisis — was larger than the above-mentioned traditional elements.” In Table 2.4, the substantial reduction in the ratio of credit to GDP is more revealing of the magnitude of the shrinkage of credit in real terms. Table 2.15 presents data relating the level of net credit, that is, the relationship between loans and deposits. It is apparent that since mid-1965 banks created less credit out of a given total deposit base. This can be partially explained by the increase in the average of the reserve requirements induced by the shift into demand deposits decided by the public. But this cannot be the whole story.⁵²

The credit crunch started in the second quarter of 1965, after the crash, and extended at least to the third quarter of 1966. It was in the latter year that the contraction became more severe.

Again, because of the financieras, we do not know whether the recorded credit contraction was larger than the actual one. There is no information about it. Nevertheless, the indirect indication is that it took at least a couple of years before the banks began to complain angrily about the competition from the curb market. Thus, in the aftermath of the bank

52 Historically, demand deposits accounted for 1/3 of peso deposits. The required reserve rate was 16% for them and 8% for deposits. These rates give an expected reserve requirement of about 11%, the actual one in December, 1964, by the way. If we assume that demand deposits are the only deposits held by the bank, the average rate goes to 16%. Therefore, this factor accounts for a 94% decrease in the ratio of credit to deposits. If we consider that the required reserve rate climbed to 20% in mid-1966, the factor falls from 94% to 90%.

crash, it is not likely that the financieras substituted for the banks in lending. Most likely, recorded figures give a reasonable indication of what was happening.

II.6 THE LONG-LASTING FINANCIAL DISTRESS AND RENEWED BANKING CRISIS

Runs were no longer a problem in what followed. Yet, in spite of the restructuring and the oligopolistic nature of the formal financial market, private banks were not in good shape. In December 1967 another small bank failed.⁵³ Bankers complained about banking and monetary policy, which eroded their competitive position vis a vis the informal “*parabancario*” sector, and also about their costs. Moreover, many such criticisms were not misguided. According to the private banks,

53 It was the Banco Americano Israeli.

TABLE 2.14

BANKING CREDIT IN NOMINAL TERMS – RATES OF EXPANSION (annual percentage rate)				
	BROU (pesos)	Private (pesos)	Banks (dollars)	CPI
1963 I	31	10	2	
II	40	5	25	
III	44	7	17	
IV	40	12	19	44
1964 I	45	21	30	
II	49	31	11	
III	48	38	45	
IV	48	46	96	35
1965 I	52	44	59	42
II	52	44	59	53
III	34	12	-22	68
IV	24	14	26	100
1966 I	7	23	2	95
II	18	61	22	91
III	37	57	63	74
IV	32	36	-15	48

NOTE: The CPI from the FCEA was used because of its availability. The inflation rate so computed follows closely the official one, except in 1965. The official record was 88% in 1965.

Source: Estadísticas Monetarias y Bancarias, BCU [1971].

CPI from Facultad de Ciencias Economicas y Administracion, quoted by ABU [1966].

TABLE 2.15

BANKING SECTOR – RATIO CREDIT/DEPOSITS (percent)				
	1963	1964	1965	1966
I	1.44	1.36	1.42	1.18
II	1.43	1.37	1.39	1.23
III	1.38	1.41	1.27	1.33
IV	1.41	1.56	1.35	1.51
ANNUAL AVERAGE	1.46	1.48	1.40	1.31

economic policies contributed to their desperate situation. In a letter addressed to the President of the Central Bank dated August 14, 1968, later addressed also to the Vice-president of the Republic,⁵⁴ ABU said that the banking sector as a whole was suffering operating losses that had been covered with the proceeds of their new deposits. ABU also noted that in spite of the dramatic fall in the inflation rate (from about 30% a quarter to less than 4% a quarter), they were not able to reduce their lending rates because of accumulated losses and non-performing assets. No dramatic improvement occurred and the banking sector experienced another major crisis in the first quarter of 1971.⁵⁵

It can be noted that inflation had rendered deposit insurance, fixed in pesos in 1965 and covering peso-denominated deposits alone, almost irrelevant in real terms. Furthermore, the Central Bank's powers as a lender of last resort were linked to the amount of deposits insured. When the crisis exploded, the government decided by decree to enlarge the capacity of the Central Bank as a lender of last resort, clearly violating the law, in order to cope with the liquidity crunch that arose. This happened before the situation became untenable for the most important banks in

54 Constitutionally, the vice-president of the Republic is also president of the Parliament. The letter was sent on October 23, 1968. By late June, a tough stabilization plan was launched. The plan included heavy use of incomes policy and price controls.

55 Five banks failed, including the second largest bank, the Banco Mercantil, and an important medium size bank, Banco Aldave y Martinez. The others were Sociedad de Bancos, Banco de Cobranzas, and Banco de Fomento Industrial y Comercial.

trouble.⁵⁶ Again, the existing legal solution was not optimal from the authorities' point of view. The non-interventionist policy was not consistent with the crisis.

II.7 NOTES

a . The Nature of the Crisis

Even though the run was the most dramatic part of the crisis, there is no doubt that the central problem was the insolvency of a substantial portion of the banking sector. Through inflation and accounting procedures, the sector managed to emerge with only a small nominal loss many years later. But this was “just for the records”.

Nor is there any doubt that the banking crisis – and its most obvious manifestation, the run – were essentially unexpected. This was so in two different senses. First, policymakers, supervisors and private bankers were taken by surprise. This is clearly reflected in the changes introduced at political and administrative levels as well as in the formation of a pool of resources with the participation of private banks after the resulting of banking activities. But there is additional evidence. Thus, for instance, the Banking Department of BROU waited until the first week of March to officially inform the Issue Department that the BTU was in deep trouble. Also, the private banks refused to contribute money to fight the run.

Second, and most fundamentally, a new set of regulations was brought about by the crisis. The existing legal and regulatory framework, in spite of being “stretched” to permit emergency loans by the BROU, would not accommodate actual solutions to the crisis. Note that it did not matter whether the old regulations did or did not foresee an event like the crisis — i.e., whether the crisis was, or was not, an anomaly for the theory underlying regulations. The point is, as the eminent Austrian jurist Hans Kelsen would have remarked, that possible ways out of the crisis inherent

56 The decree said that the emergency Central Bank lending to private banks could reach the total amount of deposits held by the banks. It was defended as a measure to stop the run, reassuring the public that there was no liquidity problem. Since at the time of the decree the liquidity aspect of the crisis was not the most important one, the measure could neither stop the run nor prevent the takeover of the failed banks, again by the BROU, not by the Central Bank.

in the existing regulations were no longer acceptable. In current economic terminology, the old regulations were “time inconsistent”.

b . The Goals of the New Regulations⁵⁷

The new regulations included provisions covering both the liquidity and solvency aspects of the crisis. It implied a noticeable departure from the traditional liberalism (in the European sense) that had inspired Uruguayan legislation, especially in the late thirties and forties. The run per se made a deep impression on the Uruguayan people. This is clearly reflected in the prompt reaction of Congress and the government after it exploded. The new deposit insurance, the formalization of the lender of last resort, and the creation of the “Permanent Control” unit in the Issue Department became the tools to handle the liquidity issue and to prevent panics. In these respects, the new regulations were very successful.

The solvency aspect of the crisis could not be evaluated at once. The authorities proceeded to act to help stem the solvency crisis. The change in on-site examination procedures was one of the reactions. It took several months for the authorities to determine legally that the banks managed by the BROU were to be definitively closed.

The ideas behind the provisions of the laws dealing with the solvency issues of the crisis deserve some comments. The concern, clearly, was to enhance the capital position of banks, to secure for them a “reasonable” share of the market, and to prevent them from speculating in foreign currencies and real estate or taking excessive risks because of the linkage between their top management and the economic groups. The prohibition to use deposits to buy their own stock was an obvious corrective to past malpractice.

The consensus was twofold: (a) banks were involved in too much speculation; (b) the banks’ placements were concentrated in the economic groups to which their top executives belonged. The losers in the crisis were those who bet on real estate and used the banks as the financial appendix of their economic groups. Needless to say, these conclusions generalized the paradigmatic BTU’s case. Many of the winners, those

⁵⁸ The long run consequences of the new regulation will be considered in Section III.

who bet on the dollar, were not much better than the losers, from the point of view of their lending policies. That was the rationale for two different but related rules:

- (i) the quasi-nationalization of deposits and the legalization of credit selectivity. Lending a huge share of total funds to the “real sector” would be mandatory from then on. This was supposed to eliminate speculative behavior on the part of the banks.
- (ii) regulating the links between the banks and their top management economic groups, including special prohibitions on “related credits”. From this date on, bank supervisors would examine closely the relationships between the bank, its top management and its related firms. In so doing bank examiners would consider the basic unit relevant for determining credit risk to be the economic group as a whole, not the isolated firm.

The complications of common bankruptcy procedures were not clearly understood at the moment, but they were immediately apparent. The need to deal with massive banking problems led to new legislation empowering the monetary authority to deal with the liquidation of banking firms. That, of course, remains an unfinished line of regulation.

c . On the Prohibition Against Firing Bank Employees

It is a widely shared belief that the prohibition on the firing bank clerks was part of a political agreement which revealed the price that had to be paid for the suspension of banking activities without any violation of the law on the authorities part. While this is partly true, it is not the whole truth. An important point is that if the 1000 employees (858 were redistributed among private banks) of the failed banks would have been fired immediately, the Retirement Fund of the Banking Sector (Caja de Jubilaciones Bancarias) would have been in jeopardy. Moreover, it would have reinforced incentives to fire even more clerks in other banks, and the problems of the fund might have become insurmountable. Since this fund’s liability is contingent public debt, the government could not run the risk of the fund going bankrupt. This is another reason why the provision was enacted. Thus, there was a tradeoff between labor market flexibility and the strength of public finances. Moreover, the prohibition, of course, was

not absolute. Private banks managed to fire about 800 people in the 1965-68 period.

III. THE MACROECONOMIC EFFECTS OF THE BANKING CRISIS

In this section we try to document and analyze the feedback from the banking crisis to macroeconomic behavior. There are three main topics to be covered: the foreign exchange market and the external sector, inflation, and growth performance.

III.1 THE FOREIGN EXCHANGE MARKET CRISIS AND THE EXTERNAL SECTOR

In 1962 people no longer believed that the exchange rate was sustainable. The result was a capital outflow of about U.S. \$55 million, as measured by the item "Errors & Omissions" of the BOP. BROU's attempts to defend the exchange rate led to a U.S. \$96 million deterioration of its foreign currency position. The decline in its international reserves accounted for U.S. \$74 million of this deterioration. Simultaneously, the country's external debt increased by U.S. \$126 million, an unusually high figure.

In May 1963 a dual exchange rate system was established. The official parity was changed from Ur \$11 to Ur \$16.5 — a 50% devaluation. However, December's parallel exchange rate was Ur \$17.5. Some import restrictions were introduced, but capital movements remained free. An official mission went to the United States in order to refinance BROU's short-term debt of U.S. \$39 million. The mission accomplished its goal.

In a dual exchange rate system the attempts to change portfolios from pesos to dollars will be reflected immediately in a jump of the parallel exchange rate, since there is no buffer stock to accommodate the larger demand. This, in turn, leads to a widening gap between the official and parallel rates. The gap itself becomes a measure of the sustainability of the official exchange rate. If it is very large, trade flows are affected. Importers will try to augment their demand because they believe that the official dollar is "cheap" and they expect it to change soon. By contrast, exporters refrain from selling for the very same reasons. That, of course,

impinges on the buffer stock of the controlled tier: the foreign exchange reserves of the monetary authorities. Under these circumstances, the central bank's inability to borrow abroad to counter the run on its reserves may lead them first to attempt to buy dollars in the market at the prevailing parallel price and then to sell them at the official quotation to the importers. Such efforts to defend the official exchange rate imply not only a subsidy from which consumers are unlikely to benefit, but also an increase in current losses of the monetary authorities. If some debt has been incurred, permanent losses will also arise.

During 1964 the external sector problems became increasingly pressing. The BROU was facing difficulties in servicing its dollar denominated liabilities and in providing dollars for the normal operation of the official segment of the foreign exchange market. It discontinued an implicit exchange rate insurance to importers and import restrictions were reinforced. A process along the lines described above can be recognized. "Errors & Omissions" recorded a capital flight of about U.S. \$61 million; it had been U.S. \$0.6 million in 1963, and dollar-denominated deposits in the banking system fell from U.S. \$78 million in June to U.S. \$69 million in December. The gap between the official and the parallel exchange rates increased substantially (see Table 2.16). By the end of the year, after the failure of another mission to the U.S., the BROU decided to devalue the official parity by 14%. The new exchange rate, Ur \$18.7, clearly fell short of the parallel rate, Ur \$24. By then both importers and exporters were speculating against the peso. BROU lost U.S.\$ 21.0 million of its international reserves during 1964 and the worsening of its foreign currency position was much larger: U.S. \$128 million.

The official exchange rate was further devalued in March to Ur \$24 per dollar, a 28% decline. This was intended to accelerate wool exports. Of course, a change in the public's portfolio was badly needed in order to improve the external position of the BROU. Restrictive monetary policy would have helped soften the external constraint. But, instead, an aggressive monetary policy was required to solve the liquidity problems of the banking sector. So, BROU's response to the crisis played a major role reinforcing prevailing trends in the foreign exchange market, and preventing the portfolio change. Moreover, by mid-February BROU officials detected that part of the Bank's financial support to BTU had been channeled by the latter into the buying of foreign exchange in order to serve its dollar-denominated debt. Shortly after BROU took it over,

New York creditors put BTU under several embargoes. The gap between the official and parallel exchange rates followed the deterioration in the banking sector. Having declined in October, it jumped in November and would have reached 46% without the December devaluation. By March 1965, it climbed to 44% in spite of the 28% devaluation decreed that month.

TABLE 2.16

EXCHANGE RATE GAP AS A PROPORTION OF THE OFFICIAL RATE (percent)				
	1963	1964	1965	1966
January	1.3	13.7	38.1	18.7
February	1.4	20.2	43.1	15.7
March	2.2	19.8	43.7	10.2
April	2.8	19.7	48.5	9.5
May	17.4	18.5	89.9	4.3
June	-	18.5	124.2	0.5
July	1.6	27.7	148.1	0.3
August	1.2	39.3	151.4	0.7
September	1.2	37.9	194.3	2.9
October	9.4	30.1	13.7	4.2
November	7.2	38.9	2.1	9.7
December	6.6	27.9	8.2	0.9

Source: Asociacion de Bancos del Uruguay, ABU [1966].

By May after the suspension of banking activities, the situation became unbearable for BROU. Dollar-denominated payments due that month amounted to U.S. \$168 million, of which U.S. \$68 million were to foreign creditors (see Tables 2.17 and 2.18). In the case of the private banks, their net debt with correspondents totaled U.S. \$50.5 million and non-resident dollar denominated deposits amounted to U.S. \$25 million. By the first half of May, the Bank had virtually closed the foreign exchange window, and the market was out of control (see Table 2.16). The shutdown of the official market took place during the suspension of private banking activities and when the BROU was also suffering from abnormal withdrawals.

TABLE 2.17

BROU'S FOREIGN EXCHANGE DENOMINATED DEBT BY MID-1965 (millions of dollars)				
Creditors	Total	Due May	Due Rest 1965	Due Later
Non-residents	133.1	67.8	32.6	32.7
Residents	232.4	100.1	113.7	18.7
Unpaid Imports	75.1	-	54.6	20.5
(-) Forward Purchases	-40.0	-	-40.0	-
TOTAL	400.6	167.9	160.9	71.8

Source: BROU [1965].

TABLE 2.18

URUGUAY – GROSS EXTERNAL DEBT, DECEMBER 31, 1964	
Public Sector (BROU excluded)	U.S. \$116
BROU	U.S. \$137
Private Banks	U.S. \$66
Non-banking Private Sector	U.S. \$52
TOTAL	U.S. \$371

Source: BROU [1965].

Moreover, the government was also having troubles financing its budget, and the just enacted deposit insurance implied an obligation to monetize an unknown amount of debt. At that moment people were fearing a resumption of the run, as happened after Easter. Moreover, the banking crisis was bound to affect the Uruguayan access to external credit markets, but this also depended on the still unknown extent of the crisis. Taking into account the accumulation of short-term debt in the banking sector, prospects were grim. The jump in the gap that occurred in May reflected all of this.

To make things worse, the BROU inexplicably did not pay the currently due installment, U.S. \$4.3 million, corresponding to the debt refinanced in 1963. That omission made the whole debt, U.S. \$34.7 million, come due immediately.⁵⁸

By mid-June most imports were prohibited and external obligations went unfulfilled for a while. In August a new refinancing mission was sent to the U.S., Canada and Europe to renegotiate the Uruguayan short term external debt. In the midst of the external and fiscal crisis a new economic team took office and started negotiations with the IMF.

On October 18, the team decided on a not very dirty floating of the official exchange rate, while maintaining a two-tier market. Also new regulations for international trade were passed. The new exchange measures were extremely successful, export retention ended, capital outflows reversed and the BROU was able to improve its foreign exchange position by about U.S. \$21 million during the last two months of the year. The fall in dollar deposits also ended in October. Nevertheless, capital flight in 1965 was huge: U.S. \$90 million.

But that was only part of the story and, undoubtedly, not the saddest part, since the banking crisis had important external repercussions. As expected, the creditors of the failed banks were not happy with the situation. According to some sources, the crash of the Uruguayan banking sector had only one parallel at the international level: the failure of the Bank of Lebanon in 1918. Foreign banks blamed the BROU for the crisis and the losses they were incurring. In late 1965 an attempt to cash a BROU check for twelve dollars in New York was refused. By mistake the account did not have enough funds at that precise moment. The external credit of the BROU proved to be nil.

58 Of course this episode shows an incredible internal disorganization. But the mistake reveals more than that. We are talking about people that had worked for more than 25 or 30 years in the Bank to become manager. I knew the then General Manager of the BROU. He was a serious respected man in his early fifties. After his leaving the Bank he became manager of one of the most important Uruguayan beef exporters and did a good job. I think that, in addition to the internal disorganization, the top management of the Bank could not cope with all the details of the banking crisis.

In a personal conversation, Dr. C. Maggi mentioned that the crisis impaired the relationships between BROU and private international banks for years. A whole generation of managers simply hated Uruguay and the BROU, and blamed them for what they and their friends personally suffered because of their involvement in operations with “Uruguay”. Personal relationships with top officials of the international banks started to improve by 1975/1977, after the retirement of the officials hit by the Uruguayan banking crisis.

The crisis fueled inflation through several channels. First, the increase in base money originated with the response to the liquidity crisis of the banking sector. This, however, was not a strong factor, unless we consider some further twist. The bank run can be interpreted as a surge in the demand for base money. Consequently, the increase in supply just matches the increase in demand. Without that augmented supply, deflationary forces would be dominated. The twist is the following. If, for whatever reason, people suddenly want to change their portfolio into foreign exchange, an inflationary outcome is then likely.⁵⁹ In the case of a floating exchange rate, the intended portfolio change will lead to a sudden depreciation of the domestic currency and this, in turn, will impact the general price level via its influence on the price of tradable goods and, to some extent, on wages and non-tradable goods. If nothing else happens, it is likely that the rate of inflation will eventually converge to its long-run trend.

If the change in the public’s portfolio is accommodated by the depletion of the international reserves of the monetary authority, the short-

59 In usual portfolio models there is a stock of dollars that are demanded. If demand increases, either the price goes up or a third party adds dollars to the stock to keep the price fixed. When banks are considered there can be movements that do not imply any additional pressure on a given stock of dollars. It is theoretically possible that the depositors of a bank decide to change their deposits from pesos to dollars. No actual dollar is involved in this shift. Thus, no additional pressure on the exchange rate. But no banker would allow the bank to bear all the risks of a devaluation. Suppose he manages to change the bank’s portfolio of loans into dollars, at once. By closing the bank’s position there is no need for an immediate pressure on the foreign exchange market. Except for one thing – the bank needs to accumulate dollar cash holdings to keep the bank liquid. So, there would still be an excess demand for dollars. The demand will be larger the slower the bank succeeds in changing its loans into dollars. The bank needs to cover its dollar position. Of course, if a devaluation is foreseen in the near future, it will become a speculator with an open dollar position and will use peso-denominated deposits to buy dollars.

run impact on prices will be lower but nothing more than a postponement of the inflationary pressures can be expected. The actual behavior of the rate of inflation in the first half of 1965 seems to support our point of view. As can be seen from Table 2.19, inflation in April and May was substantially below average and the previous monthly rates of inflation. Inflation exploded in June and had high records for the rest of the year.

The second and more important channel stemmed from the fact that bank deposits had at least partially become contingent public debt. The legal argument is obvious: the law said that the BROU had to step in and finance any gap that might exist between the sources of funds committed to the support of the deposit insurance scheme and the obligations that it might generate. But there was more to it than that. In a brief period of time, people had experienced the government's response to a small bank failure was dramatically different from its response to a major banking disruption. The deposit insurance scheme was tailored to suit the case of the most important failed bank — the BTU. It was later extended to cover deposits in banks that failed long ago. Would they not change the law if another big “earthquake” hit? Thus, if the banking distress persisted, the perceived probability that bank deposits would become actual public debt could only increase. In a country that was very close

TABLE 2.19

INFLATION AND DEVALUATION (percent)						
	Inflation		Devaluation			
	(CPI)		Official		Parallel	
	a	b	a	b	a	b
January	2.8	3.3	1.1	-	2.7	8.0
February	2.9	3.4	1.1	-	2.6	3.6
March	2.9	4.6	2.2	13.5	3.7	14.0
April	3.1	2.3	3.2	13.1	5.1	16.9
May	3.2	2.2	3.2	-	7.4	27.9
June	3.4	7.0	3.2	-	8.9	18.1
July	3.5	3.1	3.2	-	9.1	10.7
August	3.8	6.3	3.2	-	8.4	1.3
September	4.2	8.5	3.2	-	10.0	17.1
October	4.4	4.1	11.0	139.6	9.8	-7.4
November	4.8	7.6	11.1	4.6	8.3	-6.0
December	5.4	12.6	10.2	-0.4	8.7	5.5

a: 12-month average rate

b: monthly rate

Source Asociacion de Bancos del Uruguay, ABU [1965].

to saturation of the domestic market for public debt and whose government had trouble gaining access to foreign credit markets, this meant the saturation of the domestic market. It also implied reliance on seignorage to finance any daily fiscal deficit in order to avoid default. Yet the government was on the brink of cessation of payments during June and July. Parliament had to pass a law authorizing BROU to extend more credit to the government.⁶⁰ The dilemma threatened an unpredictable, disorderly devaluation process, marked by the interplay of opposing forces: the servicing of the external debt and the need to control the inflationary process.

The amount of peso deposits was known. The uncertainty concerned what portion of it might be monetized. But since a substantial share of the banks' debt was denominated in dollars (either deposits or correspondents), the amount of nominal debt in pesos would depend on the exchange rate. In this situation the inflationary impact of having a lender of last resort or a deposit insurance facility increases.

The third channel stemmed from the weak position of the banks that made it impossible to tax the financial sector and its users. This is explicit in the letter to the IMF from Uruguay authorities quoted above. They were not able to increase the reserve requirements of the banking system because some banks could not bear such an implicit tax and might not even be able to cope with the liquidity impact of such a measure. Furthermore, it became more difficult to cut the banking sector subsidies. These had been reduced since 1959 via the reduction of the "redescuentos". They increased automatically when their amount again grew. They also expanded when the inflation rate accelerated, since the interest rate charged by the BROU on these operations were very low – about 5% to 6%. As mentioned before, the ceiling on the rate that banks could charge their customers was never enforced. This allowed for a substantial portion of the inflation tax to be collected by the banks.

A fourth point to be made relates to the inner dynamics of public revenues and expenditures. In the mid-1960s, Uruguay was not a country with a long tradition of high inflation. Consequently, the tax system suffered

⁶⁰ Specifically, the Parliament authorized the BROU to grant additional loans to the government, accepting the pledge of yet not issued public debt as collateral.

from the Olivera-Tanzi effect so that an acceleration of the inflation would inevitably increase the fiscal deficit.⁶¹ Thus, the banking crisis probably gave a significant impulse to the inflationary process. Of course, it can be argued that this is a problem of fiscal design, not a direct consequence of the banking failures. But in the opinion of this author, this misses the point of what actually happened. Besides it must be recalled that Olivera and his student, Dante Simone, then an economist with the Central Bank of Argentina, had not even isolated the effect at that time.⁶²

Another way in which the banking crisis could have affected the fiscal outcome is via its influence on the level of economic activity.⁶³ The 1965 crisis also contributed to dollarization. Dollarization can be considered a privately implemented monetary reform that has two important consequences: (1) the collection of even a small amount of resources via seignorage and inflation tax rapidly produces huge rates of inflation; (2) the amount of the inflation tax paid by Uruguay to the U.S. increases. The capital repatriation of the mid-1970s suggests that significant dollarization had taken place in the intervening years. The extent to which the crisis contributed to this process is an open issue, however, since the dollarization developed in the curb market and abroad.

III.2 FURTHER COMMENTS ON THE SHORT-RUN EFFECTS OF THE CRASH

There is no doubt that 1965 was a critical year: the growth rate fell from 4% to less than 1%; inflation, devaluation and capital flight recorded maximum levels, and the fiscal deficit reached its maximum, between 2.5

61 In the period under study it is not clear whether a devaluation would have helped or impaired the fiscal result. There is a clear concentration of devaluation in the last two months of the year (see Instituto de Economía, Facultad de Ciencias Económicas y de Administración [1981]). Those devaluations helped increase government revenues because the main exports were taxed and both beef and wool were mainly exported in that part of the year. After the increase in the external debt the outcome may have changed.

62 Professor Harberger has pointed out to me that the dynamics of the fiscal deficit caused by an increase in the inflation rate was basically known at that time in institutions like the IMF. Olivera and Simone's results were obtained when studying Onaganía's stabilization plan, if my version of the oral tradition of River Plate economists is right.

63 There is still another more indirect channel: the banking crisis affected the stock of foreign reserves of the monetary authority. Due to this lack of dollars, the government suspended imports for a while and restricted them for a larger period, depriving the government of revenues generated by them.

and 3.5% of GDP, according to different estimates. Nevertheless, it is hard to tell what the direct impact of the banking crisis was on the economy's growth rate. But the magnitude of the credit crunch, in a country in which the allocation of financial resources within the private sector was mainly done through the banking and "para-banking" sectors, was such that one must conclude that the impact of the banking crisis on the level of economic activity was quite significant. Moreover, an extremely uncertain environment will also affect performance. Uruguay had experienced external sector difficulties previously, especially in the 1930s, with balance of payments problems also in 1956 and 1958, and since 1963 the external situation had been anything but relaxed. But no one alive had experienced a banking crisis of this dimension. The last banking crisis had occurred in 1890. The 1965 Annual Report of the BROU, usually a very circumspect document, referred to it as "a situation that made the economic foundations of our community shake".⁶⁴ A weekly article compared the impact of the crisis on Uruguayan people to the effect of the 1923 hyperinflation on the Germans (C. Maggi [1992]).

III.3 REFLECTIONS ON THE LONG-RUN CONSEQUENCES OF THE CRISIS

a. Consequences of the New Banking Regulations

Possibly the most important consequence of the new regulations was the consolidation of the split of the financial sector into two layers, the formal one and the curb market. The latter also became more atomistic and more underground than before the crisis. This was in part consequence of legalizing a "closed club" organization of the banking system. The prohibition against the opening of new banks, plus the stimuli towards mergers and acquisitions induced oligopolistic behavior on the part of existing banks. For instance, according to ABU [1968a], the Bankers Association supported the reduction in the number of banking outlets and obtained the elimination of 157 of them in the period 1965/1967. They also supported the mergers and acquisition policy sponsored by the government and the Central Bank.

⁶⁴ "... una situación que conmovió los cimientos económicos de nuestra comunidad". BROU [1965], p. 131.

Add to this the prohibition of the “financieras”, the rules concerning credit selectivity and the ceilings on the interest rate (which contributed to bank collusion) the origins of the developments in the financial sector that occurred in the following years are clear. These developments were characterized by a marked trend towards informal intermediation.⁶⁵ In spite of the decrees reasserting the 1965 prohibition, private banks kept most of their financieras open.⁶⁶ Besides this, more “underground” finance companies (the notary’s offices and also real estate dealers, for instance) flourished. All of this meant a significant segmentation of the financial sector, with a buoyant, but grey, curb market. Of course, the authorities could never control what happened in those areas. It was financial repression at its best.

It is difficult to know to what extent the trend to informal intermediation meant a decrease in intermediation services. But three facts are clear. First, the financial role of notary houses, real estate dealers, and other small financiers disappeared after the banking liberalization of the mid-1970s.⁶⁷ This indicates that the multiplication of “grey market” makers was not as efficient as the traditional banking system when it was allowed to function properly. Second, a huge repatriation of funds occurred in the period 1974/1977. This implies that there was ample scope for import substitution in intermediation services. Third, the discrimination against consumer credit and small business credit imbedded in the 1965 regulation led to the growth of two different types of financial firms that have had a permanent role in the Uruguayan financial sector, and whose strength have multiplied in every banking crisis. In 1971 a new piece of legislation was passed authorizing the creation of “savings and loan cooperatives”. Also

65 A World Bank Report on Uruguay prepared in mid-1969 said the following: “*The volume of operations of the parallel market is unknown. But that it is a sizeable market is shown by the fact that several firms have changed its sources of credit from commercial banks to the parallel market. ... As a response to the restrictions they face, many banks are contributing to this trend by sending their clients to curb market intermediaries with whom they have an affiliation.*” (Translation from Spanish by the author).

66 The enactment of regulations that will not be enforced tends to generate corruption and cynicism both on the part of the public and on the part of the bureaucracy. Furthermore, in the Uruguay of 1968 this meant giving inexperienced middle income class teenagers an argument to join the guerrilla movement. Some of the most popular and spectacular operations of the Tupamaros during those years were against hidden bank “financieras” and bankers.

67 It is also true that the repression against those intermediaries became tougher between 1972 and late 1974.

in the early seventies there appeared a new class of firms: consumer credit finance companies. These companies started granting credit to people buying clothing and shoes in boutiques in Montevideo. They usually charged a small down payment and fixed an installment plan. They also obtained very short-term credit from the seller, since it took than a month to pay the seller. The practice was in effect a predecessor of credit cards. The four most important of those houses ended up as the largest card issuers for domestic operations in Uruguay, which issue their own credit cards. But it took almost twenty years for that development to arrive.

In my opinion, one must conclude that the trend toward informal financial intermediation meant net disintermediation. Two segments were most affected: on the depository side, savers; on the credit side, consumer and small businesses. Thus, the composition of global demand may have been altered, contributing to reinforcing the misallocation of resources. The two previous facts taken together also mean that for some sectors of the population “a cash in advance constraint” tightened, resulting in an increase of the rate of savings that was carried out in dollars deposited abroad.

Reinforcing the oligopolistic traits of the banking sector also affected the pricing policy of banks. Since there are no statistics available on lending rates, and not very dependable ones on deposit rates, it is difficult to know the extent to which past losses governed private banking pricing. Recent experience suggests that this is not a minor detail. It has a substantial influence on the allocation of resources, in spite of the fact that the informal sector was a “money market”. The already mentioned World Bank Report on Uruguay concluded that firms obtained working capital in the curb market. There was a wide range of interest rates in the informal market, but the lowest bound was substantially larger than the rate of inflation (World Bank [1970]). A contemporaneous reader of the report annotated: “and larger than the banking rates.”⁶⁸

It is not clear what was the actual direct effect of the credit selectivity regulations on bank portfolios. Those regulations were never really

⁶⁸ This is consistent with a model of financial intermediaries where each one has substantial market power (Dominioni and Vaz [1992]).

enforced. Nothing good came from them but their effects were not particularly damaging either.

The creation of the Central Bank of Uruguay (BCU) was an institutional change with long lasting consequences. The creation of the BCU gave rise to gains in specialization that have not yet been exhausted after 25 years. The close links between BROU and the public sector and also its share of the market partly accounts for this slow development. Inexperience on the part of the new institution also cannot be disregarded. Specialization gains are twofold, in central banking performance and in the way the BROU conducts its commercial activities. Thus, not all the consequences of the banking crisis were negative.

IV. CONCLUDING REMARKS

We have presented an account of the Uruguayan banking crash of 1965 trying to emphasize its repercussion on macroeconomic performance. There are clear indications that the feedback from the banking crisis to the foreign exchange crisis, to the inflationary process and to the cyclical movement of the economy were significant. Of course, the disruptions on these areas must have affected the public's perception of the banking sector, contributing in turn to the banking crash.

The political and regulatory consequences also had lasting macroeconomic influence. The creation of the Central Bank and the strong trend toward disintermediation were important developments. However, since there is no established theory in that respect, conclusions are undoubtedly preliminary.

Furthermore, the experience of both small and large banking failures must have made people re-evaluate the declared non-interventionist policies in the case of bank failures. In this sense, the crisis would have become an important in shaping expectations in subsequent banking crash episodes.

Financial distress lasts longer than the open crisis itself, and it imposes constraints on monetary and fiscal policy. The IMF supported policy designed to obtain macro balance while disregarding the banking distress contributed to another major banking crisis in the early 1970s. In 1967 and 1973, two years after each crisis, Uruguay had to live through

very high and accelerating inflation, with annual rates above 100% per year. Is this is a coincidence and are the proximate factors enough to explain these surges in inflation? Maybe yes, maybe no. Since a thorough documentation of the links between financial and non financial activities cannot be carried out, better theoretical models are required to investigate this relationship and its influence on macroeconomic performance.

CHAPTER 3

SOME ASPECTS OF THE URUGUAYAN BANKING CRISIS OF 1982

PART ONE: A BRIEF HISTORICAL ACCOUNT OF THE CRISIS

I. SOME BACKGROUND

The oil crisis of 1974 marked a turning point for the Uruguayan economy. Business as usual” was no longer feasible; import substitution measures were not able to soften the external constraint.⁶⁹ The Argentinean “Rodrigazo” gave the regional touch to the external sector problem.⁷⁰ A dramatic increase in government external debt was not possible. Both the conditions of the foreign capital markets and the weak links among the Uruguayan authorities and potential foreign creditors as a consequence of the 1965 episode ruled out this course of action. Therefore, consumption and production were bound to fall drastically. In order to avoid such consequences the policy package launched in September 1974 attacked the external problem on two different fronts.⁷¹ First, it staged a direct attack on the current account. It undertook some measures to reduce the fiscal deficit and increase savings, but the bulk of the adjustment relied on changing export profitability.⁷² An aggressive scheme of export

69 Uruguay does not produce a drop of oil. In 1973 the import of oil amounted to U.S. \$43 million. The jump in prices meant an expected oil bill of U.S. \$160 million. Also, in 1973, with historically very high prices of beef and wool, Uruguayan total exports totalled U.S. \$220 million. This is the strongest argument behind the opinion given in the body of the paper.

70 The episode known as the “Rodrigazo” was a maxi-devaluation decreed in Argentina in 1974 by the then Minister of Finance, Mr. Rodrigo, after Ms. Peron took office. This measure means a dramatic decline in dollar prices in Argentina. It induced an Uruguayan shopping exodus to Argentina for almost two years, 1975-76. Uruguayan tourists talked then about the “petrouuguayos”, paraphrasing the newly invented “petro-dollars”.

71 Thorough descriptions of the liberalization process can be found in Larrain (1987) and Leone (1990).

72 The increase in world oil prices was also transmitted to the public.

promotion⁷³ included subsidies and a high “real exchange rate”,⁷⁴ but did not suffice for the very short run. Thus, the only available possibility was to match the deregulation of the capital account of the BOP with some liberalization of the domestic financial market, so as to create conditions for a repatriation of capital (that need not imply a change into pesos, but simply a re-location of deposits).⁷⁵ In spite of the success of the export program and the liberalization of the financial sector and the capital account of the BOP, Uruguay was on the brink of the cessation of international payments a year later.⁷⁶

73 Export promotion had been an issue for policymakers since the late forties. The first important, but not very fruitful change in regulation was launched in 1964. But it was in 1972, after a new administration took office, that export promotion became the focus of development policy. The philosophy and basis for an export-led growth was laid in the official document "Plan Nacional de Desarrollo 1973/1977" (Zerbino and Benson, [1973]). The plan was adopted by the de facto government after the auto-coup d'état of June 27, 1973. But the authors of the Plan resigned. The economic team in charge from July 1973 to September 1974 followed this export orientation, but the difficulties of the time exceeded its technical capabilities.

74 "...because it is not clear which is a sensible operational definition for this concept in the Uruguayan environment. Salter's definition is difficult to compute both because of lack of information and conceptual problems (are there really non-tradable goods in the Uruguayan economy?). At that moment, the bilateral parity with Argentina was not high because of the Rodrigazo, but bilateral parities with the US, Brazil and the EEC, the other most important trade partners of Uruguay at that time, were probably high.

75 A dual foreign exchange market existed since 1972. The commercial trade followed a PPP-rule, while the dollar floated in the financial tier. But exchange controls remained, and access to both segments was quite restricted. The initial reform consisted of the abrogation of almost all import quotas and elimination of exchange controls. The dual exchange rate was de facto abandoned on October 17, 1978, when the tablita was launched.

The end of exchange controls meant an indirect abrogation of the "Act on Economic Crimes" (Ley de delitos economicos) passed by the Congress in mid November 1972. That law was strongly supported by the "Peruvian wing" of the army, before and after the coup d'état. This group lost momentum after its intellectual leader, the chief of the Intelligence Division, was removed from his position in 1973/74. This person was later assassinated in Paris in 1975. The other factions of the army were not very inclined to economic liberalism either.

It is this act and the climate it generated, a clear deviation from the Uruguayan tradition, that led some not very well informed commentators to say that for the first time in 1974 Uruguayan people was allowed to hold dollar balances and dollar denominated deposits (see Larrain [1986] p. 21). Leone [1991] makes the mistake of quoting Larrain on this topic). The first chapter of this dissertation shows that this opinion is wrong.

76 I still remember that in the last days of 1975 a few million dollars coming from South Africa allowed the economic team to relax.

The basic changes in the financial sector were intended to end “financial repression” and regain monetary control. The first part was done in three stages:

- (i) Lending interest rates were augmented several times by Central Bank (BCU) decision, as was established by law. In 1977 the interest rate was fixed in such a way that it became a non-binding ceiling. In 1979 a new act permitted the market determination of the interest rate.
- (ii) In March 1976 a law (now a decree-law) was passed, allowing all kind of indexation clauses in private contracts and eliminating the legal tender status of the Uruguay peso. From then on dollar denominated liabilities could be discharged with pesos only if the creditor accepted. This legal change gave the banks absolute confidence to make dollar denominated loans. It was the most important institutional change favoring dollarization.
- (iii) In December 1977 the BCU gave a new interpretation to some regulations, stimulating the opening of banking houses (more on this below). Notice that the prohibitions enacted in 1965 with respect to opening new banks, “cajas populares” and finance companies was maintained. The economic team disliked them, but the over-expansion of the banking system was still vivid in the memories of middle income people (a set to which 99% of the army officers belonged).

Monetary control could not be regained, in spite of the abrogation of the redescuentos. The exchange rate policy (a “passive” crawling peg, i.e., a PPP rule for devaluation) made that goal virtually impossible. Moreover, the Central Bank started buying dollars in order to prevent the exchange rate from falling (in 1977 there was a small one-time revaluation).

In 1978 inflation was still high,⁷⁷ the financial scheme to stimulate export was no longer tenable for fiscal reasons, and the deregulation of the agricultural sector was passed. The authorities decided that the time

⁷⁷ For instance, in 1977 inflation was 57%, while the fiscal deficit amounted to 1.2% of GDP (Banda [1990]).

had come to make the fight against inflation the focus of economic policy. The “tablita” was started on October 17, 1978 (eight months after the Chilean one and two months before the Argentinean plan). By late December trade liberalization was advanced a step further by the launching of a five-year plan to reduce tariffs.

At this point the performance of the economy was the best since the first five years of the 1950s. “Long run stagnation” (that most famous national ghost) seemed to be exorcised. This, in fact, was the first strong recovery since 1958, and nobody thought that cycles were still alive.⁷⁸ Keep the government accounts “in line”, and do away with the distortions that impair the international competitiveness of the economy, that was the whole recipe. Furthermore, if the Central Bank has enough foreign reserves to buy the monetary base, you are in the safest of worlds. The IMF recognized that, and the “New Peso” entered the basket of currencies that formed the DEG.

However, some features did not fit the anticipated picture of the evolution of the economy. Neither the inflation rate nor interest rates converged as they were supposed to. The excess inflation tax collected by the Central Bank was used to build up a huge stock of foreign reserves. Imports were booming, the trade account was negative as never before while the nontradable sector expanded at an enormous rate. Assets prices skyrocketed and capital inflows were huge. Yet, the policy was thought to be credible and sound! The uniform opinion in the government was “tout va tres bien”. The then-President of the Republic, Gen. Alvarez, added publicly that those who had been betting against the peso were Martians (sic) (not Marxians as one might have expected from him).⁷⁹

In the second quarter of 1981 economy growth stopped, and the fourth quarter recorded a 9% seasonally adjusted fall in GDP relative to the first quarter. Quarterly figures were not available at the time so this assessment was by and large qualitative. Nevertheless, the downturn and

78 Not even Prof. Robert A. Mundell, who was a close and permanent advisor to the government (in particular, to the Central Bank) until the resignation of the then President of the Central Bank in June 1982.

79 One of the best discussions of the evolution of the Uruguayan economy from 1978 to 1985 can be found in Lopez Murphy et al. (1988). The most important weakness of this paper is its relative neglect of the endogenous dynamics of the process.

devaluation in Argentina, together with the decrease in imports and government revenues that led to a small fiscal deficit must have warned the authorities.⁸⁰ Furthermore, since early 1981 a secret instruction from the National Security Council (Consejo de Seguridad Nacional, COSENA), a body that was the true authority behind the President of the Republic, prohibited the functioning of bankruptcy procedures, because bankruptcy (“concordatos”) was becoming “an industry”.

II. BANKING DEVELOPMENTS

Because of the 1965 prohibitions, neither the number of banks nor the number of branches could grow during the intervening years. Instead, some small weak banks were bought by international banks. That was the route followed by the Bank of America in the late-1960s and the Republic National Bank in the mid-1970s to enter the Uruguayan marketplace. To sidestep those limitations, the Central Bank did two things:

- (i) it interpreted the prohibition literally. That is, new banks, new “cajas populares” and finance companies were forbidden by the law, which said nothing about “casas bancarias” (banking houses), entities that were not allowed to issue checks or “to receive deposits from the public”.
- (ii) it interpreted the latter expression very narrowly, so it included just peso-denominated deposits from residents. This interpretation was issued in late December 1977. From then on dozens of “casas bancarias” were opened, mainly by Argentinean interests, both banks and non-banks. Some international banks also opened their “casas

80 Two episodes can illustrate the mood of the period. In late December 1981 Robert Mundell, the BCU and Citibank organized an international conference in Montevideo. A lot of entrepreneurs and well-known consultants were invited. The academic opinion was clearly biased towards supporting the Uruguayan policy, but consultants and entrepreneurs applauded an intervention saying that it was very unlikely that the policy could be sustained. Second, a few days before the year-end, it was clear to the Treasury that there would be a fiscal deficit in 1981. The Minister was ordered to delay the payment of government salaries till January 2, 1982. That was enough to obtain a very small fiscal surplus on a cash basis. Later the 1981 fiscal figures were changed to reflect the actual outcome.

bancarias”, the BCCI, the Banca Nazionale del Lavoro and American Express among them.

The number of bank-clerks also increased, as did their salaries.

The 1978 economic program included the vindication of Montevideo as a regional banking center. Even though offshore banking was not explicitly regulated, the multiplication of *casas bancarias* was clear evidence that Montevideo was becoming a regional financial center.

To enhance the international competitiveness of the banking firms functioning in the country several measures were adopted. For instance, legal reserves were abolished, and the ratio of liabilities to capital enlarged.⁸¹ To counterweigh these liberal regulations, minimum capital requirements were increased. Thus, banking policy aimed to raise fixed costs while reducing the marginal costs of running a bank. “Under these assumptions”, interest rates were supposed to converge to their “theoretical” levels soon. The increase in capital standards was meant to discourage “adventurers”.

The single most important fact in the banking sector during the 1970s and the first two years of the 1980s was the increase in credit to the private sector (see Tables 3.1 and 3.2). Of course, there was a simultaneous increase in deposits, but the rates of expansion were lower. The annual rate of increase of bank loans to the private sector, measured in dollar terms, was almost 61% in the period 1978-1980, falling to 37% in 1981. Deposits grew 53% per year in the period 1978/1980 and 43% in 1981.

81 Until 1979 the limit referred to peso-denominated liabilities alone. Nothing was established with respect to dollar-denominated liabilities.

TABLE 3.1

BANK LOANS TO THE DOMESTIC PRIVATE SECTOR AS A PERCENT OF GDP (percent)					
Year	BCU	BROU	BHU	BP	TOTAL
1975	0.5	7.6	3.3	6.3	17.7
1976	0.6	8.2	3.6	7.7	20.1
1977	0.2	8.5	3.7	9.8	22.1
1978	0.1	8.5	3.9	12.6	25.1
1979	0.1	7.5	3.4	15.0	25.9
1980	0.0	7.8	4.3	19.9	32.1
1981	0.0	8.3	6.2	24.1	38.7
1982	0.4	10.9	9.6	30.5	51.4
1983	4.1	13.5	9.6	31.9	59.1
1984	8.8	12.9	9.1	23.4	54.2
1985	7.5	13.5	10.0	19.0	49.9
1986	5.1	12.6	10.3	15.8	43.8
1987	3.6	12.0	10.1	14.3	39.9
1988	2.6	13.0	10.5	14.6	40.7
1989	1.9	13.7	10.4	13.6	39.6
1990	0.4	15.0	10.6	12.0	38.0

BCU: Banco Central de Uruguay (since 1982 reflects loans bought to private banks).

BROU: Banco de la República O. del Uruguay (commercial, state-owned)

BHU: Banco Hipotecario del Uruguay (mortgage bank, state-owned)

BP: Private banks (includes foreign banks)

Source: Prepared using BCU's data. Dominioni and Vaz [1992].

Stories abound about the aggressive behavior of the banks in making placements. The usual saying was “you could never get less than twice the money you asked for”. Of course, there was a reason to promote sales in this way: the could never return on assets in dollar terms, i.e., once the effect of devaluation was taken into account, was enormous. Bank managers felt secure: assets prices were high enough to assure the compliance of borrowers. The increase in the international price of beef and the Argentinean euphoria made cattle raisers and building firms the main target of the financial sector. As in the late-1950s, the same herd was sold several times in a brief period of time.⁸² Punta del Este and Pocitos — the Montevideo equivalent of Santa Monica — saw a frenzied multiplication of towers.

Most of the attention of analysts, both foreign and national, centered on the behavior of interest rates. They did not converge as had been expected and truly huge real rates were the result. Another associated phenomenon was the widening of the gross spread between the lending the deposit rate. In 1978 the Chilean economist, E. Barandarian, tried to explain both high real rates and a big spread on the basis of the ceilings on nominal lending rates and an upward sloping supply curve for foreign money faced by banks. He did not offer much evidence: actually, he was discussing the opinion of a governor of the Central Bank of Chile who opposed rapid financial liberalization using Uruguayan figures as an example. This opinion is also mentioned in Larrain [1986]. Larrain later adds, “paradoxically, this spread rose between 1977 and 1980 as the financial sector in Uruguay was becoming increasingly deregulated” (p. 42). With Barandarian’s opinion in mind, he then observed that banks in Uruguay had relied on deposits much more than on syndicated loans to fund their operations – a *modus operandi* different from the one followed by banks in Chile.⁸³

82 The total debt of the agricultural sector increased 36% a year in real terms in the period 1978-1980. The deflator used to do this computation was the wholesale agricultural price, December 1982 = 100. Source: Roldos [1991].

83 He pointed out that only three banks, Banco Comercial, Banco de Credito and Banco Pan de Azucar have used this kind of transaction and they did not exceed U.S. \$70 million in total. It is worth noting that the Banco Pan de Azucar was a subsidiary of a Chilean bank and that the Banco de Credito, owned by the Korean Rev. Moon’s economic group, has been funded by their owners by placing deposits. This led the bank to have an enormous debt/capital ratio. Furthermore, these operations took place in the early 1981.

The third element to be taken into account is that dollar deposits and dollar loans earned smaller returns than the same kind of transactions denominated in pesos. The usual explanation for this lack of arbitrage was the risk of a sudden devaluation. Nothing seems farther from reality than this, especially until mid-1981. Most operations had a three month maturity, some six, but no more than that.

Banks kept on colluding during that time, but Favaro and Spiller (1981) found that competition had increased in the years following deregulation of the sector. Nevertheless, in May 1981 the President of the BCU indulged in his single exercise in collective moral suasion during his 7 1/2 year term, by reprimanding top management of the banking sector in a meeting cited to this effect. The President of the BCU was furious over bank pricing policies and the increase in the foreign exchange position of private banks. As expected, nothing happened.

Also, since the inflation rate started falling in 1981 while nominal interest rates did not respond, another secret instruction from COSENA put a ceiling on banking lending interest rates. It seems that the government was concerned with oligopolistic pricing in the sector and its effects on the profitability of non-financial firms. But it seems that it did not recognize that banks were involved in liability management. Therefore, the direct consequence of imposing a ceiling on the lending rate was to prevent them from increasing the deposit rate. So a Ponzi-type finance was dramatically discouraged — though I doubt that that was a desired outcome.

In mid-1981 the Estado Mayor Conjunto (ESMACO)⁸⁴ asked the Bankers Association to let it know the banks' decisions with regard to the prosecution of delinquent debtors. ESMACO was supposed to take care of these cases. This was the beginning of a de facto moratorium that lasted until December 1985.

84 The ESMACO was an important military body depending directly on the COSENA. In fact, the general in charge of ESMACO was a member of COSENA. In a crude parallel, it can be said that ESMACO was a sort of intelligence unit whose object was the organization and functioning of the State. Its chief was also in charge of the first conversations among the permitted political parties and army authorities.

