THE ARGENTINE FINANCIAL SYSTEM IN THE NINETIES[1]

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The Argentine banking system underwent a major transformation in the nineties. Between 1990 and 2000, total deposits increased from $15.9 billion (or pesos) to $83.7 billion, while M3 increased from 6.9 percent to 31.0 percent of gross domestic product (GDP) during that period. Dollarization became more important as the share of dollar deposits in the system increased from 41 percent in 1991 to 58.6 percent in 2000. There was an increase in the concentration of the financial system as the number of financial institutions fell from 212 in 1992 to 113 in 2000, while the ownership structure changed significantly as foreign banks became bigger players and many public banks were privatized. By and large, the banking system at the end of the nineties was stronger, larger, and more solvent and had better liquidity indicators, with prospects for further growth.

The growth of the financial sector was closely related to the improvement in macroeconomic conditions. The Convertibility Plan, implemented in 1991, reversed the poor performance of the eighties characterized by high rates of inflation, culminating in the hyperinflation of 1989 and a large contraction in investment and GDP. The success of the Convertibility Plan in restoring price and financial stability and fostering growth through most of the decade was critical for the expansion of the banking sector during the nineties.

Despite many positive indicators, the banking system faced significant financial and macroeconomic volatility, which in some episodes posed important threats to the banks. There was a bank run in 1995 as a result of the Tequila effect, which was the first and largest of these threats during the nineties. In this traumatic experience, deposits fell by 17 percent in only three months, more than ten banks failed while others were merged or acquired to avoid their failure, and the Argentine bonds traded at prices that were close to default levels.

The banking system overcame this threat successfully, as macroeconomic stability was restored with the support of a financial package from the International Monetary Fund. The strengthening of the banking system since the Tequila crisis was achieved through improvements in liquidity and solvency that allowed the banking system to overcome the various external crisis that occurred in the second half of the nineties, such as the Asian crisis, the Russian default, and the Brazilian devaluation. More recently, starting in the last quarter of 2000, the banking system

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suffered from domestic political and fiscal problems, including a new run on deposits that posed a major threat to the banks.

Some of the reasons for the improved performance of the financial sector in the second half of the nineties were the introduction of a new set of prudential regulations and of some key institutional changes. First, the central bank tightened its prudential regulation, increasing capital requirements and raising the systemic liquidity in the financial system. Second, foreign banks became more important players, primarily through the acquisition of domestic ones, while provincial banks lost relative importance as they were privatized. Third, and related, there was a significant concentration in the banking sector, as some banks lost viability in the new competitive environment. These improvements took place, although public banks, especially Banco de la Nación, Banco de la Provincia de Buenos Aires, and Banco de la Ciudad de Buenos Aires, continue to be large players and hurt the level playing field for the private sector.

At the end of the nineties the structure of the Argentine banking system shows some distinctive features. First, and relative to other countries in the region, Argentina does not show a significant level of concentration. The country has 113 banks, and the five largest banks have 40 percent of total deposits compared with 69 percent in Mexico and 55 percent in Brazil. Second, the profitability of the overall banking system is low, as return on equity is approximately 5 percent. Nevertheless, there are some groups, such as the largest five private banks, whose profitability is reasonable by international standards. Third, there are important differences among groups of banks regarding asset quality, administrative costs, and earnings, though all of them have adequate levels of liquidity and excess capital relative to requirements.

Four issues stand out regarding the regulatory environment and the efficiency of the banking system. First, the prudential regulations implemented in the nineties and tightened after the financial crisis of 1995 appear to have been effective in ensuring a strong banking system. Second, the procedure to deal with failed banks was effective in creating the right incentives for depositors and shareholders while limiting the fiscal costs of bank failures. Third, the lack of lender of last resort has been a constant threat to the banking system, but so far the system has managed to overcome this problem. Fourth, the system has not reached a sufficiently high level of efficiency, and it is unknown whether the reason is overregulation, lack of economies of scale, or problems in dealing with nonperforming loans.

The paper is organized as follows. The next section describes the policy regime implemented in the nineties, including the convertibility regime and the prudential regulations of the central bank. The discussion describes the growth of the banking system in the nineties and analyzes the reasons for the increase in deposits and credit to the private sector, the constraints imposed by the convertibility regime on the expansion of monetary aggregates, and the role of dollarization in providing stability to the banking system. We then examine the fiscal costs of the Tequila crisis and show that they were much smaller than in other crises in the region. We then analyze the impact on the banking system of the various crises since the midnineties and the policies that helped in restoring financial stability and handling the ensuing external shocks. We next discuss the evolution of the banking sector in 2000 and most of 2001, where most of the problems originated in domestic political and economic problems. We then look at the evolution of the banking industry in the nineties and point out some of its strengths and weaknesses. Finally, we discuss some policy issues, including the way the central bank handled the banking crisis of the midnineties, the lessons from the regulatory framework that Argentina implemented in the nineties, and some of the trends that we see in the banking industry.

The New Framework for Money and Banking

Argentina entered the nineties with a long history of high and growing rates of inflation that culminated with the hyperinflation of 1989–90. The eighties was one of the worse decades in Argentine economic history, as GDP fell 1.3 percent per year, investment collapsed, and inflation got out of control as money was printed to finance the large budget deficits.

The high rates of inflation of the seventies and eighties had been reducing the demand for pesos and the size of the banking system. Argentina increasingly became a dollarized economy, as Argentines hold most of their savings in dollar-denominated instruments, mostly outside the domestic banking system. The domestic monetary aggregate (M3) fell from around 35 to 15 percent of GDP between the seventies and the mideighties, declining even further to just 7 percent of GDP in 1991 after the hyperinflation. The domestic banking system had a very small amount of financial resources to intermediate at the end of the eighties, and most of it was channeled to the public sector.

A New Monetary Regime: The Currency Board. The nineties marked an important turning point for inflation and the banking system. In April 1991, the government implemented the Convertibility Plan to stop hyperinflation and restore growth. The Convertibility Plan was a comprehensive program that leaned on four pillars. First, the monetary reform, based on the convertibility law, had as its main objective to eliminate inflation and reestablish confidence in the peso. Second, a reduction of the fiscal deficit sought to consolidate price stability and eliminate the need to print money to finance the fiscal deficit. Third, structural adjustment reforms, such as deregulation, the opening of the economy to international trade, and the privatizations, aimed to generate the bases for the economic growth. Finally, the institutional framework was strengthened with measures like the independence of the central bank, the creation of institutions to regulate the recently privatized utilities, and the strengthening of the Securities and Exchange Commission (the CNV).

The convertibility law was the pillar for the new monetary regime and the functioning of the banking sector. Under this regime, the monetary authority is committed to back all monetary liabilities with international reserves and to be ready to exchange one peso for one dollar when requested to do so. Thus, the central bank gives up monetary policy, as money supply becomes entirely endogenous. As in the gold standard, international reserves are fully determined by money demand, and any attempt by the monetary authority to expand domestic credit would only generate an equivalent loss of reserves. Since March 1991, changes in the monetary base have been primarily determined by changes in international reserves, as can be seen on Chart 1.[2]

The convertibility law and the charter of the central bank included a number of constraints aimed at enhancing the credibility of the new regime. Among the most important ones were the following:

1. The central bank became independent: the monetary authorities became independent of the incumbent political party.
2. The peso–U.S. dollar exchange rate was set by law. In addition, the foreign exchange rate market was fully liberalized, implying that any change in the nominal exchange rate had to be approved by Congress, imposing a constraint on the central bank and the Ministry of Economics to unilaterally deviate from the announced policy.
3. The convertibility law established that the monetary base had to be fully backed by international reserves. Up to one-third of the backing of the monetary base could be in liquid or government bonds, denominated in foreign currency, and valued at market prices.[3]
4. The law also restrained the central bank from financing any fiscal deficit, except through the purchase of government bonds at market prices. The increase in holdings of government bonds by the central bank could not exceed 10 percent per year.
5. All contracts could be denominated in dollars, but the law prohibited the inclusion of indexation clauses to avoid inflation inertia.
6. Free capital mobility was established. There were no controls on any type of foreign exchange transactions between residents and nonresidents.

Several remarks are in order. First, in the Argentine currency board arrangement the central bank could back a fraction of the monetary base with government bonds, thus providing some flexibility to the monetary authority to perform monetary or credit policies. As long as the fraction of bonds used to back the monetary base was lower than its upper limit, there was some room for expanding central bank domestic credit. This limited flexibility enabled the central bank to expand credit to financial institutions if there was a systemic liquidity shortage and hence act as lender of last resort. This instrument became important in exceptional circumstances, such as during the financial crisis that took place after the Mexican devaluation of December 1994.

Second, it was crucial to eliminate the quasi-fiscal deficit (the deficit of the central bank), whose main origin was the payment of interest on the financial institution's reserve requirements.

[2] After 1995 there were changes in the definition of the monetary liabilities of the central bank that had to be backed by international reserves. In particular, after January 1995 the deposits of financial institutions at the central bank were denominated in dollars, and therefore technically they could no longer be considered part of the monetary base. However, they still needed to be backed with international reserves. At the same time, the Liquidity Requirements, which took the form of a deposit at the central bank and included repos operations and liquidity bills, were also backed by international reserves.

[3] For the first board of the central bank authorities, a special provision restricted the proportion of public bonds so that they could not exceed 20 percent of total reserves.

While the central bank was remunerating its liabilities, it did not earn interest on its assets to generate a compensating revenue stream. When the central bank stopped the remuneration of reserve requirements, it ended all subsidized credits to the private sector and eliminated the mechanisms of exchange rate insurance; it removed the sources of one of the key factors that led to the failure of the stabilization programs in the past.

Third, under this monetary regime the central bank had only a limited ability to act as lender of last resort. The remaining monetary instruments to manage the liquidity of the financial system in the short run were mainly repos and reverse repos with government bonds,[4] or rediscounts to financial institutions when they face transitory liquidity problems. Finally, the central bank could manage systemic liquidity through changes in reserve requirements.

The Banking Prudential Regulation Regime. The central bank designed a set of prudential regulations aimed at increasing the efficiency and competition of the banking system while improving its solvency and liquidity. A central objective was to avoid a new banking crisis and possible bank bailouts that had been so costly in the past. The banking crises of the late seventies and early eighties generated fiscal losses that analysts estimate to have reached between 10 percent and 15 percent of GDP. To avoid the recurrence of this type of problem, the central bank worked to develop a new set of prudential regulations that emphasized adequate capitalization and liquidity. At the same time, the central bank worked on strengthening the superintendency of banks to ensure compliance as well as early detection of bank problems.