TABLE 3.2

PRIVATE SECTOR DEPOSITS AND GDP (percent)						
Year	(1)	(2)	(3)	(4)	(5)	(6)
1976	17.7	1.0	5.5	32.2	13.4	2.3
1977	27.8	1.3	4.8	25.2	11.4	1.8
1978	20.3	1.3	6.5	28.6	15.1	1.8
1979	35.9	2.6	7.1	17.5	16.1	1.7
1980	30.3	3.4	11.2	14.8	18.9	1.7
1981	18.3	2.4	13.1	12.4	19.0	1.6
1982	32.4	6.2	19.1	10.1	17.0	1.1
1983	-13.2	-2.1	15.9	17.2	19.0	1.1
1984	5.9	0.9	16.0	11.4	15.4	1.0
1985	24.5	3.1	12.7	20.6	14.7	1.2
1986	-27.6	-3.5	12.6	34.6	12.8	1.3
1987	-2.7	-0.4	13.9	34.0	12.5	1.7
1988	16.1	2.4	15.0	33.4	12.5	1.5

NOTE: Includes demand, savings and time deposits both in pesos and in dollars, except those affected to loans to non-resident agents.

Source: Prepared using BCU's data, Dominioni and Vaz [1992]

III. THE BANKING CRISIS

III.1 THE CRISIS: A THREE-ACT DRAMA

a. First Act

The beginning of the crisis can be dated to the first quarter of 1982 when a group of four small to medium indigenous banks could no longer manage their liquidity problems. They were facing increasing difficulties servicing their deposits with the proceeds from their loans. Two of them were originally countryside banks specializing in lending to cattle raisers. Another specialized in lending to the Jewish community in Montevideo and had its portfolio concentrated in one of the country's largest leather manufacturing firms. The fourth was a subsidiary of the Banco Ambrosiano of Milan, and was also involved with the Italian P-2 Masonic Lodge. The four banks accounted for a fifth of total banking volume (in terms of total debt and net worth). The first three banks had been under special surveillance of the BCU for a long time because of their solvency problems. The BCU cleaned them up and sold them to foreign banks, three from Spain and one from Holland. Also a casa bancaria, Uruguayan owned but with headquarters in Argentina, failed. After its "cleaning" it was sold to the Argentinean Banco de Italia. The government's haste in selling these failed firms reflected the delicate situation of the banking sector. It is difficult to believe that buyers could be found for them a few months later when the extent of the banking crisis became visible and the Latin American debt crisis exploded.

Soon, the whole banking sector was facing the same problem. Furthermore, after the breakdown of the Argentinean tablita in February 1981, the public started to shift its portfolio away from pesos. This shift implied that banks needed to change their own portfolios in order to avoid bearing huge exchange rate risks. But this takes time. This trend aggravated in May 1982, after the Chilean abandonment of the exchange rate parity and the problems stemming from the Malvinas War.⁸⁵ At this point the Uruguayan tablita became the "last Mohican". To make things worse, the Mexican default ignited the Latin American external debt crisis.

⁸⁵ The River Plate was declared a "risky zone" by international lenders (one can guess, under the influence of Mrs. Thatcher)

The extent of the banking crisis was an open secret, but no runs occurred prior to the Mexican crisis. Then a sudden withdrawal of dollar denominated deposits took place. The BCU lost about U.S. \$600 million in this episode. The dimension of the banking crisis became public when the BCU started buying the portfolio of the rest of the private banks, starting with Citibank and Bank of America (who promoted the operation) in March 1982. This operation completed the foreign bank movement away from pesos, and — most important — away from the bulk of non-performing assets.⁸⁶ Private indigenous banks did not benefit from this facility since they were unable to obtain the external financing required to have access to it. Leone [1991] says that they had exhausted their correspondent credit lines in meeting the run against dollar deposits. The breakdown of the tablita on Friday November 26, 1982 came immediately after the purchase of private bank portfolios was decided. It was followed by a tremendous political defeat of the political allies of the government in the internal elections of permitted political parties two days later. On Monday a process of rapid devaluation and another run started. Public fears were multiplied because the BROU decided not to sell dollars. The dollar jumped from almost Ur \$14 on November 26th, to Ur \$33 on December 31st and Ur \$47 on January 7th. Then it started declining, to around Ur \$26 per dollar. The run, concentrated on dollar-denominated deposits, lost momentum in mid-January and ended a month later.⁸⁷

b. Second Act

In 1984 the crack of the RUMASA group in Spain led to the failure of its small subsidiary in Montevideo. The bank was closed with no further consequences. The same year the banking crises in Argentina and Chile

86 As noted in Leone [1991] the bank that reaped the largest gain was Citibank. Its operation was closed on October 27, 1982. It exchanged U.S. \$75 million of non-performing assets for BCU's promissory notes and bonds. 47% of this amount consisted of peso-denominated loans.

87 It must be borne in mind that the run on deposits did not imply a true fall in bank liquidity. A lot of deposits were simply reallocated abroad and banks did not need to repay them. In some cases the movement was suggested by the banks, to retain hesitant depositors. This shift was quickly detected by the officials in charge of the BOP unit at the BCU, who realized that these operations were recorded as "checked deposits". This is a bad translation of "depositos chequeados", a name originated in the mechanics of the operation: when the client came to withdraw his deposit, the bank opened an account abroad and gave him a check for the amount now deposited abroad.

led to the failure of two banks that had subsidiaries in Uruguay, namely, the Banco de Italia and Banco de Chile, respectively. The subsidiary of Banco de Chile, the Banco Pan de Azucar, was the third bank in the ranking. It was purchased by BROU. Depositors of Banco de Italia were “induced” to capitalize 7% of their deposits and the rest of the stock was also acquired by BROU.

c. The Final Act

Finally, as everybody expected, the two largest private banks — the only two indigenous banks remaining at the time — went bankrupt in 1987 and the BROU bought them.⁸⁸ Some small runs occurred before the final decision was made. One of the failed banks was able to cope with the run without using emergency loans from the BCU.

III.2 SOME INDICATORS OF THE HEALTH OF THE BANKING SECTOR

(i) Data on profitability, income and non performing assets. Selected Indicators I (Table 3.3) were prepared using information presented by banks in their balance sheets and income statements. It is interesting to note, for instance, that the internal rate of return would have amounted to 32% in 1982, had they been able to collect what their borrowers owed them. Nonetheless, in spite of the lenient regulation about provisioning and write-offs, the internal rate of return became negative in 1983. The same happened again in 1986 and 1987, when the two largest banks of the system, the Banco Comercial and Banco La Caja Obrera could no longer be kept alive. See also in Selected Indicators II the evolution of the net interest income of the banking sector.

Selected Indicators II (Table 3.4) provide the share of non-performing loans in total loans. Clearly the Uruguayan figures are above the Latin

88 Since 1982 two savings and loans cooperatives have been expanding rapidly. Their main business was to lend money to small firms, farmers and ranchers, basically in the countryside. At present they operate in Montevideo and represent about 3% of the total volume of banking transactions. One of them may be interested in making an offer in the reprivatization process of one of the banks purchased by BROU. Apart from that, if some legislation is enacted regulating cooperative banks, it is quite likely that they will become banks.

American average and the figures for the most important banks exceed the Uruguayan average. Note that in

1982 Citibank got rid of a substantial portion of its non-performing portfolio (about 25% of its loans) and other foreign banks did the same in 1983, but in different proportions. On this, more below.

TABLE 3.3

PRIVATE BANKS – SELECTED INDICATORS I (percent)						
Year	(1)	(2)	(3)	(4)	(5)	(6)
1976	17.7	1.0	5.5	32.2	13.4	2.3
1977	27.8	1.3	4.8	25.2	11.4	1.8
1978	20.3	1.3	6.5	28.6	15.1	1.8
1979	35.9	2.6	7.1	17.5	16.1	1.7
1980	30.3	3.4	11.2	14.8	18.9	1.7
1981	18.3	2.4	13.1	12.4	19.0	1.6
1982	32.4	6.2	19.1	10.1	17.0	1.1
1983	-13.2	-2.1	15.9	17.2	19.0	1.1
1984	5.9	0.9	16.0	11.4	15.4	1.0
1985	24.5	3.1	12.7	20.6	14.7	1.2
1986	-27.6	-3.5	12.6	34.6	12.8	1.3
1987	-2.7	-0.4	13.9	34.0	12.5	1.7
1988	16.1	2.4	15.0	33.4	12.5	1.5

- (1) Internal rate of return
- (2) Profits, million of Ur \$1978 (requires double checking).
- (3) Capital position, million of Ur \$ 1978 (requires double checking)
- (4) Gross interest spread (lending rate - deposit rate)
- (5) Total income as a share of total assets.
- (6) Personnel costs as a share of total assets.

Source: Banda [1990], Cuadro 1, p. 331.

(ii) Data on bank credit and asset prices.

Tables 3.5, 3.6 and 3.7 illustrate the major trends in the banking sector leading up to the banking crisis and its aftermath. Notable is the sharp run up in real estate prices and its subsequent sharp collapse.

III.3 THE TREATMENT OF THE CRISIS

a. The Sale by BCU of the Small-to-Medium Indigenous Banks

The BCU took over the four failed banks, without removing the existing management. By giving instructions and purchasing part of the portfolio of these firms, as explained below, the BCU managed to sell them to foreign banks. Part of the sold their stocks at the symbolic value of Ur \$1 each, i.e., about 8 pennies. From this it does not follow that the top management of these banks, those who had made the big mistakes,⁸⁹ lost their individual fortunes. Some of the procedures did not have a clear package was that the stockholders lost all their capital in the transaction. Usually they legal foundation at the time. A new decree-law on Financial Intermediation, passed in September 1982, gave the BCU the powers to do what it had already done.

b. The Purchase of Non-Performing Bank Assets

The purchase of non-performing assets consisted of two distinct operations (see Table 3.8). First, the non-performing portfolios of the four banks were acquired by the BCU in the first semester of 1982. In the course of these operations, the BCU obtained the reimbursement of previously granted emergency loans, for about U.S. \$127 million. The second operation was proposed by Citibank and Bank of America and consisted of the purchase of loans financed in part by new dollar-denominated credits to the BCU.

⁸⁹ To this day there has been no prosecution for criminal acts. In good democratic spirit one has to accept that justice has been served. Nevertheless, the way in which the regulation of the banking sector was drafted in September 1982 and later, implies the judgment that the top management of the banks had engaged in excessively risky practices, in particular with respect to loan concentration.

TABLE 3.4

PRIVATE BANKS – SELECTED INDICATORS II (percent)								
	1980	1981	1982	1983	1984	1985	1986	1987
Capital Position/ Total Assets								
Latin America	6.4	6.5	6.9	6.7	7.1	7.0	7.1	7.5
Uruguay	5.8	5.5	5.5	6.7	6.7	7.1	6.1	6.3
Banco Caja Obrera	4.9	4.9	5.4	4.1	4.0	4.0	3.9	3.6
Banco Comercial	6.3	5.1	5.5	5.0	6.0	6.2	5.8	17.2
Banco Pan de Azucar	6.1	6.7	8.2	6.7	7.6	4.5	6.6	1.7
Banco de Italia	9.1	7.7	6.0	7.3	6.0	6.1	15.2	2.6
Non-Performing Loans/Total Loans								
Latin America	3.9	5.8	8.9	10.9	12.5	14.8	12.8	13.7
Uruguay	8.9	14.6	30.4	24.7	22.3	36.2	45.9	25.2
Banco Caja Obrera	5.2	15.0	33.6	41.6	14.6	25.4	30.1	21.0
Banco Comercial	12.2	21.9	47.5	36.0	37.4	65.4	67.4	59.7
Banco Pan de Azucar	4.2	7.1	11.8	20.4	28.6	65.2	61.3	48.7
Banco de Italia	12.9	19.0	32.5	34.5	44.9	76.9	81.1	73.9

(continued)

TABLE 3.4 (Cont.)

PRIVATE BANKS – SELECTED INDICATORS II (percent)								
	1980	1981	1982	1983	1984	1985	1986	1987
Provisioning/ Non-Performing Loans								
Latin America	44.9	49.7	55.5	56.6	75.5	87.5	96.9	78.0
Uruguay	2.8	3.3	6.9	8.0	6.4	2.8	2.5	5.5
Banco Caja Obrera	7.5	3.4	2.6	4.1	13.8	1.0	0.0	0.1
Banco Comercial	15.4	0.0	1.8	3.9	2.4	0.1	2.3	1.7
Banco Pan de Azucar	n.a	5.0	1.1	4.1	1.4	0.5	0.3	2.0
Banco de Italia	n.a	5.4	1.6	3.0	0.8	6.3	1.4	0.4
Net Interest Income/ Average Total Assets								
Latin America	n.a	5.2	5.6	5.3	5.9	6.5	5.6	7.5
Uruguay	n.a	4.9	3.3	-0.8	-1.3	-1.3	-1.3	-1.3
Banco Caja Obrera	8.2	7.6	5.6	-0.4	-0.7	-3.7	-2.8	-2.9
Banco Comercial	5.3	4.3	4.4	0.2	1.4	2.5	4.0	-9.6
Banco Pan de Azucar	7.0	5.8	2.6	-0.1	-0.7	-2.6	-3.7	-7.5
Banco de Italia	9.5	5.3	2.8	0.3	-0.3	-1.6	-5.4	-16.1

NOTE: From 1980 to 1983 the former subsidiary of Banco de Italia, Italsud Casa Bancaria, is considered.

See also Bergalli [1988], Table 3, p. 659. Non-performing assets in the financial sector, December 1986 and June 1987; Roldos [1991], Table 6, data on moratoria, 74/89.

Source: Roldos [1991]

TABLE 3.5

PRIVATE BANKS – LOANS TO THE RESIDENT PRIVATE SECTOR (As a Share of Each Sector GDP – 1%)					
Sector	III/79	III/80	III/81	III/82	III/83
Agriculture	50	64	78	94	64
Industry	28	33	38	43	47
- Manufacturing	31	36	42	50	48
- Construction	12	17	20	18	37
Commerce	20	34	44	58	53
Services	5	6	7	8	7
Consumption	1	2	3	4	2
TOTAL	223	30	35	39	35

NOTE: In the case of consumption, total GDP was taken as the divisor.

Source: Roldos [1991], cuadro 1.a, p. 22

TABLE 3.6

INDUSTRIAL SECTOR – STRUCTURE OF ITS FINANCING (percent)				
	1978	1980	1982	1984
Short term debt	24.3	24.3	30.0	29.3
Dollar denominated debt	23.2	26.6	40.9	55.4
Long term debt	8.0	7.5	15.2	29.2
Total indebtedness	57.6	56.4	68.0	78.2
Net worth	42.4	43.7	32.0	21.8
Total sources	100.0	100.0	100.0	100.0

Source: Roldos [1991], cuadro 4, p. 28

TABLE 3.7

ASSET PRICES, INFLATION AND REAL INTEREST RATES					
	Land U.S. hs.	Dwellings Index, U.S.\$	Inflation Last 12 Mths.	Real Lending Interest Rate	
				Pesos	Dollars
1977 I	225	64	56	n.a.	n.a.
II	168	68	66	n.a.	n.a.
III	183	85	59	n.a.	n.a.
IV	172	74	57	n.a.	n.a.
1978 I	166	101	46	15.3	9.3
II	186	90	45	14.3	7.3
III	158	99	41	11.1	-4.4
IV	210	108	46	-2.4	-8.0
1979 I	216	137	55	-11.6	-27.5
II	211	179	63	-13.5	-29.7
III	307	276	73	-1.9	-23.3
IV	359	277	83	11.8	-12.1
1980 I	334	218	78	13.2	-3.3
II	357	263	68	21.5	4.9
III	377	245	57	27.3	7.9
IV	493	279	43	25.9	5.0
1981 I	440	251	39	20.9	0.6
II	483	233	35	23.4	8.1
III	360	251	33	43.7	25.1
IV	400	207	29	42.9	23.0
1982 I	434	222	22	25.0	21.4
II	345	176	19	18.1	567.6
III	286	173	15	-3.1	323.3
IV	136	95	21	6.6	-34.5

(continued)

TABLE 3.7 (Cont.)

ASSET PRICES, INFLATION AND REAL INTEREST RATES					
	Land U.S. hs.	Dwellings Index, U.S.\$	Inflation Last 12 Mths.	Real Lending Interest Rate	
				Pesos	Dollars
1983 I	145	77	43	46.2	4.5
II	195	112	47	45.5	50.8
III	170	98	55	25.5	80.9
IV	174	88	52	5.3	4.0
1984 I	135	84	44	5.7	-25.0
II	193	86	56	15.9	42.3
III	179	93	60	12.7	78.9
IV	144	77	66	0.8	6.5
1985 I	114	82	68	6.4	-2.0
II	214	93	70	7.7	8.4
III	139	92	72	6.5	-6.6
IV	168	89	83	15.5	-1.3

Source: Roldos [1991], cuadro 5, p.31.

c. The Informal Moratorium and Refinancing Measures

Apart from the instructions coming from COSENA and its prohibition on the prosecution of most debtors, the existing law makes the execution of debts a Kafkaesque business. In addition, the Courts lacked adequate salaries, employees and equipment. Thus the Courts were not able to handle the caseload resulting from the prosecutions that occurred in 1981-1982. The number of cases climbed from 157 in the civil year 1979/1980 to 456 the following year. The Banco Comercial started 6537 causes for delinquency between 1981 and 1985 but only 65 ended in the execution of the debt (See Roldos [1991]).

The BCU instituted the first program to stimulate a massive refinancing of private debts in late August 1982. The plan was to refinance 33% of debts outstanding as of September 30, 1982 over a 5-year period starting in January 1983. This program, in fact, received no attention from the public or the banks. By late 1982 another refinancing plan was launched. The banks were free to participate and the refinancing covered up to 50% of dollar denominated debts and 33% of peso denominated ones. The participation of the BCU consisted in advancing the interests on the amounts refinanced, to be reimbursed from July 1985 on. In order to induce private banks to participate, the rules for loss provisions and write-offs were made more generous for banks that chose to participate. The reception to this plan was a little bit warmer than for the previous one: 20% of private bank loans were refinanced under this regime.⁹⁰

In 1984 BROU launched its own refinancing plan. Debts incurred with BROU up to the end of 1983 and that were due by April 30, 1984 were the focus of the plan (see Banda [1990]). In March 1985 the first legal moratorium was passed. It was subsequently renewed up to December 1985, when the first refinancing law was enacted. This law was supposed to be the “final solution” to the internal debt overhang. It was thought that the law per se not only contributed direct solutions, but also provided a general framework facilitating private negotiations. The idea was to avoid the “common law” solutions to overindebtedness: the “concordato”, a moratorium triggered by the will of the debtor and the “bancarota” triggered by the action of the creditor. See Lopez Murphy [1988] and

⁹⁰ For additional details, see Banda [1990].

TABLE 3.8

PURCHASES OF NON-PERFORMING ASSETS, 1982-83 – A SUMMARY (millions of dollars)		
1.	From the Portfolios of Failed Banking Firms	
	Face value of assets purchased	413.2
	(i) currency composition	
	- dollar denominated loans	268.9
	- peso denominated loans	144.3
	(ii) firms involved	
	- Banco Panamericano (later Centrobanco, subsidiary of Banco Central, Spain)	16
	- BANFED (later Banco Exterior, Spain)	89
	- Banco del Litoral (later Banco de Santander, Spain)	175
	- Banco Financiero Sudamericano, BAFISUD (later NMB, Netherlands)	106
	- PEMAR Casa Bancaria (later Banco de Italia, Argentina)	27
	Payment	386.0
	- Treasury Bonds	280.8
	- Repayment of emergency loans	69.0
	- Cash (in pesos)	6.3
	- Other debt instruments	29.9
	Capital loss of failed firms	27.2
2.	Purchases Linked to New Dollar Denominated Credits	
	Total new public debt issued	755.4
	Loans Purchased	215.0
	- dollar denominated loans	160.1
	- peso denominated loans	54.9
	New Credit	
	- foreign funds	540.4
	- domestic funds	111.6

Source: Banda [1990].

Roldos [1991]. Unfortunately, the issues are still with us. Another law was enacted in 1992 and a further mini-refinancing plan was tried in 1993.

The 1985 Act, No. 15786, established a refinancing scheme that was mandatory for creditors and voluntary for debtors. The law clearly violated several constitutional precepts, eroding creditor's rights. Nevertheless, there were no complaints and the act has been applied without debate. The bulk of the costs of the refinancing scheme fell on the banks. The major onus of the law fell on state-owned banks and on the indigenous private banks that were, however, bound to fail sooner or later. The latter formally failed a year and a half after the passing of the law. The BCU allowed the banks a long period to write off the losses that originated with this law, even though no provision in it envisaged this course of action. Solvent as well as "non-viable" debtors were excluded from the benefits of the law. Also, consumer credit and dwelling credit were not included among the eligible debts. Nonresidents' debts were also excluded.

The following is a brief account of the general conditions of the law:

- (i) Liabilities contemplated: 100% of the debts incurred prior to June 30, 1983 plus interests accrued up to October 1985.
- (ii) Interest rates: the market rate for dollar-denominated debts and 90% of the market rate for peso-denominated debts.
- (iii) Maturity: from 5 to 10 years with a two-year grace period.
- (iv) 20% discount for those who choose to pay installments within 180 days following the implementation of the law.

Apart from these provisions, the act gave a more benevolent treatment to small and medium size debtors, and to firms specialized in exports or using labor-intensive technology. A total of 7834 applications were presented. Two tables summarize the results: Table 3.9 shows some preliminary results by sector, while Table 3.10 presents the overall results as of 1989. In the first table note the important share of non-viable debts in the total amount due.

In September 1987 the BROU established its own refinancing scheme that was also extended to the four banks it owned. This regime, more benevolent than the one foreseen by the Act 15786, included the consolidation of debtors common to BROU and other banks within the BROU. Although it does not clearly belong under this heading, it should also be mentioned that, for a couple of months prior to the abandonment of the tablita, the BCU started a new regime of “export prefinancing”. In 1979 the authorities had discontinued a similar scheme initiated in 1974, because it did not fit the spirit and the implementation of the government’s stated economic policy.

d. The Changes in Banking Regulation

Regulatory changes covered two different areas. The first relates to the powers of the BCU to act in emergency times. The immediate changes, legitimizing past actions, were adopted in September 1982, as mentioned above. It took 10 years for a complementary law on this subject to be discussed by Parliament. This law has been passed by the Senate and as of 1993 was being debated in the Chamber of Representatives. It builds on the previous law and is supposed to be complemented by the new organic law of the BCU that is now in the Senate.

Probably the most important regulatory changes came with the adoption of a new accounting plan for the banking sector and changes in prudential regulation. In particular, there has been an improvement in the regulation of the classification of risks, provisioning and write-offs. Most of these new regulations were BCU’s decisions adopted in 1989.

Another important regulation was the set of rules designed to smooth the transition from the critical period to normalcy. Its focus is the accounting of different kind of non-performing assets and their accruals. Obviously, the intent was to allow banks a slow recapitalization over a ten year period ending in December 1992. It is interesting to note that the act, passed in September 1982 in the midst of the Mexican nightmare, abrogated the deposit insurance scheme. The amount insured, fixed by the 1965 law, meant almost nothing at the time, about U.S. \$4 to be precise.

TABLE 3.9

ACT 15786 – A SUMMARY OF EARLY RESULTS			
	Debtors	(Millions Ur \$)	(% Amount)
1) Agricultural Sector			
Admitted	2755	3451	26.3
Rejected	1859	9962	73.8
(Non-Viables)	(958)	(9483)	(70.2)
Total Sector	4614	13503	100.0
2) Industrial Sector			
Admitted	679	12046	53.0
Rejected	381	10692	47.0
(Non-Viables)	(241)	(9740)	(42.8)
Total Sector	1060	22738	100.0
3) Commerce and Services			
Admitted	1615	7767	64.1
Rejected	545	4539	35.9
(Non-Viables)	(154)	(3658)	(30.2)
Total Sector	2160	12126	100.0
4) Total Applications			
Admitted	5049	23354	48.3
Rejected	2785	25013	51.7
(Non-Viables)	(1353)	(22881)	(47.3)
Total	7834	48367	100.0

Source: Roldos [1991], cuadro 15, p. 72.

TABLE 3.10

ACT 15786 – A SUMMARY OF RESULTS AS OF 1989 (%, Share of Debtors, 7834 = 100)		
A. Agreements, Relinquishments, Rejections		
Refinancing agreements with banks		53
- Under the terms of the law	29	
- Privately negotiated	24	
B. Status of the Debts		
In good condition		n.a.
- Under the terms of the law	9	
- Privately negotiated agreements	n.a.	
Delinquency		n.a.
- Under the terms of the law	20	
- Privately negotiated agreements	n.a.	
- Maximum Share of True Successes		33
- Minimum Share of Delinquencies		32
- Share of Rejections		35
TOTAL		100

Source: Based on a survey organized by the BCU whose results are commented upon in Roldos [1991].

e. **Interest Rate Policy**

The informal ceiling on the lending interest rate that was established by late 1981 lasted until April or May 1982. But, after the abandonment of the tablita, informal ceilings were established again. They lasted until the democratic administration took office in March 1985.

f. **The Costs of BROU's Intervention**

In July 1985 BROU took over Banco Pan de Azucar by purchasing all the stock. In early 1986 it advanced U.S. \$12 million to capitalize the Bank, later paid 90% of the losses of that year and made a U.S. \$30 million loan to the Bank, following its merger with Banco de Italia. In this takeover, Banco de Italia's depositors were forced to capitalize U.S. \$5 million, 7% of the deposits. After its reopening, the merger with Pan de Azucar having already been announced, 60% of the deposits left the bank. According to the President of BROU (Slinger in Senate [1988b]), a good deal of these deposits flew to Banco Pan de Azucar and to the BROU. In March 1987, Banco Comercial, the largest private bank in the country, also indigenous and founded in 1857, went formally bankrupt. BROU took it over and advanced U.S. \$47 million to capitalize it.

A few months later the second largest private indigenous bank failed. Banco La Caja Obrera, founded in 1908 by a catholic group close to the Church, did not receive any support from BROU at the beginning. This bank was supported by the BCU in 1984 via the purchase of part of its portfolio with a reselling pact, to be executed from 1988 on. In order to understand the weakness of these four banks, Banda [1990] presents the following consolidated balance sheet of these firms by December 1987.⁹¹

In Table 3.11 notice that non-performing loans were 4.4 times total net worth (capital + provisions) and that annual operating losses amounted to about 80% of total net worth. No further comments are required.

Banco Comercial was re-privatized in 1991 after much debate. The World Bank and IDB have extended loans to the Uruguayan government to complete the cleaning and capitalization of managed banks in order to reprivatize them. In the last couple of years the annual operating losses of remaining banks have amounted to about U.S. \$50 million. This deficit is part of the targets in the standby agreement with the IMF.

An estimate of the direct costs of the banking crisis by early 1991 puts it at U.S. \$840 million. This is about 9% of the country's 1990 GDP, and substantially larger if calculated as a proportion of any GDP from 1983 to 1987.

III.4 COMMENTS ON THE CRISIS AND ITS TREATMENT

a. The Nature and Extent of the Crisis

The 1982 bank failures and the ensuing financial distress reflected deep-seated solvency problems. The problems affected all banks in the Uruguayan market. This banking crisis was something qualitatively different from the isolated failure of one or two banks. The bailing out of foreign banks is the strongest evidence of the extent of the crisis.

Previously we noted that the ratio of deposits to GDP increased in 1982, in spite of the banking crisis. While correct, this fact can be misleading. Table 3.12 below illustrates the issue. The crisis was followed by a terrible decrease in peso-denominated deposits. In 1986, the year in which the recovery started, the annual average in dollar terms was still below the 1979 figure, and was equivalent to 37% of the amount reached at the peak of the cycle, 1981. The fall in dollar deposits was not persistent process; on the contrary, the decline happened in the second part of 1982 through early 1983. Dollar deposits stabilized later and started increasing again in 1986. They have been growing since then, amounting to some U.S. \$5 billion by 1993.

91 In the national lingo these four banks are known as the "managed banks" (literally, *bancos gestionados*).

TABLE 3.11

BANKS MANAGED BY THE BROU – CONSOLIDATED BANKING SHEET (December 1987; millions of dollars)					
Assets			Liabilities		
Reserve Position		157.1		Deposits	745.9
- Liquid Assets	93.2			Other Liabilities	24.0
- Investments	63.9				
Loans		617.8		Capital	49.4
- Outstanding	349.0			Provisions	6.1
- Non-Performing	246.5				
- Other	22.3				
Fixed Assets	21.1				
Other Concepts	29.5				
Net Worth: capital - non-performing loans = -197.1					
Assumption: cost of capital = 10%					
Annual operating losses = 43.0					
Annual Expected losses of managed banks = 20 + 43 = 63.0					

Source: Banda [1990], cuadro 5, p.346.

TABLE 3.12

DEPOSITS IN THE BANKING SECTOR (annual averages, millions of dollars)		
	Peso Deposits	Dollar Deposits
1978	582.4	563.6
1979	915.9	861.7
1980	1592.7	1105.7
1981	2098.8	1764.1
1982	1757.8	2396.9
1983	895.9	1665.1
1984	735.4	1652.8
1985	646.5	1666.6
1986	784.6	1995.4

Source: Lopez Murphy et al. [1988].

b. The Crisis as an Anomaly

The crisis was unexpected in two different senses. First, it conceptually simply did not fit in the monetary approach to the balance of payments embraced by the authorities. The president of the BCU, intellectually the most important member of the government's economic team, stated that the Uruguayan best response to the changing international and regional environment was to do nothing. His speech to bankers in May 1981 showed no concern for the possibility of a banking crisis. At the December international conference banks were not an issue either. Consequently, as the prudential regulation designed by the BCU evolved, it was not marked by any particular fear or preoccupation with an imminent banking crash. Of course, Gen. Alvarez's government represented the non plus ultra of this disregard.

There is a second sense in which the crisis, or at least its magnitude, and the means to deal with it, represented an anomaly to the central banking theory imbedded in the basic legal framework originated in 1965 and 1967. This can be shown by studying how the "rules of the game" changed during and after the crisis.

- (i) The most obvious facts to stress were: one, the new treatment of the banking sector debtors, i.e. the informal moratorium plus the refinancing measures launched by the BCU, including the pre-financing of exports; and two, the new regulations regarding provisioning, write-offs and risk analysis. While there was no public dispute over what the Bank did in the first semester of the year to get the failed banks sold, it was only the September decree-law that more or less made these operations legal.⁹² Moreover, the proposed powers to impose pecuniary sanctions on the top management of financial intermediaries and systematizing the Bank's powers to treat critical situations were still to be enacted by Parliament ten years later.
- (ii) After the country returned to democracy, the Parliament, the Tribunal de Cuentas — a comptroller and an auditor of the legality of state agency behavior — and later the courts launched investigations into the legality of BCU's purchases of banking portfolios. From the point of view of these bodies the convenience of those measures was not at stake — bygones are bygones — what they discussed were the legal powers of the Bank to undertake such purchases. Since 1985, BCU's lawyers have prepared several reports defending the legality of its actions in 1982.⁹³ They discussed neither the opportunity nor the convenience of these actions, but their legal validity. Their points were basically the following:

92 There are two particularly noticeable omissions in all this process:

- a. disputes about BCU's actions during the early phases of the crisis. Of course, it can be easily argued that the political environment in 1982 was not the best time to do that. But what about after 1985? This is even more surprising because the Minister of Finance told Parliament in 1987 that it took two years for the new government to gather all the information needed for a legally irreproachable action in the case of Banco Comercial. He also mentioned that part of the problem was that 1981 prices did not allow the supervisors, or anybody in fact, to indisputably establish whether a bank was solvent or not.
- b. prosecutions for illegal management both on the part of the banks and on the part of the firms. The popular saying went: poor enterprises, rich entrepreneurs.

93 Ironically, the defense of the BCU was led by Dr. Carlos Maggi, its former chief attorney, who had been fired by the de facto government for political reasons. Maggi returned to the BCU under democratic rule. Furthermore, Maggi was a veteran in this area. As a lawyer with the Issue Department of BROU he was involved in banking failures since 1962, prior to the Banco Transatlantico del Uruguay affair. He was deeply involved in the 1965 crisis. In 1967, when the BCU was created, he was appointed chief attorney of the Bank. In that capacity he was one of the writers of the fundamental law that rules BCU actions and powers, enacted in September that year.

- (a) The existing basic law was short and vague on purpose. This reveals the implicit will of its creators: providing the BCU with ample powers, subject to compliance with its legal purposes.
- (b) The Bank is not allowed to use its net worth in areas foreign to its legal ends. For instance, it is not legally allowed to buy a soccer stadium just for fun. But it is allowed to buy and sell credits. And everything related to solving a banking crisis refers to its legal ends.
- (c) The Judge Marshall doctrine: If the law fixes an end, it implicitly also allows the means to fulfill that duty.
- (d) The Uruguayan law admits the possibility of the BCU making huge losses if the stability of the banking system is at risk.
- (e) Admittedly, the rescue operation involved the exchange of bad paper (the bank loans) for good paper (government bonds), that had the State as ultimate debtor. The existing law was concerned with the issue of currency, but at that moment very few notes were issued to solve the problem.

As good lawyers, the BCU advocates avoided mention of a couple of things:

- (i) The “good paper” had the BCU as a primary debtor in charge of servicing the debt with its own money. The issuance of promissory notes was not challenged either.
- (ii) According to the Civil Code, a purchase contract (the contract of “compraventa”) involves the exchange of things that are regarded as equivalent in value. This is a subjective equivalence according to the code. But the essence of these exchanges was that the parties were trading things that both understood were not equivalent in value. The BCU was involved in an operation that relied precisely on the non-equivalence of the credits traded in order to avoid further problems it thought could be even more damaging for the economy. That was the whole point of the exchange!

This is not the place to debate with such illustrious lawyers who were doing a fine job defending their client. The problem is that their interpretation openly recognizes that in some special circumstances the BCU is legally empowered to channel subsidies. In central banking doctrine a similar position espoused by C.A.E. Goodhart has been rejected by various authors. Furthermore, bringing in the solvency issue, the BCU has subsequently argued that those operations were fiscal in nature. Therefore, their results should be borne by the government and not by the Bank. The government sponsored this interpretation and the Parliament accepted it, passing in October 1992 an act mandating compensation by the government for the huge losses incurred by the Bank since 1982.

Clearly, the crisis forced BCU to undertake measures of dubious legal validity. This view is supported both by an extended opinion outside the Bank that such operations were not clearly foreseen in the existing legal framework, and later by BCU's claim for reimbursement of the losses incurred due to the banking crisis, a thesis accepted by the government and Parliament. Furthermore, lending money — even if the discounted paper was not good — would have been a course of action more in line with the lender of last resort doctrine. These controversial measures sidestepped the traditional way of doing things and were not in the Bagehot spirit. I interpret this as additional evidence that the magnitude of the crisis was unexpected within the theory underlying the Uruguayan legal framework. There is a sensible reason for this: the banking crisis was far more extensive and deeper in 1982 than in 1965 or 1971.

PART TWO: MACROECONOMIC CONSEQUENCES OF THE BANKING CRISIS

IV. THE EFFECTS ON THE FOREIGN EXCHANGE MARKET

IV.1 SOME PRELIMINARY CONSIDERATIONS

In order to understand the influence of the banking crisis on the foreign exchange market, the different ways in which the banking sector can impinge on this market have to be considered. Note that these influences can be exerted directly by banks or indirectly, via the effects of

banking behavior on other agent's actions. An important aspect of the indirect consequences will be the way in which public expectations about the sustainability of the government policy are affected by bank behavior.

From October 17, 1978 to November 25, 1982, Uruguay had a basically fixed exchange rate regime.⁹⁴ Then up to March 1985 the peso floated more or less freely according to circumstances. In fact, the only attempt at systematically managing the exchange rate was done by BROU in the second part of 1983, but it could not be sustained in the last months of the year. The democratic administration followed a "dirty" PPP-rule. "Dirty" because the real exchange rate target was not an explicit number. The BCU was ready to intervene when the nominal rate reached a level such that the real exchange rate fell below some not very well-defined target, but it was not supposed to intervene if the nominal exchange rate provided a high real one. Instead, the exchange would be left flexible in such cases. The real exchange rate target was binding until the end of 1988 at least. This meant that the BCU bought more foreign exchange than needed for the fulfillment of its operations.⁹⁵

The first thing to note is that a fixed exchange rate regime can be sustained if and only if the buffer stock of the system suffices to keep the market liquid. Thus, for the period ending in November 1982, we have to investigate how banking behavior may have affected this buffer stock, both directly and indirectly. But there are difficulties in defining what we mean by "the buffer stock of the system."

According to the monetary approach to the balance of payments (MABP), the theory espoused by the government's economic team and its major theoretical advisor, Robert Mundell, if the international reserves of the central bank are larger than the monetary base, the exchange rate cannot

94 In a lecture given at the BCU in the early 1990s, Sir Alan Walters tried to distinguish the dynamical properties of a truly fixed exchange rate from the tablita regime. The importance of his distinction was not clear to the present author.

95 Actually, the BROU was in charge of daily management of the foreign exchange market. From time to time it sold its excess reserve holdings to the BCU. Sometimes it deposited them. BROU's deposits in the BCU have led to complications in policy management, since they require a detailed coordination of the policies of the two banks. This also reinforced the two-head two-body nature of the monetary authority in the period 1985-90.

be affected.⁹⁶ As I will show later, this opinion is simply wrong. The theoretical cases in which it is valid have “measure zero”. In a nutshell, the only cases in which the assertion may be right are those in which the central bank does not intervene in the case of a banking crisis. A related point is that the degree of the mistake, even within the MABP, depends on how lucid the analyst is in matching the theoretical concept of “international reserves of the central bank” with the existing operational definitions and in particular, with the one given in the balance of payment statistics. According to BOP accounting rules, the net international reserves of the central bank are defined as the difference between short term assets and liabilities against the rest of the world, that is, liquid foreign exchange assets minus foreign exchange short term liabilities with non-residents. In equating this definition to the theoretical concept one minor problem has to be noted: a 359-day maturity debt has to be computed among reserve liabilities, but a 370-day maturity has not. However, in a practical situation if the country does not have a big concentration of one year plus a day maturity debts, this observation is of little consequence.

Another qualification is not so innocent. The MABP presupposes that the economy has just one money, the domestic one. As in the old Keynesian literature on the BOP, capital movements are equated with the movements in the foreign reserves of the central bank. However, with dollarization things change drastically and it becomes dangerous to identify the theoretical and the accounting concepts. In the previous case, the idea of net foreign reserves representing the liquid position in foreign money of the country was preserved. This is no longer the case. If the central bank incurs a one-month debt with a nonresident bank and keeps the money in its vault, nothing happens to the level of foreign exchange reserves. But if the debt is incurred with a resident, the international reserves of the central bank increase. Thus, the expansion of dollar deposits in the private banking system will lead to an increase in dollar reserves held by banks, some of which will automatically be deposited with the central bank. Now, according to the MABP, an increase in the foreign reserves of the central bank means a capital inflow, which in turn is interpreted as a symptom of economic strength. In the hypothetical case posed, the increase in the central bank’s exchange reserves is not matched by a corresponding

96 A similar point was made in mid-December 1992 by the President of the Banco Central de la Republica Argentina, Dr. Roque Fernandez. So, the idea is still alive.

expansion of the monetary base, therefore the position of the bank looks more solid to the unsuspecting analyst: the monetary base is backed by more dollars than needed.

Furthermore, it is too simplistic to think of the buffer stock as a “cash in advance constraint”. The relevant limit is the sum of actual money plus all available credit (e.g. unused credit lines, etc.).⁹⁷ Thus, it is important to evaluate how the sources of dollar-denominated credit at the disposal of the government⁹⁸ changed as the crisis proceeded.

Last but not least, there was a historical constraint on what could be computed as operational international reserves. The tradition of “not touching the gold” is well-honored and Uruguay has one of the largest shares in the world of gold in its foreign reserves.⁹⁹

IV.2 DIRECT EFFECTS ON THE FOREIGN EXCHANGE MARKET BEFORE ABANDONMENT OF THE TABLITA

Let us see what can happen when banks are included in the picture. Firstly, dollar-denominated emergency loans are short run assets, so they have to be included in international reserves. Of course, granting emergency credits in dollars means a change in the composition of reserves: from truly liquid to illiquid assets. Those loans totaled no less than U.S. \$127 million dollars by mid-1982. Actually, that was the amount cancelled by the foreign banks buying the four failed banks.

Second, we have the purchase of the portfolios of the failed banks. No actual dollar cash was involved in the transactions, but dollar-denominated official debt increased by more than U.S. \$310 million. Also, another U.S. \$69 million was used to cancel emergency loans. At most, these transactions affected the external reserves of the Bank by U.S. \$69

97 By the way, this disregard of the variation of debts as mere “noise” in the system, seems to be a feature inherited by the MABP from the quantity theory of money. MABP is basically an accounting framework that, after imposing several equilibrium conditions, allows the study of the system in terms of some variety of the QT.

98 Notice that I am referring to the government and not to the central bank alone.

99 This ratio decreased from about 70% in 1978 to 55% in 1981 and jumped to about 87% in 1982. This computation is done keeping the price of gold fixed at U.S. \$155 per oz.

million, but a huge amount of dollar-denominated credit was used. One can argue that the credit came from new sources of funds, but it is still true that the overall fiscal position of the government was now substantially weaker than before. So the net effect of the banking crisis on the buffer stock of the system was no less than U.S. \$260 million in the first six months of 1982. Taking into account that the international reserves of the BCU totaled U.S. \$841 million by end 1981, and total official gross external debt was U.S. \$1465 million, this net effect can hardly be neglected. In October the BCU decided on the purchase of portfolios linked to new money. It immediately bought a U.S. \$74 million part of Citibank's portfolio.

Third, the depositors of a bank may decide to change their deposits from pesos to dollars. No actual dollar is involved in this shift. Thus no additional pressure on the exchange rate is apparent. But no bank will be willing to bear all the risks of a devaluation. Suppose the bank manages to change its portfolio of peso loans into dollar ones at once. This can be done without exerting any pressure on the spot market for dollars. Moreover, by closing its position the bank need not exert any additional pressure in the forward market either. But firms, especially those that do not have their incomes indexed to the dollar, will put some pressure on the forward market. Once all deposits are in dollars, the bank has to accumulate dollars in order to bolster its liquidity and must also get rid of the peso reserve position that has become useless. Assuming that reserve ratios are the same, the bank can go to the central bank and buy dollars with its pesos. It can leave those dollars deposited with the monetary authority. The result is no change in the foreign exchange reserves of the central bank, but a sensible change in its dollar exposure that is accompanied by an apparent "strengthening" of the central bank position: now reserves are larger than the monetary base!!!

This can be thought of as a once-and-for-all increase in the demand for dollars, if other things remain the same. But all the borrowers of the bank need not perceive their incomes in dollars. Therefore, an increase in the flow demand for dollars will arise as a result of the servicing of their debts by bank borrowers. It is not matched by an automatic increase in the

flow supply of dollars.¹⁰⁰ Notice that the stock demand for dollars referred to above will be larger the slower is the shift in the denomination of bank loans. Of course, if a substantial devaluation is foreseen in the near future, the bank will become a speculator, having an open dollar position. It will use peso-denominated deposits to buy – and perhaps to lend — dollars, not to lend pesos. If the bank deposits its additional holdings of dollars with the central bank the process described above will repeat.

This shift into dollars may not be profitable for a non-financial firm due to transaction costs. The bank, however, will be able to avoid those transaction costs because it may not need to reverse the operation in a brief period of time. Furthermore, if banks collude, they can widen these transactions costs and transform this speculation into a separate line of business.

The sustained hypothesis above was that the bank was able or willing to shift its portfolio of peso loans into dollar ones. For several reasons the bank may be willing to obtain the repayment of part of its peso loans. This would be the case if the redenomination of the loan will surely lead the borrower to default if there is a sizable devaluation. If this is the case, the bank will provoke a credit crunch at the same time that it is increasing its demand for dollars. Both things happened.

100 Implicitly I am assuming that the response of the real exchange rate is slow. That is, the domestic price level will not react immediately to accommodate the situation.

Apart from that, some borrowers will be induced to augment their exports to insure themselves against the exchange rate risk. In the case of Uruguay, especially for industrialists, the easiest way is to try to export to Argentina. So a situation in which there is some doubt about the sustainability of the exchange rate and in which exporters are complaining about export profitability can be associated with an increase in non-traditional exports – often taken as a "clear symptom that the exchange rate is right".

Some “back of the envelope” calculations indicate that the crunch in peso-denominated loans may have reached 10 percentage points of GDP.¹⁰¹ And, at best, half of it could have been offset by the redenomination of loans. So banks obtained a mass of funds amounting to about 5 points of GDP to transform into dollars and, of course, this mostly happened in the first eleven months of the year. Furthermore, the net exposure of private banks changed from U.S. \$34 million in December 1981 to U.S. \$102 million in May 1982 and U.S. \$184 million by December of that year.

A major question that cannot be answered at this stage of the research is to what extent the banking crisis contributed to the delay in abandoning of the tablita.

IV.3 INDIRECT EFFECTS BEFORE NOVEMBER 25, 1982

This section will concentrate on the ways in which banking developments could have impinged on people’s views of the sustainability of the exchange rate. There are various channels by which people’s expectations are influenced by the operations mentioned in the previous section. The one suggested by the policymakers and some important

101 The ratio of peso loans to GDP was 0.202 in 1981, according to Larrain (1986). The nominal interest rate on peso loans was about 60% by end 1981 and did not fall later. In 1982 average inflation was 20% (the GDP implicit deflator increased by about 18%), and the growth rate of GDP was -10%. Therefore, the increase in peso loans would have raised the ratio of such loans to GDP to 30% had no change in the denomination of loans occurred:

$$0.202 \times 1.6 / (1.2 \times 0.9) = 0.30$$

The actual ratio was 0.204. So nominal peso lending fell at roughly the same rate as real GDP. To what extent was this trend not offset by the redenomination of loans? The ratio of dollar lending to GDP was 19% in 1981. The interest rate was about 18% in 1981 and 1982. The average rate of devaluation was 28.4% in 1982. So, another back of the envelope computation is:

$$0.19 \times 1.18 \times 1.284 / (1.2 \times 0.9) = 0.27$$

Thus, dollar denominated loans to GDP was supposed to increase by 8 percentage points. The actual increase in total credit was 13% (see Table 3.1). So, at most half of the peso-denominated credit crunch was offset by the redenomination of loans.

Additional evidence of an overall credit crunch is given in Lopez Murphy et al. The rate of growth of total credit to the private sector measured in dollar terms was:

	1978	1979	1980	1981	1982	1983	1984	1985	1986
rate of growth (%)	38	52	70	36	7	-31	-11	-6	10

The increase in dollar terms of total credit to the private sector in 1982 was clearly less than the nominal interest rate. Again, the difference between the two is of the same magnitude as the fall in GDP.

analysts of the MABP persuasion is the evolution of the foreign exchange reserves of the Central Bank. As noted above, the change in reserves attributable to the banking crisis may not have been very impressive but might also be hidden among the different accounts of the BCU's balance sheet. A firm conclusion requires further research, which could be done utilizing weekly data.

Other insights could have been gained by observing what the banks were doing. First, consider the difference between the forward rate and the fixed rate, or the *tablita* in the Uruguayan case. If the authorities want to make expectations "coherent" and enter the forward market, the forward rate will be equal to the *tablita*.¹⁰² So, different expectations about the future will be reflected in the balance sheet of the central bank, instead of in any publicly observable price. Furthermore, the foreign reserves of the central bank will not be affected by all this. Of course, the foreign exchange exposure of the central bank will be affected but this need not be officially acknowledged and market participants that are not sophisticated users of the MABP may not realize it. Furthermore, the government has the incentive to stress the relation between the monetary base and the buffer stock of the system to prevent a run against the peso. Even those who do not believe the MABP may find it difficult to understand what is going on if no official explanations are given.

Second, the shift into dollar denominated loans was a signal that banks were reluctant to run the risk of a devaluation. Borrowers might not have interpreted this as an increase in the likelihood of a devaluation if it were an isolated phenomenon. But there were additional pieces of information:

- (i) expansion of the banks' dollar position. The dollar exposure of banks declined after the speech given by the President of the BCU to the bankers in mid May 1981. The minimum reached was U.S. \$6.5 million by the end of November 1981. From then on it started climbing rapidly.

¹⁰² A program of exchange insurance was organized by the BCU. Larrain (1986) mentions that the shift in private portfolios in 1981 was partly due to the elimination of that program. I believe that this has to be checked. The BROU organized another exchange insurance, but this also needs further verification. Apparently, private banks provided no exchange insurance.

- (ii) widening of the difference between the buying and selling prices for the dollar, referred to as the increase in transaction costs due to banks' speculation in dollars noted above.

All this evidence pointed to the increasing likelihood of a devaluation.

Third, the redenomination of loans also conveyed other signals. As mentioned, some bank borrowers did not have their incomes denominated in dollars, or to be more precise not indexed to the dollar. So, even if banks managed to shift their loan portfolio into dollars completely, this would provide no more than a pretended insurance against devaluation, not a real hedge, since many of the assets and incomes that were ultimate responsible for the repayment of the debts were not indexed to the dollar. Now, this purely formal hedging strategy was a symptom of banking weakness, since it anticipated that a sizable devaluation was bound to produce the collapse of the borrowers and, therefore, of the banks.¹⁰³ Contemporaneous experience showed that in such cases the intervention of the BCU had to be expected. Thus, the buffer stock of the system was bound to suffer a terrible drain. Furthermore, since at least 60% of the deposits belonged to nonresidents, it was reasonable to expect a flight from the Montevidean banks. Non-resident deposits fell U.S. \$300 million from September to December 1982, and by another U.S. \$130 million in the following three months.

Of course, this was also anticipated by bank debtors, who then had the incentive to empty their firms. Since this happened to a lot of borrowers at the same time, the banking system was not able to monitor all of them. Moreover, the moratorium guaranteed that firms could be emptied without being really policed.

103 Notice that such a devaluation meant more a dollar debt-deflation than a lightening of the burden of peso deposits, something mentioned by most Uruguayan analysts (for instance, Onandi & Vaz [1988], Roldos [1991]).