The soundness of the banking system was one of the key elements for the sustainability of the convertibility regime. There were numerous experiences in Argentina and in other places where a fixed exchange rate regime had to be abandoned either because the quality of bank assets deteriorated or because there were doubts about the ability of the central bank to provide liquidity in case of generalized bank run. The convertibility regime imposed strict limits on the ability of the central bank to act as lender of last resort, and hence it was necessary to generate confidence in the banking system in order to limit the need for the central bank to act in that way.

Aware of the risks posed by the convertibility regime to the banking system, the central bank put in place a strict set of prudential regulations to limit the risks of problems in the banking sector. The bases for these regulations were the recommendations of the committee, which establishes minimum capital requirements for risky assets as a way to ensure the solvency of the banks. In addition, the central bank introduced regulations to guarantee adequate levels of liquidity, and conservative rules for provisioning loans.

The central bank imposed capital requirements that were stricter than those recommended by the Basle Committee. The rationale for this approach was that the recommendations of the committee were developed for industrialized countries that enjoy macroeconomic stability and well-developed capital markets and where the government debt carries very high credit ratings. Argentina, in contrast, has a long history of macroeconomic instability, it is subject to high

[4] The word “repos” refers to repurchase agreements with government bonds—spot purchase and future sale of public bonds—while reverse repos refer to the inverse transaction—spot sale and future purchase of public bonds.

volatility regarding its access to the international capital markets, its banking system proved to be vulnerable in the past, and there was not a solid track record in evaluating private sector credit risk. As a result, the central bank set the required capital/assets risk ratio at 11.5 percent, a level that is substantially higher than the 8 percent ratio recommended by the Basle Committee. In addition, in Argentina these capital requirements were adjusted based on the interest rate charged on each loan. The higher the interest rate, the greater the presumed risk involved and hence the larger the capital requirements.

Three additional factors were included to make these capital requirements even tougher. First, they were adjusted based on the overall rating that the superintendency of financial institutions assigned to each bank, which is based on its performance (the so-called CAMEL system).[5] Second, the central bank also included capital requirements to deal with market risk—in other words, the risk associated with changes in prices of securities that are traded in organized markets. Third, the capital requirements were adjusted based on the interest rate charged to borrowers. The underlying rationale for this measure was that higher interest rates mean higher risk for the bank, and therefore capital requirements should be higher.

To ensure adequate levels of liquidity, the regulations also included high reserve requirements that were higher on checking and savings accounts (around 20 percent) and lower on time deposits (3 percent). These reserve requirements were criticized many times because they were not remunerated and hence increased the cost of financial intermediation. Nevertheless, they proved useful later on as a much-needed cushion when the banking system faced a drastic outflow of deposits in 1995 during the so-called Tequila effect.

This set of prudential regulations was primarily designed to ensure the strength of the banking system and not to limit competition. In fact, the regulations promoted competition in a free market environment by eliminating entry restrictions to the banking industry, authorizing the opening of new branches, facilitating mergers and acquisitions, and putting domestic and foreign banks on equal footing while allowing interests rates on deposits and loans to be market determined.

The Monetary System in the Nineties

The Initial Response to the Convertibility Plan. The Convertibility Plan was extremely successful in restoring price stability. In just two years, inflation fell from 2,300 percent in 1990 to 171 percent in 1991 and to only 4.7 percent in 1994. Price stability was maintained throughout the nineties, and the fixed exchange rate has been a key element in ensuring this success.

The financial sector grew strongly in the nineties as a result of the remonetization of the economy. The hyperinflation of the late eighties led to a significant reduction in the use of the domestic currency (at that moment the Austral), and the percentage of M3 to GDP had fallen to extremely low levels (approximately 5.5 percent of GDP). The price and exchange stability that began in 1991 brought a significant increase in the demand for the local currency, now the peso, and there

[5] CAMEL stands for credit, assets, management, earnings, and liquidity, and it is an acronym that represents an international standard that most central banks use to rate banks.

was an important increase in the demand for currency and for deposits in the financial system, as shown on Chart 2. Total deposits increased from $16 billion in 1991 to $83 billion in 2000.

This growth in the monetary aggregates also led to an increase in international reserves, given that the convertibility law required that the issuance of monetary base had to be backed up by international reserves. Between 1991 and 1994 the monetary base increased by 8.4 billion pesos, while international reserves experienced an increase of 8.5 billion dollars.

The convertibility regime opened the door for bimonetarism, allowing people to choose the currency in which they wanted to make their deposits. This flexibility helped the development of the domestic financial system because most Argentines showed a significant preference to maintain their savings in dollars, a tendency that became more apparent during the hyperinflation. In the past, every time the Argentines chose to keep their deposits in dollars, they were forced to take their money out of the country, generating capital flight. With the changes introduced by the convertibility law and the law of financial institutions, it was legal to change a deposit from one currency to another within the Argentine financial system without causing an impact on total deposits, which strengthened the financial system.

Chart 2 also shows that the share of dollar deposits in the banking system increased throughout the nineties. The first important increase in the level of dollar deposits occurred during the Tequila effect. From then on the percentage of dollar deposits increased from 48 percent in 1994 to 52 percent in 1997 and from 59 percent in 2000. This dollarization process was particularly important for time deposits, where preference for foreign currency was greater, while the dollarization did not advance as much for transactional deposits, which include current and savings accounts, where the peso continues to have a predominant role. If we compare the share of peso deposits among transaction accounts (including savings accounts), they increased only from 24 to 26 percent between 1991 and 2000.

The growth in deposits provided the basis for the significant increase in credit to the private sector, which grew from 22,770 million pesos in 1991 to 68,620 million in 2000. Credit to the public sector, by contrast, shows a U shape, as it fell in relative terms between 1991 and 1997, only to rise afterward (see Chart 3a). Among these items, the largest increases are observed in mortgages and personal loans, while loans to corporations displayed much smaller growth (Chart 3b).

The Banking System during the Tequila Crisis. The Argentine financial sector faced several crises since the midnineties. The more important external shocks were the Tequila effect, followed by the Asian crisis, the Russian default, and the Brazilian devaluation. Since April 1999, Argentina started to suffer primarily from domestic problems, as lack of growth and political instability raised question marks about the ability and willingness of Argentina to pay the public debt. All these shocks represented important challenges for the banking system and for the regulators.

The Mexican devaluation of 20 December 1994 shocked the Argentine economy strongly and constituted the first, and one of the biggest, challenges for the Convertibility Plan. The economy suffered an important outflow of private capital, especially of short-term nature. International reserves fell by $6 billion (or 33 percent) between December 1994 and March 1995, imposing a large test on the exchange rate rule.

The financial system suffered a sudden loss of near 18 percent of total deposits in only four months, as can be observed in Chart 4. There are few cases in the history of financial crises of shocks of this magnitude. During the Great Depression of the thirties in the United States, banks lost 35 percent of their deposits, but this loss occurred over a four-year period. The financial crisis in Argentina was particularly difficult to manage because the monetary authority faces constraints to act as lender of last resort. As a result, the central bank could not always provide the necessary liquidity to financial institutions facing transitory problems.

The financial crisis was very intense, but the most critical period lasted only three months. The banking system and the fixed exchange rate faced the most severe test between December 1994 and March 1995, as the outflow of deposits threatened the viability of many banks, while the central bank lost significant reserves and allowed interest rates to rise to defend the parity of the peso. The panic ended in mid-March in response to a large adjustment package implemented with the support of the IMF, but the decline in deposits did not fully stop, awaiting the result of the presidential elections of mid-May. Finally, following the reelection of President Menem, there was a strong and continuous increase in deposits and renewed confidence in the domestic currency.[6] By the end of 1995 the financial situation had fully stabilized.

The situation deteriorated during the three months of the banking crisis. After a continuous but manageable loss of around 4 billion pesos of deposits between December 1994 and February 1995, the outflow of deposits accelerated in early March. By then, the bank run had reached crises levels, with short-term interest rates exceeding 60 percent per year and deposits falling by more than 4 billion pesos in less than two weeks. Moreover, during that period there was an increase in the degree of dollarization of deposits.

Initially, the loss of deposits was concentrated on a small group of wholesale banks with large operations in government bonds. These banks suffered an important reduction in the value of their assets as bond prices collapsed. Although some funds left the banking system, many depositors just moved their funds out of the weakest banks, looking for a safer location, and an important volume of money was transferred to foreign and large domestic banks. At the same time, there was a dollarization of deposits. Up to this point the main effect was merely a portfolio shift in search for “quality.” However, as that process evolved, there was a “contagion” effect within the financial system and more banks started to face an outflow of deposits. The outflow first affected the smaller institutions, especially the cooperative banks, but it later spread to the whole financial system. By March no sector was immune to the crisis, including foreign banks, public banks, and large domestic banks.

The Convertibility Plan proved to be strong enough to overcome the financial crisis. The $8 billion in deposits lost by the financial system during the crisis were recovered completely by early 1996, and by October 1997, before the Asian crisis, total deposits reached $65 billion (compared with $45 billion prior to December 1994). Interest rates, both in pesos and dollars, returned smoothly to pre-Tequila Crisis levels, and credit to the private sector was completely reestablished after a year. True, the financial system suffered the bankruptcy of some banks, but without deposit insurance, neither implicit nor explicit, depositors lost only around 130 million pesos, equivalent to just 0.28 percent of total deposits.[7]

In addition, the fiscal costs of the banking failures were relatively small compared to other financial crises. Central bank estimates indicate that the fiscal cost to taxpayers for the Argentine banking crisis was 0.2 percent of GDP. This is a small number if compared with the cost of 1981–83 banking crises in Argentina (10 percent of GDP) or with international experiences: Chile's crisis in the early eighties cost an estimated 19.6 percent of GDP, while, more recently, in Mexico and Venezuela some analysts estimate the costs to be around 12 percent of GDP.

Even under those extreme circumstances, the central bank was able to avoid any deviations from the convertibility law. At all times, the whole monetary base was backed with international reserves. The monetary authority provided rediscounts to the financial institutions facing liquidity problems, always within the limits established by the law. To back the issuance of domestic currency for this purpose, the central bank relied on the excess international reserves (primarily constituted by government bonds) that it had accumulated prior to the crisis. This episode showed the importance of excess international reserves, as they generate a cushion that allows the central bank to act as lender of last resort in extreme circumstances.

The lack of a lender of last resort was an institutional factor that probably contributed to the panic. As explained, the ability of the central bank to expand domestic credit was limited by the stock of excess reserves—that is, those reserves not used to back the monetary liabilities.[8] Before the crisis, the stock of excess reserves was 1.8 billion dollars, equivalent to 4 percent of total deposits and 18 percent of the fall in total deposits that took place during the period.

The memory of forced restructuring of deposits in late 1989 was an additional factor that complicated the management of the crisis. At that time the government implemented a forced exchange of deposits in the banking system for ten-year dollar denominated bonds. These bonds immediately traded at a large discount inflicting a heavy loss to depositors, both in terms of less liquidity and a capital loss. With the forced 1989 deposit restructuring still fresh in many people's minds, there was a widespread concern that this approach would be used again to deal with the current crisis. This reasoning led people to take a defensive strategy and to withdraw funds from the banking system.

Despite the restrictions imposed by the convertibility law, the central bank actively used the available policies to dampen the impact of the decline of deposits on domestic credit. The loss of deposits of approximately $8.5 billion was financed as follows: $1.7 billion with rediscounts from the central bank, $4 billion with reduction in reserves requirements, $300 million with repos, and $1 billion with foreign credit lines. These charts show that the liquidity instruments of the central bank financed 75 percent of the deposit loss. The difference was financed through a

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[6] The impact of the Tequila effect on the financial system is analyzed in the *Monetary and Financial Bulletin* of the Central Bank of Argentina, June and July 1995.
[7] Recall that the deposit insurance explained earlier was launched after the Mexican crisis in May 1995.
[8] The contingent repos. The facility program did not exist at the time. It became effective in 1997.

reduction in credit to the private sector. The ability of the monetary authority to manage liquidity in the financial system minimized the impact of the crisis on domestic credit. While deposits fell by 8.5 billion pesos, credit to the private sector was reduced by only 400 million, and total credit—including credit to the official sector—fell by 1.1 billion pesos.

The reversal of the crisis started by mid-March 1995 when the government put together a $12 billion package (equivalent to 4 percent of GDP) linked to an IMF program. The financing included funding from multilateral organizations and the Eximbank of Japan, the issuance of a "Patriotic Bond" that was purchased by large enterprises and banks operating in Argentina, and a 4.5 billion fiscal adjustment, including resources from privatizations.

The government created two fiduciary funds to facilitate the adjustment of the financial system, one for private banks and the other for public. These fiduciary funds would finance the privatization of provincial banks and provide resources for mergers and acquisitions of private banks. Through these mechanisms the fiduciary funds would help the restructuring of the public and private banks facing difficulties.

Finally, there was a decision to create a privately funded deposit insurance system. The main objective was to protect small depositors who do not have the necessary information to discriminate the credit worthiness of various financial institutions. At the same time, the rules were not changed for the larger, more sophisticated investors who are in a better position to evaluate the creditworthiness of banks and who continued to have their deposits at risk.

Dealing with Failed Banks. One of the most insightful features of the Argentine banking crisis was the way in which the central bank handled bank failures. In Argentina, large depositors have their significant funds at risk, and neither the central bank nor the treasury absorbs the losses resulting from individual bank failures. This policy greatly differs from what has become standard practice in most countries, and is more similar to the way in which banking crises were handled in the past during the so-called free-banking period.

The main objective of this policy was to minimize moral hazard problems and to reduce the fiscal costs of bank failures. These costs were extremely large in the past in Argentina, and the regime adopted in the early nineties was developed to ensure that the old large fiscal losses would not happen again.

The Argentine legislation established a procedure for dealing with troubled banks that is essentially market based and provides some limited privileges to depositors. If a bank faces liquidity problems, it can ask for a suspension for up to ninety days. During that period depositors do not have access to their money and the bank can negotiate with large creditors (including some depositors) to agree on longer maturities in order to overcome the liquidity problem or try to find additional funds through a merger or injections of new capital. If the process is successful, the bank reopens and continues its operations as usual. If it fails, the bank is liquidated according to the rules established in the law of financial institutions.

For failed institutions the central bank has generally operated under article 35bis of its charter, which authorizes the monetary authority to exclude some assets and liabilities and transfer them to another "acquiring" institution. In most cases this mechanism has allowed almost all depositors to maintain the value of their assets. The remainder of the assets is placed in a trust fund, and, as in any bankruptcy, the proceeds from the sale of these assets are used to cancel other liabilities—mainly financial and trade loans, transactions with derivatives, and others. In a few instances, however, the assets were not even large enough to cover depositors, and hence their claims were included in the trust and they also faced losses.

In Argentina during the nineties this system was effective in limiting the government's costs of bank failures while reducing moral hazard and risk taking by banks. Depositors were more selective in choosing a financial institution, as they realized that their deposits might not be readily available if the bank were suspended, and would be at risk if the bank were to fail. In addition, the system led banks to establish a more conservative lending policy, as they realized that the central bank would not bail out poorly managed institutions.

To protect small depositors, who do not have adequate information about bank risks, the government created a limited, privately funded deposit insurance system in April 1995. The system insured deposits of up to 20,000 pesos or dollars, an amount sufficiently large to cover around 75 percent of depositors (though 25 percent of total deposits). The creation of this system helped to increase the stability of the banking system.

During the period between December 1994 and August 1995, the central bank suspended transitorily fourteen financial institutions, of which three were authorized to operate again, three were liquidated, and in six cases the central bank proceeded to sell their assets and liabilities. By the end of August 1995, only two institutions remained suspended.[9] The central bank successfully managed the crisis, with only less than 1 percent of depositors actually losing their funds. This outcome is highly significant considering the fact that 18 percent of total deposits were depleted in only four months, with no deterioration in public sector finances and only a limited ability of the central bank to provide liquidity.

Changes in Central Bank Policies after the Tequila Crisis. After the Tequila Crisis, the central bank established new rules and regulations to strengthen the solvency and liquidity of the financial sector. The banking crisis that followed the Mexican devaluation illustrated the importance of systemic liquidity as a substitute for the limited ability of the central bank to act as lender of last resort. The crisis also made clear that there was a need to enhance capital requirements and supervision for trading activities, holdings of government bonds, and the use of derivatives.

The central bank developed an active policy to improve systemic liquidity. In August 1995 it created the liquidity requirements to replace the existing reserve requirements. The main objective of the new instrument was to ensure that financial institutions had adequate resources to confront a possible outflow of deposits. These requirements were increased over time from 16 to 20 percent, and they apply to all the liabilities of financial institutions, not just to their deposits (as was the case with reserve requirements). Further, requirements are calculated based on the residual time to maturity as opposed to the initial contractual time.

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[9] See the 1995 Bulletin of the Central Bank for more details.

The negotiation of a contingent credit line between the central bank and private international financial institutions was perhaps the most innovative and effective measure in this area. The main objective was to ensure access to foreign currency in the event of a crisis in order to back the issuance of domestic currency and hence fulfill the central bank's role of lender of last resort. This facility gives the monetary authority the option to conduct repurchase (repo) operations by selling Argentine public bonds denominated in U.S. dollars and receiving the proceeds in dollars.[10] This option enables the Central Bank to obtain dollars and hence to expand domestic credit, using the borrowed reserves to back the monetary expansion without violating the convertibility law. This instrument that originally consisted of an agreement for $6.0 billion was then increased to 6.7 billion dollars, and more recently to 7.1 billion dollars.

With the introduction of the liquidity requirements and the contingent credit line, systemic liquidity reached 30 percent of total deposits, an amount considered more than adequate to overcome any reasonable outflow of deposits in the banking system. This amount would have been adequate during the Tequila effect, when the banking system lost 18 percent of deposits in three months.

The central bank also introduced new rules to expose banks to market discipline, while it issued additional prudential regulations to reduce credit and market risk. Among the most important ones was a requirement for banks to issue an amount of subordinated debt equivalent to 2 percent of deposits, expecting that the pricing on this debt would represent a measure of the bank´s risk. In effect, the spread over government treasuries paid on this debt would provide useful information for both depositors and regulators. This information would be supplemented by new rules requiring a credit rating for all banks that would be public information and available to all depositors upon request. The central bank also requested banks to measure the market risk for the portfolio of bonds, foreign exchange holdings, and derivatives in order to assess the possible impact of sudden changes in the prices of these instruments while it increased the capital requirements depending on their volatility. The capital requirements were adjusted and generally increased to take into account the market risk.

Argentina during the Crises of the Late Nineties

International Shocks. The late nineties was a period of large volatility in emerging markets as a result of various foreign exchange and banking crises, starting with the devaluations in East Asia, followed by the Russian default on its domestic debt, and more recently by the devaluation of the *real* in Brazil. While the nature of these crises varied, in each case we observe either a large stock of short-term private or public foreign debt, or a very weak banking system. In some cases, such as South Korea, the problem was short-term foreign private debt coupled with a weak banking system,

[10] When the transaction matures, the central bank repurchasees the bonds. These operations have a minimum maturity of two years and a maximum of five years. Regarding the margins involved, if the prices of the bonds delivered fall by more than 5 percent, further bonds or dollars must be delivered to reach the amount of 125 percent of the transaction. If the bond prices fall by more than 20 percent, the central bank must deliver dollars as margin payments.

while in Russia the crisis was triggered by difficulties in rolling over an unsustainable amount of domestic currency debt held to a large extent by foreign investors.

The outbreak of the Asian crisis that occurred on 22 October 1997, with the devaluation in South Korea, had widespread effects among emerging countries. While some analysts had been predicting balance of payments difficulties for some of these countries, the magnitude of the crises caught most of them by surprise. Countries whose creditworthiness had been perceived as strong, such as South Korea and Thailand, were on the verge of default and experienced severe balance of payments crises. Even Hong Kong, a country with a strong commitment to the fixed exchange rate regime through its currency board, faced an unsuccessful but significant speculative attack on its currency. The Korean won plummeted quickly from eight hundred to eighteen hundred wons per U.S. dollar, while the Indonesian ruppia fell almost 80 percent within a few months of the crisis.

The solution to these crises required significant involvement of the multilateral institutions and the G-7 countries. The IMF took a leading role in putting together the financing for the adjustment packages for these countries. The size of the financial assistance was significant, as it reached around $60 billion for Korea and over $30 billion for Thailand.

The outbreak of the Russian crisis took place on 17 August 1998 when the government announced a moratorium on its domestic currency debt. The Russian default had significant effects on the world financial system that went well beyond emerging-market countries. Banks in Europe and New York experienced large losses as a result of their exposure to emerging-market countries, and liquidity dried up quickly for most financial instruments. The effects of this crisis spread to the high-yield instruments of industrialized countries and caused the failure of many hedge funds. The crisis even forced the New York Fed to lead a bailout of Long-Term Capital, a highly leveraged hedge fund whose failure would have posed a significant risk to the major money center banks.