Furthermore, the devaluation also implied a dollar deflation of some tradables (even importables) that were not really subject to international competition because the lack of alternative distribution channels (Hanson and De Melo [1983] also mention the importance of this lack to explain the failure of the law of one price). It is interesting to note that two of the most important firms that left the Uruguayan marketplace after the crisis were Ford and General Motors. Ford left immediately after the crisis and GM in 1985-86. Both of them were also deeply indebted.

Bank creditors did not withdraw their deposits from banking firms in Uruguay until the nationalization of Mexican banks in September. After a severe run lasting a week or so, withdrawals slowed down markedly. Beginning November 26, 1982 and for about two months thereafter a sizable run occurred. A number of factors impinged on it:

- (i) fears of a complete failure of the banking system;
- (ii) the fact that the BCU had to give up its beloved tablita, due to a sheer lack of dollars, which showed that the possibilities of expanding the official external debt were being exhausted;
- (iii) the price of the dollar was totally out of control;
- (iv) the government's political allies had suffered a terrible blow in the elections held on November 28, 1982;
- (v) the Minister of Finance resigned on November 25, 1982. In five months, from July to November, the two central individuals of the economic team left the government. None of the "commanders" of the economic reform was in office.

This was a case in which public information (or governmental propaganda), and private information collided. Under the circumstances, it could not but erode public confidence in the authorities and stimulate the run against the peso.

My interpretation of events leans heavily on the effects of banks' behavior on the expectations of the general public. Of course, it may be objected that neither bank clients nor the public in general did not fully understand the way in which banking finance worked. But consider the division of labor. Ordinary people and non-financial businessmen earn their living and care little about the everyday actions of the monetary authority. Banks are specialists in foreign exchange markets and are the private agents closest to the central bank. If something can be learnt from what the central bank is doing, banks will learn before anyone else. Their profits depend directly on this understanding. Therefore, if there is a reasonable basis to doubt the sustainability of the exchange rate, any movement by the banks that may be interpreted as an increased hesitation about this sustainability, will strongly reinforce people's fears. Moreover,

bank practices may be regarded as more revealing if they collide with official statements at times when the public thinks that the government has a strong incentive to lie. The Argentinean crisis and the dramatic deterioration in Uruguay's terms of trade, the abnormal jump in interest rates included, were more than enough to sow the seeds of doubt about the future of the exchange rate.

Finally, rational arguments carry different weights according to people's knowledge, experiences and prospects. For the layman, the salaries of civil servants or a 10% increase in real pension payments cannot impress as much as, say, the way his probability of personal ruin (or how many calves he has to sell in order to cover his interest payments) varies with a devaluation. The layman knows that much of this information is embedded in his transactions with the bank, and he has the incentive to dig into these relationships in order to better forecast his future. Other macro variables, on the other hand, are too foreign to him.

V. THE EFFECTS OF THE CRISIS ON THE INFLATIONARY PROCESS

Prior to the Abandonment of the Tablita. The basic information on an annual basis for the period 1978-1986 appears in Table 3.13. Also, Table 3.14 presents monthly data for the years 1981-1983. Inflation was clearly very persistent until 1981, when it started declining. The 1982 decrease in inflation, in fact, shows the presence of strong deflationary forces. The effects of the devaluation, in terms of a strong dollar deflation (equivalent to saying that there was a huge recovery of the real exchange rate, or that domestic prices did not catch up with the devaluation), are also shown in Table 3.13. Even though some devaluation was clearly expected — the PPP-rule gave an exchange rate between Ur \$21 and Ur \$24, implying a devaluation between 50 and 70% with respect to the exchange rate of November 25, 1982 — the actual devaluation passed these figures by far. It is also clear that people did not foresee the price level of December 1982, since the rate of inflation shows a discontinuity. This is also captured by the fall in the annual rate of inflation that occurs in December of 1983: there was a jump in the price level in December 1982.

TABLE 3.13

INFLATION – 1978-1986 (Average Annual Rates, %)				
	Nominal Variation		Variation in Dollar	
Terms	CPI	WPI	CPI	WPI
1978	45	49	12	15
1979	67	80	29	39
1980	63	42	41	22
1981	34	23	13	4
1982	19	13	-7	-12
1983	49	73	-40	-30
1984	55	77	-4	9
1985	72	77	-5	-2
1986	76	67	18	12

Source: Lopez Murphy et al. (1988)

TABLE 3.14

INFLATION, – 1981-1983 (Accumulated Over 12 Months, %)						
	1981		1982		1983	
	CPI	WPI	CPI	WPI	CPI	WPI
January	41	29	28	15	38	56
February	38	29	25	12	41	56
March	39	27	22	12	43	60
April	38	25	22	12	46	67
May	36	25	21	12	47	70
June	35	25	19	14	47	67
July	32	23	19	12	47	68
August	33	22	16	11	49	74
September	33	25	15	9	55	84
October	30	22	14	7	62	96
November	30	19	11	5	63	103
December	29	15	21	34	52	74

Source: BCU (1981, 1982, 1983).

CHAPTER 4

THE 1980 ARGENTINE BANKING CRISIS

I. INTRODUCTION

This chapter will discuss the impact of the banking sector in the boom prior to the banking crisis that hit the Argentine economy in the 1980s, and the macroeconomic consequences of the latter.

During the early 1970s Argentina entered an era of extreme instability, characterized by huge and permanent fiscal imbalances. For this reason, an assessment of the influence of sectoral developments on the aggregate is less clear than in the cases of Chile and Uruguay. In addition, the role of the banking sector in the second half of the 1970s has generally been neglected. For instance, after the fact, the Chilean and Uruguayan authorities saw the banking crisis as a serious problem, whereas it seems that this was not the case in Argentina — apart from oral anecdotal evidence that contradicts a number of written accounts. According to Sorrouille and Lucángeli [1983], in late 1980 the Minister of Finance spoke of the “frivolous behavior of some financial firms” and the “deputation process that involved the financial sector”, which was indeed a rather positive way of referring to a financial crisis.

Feldman [1983 p. 449] says:

While the economic plan of December 20, 1978 has been the object of numerous analyses, both from apologists and detractors, the consideration of the financial crisis that started in March 1980 has been relegated as a secondary issue. It is really worth mentioning that the largest crisis that the financial sector ever lived, which gave rise to an unprecedented number of firms going into liquidation, has not led to any academic studies trying to explain the phenomenon. Furthermore, there was no official statement or explicit recognition of the crisis, to the extent that the Annual Report of the Central Bank of 1980 does not analyze the issue.

This chapter will follow a structure similar to that of other background chapters in this dissertation. After a brief review of the Argentine economy (Section II), in order to set the context, Section III will describe the development of the financial sector up until the crisis. Section IV will review the financial sector's influence on macroeconomic outcomes prior to the crisis, while Section V will present a summary of what occurred; it will be shown that the events did indeed amount to a crisis. Following an assessment of the influence of the crisis on the evolution of the economy (Section VI), Section VII will put forward some concluding remarks.

II. SOME BACKGROUND INFORMATION

In the second half of the 1960s the military regimes implemented a rather orthodox economic strategy in Argentina. This included a partially successful stabilization plan, under which inflation was reduced to 6-7% in 1969, depending on whether it is measured by changes in WPI or CPI. As the plan began to fail, inflation started to climb again and reached 77% in 1972.

After the Peronist Party's return to office in 1973 its economic policy package gave new impetus to the import substitution strategy that led to the resurrection of a corporatist-populist approach to social problems. A Social Pact was signed and direct price controls were widely implemented. Recorded inflation was down to a 20% rate in 1974,¹⁰⁴ the year after General Perón took office again. He died shortly after, and his wife, Isabel Martinez, remained in charge in the midst of increasing economic and political turmoil. Her government rapidly "turned to the right". The new Peronist experiment ended in June, 1975 with a short-lived adjustment program, which included the abandonment of many price controls and a maxi-devaluation. The package, popularly dubbed the "Rodrigazo", for the Minister of Finance, Mr. Celestino Rodrigo, was launched in an environment characterized by increasing political violence,¹⁰⁵ well-documented daily accusations of corruption among top politicians and

104 Inflation was accelerating in 1974 as price controls were relaxed. By the end of that year, the price level had increased 31% if measured by the WPI, and 40% in terms of the CPI.

105 Standing out among the perpetrators of such violence were the radical left and right wings of the Peronist Party, the latter supported by the government.

trade unionists, and the languishing of the already weak Argentine democratic institutions. Furthermore, for the first time since 1963, GDP fell. In short, by late 1975 Argentine society was in complete disarray.

In March 1976 the military took over. In a memorandum to the IMF dated July 1976, the new authorities described the country's economic situation as follows:

The Argentine economy is passing through a difficult period. In the twelve months ending in April 1976, the cost of living increased 800%, and wholesale prices more than 900%; the balance of payments deficit was more than U.S. \$700 million; the budget deficit represented about 78% of government spending or 13% of GDP, and economic activity declined by 5 to 10%.

(Quoted by Sourrouille and Lucángeli [1983, p.123])

They also mentioned that during the third week of March, the Central Bank of Argentina (BCRA) had less than U.S. \$10 million in foreign currency available for free disposition (in other words, virtually nothing).

On April 2, 1976 the new Minister of Finance, a well known entrepreneur who had previously been in office in 1963, presented a new liberalization strategy as well as some ideas about how to reduce inflation. For the first time in the postwar period, a Minister of Finance stayed in office for five years in a row (Fernández and Rodríguez [1982, p. 3]). The key elements of the economic strategy were the financial reform which became effective in mid-1977; a tariff put in place in November 1976, which was followed by minor adjustments until December 1978, when a schedule for tariff reduction was decreed;¹⁰⁶ the freeing of capital movements that accompanied the exchange rate based stabilization plan popularly known as the "tablita"; and the latter itself.¹⁰⁷

From 1960 to 1974 the average inflation rate was 26%, with the previously mentioned 1969 and 1972 minimum and maximum records. In

106 According to Canitrot [1981], the average tariff evolved as follows: October 1976, 94%; December 1977, 53%; October 1978, 44%; October 1979, 34%. The program envisaged an average tariff of 35% by January 1981, and 21% by January 1984.

107 The tablita was not an ingredient in the first version of the economic package. On the contrary, early attempts to curb inflation were money based plans of monetarist inspiration.

the 1975-81 period, average inflation jumped to 164%, with a minimum of 75% in 1980 and a maximum of 500% in 1976, the year of the coup.

The evolution of economic activity depicts a dismal picture of stagnation and high inflation. Thus the overall economic performance of Argentina during this period was much weaker than that of neighboring Chile and Uruguay. Nevertheless, national accounts probably exaggerate the economic stagnation of those years.

Public sector performance was particularly poor. Apart from structural problems,¹⁰⁸ an increase in social security outlays¹⁰⁹ and military spending led to that outcome.¹¹⁰ The government managed to bring down public expenditure, from 41% of GDP in 1975 to 32% in 1977, by reducing the wages and salaries of public sector employees to the tune of more than 12% of GDP. As a result, the public sector deficit declined from 16% of GDP in 1975 to 5.6% in 1977. Revenues were also increased, but current government expenditure began to rise again in 1979. The surge in public spending was led by a renewed increase in wages and salaries, and to a lesser extent by military spending (Canitrot [1981]). Overall the public sector deficit hovered around 5% in the 1977-80 period (Canitrot, p. 178 Table A.12). It must be borne in mind that such deficits occurred during a period of a relatively high level of activity. At the peak of the cycle, in 1980, GDP was 10% greater than in 1975, and public expenditure accounted for 41% of GDP, the same ratio as in 1975.¹¹¹

108 Two are worth mentioning: (i) weak fiscal revenues due to tax evasion and tax erosion; and (ii) the interest payments on domestic public debt (for instance, interest payments on indexed bonds issued in 1973 —"VANAS"— accounted for 4.8% of GDP in 1976, according to Cavallo and Peña [1983]).

109 Arnaudo [1983] mentions that "a very rough estimate based on official statistics shows that social security outlays more than doubled in real terms between 1977 and 1980". This implies an even larger increase in dollar terms.

110 Argentina was deeply involved in the "dirty war" from 1976 to 1980. Moreover, in 1978 the government, under strong pressure from "nationalist" factions of the army, was about to invade Chile. Last minute intervention from the Vatican, among others, stopped the war. The last bellicose episode of the Argentine military regime was the April 2, 1982 invasion of the Malvinas. López Murphy [1987] also mentions the plans for equipping the Navy and the Air Force, as well as building of a tank called TAM.

111 As Daniel Heymann pointed out to me, that figure might be severely distorted by market relative prices, which were unsustainable at that time.

The new military authorities decided to end Central Bank funding of public sector deficits. From then on, public sector operations would be financed by the credit markets, both domestic and foreign. The impact of internal financing on domestic interest rates and the abundant supply of foreign credit led the government to rely heavily on external debt.

The two most quoted stylized facts of the period were the real appreciation of the peso and real interest rate levels. Charts 1 and 2 give summary information on the former topic. The first shows the relative price of consumer services in terms of: a) the usual basket of consumer goods, and b) a basket of consumer goods in which beef derivatives, cereals and other agricultural prices are excluded. Both show a significant real exchange rate appreciation. Chart 2 shows the relative price of non-agricultural imported goods (wholesale) to: a) the wholesale price of agricultural goods, and b) manufactures' prices, excluding cereals and beef and its derivatives. The second relative price alone unequivocally shows the "atraso cambiario", while the first shows sustained gains in terms of trade, if the law of one price for tradables is maintained hypothesis. The "tablita" was the main focus of the macroeconomic debate during this period, and was blamed for the real appreciation of the Argentine peso.

III. EVOLUTION OF THE FINANCIAL SECTOR¹¹²

III.1 A SHORT SUMMARY OF THE YEARS PRIOR TO THE FINANCIAL REFORM

The Argentine financial sector had a history of heavy regulation since the creation of the BCRA in the aftermath of the great depression. Moreover, in 1974 the new Peronist government decreed the nationalization (or rather, centralization) of deposits. In other words, banks faced a 100% reserve requirement and administered deposits on behalf of BCRA, which was in charge of decisions regarding their allocation.¹¹³ Banking business was reduced to issuing checking accounts and, to a lesser extent, bankers acceptances. In the latter case, banks carried out brokerage activity on

¹¹² This section draws heavily on Balino [1987] and Sourrouille and Lucangeli [1983].

¹¹³ A similar regime existed between 1946 and 1957. See Baliño [1982].

which they earned fees. The BCRA also paid fees to the banks for their job as deposit administrators.

As expected, the BCRA could not perform the role of central planner, and as time passed, banks were given more freedom in the management of their own portfolios. In 1975 interest rates on certificates of deposits were freed, and automatic discount facilities linked to the growth of specific deposits were put in place. Interest rates on time deposits were substantially raised.

Nominal interest rates were determined by the BCRA without taking into account the expected inflation rate, and this led to significantly negative real interest rates, both paid and charged. For instance, by late 1975, the interest rate charged on loans was 3% per month, while inflation was about 9%. Consequently, given expected returns on banking assets and liabilities, there was a noticeable disintermediation,¹¹⁴ partially mitigated by the appearance of a curb market, the so-called (mercado) “interempresario”. Finance companies played a crucial role as market makers in the interempresario. Savings and loan associations and credit cooperatives were fringe participants in the financial markets.

Before the financial reform was implemented, the formal credit market consisted of three tiers:

- (i) the first was regulated via rediscounts on the BCRA, which was in fact funded by sight and savings deposits;
- (ii) the second was also regulated via BCRA rediscounts, oriented to the financing and pre-financing of exports;
- (iii) the third was free, and funded by each banking firm’s time deposits.

Real interest rates in the first two tiers were negative to a considerable degree, whereas the third tier was subject to the competition of short-term government debt and the informal credit market.

¹¹⁴ The ratios of M_1 and M_2 to GDP declined from 11 and 20% respectively in 1972, to 7% and 9.5% in 1976, the last year during which the centralization of deposits was fully in place.

Nevertheless, it greatly expanded, as time deposits multiplied by a factor of three in real terms between March 1976 and June 1977 (when the financial reform became effective).

According to Canitrot [1981] and Frenkel [1980], from 1975 to June 1977, the informal (non-banking) credit market was buoyant, specializing in very short-term operations. The stock market also experienced a short-lived boom beginning in April 1976. The year before the introduction of the financial reform, deposit interest rates in the curb market were higher than the controlled bank loan interest rate. Not surprisingly, private banks and their closest clients channeled subsidized funds obtained from the BCRA into the informal market, through their own or controlled finance companies. From March 1976 to June 1977, banking loans to the private sector doubled in real terms.

By the end of 1976 the Argentine financial sector consisted of 692 firms, of which 111 were commercial banks. The total number of branches of financial companies was 3,171, out of which 2,906 belonged to banks. Within the banking sector, a fairly large number of firms belonged to federal, provincial or municipal governments.

Following a long-run trend, during 1975 and 1976 employment in banks alone increased at an average annual rate of 5.4%, higher than the record set in the 1957-76 period: 4.6% per year. The cumulative increase in the number of bank branches reached 3.7% during those two years, a rate significantly below the average of the 1957-76 period: 5.8% per year. This happened in an environment that showed a 43% decrease in the (formal) financial sector's GDP, and a 52% decline in the amount of deposits in real terms. These apparently contradictory figures demonstrate once again the role of banks in the curb market. Just as Daly did in the case of the Uruguayan banking system in 1965, Feldman [1980] referred to these developments as pathological (alluding to the long-run developments). These data indicate that a financial reform was badly needed, and that there was no reliable information available regarding the financial sector's behavior and performance at the moment when the financial reform was launched.

III.2 CONTENT OF THE FINANCIAL REFORM PROGRAM

a. General Features

The financial reform, presented in the form of two laws enacted in early 1977 and effective by midyear, incorporated several elements, namely:

- a) abolition of the centralization of deposits, and the introduction of a fractional reserve banking industry;
- b) a reduction of barriers to entry in the banking sector;
- c) the “Monetary Regulation Account” (“cuenta de regulación monetaria”), which was partly a device to implement b), and also a way to impose high reserve requirements on time deposits;¹¹⁵
- d) liberalization of interest rates, and the elimination of interest rate subsidies granted through loans conceded by state-owned banks, with one exception: a special discount line of the BCRA, to facilitate export financing at preferential rates by commercial banks;
- e) elimination of limitations on the areas to which credit could be allocated (ending the selective policies that had been the rationale for the centralization of deposits);
- f) a new deposit insurance scheme (actually a continuation of the existing situation) according to which the BCRA insured the totality of peso-denominated deposits in the banking sector.
- g) re-establishment of the lender of last resort facility, via a redefinition of the utilization of the BCRA discount window;
- h) new banking regulations, which will be discussed below;
- i) a uniform reserve requirement amounting to 45% of deposits was established and subsequently steadily decreased.

115 I thank Daniel Heymann for the last observation.

b. Prudential Regulation

Banking regulation and supervision prior to the reform was basically designed to enforce the banks' compliance with the rules. Since the financial system was basically a network to distribute subsidies, not much risk was involved. Thus, existing regulation and supervisory practices did not give much guidance for the future. On the other hand, since the BCRA had been created in 1935 as a consequence of a huge financial crisis, it had "traditionally enjoyed a wide range of powers over the regulation and supervision of banks and non-bank financial institutions" (Baliño [1987], p.39). This remained unaltered by the reform.

The changes in prudential regulation "covered four areas: capital requirements, immobile asset, liabilities/ capital ratios, and ratios between the amount of the loan and capital — both of the lender and borrower" (Baliño [1987], p. 39). Capital requirements varied according to the type and location of the firms. The largest — U.S. \$6.5 million — applied to banks established in greater Buenos Aires, and the smallest to "credit associations" (cajas de crédito), very small local firms located in lower-income areas. These amounts were fixed in pesos and adjusted according to the changes in the WPI. In 1979 they were increased in real terms.

Immobile assets, which include various non-interest-bearing assets, could not exceed the capital and reserves of financial firms.

The maximum ratio of financial liabilities to net capital and reserves was set at 25 for all financial firms.

Ceilings were set on the amount of liabilities of individual debtors with individual financial firms and with the financial sector in general. As previously mentioned, those limits referred both to client and lender capital. Exceptions to these limits were also included, such as secured loans, loans to public sector suppliers, to promote exports or to finance seasonal needs. The restriction regarding the amount of loans granted to each single borrower to the borrower's capital was abolished in 1978, and as of January 1, 1980, the maximum amount lent to an individual debtor could not exceed 5% of a bank's capital.

"These regulations were revised over the years of the reform. Most of the revisions in 1978 and 1979 aimed at increasing the freedom of

financial institutions” (Baliño [1987, p. 40]). According to Baliño, prudential regulation at the time was fairly comprehensive. Nevertheless, following the crisis, a more comprehensive system was put in place to monitor the financial system as of January 1, 1981.

c. Bank Supervision

Supervision leaned towards “monitoring compliance with regulations rather than analyzing the quality of bank assets...” (Baliño [1987, p. 41]). This was carried out by analyzing regular reports presented by financial firms, and by on-site examinations. The BCRA “lacked the supervisory structure to cope with a financial system that was growing fast and whose freedom of action had increased dramatically” (Baliño, *ibid.*). Its enforcement team had several weaknesses. First, the number of staff was insufficient for the task, and their previous experience did not serve as real training for the job they were supposed to do following the financial liberalization, i.e., basically risk analysis. Second, its head, the BCRA board member in charge of bank supervision until late 1979, was not the right person for the post, and the rest of the board — the governor included — paid little attention to bank supervision. Third, the best people in that area were rapidly hired away by private financial firms; and fourth, corruption impaired the job of bank supervisors. For instance, the secretary of the new superintendent of banks (the person responsible for dealing with the financial crisis) was involved in a ring that informed banks when they would be audited. Once the superintendent signed the order, the particular private bank knew about it before BCRA’s employees did.¹¹⁶

Last, but not least, bank supervision was complicated by the presence of many leading military officials on the boards of private financial firms who lobbied on behalf of “their” firms. The first head of bank supervision seemed to have been very susceptible to this kind of influence, as well as other lobbying activities from top civilian bankers.

The major example of an institution which suffered all these problems was the Banco de Intercambio Regional (BIR), whose failure triggered the banking crisis in early 1980. According to rumor, the BCRA

¹¹⁶ I am grateful to Alejandro Reynal for this and other (equally dramatic) related anecdotes.

knew that it was facing troubles in 1978. Anecdotal evidence also says that “tout Paris” knew by early 1979 that the BIR was broke, but in mid-1979 the superintendent of banks told the President of the Republic that there was no problem with this bank. The Finance Minister attended the opening of the BIR’s New York Branch in July 1979. Four months later no buyer for the bank could be found. The owner of the bank fled abroad in February 1980 and never returned to Argentina.

d. Other Aspects of Regulation

The new legislation established multipurpose (universal) banking, since commercial banks were allowed to undertake any financial business not specifically forbidden by the law. Other legally permitted types of financial firms were investment banks, mortgage banks, finance houses, credit cooperatives (cajas de crédito) and savings and loan associations. Consumer credit houses were no longer allowed. They were offered the option of becoming credit cooperatives or finance houses within a year. Credit cooperatives had to change their functioning to continue as such, or become cooperative banks, also within the time limit of a year, while savings and loan associations had to comply with the new regulations or dissolve themselves.

The above-mentioned changes meant that small financial firms, which prior to the reform had basically issued savings accounts, were now allowed to issue checking accounts, and some were even allowed to open dollar-denominated accounts. Branching regulation was eased. In most cases giving notice in advance to the BCRA was enough to open a new branch. Moreover, firms whose headquarters were located outside major domestic financial centers were given preference in opening new branches. New branches of foreign banks were an exception, and they remained subject to prior authorization from the BCRA.

As Fernández [1983, p.82] explains, the “Monetary Regulation Account” was partly intended to neutralize the competitive advantage of

117 From a monetary policy point of view, it was seen as an instrument to control M_2 in an environment in which the composition of money demand was supposed to change in the immediate future. D. Heymann explained to me that this aspect was important at the launching of the financial reform, when the authorities were trying to implement a monetarist-type stabilization program.

banks over other financial firms (especially finance houses) that were not allowed to issue (non-interest bearing) checking accounts.¹¹⁷ This was a major advantage in an environment showing high one- or two-digit monthly rate of inflation! The idea was to charge a “tax” on the loanable portion of the banks’ sight deposits, while paying interest on required reserves on savings and the time deposits of financial companies.¹¹⁸ The charge was a way of sharing out the inflation tax that banks collected on their checking accounts. All these movements were recorded in the government’s “Monetary Regulation Account” with the BCRA. There were other ways of obtaining a similar result; this one led to explicit fiscal imbalances in the first years of the reform.

III.3 SOME MARKET REACTIONS¹¹⁹

The number of new firms entering the market during the two and a half years following the reform was moderate in the case of banks, but substantial for finance companies, as shown below:

<u>Type of Firm</u>	<u>Number</u>	<u>% of Existing Firms as of May, 1977</u>
Commercial Banks (four were branches of foreign banks and one was a state-owned bank)	8	7
Finance Companies	27	34

The effects of regulation were more noticeable in transformations, mergers and acquisitions, and the location of headquarters. The following tables show the pattern of changes that occurred. As expected, a sizeable

118 At the beginning the charge was imposed on checking account deposits and the reward was paid on 30-day or longer maturity deposits. Since inflation did not subside, pretty soon financial firms started paying interest on 7-day deposits. As a consequence, the working of the account was also changed, and interest was paid on reserve requirements of the latter deposits.

119 This paragraph draws heavily on Arnaudo & Buraschi [1988].

proportion of existing finance houses (22%) and credit cooperatives (65%) transformed themselves into commercial banks. Thus, the incentive to create new commercial banks worked perfectly and their number almost doubled as a direct consequence of the financial reform: from May, 1977 when there were 110 commercial banks, 106 new banks were formed and six closed, implying a 91% net increase in the number of firms. Also, most of the newly created banks had their headquarters in the provinces (where minimum capital requirements were lower than in Buenos Aires). On the other hand, the branching freedom led one provincial-owned¹²⁰ state bank to open a new branch in Buenos Aires, while five banks from the provinces did the same (prior to the reform there were 14 provincial-owned state banks and 9 private banks from the provinces in the capital (see Table 4.1).

¹²⁰ Note that provincial-owned state banks are institutions whose major clients are the provincial governments and municipalities and the most important local businesses. Their lending practices have been very much influenced by political factors and pressures.

TABLE 4.1

TRANSFORMATIONS, MERGERS AND CLOSURES OF FINANCIAL FIRMS (June 1977-December 1979)				
Former Type of Firm	#	Changed Into	#	Closures
Commercial Banks				6
Finance Companies	17	Commercial Banks	17	7
Credit Cooperatives	274	Commercial Banks	80	47
Savings and Loan Associations	n.a	Commercial Banks	1	4
Consumer Credit Associations	58	Finance Houses	58	47
Consumer Credit Associations	3	Credit Cooperatives	3	

LOCATION OF FIRMS CHANGED INTO BANKS		
	Buenos Aires	Other Areas
Banks From Finance Companies	9	8
Banks From Credit Cooperatives	10	70

Source: Arnaudo & Buraschi [1988, p. 58].

The bigger capital requirements seem to have stimulated the opening of new branches in Buenos Aires — a city with a very high “economic density” — in order to increase capital profitability. Also, the pace at which financial firms opened branches (14% per year on average during the first two and a half years following the reform) apparently contradicted the prediction that in a deregulated environment the rate of growth of branches would fall (see Feldman [1980]). Of course, the number of domestic private bank branches greatly increased by 65% up to December 1979, but that partly reflects changes in the type of businesses mentioned above.¹²¹ Foreign banks actually reduced their branch networks somewhat. The number of bank clerks in the private financial sector rose 18% during this period. On the whole, two results stand out:

¹²¹ For instance, the number of branches of the BIR increased from 46 in 1977 to 96 in 1979.

- a. In the first 2 1/2 years following the reform, the financial sector did not contract. The shrinking number of firms simply reflected the merging of existing firms.
- b. The expansion rate of the number of branches rose substantially in 1978 and 1979.

The first reaction of domestic banks to the new environment was, at least partially, to insist on the old ways of gaining a competitive edge: attempting to expand their share of the retail market by opening new outlets. The number of domestic bank employees jumped by 48%. In turn, total deposits in the financial sector increased 53% in real terms in that period. In the domestic banking sector the increase was 72%, while deposits in foreign banks stagnated (Gutiérrez Girault [1989, p. 79]). As a consequence, the deposit market share of domestic banks increased from 39% in May 1977 to 51% by the end of 1979 (the corresponding figures for the loan market share are 35% and 49%). Thus, both the ratios of deposits to the number of outlets and to the number of bank clerks grew.

All observers point to a broadening of the scope of activities undertaken by financial institutions. For instance, they began issuing credit cards for the first time (Gutiérrez Girault, *ibid*). On the other hand, the vast majority of financial intermediation operations, both deposits and loans, had a maturity of one month. Longer maturities were observed mainly after the crisis, but reflected the rolling over of non-performing loans; a “false demand for credit”, to borrow Harberger’s terminology.

The reform was expected to put an end to the curb market by attracting its main players into the formal market. However, it was not expected that the most “successful” and “vigorous” entrants to the deregulated formal market would be brand-new bankers from the provinces, with no previous experience in the financial business. Starting from nothing, their banks reached the top of the ranking within two years. However, they were also the first to go under when the tide changed.¹²²

122 In 1992 BCRA supervisory authorities said: “The deep crisis that affected the Argentine financial system in the eighties had its origin in the very pronounced expansion of the number of intermediaries authorized during the previous decade, which allowed entry to the trade of bankers who did not have enough background of competence and experience in the business, many of them being owners of mercantile or industrial firms”.

III.4 THE REDESIGN OF DEPOSIT INSURANCE

In November 1979, a new deposit insurance program went into effect. According to Canitrot [1981], this measure was intended to help produce a smooth contraction of the financial sector, a goal the financial reform had not yet achieved. The new regulation established non-mandatory limited insurance, no longer costless for banks. The financial firms that decided to join the scheme had to pay a monthly fee equal to 3/10,000 of their average liabilities subject to reserve requirements. However, the coverage provided by the BCRA was independent of the fees collected. Thus, it was not a self-financed insurance fund. The coverage was as follows:

- (i) Peso deposits up to Argentine \$1.0 million (about U.S. \$640) were fully insured. This figure would be adjusted monthly according to the changes in the WPI.
- (ii) Peso deposits above that amount had 90% coverage.

As under the previous regime, foreign currency deposits remained uninsured.

This change created an asymmetry that played an important role when the liquidity crisis exploded. In fact, large foreign banks were implicitly insured by their headquarters, which were in turn secured by their own regulators, while state-owned banks were insured by the state, according to their respective charters.¹²³ Therefore, only domestic private financial firms were lacking permanent free deposit insurance.

IV. BANKS AND MACROECONOMIC OUTCOMES: I

This section will concentrate on the ways in which the behavior of the financial sector affected the performance of the entire economy prior to the crisis. It will stress the feedback stemming from the financial sector, which exacerbated an already high level of macroeconomic instability.

¹²³ Most of these financial firms chose not to participate in the new insurance scheme (Baliño [1987, p.41]).

An exchange rate based stabilization plan was implemented in December 1978. As is usually the case when this kind of policy package is applied, the real exchange rate fell, provoking intense public attention and debate. In fact, this event has not received a convincing explanation in the literature. This section will present some evidence to show that this weakness in the literature may result from it neglecting the behavior of the financial sector as an autonomous agent, in an environment where rational expectations cannot prevail.¹²⁴ In order to accomplish our task, in the following paragraphs we will first review some of the important developments in the credit markets of the time, trying to associate them to the performance of financial firms.

IV.1 PRICES: THE BEHAVIOR OF INTEREST RATES

a. Major Stylized Facts

The major stylized facts concerning the evolution of interest rates in Argentina can be summarized as follows:

- (i) Interest rates surged after the financial reform became effective (see Table 4.2).
- (ii) Lending and deposit rates fluctuated along the same lines, as can be observed in the above-mentioned Table. The spread between them was large, and changed frequently. The reduction in spreads that should have followed the reduction in reserve requirements since 1978, was reversed in August 1979.
- (iii) Domestic rates departed from their convergence levels, as shown in Tables 4.2 and 4.3. Several econometric studies confirmed what these Tables show (see Estela D. Sosa de Balzano [1985] for a detailed econometric examination of this failure). Baliño [1981] using Box-Jenkins techniques found that the data failed to reject the hypothesis of independence between domestic and foreign

124 D. Heymann [1983] forcefully argues the difficulty of having rational expectations in the Argentine environment of the time. R.B. Fernández [1980] referred to "*disappointed sectoral expectations*", which was obviously a non-equilibrium phenomenon. Lucas [1986, 1987] reminds us of the scope of equilibrium economics and its use of rational expectations.

interest rates.¹²⁵ Notice that the differential for lending rates is consistently larger than that for deposit rates. This may reveal a bias in the computation of the difference (is the Argentine lending rate equivalent to the U.S. prime rate?).

- (iv) The variability of domestic nominal interest rates was much smaller than the variability of international rates and that of the convergence limits; i.e., it was lower than the variability of the interest rate that would have prevailed in a perfectly competitive environment with costless banking.
- (v) The deposit rate was fairly closely associated with the interest rate paid by Argentine T-bills, as shown by Baliño [1981]. For instance, in the period from June 1977 to September 1980, using weekly data, Baliño found the following:
 - Their simple descriptive statistics were very similar (see Table 4.2);
 - The statistical independence of both series was rejected by the data at a 1% confidence level;
 - No clear Granger-causality could be found, while strong feedback effects were the most characteristic feature of the relationship between these time series.

¹²⁵ The only "quasi-exception" is M. Blejer [1982] who used a version of the interest rate differentials in the same spirit of our "unexpected" devaluation and showed that they were white noise. He added: "these results are quite surprising since they do not allow rejection of the joint hypothesis of efficiency and perfect substitutability of assets". Later in the paper he deemed the hypothesis of perfect substitutability to be "unrealistic".

TABLE 4.2

NOMINAL INTEREST RATES — ANNUAL FIGURES (%)						
Period	Lending Rate (P&T)	Lending Rate (ES)	Deposit Rate (ES)	T-Bill Rate (28 Days)	Federal Funds U.S. (P&T)	Prime Rate U.S. (ES)
1976 I	58.3	70a	55.7 ^a	n.a.	5	
II	65.4	70	58.7	n.a.	5	
III	61.2	70	58.7	n.a.	5	
IV	65.2	70	55.7	n.a.	5	
1977 I	89	See II	See II	n.a.	5	
II	101.7	79.2 ^b	63.8 ^b	96.7 ^c	5	6.9 ^c
III	148.5	140.8 ^d	117.8 ^d	108.4 ^d	6	6.9 ^e
IV	307.5	276.1	188.9	152.4	6	7.8
1978 I	246.8	320.2	201.9	168.4	7	8.3
II	151.8	169.2	122.3	118.6	7	8.3
III	139.0	152.8	120.1	111.5	8	9.4
IV	140.9	136.5	111.3	103.6	10	10.4
1979 I	130.3	138.3	117.3	116.1	10	12.4
II	130.3	127.2	111.3	119.6	10	12.1
III	149.9	142.3	125.0	129.4	11	12.1
IV	132.7	143.5	123.0	124.2	14	16.1
1980 I	103.3	113.7	92.6	90.5	15	16.4
II	94.3	88.7	71.8	78.5	13	20.7
III	106.5	113.7	89.1	92.3	9	11.9
IV	93.8	88.0	68.2	69.0	6	15.0

(continued)

Table 3.4 (cont.)

NOMINAL INTEREST RATES — ANNUAL FIGURES (%)						
Period	Lending Rate (P&T)	Lending Rate (ES)	Deposit Rate (ES)	T-Bill Rate (28 Days)	Federal Funds U.S. (P&T)	Prime Rate U.S. (ES)
1981 I	158.0	122.6	98.4	95.2	17	22.0
II	205.4	193.4	147.2	145.0	18	19.0
III	276.0	291.8	227.7	208.4	18	22.6
IV	170.3	188.3	141.4	129.9	14	19.6
1982 I	n.a.	163.6	128.0	116.0	n.a.	16.9
II	n.a.	181.1	137.0	105.3	n.a.	17.9

NOTES: ^aThe source until III/77 is Balino [1987], Table 6, p. 14.

^bThe figure corresponds to the first semester.

^c June record, on annual basis.

^dThe rest of the column was obtained using ES data as follows:

$i = \{[(1+i_0)(1+i_1)(1+i_2)]^4 - 1\} \times 100$, where the first interest rate corresponds to the last month of the previous quarter, and the other two to the first two months of the quarter.

Source: P&T: Petrei and Tybout [1985]; ES: Estela D. Sousa de Balzano [1985]. For T-bill rates, BCRA.

- (vi) In sum, the most glaring features of the evolution of real interest rates were monthly variability, the high levels reached by the lending rate, and the propensity of the real deposit rate to reach negative values. Information about variability is also presented.

Our next task is to discuss whether these stylized facts conform better to explanations where the financial sector behaves passively (i.e., where “macro” explanations are enough), or whether the inclusion of the financial sector as an autonomous agent sheds significant additional light

on the subject. Since quantitative information is very scanty, our discussion will be confined mainly to qualitative arguments.

b. The Jump in Interest Rates Following the Reform

Interest rates jumped during the first half of 1977. As a first observation concerning this jump, it may be said that it was probably less important than is suggested the statistical evidence. As a matter of fact, in 1976 the interest rate of the regulated market stood at 48%, while that of the parallel market came close to 125% (Cavallo and Petrei [1983]). This figure is not far from 140-150%, the interest rate observed during the first three months of 1977. On the other hand, we find that quite an important proportion of the potential clients of the expansion-oriented new banks were agents who up until then had relied on the parallel banking market.¹²⁶

The financial reform coincided with the end of the price truce introduced four months earlier. When the pact ended inflation accelerated once again; monthly rates of less than 7% were followed by others ranging from 8% to 13% in the following months. This increase in inflation — which had been expected — must have had some effect on interest rates, but the behavior of bank rates did not show the generalized upward trend that theory would suggest. More specifically, the increase in the expected inflation rate alone should not have led to a widening of the spread between lending and deposit rates in real terms. However, this spread widened considerably during the third and fourth quarters of 1977, and the lending rate climbed to unusually high levels. To a large extent, this high lending rate level explains the large reduction of manufacturing output registered from late 1977.¹²⁷

Heymann [1983] points out that this recession “did not follow the standard pattern of Argentine business cycle, since it was not associated

¹²⁶ Cavallo & Petrei indicate that in the case of a sample of big firms, the short-term debt with banks was equivalent to 3% of their actives in 1976, whereas it amounted to 14% in 1977. During the same period the item "others" fell from 6% to 5%. In the case of the small firms surveyed, the ratio of short-term bank debts to the total of the actives was 5% in 1976; one year later it had climbed to 13%, whereas "others" declined from 12% to 8%. This information is consistent with the opinions expressed.

¹²⁷ D. Heymann [1983] indicates that between July, 1977 and March, 1978 GDP contracted at an average quarterly rate (in annual terms) of 16%, whereas manufacturing sector GDP fell at a rate of almost 51%.

with a balance of payments problem". On the contrary, in 1977 the BCRA expanded its net international reserves at a rate higher than the current account of the balance of payments.

It is generally believed that this recession was the result of monetarist oriented restrictive monetary policies, though it is possible that the financial reform itself triggered the recession by eliminating financial subsidies,¹²⁸ and by stimulating an upward shift in money demand¹²⁹. The main idea of the contractionary policies was to stop the financing the government by the BCRA, which shifted to the placement of Treasury bills. Two basic facts contradict the idea of significantly restrictive policies, namely:

- (i) the increase in the monetary base ("high powered money") did not slow down, partly as a result of increased BCRA reserves, which were considerable in 1977 (almost U.S. \$1.2 billion).
- (ii) even though a reduction of the fiscal deficit did occur, it remained high (3-4% of GDP).

Nevertheless, given an economic environment in which both inflationary expectations and the demand for deposits were expected to grow, the financing of fiscal imbalances by placing bonds and T-bills may have contributed to the jump in interest rates.

A model of "passive" (competitive) banks would predict that at times of declining activity levels (especially when concentrated amongst the most important banking clients, i.e., the manufacturing sector) a rise in deposit rates would avoid the loss of deposits needed to finance loans, which could no longer be easily recovered.¹³⁰ Similarly, to avoid worsening the adverse selection of clients and to reduce the chances of default, lending rates should rise less than deposit rates, thus squeezing bank profits. However, as was mentioned above, this was not the outcome in the Argentine economy during the period discussed. Lending rates rose more

128 It should be borne in mind that Cavallo published his study, arguing that an increase of interest rates would provoke recessive and inflationary effects, in 1977 (Cavallo [1977]).

129 Heymann observed that this was a foreseeable behavior of money demand.

130 Notice that in this Argentine episode, the economic contraction might have been accompanied by an increase — at least a non decrease — in the demand for bank deposits, because the financial reform made them more attractive than before.

than deposit rates, even when the effects of the new reserve requirements are taken into account. The banks that began to expand, often under managements that lacked banking experience and without dependable established relations with their clients, but correspondingly unburdened with non-performing assets, took advantage of the chance to charge very high rates. On the other hand, while the government appeared concerned with the resurgence of inflation, it did not appear to have been too worried about the level of these rates.

Three additional comments must be made: Gaba [1981] points out that the differential between lending and deposit rates in real terms was only overcome in 1981, when the Argentine economy was in complete disarray. Similarly, the banks' gross financial return accounted for between 45% and 58% of the interest rate differential between September, 1977 and March, 1978.¹³¹¹³² Sourrouille and Lucángeli [1983] note that the interest rates were in line with the increasing inflation until October. However, when inflation was brought down to a level of about 8% per month, interest rates continued to soar. Finally, Cavallo and Petrei [1983] maintain that following the episode mentioned, the first cases of distress borrowing appeared in Argentina.

As a result we may conclude that, even if macroeconomic factors existed to trigger the surge of interest rates, the concrete way in which this surge took place and the persistence of the high rates cannot be explained satisfactorily by macroeconomic factors.

c. The Spread Between Lending and Deposit Rates

There is no macroeconomic explanation for this phenomenon. On the contrary, there is wide agreement, especially following Gaba's [1981] detailed account, on the influence of financial margins in determining this spread. Reserve requirements were no longer a significant factor in spreads

¹³¹ Gaba [1977, Appendix 1, Table 7, p. 41].

¹³² Referring to Gaba's study, Heymann [1983, fn. 66, p. 460] explains that "the extremely high bank spreads during this period [2.6% on average] were due in part to a Central Bank policy of not adjusting the MRA compensation rate in line with the higher interest rates on deposits. Rising costs of reserves, however, are only a partial explanation, given the large values of bank margins (1.3% a month)".

after 1979.¹³³ High administrative costs and profits were the most important elements in explaining financial margins.

Distress borrowing on the part of non-financial firms may have been behind this phenomenon. Fernández first mentioned non-performing loans as a plausible factor explaining interest rate behavior in a paper presented at the BCRA Annual meeting in October 1980. On December 4, 1980 he reiterated his position in a newspaper article (see Fernández and Rodríguez [1982, pp. 205 ff]). He later added the effect of deposit insurance to fill out his explanation.

In the Appendix to this chapter we attempt to examine the significance of distress borrowing in the 1978-1981 period.¹³⁴ For the time being, two points can be made:

- (i) Distress borrowing itself may be the consequence of ex-ante high real interest rates, as part of a banking policy of risky lending.
- (ii) There were no symptoms of widespread distress borrowing before late 1979.

133 For instance, the World Bank Memorandum on Argentina, 1983, pp. 33 says: "... although often pointed out as one of the major causes, minimum reserve requirements do not seem to have contributed to high spreads. After the financial reform, interest earned on required reserves compensated for the interest paid by the banks on reserves".

134 Notice that, irrespective of the outcome of the empirical assessment of the extent of distress borrowing, Fernández's view, inspired by Simons' critique of the inherent instability of modern banking (see Fernández [1982] and [1983]), stresses the relevance of the banking sector in explaining macroeconomic outcomes.

TABLE 4.3

DIFFERENTIALS BETWEEN DOMESTIC AND U.S. INTEREST RATES, 1977-1982 (Quarterly Averages, % Per Month)					
Period		U.S. Rates Adjusted by Devaluation		Interest Rate Differential With the Argentine	
		Prime Rate	T-Bill Rate	Lending Rate	Deposit Rate
1977	III	6.41	6.29	1.77	1.05
	IV	8.58	8.45	4.58	1.62
1978	I	7.19	7.06	4.10	1.50
	II	4.45	4.30	3.82	2.63
	III	3.37	3.22	4.35	3.40
	IV	5.62	5.45	1.99	1.27
1979	I	5.97	5.77	1.26	0.73
	II	5.24	5.05	1.91	1.48
	III	4.84	4.64	3.02	2.58
	IV	4.44	4.19	2.78	2.24
1980	I	3.90	3.68	2.17	1.58
	II	3.41	2.93	2.24	1.85
	III	2.41	2.23	3.74	2.89
	IV	2.33	2.11	3.29	2.68
1981	I	6.89	6.52	1.75	0.27
	II	25.91	25.55	-15.32	-17.00
	III	5.29	4.90	6.37	4.92
	IV	9.07	8.68	-0.63	-1.59
1982	I	15.08	14.80	-6.87	-7.72
	II	12.53	12.20	-3.87	-4.70

NOTE: The jump in 1981-II merely reflects the devaluation in Argentina.

Source: Baliño [1991, Table 6, p. 70].

TABLE 4.4

DIFFERENTIALS BETWEEN LENDING RATES IN ARGENTINA AND THE EUROMARKET 1979-MARCH 1981 (Monthly Rates, %)						
Period	i^*	\hat{e}	t	$i^*+\hat{e}+t$	i	Differential
1979						
January	1.01	5.2	0.3	6.6	7.4	0.8
February	0.95	4.8	0.3	6.1	7.1	1.0
March	0.94	4.7	0.3	5.9	7.1	1.2
April	0.93	4.6	0.3	5.8	7.1	1.3
May	0.94	4.5	0.3	5.7	6.9	1.2
June	0.82	4.4	0.3	5.5	6.9	1.4
July	0.84	4.1	0.3	5.2	7.6	2.4
August	0.91	3.9	0.3	5.1	8.0	2.9
September	1.07	3.7	0.3	5.1	8.1	3.0
October	1.21	3.4	0.3	4.9	8.1	3.2
November	1.22	3.3	0.3	4.8	7.0	2.2
December	1.19	3.1	0.3	4.6	6.9	2.3
1980						
January	1.19	2.9	0.3	4.4	6.7	2.3
February	1.27	2.7	0.3	4.3	6.0	1.7
March	1.43	2.5	0.3	4.2	5.6	1.4
April	1.37	2.3	0.3	4.0	5.3	1.3
May	0.95	2.1	0.3	3.4	5.4	2.0
June	0.83	2.0	0.3	3.1	6.4	3.3
July	0.83	1.7	0.3	2.8	7.2	4.4
August	0.96	1.5	0.3	2.8	6.2	3.4
September	1.06	1.3	0.3	2.7	5.6	2.9
October	1.13	1.1	0.3	2.5	5.3	2.8
November	1.30	1.0	0.3	2.6	5.4	2.8
December	1.43	1.0	0.3	2.7	6.3	3.6

(continued)

Table 4.4 (cont.)

DIFFERENTIALS BETWEEN LENDING RATES IN ARGENTINA AND THE EUROMARKET 1979-MARCH 1981 (Monthly Rates, %)						
Period	i^*	\hat{e}	t	$i^*+\hat{e}+t$	i	Differential
1981						
January	1.35	1.3	0.3	2.9	6.4	3.4
February	1.29	1.6	0.3	3.2	8.0	4.8
March	1.16	4.1	0.3	5.6	10.3	4.7

NOTE: i^* : Euromarket lending rate (6 months)

\hat{A} : Devaluation rate (announced by the government in the tablita)

t: Transaction costs plus taxes

i: Bank lending (nominal) rate (30 days)

Source: Frenkel & Damill [1987, p.85, Table No. 8].

TABLE 4.5

INTEREST RATES AND DIFFERENTIALS VARIATION COEFFICIENTS (PERCENT)						
Year	i^*	\hat{e}	$i^*+\hat{e}+t$	i_L	Differential	i_b
1979	14	16	11	7	45	7
1980	19	37	22	10	36	12
1979/80	18	45	29	13	42	17

Source: Table A1-3 and ES [1985].

TABLE 4.6

REAL INTEREST RATES (percent)								
Rate	I	II	III	IV	I	II	II	V
1977	n.a.	0.94	2.00	9.10	n.a.	1.14	0.04	3.24
1978	0.57	3.46	6.46	1.60	-1.87	0.83	-0.04	-1.54
1979	-0.67	-2.46	2.83	4.30	-1.03	-2.36	0.68	1.43
1980	1.75	-0.64	2.58	5.45	-0.76	-0.26	-0.10	1.66
1981	5.34	-4.30	3.16	-1.73	2.15	0.97	1.47	-1.40

NOTE: These are end-of-quarter figures. Real lending rates were obtained using WPI as a deflator, while in the case of the real deposit rate, the CPI was used.

Source: ES [1985, Table 1, pp. 28-30].

d. On the Failure of Open Interest Parity

Of course, the behavior of the spread between lending and deposit rates was an obvious symptom of the failure of the open Fisher parity. The evidence is not consistent with a costless and perfectly competitive banking sector (see Tables 4.3, 4.4, 4.5, and 4.6). However, because of the interpretations given to the differentials between domestic and foreign interest rates, more should be said about this failure. Several authors¹³⁵ have interpreted the differentials between domestic and international rates as a measure of the devaluation risk or, alternatively, of the (lack of) credibility of the economic program.

Regardless of whether we are talking about the existence of a possible "exchange rate risk" or an expected devaluation bigger than the one the government announced several months in advance,¹³⁶ such an interpretation seems to run into serious trouble for the most important part of the period — namely, the year 1979. It must be borne in mind that the

¹³⁵ Mainly R. Frenkel in a series of papers, but also C.A. Rodríguez, R.B. Fernández and G. Calvo.