The Brazilian devaluation of 13 January 1999 was the third of these threats, though it had a much smaller effect on the world financial markets than the previous crises. The *real* had been under attack since the Russian default, and domestic interest rates remained well above sustainable levels. In the end, the government was forced to devalue, and there was concern that this devaluation would lead to a third wave of worldwide effects. This episode, however, did not generate the same type of crisis that the previous ones did, in part because it was less unexpected. Besides, the Brazilian authorities managed to control the episode relatively quickly, and by March the turbulence was showing strong signs of receding.

The impact of these crises on emerging market countries is summarized in Chart 5 by the evolution of the emerging-market bond index (EMBI) prepared by J.P. Morgan. The Mexican devaluation of 1994 represented the first financial crisis with large effects on spreads of emerging-market countries, as the EMBI reached almost 1,900 basis points. The Asian crisis did imply an increase in spreads, but it was much more moderate as the levels remained well below those of the Tequila Crisis (peaking around 700 basis points). The Russian default brought the spreads back to levels comparable to those of the Tequila Crisis (reaching 1,700 basis points), while the Brazilian devaluation had a much smaller effect.

Argentina faced these three big tests within an eighteen-month period. The spreads on Argentine bonds clearly indicate that the country felt the impact of these crises. During the Russian crisis, the Argentine EMBI reached very high levels and the international financial markets remained closed for several weeks. The potential impact of these shocks on the Argentine financial system was large. With the memories of the Tequila Crisis still fresh in investors' minds, it was not possible to rule out another crisis.

Nevertheless, Argentina managed to overcome these crises without any significant strain in the banking sector or any threat to the convertibility regime. Chart 6 clearly indicates that there was a large difference in the evolution of deposits in the Tequila Crisis and the more recent crises in the Asian nations, Russia, and Brazil. While in the former total deposits fell by 18 percent, in the more recent episodes the banking system did not experience any reduction in deposits, even as the country risk spiked sharply around the Brazilian devaluation. In fact, total deposits increased by around 15 percent during the Asian crisis and remained stable or increased at a modest pace during the Russian crisis and the Brazilian devaluation.

This difference in behavior is highlighted in Chart 7 by the evolution of the nondeliverable forward (NDF) and international reserves. The interbank overnight interest rate in pesos, which had reached 70 percent during the Tequila Crisis, increased only modestly during the more recent crises and never exceeded 15 percent. Likewise, international reserves that fell by one-third during the Tequila Crisis increased continuously during the Asian crisis and stabilized or marginally increased since the Russian default.

The strength of the convertibility regime and of the financial system during these crises showed a marked difference relative to the Tequila Crisis. While Argentina suffered as the country risk increased and spreads over treasuries rose to much higher levels, the country was successful in insulating the domestic banking system from these events and in maintaining full confidence in the convertibility regime. Why did we observe this difference?

The three sets of policies implemented after the Tequila Crisis are critical to explain the success in weathering the most recent external crises. For convertibility to succeed it needs a sound fiscal position, a well-structured amortization schedule for government debt, and a strong banking system with adequate liquidity. The government worked on these three areas, and the policies proved to be successful to overcome the difficult situations. The crises of the nineties were essentially financial crises, having their origin either in a large amount of short-term debt or in weak financial systems. Argentina worked on strengthening these areas and the efforts paid off. Regarding specific policies for the banking sector, the most important ones were the increase in liquidity through higher liquidity requirements and the contingent repo line, the tougher prudential regulation, and the creation of a private deposit insurance scheme.

In addition to the success in maintaining healthy financial indicators, the country continued to grow at a strong pace until mid-1998. In fact, the economy was growing at over 7 percent in June 1998. Nevertheless, the Russian crisis represented a turning point for economic growth, as it meant much higher interest rates in the international capital markets and sharp tightening in liquidity, including trade and financial lines of credit.

Domestic Shocks. Since the second quarter of 1999, the Argentine financial system has faced additional shocks that were primarily domestic in nature. The first one took place in 1999, during the presidential campaign, when one of the leading candidates spoke about restructuring foreign debt. The second episode started with the resignation of Vice President Carlos “Chacho Alvarez,” which weakened the government alliance and increased political uncertainty. The third episode began in March 2001 with the resignation of economic minister Luis Machinea, who was replaced by Ricardo Lopez Murphy, and who in turn, two weeks later, was replaced by Domingo Cavallo. The change in ministers and the adoption of some controversial economic policies increased doubts about the direction and consistency of economic policies.

While the Argentine economy managed to absorb the Brazilian devaluation without major problems, the financial conditions started to deteriorate in the second quarter of 1999 as Governor Duhalde, a leading presidential candidate at that time, spoke in favor of restructuring the external debt. The markets responded very negatively to this speech, bringing about an increase in the Argentine EMBI from 622 basis points in April to 851 in August, while in the one year the NDF rose from 400 basis points to 1,500. But once again, despite the deterioration in financial indicators, deposits remained stable as most Argentines maintained their confidence in the banking sector.

Expectations changed as it became clear in August that Duhalde’s chances of winning were decreasing, and the improvement was consolidated in October after De la Rua was finally elected president. President De la Rua showed a strong commitment to the maintenance of convertibility and to the payment of all debt obligations. As a result, expectations improved and the country risk, as measured by the EMBI, fell to historical levels. In addition, deposits displayed a tendency to rise during the rest of the year, except for December, when they were affected by Y2K events.

The economic and financial situation remained relatively stable until October 2000, when the resignation of Vice President Alvarez marked the beginning of a long period of financial instability that is still affecting the economy. Toward the end of 2000, the level of country risk increased significantly (see Chart 6), external financing dried up, and Argentina was forced to resort to assistance from the multilateral organizations and obtain the necessary financing to meet the 2001 debt payments. The financial package, generally known as “blindaje,” consisted of around $12 billion of new money plus a commitment from domestic institutional investors and banks to refinance debt obligations. The package was successful in restoring confidence temporarily, but after the Turkish financial crisis in February, the financial conditions deteriorated once again, and Machinea resigned in early March.

Ricardo Lopez Murphy was named economic minister, but his tenure was short, as there was strong political opposition to the implementation of the much-needed austerity package that he proposed. Cavallo replaced Lopez Murphy after just two weeks in office. Cavallo generated high expectations about moving the economy out of the recession and reopening access to international capital markets. Unfortunately, those expectations were not fulfilled and the economy deteriorated, particularly since July, as a result of a number of policy mistakes in a situation where room to maneuver was very limited. How did the banking system absorb these domestic shocks?

The resignation of Vice President Alvarez posed a minor threat to the banking system, as deposits fell around 2 percent in October and November. But by December, as the blindaje became effective, deposits returned to the banking system.

Unfortunately, the banking system has suffered since the first quarter of 2001. Deposits fell following the resignation of economics minister Machinea and dropped further after the resignation of Lopez Murphy in late March – the worst month in terms of deposit declines since the Tequila Crisis. Chart 8 shows this drop and the subsequent behavior of deposits and country risk. Deposits stabilized between April and June, only to fall sharply beginning in July as country risk (measured by the EMBI) reached astronomical levels and the possibility of external financing was extinguished.

The banks lost close to $7 billion in deposits between March and late August. The fall in deposits was across the board in all types of banks, including domestic, foreign, and public-owned banks, generating significant strain on the banking system. In contrast to the Tequila Crisis, this time the banks contracted their credit to the private sector in spite of expansionary credit policies by the central bank.

While at the time of writing this paper (early December 2001) it is not clear that the recent banking crisis is over, the situation improved between August and October as the government signed a new agreement with the IMF. The new IMF program provided enough financing to cover the government financial until the middle of 2002 and included additional funding for a voluntary restructuring of public debt. In exchange, the government agreed to completely eliminate the budget deficit and implemented a significant reduction in government expenditures, including a 13 percent cut in most wages and pensions. Nevertheless, there was a deterioration in economic conditions in November as the outflow of deposits increased, posing a threat to the convertibility regime and leading the government to impose a deposit freeze as a final attempt to deal with the crisis.[11]

The Crisis Faced by the Banking System. Since the Asian crisis the Argentine banking sector has been under significant, almost constant financial pressure. During this four-year period there were two distinct phases. The first phase starts with the Asian crisis and essentially lasts until March 2001. During this period the banking system displayed a strong performance as depositors maintained confidence in the system, the banks maintained good levels of liquidity, and the quality of banks' assets remained sound, while the indicators of financial strength continued to improve. During the second phase, which started in March 2001, the banking system faced a sharp fall in deposits, lower levels of liquidity, and deterioration in the quality of its assets.

[11] The imposition of the deposit freeze was not effective to deal with the crisis, and a new government was eventually forced to leave convertibility and adopt a floating exchange rate system.

The success of the banking system to absorb successfully the shocks of the late nineties is largely related to the improvements in the prudential regulations adopted after the Tequila Crisis and to the improvement in the quality of banks as a result of mergers and acquisitions. Stronger banks absorbed most of the weak banks, and many provincial banks, which became insolvent during the Tequila Crisis, were privatized. In addition, a number of important foreign banks, such as Banco Santander and Bilbão Biscaya from Spain, HSBC, and Credit Agricole and Banco Itau from Brazil, entered or increased their participation in the domestic financial system, a fact that increased the confidence of depositors in the overall banking system. The accepted wisdom is that in the late nineties, the quality of banks in terms of solvency, liquidity, and management improved significantly, and the banks in operation, including the domestic ones, were sound in these respects.

The increase in systemic liquidity and the creation of SEDESA, the private sector deposit insurance institution, also contributed to the stability in deposits during this period. The increased liquidity resulted from higher liquidity requirements, better liquidity management by commercial banks, and the contingent repo line negotiated by the central bank. These new measures meant that liquidity in the banking system increased to close to 30 percent of bank deposits, a level considered more than adequate by international standards. In addition, the existence of deposit insurance reduced the concerns of small depositors about maintaining their money in the banking system.

The successful way in which the banking system managed to withstand the various crises indicated that the system had achieved enough strength to generate confidence under the convertibility regime. Although the regime imposed restrictions on the ability of the central bank to act as lender of last resort, there was a widespread perception that the measures introduced since the Tequila Crisis were effective to restore confidence in the system.

As we saw in Chart 8, the outcome was different starting in March 2001. For the first time since the Tequila Crisis, the banking system suffered an important outflow of deposits, losing $4.5 billion in March (equivalent to 5 percent of total deposits) and more than $7 billion in July and August. In just five months the system lost around 11 billion dollars, equivalent to 12.8 percent of total deposits. What explains the difference between this crisis and the previous ones?

There is no simple explanation for the contrast between the stability of deposits in the previous episodes and the large outflow in the most recent one. Nevertheless, a number of reasons might help to understand the contrast. First, the three changes in economic ministers in March, and the short tenure of Lopez Murphy, an economist known for his fiscal orthodoxy and his adherence to the convertibility regime, generated doubts about future economic policies. For the first time since the Tequila Crisis, there were doubts about whether convertibility could and would be maintained and about the government’s commitment to fiscal discipline. Second, these doubts were exacerbated by the announcement of a project to modify (or broaden) the convertibility regime. Instead of fixing the peso solely to the U.S. dollar, the proposal was to fix the peso to a basket of currencies that would include the euro and dollar. The change would not become effective immediately but instead would be triggered once the euro (at that time the exchange rate was $0.88 per euro) was exchanged at par with the U.S. dollar. Third, the removal of the president of the central bank, a strong supporter of the convertibility regime increased the uncertainty. Fourth, there were doubts about whether Argentina could meet the targets of the IMF program, raising questions about the ability of the government to secure financing to meet its obligations. The situation was complicated by statements by many investors and analysts on Wall Street arguing that Argentina would unavoidably face default, a view that it is shared by many investors even today.

The concerns about Argentina's ability to pay its debt increased the country risk to levels that had not been experienced since the Tequila Crisis (refer to Chart 6). The spread on Argentine bonds, as measured by the EMBI, rose to 1,100 basis points in March and then increased even further to close at 1,800 basis points in August and September. There was also a sharp increase when the NDF reached 4,500 basis points in August 2001. The deterioration in these two key financial indicators eroded confidence and created uncertainty, thus adding to the large outflow of deposits observed during this period.

How the Banking System Coped with the Crises. While the size of the loss of deposits was similar to the loss experienced during the Tequila Crisis by September, the situation had not reached a panic level, as was the case in previous episodes. Unfortunately, the bank run started again in November, and this time the government imposed a deposit freeze. Through most of the crisis, the financial system managed to withstand the outflow much better than in the Tequila Crisis, as depositors had more confidence in the banking system. In part this happened because the banking system maintained an overall sound position during this episode. Liquidity has remained at reasonable levels; according to central bank estimates, liquid assets cover approximately 36 percent of liquid liabilities, a level that is only slightly lower than historical ones of around 38 percent. In addition, liquidity requirements and cash holdings cover roughly 20 percent of total deposits.

The banking system continues to be well capitalized as total capital exceeds by 50 percent the central bank capital requirements. Given that capital requirements are much higher than those recommended by the Basel agreement, the excess of capital is even larger (around 160 percent) if one were to use international standards. A recent study by Dujovne and Guidotti (2001) indicates that the excess of capital in the Argentine banking system as a whole is enough to absorb an increase of 200 percent in provisioning in one year relative to existing levels without failing to meet capital requirements.

In addition, the quality of assets had not deteriorated significantly after three years of recession (see Chart 9). This resilience in the quality of bank assets primarily reflects the improvements in the lending standards that commercial banks implemented after the Tequila Crisis. While the new, more conservative practices have meant that many companies faced a reduction in their access to bank credit, they have allowed banks to overcome a very difficult economic situation without relevant deteriorations in the quality of their assets.

In sum, the banking system has withstood a large number of crises in the last four years. Most of the crises potentially could have resulted in an outflow of deposits and in a weakening of the banking system. Nevertheless, until March 2001, the crises had a very small impact on deposits, while the banks managed to maintain adequate levels of capital and liquidity. The one exception is the recent crisis, in which external shocks, large public sector financial requirements, and political events generated doubts that resulted in an important loss of deposits. But even in this last case, the banking system held enough liquidity reserves to face a very large outflow of deposits.

The ability of the banking system to confront successfully these episodes was largely related to the prudential policies issued by the central bank and adopted without hesitation by the banking system. The mandatory high-liquidity requirements and the stock of liquid assets that most banks have held to supplement those requirements endowed the banks with adequate resources to pay the depositors. In addition, the improvements in management, the entry of prestigious and well-capitalized financial institutions, and the lending policies adopted after the Tequila Crisis certainly helped to build confidence in the banking system.

The central bank helped not only through an improvement in prudential regulations, but also through the contingent repo line, which provided additional resources to allow the central bank to act as lender of last resort. The introduction of deposit insurance and the effectiveness displayed by SEDESA in dealing with failed banks also helped to restore confidence in the banking system. Last, but not least, the commitment of the central bank to defend convertibility and the convenience of maintaining a bimonetary banking system in which depositors could choose the currency in which they hold their deposits helped in the stability of total deposits observed in most of these episodes.

Argentine Banks Today: Some Stylized Facts

Although the Argentine banking system experienced significant growth in the nineties, there is still room for further expansion. Most indicators show that the size of the financial system is rather small relative to other emerging countries. For instance, the ratio of M2 to GDP is 21.4 percent, compared with 37.4 percent in Chile, 48.7 percent in Korea, and 24.3 percent in Brazil. The key to further growth is the maintenance of the macroeconomic rules that have been so successful in fostering growth in the financial sector during the nineties.

Market Structure. This growth in the banking system is likely to be accompanied by further concentration in this sector. Argentina today has one of the lowest levels of concentration among major Latin American countries (see Table 1). According to a study by Goldman Sachs (2000), Argentina’s ten largest banks hold only 54 percent of deposits, a small share if compared with percentages between 70 and 88 shown by the other countries. The smaller degree of concentration is more apparent when we compare the twenty largest banks, where Argentina has only 70 percent, while in Mexico, for example, the top twenty banks hold 99 percent of deposits, and in Chile the number is 94 percent.

Despite the lower degree of concentration in Argentina, the process has been advancing rapidly. For instance, the number of financial institutions fell from 212 in 1992 to only 110 today. In addition, the share of deposits held in the then largest private banks increased from 36.3 percent in 1995 to 47.7 percent in mid-2001. Other structural changes were the reduction in the number of public banks, which fell from thirty-six in 1992 to thirteen in June 2001, and the increase of foreign banks, which during that period increased from thirty-one to fifty. These changes have been reflected in the deposit share of various types of banks. For instance, the share of public banks fell from 39.4 percent in 1995 to 32.8 percent in 2001, while the share of domestic private banks fell from 39.9 percent to 17.9 percent during that period (Table 2).

A related feature is that the size of private banks in Argentina tends to be smaller than other banks in the region. For instance, Banco Galicia, the largest private bank, has a market share similar to that of Bradesco (from Brazil) but the former has around a third of the assets. Galicia has also around a third or half as many assets as the Mexican bank Bancomer, although the latter holds 30 percent of market share. Regarding foreign banks, their participation in the Argentina system is 44 percent, similar to participation in other countries in the region, with the exception of Brazil, where foreign banks have a small market share. Recently the participation of foreign banks has increased in the region as a result of the purchase of Banamex by Citigroup (see Table 3).

Special Features of the Argentine Banking System. Different types of banks in Argentina have special characteristics. For instance, the top ten private banks are better capitalized and have higher earnings and a better asset quality than the rest of the banking system. At the same time, if we make international comparisons, we find that the Argentine banks still have not reached the level of efficiency and profitability that we observe in banks in other countries, which have a worse asset quality but are better capitalized.

One key feature of the Argentine financial system is the significant difference that exists between the top ten private banks and the rest of the system (see Table 4). If we look at return on equity (ROE), for instance, the average return is low, less than 5 percent of equity. But within this low average there is a wide dispersion of performances, with public banks showing almost no return on equity, while the largest ten private banks (top ten banks) have a return of 10.5 percent. This difference in performance is observed in most indicators. For example, the efficiency ratio of the top ten banks is 60 percent compared with 77.5 percent for the public banks and 66.4 percent for all the private banks. The ratio of nonperforming loans (NPLs) to total loans for the top ten banks (7.8 percent) is half the ratio for public banks (14.9 percent). Further, the ratio of NPLs net of reserves to equity for private banks (10.7 percent) is one-fourth the ratio for public banks (41.7 percent).

In some respects it is misleading to talk about the Argentine banking system as a whole, because the performance and asset quality is very different for the top ten banks, the public banks, and the rest of the system. By and large we observe that the public banks are in poor shape, both in terms of profitability and asset quality. This situation is not new, and the structural weaknesses of public banks in Argentina are one of the main reasons that have led many provinces to privatize the public banks. This trend continues today, as we have recently seen that Cordoba, the second largest province, recently privatized its two provincial banks.

At the other extreme we observe that the top ten banks have the best performance among Argentine banks. In fact, while the situation of public banks has been deteriorating over time, the top ten banks have been improving. In particular these banks have shown an important improvement in efficiency over time, in part reflecting the benefits from economies of scale as a result of the significant growth that the banking system as a whole enjoyed throughout the nineties. One clear implication is that while the long-term viability of the public sector banks appears as a question mark, the largest Argentine banks seem to be in a relatively good position to remain profitable and continue to grow in the future.

Despite the differences among groups of banks, some features are common to the Argentine banking system. For instance, we observe that there are high charges for nonperforming loans, as they represent 46 percent of net interest income. This average disguises large differences among different groups of banks, being 80 percent for the public banks and only 30 percent for the top ten banks. A second common feature is that noninterest income represents around 65 percent of net interest income, and this ratio is similar for all groups of banks, indicating that commissions and fee income are an important source of revenue for the banking system. A third feature is that administrative expenses are large for all groups of banks (around 5.8 percent of assets), though they have been constantly falling in recent years. Thus, the trend of administrative expenses contrasts with the trend for provisioning that has been rising in recent years as a percent of assets.

If we compare Argentine banks to those in other Latin American countries, we observe that there are differences regarding profitability, capital adequacy, and asset quality (see Table 4). A first feature is that Argentine banks have lower return on equity (ROE) than their counterparts in the region. The average ROE for the banking system (2001) is 4.7 percent, a level that is smaller than that in Mexico (31.8 percent) or in Chile (21.5 percent), and it is also smaller than that in Brazil, although this is not the case for the particular period under study. In addition, the ROE is also much smaller than those of banks in developed markets.