¹³⁶ For instance, Gaba [1981] defines "expected devaluation" as the sum of two terms: the devaluation programmed in the tablita plus an "exchange risk". Clearly, he believed that the public's expected devaluation differed from the government's.

only relevant rates are those of a one-month maturity. Thus, we are talking about the probability of the government abandoning the exchange rate regime, the key to its anti-inflationary plan, within 30 days.

First of all, recall Baliño's [1981] conclusions concerning the relationship between deposit and T-bill rates. They clearly imply strong substitutability between these assets in the private sector portfolio. Furthermore, they suggest the importance of short-term domestic market conditions as a determinant of the spread.

Second, and conclusively, throughout 1979 the program's credibility was at its peak. The largest private capital inflows — huge ones, actually — recorded between 1976 and 1982 took place in 1979, especially in the second half of the year, a period in which interest rate spreads began to widen. Also, the increase in BCRA foreign reserves accounted for 53% of the increment of the monetary base in 1978, and for 81% in 1979, the year in which Argentina adopted the "tablita".^{137,138} Thus, we should find either a decrease or constancy of spreads during 1979. Actually, both spreads between internal and external interest rates tended to decrease after the abnormal surge in mid-1978, associated with a short-lived experience of dirty floating. They stagnated from December 1978 to May 1979, tripled in the following 5 months, and then began the beginning of a new, milder decline.

It seems worthwhile to mention two facts, which are closely related. First, real economic activity started a recovery strongly led by the manufacturing sector in the second quarter of 1978, which peaked in the last quarter of 1980, as the leading sector contracted abruptly. Thus, the increase in spreads is associated with the expansion of economic sectors that rely heavily on bank loans.

Second, the widening spreads were accompanied by increasing capital inflows. So, the joint occurrence of larger differentials and bigger capital inflows contradicts the idea of a tougher credibility problem. People

137 In stock terms, foreign reserves represented 55% of the monetary base at the end of the first quarter of 1979. At year end that share had increased 10 points (to 65%), after an increase in the monetary base of 89%.

138 Baliño [1981] found that with 95% confidence, both deposit and T-bill rates Granger-caused the monetary base.

may not have believed in the long-run sustainability of the “tablita”, but, on average, its short-run preservation was not at stake. The “on average” qualifier is important. As argued persuasively by Heymann [1983], it is difficult to buy the idea of a coherent state of expectations during the Argentine reform process. For instance, non-resident dollar deposits in Uruguay — which are basically owned by Argentina — increased from \$161.1 million to \$274.7 in 1979 (i.e., by more than 70%). During all of 1979 the rate of return on such deposits in Uruguay was lower than LIBOR, with the difference widening after August, when international interest rates started to climb. This piece of evidence indicates the existence of a mass of small, risk averse agents. Truly risk averse individuals were putting their eggs in several different baskets. The magnitude of the change is not marginal, however. This suggests that either risk aversion was increasing at an individual level or that an increasing number of people were taking safer positions, revealing the incoherence of expectations.¹³⁹

Nevertheless, in spite of the differential between domestic and international loan costs, firms continued to borrow from domestic financial firms.¹⁴⁰ This evidence confirms the dependence of most of the Argentine nonfinancial private sector on its domestic financial sector (Table 4.7 below). It is not plausible that Argentine entrepreneurs, especially those in the non-traded sector, were over-cautious and did not want to face exchange risk.

139 The following quotation from Petrei & Tybout [1985] points to the existence of very different behaviors at the same time: “It has been told that speculators ran from one bank to the other, borrowing dollars, exchanging them for pesos which were deposited and used as collateral to borrow more dollars”.

140 According to Cavallo & Petrei [1983, p. 171], “financial costs for small firms were about three times those of large firms”.

TABLE 4.7

DOMESTIC BANKING CREDIT TO THE PRIVATE SECTOR (Rate of Increase, Percent points)				
	1977	1978	1979	1980
1. Increase in Nominal Terms	258	181	229	108
2. Inflation Rate				
a. WPI Variation	147	143	129	58
b. CPI Variation	160	170	140	88
3. Increase in Real Terms				
a. WPI as a Deflator	45	16	44	32
b. CPI as a Deflator	38	4	37	11
4. Devaluation Rate	114	70	63	24
Increase in Dollar Terms	60	65	102	68

NOTE: Includes dollar-denominated loans.

Source: Credit aggregates, Baliño [1987]; inflation rates, ECLAC [1982]; devaluation rates, Vilaseca [1990].

e. **Nominal and Real Interest Rate Variability**

As noted above, domestic rates fluctuated less than their theoretical competitive limits based on uncovered Fisher parity. Furthermore, the variability in real interest rates was much higher than nominal (183% in the case of the lending rate). Thus, contrary to a real model that would predict greater stability in real rather than nominal variables, we found that the opposite occurred. As pointed out by D. Heymann, a model in which monthly inflation rates move erratically and fail to converge to its long run limit, the rate of devaluation plus imported inflation, given the pre-determined rate of devaluation, may give rise to a large variability of the real interest rate, if the rate of interest behaves according to theory. While this is correct, the point we wish to make here is that real variability was exacerbated by the way in which interest rates were set, which shows that banks did not behave passively during this period.

IV.2 QUANTITIES: THE EVOLUTION OF BANK LOANS

Capital inflows into the financial sector during the 1976-79 period were very significant. The BCRA increased its foreign currency reserves by almost U.S. \$5 billion. The cumulative current account result — U.S. \$3.8 billion — represented about 76% of this change (86% in 1978, when the current account showed a U.S. \$1.9 billion surplus).¹⁴¹ The remainder was mostly explained by an increase in the public sector foreign debt. Recorded private sector capital inflows were small (U.S. \$203.1 million in the case of banks, and an outflow of U.S. \$191.1 in the nonfinancial private sector).¹⁴² Nevertheless, the size of the current account surplus may reflect capital movements not captured in the capital account. Given the trade liberalization, using mainly tariffs rather than quotas, and the de facto liberalization of capital movements, it is likely that under-invoicing of imports was pervasive, with also an incentive for the over-invoicing of exports. This would give rise to a larger current account balance than one stemming from pure trade movements. Notice that this is the opposite of

141 According to Canitrot's data, the cumulative current account surplus accounted for 70% of the increase in BCRA foreign exchange reserves.

142 Source: Canitrot [1981, Table A.10], "Inflows of non-compensatory capital" (Flujos de capital no compensatorios).

what happened in the previous 40 years, when capital controls and trade restrictions were pervasive.¹⁴³

TABLE 4.8

DOMESTIC CREDIT: CUMULATIVE INCREASE IN REAL AND DOLLAR TERMS (percent)			
	1977-1980	1978-1980	1979-1980
1. Using WPI as a Deflator	220	120	90
2. Using the CPI as a Deflator	118	58	52
3. In Dollar Terms	796	460	239

Table 4.8 shows the large cumulative increase in domestic credit. The ratio of credit to the private sector to GDP in percentage points was the following:¹⁴⁴

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Credit/GDP	15.1	20.8	23.7	28.8	29.6	40.7

As can be seen from such data, the picture may differ depending on the numeraire chosen.¹⁴⁵ In any case one can conclude that the increase in real terms was far from negligible, and that there was a surge in credit granted to the private sector in 1979. Even the case of the industrial sector reported by the World Bank¹⁴⁶ show a substantial real rate of increase, 14% in annual terms.¹⁴⁷ Notice that the overall increase in dollar terms is

¹⁴³ I thank D. Heymann for making this point.

¹⁴⁴ Source: J. Ramos [1989, Table VIII.6, p. 171].

¹⁴⁵ The increase in real terms may look smaller if the base year for prices is 1975. See J. Ramos [1989, Table VIII.6, pp. 171].

¹⁴⁶ The World Bank Memorandum on Argentina [1983] mentions that the debt of the private industrial sector grew by 44% in real terms between the third quarter of 1977 (when interest rates were freed) and the first quarter of 1980. "The increase was barely higher than the compounded monthly interest rate over the initial debt levels" (pp. 29).

¹⁴⁷ Since the 44% increase took place over eleven quarters, the average rate of quarterly increase was 3.37%. Compound this rate to the fourth power to obtain 14.2% as the annual average rate for the period.

quite astonishing, but it is not captured by the ratio of credit to GDP, which shows the dramatic increase in dollar terms of the Argentine GDP of the period. Banks sought to increase their profits by shifting resources into placements yielding returns that could not be obtained abroad.

When the inflation rate declined once the stabilization plan started to bite, the burden of the debt became unbearable for the Argentine private sector, as we will see later. Of course, an “obvious” way out was an inflationary surge, which would have required an even larger devaluation. But this option could not be taken without other parallel measures, since 15% of total credit had been granted in dollars, and the borrowers were the largest firms in the country (and their creditors foreign or long-established Argentine banks).

IV.3 ON LENDERS AND BORROWERS (OR HOW THE “ARGEN-DOLLARS” WERE RECYCLED

Having referred to the behavior of prices and the evolution of banking credits in the previous sections, our next step is to turn to the ways in which these funds were channeled into the economy. The previous disclaimer about the lack of detailed information also applies here. Referring to the data shown in Table 4.9, Cavallo and Petrei [1983] explain that: “Foreign financing was channeled mainly into the domestic economy by the local branches of foreign banks. These banks applied evaluation rules that were more easily fulfilled by large firms and producers of non-traded goods. Smaller firms¹⁴⁸ and the producers of riskier, traded goods had to get their financing from institutions which operated almost exclusively with domestic funds” (ibid., pp. 173-75).¹⁴⁹ In a later paper, Petrei and Tybout [1985, p. 33], said “we can conclude without hesitation that small firms were less indebted (than large ones), as a result of their own decision or because of restrictions to their indebtedness imposed by lenders”.

148 The authors refer to the smaller firms within the panel which were by no means small by Argentine standards.

149 Petrei & Tybout [1985] also say that only a few Argentine firms had access to world credit markets.

TABLE 4.9

CORPORATE DEBTS (percent)					
	1976	1977	1978	1979	1980
Total Leverage (total debt/net worth)					
small corporations	63	76	90	93	85
large corporations	67	85	100	105	107
non-traded goods sellers	79	90	116	123	104
traded goods sellers	60	82	90	93	106
Leverage in foreign currency (foreign currency debt/net worth)					
small corporations	6	4	5	6	11
large corporations	26	23	33	33	31
non-traded goods sellers	34	21	46	40	35
traded goods sellers	20	22	25	27	35
Short-term leverage (short-term debt/net worth)					
small corporations	55	63	74	82	73
large corporations	50	68	63	63	66
non-traded goods sellers	59	71	57	64	58
traded goods sellers	45	65	66	63	70
Short-term banking debt/total assets					
small corporations	5	13	14	15	11
large corporations	3	14	10	12	12
non-traded goods sellers	4	11	7	8	7
traded goods sellers	2	13	15	14	13
Long-term banking debt/total assets					
small corporations	0	0	3	1	1
large corporations	0	0	7	8	8
non-traded goods sellers	0	1	9	11	9
traded goods sellers	0	1	2	6	7

(continued)

Table 4.9 (cont.)

CORPORATE DEBTS (percent)					
	1976	1977	1978	1979	1980
Short-term banking debt/total assets					
small corporations	5	13	14	15	11
large corporations	3	14	10	12	12
non-traded goods sellers	4	11	7	8	7
traded goods sellers	2	13	15	14	13
Long-term banking debt/total assets					
small corporations	0	0	3	1	1
large corporations	0	0	7	8	8
non-traded goods sellers	0	1	9	11	9
traded goods sellers	0	1	2	6	7

NOTE: Data gathered from a panel of 78 private corporations whose shares were traded on the Buenos Aires Stock Exchange, in the 1976-78 period. The date of those balance sheets was close to mid-year.

Source: Cavallo & Petrei [1983].

The World Bank Memorandum on Argentina (1983, p. 29 ff) distinguished three different groups of banks in Argentina:¹⁵⁰

- (i) Newly established foreign banks, which had the option to operate in the international capital market, chose to concentrate exclusively in that area and specialized in low-risk clients (e.g., firms with low debt/equity ratios). These banks “were hesitant to extend their

¹⁵⁰ The grouping made by the WB is consistent with a statistical study by M. Blanco-Diéguez & E.V. Feldman [1980], covering the May 1978-April 1980 period. They found no statistical difference in the interest rates paid on 30 day deposits when banks were grouped by size, but differences became statistically significant when banks were grouped according to the ownership of their capital. Private domestic banks paid an interest rate that was on average 2% above the one paid by state-owned banks, 1% above the foreign banks'. The latter usually led the lowering of interest rates.

operations and were trying to reduce risk to ensure a targeted short-term rate of return".¹⁵¹

- (ii) The state-owned and long-established foreign banks, which had access to both domestic and international sources of funds. "Their strategy was based on long-term considerations and on past conditions in the Argentine financial market" (which is to say, these banks were really prone to make mistakes when the whole economic environment was changing rapidly). After the financial reform this group tended to channel loans funded with non-guaranteed dollar-denominated deposits to low-risk clients. "They were reluctant to extend the number of clients to whom foreign loans were provided". "Further, high debt/equity ratios and very inelastic credit demand with respect to interest rates allowed the banks to shift to their clients the higher costs of local funding".¹⁵²
- (iii) The third group of banks did not have access to the international capital markets. "They had to rely exclusively on domestic funding and had to offer higher deposit rates to compete with the second group of banks. The clients of these banks were typically higher-risk enterprises, who similarly lacked access to cheaper foreign loans".

The World Bank report on Argentina also noted that foreign funded loans made by banks never exceeded 15% of total loans to the private sector before March 1981. Cavallo and Petrei also observed ¹⁵³ that "the increase in long-term debt relative to net worth took place mainly as a result of an increase in: (i) financing from abroad; (ii) special investment financing provided by state banks; and (iii) refinancing of debts for firms facing financial problems" (this refinancing started in the aftermath of the 1977-78 recession, and "was mainly undertaken by state-owned banks").¹⁵⁴

151 If the marginal agents behave this way the open Fisher parity will not hold.

152 As we have seen before, banks did much more than just transfer the higher local costs to their clients.

153 Cavallo & Petrei [1983, p. 177].

154 Ibid., p. 168.

Thus, the differences between the behavior of debts incurred by producers of exports and by producers of importable goods are striking. The data in Table 4.10 show that most debt was directed to finance firms producing for the domestic market. Furthermore, since the tariff reduction was not effective before late 1979, financing importable goods producers was equivalent to financing nontradable goods producers.¹⁵⁵

¹⁵⁵ It is also interesting to note that, because distribution channels for imports were basically controlled by importable goods producers, these enterprises changed from producing to importing, which meant that prices did not converge quickly to those postulated by the law of one price. By the way, this is another illustration that the “real exchange rate” can be a misleading analytical concept when applied to concrete situations in open economies.

TABLE 4.10

CORPORATE DEBT RATIOS				
		1977	1981 III	1984 IV
Current Ratio	X	1.410	1.224	1.891
	M	1.375	1.390	1.332
	NT	1.301	1.131	1.146
Acid Test	X	0.619	0.545	0.919
	M	0.759	0.693	0.698
	NT	0.756	0.651	0.650
Total Debt to Capital Ratio	X	0.406	0.443	0.440
	M	0.455	0.503	0.531
	NT	0.440	0.543	0.579
Net Foreign Assets	X	-0.007	-0.028	0.015
	M	-0.046	-0.081	-0.122
	NT	-0.021	-0.090	-0.118

NOTES: X – producers of exports

M – producers of importable goods

NT – producers of non-tradable goods

Source: Petrei and Tybout [1985], p.19, Table 2.

Petrei and Tybout [1985] also said:

The composition of industrial credit changed significantly in its source and maturity during the sampling period.¹⁵⁶ For the largest thirty firms in the sample,¹⁵⁷ loans from the banking sector increased from being 28% of total debt in 1976 to 63% in 1981 (including borrowings from finance houses). This reflected the boom in the financial sector, during which loans to the manufacturing sector increased from 5% of the sector GDP in 1976 to 23% in 1980 [excluding financing from finance houses].

(p. 33)

With respect to the maturities, they mentioned that long-term lending displaced short-term loans. For the sample of thirty large firms, long term bank borrowings increased from 5% of total debt in 1976 to 34% of total debt by late 1981. This reflects to a large extent the increase in foreign currency indebtedness which, under Argentine regulations, was generally feasible and profitable in the case of long term maturities only.¹⁵⁸

(p. 33)

Referring to the impact of the 1979/81 program on the industrial sector, they note:

The sectors which continued to enjoy higher tariff protection and/or public support also flourished and helped to mitigate the effects of the drastic fall in the output and employment of other sectors. The new, efficient firm that was expected to emerge to exploit future comparative advantages would have had difficult access to cheaper credit since, by definition, it did not belong to the well-established group of enterprises that had thrived on the protectionist system. For those that belonged to the latter group, it was often easier to turn to importing than to introduce new and more efficient production methods, ...

(p. 36)

¹⁵⁶ 1977-1981.

¹⁵⁷ Note that the sample was not random.

¹⁵⁸ Note that in balance of payments terminology "long term" means more than 364 days.

Basically, the cheapest funds were channeled by banks to the “wrong” sectors, i.e., those that were to contract as the structural reform unfolded and inflation subsided. But these sectors were doing fine at the time the loans were granted. Exports producers were thought to be the riskiest class of producers, and therefore bank behavior reinforced macroeconomic trends.

It is important to highlight the fact that this process took place because banks were doing their job the way they knew it. As shown in Petrei & Tybout [1985] the usual indicators for routine credit granting did not turn on any danger lights. In fact, on average, the usual tests — rates of return, liquidity ratios, and debt to capital ratios of firms — did not look “unsound” at all. Moreover, since many observers were pointing to the persistence of negative real interest rates, banks were probably aware that their lending to non-financial firms was profitable. Of course, all agents were taking market prices as given, questioning neither their sustainability, nor the extent to which banks’ lending policies were affecting those prices.

With the available data it is impossible to study the extent to which relative price paths were affected by these lending policies. Given the monetary arrangement, capital inflows could finance any price level decided by economic agents whenever foreign finance was available. And the “price level” was the outcome of independent pricing decisions by producers trying their best to guess what might be a lasting relative price structure, and who found that demand — for a while — validated price increases well above the rate of devaluation. Further, the long-term loans,¹⁵⁹ not only had a short-run effect on the cycle, but also contributed directly to the malformation of the capital structure of the Argentine economy.

Last but not least, providing cheap financing in dollar-denominated liabilities to borrowers whose incomes were not directly related to foreign markets turned out to be a huge problem when recession hit the economy, leading to massive complications in the external sector, and resulting in recurrent large devaluations.

159 In fact, in the Argentine environment, “long-term financing” refers to loans maturing a year hence, but that used to be rolled over because debtors were not in a position to repay their borrowings. Recall that Cavallo & Petrei mentioned that most of this long term financing was given by state-owned banks.

Note the explanation given by Cavallo and Petrei about the way banks placed their funds: “Those banks applied evaluation rules that were more easily fulfilled...” by those firms that were eventually damaged by the unraveling of the reform process. That is, it was logical in terms of granting credit, to offer those firms financial support. Thus, the banks played an independent role of their own in the cycle that culminated in the crisis, and aggravated the structural troubles of the Argentine economy. An early indicator of this outcome was the banks’ expansion strategy of increasing the number of branches. In a closed economy, like Argentina in the 1970s, trying to be close to potential clients means being close to the producers and sellers of non-traded goods.

The neglect of banking contributed to the implementation of policies that, in the end, stimulated the above-mentioned behavior of the banks, as shown by the following examples:

- a. First and foremost, lowering entry barriers without further ado led to an expansion of the number of intermediaries, and induced entry into the sector of people who lacked knowledge and experience in banking activities, many of them owners of non-financial firms. In 1992 the BCRA’s Superintendent of Banks concluded that this was the origin of the 1980s Argentine banking crisis.
- b. The macroeconomic policy package that led to the jump in interest rates in late 1977 meant a surge in banking costs,¹⁶⁰ which in turn stimulated risky lending activities or, in one extreme case, plain wrongdoing. Simultaneously, since most loans matured within a month, and the great majority matured within a three-month horizon, almost all of the loans which existed at the moment of the reform were rolled over before the end of 1977. This helps explain the drastic contraction in economic activity after the stabilization program that immediately followed the financial reform, and the appearance of the first cases of distress borrowing. The distress borrowing, in turn, created a non-recorded public deficit since it was state-owned banks that refinanced the problem firms.

¹⁶⁰ Notice that the shift in the demand for deposits probably alleviated the increase in banking costs.

- c. The Monetary Regulation account might have contributed in early 1977 to reinforce the trends towards “short-termism” that a high-inflation environment generates,¹⁶¹ contrary to what is usually assumed. Overstating this point, and paying some tribute to conventional wisdom, Cavallo and Petrei [1983, pp. 165-66] mentioned that

the main factor working in that direction [i.e., ‘short termism’] was a system of compensation for interest paid by banks on that part of time deposits that could not be lent due to the high proportion of reserve requirements imposed by the Central Bank. The required compensation changed every month and was known only for the current month. Therefore, banks, when lending long term, not only faced the risk of changing interest rates but also the risk of non-lent time deposit costs that the Central Bank decided to compensate.

However, since financial “short-termism” was not superseded following the steady reduction of reserve requirements, the MRA can not have been the main factor behind this feature of Argentine financial life.

- d. The policy of refinancing problem-debtors created an actual “false demand for credit”. While we do not have much information about the quality of the loan portfolio of state-owned banks, Arnaudo [1987] mentions that during the crisis it was in no better shape than that of the failing private banks. Thus, the state-owned banks could not be utilized as an additional policy instrument during the crisis.

IV.4 A BRIEF SUMMARY

Summing up the findings of this section, it seems difficult to avoid concluding that:

- (i) Market makers played an independent role in the determination of nominal interest rates before the outbreak of the banking crisis. This,

¹⁶¹ See A. Leijonhufvud [1977] and D. Heymann & A. Leijonhufvud [1995] for detailed discussions of the consequences of inflation on asset markets.

in turn, was transferred to the nonfinancial private sector as increased real rate variability. On the whole, recorded interest rates seemed to reflect the behavior of financial firms with some degree of market power. “Pricing behavior in the financial market has had oligopolistic features, leading to high rates of return on assets invested in the financial sector” (World Bank [1983, p. 33]).

- (ii) Banks did not behave passively with respect to the destination of the funds they channeled into the economy. They behaved not perversely, but routinely, which meant “picking winners” the best way they knew. In so doing, they contributed to the over-expansion of sectors destined to be hurt by the unfolding of the economic reform, but looked as good risks in the short term, the only term that mattered in the Argentine financial market. Thus the composition of capital was also biased in the wrong direction.

The World Bank [1983, p. 29] noted five main factors behind “the disappointing results of the financial reform”: the first, “a segmented financial market with a high degree of concentration on the supply side”, and second, an “inelastic demand for credit”. “The high spreads charged by financial institutions, ranging between 0.6% and 3% per month, partly reflected the inelastic demand for credit in a highly concentrated market: 12% of the 209 financial institutions operating in August 1980 accounted for 64%, and the largest 50%, of the total credit outstanding at that date.”¹⁶²

- (iii) The figures on the evolution of real loan volume can be misleading. Moreover, looking at “real” rates is also misleading. Given the financial openness of the economy, the agents linking domestic and foreign financial markets had the option to place the funds they collected from the public either domestically or abroad. The relevant choice was guided by the difference between internal and external rates of interest. The amounts placed have to be translated into the same unit of account. By doing this computation, we find that banks did extraordinarily well in the short-term by lending within Argentina rather than abroad. The increase in their loan volumes reflected this reality. They thought they were exploiting their locational

¹⁶² Note that these figures refer to a date when the two largest bank had already been closed.

advantage to make “sweet money” (borrowing the title of an excellent Argentine movie).

In other words, people — industrialists, traders, and even the common man, might have thought that they were richer than before,¹⁶³ but the validation of these Pigouvian fantasies was delivered by the financial sector. The non-financial private sector was able to monetize part of its assets because the banking sector permitted it.¹⁶⁴

V. THE FINANCIAL CRISIS OF 1980

V.1 OVERVIEW OF THE BANK RUN

As mentioned above, the BCRA had information dating back to 1978 on the problems facing Banco de Intercambio Real (BIR) and other financial firms. The superintendent of banks and, to be fair, the whole BCRA board of governors dismissed that evidence as irrelevant until late in 1979. When near November 1979 the authorities offered the position of superintendent to a different person, they reassured him that the financial sector was doing just fine.

On the other hand, it was commonly believed that the financial sector was suffering from adventurous management, and that the “stars” were involved in sheer gambling. In Argentine terminology, the “city” business was a “financial bicycle”. The first unequivocal visible symptoms of problems in the financial sector appeared during 1979. Twenty financial firms failed that year, five of them banks. This meant a 43% increase in failures of financial firms relative to the previous year. Yet this apparently did not cause much concern. Perhaps it was thought that at last the financial reform was doing its job in this area. The data on business bankruptcies¹⁶⁵ were also a yellow light that did not attract much attention.

163 GDP per capita was about U.S. \$13,000 in 1980, according to the official statistics.

164 I am borrowing from Larry Sjaastad the idea that the credit cycle is, at the end, a partial monetization of private assets. The question is: to what extent does this imply a sort of “activation” of the demand which leads to a surge in asset prices during the recovery and boom phases of the cycle.

165 See the Appendix on distress borrowing, part D).

In early March, 1980 the country's largest finance house, Promosur, went under. On March 28, one of the top banks, Banco de Intercambio Regional, failed. The failure of BIR gave rise to a bank run, concentrated on firms whose recent performance resembled BIR's. A month later two other top Argentine banks — Banco Los Andes and Banco Oddone — went bankrupt, as did another medium-size bank — Banco Internacional.¹⁶⁶ By the end of the year 28 financial firms had closed, 10 of them banks. Due to a high-level political decision, the rate of financial firm liquidations was reduced by half in 1981, but 26 financial firms failed in the first semester of 1982, after the invasion of the Falkland Islands (Malvinas), in the midst of a new bank run. Three other non-bank financial firms were also liquidated in the second half of 1982.¹⁶⁷

BIR had peso-denominated deposits amounting to U.S. \$1.1 billion, and also had about U.S. \$60 million of non-insured foreign currency deposits. The Banco Los Andes peso-denominated deposits added up to U.S. \$1.3 billion. The four banks together held more than U.S. \$3.2 billion, accounting for 20% of total private bank deposits, or 12% of the financial sector total.

Furthermore, when the run occurred the asymmetries created by the deposit insurance scheme encouraged a public perception that the various financial firms were not all equally risky. As the BIR liquidation, decided at the beginning of the crisis, caused depositors to lose all their foreign exchange deposits and the uninsured portion of their peso deposits, there was a strong incentive to reshuffle or simply withdraw deposits. No adjustment was observed in bank deposits, either in prices or quantities following the reduction of deposit insurance coverage that became effective in November 1979. This means that either no risk difference was perceived by the public at that time or that it had not reached a sufficiently critical level to prompt changes in demand.¹⁶⁸

166 According to Diéguez & Petrecolli [1980, p. 431, fn. 4], as of June 30, 1979, the BIR was the largest private bank in terms of deposit holdings, Banco de los Andes was the third, and the Banco Internacional was the fifth among private Banks with headquarters in Buenos Aires. Banco Oddone had not been allowed to open yet.

167 The distress in the Argentine financial sector did not end in 1982. Failures of large banks have also happened in recent years, as will be mentioned later.

168 See M. Blanco-Doegiez and E.V. Feldman [1980] for a more detailed analysis of this point.

Bear in mind that most deposits had a maturity of 7 to 30 days. This, of course, put more pressure on the short term inter-financial firm market. According to Baliño,¹⁶⁹ this was “drying up.” By June 1979, this market had daily operations of about 3% of financial sector reserves (Demaestri [1981]). In this market, loans were made without any special collateral, and most maturities varied between one and ten days, the most frequent maturity being seven days. Thus, if this market did not change much up to the surge of the crisis, the outstanding operations accounted for something between 3% and 30% of the total reserves of the financial sector, the average being closer to 15-20%. Therefore, the mere reshuffling of deposits alone was able to create a lot of action in the financial sector.

The authorities reacted promptly in order to stop the panic. On April 3, 1980 lender-of-last-resort facilities were enlarged to cope with the current run. Also, the BCRA de facto increased the maximum size of fully insured deposits by a multiple of one hundred, retroactively to November 18, 1979, when the new regime became effective. That measure augmented the minimum amount insured to about U.S. \$64,000. In spite of BCRA's financial assistance, which doubled from September 1980 to March 1981, the distress persisted. During the March 1980 to March 1981 period, the number of liquidated firms within the financial sector ranged between 28 and 42, totaling 20% of the deposits in financial firms (about 3% of GDP). Beginning in July, 1980, there were clear symptoms that a credit crunch had begun to develop, becoming dramatically worse from December on. Since Arnaudo [1981, p. 32] mentions that only small-size banks suffering slight to moderate withdrawals of deposits and medium-size banks with small losses did not attempt to cut their loans to the private sector, it is clear that the banks' reaction to the run was a force behind the credit crunch.

V.2 SHORT STORIES FROM THE WRECKAGE

a. Promosur

Promosur was the biggest financial house in Argentina. It had developed very quickly by raising public money and channeling it into

¹⁶⁹ Piñero Pacheco [1981] notes that the BIR did not have access to the interbank (call) market. Therefore, its failure cannot directly account for the movements in this market.

purchases of public transportation buses in downtown Buenos Aires. Thus, the overwhelming majority of its loans was concentrated in this sector. When the BCRA took the firm over, its managing director — a 25-year old, who did not look very formal according to BCRA authorities of the time — felt that the supervision was not doing its job properly. He explained that he had worked out a financial scheme that the supervisors were unable to understand. The scheme, better known as the “French installment payments” in financial mathematics, meant an increasing installment pattern that led to a heavy concentration of payments at the end of the loan, which in turn implied the need of refinancing the sources of funds until larger revenues began to be received.

b. The BIR

When the BIR was examined in November 1979, it was crystal clear to the new supervisory team that the bank did not have much of a future. The owner, Mr. Trozzo, complained loudly about the abuses his bank had suffered at the hands of these people. As he told the political authorities, it was the first time that a second rate official had spoken showing no respect to him.

After some discussion Mr. Trozzo agreed to sell the bank, but it was difficult to find a buyer. In February, as part of negotiations expected to end in the purchase of the bank, one of the BIR’s most important clients led a group of investors to manage it,¹⁷⁰ but they needed a month to make their decision; a term that had already been granted by the Finance Minister. The potential buyers received some stimulus from the seller: the bank gave them a U.S. \$50 million loan to finance its purchase, and — because of the generosity of the firm — 10% of the money would remain with the seller (i.e., the charitable Mr. Trozzo).¹⁷¹

This was not quite a novelty. Usually the bank granted credit to clients, asking them to buy some BIR stocks with a portion of the loan. By recourse to such a device, Mr. Trozzo managed to keep the quotation of BIR stocks high, and the clients were able to negotiate better terms for their loans.

¹⁷⁰ The legal counselor of the group was a prominent journalist and lawyer who was a distinguished supporter of the military regime.

¹⁷¹ At that time Mr. Trozzo left the country for good.

The investors who took over the bank had not been involved in banking before. But, due to a requirement imposed by the supervisors, they had to hire a banking expert to manage the bank. Consequently they hired a person who had worked with an established large private bank some years before. But it turned out that this person was the only employee to have been dismissed as incompetent by the new superintendent of banks, when he had worked as a general manager of that bank some three or four years earlier! Still, the government did not really oppose selling the bank to the new investment group. However, the new management was in charge for only a few weeks, as the bank failed within two months.

c. On “Related Loans”

It was typical for banks — especially the new ones — to channel a significant portion of their resources into firms owned by the banks’ proprietors. These so-called “related loans” became so prevalent that the bank supervisors could no longer tolerate the situation. Therefore, when the regulatory threshold was reached, the board of the bank could either engage in plain illegality or seek a financial agreement with the board of another bank facing the same constraint. As a consequence, one bank would lend money to another bank’s firms on the basis of a reciprocal understanding that the second bank would be truly responsible for the debts of the firms. Sometimes, this deal was collateralized via checks.

The failure of the Banco Internacional followed this pattern. It was owned by the Sasetru Group, a large producer of exportables. When the group encountered liquidity problems, the bank went under immediately, even though formally it had followed the rules. Of course, in this context, illiquid nonfinancial firms were completely bankrupt.

Another lending practice was to grant loans to strawmen borrowers, with the money immediately channeled to the person granting the loan. Sometimes this practice had a paternalistic bent of very “generous” lending and sometimes encouraging borrowers to ask for more money than they needed.

V.3 THE BANKING CRISIS WAS UNEXPECTED

Irrespective of what people in the street said, the banking crisis was not expected by the authorities, as I was assured by the person in charge of handling the crisis. Furthermore, the authorities did not think of this phenomenon as something that “really” mattered. Even as late as May 1, 1980, the Secretary of Economic Programs, Mr. Klein, claimed that “the liquidation of BIR and take-over of three financial institutions derives exclusively from the anomalous behavior of their managers” (quoted by Heymann [1983, p. 465, fn. 94]).

As mentioned before, neither the chairman nor the board of the Argentine Central Bank paid much attention to banking developments till late 1979.¹⁷² The BCRA Center for Monetary and Banking Studies followed the steps of the board, and produced basically no written papers touching upon these issues during this period. The Bank seemed to have collected enough pieces of information warning about the weakness of failed firms, but those pieces were never put together. Baliño and Arnaudo and Conejero mention that the banking crisis could have been forecast using the information in the hands of BCRA. Moreover, Baliño states that available data suggest that between 1977 and 1981 there was a drop in the percentage of firms audited by the BCRA.

Of course, the sheer weakness of bank supervision is another indicator in that respect. Again, the BIR case serves as an outstanding example to illustrate the point. In August 1979, a month after its New York branch was opened with governmental approval, the BCRA decided to carry out a new on-site examination of the bank. It was basically stopped by the intervention of Mr. Trozzo’s military friends.¹⁷³ The auditors had discovered a loss of about U.S. \$20,000, and the dossier ended up somewhere in the superintendent of banks’ office, when the new superintendent took office. In January, the BCRA auditing team did not reach a figure for the BIR losses before a private auditing firm did. The January monthly loss amounted to U.S. \$50 million, and cumulative losses

172 One sad story has it that once the BCRA chairman was informed of a large loan made by the BIR to the brother of its chairman, the former quickly dismissed this by asking: “What is wrong with lending money to the brother of a bank’s chairman?”

173 Two brigadiers were on the board of directors of BIR. The presence of Army personnel on the board of all sorts of corporations, regardless of their reputation, was quite common.

on the loan portfolio were not less than U.S. \$400 million, according to the Arthur D. Little Intl. report. Thus, even when the Finance Minister and BCRA authorities knew that the bank was in deep trouble, they did not have a true estimate of how deep this was until the moment they closed it. It is important to remember that here we are talking about the most visible case.

One of the most relevant pieces of evidence showing that the crisis was not anticipated was that the existing banking regulation was not resourceful enough to handle the problem. First, the insurance deposit scheme was redesigned in November 1979, lowering its coverage, just a few months before the bank run. Furthermore, Diéguez and Petrecolla [1980, p. 434], mentioned that “according to journalistic accounts never contradicted, on the eve of the quake the very Central Bank was studying how much and when the deposit insurance was to be decreased”. As indicated above, the insurance deposit coverage was later increased by a factor of one hundred. Second, the lender-of-last-resort facility had to be widened immediately after the run broke out.

Also, the BCRA applied the theory of “implicit powers” (for instance, that an agent allowed to do more is also allowed to do less), to take over the Oddone, Los Andes and Internacional banks (they were eventually closed and liquidated). A special act had to be passed in August 1980 to legitimize those takeovers. In January 1981 new prudential regulations were put into effect, and it took until January 1982 for the government to pass a more comprehensive act giving more powers to the BCRA to handle banking crises. Thus, the economic theory on which existing regulations were based did not assign any significant probability to the occurrence of the events that ensued. Mario Alberto Bonfanti, head of the Legal Affairs Department of the BCRA during this period mentioned (Bonfanti [1983, p. 241]) that Argentine legislation followed the premise of “facts prior to the rule”. Since Argentina had never experienced a problem like this before, it goes without saying that the existing legal framework was not designed to cope with this kind of trouble. Another interesting point that follows from Bonfanti’s paper is that the first drafts for the new act rapidly became obsolete, as the unfolding crisis itself offered new clues for understanding the consequences.

Another conclusive piece of evidence was the rejection of the advise from Arthur Little Intl. quoted below and the rapid adoption of the “market solution” (up to a point), while, according to Bonfanti, two of the premises of the new law held that the rescue of financial firms was less costly than their liquidation, and “the liquidation of financial firms, for a contrapositive argument, contributes to accentuate distrust in the system, vulnerable to rumors that disturb the marketplace for a while” (Bonfanti, *ibid.*, pp. 243).

V.4 THE BANKING CRISIS STEMMED FROM A SOLVENCY PROBLEM

An important permanent effect of the liquidity crisis was that it brought a widespread solvency crisis to the surface, and exposed all the gambling and wrongdoing in which many banks had been involved.¹⁷⁴ The crisis also brought about a run, after the BCRA closed Promosur and BIR within a few days of each other. At that stage, the unequivocal insolvency of failed firms, and the widespread rumors of the financial weakness of other “stars” prompted the panic, which led to the failure of the Los Andes, Oddone and Internacional banks.¹⁷⁵ Furthermore, the information that the banks were being assisted by the BCRA was sufficient to trigger a run on all the banks involved.

As in other episodes, private banks initially not affected by the panic, did not want to collaborate with the BCRA in financing the crisis. Moreover, a committee formed by private banks before the failure of BIR advised the superintendent that closing the bank was the safest way to go.¹⁷⁶ They more than likely also expected to reap some gains from the

174 Note that the 1982 crises in Chile and Uruguay did not feature a bank panic as experienced in Argentina. On the other hand, there was a bank run during the 1965 Uruguayan crisis. This is one of the many similarities between these two episodes.

175 The Bank Oddone failed after having lost 95% of its deposits in less than a month.

176 It is worth mentioning that Arthur Little Int'l. advised BCRA about the consequences that "the ruin of the BIR" would bring to the Argentine banking community. It mentioned the case of the German Herstatt Bank, which they said, "certainly did not involve the amount of money involved in the present situation". "A successful rescue of the BIR will be a public service of the highest level to be delivered by all interested parties".

debacle of weak firms (which happened to be mostly newcomers).¹⁷⁷ Also, as Roque Fernández reminds us, “although many financial firms had been liquidated before, no such side effects on other financial firms were then observed”. In the same vein, Arnaudo [1981, p. 29], said “the liquidation of one bank and the taking over of another three brought about a financial crisis in March and April, 1980, whose consequences were much more significant than could be foreseen”.¹⁷⁸ Furthermore, Arnaudo’s first reaction was that the financial crisis was over by June/July, 1980, implicitly assuming that the only relevant issue in the episode was the liquidity crisis. In Arnaudo [1987] the chapter assigned to the financial crisis covers the 1980-82 period, however. The BCRA, that did not even mention the episode in its 1980 Annual Report, but stated in a 1992 private communication to the Latin American Center for Monetary Studies that the crisis started in 1979 and ended in 1985, taking the number of bankruptcies in the sector as its norm.

The aloof position of the “strong” private banks had to change as the crisis unfolded and the stability of the whole sector became seriously threatened. As noted before, the public perceived that various firms entailed different levels of risk, irrespective of the changes in deposit insurance, which — by the way — did not involve the insurance of dollar-denominated deposits. There was a noticeable “flight to quality”. Even here, the panic and the associated liquidity crisis were not the source of bank failures. The root problem was the solvency crisis. Banks had lent their resources to the wrong borrowers and had been involved in liability management and other unsound practices (to be polite) for quite some time. When the liquidity crisis broke out, deeper troubles rose to the surface.

Another indicator of the kind of crisis faced by the Argentine banking sector was the fact that new bank failures and bank runs occurred soon after the first episode, leaving the private national banking sector on the brink of disappearing. There are at least two explanations for why it took

177 The conservative journal *La Nación* said on January 27, 1980: “The Central Bank is receiving data on loan recovery problems by financial institutions. Even when this information is not yet complete, the authorities estimate that the system in general has no great difficulties of that kind. Although some institutions may face abnormal situations as a result of their credit policies, the preoccupation is not general” (Quoted by Heymann [1983, fn. 93, p. 465]). It is difficult to believe that this was an innocent statement by an inadvertent journalist. It sounds like advertising from “serious” banks.

178 “...una crisis financiera que alcanzó mucho más trascendencia de la previsible”.

a while for those failures to be realized. Firstly, the political authorities attempted to repress economic reality as a way of controlling the political debate.¹⁷⁹ Second, as Bonfanti observes, the Argentine authorities were learning about the significance and dimensions of the banking crisis as it unfolded and did not want to keep on doing things they might regret a little later.

The solvency crisis had another political dimension as well: in the reshuffling of credits produced by the crisis, the provincial-owned state banks tended to end up with the worst debts, sowing the seeds of fiscal problems (instead of purely banking ones) in the future.

VI. BANKS AND MACROECONOMIC OUTCOMES: II

VI.1 THE CRISIS, ITS INITIAL TREATMENT AND CONSEQUENCES

a. The Macroeconomic Approach

In order to assess the magnitude of the banking crisis, we now review the extent to which the BCRA assisted problem banks. By the end of April, the BCRA's advances to financial firms were more than U.S. \$2 billion, about 27% of the monetary base, and a month later they accounted for 40% of the monetary base. At the end of the year, BCRA's financial support to the financial sector reached U.S. \$5.6 billion, a figure somewhat larger than its credits to finance the government's deficit, which explained 50% of the outstanding monetary base. The year before, BCRA's lending to the financial sector had represented just 6% of the monetary base.

The overt liquidity crisis seems to have subsided by June. Then, optimistically, the BCRA decreed an increase in reserve requirements. In the same vein, Baliño [1987, p. 47], mentions that the measures adopted by the authorities "succeeded in stabilizing the situation gradually. Aggregate deposits fell in real terms immediately after the start of the crisis, but by August they were already above March levels". Nevertheless,

179 Of course, the mismanagement of the economy was used as a strong argument showing the incompetence of the incumbents.

in September reserve requirements were again lowered by the BCRA. Also, BCRA's financial support to the financial sector was a major factor behind the monetary expansion in the months following March.

The immediate consequences of the crisis relate basically to the workings of the financial sector and the foreign exchange market. First, as was shown above, this is one of the periods in which the behavior of interest rates is difficult to explain based on macroeconomic considerations alone. In particular, the level of real interest rates became a central issue.¹⁸⁰ Also, as indicated in the Appendix, since mid-1980, if not from the beginning of the second quarter, a credit crunch rapidly unfolded. This happened in spite of the banking sector as a whole having regained the previous level of deposits, as stressed by authors like Arnaudo and Baliño. It has to be emphasized that this is one of the significant facts showing that this crisis was not a "money-crisis" à la Friedman.¹⁸¹ The following table (Table 4.11) from Arnaudo [1981, p. 32], clearly shows the influence of bank behavior in the surge of this credit crunch.

Arnaudo's comments on his table were that in the case of "... large banks facing a medium- or large-size withdrawal of deposits and medium-size banks facing large withdrawals this procedure (i.e., the contraction of loans) was not enough, and they had to rely massively on the lines implemented by the monetary authority." So the first reaction of banks was to contract their lending. This, of course, is consistent with the reaction of a central bank that has no expertise in handling bank panics and has the management of a fixed exchange rate as a central duty.

Two other factors help explain the credit crunch. First, was simply the closure of financial firms, whose clients could not immediately change to alternative sources of funds. In the midst of the financial crisis, when the recession began and the share of non-performing assets in banks' balance sheets were increasing, being a former client of a failed bank is

180 R.Fernández [1983, p. 87] motivates his concentration on real interest rates by saying: "Given that the problem was – In 1980, as well as in 1981 and in part of 1982 — the real rate..." [emphasis added].

181 "In the Argentine financial crisis of 1980-1982 Friedman's interpretation is not consistent with the sequence of events; the BCRA not only managed to increase the nominal quantity of money, but also managed to increase the real quantity in prior years and during the first year of the crisis" (Fernández [1983, p. 79]).

not the best signal to inspire confidence in a potential lender. Second, in spite of the fact that the system as a whole had regained the pre-crisis level of deposits, as indicated by Baliño, the reshuffling of deposits among financial firms made private Argentine banks illiquid. The “new distribution of deposits changed in favor of state and foreign institutions, a pattern that persisted over time” (Baliño [1987, pp. 47]). So, we find at the same time a credit crunch, without a simultaneous overall liquidity problem, while some banks were facing a significant and permanent decline in their market shares. Furthermore, these very banks were the natural candidates to which the clients of failed banks needed to turn to obtain continued finance.

TABLE 4.11

MEASURES TO FACE THE WITHDRAWAL OF DEPOSITS SIZE OF WITHDRAWALS			
Bank Size	Small	Medium	Large
Small		Usual Measures	Loan Contraction
			BCRA Assistance*
Medium		Loan Contraction	Loan Contraction
		BCRA Assistance*	BCRA Assistance*
Large	Loan Contraction	BCRA Assistance	Loan Contraction
			BCRA Assistance

* Relatively small financial support.

The information in Table 4.12 below, taken from Baliño, shows the fore-mentioned change in market shares. It is just one indicator of the extent of the flight to quality that reveals a dramatic change in expectations.

TABLE 4.12

ARGENTINA: DISTRIBUTION OF DEPOSITS AMONG GROUPS OF FINANCIAL FIRMS (percent)			
	State Banks	Foreign Banks	Other Firms
March 1980	36	9	56
April 1980	41	10	49
May 1980	44	11	46
June 1980	43	10	47
September 1981	39	12	49
June 1982	40	13	47
June 1983	48	12	40
March 1984	45	15	40

Source BCRA. Extracted from Baliño [1987], p. 47, Table 22.

Most significantly, Heymann [1983, p. 415] points out that the “financial crisis produced a sudden change in the demand for foreign exchange”,¹⁸² And Fernandez [1980, p. 5] observes: “... the credibility in the exchange rate policy decreased substantially during the BIR crisis, which obviously reflected in the dollar quotation at the exchange houses (retail level), reaching values significantly larger than the ones announced by the BCRA”. In order to stop the attack against the peso, the BCRA tried to sterilize the increase in the monetary base by an intensive use of open market operations.¹⁸³ In spite of that, between March and May, 1980 BCRA’s international reserves fell by U.S. \$1.5 billion. “This did not pose an immediate threat to its foreign liquidity, but [together with the publication of higher than expected figures for the external debt] it signaled

182 Arnaudo [1981, p. 30] also states: “The run towards the foreign exchange market was noticeable and simultaneous to the financial crisis” (He is referring to the April to June period).

183 By late April a top advisor to the chairman of BCRA, Dr. Ricardo Arriazu, said that “there would be an unbounded increase in the interest rate until the end of speculation with the dollar” (Ambito Financiero, April 22, 1980; quoted by Sourrouille and Lucángeli, p. 84).

that the balance of payments situation was more fragile than previously thought” (Heymann [1983, pp. 415-16]). By the end of the year, the decrease in foreign reserves added to U.S. \$2.8 billion. In fact a sizeable increase in external debt, basically incurred by state-owned nonfinancial firms (Arnaudo [1987, p. 130]),¹⁸⁴ helped stem the decline in international reserves of the BCRA, as shown below.

Simultaneously, huge private capital outflows were recorded. Parino and Peña [1982] examined the temporal path of some types of transactions basically showing capital movements.¹⁸⁵ They found that movements in “non-specified transfers” during the fourth quarter of 1979 were clearly larger than the ones recorded in the three previous quarters, but of the same order as the ones in the fourth quarter of 1978, which suggests the presence of some seasonality. From the beginning of the first quarter of 1980, this type of transaction skyrocketed. They observed that “outflows occurred for the most part during the period that runs from late 1979 to the first quarter of 1980. ...During that period several events took place that led to an acceleration in foreign exchange outflows. The first one is the failure of BIR in March 1980 that provoked a surge in public distrust on the working of the financial system, inducing it (i.e., the public) to exchange peso-denominated assets into foreign currency-denominated ones...” (ibid, p. 12)

These capital outflows and the slowing down of the drain of BCRA’s foreign exchange reserves were ultimately financed by a remarkable increase in public sector external debt, which incidentally shows that private sector expectations were clearly less dispersed than before the financial crisis occurred.¹⁸⁶ According to Parino and Peña [1982, p. 12], the

184 This is not clearly seen in the usual presentation of the balance of payments because the indebtedness of state-owned non financial firms are recorded under the heading “other sectors”, which includes all nonfinancial firms, both private and state-owned.

185 Among other things, these authors rely on the information contained in “Exchange Balance”, a statement created in Argentina in 1978 to record daily foreign exchange market transactions. One of the items in this statement was “non-specified transfers”, which surely included some not otherwise recorded current account transactions but mostly reflected capital account operations.

186 “The chain of bank failures and the revelation that large business groups were not able to meet their debts naturally strengthen criticisms of the economic program. The government repeatedly denied that it planned an unscheduled devaluation, but it had become clear that its policies could hardly remain unchanged” (Heymann [1983, p. 416]). Furthermore, in July 1980 another policy package was launched, whose objective was to reduce domestic interest rates and improve the balance of payments.

Argentine public sector was still a net creditor to the rest of the world by an amount of U.S. \$579.3 million, by the end of 1979. By late March 1981, it had become a net debtor by close to U.S. \$12,500 million, which implies an increase in net external debt of about U.S. \$13 billion (a figure very near to the 'non specified transfers' accumulated since the beginning of 1980).

Let me refer to some facts and opinions clearly indicating that the financial crisis was central to macroeconomic developments in 1980, and the following years. They also show that the set of policy instruments available to the authorities was shrinking as the crisis unfolded and persisted. According to Elías and Arranz [1984, p.64], the turning point in the Argentine business cycle is February 1980, exactly the moment at which the banking crisis erupted, and the deceleration in economic activity was visible in the second quarter of the year. These authors estimate that this phase of the cycle lasted until January 1981. Heymann [1983] shows that manufacturing GDP started a sharp decline by late 1979, while overall GDP expanded by 1 per cent from the first quarter of 1980 to the same period of 1981.