The Argentine banks have an efficiency ratio of 68.3 percent, compared with 56.9 percent for Mexican banks, 50.6 percent for Chilean banks, and 64.6 percent for Brazilian banks. Though Argentine banks still need to improve their efficiency ratio to move closer to international levels, the gap is much smaller for the top ten private banks, which are close to the ratios for Mexican and Brazilian banks. However, the gap is much bigger for public banks that still have a long way to go to achieve reasonable efficiency levels.

The differences in net interest margin are not apparent and vary depending on the base of the sample. Nevertheless, there are indications that Argentine banks have a relatively high net interest margin, especially compared with Chile and with banks in industrialized countries. The high interest margin is similar for all groups of Argentine banks.

One area of concern is asset quality in the Argentine financial system. Nonperforming loans, representing 10.6 percent of total loans, are well above the levels of Chile (2.0 percent), Brazil (2.9 percent), and even Mexico (5.6 percent). Although the Argentine banks have loan reserves that cover 65 percent of the NPLs, those levels are smaller than those in Mexico, Brazil, and Chile, where reserves largely exceed NPLs. Nevertheless, Argentine banks, especially the top ten, appear to have adequate capital to deal with possible losses from problem loans.

Capital adequacy is perhaps the one area where Argentine banks do well. The level of capital is 10.8 percent of total assets, which exceeds the levels of Chile (4.4 percent), Brazil (4.4

percent), and developed countries (6.8 percent) and is slightly higher than the level observed in Mexico (9.9 percent). Among Argentine banks, all groups are well capitalized, and there are no clear differences between public banks and the top ten private banks in this respect. Although the Argentine central bank imposes high capital requirements, most banks do have an excess of capital, and the system has excess capital of approximately 25 percent. The higher capital requirements have led, as expected, to higher capital ratios and less leverage than in other countries.

Finally, Argentine banks appear to have prudent levels of liquidity to face their short-term obligations. As shown in Chart 10, Argentina is one of the countries with the highest levels of international reserves to withstand an outflow of deposits.

The concentration process in the banking system reduced the number of financial institutions from 205 in December 1995 to 132 in June 1998. In addition, there was an important concentration of deposits as the share of the top twenty financial institutions increased from 64 percent to 80 percent during the same period. Foreign banks have significantly increased their share from 16 percent in 1994 to 41 percent in 1998. Depositors have shifted their deposits to these banks, in part as a flight to quality in a world where information is costly to obtain and deposit insurance limited.

There has been a widespread debate in Argentina regarding the implications of this trend. Some argue that it has been beneficial because the remaining banks are stronger and many of the foreign banks would have an easier time securing foreign funding if another crisis were to occur, while others express concern about a credit tightening for small and medium enterprises and for regional economies. The existing evidence appears to support both views, as overall liquidity in the banking system has remained at adequate levels, while there seems to be a credit crunch for the sectors mentioned above.

It is clear that the banking system has become more resilient to shocks during this period. The combination of stronger banks, both foreign and domestic; fewer public banks; more liquidity; better loan portfolios; and an improved deposit insurance system has helped the banking system to weather the recent crises. Evidence of the strength of the banking system is that even though bank failures have not been completely avoided, as more than ten banks with deposits representing more than 3 percent of the total deposits failed over the last two years, they did not generate any systematic concerns or contagion. Depositors now perceive the failure of an individual bank as the result of specific problems and do not cast doubts about the solvency and liquidity of the system.

Final Remarks

This paper has described the evolution of the banking system since the early nineties. It covers macroeconomic trends such as the evolution of monetary aggregates, deposits, and loans as well as microeconomic features such as the structure of the Argentine banking system, the degree of concentration, and the characteristics of different types of banks.

The Argentine banking system faced a number of important crises during the nineties that, thanks to the adequate levels of capital and liquidity, it managed to overcome successfully.

In fact, the strength of the banking system during the second half of the nineties has been one of the key assets of the Argentine economy. In broad terms, this experience indicates that the set of prudential regulations emphasizing high capital and liquidity requirements combined with a private deposit insurance system was effective in generating confidence in the banking system. In addition, the bimonetary nature of the banking system, allowing depositors to choose having their deposits in either pesos or dollars, contributed to the stability of the system.

The main weakness of the banking system has been the limited ability of the central bank to act as lender of last resort under a regime with a currency board. While the central bank has managed to improve its ability to act as lender of last resort through the creation of a contingent repo facility with foreign banks and by imposing high liquidity requirements, these efforts have not provided enough liquidity to the banking sector during times of crises.

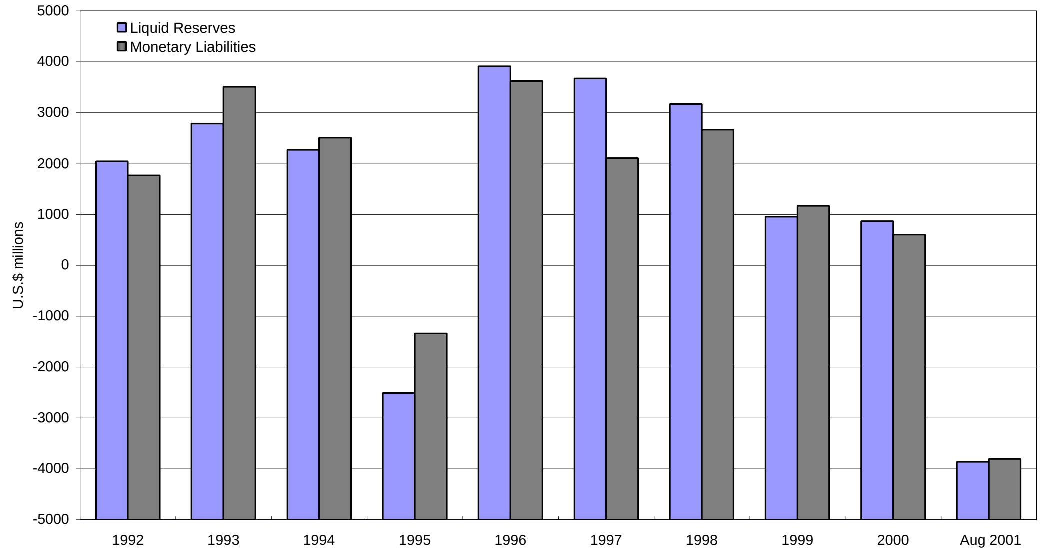
The paper also points out that there are important differences in the performance between public and private banks. Among this last group, there are also differences between the ten largest banks and the rest. In general, we observe that the ten largest private banks are more efficient, have higher profitability, and show a better quality of assets. We also observe the following trend: where the process of concentration is increasing, foreign banks increase their market share and public banks reduce their market share. Finally, everything indicates that the privatization of public banks will continue despite the political opposition that exists for the privatization of the largest public banks.

References

Dujovne, Nicolás, and Pablo Guidotti. 2001. El Sistema Financiero Argentino y su Regulación Prudencial. Banco Galicia and Escuela de Gobierno Universidad Torcuato Di Tella.

Goldman Sachs Investment Research—Financial Services. 2000. Latin American bank fact sheet: Bank consolidation in Latin America—Variations on a theme.

CHART 1: Liquid Reserves and Monetary Liabilities
(change over 12-month period)



Source: Central Bank of Argentina

CHART 2: Increasing Dollarization of Deposit

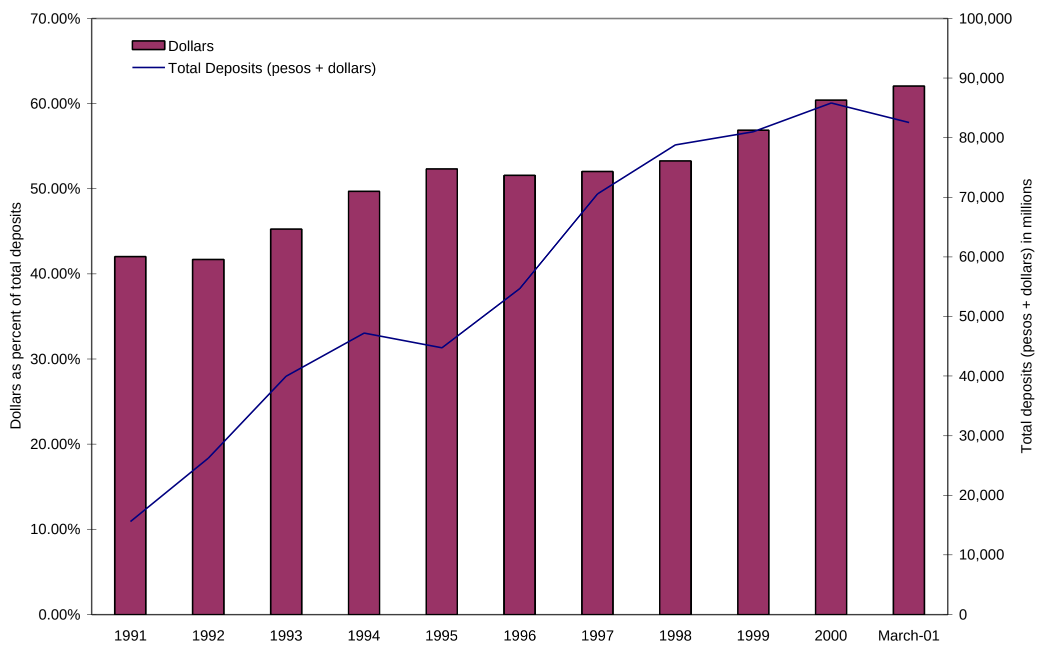
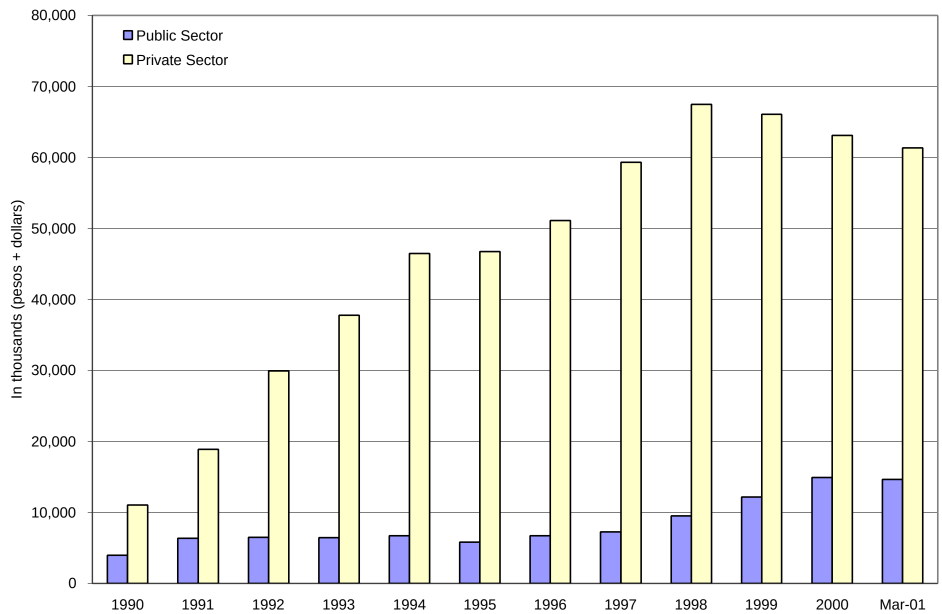
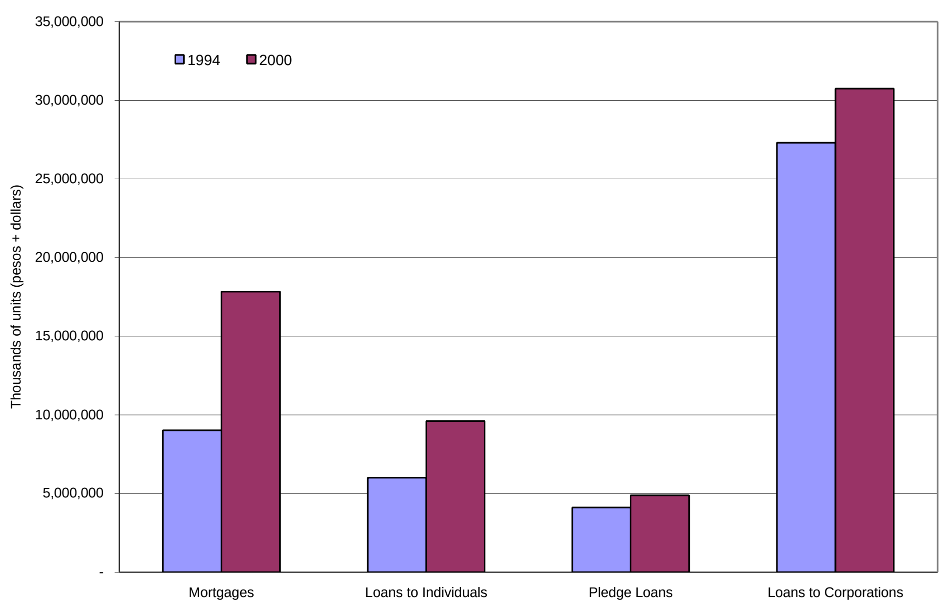