The anti-inflationary strategy found among its major obstacles the increase in public sector spending and deficit, the financial crisis started towards the end of the first quarter (which had significant consequences for money issue and confidence in the sustainability of the economic policy), and the critical economic and financial situation of firms in the export sector or in the production of importable goods. This situation spread through the financial system, prolonging the instability that had its origin in the first quarter crisis.¹⁸⁷

Heymann [1983, p. 419] observes: "Monetary policy once again faced a dilemma. Defending the exchange rate required strict limits on domestic money creation, especially if internal prices had already 'overshot' their 'steady state' values. But, on the other hand, there were strong pressures to expand. The very fragile financial system continued to demand rediscounts from the BCRA, which the authorities granted for fear of provoking more failures".

¹⁸⁷ ECLAC [1981, p. 45]. Emphasis added. Translation by the author.

Referring to the collapse of the Martínez de Hoz's economic plan, Dornbusch and de Pablo [1988, p. 57] note: "The increasingly evident overvaluation of the peso was not the only cause of unrest. The failure of some significant banks, as a result of dishonesty in their management, created financial uncertainty and forced the government to take over these institutions".¹⁸⁸

b. Economic Performance at the Firm Level¹⁸⁹

In this paragraph we review firm level data to present another set of indicators showing that the financial structure of the economy did play a role in the Argentine macroeconomic process. Petrei and Tybout [1985] (P&T) and Petrei and de Melo [1985] (P&deM) are the basic papers to consider in this respect, especially the former.¹⁹⁰ This paragraph relies heavily on these two sources of information and analysis. By using accounting data P&T explore the significance of what they call "financial subsidies" in explaining firms' economic performance. Note that accounting data take market prices as a given. The gross rates of return were positive and high in the corporate sector up to mid-1980, when they become negative, except for exportable goods producers, whose rate of return became negative by a small amount during less than two quarters, beginning in late 1980. The decline in gross rates of return was steady until mid-1981, when they recovered a little while still remaining negative. Thus gross rates of return became negative when real interest rates increased

188 Note the disproportion between the assessment of the causes of the crisis and its consequences. If such non-linearities were really present, the instability of the banking sector would be even more marked than occurred in this episode. On the other hand, we have shown that dishonesty was a terminal disease that surged because of other problems; it was not the main factor behind the banks' generalized weakness. Dornbusch & de Pablo's brief comment also points to the fact that the deep problem was the solvency crisis, not illiquidity.

189 "In spite of the fact that this micro-financial nexus was admittedly critical in the Argentine experience, it lacks a systematic analysis. This lacuna in our comprehension of the effects of the liberalization and stabilization policies can be attributed largely to the tendency of researchers to trust easily observable sectoral and macroeconomic data" (Petrei & Tybout [1985, p.17]).

190 Cavallo & Petrei [1983] is an early attempt in this direction.

dramatically in the second half of 1980.¹⁹¹ Notice that by that time the BCRA had to reduce its financial support to the financial sector because it also needed to help finance the government, while subject to the constraint of keeping the tablita alive. In their assessment of the data, Petrei and Tybout concluded that financial costs were responsible for the decline of the industrial sector in 1980 (p. 26).

But what is most striking of P&T's study is the significance of their "financial subsidies" to explain (real) rates of return in the non-financial corporate sector. They define the "adjusted rates of return" (ARR), as incorporating "all gains and losses originated in changes in the purchasing power of monetary items and are proxies of real rates of return on net wealth" (p. 21). These rates are typically larger than the usual ones, because firms usually were net debtors and the average¹⁹² real interest rate was negative most of the time. Besides, the time pattern of these rates by sector show that producers of goods destined for the domestic market (i.e. importables plus non-tradables) fared much better than exporters.

Furthermore, as P&T remarked, ARR's show that both the importable and nontradable sectors improved their profitability between mid-1977 and 1979, something that could not be seen by looking at the usual rates of return. "While real rates of interest were increasing and kept the non-adjusted rates of return at a low level, net debtors were profiting, conveniently, of the reductions in the real value of their liabilities provoked by inflation. The importables and nontradables harvested the largest gains since they were the sector more heavily indebted in dollars" (p. 22).¹⁹³ ARR's fell dramatically during 1980, when the decrease in inflation was not accompanied by a corresponding decrease in nominal interest rates.

191 They also show that actual gross margins in the export and import competing sector were not squeezed as the real exchange rate appreciated during 1978 and 1979. They contracted in 1980 and substantially increased after the fivefold devaluation of the Argentine peso that took place in 1981. Gross margins were more volatile in both tradable sectors than in the non-tradable sector.

192 That is, the average of dollar- and peso-denominated liabilities.

193 They went on to say: "Returns on dollar liabilities explain the euphoria in the financial sector in Argentina by the late seventies. It has been said that speculators went from one bank to the other using just borrowed dollars to buy pesos that were invested and used as collateral to get more dollar denominated loans. In fact, this speculative practice became preponderant, and made the entrepreneurial enthusiasm for productive activities decay" (ibid, p. 22).

Of course, as the macroeconomic performance worsened and the likelihood of a devaluation increased in the first quarter of 1981, (real) financial costs surged.

The solvency of firms as measured by the debt to capital ratio also began to deteriorate as this ratio showed a steady increase in 1980, when ARR_s declined. Thus, this ratio “rather responded to the need to cover losses than to the incentives to raise profits” (P&T, p.33) that existed prior to the financial crisis. Note that the decline in rates of returns and ARR_s was triggered by the increase in real interest rates. P&T also mention that “the high propensity to indebtedness in firms belonging to the importable goods and non-tradable goods sectors explains why these are more responsive to changes in average financial costs” (p.33).

P&deM interviewed top executives of nine Argentine firms,¹⁹⁴ which before the reforms “almost always had access to credit at highly subsidized rates” (p.57). It is not surprising that 7 of them concluded that the high cost of working capital was a very important unfavorable change due to the Argentine policy package of the late 1970s. The remainder considered that it was “important”. On average, this item received a score of 3.8 in a range from 0 to 4, while the lower domestic currency value of exports was rated 3.1. It is interesting to note that the only producer of the sample to whom exports constituted the bulk of its sales gave both items a grade of 3.

When asked about firms’ adjustments to the new policy, the executives on average ranked being more cautious in financial issues highest (3.33). Designing new products was the next highest at 2.56. Petrei and de Melo concluded: “As expected, the scores on financial adjustment indicate that managers had to become more cautious about monitoring financial costs. This lesson turned out to be very costly to learn. The policy of negative interest rates was so ingrained in Argentina that the rule of ‘obtaining as much credit as possible’ was an axiom for most firms. Changes in the financial system came fast, so many firms were taken by surprise by high interest rates” (p. 61). They also observed that “the

194 The firms belonged to different sectors. Their range was as follows:

- (i) number of employees, from 150 to 1500;
- (ii) sales (in 1981 U.S. million of dollars), from 4 to 239.
- (iii) share of exports in sales in 1981 from 0 to 95%, but the last number is a single outlier. Exports did not account for more than 10% of total sales in the remainder.

interviews indicated that managers devoted increasing time to firm financial management” (p. 70).

As expected, the beginning of the recession was reflected with a decline in the rotation of assets, which intensified in 1981 (P&T, p. 30). This is consistent with the observation that capacity utilization did not fall very much during 1980, and that inventories were held at low levels because of high financial costs.

In summary, in spite of the drawbacks of accounting data collected at the firm level, this intelligence consistently shows that the financial structure of the economy did matter in determining macroeconomic events, both before and after the banking crisis. In particular, the surge in financial costs associated with the financial crisis triggered a noticeable worsening in non-financial firms’ balance sheets. This information is consistent with our express view that the banking crisis was a very relevant factor behind the Argentine macroeconomic evolution in 1980 and 1981.

It is also interesting to note that the financial crisis impinged on the way entrepreneurs allocated their working time. Because of soaring financial costs they had to devote more time to handling financial problems, instead of concentrating on the management of other aspects of their firms, in which they probably had a comparative advantage.

VI.2 BAILING OUT THE PRIVATE SECTOR: FROM LATE 1980 TO JULY 1982

As the crisis unfolded it was realized that banks’ borrowers deserved specific attention. First of all, the ratio of non-performing and problem loans to total loans granted by banks was increasing steadily. This spelled lasting problems for the banks. But that was not all. The progression of the credit crunch meant that trade credit became more relevant as a marginal source of funds for the firms whose banking credit had been cut off. For instance, P&deM (p. 63) mention that “as working capital became more costly, most firms tended to adjust by shortening the period of installment credit to customers”. Thus, trying to soften borrowers’ problems with banks was a means to revamp the whole credit chain.

a. Peso-Denominated Liabilities

The measures undertaken to provide some relief to nonfinancial borrowers were as follows.¹⁹⁵ First, during November and December, 1980, the “BCRA announced that it would be prepared to make advances to financial institutions at a much longer term (one year) than prevailing deposit maturities” (Baliño [1987, p. 48]). In April 1981, after the first round of devaluations, a new regulation to refinance “business debt” was passed. It provided for the allocation of funds, first by auction and later directly to financial firms of up to 12% of their deposits at market related rates (ibid, p. 48). This scheme was discontinued in November 1981, when a more ambitious plan was launched. But, since a new military government displaced the one that took office in March 1981, this scheme had a short life. The new economic team tried to rely on market mechanisms and free interest rates. On April 2, 1982 the Argentine government invaded the Malvinas and the free market approach fell prey to political reality, in the midst of a new overt financial crisis.

Wartime was not the proper time to solve this problem. Furthermore, the Río de la Plata area, Uruguay included, was declared a highly risky zone by the financial world, contributing to the deepening of financial troubles. The military authorities that waged and lost the Malvinas war were replaced in July 1982. By then, what began to be called “the problem of the internal debt” was very much alive.

We now turn to the measures adopted up to July, 1982 to provide relief to agents indebted in dollars, and subsequently we will consider the policy package launched in the second half of that year.

b. Dollar-Denominated Debt

Given that the vast majority of holders of dollar-denominated liabilities were producers of goods destined for the shrinking domestic market, the explosive devaluation process that started in February 1981 and brought about a cumulative fivefold devaluation of the Argentine peso during the year, would have led to an immediate generalized bankruptcy

¹⁹⁵ The source of these pieces of information is Baliño [1987], which includes a fuller description of the measures.

of non-exporting Argentine firms. Furthermore, defaulting on foreign debt would have carried with it unwanted consequences for the government's ability to raise fresh funds abroad, a year and a half before Mexico's default (i.e., when it was still "easy" to obtain money from foreign sources).

Baliño's [1987, pp. 53 & 55] describes these measures concisely:

One of the first measures was to compensate some borrowers for the increase in the peso value of their debts that resulted from the devaluation of the peso of June 1981. This compensation covered debts incurred or renewed between January 1 and May 29, 1981 that matured until the end of that year subject to the requirement that the debts be rolled over for at least one year. In addition, an exchange insurance scheme was established which resulted in a subsidy to the borrower insofar as the premium charged was below the actual rate of devaluation.¹⁹⁶ Over time the scheme was enlarged and made even more attractive as Argentina's reserve position deteriorated and the authorities tried to induce borrowers to renew their foreign credits.

From the beginning the subsidy incorporated in these measures was very substantial. The foreign exchange insurance made the ex-post costs of foreign currency-denominated debt negative: "... the subsidy granted by the 1981 program seems to have been enormous, and on average, seems to have compensated firms for any deficit suffered that year in their operational incomes" (P&T, p. 23). And later, "the magnitude of the subsidies obtained by the industrial sector via financial transactions is quite surprising ... during this last period (1981), the industrial sector depended much more on favorable financial conditions to survive" than

196 The criteria to calculate the premium varied over time, but two were quite common: the wholesale price index and the domestic deposit interest rate. The subsidy in the insurance scheme resulted from the peso's significant real depreciation and from the fact that the domestic deposit rate did not fully reflect this depreciation. Moreover, in many cases borrowers could choose the criteria for the adjustment of their exchange insurance premium between two indices — at least. The cost of the subsidies implicit in the insurance scheme were borne by the Central Bank, which also bore the losses caused by swaps. (p. 53, fn. 2)

on their gross operational incomes.¹⁹⁷ “This survival was produced by the government with its increasingly scarce foreign exchange reserves, which prepared the conditions for the debt crises that since then have stricken Argentina” (P&T, p. 26).

Notice that these measures contained strong incentives for firms to incur foreign indebtedness. As stressed by P&T, in a recessive and disorganized environment, firms were able to rebuild their accounting profits just by borrowing in dollars. Of course, this is also too strong an incentive for illegal practices. It is widely recognized in Argentina that a significant portion of the external debt was simulated by enterprises,¹⁹⁸ and as we have shown before, the external debt figures for this period could not be reconciled with other sources of information.

In spite of all these measures it was perceived that both the level of indebtedness of private sector firms and the persistence of high real interest rates were impinging on Argentina’s economic activity. For instance, in its 1981 Report on Latin America, referring to Argentina, ECLAC mentioned: “The combination of these two factors kept on gravitating on the financial situation of firms, in spite of the measures adopted by midyear to provide them financial relief, sensibly limiting their production possibilities and inducing many of them to reduce their level of activity and employment. This originated a contractionary spiral...” (ECLAC [1981, p. 88]).

VI.3 THE PRETENSE OF A SOLUTION: SOWING THE SEEDS OF HIGH INFLATION

In July 1982 a new military administration took office. The new Chairman of the BCRA, Dr. Domingo Cavallo, noted “there is a manifest

197 ARRr surged after the 1981 devaluations, but acid tests did not, showing that liquidity at firm level was poor, except in the case of firms producing exports (the least indebted) whose liquidity improved after the devaluations. These findings are most probably explained by the effect of the subsidies on firms highly indebted in foreign currency (P&T, pp. 31-32).

198 A simple way to do so was as follows. The owner or some executives opened a dollar-denominated account abroad (not a few in Montevideo). Then, the bank with which the deposit was made granted a loan equivalent to the amount of the deposit. The bank earned some fees on this operation and the firm just went for the subsidy. This was called a "back-to-back" operation.

disproportion between the magnitude of enterprise and household liabilities, both in pesos and dollars, and also the liabilities of the public sector itself, in relation to the value of real assets, especially productive assets [farm land, industrial and commercial real estate, machinery, etc.]”.¹⁹⁹

In early August México defaulted on its external debt, which constrained Argentina even more. The closely related problems of the internal and external debt were top on the agenda of the new economic team led by Dagnino Pastore and D. Cavallo.

One aspect of the “solution” was to nationalize private foreign (i.e. dollar-denominated) liabilities. Arnaudo [1987, p. 131] explains this process: “On the impossibility of another solution, exchange rate insurance made private sector external debt end up in the hands of the State, substituting private debtors by public debt”. Thus a private financial problem was transformed into a public fiscal one. The “solution” for the internal debt problem implied an almost 360° turn in financial sector regulation with respect to the departure point in March 1976 since one of the key elements in the scheme was the nationalization of existing deposits. Its purpose was crystal clear: to dissolve²⁰⁰ the real value of the debt. The main instrument was the control of interest rates.

The main ingredients of this exercise in financial alchemy were the following:²⁰¹

Deposits

- a. All existing deposits were subject to 100% reserve requirement. The interest rate on these deposits was fixed by BCRA at yields, which were clearly negative in real terms.
- b. A segment, with unregulated interest rates but with a minimum maturity of 90 days, in which the BCRA allocated quotas to banks, determining both the micro allocation (according to historical

199 Interview with Domingo Cavallo, President of the Central Bank of Argentina in July 1982 (De Pablo [1986]), quoted by Baliño [1987, p. 49].

200 "Liquefy" is the literal translation of the Southern Cone technology.

201 For fuller accounts of this package see Baliño [1987, pp. 49-51], or Piekarz [1984, pp. 51-62]. The original source of information is BCRA's Comunicación "A" 144.

shares), and the total amount of the segment.²⁰² Deposits in this segment were not subject to reserve requirements, and were not transferable.

- c. The indexed segment. The minimum maturity for these deposits was a year and the interest rate was not regulated. Although the regulation specified that they were subject to a 100% reserve requirement, since banks attracting such deposits got access to a special discount line at the BCRA, they were actually subject to a fractional reserve requirement. Firms, except insurance companies, were denied access to this segment.

On Lending

- a. All existing loans were refinanced at low real interest rates and maturities up to 60 months. The funding was granted by the BCRA. This, of course, was the counterpart of the quasi nationalization of deposits implied by the 100% reserve requirement on existing deposits. Debtors could choose between an indexed and a non-indexed refinancing, which changed the repayment schedule. Since the former implied a lighter burden at the beginning, it was more “successful” than the non-indexed one.
- b. A non-regulated interest rate segment that could be funded with “free-rate” deposits, own funds, or external debt.
- c. Indexed loans funded by BCRA’s indexed rediscounts.

This alchemy did its job: by the end of 1982 the real value of outstanding debt had fallen by almost 40% and by more than 60% as of December 1984 (Baliño [1987, p. 51]). In the case of banks’ claims on the non-financial private sector the decline was less spectacular in the first year and a half, but was more than 60% by the end of 1984. As could be expected, the system did not evolve into a normal one, relying on deposits and other usual sources of funds. On the contrary, rediscounts from the BCRA became the standard source of funds for banks for the next decade.

²⁰² At the beginning the ceiling evolved as follows: July, 6% of existing deposits; August, 12% and September, 20%. Because of inflation, these deposits quickly become an insignificant source of funds.

VII. MAKING A LONG STORY SHORT

“Aquellos polvos trajeron estos lodos”²⁰³

Up to this point we have presented the ingredients of our story among the various pieces of information given before. Rearranging the pieces, we can provide a short summary of our findings:

1. Banks did have a role of their own in determining the interest rate and the allocation of resources in credit markets. The unusual characteristics of the 1977 downturn are associated with the way banks behaved, aggravating the response of those agents who relied intensively on bank loans.

Later, the evolution of the stabilization plan was also conditioned by bank behavior. Carlos Rodríguez [1978] was the first who tried to explain the “anomalous” behavior of the domestic goods markets using a historical element which introduced inertia in the model, namely adaptive expectations in the non-traded goods sector. We have shown here that the historical element lies in the way in which banks conducted their activities. They channeled funds at low cost to their best potential clients, who happened to belong to the “wrong” sectors of the economy, inducing both a boom led by non-export producers and a long lasting malformation of the capital structure. Furthermore, since the combination of the stabilization package, openness of the capital account, and the financial reform induced an increase in external debt, Argentina financed the boom using the wrong source of funds.

When the expansion of those sectors that received the bulk of bank loans slowed down, and the incentives included in the policy package began to bite, banks went into crisis, originating the first deep financial crisis in Argentina since the early 1930s. There were no memories of that earlier episode. Both bankers and the authorities were unaware of the potential consequences of a banking crisis, and their handling of the crisis was not exactly first rate. It is not fair to blame only the men involved; their intellectual universe did not have any room for banking crises and

²⁰³ Literally, “that dust has brought about this muddle”. W. Ferreira Aldunate was one of the most outstanding Uruguayan politicians from the early 1960s until his death in the late 1980s.

the like. Furthermore, the data on bank problems were probably dismissed later, as the economy showed a strong recovery. I dare to conjecture — consistent with journalistic reports on further decreases of the deposit insurance coverage reported by Diéguez & Petrecolla [1980], and other pieces of information already mentioned — that the financial sector problems in the second semester of 1979, were interpreted by the authorities to invoke market solutions to bring about efficiency in this sector.

Note that the problem was not the liquidity crisis. This was only the visible part of the iceberg — the part of the problem that could be treated rapidly and with apparent success.²⁰⁴ In the Argentine case the liquidity crisis also triggered a rapid and dramatic change in relative prices because it brought to light a solvency crisis. At given prices, banks were no longer in a condition to give financial support to the bulk of their clients, because they would not be able to obtain the cash flow to repay their debts. But the badly needed change in prices involved a drastic reduction in the value of collateral, without reassuring banks that they would be able to collect their credits. This was crystal clear in the case of dollar-denominated liabilities. Of course, during the five-fold devaluation of the peso in 1981, it was also realized that firms that held foreign currency liabilities (mainly non-tradable and import competing goods producers) could not bear the burden of these debts.

2. As mentioned by Heymann, decisions on assets and liabilities made at wrong prices during 1979 were incorporated into the balance sheets of both financial and non-financial firms. When prices changed, it was clear to the people involved that the market solution was not convenient for them. Debtors were failing and the value of collateral did not cover loans. Banks, of course, were not willing to augment their capital under the circumstances. So, creditors and debtors coalesced to bring in the government. Private mistakes were then transformed into fiscal imbalances. Of course, that was also done very poorly, but the truth is that the episode studied in this chapter is the root of the Argentine hyperinflation of the late 1980s.

204 Enough to produce some confusion in such otherwise perceptive observers as Arnaudo and Baliño.

Further, when the banking crisis proved that lending decisions made during the previous twelve months were of dubious quality, the public sector was no longer able to resort to traditional monetary policy instruments, because the health of the financial sector was at stake. But, at the same time, such a course of action would in any case have contradicted the government stance on the stabilization front, because the probability of a speculative attack against the peso increased every minute.

Very soon the financial crisis had side effects on fiscal management. The government was not able to rely on taxes to finance its deficit, which was rising due to the downturn in economic activity plus the financial crisis itself. Because of the difficulties in getting fresh funds from the financial sector, and the increase in their costs, the private sector began to finance their activities with the taxes they collected on behalf of the government. Thus the financial crisis was a major factor behind the dramatic increase in foreign indebtedness of the Argentine public sector during 1980 and the following years. By the end of 1980, the financial crisis directly or indirectly was one of the major factors triggering the devaluation of the Argentine peso.

The problem with the financial and economic health of financial and non-financial firms could not be solved quickly. Since the burden of debt was one of the key factors behind the performance of the Argentine private sector, authorities could not abstract from this issue. The pretended solution almost destroyed the financial sector (at least, it prevented it from working normally for a decade or more).

Furthermore, at a deeper level, the solution to the crisis involved a generalized softening of private budget constraints which distorted the normal and theoretically predictable effects of economic incentives, and diluted market discipline. This was a paradoxical outcome. According to Canitrot [1981], it is likely that one of the central objectives of economic reform — at least in the eyes of military authorities — was to impose some discipline on Argentina's turbulent economic life. Six years later, events had come full circle: economic disarray was at least as serious as Argentina experienced in late 1975 and early 1976.²⁰⁵

205 Not to mention a war lost and the fresh wounds of the "dirty" war.

3. Heymann has argued persuasively that a coherent state of expectations became an impossibility due to the complexity of the policy package launched by the Argentine authorities from March 1976 to the end of 1979. Several different sources seem to agree on that.²⁰⁶ One of the most authoritative sources is Petrei and de Melo, whose report based on several interviews with managers of nine Argentine firms clearly reveal this state of affairs.²⁰⁷ Furthermore, all sources also agree on the impact of the financial crisis on the public. Its immediate reaction was a run against the peso, provoking an enormous drain of BCRA foreign currency reserves. This seriously complicated macroeconomic management, becoming a factor determining the increase in the external debt of state-owned agencies recorded in 1980.

Also, as pointed out by Heymann, after the banking crisis it became clear to everybody that government policy could not remain unchanged. Therefore, in spite of increased turbulence, some states of the world that still had a positive prior probability in late 1979, were seen to have a probability zero after the crisis broke out. This did not necessarily imply a step-wise devaluation with probability one in some predetermined future. If by late 1979 people thought that they were doing the right thing since they were working in the direction of a long run equilibrium implied by the policy package — whatever that may mean to different persons — 3 months later they were not really able to visualize a new long run equilibrium, not even vaguely, because they knew only that the policy parameters of the old equilibrium were no longer sustainable. Heymann notes that under the circumstances, the number of questions that had to be answered increased, making the environment more uncertain. This is probably correct in the sense mentioned above, but from a policy point of

206 C.A. Rodríguez [1978] is another illustration of this kind of reasoning.

207 For instance, they mention that "almost all (the executives) reported that they adopted a wait-and-see attitude after the announcement of reforms, often delaying actions for several months. Not surprisingly, the interviewees expressed (with hindsight) that by 1980 they were convinced that the use of the exchange rate to fight inflationary expectations would sooner or later be abandoned" (p. 70). Also, "all answers show a lack of credibility about the duration of the reforms and about their success" (p. 56). Obviously, we must take these opinions *cum grano salis*, since it is part of the human condition in this part of the world to avoid looking like the true believer who was proved wrong. Notice that the concrete reference is to the year 1980, and not to 1979, as is consistent with our opinion. Besides, even in late 1980 some were taking dollar denominated mortgage loans, which seems inconsistent with the idea of total distrust of the tablita. I thank D. Heymann for this last point.

view, it is still more relevant that for most people the certainties related to the sustainability of the policy package had dissolved under the pressure of the banking crisis.²⁰⁸ Furthermore, people realized that the authorities were not able to discern a coherent plan themselves, because they were learning about the crisis as it unfolded.

The only event that was reaching probability one by the end of 1980 was a devaluation in the near future. Although they could have attached a large probability to the event of a devaluation in March, 1981, the extent of such a devaluation was completely uncertain. When the devaluation episodes started, turbulence did not diminish. A Pandora's box was opened, and the final outcome was unexpected to everybody, as some entrepreneurs confessed to Petrei and de Melo, even with the benefit of hindsight.

As mentioned above, apart from the "exchange risk" associated with the political changes, the only hard fact underlying the increasing economic disarray of Argentina's economic life and tying of the government's hands was the financial crisis and its direct or indirect consequences. Interestingly, most commentators tend to suggest that the inability of government to handle the crisis could have stemmed from the short horizon it faced. Those observers have mentioned that "Viola's silence"²⁰⁹ at last revealed that Viola had nothing to say (thus, the incumbents could not issue a credible plan). The opposite was probably true. Most likely, a key factor explaining why the successors were silent was that they did not find the incumbent's proposals either reasonable or credible, especially when they were showing such an inability to face the facts, and when the distrust of current policy guidelines was spreading.²¹⁰ Probably Viola was silent because he could not forecast what he was to inherit, and nobody could explain this to him convincingly. Later on, it proved easier to get rid of Viola than to solve the problems Viola's government inherited.²¹¹

208 Heymann has mentioned to me in private conversations that some people thought that the economic program could have been preserved "on the whole" if only the political transition had been managed right. Of course, I do not believe that this kind of argument holds water.

209 Gen. Viola was the Commander in Chief of the Army, designated to succeed Gen. Videla as President of Argentina in March 1981.

210 And why should such a coherent and structured organization as the Army change its mind corporately if actual economic policies were successful?

211 These conjectures should not be taken as late-coming defense of Viola's administration. On the contrary, it is rather an assessment of the economic team lead by Dr. Martínez de Hoz.

APPENDIX TO CHAPTER 4

ON DISTRESS BORROWING

In this Appendix we will try to assess the extent of distress borrowing in the Argentine economy in the 1977-80 period. To do this we will analyze the behavior of a set of indicators associated with this phenomenon. Definite conclusions can only be made if all the indicators point in the same direction.

Distress borrowing occurs when clients are not able to repay interest accrued on their bank loans. The accrued interest is then added to principal, forming the capital of the new amount due. In order for distress borrowing to become a widespread problem, macroeconomic conditions must be stringent. This is different from the granting of new loans to firms facing downturns in demand. It is also different from a credit crunch. Distress borrowing occurs when the lender is unwilling to force the repayment of the loan because by so doing he will have to realize a loss. In the second case, a perfectly solvent firm *ex-ante* faces a liquidity problem and lenders are doing what they are supposed to do in the circumstances. A credit crunch occurs when non-financial firms are forced to reduce their indebtedness in difficult macroeconomic conditions, but choose to repay rather than go under.

When there are generalized liquidity problems, or liquidity and solvency problems are intertwined, the first and second hypotheses are difficult to distinguish. On the other hand, when liquidity problems are pervasive, but solvency is not an issue, a credit crunch might follow distress borrowing, the way we defined it here. In our characterization, the former is a supply-induced contraction of credit, while the latter is a demand-imposed rolling over of existing loans. Of course for the roll over to materialize, the creditor should not be able to do better by going to the courts or by resorting to retaliation. That is why, when solvency problems are at the root of defaults, banks tend to associate with their debtors to bring the government in. Note also that, by definition, a credit crunch is a macroeconomic phenomenon, while distress borrowing problems need not be general or reflected in aggregate data.

A.1. DATA ON CREDIT TRANSACTIONS

a) Loans and Accrued Debt

To evaluate the presence of distress borrowing, we first have to compute the changes in financial sector lending to the private sector not explained by the rolling over of existing loans, plus the capitalization of accrued interests. In so doing we calculate the amount of loans existing at the beginning of each month, multiplied by one plus the nominal interest rate at which they were supposed to be contracted; then compare this “total amount due” to the recorded amount of loans at the end of each month.

Let B_t be the amount borrowed at the end of period t , L_t the amount of loans coming due at the end of period t , and i_t^L the nominal lending interest rate, we establish the following simple relation between these variables:

$$B_{t-1} (1 + i_t^L) = L_t$$

Let π_t be the inflation rate and θ_t the growth rate of GDP in period t . Then, abstracting from seasonal patterns, we have the following cases:

- a. $L_t = B_t$: the amount borrowed is being rolled over.
If $(1 + i_t^L) > (1 + \pi_t)(1 + \theta_t)$ we have a strong indicator of distress borrowing.
- b. $B_{t-1} > B_t$: this is strong evidence of a credit crunch. But this is not the only case. In fact, if $L_t - B_t = i_t^L \cdot B_{t-1}$: in a stationary environment we conclude that the private sector is servicing its debt, which remains constant in real terms. In the Argentine case, because of inflation, such behavior would mean a reduction of the debt in real terms and thus also an indicator of a credit crunch.
- c. $L_t > B_t$, and $B_t = B_{t-1} (1 + \pi_t)(1 + \theta_t)$ the ratio debt/GDP remains constant, and there is no evidence of problems in the credit market.
- d. $L_t < B_t$: the amount lent is increasing. *Prima facie* this indicates an

absence of distress borrowing, but it is not conclusive. For instance, a cyclical downturn may lead existing borrowers to avoid repayment of their debts, which may be accompanied by additional borrowing or by new debtors borrowing money. This seems to be typical of the end of booms, when solvency problems are not widespread and prices are not very different from those in the boom.

If, in addition, $B_t > B_{t-1}(1+\pi_t)(1+\theta_t)$ and $\theta_t > 0$, we are probably in an expansionary phase of the cycle.

Argentina had gone through a credit crunch in early 1978. A quick inspection of the following Tables (A4.1-A4.3) makes it clear that the country experienced another credit crunch after December 1980. We have to sift additional evidence to obtain further conclusions.

b) Other Evidence from Credit Markets

The following table (Table A4.4) includes some evidence from the credit markets. Its first column contains the quarterly real rate of growth of banking loans, using the CPI as deflator. This choice implicitly includes the notion that short-term borrowing is mainly used to finance working capital, which is heavily influenced by the payroll. Thus, this is an indicator of the purchasing power of debt. The second column uses the “vegetative” increase of loans — i.e., one plus the nominal lending interest rate — as deflator of the nominal growth rate of loans. This column, then, reproduces information reported in Table A4.1. The third column presents the quarterly real rate of interest, using the WPI as deflator. We have chosen the WPI in this case because it is a better indicator of how prices of major borrowers evolve and, therefore, how the burden of their debt changes. The first three columns show quarterly data; so in order to obtain an annual equivalent rate they must be compounded to the fourth power. The following column shows the quarterly average spread between the nominal rates charged and paid. This, and the figures of the next columns are monthly rates. To obtain an annual equivalent the monthly rates have to be compounded to the twelfth power. The last column presents the monthly average per quarter of dollar return on peso-denominated deposits.

Table A4.1

LOANS AND INTEREST RATES (Loans in Billions of Arg. \$ and Interest Rates in Percent)							
Period		Loans, Stocks At Beginning of Month	Nominal Interest Rate	Interest Due a x b	Accrued Debt (a + c)	Loans Stocks End of Month	Net Change
		(a)	(b)	(c)	(d)	(e)	(e-d)
1978	1	5166	13.58	701	5868	4825	-1043
	2	4825	13.42	647	5473	5132	-341
	3	5132	11.14	572	5704	5480	-224
	4	5480	9.30	510	5990	6039	49
	5	6039	8.34	504	6543	6480	-75
	6	6480	8.17	529	6996	7133	137
	7	7133	8.30	592	7725	7946	221
	8	7946	8.02	637	8583	8842	259
	9	8842	7.79	689	9531	9561	30
	10	9561	7.35	703	10264	10745	481
	11	10745	7.38	793	11538	11984	446
	12	11984	7.58	908	12892	13179	287
1979	1	13179	7.87	1037	14216	14125	-91
	2	14125	7.59	1072	15197	15130	-67
	3	15130	7.06	1068	16198	16392	194
	4	16392	7.03	1152	17544	17759	215
	5	17759	7.06	1254	19013	19596	583
	6	19596	7.14	1399	20995	21767	772
	7	21767	7.26	1580	23347	24214	867
	8	24214	7.60	1840	26054	26824	770
	9	26824	8.10	2173	28997	29477	480
	10	29477	8.10	2388	31865	32659	794
	11	32659	8.00	2613	35272	36087	815
	12	36087	7.00	2526	38613	40167	1554

(continued)

Table A4.1 (cont.)

LOANS AND INTEREST RATES (Loans in Billions of Arg. \$ and Interest Rates in Percent)							
Period		Loans, Stocks At Beginning of Month	Nominal Interest Rate	Interest Due a x b	Accrued Debt (a + c)	Loans Stocks End of Month	Net Change
		(a)	(b)	(c)	(d)	(e)	(e-d)
1980	1	40167	6.90	2772	42939	43778	839
	2	43778	6.70	2934	46711	47066	355
	3	47066	6.00	2824	48980	50179	289
	4	50179	5.60	2810	52989	53308	319
	5	53308	5.30	2825	56133	56793	660
	6	56793	5.40	3067	59860	61156	1296
	7	61156	6.40	3914	65070	64610	-460
	8	64610	7.10	4587	69197	68404	-793
	9	68404	6.10	4173	72577	73008	431
	10	73008	5.50	4015	77023	77299	276
	11	77299	5.30	4097	81396	81525	129
	12	81525	5.40	4402	85927	85597	-330
1981	1	85597	6.30	5393	90990	84981	-6007
	2	84981	6.40	5439	90420	88010	-2410
	3	88010	8.00	7041	95051	90722	-4329
	4	90722	10.30	9344	100066	91879	-8187
	5	91879	8.70	7993	99872	96147	-3725
	6	96147	9.10	8788	104935	101525	-3410
	7	101525	12.10	12285	113810	106154	-7656
	8	106154	12.00	12738	118932	112598	-6334
	9	112598	10.30	11598	124196	119226	-4970
	10	119226	8.50	10122	129348	125781	-3567
	11	125781	8.90	11232	137013	132458	-4555
	12	132458	8.20	10862	143320	140466	-2854

(continued)

Table A4.1 (cont.)

NOTES: (a) stock of loans to the non-financial private sector in Argentine pesos at the end of the previous month;

(b) nominal lending rate ruling at the beginning of the period, assumed same as at the end of previous month;

(e) stock of loans at the end of each month.

The last column shows whether during each month the non-financial private sector expanded or reduced the debt maturing at the end of the month.

Source: Cell 1, (a) and Column (c), Frenkel and Damill [1987, p. 73, Table 1].
Column (b) from ES [1985, pp. 28-30, Table 1].

TABLE A4.2

"NET" CHANGES IN PESO LOANS EXPRESSED IN DOLLARS (billions of U.S. \$)				
	1978	1979	1980	1981
January	-1.6	-0.1	0.5	-3.0
February	-0.5	-0.1	0.2	-1.1
March	-0.3	0.2	0.2	-1.8
April	0.1	0.2	0.2	-2.6
May	-0.1	0.5	0.4	-1.1
June	0.2	0.6	0.7	-0.8
July	0.3	0.6	-0.2	-1.6
August	0.3	0.5	-0.4	-1.2
September	0	0.3	0.2	-0.8
October	0.5	0.5	0.1	-0.6
November	0.5	0.5	0.1	-0.7
December	0.3	1	-0.2	-0.3
Total	-0.3	4.7	1.8	-15.6

NOTE: The figures in this table were obtained by dividing the "net" change as shown in the last column of the previous table, by the nominal exchange rate at the end of each month.

TABLE A4.3

"NET" CHANGES AND OUTSTANDING LOANS IN PESOS — 1977-1981 (in billions of U.S. dollars and percent)				
	Outstanding Peso Loans (in dollars)	Change in Percentage	Change in Dollar Terms	"Net" Change to Total Change (%)
1977	8.6	n.a.	n.a.	n.a.
1978	13.1	52	4.5	-7
1979	24.8	89	11.7	40
1980	43.0	73	18.2	10
1981	13.5	-69	-29.5	43

TABLE A4.4

DISTRESS BORROWING — CREDIT MARKET INDICATORS						
		Real Loan Growth (%)	Loan growth rate /(1+i _L) (%)	Real Interest Rate (%)	i _L -i _D Monthly Average (%)	Dollar Return On Deposits (%)
1978	I	-18	-26	19.0	5.0	3.0
	II	-1	-1	-0.2	2.0	1.3
	III	12	8	6.1	1.4	4.1
	IV	5	9	-1.6	0.8	1.1
1979	I	-2	2	-0.8	0.9	0.8
	II	4	5	-1.3	0.7	0.9
	III	8	10	-6.9	0.8	1.7
	IV	18	8	14.0	0.9	2.7
1980	I	10	8	8.8	1.0	1.9
	II	2	0	3.4	1.5	1.2
	III	7	0	6.7	1.2	2.8
	IV	2	2	5.4	1.1	2.3
1981	I	-6	-12	12.7	1.2	-1.0
	II	-13	-17	3.9	1.8	-5.6
	III	-7	-15	-1.6	1.3	-6.7
	IV	-4	-8	4.2	1.1	-1.1

Source: CPI and WPI, ES [1985]. Other data are from Tables A.1-A.3.

A.2 INDICATORS OF AGGREGATE DEMAND

Table A4.5 shows some indicators of aggregate spending. Column 1 presents the rate of growth of GDP; column 2, the ratio of imports to GDP; and column 3, the current account balance and total capital inflows (private + public).

A.3 BUSINESS FAILURES AND NON-PERFORMING BANK ASSETS

a) Business Failures

The available information shows that liabilities of bankrupt firms were very high by historical standards from the third quarter of 1979 to the first quarter of 1980, and peaked at the historical maximum in the first semester of 1981. During 1979 and 1980 the industrial sector accounted for the largest share of liabilities in total liabilities of bankrupt firms, reaching 84% in 1980. Until 1984, its share remained above 50%. Of course, this implies that banks faced problems with their portfolios of loans as we will immediately below.

b) Non-Performing Bank Assets

While the share of problem loans in bank loans were distributed pretty evenly among the largest economic sectors, these shares increased in 1979, with a jump in 1980. Problem loans were at least 9% of the total in 1980, showing an increase of 7% points over the year before. According to World Bank [1983], "on average an estimated 17% of the financial system's portfolio had liquidity problems as of late total exposure"

TABLE A4.5

INDICATORS OF AGGREGATE DEMAND					
		Rate of Growth of GDP (%)	Ratio of Imports to GDP (%)	Current Account Balance (\$ mill.)	Capital Inflows (\$ mill.)
1978	I		7.9	278.0	1076.9
	II		7.2	755.0	459.7
	III		7.7	754.1	35.4
	IV		7.6	46.5	-238.1
1979	I	8.4	10.1	-63.8	1054.2
	II	8.4	8.9	467.9	970.6
	III	5.6	11.2	-57.1	1274.3
	IV	6.3	12.6	-883.4	1387.8
1980	I	1.7	15.2	-757.4	1226.5
	II	-2.1	13.2	-988.7	-727.7
	III	1.9	14.8	-1145.0	1565.2
	IV	2.9	17.2	-1866.8	481.6
1981	I	-0.3	18.7	-2091.7	-748.3
	II	0.0	15.9	-913.0	1037.7
	III	-10.6	14.3	-220.0	249.6
	IV	-13.1	12.7	-1489.3	950.7

Source: Frenkel and Damill [1987].

CHAPTER 5

THE CHILEAN BANKING CRISIS OF THE 1980s

I. INTRODUCTION

The disruption provoked by the Chilean financial crisis that started in 1981 has attracted much attention among analysts of the Chilean economy. Financial problems, considered in the McKinnon and Shaw tradition when the liberalization plan was begun, were no longer an issue after the mid-1970s. Therefore, both the general public and the authorities were caught by surprise, as were the experts.

Many people pointed to the importance of the financial sector to understand the evolution of the Chilean crisis. Some excellent papers were written regarding this.²¹³ Edwards and Cox-Edwards [1987, 1991] and Velasco [1988] are possibly the best examples of the way in which the profession saw the problems. The latter, much narrower than the former, is also a sharper attempt to show the influence of the banking crisis on macroeconomic developments. No one followed Baradarián's analysis and pursued his conjectures in detail, however.²¹⁴

As time passes, the predominant view has become that macroeconomic instability led to financial troubles. Tacitly, the feedback coming from the financial sector is overshadowed.²¹⁵ It seems that macroeconomics that incorporates the famous Modigliani-Miller theorem, will not confront financial problems properly. Stricto sensu, financial problems are an anomaly in such a framework.

213 Baradarián [1983] is the one that gives most emphasis to the influence of the financial sector in macroeconomic outcomes.

214 F. Rosende's work is actually a thorough reply to Baradarián.

215 This is not, in fact, the theory that explains the new charter of the Central Bank of Chile, which is closer to Rosende's thought. Rosende shares Simons' view of the inherent instability of modern banking.

In this chapter we try to gather some dispersed existing information on the relevance of banking behavior for macroeconomic outcomes. Our concern is not with the liberalization process, and we do not present a different theory of the financial crisis. We just emphasize the connections between banking and macroeconomic performance.

The chapter is organized as follows. Section II briefly reviews the evolution of the Chilean economy prior to the crisis. Section III focuses on the financial reform. Institutional changes of this magnitude are important to understand the dynamics of the sector. Section IV sketches the evolution of the financial sector, introducing much of the information that will be used later. Sections V and VI discuss the influence of banking behavior on macroeconomic performance, before and after the crisis, respectively. Some conclusions are presented in Section VII.

II. CHILE 1974-1981: A BRIEF OVERVIEW²¹⁶

It is well-known that following the military coup, Chilean authorities launched a free market program directed towards eliminating most manifestations of government and state involvement in the economy. Its policies included a vast privatization program²¹⁷ and liberalization of the external trade and financial sectors. The latter policies were intended to end at once the import-substitution policy regime as well as financial repression.

These structural policies were contemporaneous with short-term policies aiming at reducing inflation. Inflation had been an endemic problem of the Chilean economy, which appeared for the first time at the end of the 19th century. In 1973 and 1974 it was diverging towards hyperinflation. Thus the objective of eliminating inflation was high on the economic agenda of the military government.

By 1975 some privatizations had been done, the liberalization of the financial and trade sectors was under way, and a monetarist “shock”

216 For a comprehensive description and analysis of the economic evolution and policy design during those years, see Edwards and Cox-Edwards [1991].

217 Sectors considered “strategic” by the government, and Banco del Estado were excluded from the program.

program was launched to combat inflation.²¹⁸ The contemporaneous fall in international copper prices contributed to deepen a recession that had started in 1972 and led to a 18% reduction of real GDP over four years.²¹⁹ The 1972-75 decline in real per capita GDP amounted to more than 23%. GDP reached the level of the previous 1971 peak in 1978 but not until 1980 did it regain the 1971 level in per capita terms. In spite of the strong recovery initiated in 1976, the new peak in 1981 was barely 5% above the level reached a decade earlier (see Table 5.1).

The recession coincided with an explosion in the inflation rate which was still close to 200% in 1976. It remained at a very high two-digit mark the following year. The lowest rate 9.9% was recorded in 1981, the beginning year of the new recession.²²⁰ By late 1981 GDP started a 2-year decline that amounted to 14.7%, while the expenditure dropped 27.6% over the same period. Open unemployment reached almost 25% in a country without important unemployment benefits. The fight against inflation, by contrast, was very successful by Latin American standards (see Table 5.2). It never exceeded 30% a year. Key to this outcome was the balancing of public finances by 1978, well before the economy reached full capacity utilization, and well before the peak of the boom was reached. After the crisis started, the overall public deficit was never as large as in Argentina or Uruguay.

218 Harberger [1982] shows that there was actually no shock. Furthermore, the fiscal adjustment occurred simultaneously with the increase of what later was called a quasi-fiscal deficit.

219 In fact, GDP grew by about 1% in 1974 due to high copper prices, but in the following year the economy fell into a deep recession.

220 It was all these achievements that led some politicians and part of the press to talk of a "Chilean Miracle".

TABLE 5.1

REAL GROSS DOMESTIC PRODUCT AND REAL GROSS DOMESTIC PRODUCT PER CAPITA IN CHILE: 1970-1983				
Year	Real Gross Domestic Product (Millions of 1977 Pesos)	Rate of Growth of Real GDP	Per Capita Real GDP (Thousands of 1977 Pesos)	Rate of Growth of Per Capita Real GDP
1970	283,097	2.1%	30.2	0.2%
1971	308,449	9.0%	32.4	7.1%
1972	304,707	-1.2%	31.4	-2.9%
1973	287,750	-5.6%	29.2	-7.1%
1974	290,554	1.0%	30.0	0.7%
1975	253,043	-12.9%	24.8	-14.4%
1976	261,945	3.5%	25.3	1.8%
1977	287,770	9.9%	27.3	8.0%
1978	311,417	8.2%	29.0	6.4%
1979	337,207	8.3%	30.9	6.5%
1980	363,446	7.8%	32.7	6.0%
1981	383,551	5.5%	34.0	3.8%
1982	329,523	-14.1%	28.7	-15.5%
1983	327,180	-0.7%	28.0	-2.4%
Average Growth:				
1974-1983	-	1.4%	-	-0.8%

(Extracted from Edwards and Cox-Edwards, p. 12, Table 1-3).

Source: Banco Central de Chile (1984).

TABLE 5.2

CHILE: INFLATION, DEVALUATION AND FISCAL RESULT 1973-1983 (percent)					
Year	Inflation Rate		Devaluation	Fiscal Result % of GDP	
	Annual Aver.	Dec.-Dec.	Annual Aver.	(a)	(b)
1973	441.0	605.9	455.0	-24.6	
1974	497.8	369.2	649.5	-10.5	
1975	379.2	343.2	490.3	-2.6	
1976	232.8	197.9	165.8	-2.3	
1977	113.8	84.2	64.9	-1.8	
1978	50.0	37.2	47.0	-0.8	
1979	33.4	38.0	17.7	1.7	
1980	35.1	31.2	4.7	3.1	
1981	19.7	9.9	0.0	1.7	0.3
1982	9.9	20.7	30.5	-2.3	-4.0
1983	27.3	23.1	54.9	-3.8	-3.3
1984	19.8	23.0	24.9		-4.5
1985	30.7	26.4	63.3		-2.9
1986	19.5	17.4	19.9		-1.6
1987	19.9	21.5	13.7		0.2
1988	14.6	12.7	11.9		3.6

Source: Inflation and devaluations, Edwards and Cox-Edwards; Ramos and Le Fort.

Fiscal result (a), Edwards and Cox-Edwards, and Ramos.

Fiscal result (b), Eizaguirre and Larrañaga.

Column (b) shows the result of the whole non-financial public sector.

The recovery and boom process initiated in 1976 were characterized by very low ratios of domestic private savings²²¹ and investment to GDP as well as by huge trade and current account imbalances and, beginning in 1979, by rapid growth of external private debt incurred mainly by private banks (see Table 5.3). In spite of very high real interest rates, the prices of domestic assets skyrocketed. The behavior of interest rates during these years puzzled observers of the Chilean economy.

Other relevant aspects of policymaking included the following. The process of liberalizing external trade brought import tariffs to a single 10% level by June 1979. Fiscal policy produced significant public sector savings stemming from reductions of public expenditure and structural increases in revenues. The economic recovery also helped to improve tax revenues. Chile started pre-announcement of the exchange rate as an anti-inflationary tool in December 1977, leading Argentina and Uruguay in that area. By February 1978 the horizon of the tablita was extended from two to eleven months. This exchange rate regime was abandoned in mid-1979, when a one-time devaluation anticipated the accumulated devaluation programmed for the rest of the year, following which the exchange rate was fixed. In contrast to Argentina and Uruguay, restrictions on international capital movements were relaxed only gradually, and some are still in place. When the Chilean economy began its strong recovery in the second half of the 1970s, those restrictions became binding, as demonstrated by the dramatic jumps in foreign indebtedness of the financial sector each time they were relaxed. Of course, from 1982 to 1990 this kind of limitation was no longer an issue since capital inflows into all the Latin American economies, Chile included, were lacking.

221 National accounts underestimate the true saving behavior of households, because during this period there was a strong increase in the consumption of durables, especially of cars and appliances like TV sets and refrigerators.

TABLE 5.3

CHILE'S FOREIGN DEBT: 1973-1982 (millions of U.S. \$, end of period)					
	Total Debt	Public Sector Debt	Private Sector Debt		
			Banking System	Rest	Total Private
1973	\$ 3,667	\$ 3,244	n.a.	n.a.	\$ 423
1974	4,435	3,966	n.a.	n.a.	469
1975	4,854	4,068	154	632	786
1976	4,720	3,762	168	790	958
1977	5,201	3,917	309	975	1,284
1978	6,664	4,709	660	1,295	1,955
1979	8,484	5,063	1,968	1,453	3,421
1980	11,084	5,063	3,497	2,524	6,021
1981	15,542	5,542	6,516	3,561	10,077
1982	17,153	6,660	6,613	3,880	10,493

Source: Banco Central de Chile (1981, 1983, 1984).

Extracted from Edwards and Cox-Edwards, p. 71, Table 3-8.

n.a. = Not available.