Chart 3a: Credit Allocation by Sector



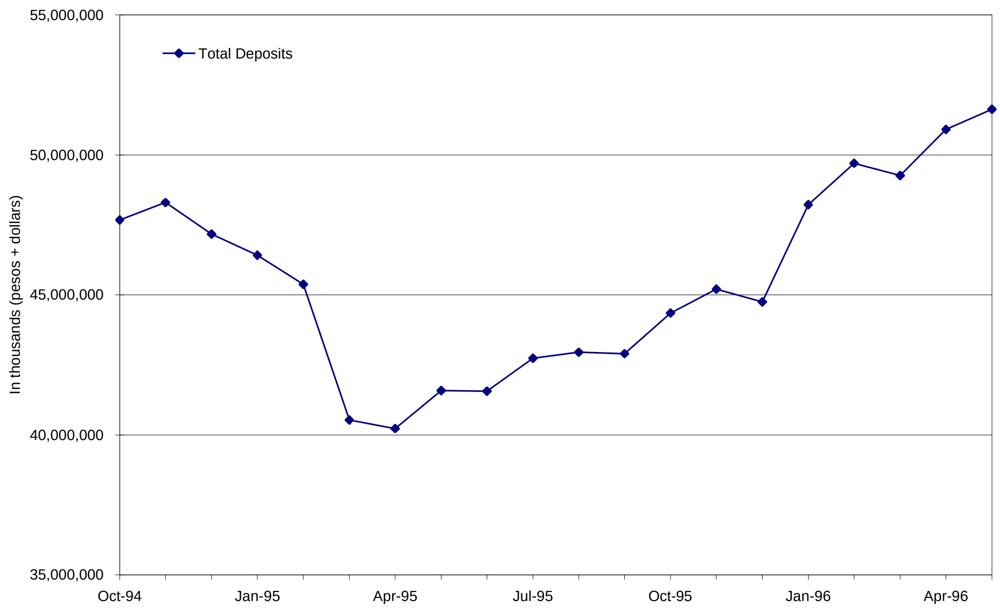
Source: Central Bank of Argentina and Estudio MA. Broda

CHART 3b: Credit to the Private Sector, by Destination



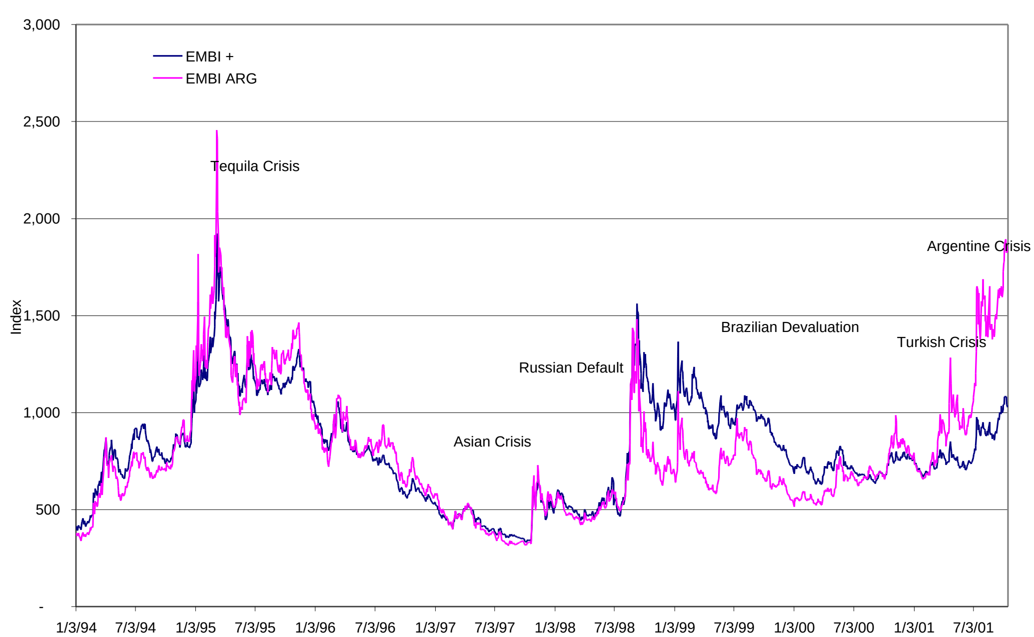
Source: Central Bank of Argentina and Estudio MA. Broda

CHART 4: Behavior of Deposit Level during the Tequila Crisis



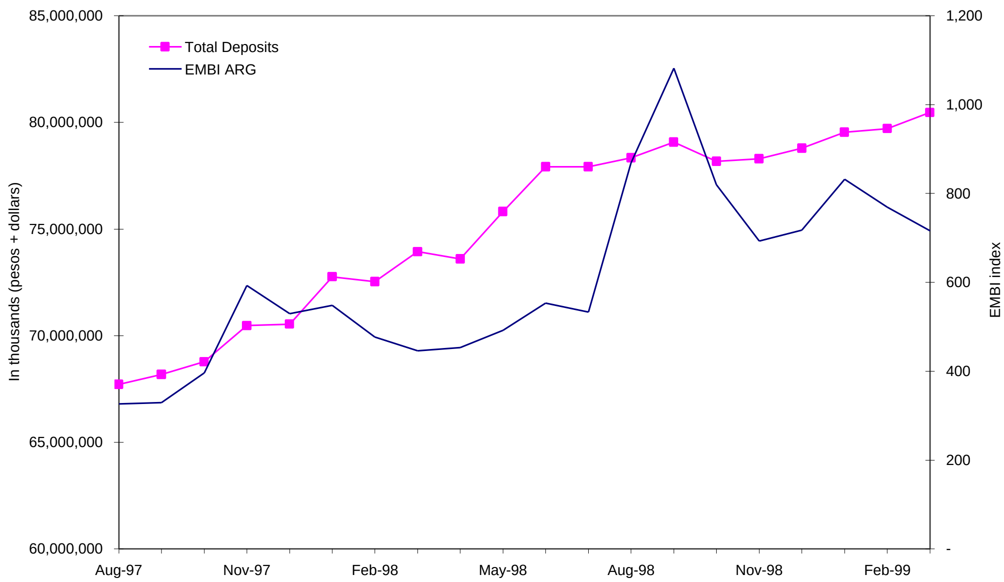
Source: Central Bank of Argentina and Estudio MA. Broda

CHART 5: Argentine Country Risk and Successive Crises



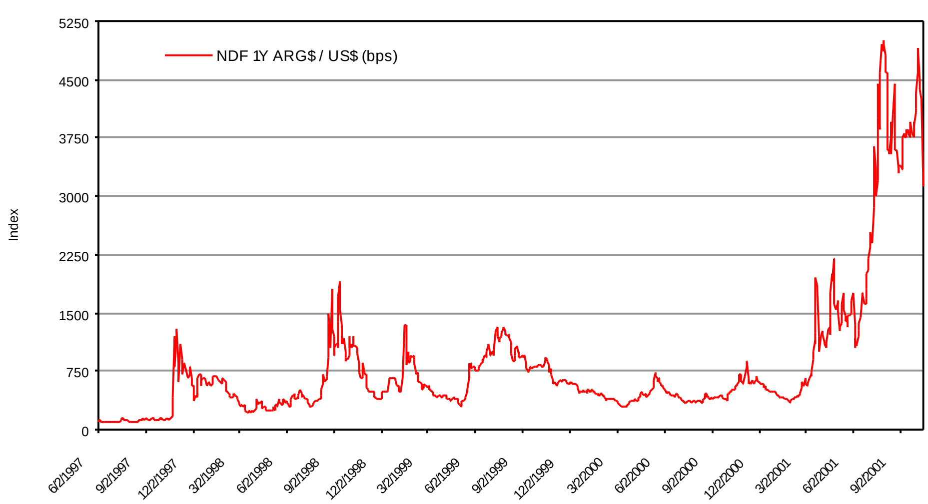
Source: Bloomberg

CHART 6: Country Risk and Deposit Levels during Asian, Russian, and Brazilian Crises