III. THE FINANCIAL REFORM

The purpose of this section is to give a short account of the financial reform prior to the 1981 crisis, focused on the banking sector. Since the environment faced by banks was changing rapidly, a short note on the financial reform has to be introduced in order to better understand the pace of such changes. The financial reform began in 1974 and was basically completed by 1980. It comprised a number of aspects that are briefly reviewed below.²²²

²²² This section draws heavily on Arellano [1985], E & C-E, Velasco [1988], and especially on G. Held [1989].

III.1 REPRIVATIZATION OF BANKS

By 1973-74, there were 22 banks in Chile. One was a large commercial state-owned bank, 13 were nationalized commercial banks, 2 nationalized mortgage banks, 4 regional private banks and one foreign state-owned bank (Banco do Brasil). The evolution of the composition of the financial sector is shown in Table 5.4. There was also the national system of savings and loans associations (SINAP) formed by 21 savings and loans associations and the central board of the system (Caja Central). All nationalizations had taken place during the Unidad Popular government. These banks were reprivatized starting in April 1975. That year, 86% of the total equity in the hands of the state (CORFO) was sold to the private sector.

Most observers say that the terms of these stock sales were very favorable to the buyers, including small down payments (less than 10% for 8 out of 11 banks sold). The government also provided some financing, typically consisting of peso-denominated loans at 10% in real terms for two years. In addition, regulation concerning the concentration of ownership by individuals and firms was easily circumvented by what was later known as “grupos” (conglomerates), that purchased the stock via a net of holding companies. Such regulation was abolished by 1978 on the grounds that it was too difficult to enforce.

TABLE 5.4

NUMBER OF FINANCIAL FIRMS ^a				
	1974 ^b	1978	1981	1987
1) Number of Banks	21	26	45	37
Indigenous				
-- Nationalized	15	2	1	0
-- Private	4	19	25	15
Banco del Estado	1	1	1	1
Foreign	1	4	18	21
2) Number of Formal Finance Houses ^c	0	21	17	4
Indigenous	0	21	17	4
Foreign	0	0	0	1
3) Number of Savings & Loan Associations	21	1	1	1
Total Number of Financial Firms = (1) + (2) + (3)	42	48	63	42

^aExcluding the Banco Central de Chile, savings and loans cooperatives and public institutions that lend money.

^bBefore the reprivatization of banks.

^cSubject to the supervision of the Superintendent of Banks.

Extracted from G. Held, p. 15, Table I-1.

Source: Superintendencia de Bancos e Instituciones Financieras, Informacion Financiera, Santiago, several issues. Banco Central de Chile, Evolucion de las principales normas que regulan el mercado financiero Chileno, Santiago, 1981, p. 75.

III.2 DEREGULATION OF DOMESTIC ACTIVITIES

a) Financieras. As an early attempt to lower barriers to entry in the financial sector, finance houses were permitted in May 1974. These firms were allowed to issue demand deposit whose shortest maturity was four days. This was a kind of free banking experiment. In December 1974, the Bank Superintendency created what were called “formal” finance houses. These were formal because they were subject to supervision and had a single objective: financial intermediation. They faced a few restrictions: they were not allowed to issue current accounts or to finance external trade operations. In fact, these limitations distinguished the *financieras* from banks. Up to March 1975 these firms operated without any supervision, they were not subject to reserve requirements, and their minimum capital was about U.S. \$300,000. A number of informal *financieras* also developed up to early 1977, when they were prohibited. In May 1974 the Central Bank of Chile (BCC) allowed *financieras* to freely determine short-term interest rates. This freedom also applied to indexed assets and liabilities.

b) Regulation of Bank Domestic Activities

In December 1973 quantitative controls on loans were abolished. Beginning in 1974 reserve requirements for sight deposits were lowered from 100% in 1973, to 42% in 1979 and to 10% in 1980. Time deposit reserve requirement reached 4% in the latter year. Starting in May 1976 the Central Bank began paying competitive interest on required reserves. These payments were phased out in 1980, concomitantly with the reduction in required reserve ratios.

In October 1975 interest rates charged and paid by commercial banks were also freed. The same happened to the operations of the Savings and Loans System (SINAP) which basically granted mortgage loans funded with short term indexed deposits. After some groping, regulation converged in 1981 to an upper bound for interest rates charged by banks: 1.5 times the average rate charged by banks and *financieras*.

Tax legislation was changed to take inflation into account, ensuring that thereafter only real interest earnings counted as taxable income. Indexation clauses were permitted in operations of the entire financial sector from May 1974. Up to that time, indexation clauses were allowed in

only certain operations carried out by the Banco del Estado, development banks (none of which existed) and savings and loans associations. In July 1976, the minimum maturity for operations of this type was fixed at 90 days. In September 1977, the regulation of operations using the "unidad de fomento" (UF) greatly contributed to generalize the use of this index. In fact, the UF was nothing else than the Santiago de Chile's CPI with a one-month delay. The minimum maturity for interest bearing operations was established as 30 days.

In November 1974 capital requirements for banks were increased to take past inflation into account and thereafter were automatically adjusted once a year according to changes in the CPI. By 1977 they amounted to about U.S. \$4 million (see Held, cuadro III.9). The maximum debt/capital ratio was maintained at 20, but noncompliance was penalized more strictly than before, at the rate of 2% daily on the excess debt.

Foreign banks were allowed to enter the market in late 1974, and by January 1977, as Chile left the Andean Pact, all barriers to foreign investment in banking activities were phased out. From then on, the single ruling regulation was the General Banking Act. From September 1975 the system began to move toward multipurpose banking as distinctions among commercial, investment, mortgage and development activities were gradually abolished. This process was basically completed by August 1981. Since this applied only to permitted operations, the result was a regime of restricted multipurpose banking.

In 1980, regulation that favored corporations over other organizations and individuals as borrowers was phased out. The new regulation set a uniform limit at 5% of bank capital and reserves for unsecured credits, and at 25% for secured ones. These limits were halved in the case of borrowers linked to the lending bank. Also in 1980, the limit on bank investment in a given corporation was raised from 10 to 20% of the bank's paid capital and reserves, in order to facilitate underwriting operations. However, the limit of 10% of the firm's capital was maintained.

Even though banks could borrow abroad as explained below, they were not allowed to assume exchange risks. Therefore, banks channeled the dollars they obtained either directly to borrowers or through non-bank intermediaries or made loans that were indexed to the exchange rate.

III.3 FOREIGN INDEBTEDNESS

Bank's external debt linked to financing of international trade could not exceed 2.5 times capital and reserves after December 1973. This limit was lifted entirely by late 1979. Development banks' external indebtedness directed towards the funding of investment projects were not subject to any limitation. Financial foreign loans had to be registered with the Central Bank. If the lender also wanted an assurance that they would have access to foreign exchange in the future, the Exchange Law imposed additional restrictions in the form of minimum maturities and maximum interest rates. The proceeds of those loans were sold to the Central Bank and lent in pesos, but indexed to the dollar.

From 1974 to August 1976, capital inflows were subjected to a minimum maturity requirement of six months. From then on, this minimum was increased to two years, except in the case of short-term banking operations and trade financing. Foreign loans with maturities ranging from 24 to 66 months were also subject to non-interest bearing reserve requirements with the Central Bank; the requirements varied with the maturity of the loan. These requirements changed over time. For instance, in 1980 they were 15% for loans with maturities of less than four years, 10% for those between 4 years and 66 months, and zero for longer maturities, but in previous years they had ranged from 10 to 25%. In the midst of the 1982 crisis these requirements were abolished.

The chief purpose of these restrictions according to Velasco [1991] was to ensure some control over domestic monetary policy. Since capital inflows proved massive, especially after the fixing of the exchange rate, and the Central Bank monetized a huge portion of them, the stated policy was basically a failure. On the other hand, the average maturity of the mentioned kind of loans was 54 months in 1979, 64 in 1980 and 60 in 1981. In 1982 the overwhelming majority of loans had maturities exceeding 66 months.

Banks foreign borrowing activities were subjected to two additional limitations: first, a limit on the level of their foreign liabilities, and, second, a maximum amount by which banks could increase their foreign borrowing each month. Until December 1978, gross foreign currency liabilities could not exceed 1.6 times the bank's equity. Then the limit was increased to 1.8 times the same variable. In June 1979, the distinction

between foreign and domestic indebtedness was eliminated, and thus the level of foreign liabilities became subject to the overall debt/equity ratio applicable to banks. This change in regulation had a major impact on capital inflows.

By late 1979 the maximum monthly increase in foreign liabilities was the largest of 5% of equity or U.S. \$2 million. This flow restriction was abolished in April 1980, following which banks borrowing with explicit foreign exchange access guarantee jumped by more than three times. It appears that this weakening of restrictions on foreign borrowing by banks was part of a policy attempting to reduce real interest rates.

III.4 REFORM OF THE PENSION SYSTEM

The pension system was reformed in 1980. The old public pay-as-you-go system was changed to a private capitalized one managed by private pension funds from May 1981. The bulk of social security contributions were thereafter deposited with the financial system. By late 1982 such funds accounted for almost 8% of total deposits.

IV. EVOLUTION OF THE FINANCIAL SECTOR

The Chilean financial sector underwent a significant transformation from 1974 onwards. The most remarkable feature of this evolution was the spectacular growth of the sector. In particular, the banking sector grew very rapidly in a few years. This "miraculous" process ended in the bankruptcy of almost the entire banking sector.

IV.1 THE UPSWING

As shown in Table 5.4 the number of firms in the banking sector increased by a factor of 2.6 between 1974 and 1981. The increment is accounted for mainly by foreign banks and by financieras. But the range of firms in the financial sector and operations transacted also increased. According to Luders [1986], quoted by Velasco [1988, p. 8-9]:

Savings operations (before a monopoly of the Banco del Estado) were permitted for all banks, and housing mortgage transactions (previously a virtual monopoly of SINAP) were also expanded to

all banks. The volume and diversification of government and Central Bank papers in the market increased noticeably; the range and number of mutual funds increased manifold; businesses began to issue significant amounts of commercial paper which were intermediated by depository institutions, stock exchanges and mutual funds; the insurance business expanded its lists of products; consumer credit offered by financial institutions expanded noticeably, etc.

The ratio of non-monetary assets in the financial system to total assets was about 15% in 1973-75, and climbed to around 70% in 1981-82. The evolution of loans to the private sector is very impressive. According to Held's data, the ratio of bank and financiera loans to GDP increased from 8.3% in 1975 to 50% in 1981 and 71% by 1982. According to Arellano [1985], the ratio of bank loans to GDP in 1969-70 was less than 8.5% (see Table 5.6). This implies a 10-fold increase in real terms in the period 1970-82, and 11-fold between 1975 and 1982.

New banks accounted for about 45% of the increase in loans in the period 1977-82, and their share of that market increased from 1.4% in 1977 to almost 29% in 1982 (see Table 5.7). Although loans from the financial private sector substituted for credit granted by SINAP, the government and the Central Bank, there was a huge increase in the internal indebtedness of the non-financial private sector.

The funding of that lending activity was done domestically and from abroad. According to Arellano's [1985] data, after the extremely critical year of 1973, in which the financial assets held by the public reached about 15% of GNP, from 1974 to 1977 they averaged about 20% of GNP (see Table 5.6). From then on, this ratio increased steadily up to 48.1% in 1982.²²³ If the average of the years 1969-70 is taken as a reference, total financial assets tripled in real terms by the end of 1982. Real non-monetary assets with banks and financieras increased by a factor of nine in the same period. Also, much of the public sector surplus was deposited with the financial sector and was lent to banks' clients.

²²³ If 1981 GNP (the cycle's peak) is used as a measure, the ratio of total financial assets to GNP grew from 39% in 1981 to 41% in 1982.

TABLE 5.5

AVERAGE REAL INTEREST RATES ON BANK PORTFOLIO ^a (annual rates, percent)				
	Rates Charged		Rates Paid	
Year	Total Assets	Financial Portfolio ^b	Total Liability	Financial Liability ^c
1978	19.2	20.7	12.4	14.2
1979	18.8	19.8	11.8	13.1
1980	17.6	18.4	10.7	11.7
1981	19.3	20.1	13.3	14.5
1982	21.6	23.0	17.1	18.4
1983	12.3	13.4	10.5	11.3
1984	10.0	10.9	9.1	9.7
1985	10.6	11.3	8.4	9.0
1986	8.0	8.5	5.7	6.2
1987	8.3	8.1	5.5	6.2
1988 ^d	7.4	7.9	4.7	5.4
Averages:				
1978-1980	18.5	19.6	11.6	13.0
1986-1988	7.9	8.2	5.3	5.9

^aExcluding finance houses and savings and loans associations.

^bBroad concept of portfolio or circulating assets as defined by bank accounting. It includes loans, investments (except fixed ones), cash balances and accrued interest.

^cRefers to the set of obligations with outsiders.

^dAnnual rates projected on the basis of accrued interest as of October 1988.

(Extracted from G. Held, p. 25, Table I-7.)

Source: Superintendencia de Bancos e Instituciones Financieras, Informacion Financiera, Santiago, several issues. Banco Central de Chile, Boletin Mensual, Santiago, several issues.

TABLE 5.6

CHILE: BROAD MONETARY AND CREDIT INDICATORS						
	Credit To The Private Sector			Monetary Aggregates		
		As a % of GDP		Increment	As a % of GDP	
Year	Mill. of \$	(a)	(b)	Dollars	M1	M2
	(1)	(2)	(3)	(4)	(5)	(6)
1970	832	7	8	-	10	17
1973	812	7	4	-	11	13
1974	697	6	5	-115	5	6
1975	625	8	6	-72	4	6
1976	1,004	10	9	379	4	6
1977	2,167	17	15	1,163	4	8
1978	3,615	23	20	1,448	5	11
1979	5,394	26	28	1,779	5	13
1980	9,724	35	40	4,330	6	13
1981	14,007	44	55	4,283	5	21
1982	17,272	72	62	3,265	7	28
1983	12,126	63	n.a.	-5,146	7	19

Column (1) is nominal credit to the private sector divided by the average exchange rate. The first information comes from J. Ramos, p. 169, Table VIII.4.

Columns (2), (5) are from Ramos, *loc. cit.*

Column (6) is from Ramos up to 1975 and from then on Le Fort.

Column (3) is total assets of the commercial banking sector as a percent of GDP, as reported in Arellano, p. 739, Table 4. It includes loans to state agencies and firms.

Source: The raw information comes from ECLAC and IMF's IFS.

TABLE 5.7

NEW BANKS, LOAN MARKET SHARE AFTER 1976						
	Percent of Total Loans in December					
	1977	1978	1979	1980	1981	1982
New Banks	1.4	5.5	10.3	19.4	25.6	28.8
Foreign New Banks	0.5	0.6	2.3	3.1	4.6	5.6
Banco de Santiago	0.9	4.9	7.2	8.4	8.6	12.0

(Extracted from Arellano, p. 748, Table 8.)

Source: Banco Central de Chile, Boletín Mensual.

The term structure of financial assets held by the public changed less than observers expected. In 1969 and 1970, assets with maturities of less than 90 days (including monetary ones) accounted for about 69% of total financial assets. After 1977, they fluctuated between 56% and 69%, accounting for 58% of total financial assets by 1982. However, there was a noticeable change in the mix of those short-term assets, as the monetary asset share fell from about 50% to less than 15%. On the other hand, the share of assets with a maturity of more than a year climbed from about 3.5% to 25%.

The banking system's external debt increased from \$154 million in 1975 to \$1968 million in 1979 and to \$6613 in 1982. In 1981, the year in which the crisis exploded, it reached \$6516 million, a billion dollars larger than the public sector's external debt.

Held [1989] presents a decomposition of the financing of the increase in total real assets of the financial sector. In the 1976-80 period its largest source of funds was money borrowed from residents, with foreign sources becoming relevant after 1978. In 1981 and 1982, it was the foreign sources that financed the increase in financial sector assets; while loans from the Central Bank were "the" source of funds in 1983.

The evolution of interest rates has been the subject of much debate. It seems clear that interest rates in the financial sector never converged to any resemblance of Fisherian parity. Both paid and charged real interest rates were extremely high by any standard (Table 5.5). As mentioned,

nominal interest rates could not be explained by the sum of the international interest rate and the expected rate of devaluation, during most of the time. Furthermore the spread between the charged and the paid interest rate was high and quite constant.

IV.2 SOME “IRRELEVANT” CLOUDS IN A BLUE SKY

The years following the reform were turbulent. The SINAP suffered from some policy and management errors as well as competition stemming from the financieras, once interest rates were freed. It went bankrupt in 1976. This triggered a wave of mergers that finished by late 1978 with just one savings and loan association remaining in the market. The government guaranteed the deposits with SINAP. The bailing out of SINAP was basically carried out in 1975. According to Harberger [1982], this explains why, in spite of a decline in the fiscal deficit from 10.5% to 2.6% of GDP in 1975, the Central Bank's flow of credit to the government increased from 30% to 41% of GDP in that year.

Late in 1976 several formal and informal financieras also went bankrupt. In 1977 a medium size bank, the Banco Osorno, failed, and in 1978 some financial cooperatives failed as well. The failure of Bank Osorno did not make a huge impression on either the authorities or the public.

The financial distress was unexpected. Neither regulations nor regulators were prepared to cope with it. The government rescued all creditors of failing financial firms. A partial deposit insurance, covering deposits of up to U.S. \$2700 in the banking sector, was enacted in 1977. Informal financieras were prohibited and the minimum capital of the formal ones was increased ten-fold. As a result of this measure, the capital requirement of a financiera reached U.S. \$3 million, or 75% of a bank's minimum capital.

The Bank Osorno episode is important for two reasons. First, since the bank was owned by a failing grupo, the financial strategy of these conglomerates was clearly exposed for the first time. In spite of the losses due to the high concentration of risks within the group and group-related operations, no special provision was passed. Only three years later on the eve of the financial crisis, did the bank supervision agency start watching the concentration of risks at the bank level.

Second, after the 1982 crisis, several observers concluded that the bailing out of depositors in 1977 had contributed to generate the public perception that an implicit deposit insurance was really in place. This had led depositors to seek the highest interest rate without taking into account the risk they were assuming, but believing in effect that their deposits were risk-free. This author does not share the view that this particular incentive-problem explains the later crisis, but of course one cannot neglect this episode when interpreting the later events.

The closing of SINAP meant that a substantial flow of funds that used to go into it,²²⁴ began to be channeled to the private financial sector. In this turbulent scenario, the just privatized banks played a significant role in the privatization of other non-financial state enterprises. They became key pieces in the formation of the financial rings called grupos. After 1978, the behavior of the banking sector was not part of the publicly debated issues. The troubles reviewed were seen as some negligible clouds in an otherwise limpid sky.

IV.3 THE CRISIS

In early 1981, an important Chilean firm, CRAV, failed because of amateurish speculation in the international market for sugar. The episode served to blow the bubble and the entire economic situation began to deteriorate quickly. A huge negative external shock to the terms of trade and to the interest rate hit the economy. Besides, as happened also in Argentina and Uruguay, the real exchange rate had accumulated a non-negligible appreciation after the fixing of the parity.

In spite of that, Chilean banks managed to increase their external financing during 1981. The cut in private expenditure required to reduce the macroeconomic disequilibrium did not show up. On the contrary, according to Hernán Cortes Douglas [1983], the 1981 private sector deficit was the largest in Chilean history, reaching 15% of GDP. As the crisis evolved, and a significant portion of the Chilean banking sector went bankrupt by late 1981, external financing suddenly dried up in 1982. The

224 According to Arellano [1985, pp. 728-29], since its inception in the 1960s, SINAP became the largest recipient of private financial savings in Chile. In the 1972-74 period, the money borrowed from the public by SINAP was enough to cover all its loans, and a surplus was deposited with the Central Bank.

interruption of financial inflows precipitated the crisis, which ended in the *de facto* nationalization of the banking sector in early 1983, after abandonment of the fixed parity in May 1982.

A distinguished analyst of the Chilean economy, E. Barandarián [1983] described the situation as follows:

In May 1983 it is difficult to imagine a more critical financial situation than the Chilean one: capital losses on the part of firms and people are of such a magnitude, that the majority of debtors will only be able to comply with their financial obligations by giving away most or all of their assets. The natural resistance to realize those losses has damaged the solvency of almost all financial firms. Actually, they have associated with their debtors' ... attempts at transferring part of their obligations to their creditors or to a third party. Immediately, that reaction of the debtors has aggravated the fall in productive activities to levels never imagined before. It can be asserted that the solution of the financial problem is a necessary condition for production to recover. Besides, the efforts of the debtors have translated into pressures on the political authority, from which a global questioning of the legal and institutional structure can be deduced. (p. 90)

Despite laws and public statements, the government got deeply involved in bailing out of the banking sector. It assumed all private external debts and channeled enormous transfers to ailing firms, both financial and non-financial, as will be shown later. Actually, in the period May 1982 to March 1983 the Central Bank of Chile channeled funds to the financial sector that represented 15% of 1982 GDP (Arellano [1985, p. 725]).

V. MACROECONOMIC AND BANKING PERFORMANCES -- I

After the brief description presented in the previous sections, it is time to pay closer attention to the available details, in order to stress the way in which banking sector performance influenced macroeconomic outcomes. This section covers the period prior to the crisis.

V.1 GRUPOS AND FINANCIAL FRAGILITY

Macroeconomic theory provides little guidance in appraising the consequences of the formation of conglomerates. Many observers believe that the grupos did play a critical role in generating the Chilean crisis. Their rationale is basically as follows. First, the grupos strengthened the linkages among bank debtors in such a way as to offset any portfolio diversification on the part of the banks. Second, there is a distinct possibility that the channeling of funds towards related firms could have led to a misallocation of resources, in terms of the profitability of the projects financed.²²⁵ Third, since the funds channeled through the banks to their own ring of firms were partially destined for the purchase of the firms' own stock, banking behavior contributed directly to elevate stock prices via a "false" demand. Baeza [1983, p. 115] refers to:

...the manipulations of stock quotations; the portfolio concentration of some mutual funds that apparently diversified their risks investing in different ones, but in fact those risks were the same under different names; the utilization of insurance companies as investment companies that invested their reserves to control corporations, not to guarantee the resources to repay damages, are all manifestations of our financial crisis...

Fourth, as Harberger [1985] explained,²²⁶ the demand for credit to finance the purchase of privatized firms by the grupos, turned into a false demand as many of those firms were deeply hurt by the depression in 1975. The regulations governing the write-off of bad loans also contributed to the continued rolling over of those bad loans.

225 Banks may have provided too much funds for the purchase of assets and expenditures directed towards increasing the market shares of the grupo's firms.

226 See also Edwards and Cox-Edwards, Chs. 3 and 4.

TABLE 5.8

BANKS: GRUPO RELATED LOANS (share of total loans, percent)				
Group	Financial Firm	Share of Related Loans		Share of Market
		June 1982	February 1983	December 1982
Vial-Banco	Banco BHC	17.1	18.5a	3.3
Hipotecario	Banco de Chile	16.1	19.7	20.0
	Morgan-Finansa	7.2	6.8	1.6
Cruzat-Larrain	Banco de Santiago	44.1	45.8	11.8
	Banco Hipotecario de Fomento Nacional	28.2	18.9	3.3
	Banco de Valores	23.4	24.4	2.0
Edwards	Banco de A. Edwards	15.9	15.4	3.1
Errazuriz	Banco Nacional	29.1	30.1	1.9
Matte	Banco Industrial y de Comercio Exterior	4.0	5.5	1.2
Yarur	Banco de Credito e Inversiones	8.6	12.0	5.1
Other Firms	Banco Internacional	20.1	25.9	1.1
	Banco Sud-Americano	13.0	16.2	4.6
Concentration	Banco Concepcion	17.0	12.0	4.1
	Financiera Ciga	26.3	24.1a	0.2
	Financiera Corfinsa	19.3	22.4	0.1
	Financiera FUSA	21.0	18.0	0.3
	Financiera de Interes Social	14.9	15.4a	0.1
	Financiera Condell	11.5	6.4	0.2

(Extracted from Arellano, p. 744, Table 7.)

Source: Superintendencia de Bancos, Informacion Financiera, December 1982 and February 1983.

It is not easy to directly evaluate these assertions although the information available about credit concentration in related firms is impressive (see Table 5.8). In addition, the way in which regulation was changed in order to prevent the repetition of situations of this sort indicates that it was generally understood that financial fragility was indeed increased by these manipulations.

V.2 A MORE GLOBAL VIEW

Regardless of the issues raised by grupo formation, several other aspects must be emphasized to show the relevance of banking performance for macroeconomic outcomes.

a) The Banking Sector and Capital Inflows

One of the main efforts of the economic reform was to open up the economy. Except for some few well-known Chilean firms, such as the large copper producers, the non-financial private sector previously had little or no access to the international credit market. While in the 1976-79 period before financial liberalization the non-financial private sector used about two-thirds of total external financing, “access to external credit was limited to a small number of firms that, because of their size or their productive activities, had direct relationships with foreign banks” (Barandarián [1983, p.91]). Furthermore, because of financial repression, the previous nationalization of banks and the confrontation with the socialist government, these non-financial firms did not even have well-established relationships with the domestic banking sector. Indeed, this may be one factor explaining grupo formation.²²⁷

Thus, without a private banking sector specialized in credit granting to its domestic non-financial private sector, and given the underdevelopment of Chilean capital markets, it is difficult to understand how huge capital inflows could have materialized in such a brief period of time.

Private indigenous banks performed a very important economic task: they acted as a decentralized loan division of foreign banks. They were

²²⁷ Paredes and Caller [1992] presents some empirical evidence that seems to point in a different direction.

supposed to have the expertise to choose appropriate clients and, in addition, be ready to commit their own capital in these operations. By definition too, the portfolio of a bank is more diversified than that of a non-financial firm. Thus, by lending to local banks, foreign banks were already diversifying their portfolios within Chile. The costs of lending to “Chile” were diminished by lending to banks instead of lending directly to non-financial firms.

It is this decentralization of lending that helps explain why international credit not only did not cease in 1981 at the onset of the crisis, but actually expanded. Foreign banks only realized the magnitude of the crisis in 1982, after it had been unfolding for almost one year. Another indicator of foreign banks’ expectations is that the spread between LIBOR and the interest charged to Chilean banks was declining, the maturity lengthened and the amounts of loans increased up to that moment.

After three years of recording gaps between private investment and savings of 7 to 7.6% of GDP, private sector excess spending amounted to 15% of GDP in 1981! Such a figure could only arise because a very accommodative banking sector, without which that level of excess spending would have quickly exhausted the foreign reserves of the Central Bank. In the event, this only occurred a year later.

b. The Banking Sector and the Allocation of Credit

There are several ways of looking at the role of banks in the allocation of credit. Both quantitative and qualitative aspects are involved. First of all, banks were not allowed to take positive or negative exchange rate positions. Nevertheless, in practice, they did, as they made dollar-denominated loans to sectors producing non-tradable goods. Since the share of dollar-denominated loans increased just before the crisis, i.e., just when the probability of a devaluation grew, the banks positioned themselves to make capital gains. However, these capital gains could not be realized, because they led their debtors into bankruptcy.

Banks’ lending policies were extremely aggressive according to most observers of the Chilean situation. Barandarián [1983, p. 98], observes: “... the top management of banks became biased towards those who were aggressive in business promotion, but had few analytical skills or inde-

pendent minds. This trend was reinforced by the increased professionalization of financial activity, that led to a homogenization of criteria and analytical methods". That attitude is reflected in two important indicators, the evolution of the market share of new banks (Table 5.7), and the change in the composition of the loans granted by the banking sector (Table 5.9). Two examples are worth mentioning:

- (i) The Banco de Santiago, a small bank in 1977 in terms of its share of the loan market, became the second largest in the country in 1982, with a share of 12%.
- (ii) The flow of dollar-denominated credit to the construction sector in 1980 and 1981 represented 8% and 29% of the total flow of credit, respectively. With regard to peso-denominated loans, the respective shares are 16% and 11%. It is worth recalling: the increase in total peso loans was 10% and the increase in dollar loans was 55%! Put differently, the funds lent to construction represented 8% of sectoral GDP in 1977 and 96% in 1981. Following the decline in prices, in the level of activity, and in the nominal amount loaned, it reached almost 150% the following year!

TABLE 5.9

INDEBTEDNESS WITH THE FINANCIAL SYSTEM BY SECTOR									
	1970	1973	1974	1976	1977	1979	1980	1981*	1982
A) In Domestic Money (Billions of 1982 Pesos)									
Agriculture	17.3	17.0	16.1	20.9	24.5	50.5	57.4	53.0	53.5
Mining	1.0	0.1	1.2	0.6	1.1	4.0	5.3	5.7	5.8
Industry	27.0	8.2	12.9	16.5	30.7	58.2	60.6	47.2	48.9
Construction	4.2	1.2	0.9	1.7	3.5	16.5	39.1	44.1	49.0
Commerce	10.4	4.5	2.2	5.7	21.0	61.4	77.9	77.9	67.7
Transport & Communic.	1.1	0.8	0.7	1.6	2.7	7.4	16.5	12.5	7.9
Financial Services		-	1.5	0.1	1.3	31.2	66.3	92.5	114.0
Non-financial Services		0.5	1.3	1.7	2.5	11.2	23.0	29.0	44.5
Consumer	0.4	0.7	0.7	1.2	3.9				
Public sector + APS	7.5	33.7	6.3	7.6	11.4	-	-		
Total	77.5	67.3	44.5	59.6	108.0	279.9	424.6	468.8	470.7
B) IN FOREIGN MONEY (MILLIONS OF DOLLARS)									
Agriculture	0.7	0.3	1.1	12.1	13.2	140.0	437.1	646.5	600.8
Mining	1.2	0.1	0.2	6.6	4.7	18.6	105.8	165.3	203.3
Industry	29.3	11.4	57.1	159.7	281.2	1059.3	1525.4	1838.9	1392.9
Construction	0.9	0.1	0.1	3.4	7.4	71.4	236.0	907.8	650.6
Commerce	10.0	6.8	30.2	96.6	305.4	536.5	1172.7	1427.3	965.6
Transport & Communic.	0.6	0.1	0.3	5.7	2.7	93.3	144.0	173.5	202.3
Financial Services		3.6	3.4	4.7	2.8	88.2	276.5	453.0	695.0
Consumer		0.4	0.1	2.3	1.3				
Public Sector + APS	6.0	6.9	12.6	134.9	111.1				
Total	75.8	108.7	187.5	430.9	751.0	2208.0	4244.3	6588.4	5706.3

(continued)

TABLE 5.9 (cont.)

INDEBTEDNESS WITH THE FINANCIAL SYSTEM BY SECTOR										
	1970	1973	1974	1976	1977	1979	1980	1981*	1982	1983
C) Total Domestic and Foreign Denominated Debt as Percentage of GNP of the Sector										
Agriculture	19.8	10.7	10.3	10.7	24.4	20.1	49.1	65.6	71.4	82.5
Mining	1.7	0.1	0.9	0.9	1.9	1.5	5.1	10.0	12.5	17.9
Industry	12.1	1.8	5.3	8.9	18.8	20.8	42.1	42.5	41.6	61.0
Construction	1.7	1.0	0.7	1.0	5.0	8.0	32.3	64.3	96.3	149.0
Commerce	6.7	1.4	3.3	4.6	15.0	25.5	38.9	50.6	52.8	58.5
Transport	2.4	0.7	0.8	1.5	4.7	4.2	18.0	28.8	24.9	31.5
Total	8.5	4.1	4.5	5.8	8.8	14.0	30.3	42.1	49.2	69.1

* 1981 does not include institutional interventions.

^a Only debt from the private sector. Excludes public sector and APS.

^b Excludes contingent placements.

More generally, observers agree on the importance of bank loans in financing the increase in spending. Edwards and Cox-Edwards [1987-91] observe: "The rise in expenditure (consumption and to a lesser extent investment) was largely financed through higher credit — denominated both in domestic and foreign currency — obtained from the banking sector". Similar expressions can be found in Arellano [1985] and Barandarián [1983].

The aggressiveness of lending policies may also be examined through data on the evolution of non-performing loans. The increase in the ratio of non-performing loans means a less careful screening job on the part of the banks. Bankers think of the first way out and the second

way out for their credits.²²⁸ The first way relies on the study of cash flows, the second on the value of collateral. The study of projects takes time and in a boom situation saving time is earning money, if one can devise a good screening procedure. Collateral is the usual method. So in order to keep the rhythm of business in a boom, the “second way out” prevails. But collateral is valued at market prices, that is, at boom prices. By definition those prices are not sustainable and, as we will try to substantiate later, they are not independent of bank lending policies. Therefore, the “logic of doing business” leads bankers to make systematic mistakes in booms.

Chilean economists debated whether the increase in loans reflected the entrance of new debtors, previously rationed by the system (see Barandarián, p. 93 ff). While there is no direct evidence on that point, one may think of each new client or group of homogeneous clients as a new market. An aggressive lending policy has to lead to new customers. Indirect indicators are the following.

First, the increase in the market share of new banks. Second, the increase in the amounts lent to the agricultural, construction and transportation sectors.²²⁹ Third, credits to individuals amounted to 25% of the total in 1982. About 20% were consumer loans. The number of consumer loans reached more than 1.2 million or about 38% of employed people (Arellano [1985, p.745]). Fourth, the flow of credit channeled through the public sector budget in the 1974-79 period was less than half the amount in 1969-70. The basic sources of public sector loans were the BCC, SINAP, the Social Security Agencies, Cajas de Previsión for housing; CORFO, CORA, INDAP for agriculture; CORFO, SERCOTEC for industry; ENAMI for mining; Cajas de Previsión for consumption. Fifth, real interest rates were extremely high over the whole period. The widening of the market may partially explain this phenomenon.²³⁰ Last, but not least, Chilean observers tend to agree that the lion’s share of bank loans in the period

228 I borrow this terminology from Pascale [1994].

229 Arellano [1985, p. 745] says that small and medium size firms predominate in the construction and transportation sectors.

230 The long lasting era of financial repression meant an extremely high interest rate for rationed potential clients of the banking sectors, especially consumers. Therefore, a huge (by international standards) observed real rate of interest need not mean a real interest rate larger than the one ruling before.

1974-1979 was captured by the emerging conglomerates. Furthermore, if Harberger is correct about the long standing false demand for credit, the banks of the grupos needed to expand their business to outsiders in order to prevent the erosion of profits stemming from the operations alluded to previously. So, when banks were able to broaden their funding base in 1979 and especially in 1980, and regulations were changed to eliminate the old discrimination against non-corporate borrowers, they launched an aggressive policy to gain new good customers.

c) The Banking Sector and Demand for Credit: Expectations

Barandarián [1983, p. 97] is of the opinion that “the financial sector played a decisive role in generating a collective euphoria”. Baeza [1983, p. 115] concurs that “the change in expectations towards a larger wealth is also a byproduct of the indebtedness”. .. “In their attempt to place the resources they have obtained abroad, the banks stimulate their clients to borrow money to buy here and there. The larger demand so generated increases asset prices and creates the feeling of a larger wealth. The point is that this expectation of a larger wealth was not spontaneous, but clearly financed by an increased foreign debt”. Arellano [1985, pp. 744-45] refers to the effect of the government’s “*triumfalismo*” in expectations, and associates it with the existence of an abundant supply of loans, never experienced in the previous forty years.

VI. MACROECONOMIC AND BANKING PERFORMANCES -- II

This section examines the banking crisis and its consequences for macroeconomic performance.

VI.1 THE CRISIS WAS UNEXPECTED

As in the Uruguayan episodes, the banking crisis was unexpected. Several indicators of this are reviewed below. Why is it important that the crisis was unexpected? Because it is this feature that generates the situation brilliantly described by Barandarián (quoted above in Section IV.3). The crisis was not contemplated in the intellectual universe of the authorities. It was not a shock of very low probability. It was simply not a contingency considered before it actually occurred. Therefore, there was no plan to cope with it.

Furthermore, by the definition of a legal system, the law will have a solution also for this unexpected reality,²³¹ but carrying out that solution can do great political and economic damage. So, the laws cannot be applied blindly. This widespread feeling that no really acceptable solution exists opens up a period of “social deliberation”. There is not exactly a legal vacuum, but nobody feels that they have to abide by the legal rules. In old fashioned economic language (and thinking), the crisis cannot be considered an equilibrium phenomenon.

We now review the above mentioned indicators.

a) The manner in which the government started to tackle the crisis shows clearly that it had not expected a problem of this magnitude. According to Barandarián [1983], by the first semester of 1981 it was realized that the new level of the aggregate demand was unsustainable. Nevertheless the banking sector continued to expand its lending. From the second half of 1981 on, the increase in dollar-denominated loans was directed towards the refinancing of existing loans, capitalizing interests as it came due.

On November 2, 1981, the Bank Superintendent took over eight small financial firms, after on-site examinations showed them to be insolvent. Some fraudulent operations were also discovered. During the first half of 1982, the government kept waiting for an orderly liquidation of debts, which never came. The devaluation in June made it clear that almost the whole financial sector was in deep trouble. In the last months of the year a liquidity crisis surfaced, and the BCC reacted by pumping funds into the market to prevent the interest rate from skyrocketing. On December 16, 1982 the BCC opted for a virtual takeover of the banking sector (Barandarián [1983]). On January 13, 1983, the government decided to liquidate the debts of some large debtors considered insolvent by the authorities. It took over five banks, including the two largest ones, representing two thirds of the total capital position of the private banking sector and almost 40% of the total assets of the financial sector. From this point on, the BCC continuously increased its open support of the banking sector and full deposit insurance was enacted. March 1983 marks the end

231 We follow Kelsen's interpretation of the completeness of a legal system. Perhaps that is why we end up in a somewhat Godelian dilemma.

of the deflationary solution to the crisis (Barandarián [1983, p. 104]). From then on the government adopted the strategy of “socialization” of the losses (Le-Fort [1993]).

b) The unexpected nature of the crisis is revealed also by the ratio of non-performing to total assets of the banking sector. This ratio climbed from 1.2% in 1980 to 2.3% in 1981, 4.1% in 1982, to almost 9% in 1984. It would have jumped to about 17% in 1983 without BCC’s massive purchases of non-performing loans.

A “wait and see” attitude cannot be the optimal response in such situation. According to Baeza [1983, p. 116]:

The bubble burst on January 13 without any surprise for the players in the financial market. Since August they had verified that the situation was considered untenable by the authorities, and artificially maintained by them just because they did not have a plan to manage it. The generalized cessation of payments was avoided fortnight by fortnight in August and September, and day by day in December.

c) The regulation package ruling at the onset of the crisis contained virtually no provision referring to risk concentration. “Related” or “subordinated” risks were not dealt with at all. Thus, lending to a single conglomerate linked to the bank was not recognized as especially risky. In 1981, that kind of risk was taken into account. In June 1982, the maximum amount to be lent to “related risks” was set at 5% of total loans. But the banks were given two years to comply with the new regulation. This period was later extended.

By December 1984, lending to grupos related to banks amounted to 215% of the capital and reserve position of the involved banks. This percentage climbed to 240% for the indigenous banks and to 303% in the case of the banks taken over by the Central Bank in January 1983. In other words, the owners of insolvent banks had obtained loans three times larger than the resources they had invested as capital in those banks!

According to the available data, by June 1982, twenty-four out of 55 financial intermediaries showed high risk concentration. The assets of those firms accounted for 72% of the assets of the financial sector. Re-

lated risks in those firms represented 10% of the total assets of the financial sector.

d) The most obvious and fundamental indicator of the unexpectedness of the crisis is the drastic overhaul of BCC's charter. This was a conscious effort in institutional engineering directed towards eliminating banking crises, inspired partly by Simons' Chicago Plan for Monetary Reform.

e) Mauricio Larraín, second in charge at the Superintendency of Banks in 1983 said:

Traditionally, financial sector crises had originated in the same risks. ...The public sector did not have any cumulative experience in risk analysis and in information production. There were also problems with parts of the legislation... Finally, the academic sector has not given any priority to the study of the nature and development of financial intermediation in our country. Research in this area is scanty...

In short, officials in charge of banking surveillance could not find any guide to the problem either in the regulation and the theory embedded therein, or in prevalent economic theory. In fact, that theory did not recognize the problem. For prevailing theory, banking crises are anomalies.

VI.2 RESCUE OF PRIVATE AGENTS: THE QUASI-FISCAL DEFICIT

The rescue of private agents organized by the Central Bank of Chile was implemented through various operations that are reviewed below. These operations resulted in permanent losses at the Central Bank, which are usually referred to as "quasi-fiscal deficit" or "parafiscal deficit". As with the measuring of fiscal deficits, the change in accounting conventions leads to very different estimates of the problem (Table 5.9)

Eizaguirre and Larrañaga [1991] provide two different estimates. First, in dollar terms, and computing some items on an accrual basis, they determine a range between U.S. \$6.2 billion and U.S. \$9.0 billion for the accumulated losses of the BCC as of December 1989. By applying some conventions they transform this estimate into an annual figure computed

in cash terms, resulting in an estimated permanent annual deficit of 2.2% of GDP. Second, using 1990 figures and cash flow accounting from the beginning, they conclude that BCC's losses account for 1.9% of GDP.

Given the proceeds of the stock of public debt held by BCC and assuming seignorage proceeds equal to the average for the period since 1983 in dollar terms, they estimate that an annual deficit within the BCC persists which will require new issues of public debt of about 0.75% of GDP (meaning U.S. \$200 million in terms of 1990 GDP).

Leone [1993] computes the quasi-fiscal deficit of BCC using rather eclectic accounting rules, with some terms computed on an accrual basis and others on a cash basis. In the period 1987-92, the quasi-fiscal deficit of the BCC had been declining from around 3.2% of GDP in 1987-88, to 1.2 by 1991-92. BCC's losses in 1990 accounted for 2.2% of GDP, a figure consistent with one of Eizaguirre and Larrañaga estimates. The net worth of the BCC decreased from U.S. \$3431 million in 1981 to U.S. \$1593 million in 1990, in accounting terms (Le-Fort [1993]).

Le-Fort estimates the total cost of the crisis to about U.S. \$8.9 billion. Up to June 1990, according to Eizaguirre and Larrañaga, the quasi-fiscal deficit was financed by issuing public debt and by increasing the monetary base. The increase in public debt since 1983 totaled U.S. \$5.7 billion, about 21% of 1990 GDP (although GDP had increased by about 47% since the trough year of 1984). By mid-1993, the domestic non-monetary liabilities of the BCC totaled 33% of GDP (Le-Fort [1993]). The issue of money reached an average annual rate of U.S. \$180 million or 0.72% of 1990 GDP (1.06% of 1984 GDP). The interesting thing is that the financing of this huge quasi-fiscal deficit took place in what by Latin American standards was not a very unstable macroeconomic environment.

As the ensuing description will show, bailing out the financial sector was not a single act drama. On the contrary, the crisis and its solution lasted for several years. The Chilean financial sector remained distressed until 1986. Besides, the condition of the BCC 10 years after the start of the crisis is still putting some pressure on fiscal management.

Below, we follow Eizaguirre and Larrañaga in order to give a brief description of the operations giving rise to the quasi-fiscal deficit of the BCC.

a) Financial Firms Failed in 1981

In December 1981 the BCC granted emergency loans to four banks and four finance houses that went bankrupt and liquidated. These loans amounted to almost 9% of 1982 GDP (see Table 5.10). Four years later the Bank could recover some money, but the definite losses amounted to about U.S. \$370 million.

b) The Purchase of Non-performing Assets

In the period 1982-86 the BCC purchased non-performing loans from the private banks. It also gave them emergency loans. The purchase of non-performing loans amounted to 3.2% of GDP in 1982, and to 12.5% of GDP in 1983.

TABLE 5.10

CENTRAL BANK OF CHILE: QUASI-FISCAL DEFICIT (millions of U.S. dollars, 1989)			
Type of Operation	Money Advanced	Value of "Collateral"	Losses
Advances to Bankrupt Firms	1,930	0	1,930
Purchase of Loans	3,114	2,513	601
Preferential Dollar	3,320	0	3,320
Restructuring of Internal Debt	1,570	1,180	390
Exchange Rate Insurance	1,585	0	1,585
Exchange Losses	1,227	0	1,227
Total	12,746	3,693	9,053

(Extracted from Eizaguirre and Larranaga, p. 22, Table 9.)

NOTE: The exchange rate used in the computations was: U.S. \$1 = 289 Chilean pesos.

Source: Computation of the authors based on the Central Bank balance sheet.

c) Assumption of the Private Sector's External Debt

Through the establishment of a "preferential dollar", the government decided to assume private sector external debt. The government sold the dollars needed to service the debt at a price below market. The BCC assumed the losses stemming from this policy. Table 5.10 presents an estimate of the direct losses implied by the program. Some indirect losses arose under the following scheme.

d) Exchange Rate Insurance

An exchange rate insurance scheme was launched in 1983, implemented through swaps. There were two sources of losses in such program: First, the exchange rate at which the BCC was supposed to resell the dollars was the market rate at the moment of purchase adjusted for the inflation differential between Chile and the rest of the world. During that period the devaluation rate exceeded the inflation rate, so those selling dollars to the BCC profited from the transaction. Second, the BCC paid interests on its dollar debt.

e) Exchange Rate Accounting Losses

Because the foreign exchange rate position of the BCC was negative (i.e., the BCC was a net debtor in foreign exchange-denominated instruments), the devaluations produced systematic accounting losses.

f) Restructuring of the Debt Overhang

During 1984 and 1985, the BCC financed the restructuring of the over-indebtedness of the non-financial private sector, mortgage and consumer loans included. The maturity and interest rates were changed, and BCC paid for the subsidy implicit in these operations.

g) Miscellaneous

Eizaguirre and Larrañaga mention, but omit from their computation of the quasi-fiscal deficit the following items:²³² the payments made by BCC at the closing of five small financial firms in 1983; the sale at subsidized prices of new stock in the large banks it had taken over (“popular capitalism”); the subsidy implicit in the debt-conversion schemes that were used to re-fund banks and private non-financial firms and to cancel mortgage loans; and the discount granted on early repayment of already subsidized restructured credits.

VI.3 BANK LOANS, INFLATION AND DEFLATION

In a fixed exchange rate regime credit is a *real* variable, by any standard. Also, inflation and prices cannot just be explained by the expansion in money supply, as distinct from money demand. Furthermore, an increase in money demand, *ceteris paribus*, has deflationary effects.²³³

The synchronized expansion or contraction of loans by banks have real and nominal effects — inflation and boom, deflation and crisis, respectively. But we are using inflation and deflation in a somewhat loose sense since, as a consequence of the movements in banking assets, nominal changes are necessarily associated with relative price changes. The composition of aggregate demand changes. So, the appreciation of the Chilean peso, or “atraso cambiario”, is the other side of the lending policies of the banking sector, irrespective of capital inflows. The sudden changes in the sources of external sources of funds are important, but without the “middlemen” nothing would happen.

VI.4 OTHER ISSUES

a) The government’s difficult external debt problem stemmed directly from the financial crisis. Moreover, the crisis first, and the perma-

232 According to Eizaguirre and Larrañaga, these items were not very important quantitatively. Clearly, they were no longer an issue by the time they were writing.

233 In the case of Uruguay or any financial center this point is easily seen. The increase in “money” stemming from deposits by foreigners will not per se have any impact on aggregate demand. Bank lending policies will determine what the final outcome will be (if this “extra money” is lent abroad nothing will happen).

ment distress later, are the sources of the weakening of the capital position of the BCC. This episode made it crystal clear that while monetary and fiscal policies may have some degree of autonomy, they are not independent. In fact, the degree of autonomy depends on the strength of the BCC, given a sustainable fiscal position. The converse, a weak fiscal stance leading to a systematic accommodative monetary policy, is well known in Latin America.

When did this problem become apparent? When capital inflows resumed. The need to stabilize the conditions for export development, and the traumas associated with real exchange rate appreciation, called for BCC intervention to sterilize capital inflows. But given the weaknesses in the banking sector and the existing quasi-fiscal deficit, the room for maneuver was small indeed.

b) The banking crisis generated a “flight to quality”. In small open economies, as shown in the Uruguayan case, this does not mean putting “pesos in the mattress”. It means fleeing from banking liabilities and from pesos. In a cunning move, the Chilean government partially satisfied this increased desire for better financial assets by providing the public with a new domestic debt instrument that sheltered the holders against inflation. Nevertheless, the demand for dollars also increased. Capital flight from Chile also took place. A lower bound for such flights is given by the foreign reserve losses of the BCC, which amounted to U.S. \$1.4 billion in 1982 alone. Over the 1982-87 period the BCC accumulated foreign exchange losses of about U.S. \$2.1 billion. M_2 climbed to 26% of GDP in 1982, then fell to 17% in 1985 and stayed below 18% of GDP till 1988. In 1991, it regained the same ratio to GDP as a decade earlier.

c) The relationships between the banking and non-financial private sectors were damaged. Their collusion to make third parties pay their bill did not suffice to rebuild close relationships. Dis-intermediation caused by the crisis meant the obsolescence of a good deal of the information capital of the banking sector. The memories of the crisis alone are enough to cool relationships. Since the vast majority of financial resources were channeled through the banking sector, the mentioned distortion meant lower domestic capital mobility and, therefore a reduced efficiency of savings.

d) *Ex post* we know that Chile has recovered from the crisis more rapidly than other countries. Many attribute the recovery mainly to the quality of economic management. We agree partly with this. But further questions remain that reality has yet not answered.

The granting of huge subsidies to the private sector was key to the economic policy of the recovery period. Many of them were not recorded as such, because they arose in the process of sharing with private sector investors the difference between the nominal and the market value of external debt, via debt conversion schemes.²³⁴ The realized gains (as opposed to accrued ones) were of course recorded. These subsidies were not granted on the basis of any evaluation of the investment project to which they were supposed to be applied. If the subsidy was just a source of an abnormal rent, one may feel uncomfortable with that, but this is not a long-term issue. But if the subsidy was a key ingredient to undertake the project, since those projects were carried out at crisis prices, those investments may yet not be profitable in the medium or long term. Thus, the price paid to obtain a quick recovery included a distortion in the profitability of capital, on top of the distortion created by the crisis itself.

e) Finally, as Edwards and Cox-Edwards explains (p. 196), “contrary to the rise in world interest rates and decline in the terms of trade, the drying up of foreign capital inflows was not a completely exogenous factor. It was to a large extent a reaction on behalf of international bankers to the deteriorating conditions and to policy mistakes”.

Regardless of the weight the analyst may give to macro-policies, since the relationship between international bankers and the economy is mediated by a bilateral relationship between foreign and domestic banks, all the factors that may impair this bilateral relationship are the focus of the problem. Thus, the banking crisis did play a role in the shaping of the external financial problems of Chile.²³⁵

234 In addition, exchange rate controls were enacted from 1982 on. Those controls were instrumental in creating and channeling the subsidies.

235 This is not to say that such was the determinant factor of the external debt crisis. By adopting a “view of the region”, that included all Latin America, international bankers colluded to shift most of the burden of the recovery on the individual countries, without helping those that were making an effort to solve the crisis. The smaller the country, the heavier the burden.

VII. SUMMARY AND CONCLUSIONS

In this chapter of the dissertation we have revisited the Chilean experience of the 1970s and early 1980s in order to substantiate our position and to stress the relevance of the feedback from banking performance to macroeconomic outcomes. This episode is rich in evidence for the relevance of these feedback effects. Both the expansion and the contraction of the Chilean economy give abundant examples confirming our basic hypothesis. We conclude that those who disregarded the influence of bank behavior could not on the whole understand the dynamics of the economy so that the crisis caught them by surprise.

Edwards and Cox-Edwards, at the beginning of their book, quote Gabriel García Márquez's Chronicle of a Death Foretold. The title of the book is appropriate and so are a couple of the excerpts quoted: "No one could understand such fatal coincidences"... "the chain of many chance events that had made the absurdity possible". Edwards and Cox-Edwards did not intend these quotations to mean that in the Chilean case, a *patternless* chain of events, that no one could understand, produced the fatal reality. But one could make such a case. Except, perhaps, for one thing: it was a "death foretold". I like this metaphoric way of putting what I stressed before: no matter how many signals are given in advance, if the event that they presage is not within the conceptual universe of the receiver, they mean nothing to him. The Greeks knew that the gods would blind those whom they found guilty of hubris —undoubtedly, a more value-charged warning of the relevance of theory than the one this chapter wants to transmit!

CHAPTER 6

SUMMARY AND CONCLUSIONS

I. INTRODUCTION

This final chapter summarizes the evidence contained in previous chapters and analyzes it along the lines sketched in Chapter 1. The first step is to produce an anatomy of the credit cycles reviewed in detail in this dissertation, as well as the 1977-87 Uruguayan episode; this will help clarify the discussion carried out later. In itself, it is a succinct summary of the major empirical findings of this work. Section III presents the four most important lessons of these crises. They refer to economic modeling, to the nature of the externality arising from the banking sector, to central banking and other forms of monetary management (in particular currency boards), and to international capital movements.

II. ANATOMY OF THE FOUR CREDIT CYCLES

A. Wojnilower's [1997, p. 1] comment on credit crunches in the United States — "...each such episode, though having much in common with others, is unique" applies as well to the crisis studied in this work. They followed a pattern that was remarkably similar. Since, as Prof.. V. Yohai taught me long ago, there is no better statistic than the human eye,²³⁶ I invite the reader to inspect Tables 6.1-6.5, in which we depict the evolution of banking credit (in real terms), and the rate of GDP growth. They will convey a striking first impression of the similarities of the four cases we have studied!

²³⁶ For a modern version of this intuition, see Benoit Mandelbrot, *Economic Notes*, 1997:2, p. 180. I thank Axel Leijonhufvud for bringing this reference to my attention.

II.1 THE PERIOD PRIOR TO THE BANKING EXPANSION

In these cases,²³⁷ a number of economy-wide conditions could be identified 2 or 3 years before the expansion of banking activities (see Table 6.1).

a. Recent Significant Political Changes

There were important political changes. The new authorities — in three out of the four military governments — were much more market-oriented than their predecessors. In the 1958 elections in Uruguay, the Colorado Party — led since the beginning of the century by its social-democratic wing (called “Batllismo”) — was defeated for the first time in 92 years by an alliance between its traditional rival, the National Party, and the “Ruralist” Movement.²³⁸ Fifteen years later, in June 1973, the President of the Republic with the support of the Military called a coup d’etat.²³⁹ In September 1973 the Army led by Gen. Pinochet toppled the socialist government of Chile led by Allende. In late March 1976 the Argentine Army removed the government led by the Peronist Party. In Chile and Uruguay particularly these political changes represented a sharp break with “normal” political life.

b. New Macroeconomic Programs

These political changes were accompanied by substantial changes in economic policy. On the macro side, in all cases exchange rate based anti-inflation plans and stricter fiscal policies were introduced. They were intended to save the economies from recessions, characterized by substantial fiscal and external imbalances and high and accelerating inflation.²⁴⁰

237 We refer to each credit cycle by indicating the country and the period or year of the onset of the banking crisis (e.g., Uruguay/65). In the cases of Argentina and Chile, which occurred in the early 1980s, we often simply say “in the case of Argentina” or “in the case of Chile,” to avoid unnecessary repetitions.

238 Initially the movement was a non-partisan movement with strong support in rural areas, especially among small and medium size rural producers.

239 The legal right-wing government did not have a majority in the Parliament. 40% of the seats were held by the National Party, led by the charismatic social-democratic leader, Wilson Ferreira Aldunate, and 20% by the Broad Front, an alliance led by Christian-Democrats and Communists.

240 By the end of the 1950s, double-digit inflation was still an infrequent and recent event in Uruguay.

Import restrictions were significantly reduced²⁴¹ and there was a tendency to free up capital movements. Controls that were very very loose in Uruguay in the early 1960s and in Argentina were completely removed in the mid-1970s in Uruguay. In Chile restrictions were increasingly dismantled although at a relatively slow pace until 1980. So, even though the actual economic situation at the time of the political changes varied from bad to extremely bad in each episode, economic policy reforms were pointing towards a much more market-friendly environment.

241 Chile in the 1970s was the country where external trade liberalization advanced most.

TABLE 6.1

THE PERIOD PRIOR TO BANKING EXPANSION: ECONOMY-WIDE FACTS				
	Recent Significant Political Change	Macroeconomic Program	External Trade Regulation	Capital Movement Regulation
Uruguay 1965	1959. Opposition wins for first time. More market-oriented.	Response to recession. BOP problems. Inflation problems. First stand-by agreement with IMF. Change in monetary regime.	General elimination of quotas. Protection by tariffs & taxes (1960/3)	Easier access to international markets (fixed exchange rate with very loose controls).
Argentina 1980	1976. Military rule (coup d'etat against Peronist Party). Clearly market-oriented.	Response to total economic disarray. Huge recession. Stabilization plan: 1976-8, monetarist style; 1979-80, "tablita".	Less restrictions, lower tariffs.	Less restrictions. Practically none since 1979
Chile 1982	1973. Military rule. Strongly market-oriented.	Response to total economic disarray. Huge recession. Stabilization plans: first monetarist, 1979 fixed exchange rate. Since late 1978 "tablita".	Single tariff, 10% (other non-tariff restrictions persisted).	Increasing dismantling of restrictions at a slow pace until 1980.
Uruguay 1982	1973. Military rule. Clearly market-oriented.	Response to failure of import substitution policies. Dramatic BOP problems (oil shock). 1976, change in monetary regime.	General elimination of quotas. Lower tariffs. Export promotion.	Complete freedom since 1976.

With regard to the banking sectors, the evidence is less uniform, but we can still find some striking similarities, as summarized in Table 6.2. In particular, during the second half of the 1970s, the three countries of the Southern Cone basically rid themselves of “financial repression.” Prior to 1965 in Uruguay and to 1980 in Argentina, a whole generation had not seen widespread banking crises.²⁴² In the 1980s, both Chile and Uruguay had fresh memories of significant bank troubles or outright generalized bank failures.

Lender of last resort facilities existed in all cases but were extremely limited in Uruguay in the 1960s. In contrast, deposit insurance did not exist or was at best very limited. Can was there an implicit deposit insurance? Clearly not in the cases of Uruguay in the 1960s or of Argentina. Not even long memories helped in that respect. In Chile, some observers argue that the 1977 bank troubles created a precedent in that respect.²⁴³ In Uruguay the precedents were mixed. In 1965 many depositors lost money. In 1971, when there was another outbreak of bank failures, some people also lost money. The legal coverage was fixed in 1965 pesos, which meant almost nothing ten years later.

Prudential regulation barely existed (Uruguay/65), or was very limited and increasingly loose in the cases where there was a bank supervisory agency with some powers (in all the experiences of the late 1970s and early 1980s). In other words, embedded in the Uruguayan legislation of the late 1940s, still applicable in the 1960s, was the idea that prudential regulation and supervision was not required. The same idea permeated banking policies in the late 1970s and early 1980s.

Interest rates were controlled in the first Uruguayan case²⁴⁴ and completely freed during the last one. In Argentina rates were freed since

242 Argentina has had banking crises in the late nineteenth century and during the Great Depression (the Central Bank of Argentina was created as a reaction to the latter in 1935). Uruguay had a banking crisis in the 1890s, and a mild panic in 1913.

243 As explained in our analysis of the Chilean experience, there is very little evidence supporting that view. This was an ex-post crisis “inference,” to suggest that the main reason behind the episode was that people did not care about bank behavior.

244 There were ceilings on bank deposit interest rates that were enforced. For lending rates no ceiling applied, except when banks used funds from the rediscount lines of the national bank. In the case of the finance houses, which were mainly subsidiaries of banks, no ceiling applied.

TABLE 6.2

THE PERIOD PRIOR TO BANKING EXPANSION—BANKING SECTOR SPECIFIC FACTS					
	Bank Failures	Safety Net	Regulation	Supervision	New Entrants
Uruguay 1965	2 small banks, 1958, 1962. No external effects.	LOR: very limited (informal). Deposit insurance: No.	Little change. Loose, law-based since 1948. Interest rates controlled (unchanged) since 1937.	Loose. Legality checks. Very limited powers.	Few new banks. Many finance houses (semi-formal). Some new bankers without experience.
Argentina 1980	Some. No external effects.	LOR: yes. Deposit insurance: Very limited.	Dramatic changes since 1977. More competition. Interest rates: free.	Increasingly loose. BCRA with strong powers.	Few new banks. Some bankers without experience.
Chile 1982	Significant bank troubles in 1977.	LOR: yes. Deposit insurance: no.	Reprivatization of banks. More competition. Interest rates: Free.	Loose. BCC with some powers.	Plenty of new entrants. Some without experience.
Uruguay 1982	Banking crises in 1965 & 1971. Strong external effects.	LOR: yes. Deposit insurance: almost nil.	Liberalized since 1979, except for new banks & universal banking. Dollarization offshore (regional)	Increasingly loose. BCU with some powers.	Weak domestic banks sold to strong international banks. Many finance houses (mainly Argentine) since 1978.)

1977, and were also liberalized in Chile. A sizeable dollarization of banking assets and liabilities only happened in Uruguay in the 1970s, but was also noticeable in Argentina, and not negligible in the early Uruguayan case.

Entry into the banking sector was relatively easy and was encouraged in all cases but Uruguay in the 1970s.²⁴⁵ In Uruguay/65 and in Argentina, few new banks were created, but finance companies flourished. However, in Argentina, because of the new banking law, there was a trend toward transforming various types of financial firms into banks. In Chile new banks were created partly due to the reprivatization of existing banks. In Uruguay/82, some international banks acquired small domestic banks after 1977 and during the outbreak of the banking crisis.

Summarizing, in the period prior to bank expansion, the rules of the game underwent considerable change both outside and inside the banking sector in most cases. This was not seen as a possible source of macroeconomic disturbance, as can be inferred from the stance of banking regulation and supervision. Given the very poor economic records of prior years, once it was realized that the changes were not causing any new troubles, it is quite likely that most people thought that the worst was over.

II.2 THE PERIOD OF BANKING EXPANSION

Before examining banking performance, it must be noted that the domestic private banks held a unique position as providers of external finance²⁴⁶ to the nonfinancial private sector. Firstly, stock markets were small and declining, partly due to higher inflation rates. Organized securities markets suffered from the same problem. Curb markets were buoyant in Uruguay in the 1960s, but controlled by banks, while they were declining in Argentina (and also controlled by banks). Only banks had access to the rediscount window of central banks, which meant access to subsidized funds. In Argentina and Chile the largest non-financial firms,

245 The trauma of the 1960s was still fresh in middle-income people's mind, as well as among the military. They did not support the elimination of the prohibition on new bank creation. They did allow the creation of off-shore facilities, which helped the resurgence of Montevideo as a regional banking center.

246 This refers to financial support external to the firm, not necessarily to the country.

including multinationals, had some access to international credit markets. In all countries such firms also had privileged access to national banks, so domestic private banks did not see them as a captive market.

The relationship between private and state-owned banks changed a lot over the years as well as during these episodes. The position of the former was not really hindered by the latter, in particular during booms. This was partly because state-owned banks are normally bureaucratic entities, reacting very slowly to market signals.

As shown in Table 6.3, the increase in private banking units and employees was substantial over a few years. Moreover, except in the later Uruguayan case, the fastest growing banks were the new ones, led by aggressive managements without much banking experience. Foreign banks also expanded a lot during the last Uruguayan episode. The most striking figures, however, are for the increase of bank lending in real terms. The smallest is the 9% increase in Uruguay in 1964, when GDP grew by about 4%. Others are astonishing: Argentina, 1979, 44%; Chile 1981, 28%; Uruguay, 1981, also well in the double digits. In all those years GDPs were peaking, but their growth rates were modest. Besides, except for Uruguay/65,²⁴⁷ those figures are part of a sequence of enormous yearly increases registered in the two or three years before the peak.

For many mainstream macroeconomists, banks behave passively during these episodes. However, the size of the lending growth rates makes it implausible that they could have occurred in a “direct lending” system. These doubts apply a fortiori to the case of small and medium size firms. Can we imagine massive direct access to world credit markets by such firms, including the largest international banks, in just a few months? Obviously not.

²⁴⁷ In this case, the real increase in banks loans over the previous years was almost the same as the increase in GDP: zero.

TABLE 6.3

PERIOD OF BANKING SECTOR EXPANSION — INDICATORS OF MARKET EVOLUTION							
	External Sources Other Than Banks	# Firms	# Outlets	# Employees	Real Loans	Led By	
Uruguay 1965	Curb market controlled by banks.	(60-64) 2 banks (2.5%) Others: n.a.	(60-64) 155 units (21)	(60-64) 1711 21%	60/63: 0% 64: 9%	Banks managed by new bankers.	
Argentina 1980	None, except for very large firms.	(77-79) 8 banks (7%) Others: 27. Fin. Co. (34%)	(77-79) (39%)	(77-79)(48%)	76/78: 68% 79: 44%	Domestic banks (mainly new bankers).	
Chile 1982	None, except for very large firms.	(78-81) 19 banks (76%). Others: -4 (-18%)	n.a.	n.a.	78/80: 41% 81: 28%	New domestic & foreign banks.	
Uruguay 1982	None.	(78-81) 0 banks. Others: 19 (475%)	(78-81) 44 (16%)	(78/81) 1700 (27%)		All banks.	

In Table 6.4 we summarize another set of indicators of banks' autonomous influence in the ascending part of the cycle. As expected, interest rates were high both in real and dollar terms, except in Uruguay/65 which, in this respect, is quite different.²⁴⁸ Deposit rates were clearly higher than predicted by passive (competitive) models of banking, and lending rates were much much higher. The spread between them cannot be accounted for by any consideration of taxes, operating costs or "risk premia." These spreads, in turn, explain why banks were so ready to increase their external indebtedness to finance their domestic operations. Large well-established and foreign banks were the main vehicles for importing capital. All this is consistent with a model of substantial market power on the part of the lenders²⁴⁹ as a whole combined with significant segmentation within the industry, with the newcomers paying a higher interest rate for their inputs, and lending to riskier borrowers.

What could have been the outcome with a competitive banking sector?

- a) Interest rates. In a competitive environment the asymmetry of information would have led to a lending interest rate similar to that paid by the government, probably a little higher. Deposit rates, in turn, given the access to foreign sources of funds, would have to have been close to Fisherian parity. Spreads would not need to be very high, and would be declining as the economy displayed stronger indicators.
- b) Amounts transacted. Given that kind of spread, the amounts lent and the external debt would have been smaller. Besides, there would have been many rationed borrowers.
- c) Consumers would have had comparatively more access than they did, small and medium size firms probably less, and conglomerates and rural producers certainly a much smaller share of the pie.
- d) Macroeconomic impact. The expansion in aggregate demand and the increase in asset prices would have been smaller and the com-

²⁴⁸ In every respect that credit cycle was less pronounced than the others.

²⁴⁹ One can safely add, lenders who were not extremely "rational."

TABLE 6.4
PERIOD OF BANKING SECTOR EXPANSION—INDICATORS OF BANKS' AUTONOMOUS INFLUENCE IN MACROECONOMIC PERFORMANCE

	Interest Rates	Spreads (deposits vs. Lending)	Banks' Foreign Debt	Concentration Non-Performing	Share of Issues	Other (1)
Uruguay 1965	Not an issue.	Not an issue.	Large (2)	High, especially in failed banks.	Large since mid-1964.	Sizeable insider lending. Currency mismatch (3).
Argentina 1980	Very high in real & dollar terms (4)	Very high (5).	Large in the case of estab-lished banks.	High, especially in failed banks.	Large. Noticeable since late 1977.	Sizeable insider lending. Currency mismatch.
Chile 1982	Very high in real & dollar terms.	Very high.	Large, all banks (6).	High in all banks.	Large since 1981.	Sizeable insider lending. Currency mismatch.
Uruguay 1982	Very high in real & dollar terms (especially the lending rate).	Very high.	Large, all banks. Part of it was non-resi-dent deposits.	High in all banks.	Large since 1981.	Highly dollarized since mid-1981 (7). Insider lend-ing only in some domestic banks.

TABLE 6.4 (Cont.)

NOTES:

1. Concentration here refers to two different items: high exposure by economic groups and also high exposure in some economic sectors.
2. In the case of the largest bank failed, it was 60% larger than the financial support given by the Banco de la República.
3. By this I mean that to close the foreign currency position, banks lent in dollars (at lower interest rates) to privileged customers that were producers of nontradable goods or middlemen in nontradable goods (e.g., construction, transportation, or big domestic firms). Another form of mismatch — generally limited by banking regulation — was to borrow abroad and sell the dollars to the CB. Then they lent the pesos to former rationed customers, like consumers or small businessmen.
4. This expression means that neither the deposit nor the lending rate was close to arbitrage limits commonly assumed in theory (e.g., the open Fisher parity).
5. The expression means that the lending rate — in particular the peso rate — was astronomical by international standards, leaving the impression of strong market power on the part of the lenders.
6. Some big, well-established banks held the largest share. External debt was also rapidly increasing. The excess spending of the Chilean private sector, as measured by the current account deficit, which was mostly financed by bank lending, reached 15% of GDP in 1981.
7. The Uruguayan case displayed the largest currency mismatch of all cases.

position of aggregate demand and supply would also have been different.

The stronger the asymmetry of information between lenders and borrowers,²⁵⁰ the more marked the reductions in amounts lent and in interest rates, and larger the set of rationed potential borrowers. Consequent to all these hypothesized differences, if an unexpected bad shock hit the economy, the expected debt overhang would not have encompassed the majority of entrepreneurs in all sectors of the economy.

The difference with the paradigm is also striking when we see the composition and quality of the banks' loan portfolios. First, concentration of risks was very high, even by banking standards (which are high). Except in the case of Uruguay/82, in which international banks did a large amount of lending, insider trading was pervasive.²⁵¹ Second, the share of non-performing loans began to climb before GDP peaked, and reached an astonishing figure. In the case of Argentina the decline in the quality of bank loan portfolios began as early as 1977. Third, in granting loans bank made intensive use of collateral. The increased amounts lent implied a larger demand for assets, especially those with higher income elasticity, such as housing, plots of land and the like. The outcome of one "round" of lending was to generate the bases for another round of "blind" expansion of lending.

A third point worth mentioning basically applies to all but the Chilean case: namely, the currency mismatch. This mismatch had two manifestations: (i) funding in dollars to lend in pesos, which had limits imposed by regulation (on the size of open positions); (ii) funding in dollars to lend in dollars to producers of non-tradable goods. In this case, banks' currency position appeared to be closed, because they would contractually transfer the exchange rate risk to the borrower. However, later they came to realize that by covering their own risk of a devaluation, they had increased the ex-ante risk of default by the borrower. But, if the risk of an unexpected devaluation is low, the policy is a "safe" way to augment loan volumes.

250 Imagine a case in which all lending is carried out by foreign banks from abroad.

251 It is not insider lending per se that matters (leaving aside illegal activities, of course), but the excessive concentration of risks taken by banks.

There is a more subtle point that attracted some attention in the 1980s (see Arriazu [1983] and [1987], and Mundell [1987]). Given a monetary regime of basically fixed exchange rates, it is possible for a while to finance whatever price level is determined by the public, if the money base increases at the right pace. In such a regime, prices cause money and not the other way about. In economies that were then quite closed, capital inflows could finance a higher level of prices.²⁵² So, a large part of bank loans served to finance a larger nominal aggregate demand. The extent to which this was accompanied by corresponding increases in real supply depended on the composition of aggregate demand. The impact on prices was visible in the case of the prices of non-reproducible or slowly reproducible goods, like land and housing.

In summary, because of bank “intermediation,” the expansion of credit — and thus of aggregate demand both nominal and real — was much larger than it could otherwise have been. Meanwhile, the market power of banks enabled them to capture important rents that did not go to capitalize borrowers, but to increase their debt burden. This went partly unnoticed because the continuous increase in banks’ lending also allowed for an unsustainable rise in asset prices. The “Pigouvian” dream ended up in the debt overhang nightmare that we cover in the next paragraph. This issue goes back to Yeager [1962]. The intertemporal budget constraint is not really known. Banks’ liabilities are an important indicator of its approximate present value, the other being public sector finances. But banks’ liabilities are a function of bank lending policies, which in turn depend on the value of collateral that borrowers can pledge to obtain funding from the banks, which depends on aggregate demand, and the latter turns out to strongly depend on bank lending policies. Thus there is much room for self-reinforcing feedback whose intensity depends heavily on the state of expectations. And when there is no secure basis for rational expectations, the state of expectations can be strongly influenced by the opinions of “global” players, the banking sector being one of them.

²⁵² If on top of importing capital, banks launch new products that reduce the need for currency, the increase in prices can be even higher.

II.3 NATURE OF THE BANKING CRISIS

The next step was to provide the evidence that these credit booms ended up in unexpected solvency crises. It is important to distinguish our cases from the standard theoretical hypothesis that what really matters is the possibility of a panic. Table 6.5 presents a summary of indicators supporting our view of the overwhelming predominance of solvency issues in these critical episodes. It points to some leading indicators, such as the increasing rate of problem loans in banks' portfolios and the failure of financial firms, and to lagging indicators, such as the immediate government reaction to the outbreak of the banking crises. Three pieces of evidence must be borne in mind in making this assessment. First, no bank failed because of an "idiosyncratic" purely expectational run, and no panic occurred as the outcome of a pure "contagion" effect. Second, all were solvency crises that arose after a period of substantial increase in bank lending. Third, the distress in the banking sector lasted for many years, in some cases for a decade or more (e.g., Uruguay/65, Argentina), partly as a consequence of the mismanagement of the crises by the authorities.

TABLE 6.5

ON THE NATURE OF THE CRISES: INDICATORS OF THE OVERWHELMING PREDOMINANCE OF SOLVENCY ISSUES					
	"False Demand For Credit" (1)	Other Early Indicators	On Runs	Government Reaction (2)	Duration of Banking Distress
Uruguay 1965	Especially in insider lending. Traceable to 1964 at least.	Failure of one bank. Huge disintermediation on & increasing operating costs.	None of the banks badly hit by the run could reopen. Others could.	Massive support to banks. Subsidies for mergers & acquisitions later on.	Until 1974. Other overt crises in 1966 & 1971.
Argentina 1980	Especially in insider trading & in state-owned banks.	Failures of banks. Mergers & acquisitions. Failures of finance houses. Increase in costs.	None of the banks badly hit by the run could reopen.	LOLR in 1980. Different supporting schemes until 1982, when the external debt was nationalized.	Smoldering crisis until 1983. Weak banks until early 1990s.
Chile 1982	Especially in insider trading, since 1975.	The 1977 banking crisis which went unheeded later.	Basically no run occurred. In 1983 domestic banks were "nationalized".	Massive support. External debt nationalized. Preferential exchange rates, etc.	The debt incurred by private banks with the CBC still not settled.

(continuesd))

TABLE 6.5 (cont.)

	"False Demand For Credit" (1)	Other Early Indicators	On Runs	Government Reaction (2)	Duration of Banking Distress
Uruguay 1982	Especially in domestic banks.	Failure of small banks in 1981. Problems with bank pricing behavior.	There were two runs in 1982: one after the Mexican moratorium & another after the tablita was abandoned. No bank failed. In 1987 there were runs on two obviously failing banks.	Massive support to all banks, international banks included. The support was later extended in several ways.	In 1987 the two largest domestic banks failed. The vast majority of bad loans is held by the BROU today (48% of its total loans were purchased to help ailing banks.)

NOTES:

1. This is A. Harberger's terminology. It refers to non-performing loans that were not written off by banks. Thus, only a portion of banks' loan portfolio consisted of yielding assets.

2. The effects of the 1980s crises, which basically resulted in large, abrupt increases in the external debts of each country, have been recorded later as the "parafiscal" or "quasi-fiscal" deficit of CBs. This is due to the role that CBs played on the occasion. The allusion to "fiscal" clearly reflects the widely held opinion that the transactions behind those deficits were not "monetary" in nature.

Last but not least, there was no reason for a panic to hit huge international banks, and thus no reason for them to be attacked by the banking crises. Nevertheless, as the Uruguayan case of the 1980s exemplifies best, they were also deeply involved in the crises, as they displayed huge ratios of non-performing to total loans. Most likely, their behavior is an example of a “cascade effect” initiated by their top management’s decision to accelerate the recycling of “petro-dollars.” This allows a further comment. In these crises we could identify the role played by substantial changes in the rules of the game, such as the policy packages referred to above. Nevertheless, they were not the single factor behind the crises. Consider the banking problems in Mexico and Venezuela, whose economic policies were far distant from those of the Southern Cone countries. In these cases too, the banking sector got deeply indebted to foreign banks in order to obtain funds and re-lend them in their respective countries. Subsequent bank failures became the key indication that the amount of external debt they incurred was not compatible with a sustainable (intertemporal) overall budget constraint.

Table 6.6 provides a short summary of indicators limited to the banking crises themselves, showing that they were deeply and completely unexpected. In a sense, they were “truly random” phenomena in terms of the economic theories guiding economic policy, bank management and legislation. While not identical, all implicitly shared the view that widespread solvency banking crises were not an issue.

All the indicators proclaim how alien these crises were to existing beliefs. I will just single out two: One was the reaction of governments, in particular their short was immediately “understood” that one of the most serious flaws in the country’s institutional design was the lack of a proper central bank. Instead of introducing a new bank by law to fix it, within a year the creation of a central bank was incorporated in all drafts of constitutional amendments to be voted in November, 1966.²⁵³

253 The legal existence of the Central Bank of Uruguay began when the new constitution became effective — March 1, 1967; its first Board of Directors was appointed on April 25, 1967. As its Chairman they appointed the most successful and brilliant young economist in the country at that time, who had also been a banker, Enrique Iglesias.

TABLE 6.6

THE CRISES WERE COMPLETELY UNEXPECTED					
	Magnitude	Immediate Treatment	Immediate Political Consequences	Changes in Regulation & Institutions	Other Related Indicators (1)
Uruguay 1965	Losses at banks hit by the run began to be realized 2 months before their closing.	Existing regulation was not enough to face & stop the run. Authorities try to keep the trouble within the BROU until late March.	The Board of the BROU was dismissed, as well as BROU's management. The Minister of Finance resigned also.	New banking law, introducing a dramatic change in the rules of the game (e.g., deposit insurance). Creation of CBU. Change in regulation of bank bankruptcies.	BROU's confidence in BTU (2). Private banks with-held support at the onset of the run. Run stopped by a strike.

TABLE 6.6 (cont.)

	Magnitude	Immediate Treatment	Immediate Political Consequences	Changes in Regulation & Institutions	Other Related Indicators (1)
Argentina 1980	<p>Authorities did not pay attention to BCRA report. Backed the opening of a BIR branch in New York. No reference to troubles in banks other than BIR. (3)</p>	<p>Existing regulation was not enough to cope with the run.</p>	<p>Former Head of Bank Supervision left the country for good. The new Army government changed economic policy orientation (March, 1981).</p>	<p>New banking law, giving more powers to BCRA & changing bankruptcy procedures.</p>	<p>Private banks withheld support at the onset of the run. Draft legislation changed as authorities learned about the crisis. Many analysts & government officials thought it was just the run.</p>
Chile 1982	<p>Financial distress began in mid-1981. Despite several failures, Government did not believe that solvency problems were so deep. A run in late 1982 was treated as a simple run. (4)</p>	<p>Of course the Chilean government did not expect to "nationalize" the banking sector. That was not foreseen in the existing legislation.</p>	<p>The economic team was changed.</p>	<p>New legislation to cope with the crisis. "Assumption" of private sector external debt. Exchange rate insurance. Change in CBC charter.</p>	<p>A fierce reaction against the "Chicago boys" took place inside & outside government. Many of them were dismissed.</p>

TABLE 6.6 (cont.)

NOTES:

1. Another strong indicator of how unexpected the crises was that in each instance, the remedies adopted were completely idiosyncratic, and moreover clearly backward looking, except (up to a point) the Chilean. The head of legal affairs at BCRA said in 1983 that Argentine legislation followed the premise of “facts prior to the rule”. CBU’s lawyers said that the Uruguayan regulation was appropriate because it was short and vague. This diversity shows that the authorities had no clear model to organize the facts and foresee the consequences.

2. For instance, BTU was authorized by BROU to buy a failing bank in late 1964. At the same time the former lent the latter U.S. \$3 million without a swap, something totally unusual at that time (which revealed that BTU was not facing liquidity problems as late as November 1964).

3. In November 1979 a reduction in the coverage of deposit insurance became effective, without any repercussions. Just before the outbreak of the crisis the press reported that the BCRA was studying a further reduction in that coverage.

Two visions of the problem:

- (i) the consultant firm Arthur D. Little Int’l advised the BCRA about the consequences of BIR’s failure. It also related the case of the German Herstatt Bank, which “certainly did not involve the amount of money involved in the present situation”.
- (ii) The conservative newspaper *La Nación* said on January 27, 1980: “The BCRA is receiving data on loan recovery problems by financial institutions. Even though this information is not yet complete, the authorities estimate that the system in general has faces no great difficulties. Although some institutions may face abnormal situations as a result of their credit policies, the preoccupation is not general”

4. “The bubble burst on January 13 [1983] without any surprise for the players in the financial market. Since August they had verified that the situation was considered untenable by the authorities, and was being artificially maintained by them simply because they had no plan to deal with it. The generalized cessation of payments was avoided fortnight by fortnight in August and September, and day by day in December”. Baeza [1983, p. 116].

5. In early 1982 the Chairman of CBU said that the best response to all the changes was to do nothing. In December 1981 a broad academic meeting sponsored by CBU did not touch upon banking problem either in Uruguay or in the region. In June 1982 there was an intimate meeting of the Chairman and staff of the CBU

with some important economists from abroad (Argentina, Chile and USA) to discuss the relevant issues of the hour. The debate concentrated on the sustainability of the tablita, without even mentioning banking problems. That was a meeting of intellectuals, who did not have banks in their models (basically Monetary Approach to the Balance of Payments).

6. In 1985 before the Comptroller of the Republic and Parliament, the Bank argued that what it did in the previous years was completely lawful, according to Judge Marshall's "implicit powers" hypothesis. In 1992, it asked — and obtained — the reimbursement of the funds invested during the crisis. Both the Executive Branch and the Parliament agreed that those transactions were fiscal (as opposed to monetary) in nature.

7. The new piece of legislation abolished the deposit insurance. By the way, at that point in time it covered up to U.S. \$4 in peso-denominated deposits.

Fifteen years later there was no such consensus, and policy responses were very different in each country, as was the redesign of regulations and institutions. Consequently, the same pattern of events led to a very diverse pattern of suggested remedies.

II.4 MACROECONOMIC PHENOMENA ASSOCIATED WITH THE CRISIS

Table 6.7 gives a summary of the macroeconomic phenomena associated with these crises. Three problems can be clearly identified in all cases.

- a) A credit crunch immediately followed each crisis with a noticeable impact on the level of economic activity. The normalization of bank lending policies took many years. Large classes of borrowers had been eliminated as potential clients of banks. The most extreme reaction, which helped reinforce the credit crunch, was the financial repression policy undertaken by Uruguayan authorities in the second half of the 1960s.
- b) As soon as people realized that all banks were in deep trouble, there was a speculative attack against the domestic currency, which ended up in a substantial balance of payments crisis.
- c) Public sector finances deteriorated seriously, preventing governments from placing debt both domestically and abroad, and strengthening the role of the inflation tax as the marginal source of (real) revenues to the public sector. Thus, there was also a surge in the inflation rate for a lengthy period of time. It was comparatively mild in Chile, quite controlled in Uruguay in the 1980s, but ran out of control in the first Uruguayan experience and in Argentina.

Banking crises were both directly and indirectly a strong factor behind the deterioration of public finances. First, governments spent a sizeable amount of resources in trying to stem the crises. The magnitude of these interventions was partly recorded in central governments' accounts, and mostly in central banks' accounts. This created what has been called "quasi-fiscal" or "para-fiscal" deficit. Second, because these banking crises triggered speculative attacks on the exchange rate and balance of payments deficits, they also became an indirect source of fiscal problems.

TABLE 6.7

MACROECONOMIC PHENOMENA ASSOCIATED WITH THESE CRISES					
	Banking Sector	Exchange Rate, Balance of Payments, External Debt	Inflation Process	Public Sector	Other Facts
Uruguay 1965	Credit crunch. Financial repression.	Exchange rate crises in 1965, 1967, 1968, 1971. Much restricted access to private markets (1).	Inflation jumped & became more volatile. Annual rate above 100% for first time in history (1967).	It was impossible to place debt domestically. Long run fiscal position weakened as BROU's position weakened significantly.	Weak GDP performance worsened. Debate about the financial sector was central in the sad discussions of the 1970s.
Argentina 1980	Credit crunch.	Exchange rate crisis following the run on BIR. Foundation of later external debt immense problem.	Inflation exploded 6 months later when the exchange rate could no longer be sustained. Origin of later problems (2).	Since Government assumed all external debt mostly originated in this episode, it became the source of long-term fiscal problems.	The debate about the solution of the crisis opened a period of social deliberation (3).

(continued))

TABLE 6.7 (cont.)

	Banking Sector	Exchange Rate, Balance of Payments, External Debt	Inflation Process	Public Sector	Other Facts
Chile 1982	Credit crunch.	Exchange rate crisis. Foundation of ensuing external debt problem.	Inflation surged for a while.	Since the Government assumed all external debt, it became the source of long-term fiscal problems. Some of them still re-main at the CBC.	Impressive decline in GDP & increase in unemployment.
Uruguay 1982	Credit crunch which lasted for years. Dramatic erosion of creditor/ debtor relations.	Exchange rate crisis significantly contributed to the ensuing external debt problem.	Inflation surged & became more volatile.	The debt assumed by the CBU became an issue for years.	Impressive decline in GDP & surge in unemployment (4).

TABLE 6.7 (cont.)

NOTES:

1. A dramatic anecdote: An American bank rejected BROU's U.S. \$12 check because of lack of funds.

2. The "internal debt problem", which partly was the burden of dollar-denominated debt, was "solved" by the BCRA in 1982 (Cavallo's plan), by nationalizing all the debt and almost destroying the financial sector. This was clearly one of the basic facts behind the subsequent instability in Argentina.

3. By this I mean that once it was clear that there was a consensus not to apply the market solution, there was a frenzied debate about what to do (which ended in the Cavallo plan). During that debate, it became increasingly clear that a coalition between creditors and debtors had formed to force the government to step in. The same can be said about Uruguay in 1982-85.

4. In Argentina and Chile a good deal of the public debate on the crises referred to the influence of "grupos" and wrongdoing in bank management. In Uruguay a similar debate took place in 1965, while from 1982 onwards the most important issue was the role of international banks. The rescuing of Citibank and Bank of America, the first banks to be bailed out, was the focus of public debate for years. It was a central issue in the rewriting of CBU's powers in 1994.

Depletion of the international reserves of central banks was a common feature of these episodes.

Involved and protracted negotiations for solutions to the financial crises opened a period of social deliberation, which facilitated the formation of coalitions to shift the burden of the debt overhang to someone else.²⁵⁴ In the end, taxpayers and money-holders (two sets with a substantial overlap) became the main sources of funds to finance the crises.

Therefore, in the cases of Argentina, Chile and Uruguay, these episodes were a key factor behind their debt crises of the 1980s (and the “lost decade” that ensued). The living conditions of the vast majority of the populations worsened, as can be inferred from employment and unemployment rates, reduced real wages, and increasingly uneven income distributions.

III. FOUR MAIN LESSONS

III.1 MODELING STRATEGIES

a. Rational Expectations

As D. Heymann once remarked,²⁵⁵ the simple idea that everybody could learn from these episodes already tells us something about both the world and the models we can use to interpret it: to learn something mean that this something must have been unknown to us before.

These crises were completely unexpected, in the sense that they were not defined in the probability distribution of relevant variables. It was not that the authorities were totally uniformed about what was going on in the banking sector. But the knowledge they had did not inform them

254 The debt overhang is just a manifestation of a generalized softening of intertemporal budget constraints. Most people could not really abide by “Say’s principle,” given the changes in prices brought about by the crises. Besides, there is no mechanism in the economy to police compliance with budget constraints ex-post. An isolated default is a problem for the debtor. But when everybody is defaulting, whose problem is it?

255 Heymann’s point was made at a conference on “Lessons From the Tequila Effect” organized by the Universidad Di Tella, Buenos Aires, August 12-13, 1996.

about the future — they did not have a framework in which those pieces of evidence made sense. The unfolding crises were not rational expectations processes and cannot be interpreted as equilibrium phenomena whether in the rigorous sense of the Diamond and Dybvig's model or in the vaguer sense of being smooth adjustments to equilibria position, as first done by the Argentine authorities of the time and later by De Pablo and Dornbusch.²⁵⁶

This leads to another theoretical observation: we are outside the realm of game theory. In some games we use out-of-equilibrium beliefs to support equilibrium behavior. In a pure strategy equilibrium, out-of-equilibrium behavior is not observed (or, at least, is not modeled). Out-of-equilibrium beliefs are formed on the basis of conceptually possible outcomes and actions, and may become part of a mixed strategy equilibrium. Therefore, these episodes cannot be analyzed using game theory because *ex-ante* they were not among the possible “states of nature”; thus, they could be part neither of an equilibrium nor of an out-of-equilibrium set of beliefs.

The *ex-post* government interventions to rescue the banking sector have been interpreted as another case of “time inconsistent” policies.²⁵⁷ This is definitely wrong. If they were, people inside and outside the government would have discounted them and no change in institutions would have ensued. The quite substantial reform of institutions that followed these crises is sufficient evidence to discard that interpretation.

Note also a more subtle point. If the crisis is an anomaly with respect to the theory behind economic policy and economic forecasts, an anomaly striking enough to shake one's beliefs, how is routine information going to be interpreted? The meaning of the usual macroeconomic indicators is no longer obvious under such circumstances.²⁵⁸

257 For instance, such a view permeates the opinion that these interventions were part of an “implicit” deposit insurance.

256 According to De Pablo and Dornbusch, the crisis resulted from the behavior of a few bad bankers.

258 A paradigmatic but crude example is the following. Before late December 1994, Dr. Cavallo, Argentina's Minister of Finance at the time, used to insist that Argentina was just like Mexico, and produced the indicators supporting his views. Those indicators came back as a boomerang immediately after the Mexican devaluation.

The first fact people learn in episodes like these is that current policy cannot be sustained anymore. The two easiest targets for speculators, apart from bank liabilities themselves, are the exchange rate and the public debt. If they are successful in their attack, the incoherence and the dispersion of expectations will deepen. Under those circumstances, it is difficult to implement a “credible” economic policy, able to build a minimum consensus at least about the near future. In that sense, a deep and protracted crisis is a state of affairs in which the intertemporal coordination of activities cannot even be approximated; i.e. it means that nobody is willing “to bet on the future.” The other side of this coin is that speculation against the new policy has a positive payoff (but with an unknown “probability” of success).²⁵⁹

b. The Representative Agent

Modern mainstream macroeconomics believes that the essentials of macroeconomic phenomena can be replicated by models in which a single representative agent maximizes his intertemporal utility subject to a well-defined budget constraint (thus, entertaining rational expectations about future prices).

In previous chapters we have shown that real allocations were “distorted” by the action of intermediaries. Their behavior was relevant to determine both the size of the contemporaneous budget set and the expectations about future ones. Sooner rather than later the inconsistency of the aggregate resource constraint became apparent. The fact triggering the recognition of that inconsistency was the insolvency of the intermediary. However, if some macro-states cannot be described without giving specific consideration to credit markets, the representative agent metaphor cannot be maintained.

III.2 THE SOURCE OF THE ETERNALITY

The main analytical conclusion of this dissertation is that external effects stem from the unique position of banks in these economies. To be precise:

²⁵⁹ I have written “probability” because under the circumstances there is no way to even define a probability, i.e., to give a measure of the chances of success.

- a) Banks were the most important source of external finance for non-financial firms. Calling them “intermediaries” is misleading. Their loans (i.e., the risks they were assuming) did not have a market. In addition, they were the only agents in the economy able to import massive amounts of capital from abroad. Thus, they were the key agents determining the spending capacity of the economy as a whole. Furthermore, the structure of aggregate demand and supply reflected banks’ lending decisions. All this stems from the fact that banks were almost the only specialists in granting credit.²⁶⁰
- b) The payments system, and thus the liquidity of the economy, depends heavily on banks.
- c) The banks had an influence on, and knowledge of, the overall economy second only to that of the government. Consequently their actions and performance are extremely informative to other economic agents, whose interpretations and expectations are formed on the bases of more “local” data.

This explains why banks contributed decisively to shaping both the upturn and the downturn of these economies. It also explains why the banking crises triggered government interventions not foreseen in pre-existing rules, and, later, massive institutional redesign. Governments and private sectors were in agreement that these economies could not afford a pure *laissez faire* “solution”. In the face of the crisis, it seemed clear to everybody that banks mattered.

The anatomy of the crises, the extent of government interventions and ensuing institutional changes made it clear that the source of the externality was neither an unwanted decline in the money supply (Friedman), nor the poorly defined property rights of depositors (Diamond and Dybvig and the ensuing literature on bank panics). Some authors²⁶¹ have suggested that the problem was fractional reserve banking, as suggested by Simons.²⁶² This is not the place to discuss this position in depth. But it

²⁶⁰ In this sense, banking sector and financial sector were almost synonyms.

²⁶¹ For example, Fernández (1983) and Rosende (1986).

²⁶² Niehans (1978) also mentions that if the banking sector does not create money – i.e., if there is no maturity mismatch between deposits and loans – there is no possibility of a banking crisis. That is why he considered no chance of banking crises in the Euro market.

can be said that in the new Chilean banking legislation some provisions are inspired by Henry Simons. Also, “narrow banking” is always an issue in Argentina’s public debates. The main problem with this position is that modern banking seems to be more profitable than “narrow banking”. Thus, if a “narrow banking” regime were adopted, there would be strong incentives to issue deposits that looked like sight deposits, and “narrowness” would become very difficult to enforce, as H.G. Johnson [1972] has foreseen.

The second major conclusion is that the magnitude of the external effects depends on institutional design broadly considered (i.e., including banking regulation and supervision). What agents learn about the “state of the nature” and the capability of governments to address economic problems depends on institutions, since they determine the scope of possible actions that can be brought to bear on the emergent, unforeseen reality. Since the solution to the crises involved huge transfers to the financial sector, it also became true that the final outcome had a major impact on the state of public finances.

III.3 PRICE STABILITY; CENTRAL BANKS AND CURRENCY BOARDS

Central banking doctrine in the last fifteen years has been reduced to the implementation of price stability. After reading that literature one wonders why central banks are ‘banks’ after all. In that literature this is a misnomer, they are just ATMs. A direct corollary of the views of banking espoused here, and the implications of the empirical evidence presented, is that the proposal to restrict central banking to engineering price stability is absurd. Unfortunately, it may take the South-East Asian financial crises for the fad to fade.

a. Price Stability as the Unique Goal of Central Banks

The basic idea behind the attempt to control the price level comes from the reformulation of the quantity theory that began in 1870.²⁶³ That was the beginning of a long road that led to two results: (i) reduction of monetary policy to the “k-rule” proposed by Friedman and supported by

²⁶³ See Laidler (1991), a superb reference on this subject.

Lucas; (ii) the independence of central banks to undertake monetary policy. Either because monetary policy involved “long and variable lags” in transmission, or because it only obscured the signal extraction problem faced by private agents, with ephemeral real consequences, the independence of central banks was to be strictly limited to applying the k-rule.

Three significant practical problems arise when implementing these ideas. First, the k-rule has been discredited worldwide, and its operating procedures are no longer in use²⁶⁴. Monetary policy consists basically of managing interest rates, as it used to be. Second, it is not clear what is meant by “price stability”. The modern debate on this issue dates to Alchian and Klein (1973), and their focus on the effects of omitting assets prices in the usual price indexes.²⁶⁵ More recently, the development of proxies for the inflation rate that do not suffer from the volatility displayed by CPI changes has dominated the scene.²⁶⁶

Yet the most pressing practical problem relating to “price stability” is the selection of the base year. This point, raised recently by A. Leijonhufvud²⁶⁷ is as follows: Prices are well known to behave procyclically. So, if the historic price level is too low, because the base year (the year in which projections are made, for instance) is a recession year, trying to prevent a general increase in prices may mean aborting the recovery. The Argentine and Brazilian post-stabilization experience is good food for this kind of thought. Why do Argentine or Brazilian prices of the hyperinflation era measured in dollars have to be taken as a benchmark? In those cases the price index is non-informative, what really matters is the dollar value of those prices. But even more important, the final outcome — i.e., the “general price level” or the inflation rate, both in dollar terms — encompasses dramatic changes in relative prices which accompany the drastic changes in government financing and the surge in credit brought about by the stabilization plans. Nothing permits us to

264 The most basic problem with these operating procedures is the definition of money. This elusive variable did not lend itself to central banking control, as predicted by C.A. Goodhart one time.

265 C. Kindelberger (1993) provides a recent discussion on asset price inflation from a historical perspective.

266 In the case of Uruguay, where the volatility of monthly figures is very high, some simple techniques can be applied to generate a proxy for the “underlying” inflation rate (Furest, Rosario and D. Vaz, 1993).

267 IEA Conference held at the Università di Trento, Trento, September 1997.

think that the structure of relative prices of a hyperinflation period is correct or sustainable.²⁶⁸ Thus, a single-minded central bank, engaged in orthodox monetary management, can easily bring about a Keynesian nightmare, by sending the economy back into the recession.

“Price stability” is as a long run feature of the economy that has to be consistent with the always ongoing movement of individual prices. Thus, instead of thinking of price stability as the daily constancy of a price index, it is better to hold to the notion of a monetary regime displaying the “mean reversion” property either in levels or in rates of change (i.e., the inflation rate).

b. Price Stability and Central Bank Independence

As mentioned by J. de Haan and W. Kooi (1997), the recent literature²⁶⁹ on the relevance of central bank independence to the maintenance of price stability, rests on two different attributes: independence and conservativeness. From an analytical point of view, if the goal is to implement a k-rule (as monetary policy is modeled in this literature), the best policy action is to close central banks and open ATMs in their place, instead of hiring conservative central bankers as we have been led to believe. ATMs are as conservative as the programmer wants, they are cheaper than central bankers, and do not make unforeseeable mistakes all the time. This suggests that conservativeness, not independence is the “real thing”. Independence is the means to obtain conservative monetary policy. Since, in a fiat money regime, it is not possible to have simultaneously an independent monetary authority and an independent fiscal authority (Sargent [1987]), central bank independence becomes the instrument to enforce conservative public finances. It is the hard finance constraint enforced by the conservative central banker that disciplines the political authorities.

268 As an aside, note that for it to be “correct”, the hyperinflation path has to be perfectly foreseen (i.e., rational expectations must prevail as in forward looking paths in OLG models). But, in these theoretical cases, hyperinflations are not stopped. Prices diverge to infinity.

269 This literature begins with Kydland and Prescott (1977) and Calvo (1978). The next step is Barro and Gordon (1983). For a notable coherent exposition see Cukierman (1992). A short survey can be found in Cukierman (1996). See also Eijffinger (1995).

The question is who determines “k”? If we choose the central banker because she is more conservative than the median voter we, in effect, grant her the power to decide “k”. This is consistent with what is called “independence in setting goals”. But since this approach does not seem very democratic, “independence” has recently been limited to “independence of means”, i.e., to managing monetary policy according to the targets agreed upon with the treasury. But then conservativeness is not really an essential requirement for a “good” central banker (and the anti-inflation appeal of the approach is certainly weakened).²⁷⁰ In addition, “independence of means” at most strengthens the position of the central banker with respect to what has been the traditional practice in countries where central banks are relatively autonomous; although, admittedly, this can be seen as a “commitment technology” to prevent the time inconsistency of monetary policy.

From a Latin American perspective, taking into account our long-standing concern with economic stabilization, it is difficult to believe that central bank independence can be key to achieving price stability. First, in countries like Uruguay where the 40 year annual average inflation rate is between 50 and 60%, it is clear that this kind of inflation process is fiscally rooted. The intertemporal stance of public sector finances is what matters in an economy that year after year can only rely on the inflation tax as the marginal source of revenue for the public sector. In that setting, a dispute between the treasury and the central bank about the long run inflation goal can hardly be afforded. The coherence of private agents expectations can not be taken for granted. In such an environment, it is not even clear how one should characterize a hypothetical “conservative” central banker.

All in all, in a fiat money regime, the only way to have a monetary regime displaying the mean reversion property is to assure the solvency of public finances. This is an intertemporal problem whose solution goes far beyond the observed behavior of government accounts, as these crises show. We will return to this issue in the last section of this chapter.