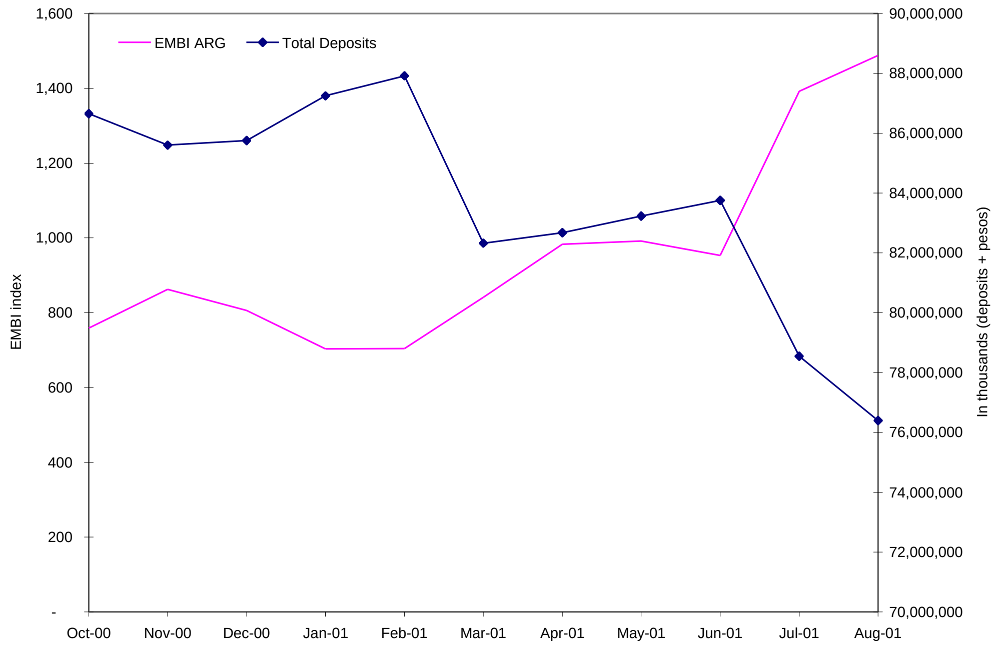
Source: Estudio MA. Broda and Bloomberg

CHART 7: The Evolution of Nondeliverable Forward and International Reserves



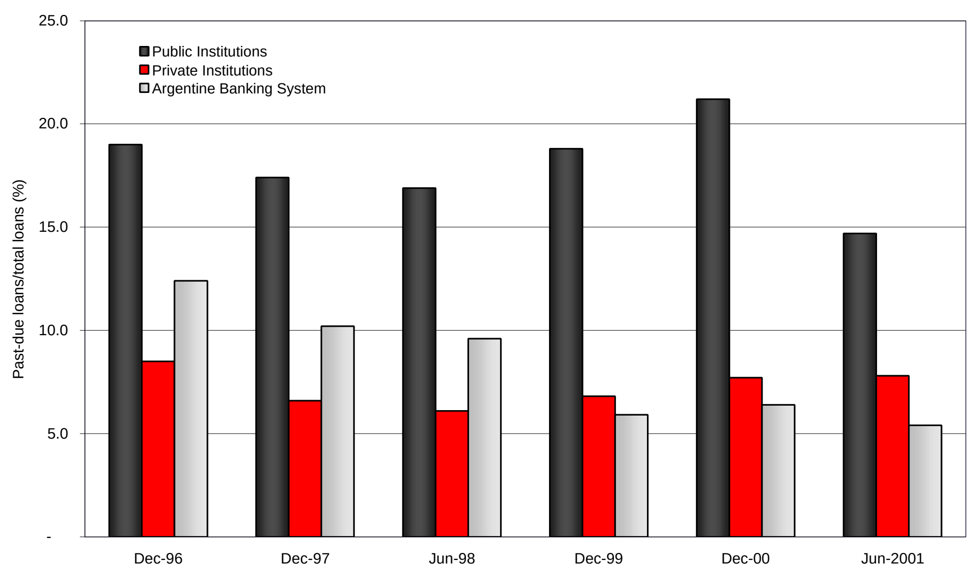
Source: Bloomberg

CHART 8: Deposits and Country Risk since October 2000



Source: Estudio MA. Broda and

CHART 9: Argentine Banking System—Asset Quality



Source: Argentine Central Bank

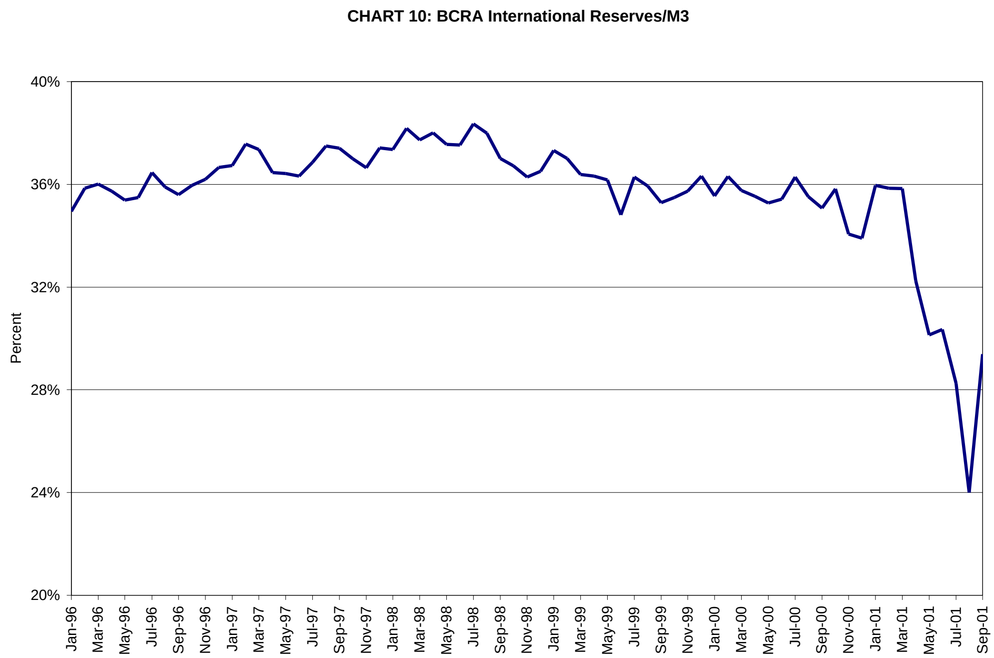


CHART 10: BCRA International Reserves/M3
Percent
40%
36%
32%
28%
24%
20%
Jan-96
Mar-96
May-96
Jul-96
Sep-96
Nov-96
Jan-97
Mar-97
May-97
Jul-97
Sep-97
Nov-97
Jan-98
Mar-98
May-98
Jul-98
Sep-98
Nov-98
Jan-99
Mar-99
May-99
Jul-99
Sep-99
Nov-99
Jan-00
Mar-00
May-00
Jul-00
Sep-00
Nov-00
Jan-01
Mar-01
May-01
Jul-01
Sep-01

Table 1: Concentration of Deposits

	Percentage of Deposits Held By		
	5 Largest Banks	**10 Largest Banks**	**20 Largest Banks**
Argentina	40	54	70
Brazil	55	72	85
Chile	50	76	94
Colombia	44	70	91
México	69	88	99

Source: Goldman Sachs (2000)

Table 2: Market Share of Deposits (Percent)

	1995	**2001**
Public Banks	39.4	32.8
Private Banks	60.6	67.2
Domestic Private Banks	39.9	17.9
Foreign Banks	20.7	50.7
Ten Largest Private Banks	36.3	47.7

Source: Central bank

Table 3: Market Share of Foreign Banks (Percent)

	Argentina	**Brazil**	**Chile**	**Colombia**	**Mexico**
Foreign Banks	44	20	44	25	55

Source: Salomon Smith Barney (2000)

Table 4: Financial Statistics—Banking Systems in Latin America and the United States (June 2001)

	Argentina							
	Financial System	Public Entities	Private Entities	Top Ten Private System	Mexican Banking System[1]	Brazilian Banking System	Chilean Banking System[2]	U.S. Commercial Banks[3]
				Profitability				
ROE[4]	4.72	0.45	6.59	10.57	13.81	11.02	21.54	14.20
ROA[4]	0.61	0.04	0.92	1.41	1.35	0.82	0.91	1.20
Net interest margin	4.36	4.10	4.60	4.47	5.33	6.13	2.17	4.00
Efficiency	68.30	77.53	66.42	60.09	56.87	64.63	50.59	60.60
Noninterest income/ Average assets	2.38	2.20	2.44	2.22	2.59	3.69	0.70	3.40
Provision/avg. assets	1.65	1.20	2.05	2.13	0.95	0.45	0.59	0.40
				Capital Adequacy				
Equity/assets	10.83	10.60	10.97	10.49	9.92	7.46	4.42	8.50
				Asset Quality				
Nonperforming loans/ total loans	10.60	14.90	7.80	7.30	5.59	2.91	2.00	1.10
(NPLs-reserves)/ total loans	3.73	6.31	2.31	1.97	–1.08	–2.25	–1.11	–0.60
(NPLs-reserves)/equity	19.68	41.71	11.69	10.71	–6.43	–13.87	–8.69	–4.00
Reserves/equity	36.24	56.84	27.84	28.89	42.18	31.86	24.28	12.10
Reserves/NPLs	64.80	57.67	70.42	72.96	117.98	177.12	155.70	149.30
NPLs/equity	55.92	98.55	39.53	39.60	35.76	17.99	15.60	8.10
				Liquidity				
Loans/assets	49.17	54.82	46.52	47.32	63.51	46.10	34.47	61.20
Loans/deposits	92.86	82.80	95.10	97.73	92.81	115.28	84.79	91.40
Liquid assets/assets	9.65	N/A	N/A	N/A	26.93	13.21	5.23	N/A

[1] As of 03/31/2001
[2] As of 12/31/2000
[3] Data from Federal Deposit Insurance Corporation (FDIC) corresponding to 2000. Sample size 8,178 institutions.
[4] For the Brazilian banking system, average of 2000, 1999, and1998.

Source: Calculations based on data from Argentine Central Bank, Merrill Lynch, and Salomon Smith Barney based on data from Superintendencia de Bancos e Instituciones Financieras de Chile, Federacao Brasileira de Bancos, and Brazilian Stock Exchange; and The National Banking and Securities Commission—Mexico.