270 The argument is simple. Rational median voters would choose an inflation-prone government just to have a bargaining process between it and the Central Bank leading to the selection of an inflation rate consistent with their preferences. But, in that case, why have a conservative central banker to begin with?

c. On Currency Boards for Small Countries

Recent speculative attacks in South-East Asia, the difficulties in Mexico since December 1994, and Argentina's success in stopping hyperinflation and stabilizing since the inception of the "Convertibility Plan" have called attention to currency boards. These have been presented as the "fixed exchange rate regime" incarnation of central bank independence, and thus a key factor behind price stability. Furthermore, many people have pointed to the Argentine success in managing the "Tequila Effect" as another argument in favor of currency boards. Neither argument deserves unqualified acceptance.

(i) Central Bank Independence as the Foundation for Currency Boards

The idea that central bank independence is the foundation for currency boards is wrong. In fact, the reasons why currency boards have worked completely contradict central bank independence arguments.

First and foremost, currency boards imply the elimination of central banks. The monetary authority is no longer a conservative banker, but the parliament. It is not a "heroic" isolated defense of the low inflation rate, but the national consensus consecrated by the most representative body in a working democracy that really matters. The country decides to eliminate the domestic determinants of inflation and adopts the inflation of the anchor currency. Since the fixed parity may not be sustainable if nothing changes, the executive branch and parliament promise to undertake the changes required for a successful reform. In promoting the currency board and elimination of the central bank, the treasury explicitly commits to carry out the policies that make it work. And when voting the creation of the currency board the parliament also commits itself to pass all the legislation necessary to implement the reform that require congressional approval.

Second, having adopted a currency board the country no longer has either monetary or credit policies. The only remaining instrument is fiscal policy. Thus, the case of the currency board represents the exact opposite of having an independent central bank.

Except in the cases of very small and new countries, currency boards have been adopted simply when there was nothing else to do. It was not

that the government chose the currency board as the best monetary/exchange rate regime. On the contrary, the population had repudiated the money issued by the State, and thus its purchasing power was converging to zero at accelerating rates. What governments did was to change the mechanism by which domestic money was produced, making the private sector the real “engine” of the printing press.²⁷¹

In these instances the government was no longer able to issue “fiat” money because it was insolvent. The adoption of the currency board could not in itself make the government solvent. It simply committed the State to end public sector insolvency. A government that was not able to place debt before the currency board is still unable to do so after implementing the reform. The reform is not credible if it is not accompanied by substantive measures to reform public sector finances. After implementing the board, the government still needs a financier to help it in the very short run. But there is no central bank anymore to do that job. Private domestic or foreign banks are part of the solution. However, in many countries, like Argentina, large state-owned commercial banks have provided substantial financial support. The consequence is that public sector finances are less transparent after the change than before — now there is a more privileged and secretive relationship between the State and these state-owned commercial banks. In addition, the performance of these banks, as well as their supervision, is impaired.

Advocacy of currency boards often seems to stem from the misunderstanding that the source, not the propagating mechanism, of hyperinflation is the capacity to issue money, that is, that the root of the problem is the central bank and not an insolvent public sector.

(ii) The Argentine Experience, Currency Boards and Bank Panics

Invoking the Argentine case to illustrate the stabilization potential of currency boards in the face of a financial crisis is misleading. From the beginning there was marked ambivalence towards the monetary reform in Argentina. The State abolished the capacity to issue money, created a

271 The only way to create domestic bills is to “buy” them with the anchor currency. The only permanent stream of foreign currency that allows the monetization of the economy is provided by the private sector.

currency board and did a lot of propaganda about it (the “Convertibility Plan”). Management of the currency board was assigned to the Central Bank of Argentina (BCRA), whose Charter was modified around the same time, enhancing its independence. Authorities, buildings and part of the personnel of the BCRA were preserved. At the front door of the Bank the authorities have stamped a sentence from the new charter declaring that the duty of the institution is to preserve price stability. (This is somewhat ironic since the Bank has no function whatsoever in this respect under the Convertibility Plan.) In contrast, banking regulation and supervision were also assigned to the Central Bank. The main business of the Central Bank became the regulation and supervision of private banks, as the sole monetary and credit policies they could undertake. Thus, the result is a currency board managed by a truly “handicapped” central bank.

With respect to independence, the Minister of Finance has a delegate on the Board, with voice but without vote. In practice, the delegate is one of the most active directors of the Bank, specializing in managing the issues that concern both the Treasury and the Bank. Much more significant, the Chairman of the Board of the Central Bank is a natural member of the “economic cabinet” (and one with a strong voice). Thus the Argentine Central Bank is involved in the design and implementation of economic policy, just as any other “dependent” central bank in the world.

The Argentine organization of monetary matters evolved quite fast. In 1995, when the bank panic began, Argentine authorities tried to abide by the existing rules, engineering a credit crunch and consequently substantial confusion in the banking system²⁷². Very soon it was realized that relying on state-owned banks as lenders of quasi last resort²⁷³ was not the best institutional design and the government and Congress rapidly agreed on amending the Charter of the Central Bank. The amendment of substantially widened the lending capacity of the Bank. It can now lend money

272 As usual, those banks that were not hit by the run at first cut off credit to other banks. At the same time, some banks were completely illiquid and had to close their doors (regardless of their solvency), while others were sitting on piles of money, without lending a single dollar.

273 At the same time, the authorities were stimulating the abuse of every existing mechanism that allowed the generation of liquidity. This led, for instance, to an implosion in tax collection and an illegal use of the Latin American payments system (leaving the legacy of a sad dispute between the Central Banks of Argentina and Uruguay as a result).

to the government up to 20% of the monetary base,²⁷⁴ and can also carry out some lender of last resort activities.²⁷⁵

The currency board illusion is that it fully insures domestic money by backing it with foreign currency. But what about close substitutes of money, which are also claims to domestic currency? If the demand for currency is not satisfied during a panic, the system produces a widespread credit crunch that may generate a solvency crisis à la Diamond and Dybvig and a recession. That was the lesson Argentine authorities learned from the “Tequila Effects episode.”

This explains why the Argentine Central Bank has devised a net of contingent loans with private international banks to act as buffers in case of another bank panic. Additionally, they introduced the issue of the lender of last resort in MERCOSUR debates last November. Thus paradoxically, the administration of this currency board (which is supposed to be an ATM), is much concerned with these issues. What the Argentine example shows is that the currency board is not well suited for an economy as complex as Argentina’s. The currency board was obliged to yield when liquidity problems were about to trigger another major financial crisis.

III.4 THE MAIN POINT: FINANCIAL SOUNDNESS COMES FIRST

The unavoidable conclusion of this study is that the only basic function of central banks is to preserve the financial soundness of the economy. This conclusion is promoted by two facts: the nature of the externality arising from the banking sector, and the position of the central bank as a bank of banks. More generally, it is the health of credit “intermediaries” that counts most, since no substitutes exist to fulfill their role, as well as the smooth function of the payment system.²⁷⁶ In pursuing this goal cen-

²⁷⁴ The loan has to be collateralized with foreign exchange-denominated government bonds.

²⁷⁵ The amendment of the charter also allowed for the buying of non-marketable assets. That was the important change in the BCRA charter that made it possible to generate an external effect stemming from the Bank. There was an attempt to disguise this issue in the case of the lending to the government; but if the government is able to place the debt with the public, why sell it to the Bank?

²⁷⁶ The reaction of the Federal Reserve Bank of the U.S. to the stock market crash of 1987 is a good indicator that this generalization is not an exaggeration (see Wojnilower 1997 for an splendid account of that episode).

tral banks must be fully responsible and accountable. Therefore, they must have a large degree of independence to regulate and supervise the financial sector.

This is the most important policy conclusion derived from the cases studied in this dissertation. These episodes show that confronted with the choice between saving the financial sector and “price stability,” even administrations committed to price stability, choose the former.

Price stability cannot be achieved without the full cooperation of the treasury. However, one particular lesson we extract from these crises is that fiscal solvency cannot be inferred from the public sector accounts alone. There are contingent liabilities hidden in the financial sector and in pension plans, etc., that must be taken into account. Thus solvency of the financial sector can be as crucial as the solvency of the public sector itself. The lack of the former is likely to produce the failure of the latter.²⁷⁷

A sound financial sector contributes to “price stability”, since it is key to the sustainability of the monetary regime. An uncritical implementation of the price stability goal may damage the health of the financial sector. Thus, even if price stability cannot be reached, the prime duty must not be abandoned. In other words, central banks must devise means to pursue this goal also in the most unfavorable environments. Price instability is an eminently desirable goal but the pursuit of it must not be driven to the point of tolerating unsound financial practices or the unfolding of financial distress.

277 For instance, in the case of Uruguay, indicators of the sustainability of fiscal policy (which can be interpreted as good proxies for solvency indicators were stronger by the end of 1980 than in 1994, and the decline in aggregate spending the following year was larger in the latter, but no financial crisis ensued.

APPENDIX TO CHAPTER 6

FIGURE 6.1: ARGENTINA, 1978-1982
Credit and GDP Growth in Real Terms (1977 = 100)

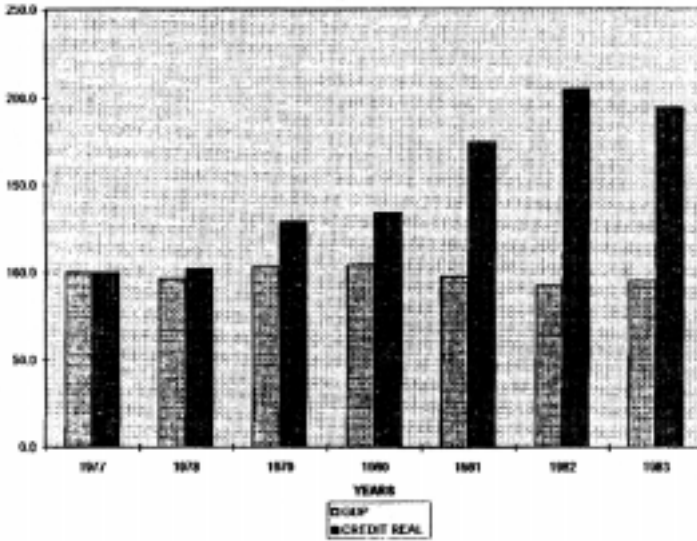


FIGURE 6.2: ARGENTINA, 1978-1982
Credit in Real Terms and GDP Growth

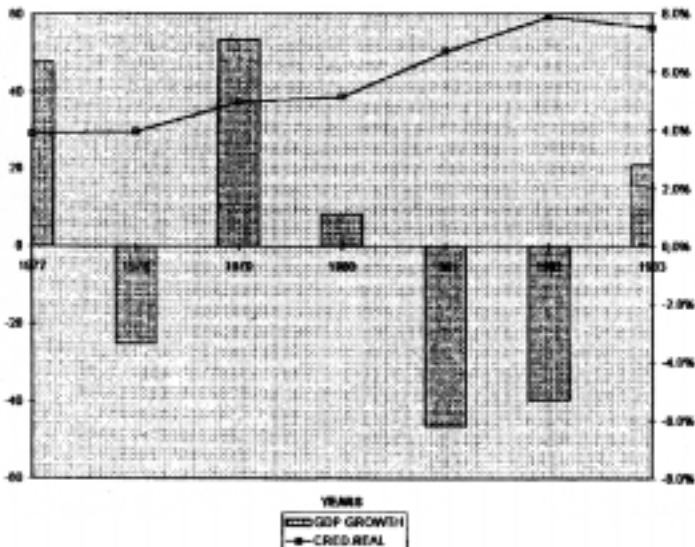


FIGURE 6.3: ARGENTINA, 1978-1982
 Lending and Deposit Rates (% , Quarterly Rates on Annual Basis)

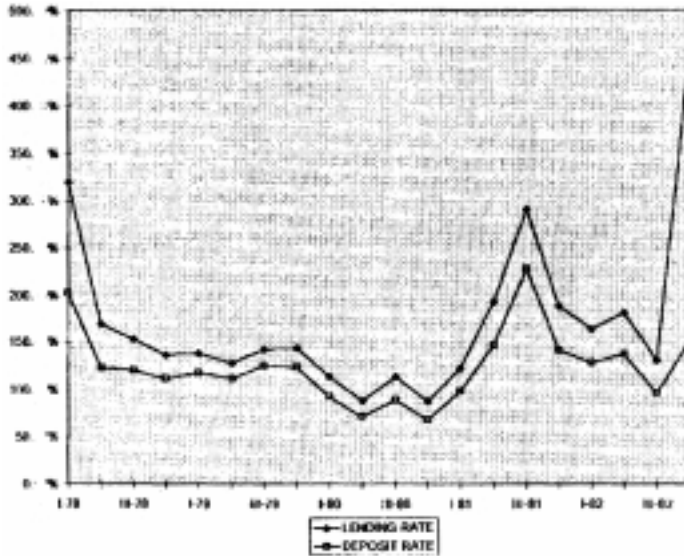


FIGURE 6.4: ARGENTINA, 1978-1982
 Lending and Deposit Rates in Real Terms (% , Quarterly Rates on Annual Basis)

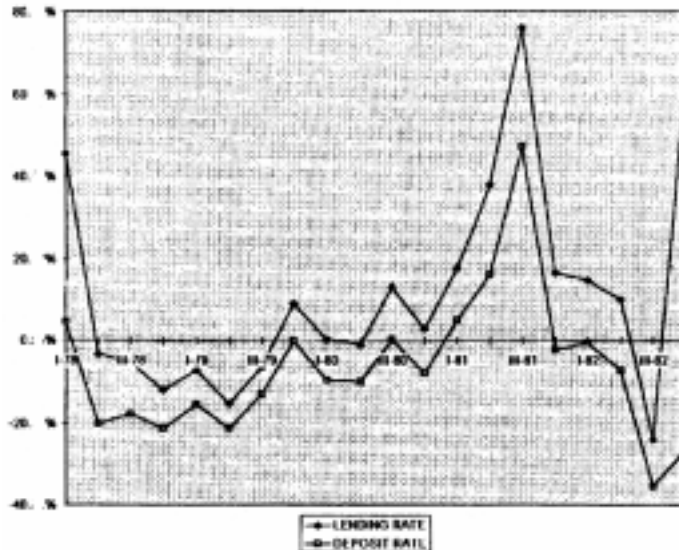
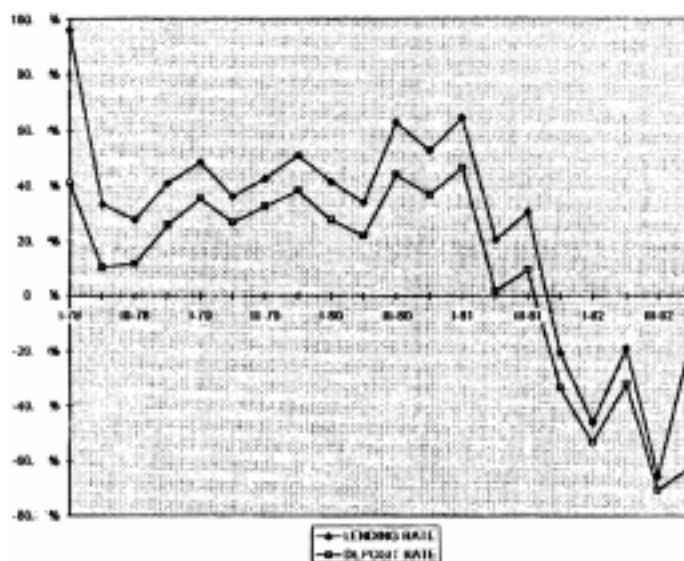


FIGURE 6.5: ARGENTINA, 1978-1982

Lending and Deposit Rates in Dollar Terms (% , Quarterly Rates on Annual Basis)

**FIGURE 6.6: ARGENTINA, 1978-1982**

Spreads

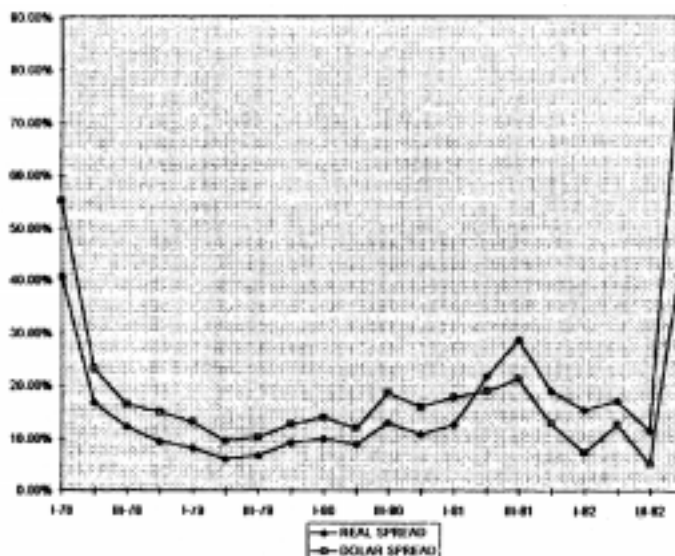


FIGURE 6.7: ARGENTINA, 1978-1982
 Indicators of Sustainability (Comparisons of Growth Rates)

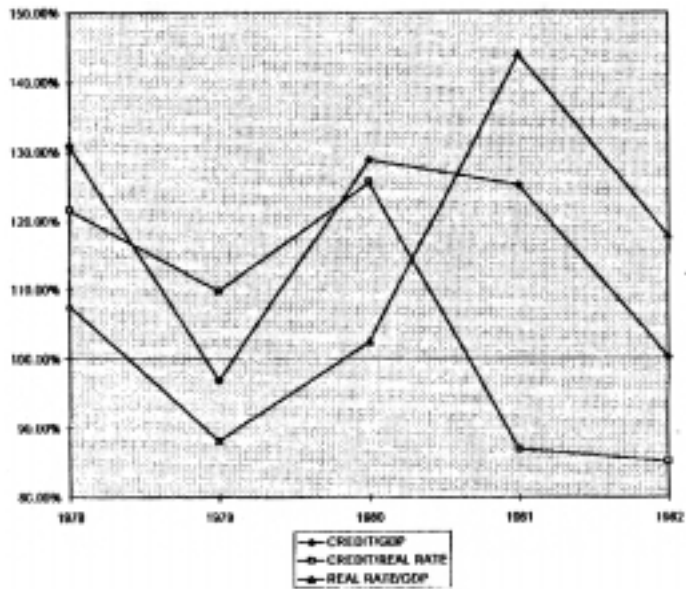


FIGURE 6.8: CHILE, 1978-1983
 Credit and GDP Growth in Real Terms (1976 = 100)

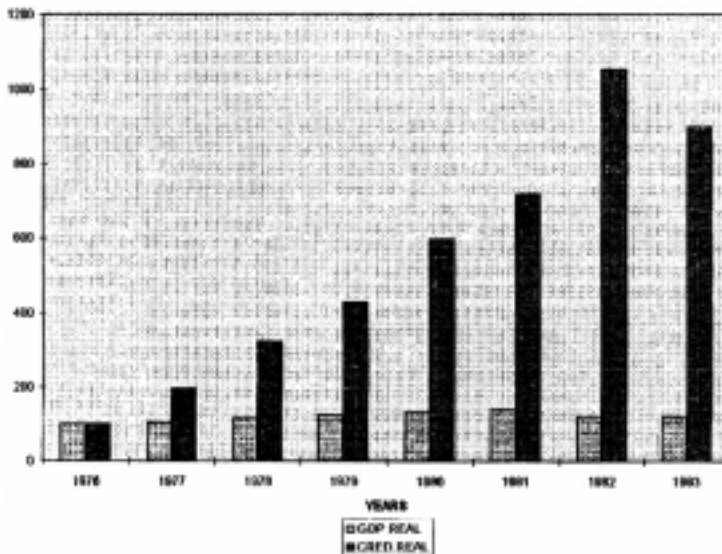


FIGURE 6.9: CHILE, 1978-1983
Credit in Real Terms and GDP Growth

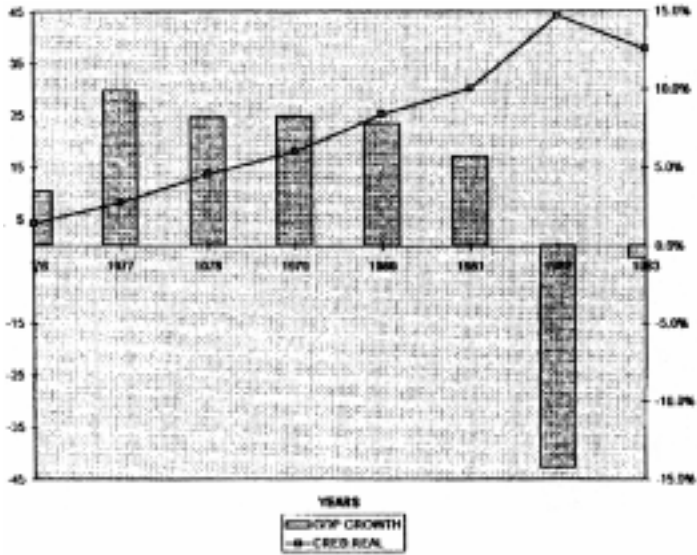


FIGURE 6.10: CHILE, 1978-1983
Deposit Annual Rates

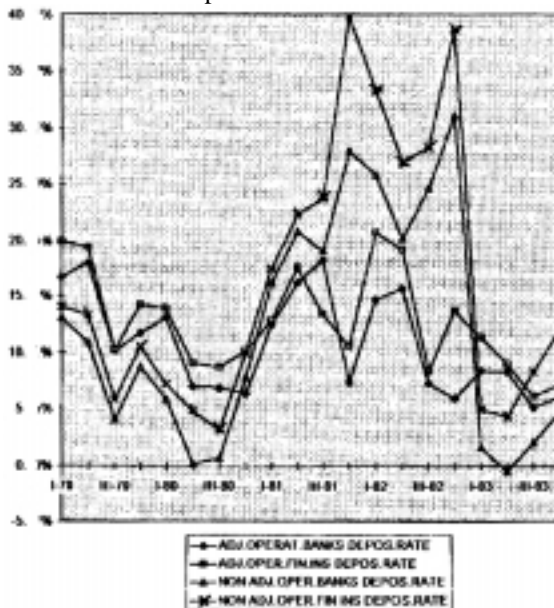


FIGURE 6.11: CHILE, 1978-1983
Lending Annual Rates

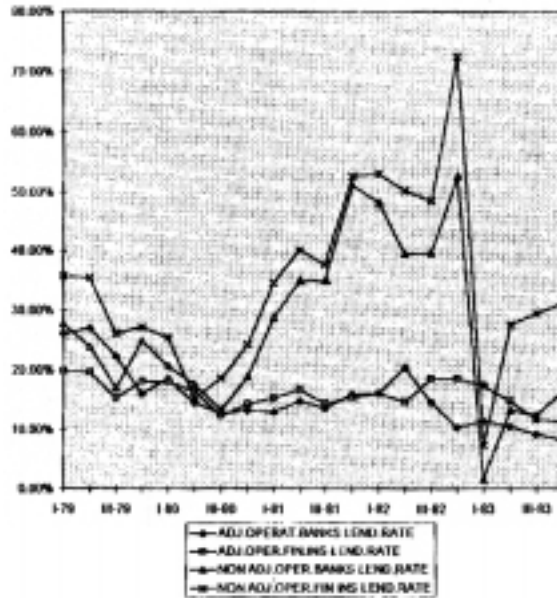
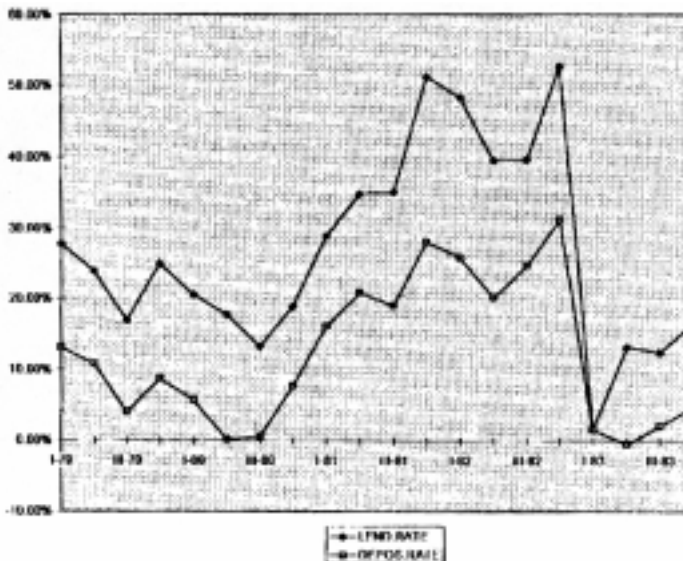


FIGURE 6.12: CHILE, 1978-1983
Annual Rates—Non-Adjustable Operations—Banks



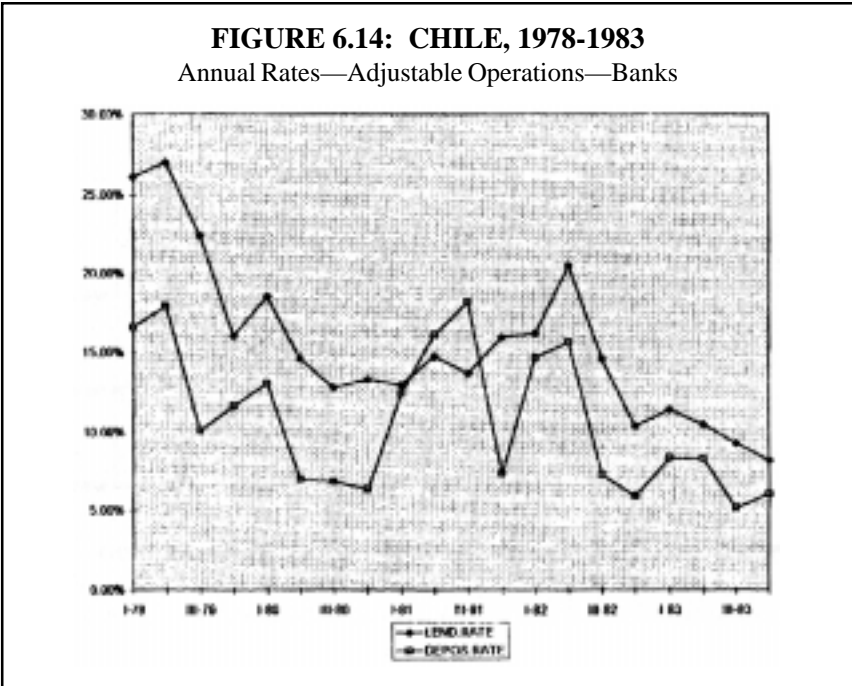
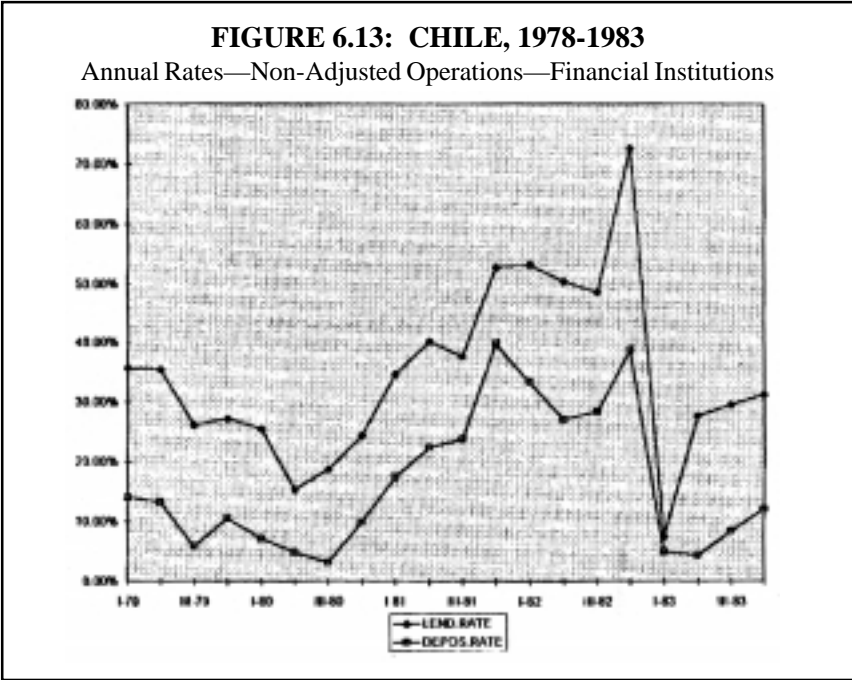


FIGURE 6.15: CHILE, 1978-1983
Annual Rates—Adjustable Operations—Financial Institutions

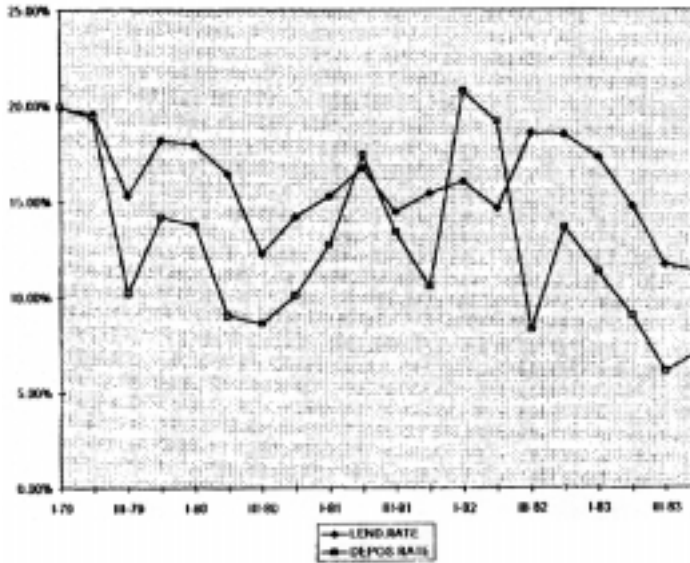


FIGURE 6.16: CHILE, 1978-1983
Lending and Deposit Rates in Dollar Terms (% Quarterly Rates on Annual Basis)

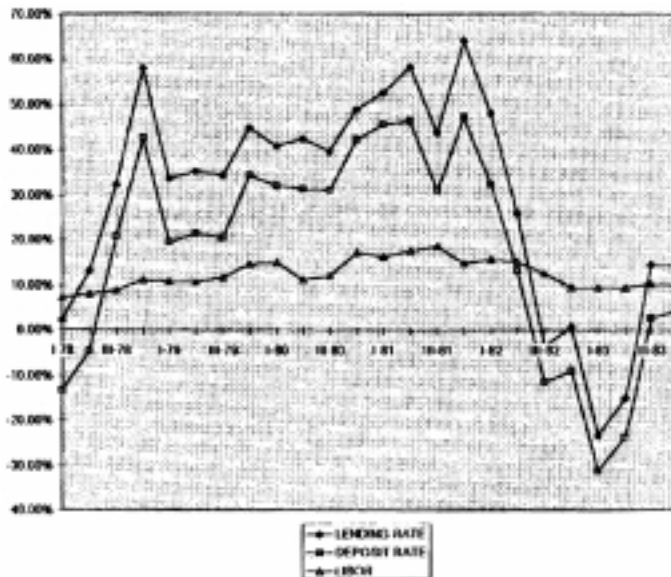
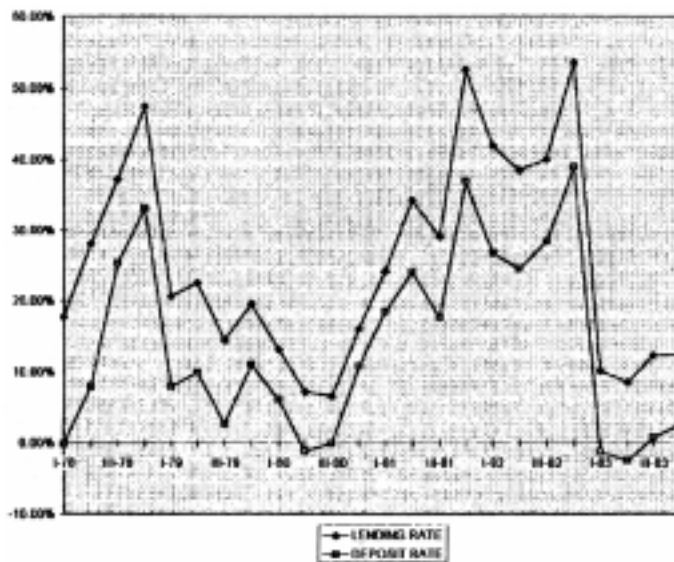


FIGURE 6.17: CHILE, 1978-1983

Real Lending and Deposit Rates (% , Quarterly Rates on Annual Basis)

**FIGURE 6.18: CHILE, 1978-1983**

Spreads (% , Quarterly Rates on Annual Basis)

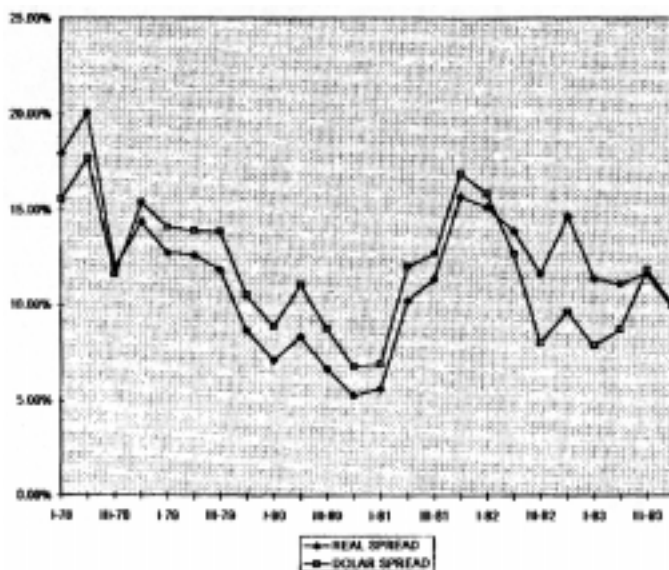


FIGURE 6.19: CHILE, 1978-1983

Indicators of Sustainability

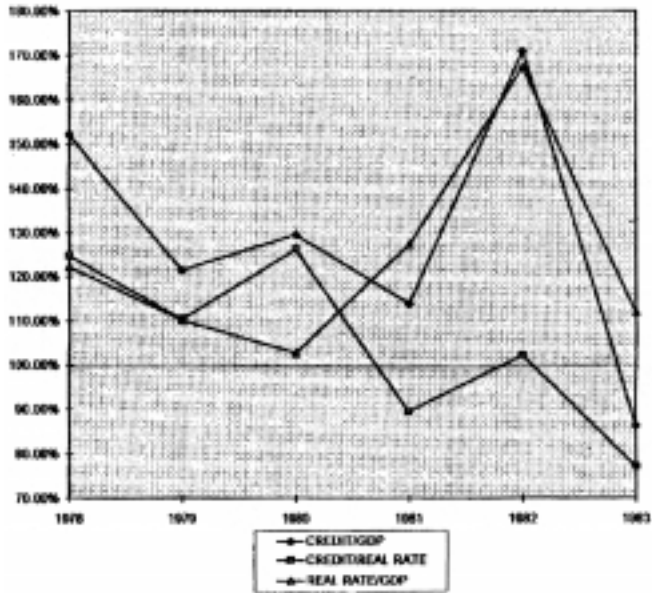


FIGURE 6.20: URUGUAY/67, 1959-1965
Credit and Real Growth in Real Terms (1959 = 100)

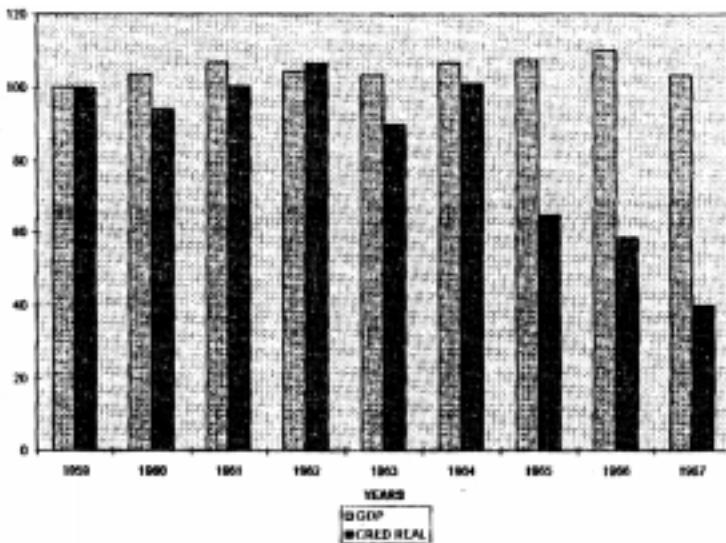


FIGURE 6.21: URUGUAY/67, 1959-1965
Credit in Real Terms and GDP Growth

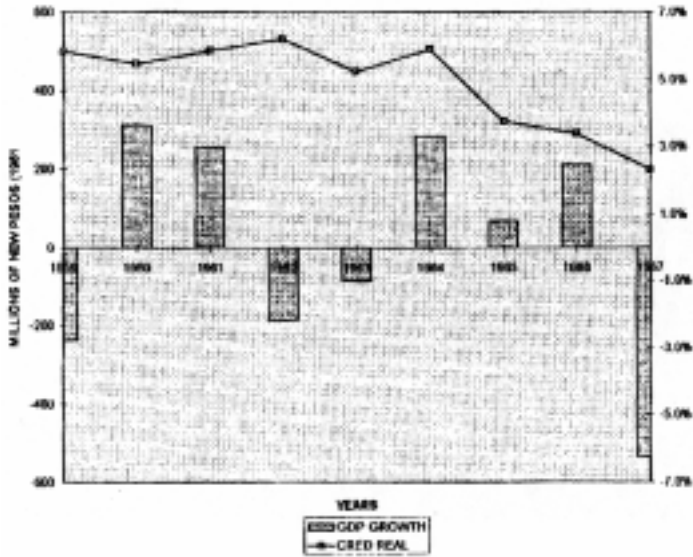


FIGURE 6.22: URUGUAY/82, 1977-1983
Credit and GDP Growth in Real Terms (1977 = 100)

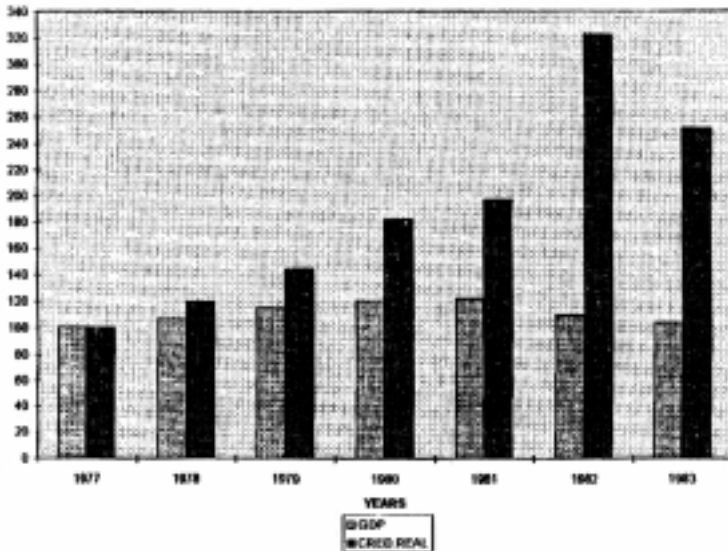


FIGURE 6.23: URUGUAY/82, 1977-1983
Ratio Credit to GDP Growth

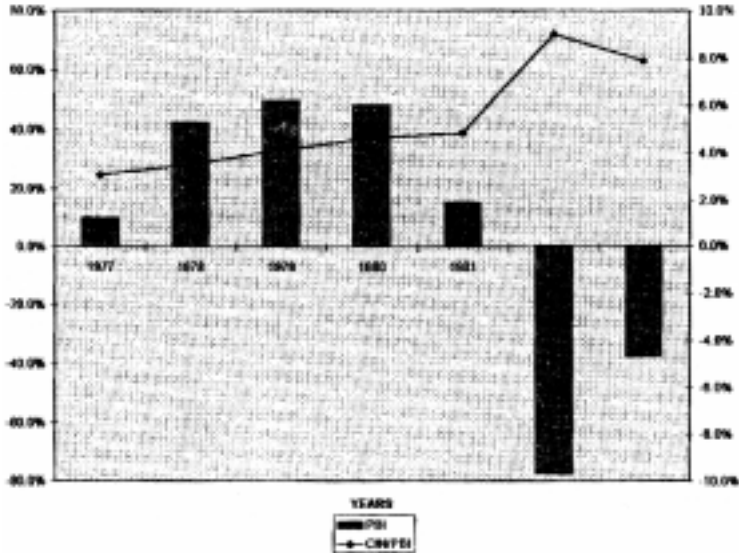
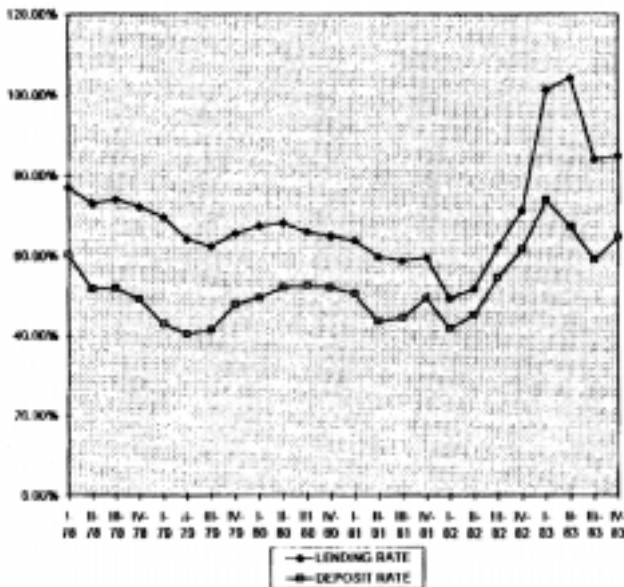


FIGURE 6.24: URUGUAY, 1977-1983
Lending and Deposit Rates in Pesos (% , Quarterly Rates on Annual Basis)



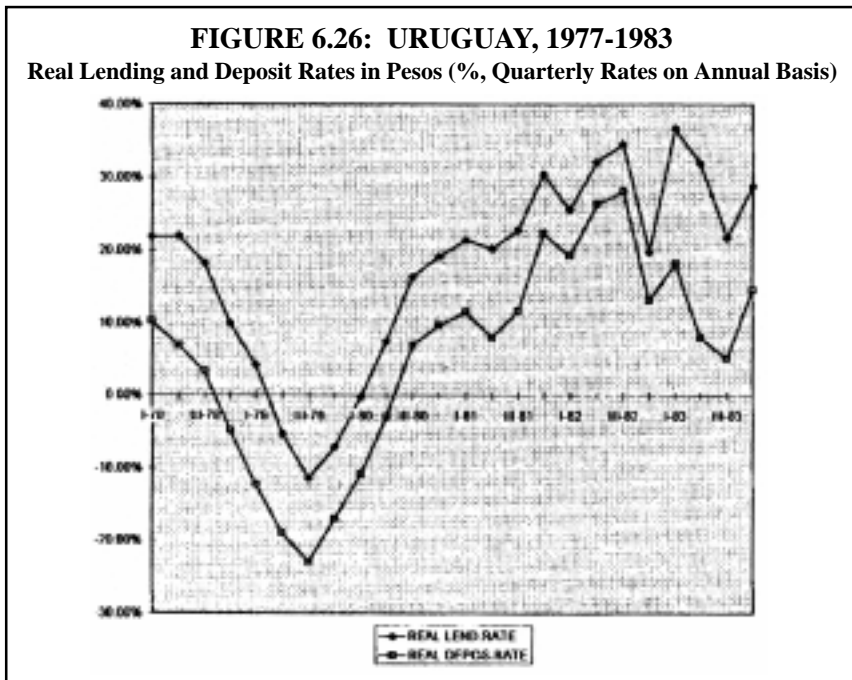
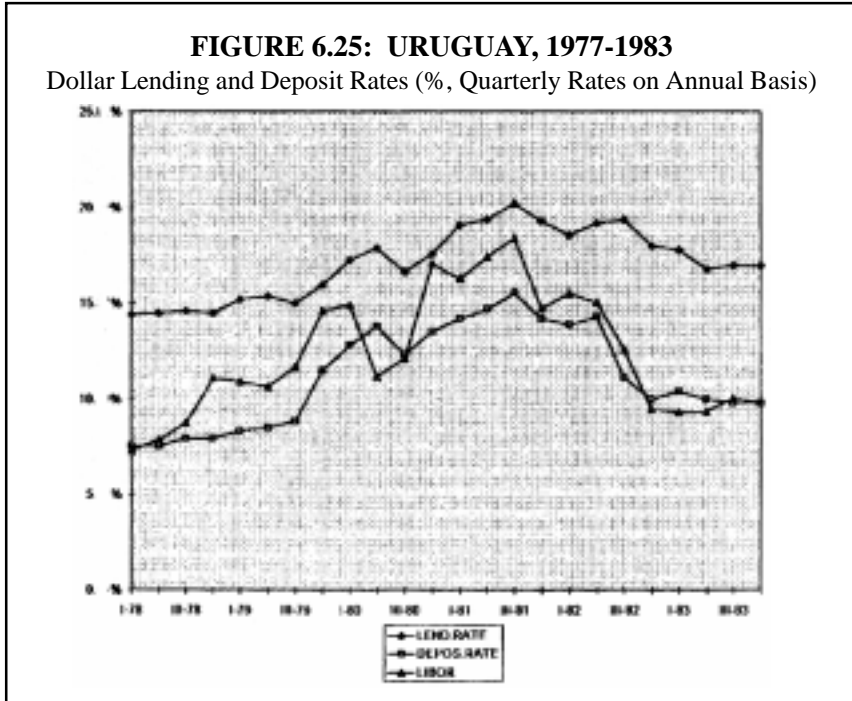


FIGURE 6.27: URUGUAY, 1977-1983
 Spread Between Lending and Deposit Rates (% , Quarterly Rates on Annual Basis)

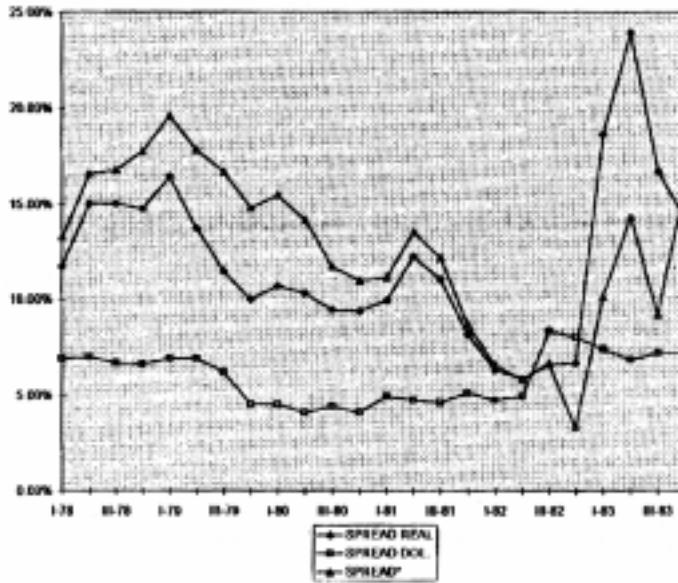


FIGURE 6.28: URUGUAY, 1977-1983
 Lending and Deposit Rate in Dollar Terms (% , Quarterly Rates on Annual Basis)

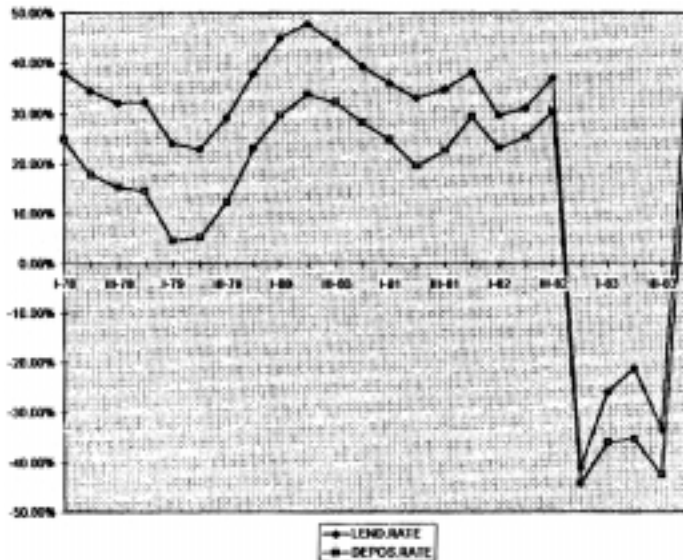
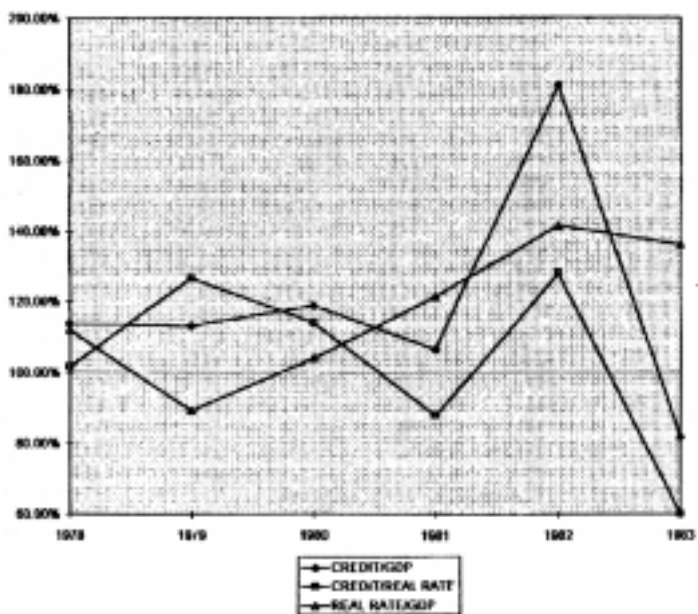


FIGURE 6.29: URUGUAY, 1977-1983
Indicators of Sustainability



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