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Growth, Instability and the Crisis of Convertibility in Argentina

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The Argentine economy is currently undergoing the deepest and longest recessionary process in the post-war period. The recession began in late 1998 and, as time passed and the successive stabilisation attempts failed, agents increasingly perceived that the country was entering the obscure realm of economic depression. The consequences of this process are proving to be devastating. In December 2001 the democratically elected president was forced to resign and the Convertibility Regime that had been implemented in 1991 was abandoned. The expected growth rate for 2002 is minus 15 percent and the inflation rate is increasing substantially. The peso has lost two thirds of its value against the dollar after the replacement of the currency board with a floating regime. Almost half of the population is living under the poverty line (in 1998, 28 percent was poor) and the country defaulted on its debt.

This dismal picture contrasts sharply and strikingly with the 1991-98 period, when the economy grew by more than 41 percent and there was a substantial privatisation-led process to modernise the

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infrastructure in the context of a programme of structural reforms. In 1991-98 Argentina was considered to be one of the most successful emerging economies and the favourable investor sentiment permitted the country to place a significant amount of bonds in foreign capital markets. In 2001, Argentine bonds accounted for as much as one quarter of J.P. Morgan's benchmark index of emerging market bonds.

The contrast between the 1991-98 and 1999-2002 periods has created a bizarre situation that is difficult for the population to grasp: Real GDP in 2002 will be 30 percent lower than in 1998, but the productive capacity is roughly the same as in late 1998 when the recession began. We frequently hear, "How can this be happening if there was no war that destroyed our productive capacity!"

In a nutshell, were we to assume that per capita GDP can be explained by the level of per capita physical and human capital accumulated, we would not be able to explain the situation in Argentina. It is thus obvious that explaining the present situation implies explaining why valuable resources are not being fully employed. But not only this, in the case of Argentina it is also critical to explain why the ratio of utilisation of these resources is so low and why the situation has lasted so long, turning into a depression. Between the third quarter of 1998 and the second of 2002, the quarterly GDP series registers thirteen quarters with no growth, while the unemployment rate is approaching a quarter of the labour supply.

In this chapter we will argue that the rate of utilisation of resources is currently so low because the institutional and contractual infrastructure of the economy collapsed as a result of the abandonment of the currency board. Under such circumstances, it is very difficult to define property rights properly and precisely. Hence, an important proportion of agents has no incentives to put available resources to their best use.

Three factors are key to understanding why the disorganisation of economic institutions was so widespread. The first has to do with the characteristics and temporal sequence of the shocks that hit the economy in 1998-99. From 1998 on, Argentina was hit by a series of shocks, which severely affected its competitiveness and financial position. These shocks include a fall in the prices of its exports and in the terms of trade, a tightening of external credit markets, the appreciation of the American dollar, and the devaluation in Brazil. In addition, a fiscal shock occurred because of the political cycle. The

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second factor concerns the particular features of the Argentine fiscal, monetary, and financial regimes, which contributed to the amplification of the consequences of the shocks. Under Convertibility, the set of counter-cyclical instruments was extremely limited. Prices and wages were not sufficiently flexible; the fiscal regime was rigid (especially the relations between the federal government and the provinces) and subject to political influences. The third factor is that the currency board had been in force for more than ten years and had gained credibility after having passed the test of the Tequila effect in 1995. Hence, private contractual relations had to adapt largely to the rules of the currency board. This was especially so regarding dollar-denominated contracts. The dollarisation of financial instruments introduced additional constraints to the extent that real depreciation would increase the financial vulnerability of firms and make the financial position of banks more fragile.

But even when we successfully explain why and how Convertibility and the shocks that occurred resulted in the present crisis, we can still wonder why Argentina adopted such a policy regime and why the country was so exposed to the specific configuration of shocks that occurred. These questions trigger an array of others: Why did Argentina choose a system as rigid as a currency board in the first place? Why were contracts dollarised? Why were foreign investors so foolish as to buy long-term bonds from a country that would default a few years later? Why was the IMF so involved with and supportive of the country's policies under Convertibility?

In answering these questions it is necessary to examine some specific characteristics of the Argentine economy that played a critical role in generating the macroeconomic disequilibria and adjustment dynamics that are typically observed. We consider that the following characteristics are critical.

First, the occurrence of "very big" expectational errors seems to be more frequent in Argentina than in many similar countries. We give a few examples corresponding to the current crisis and involving the presumably best informed agents: Argentine bonds accounted for a quarter of J.P. Morgan index and the country defaulted on its obligations; a significant proportion of foreign-owned banks' credit portfolios was allocated to producers of non-tradables who were unable to honour their obligations after the devaluation; a significant part of foreign direct investment in the non-tradable sector proved *ex post* to be excessive; the newly-privatised firms agreed on contracts

which were impossible to meet if Convertibility were abandoned; and, the IMF supported stabilisation programmes with goals which were almost impossible to meet.

Second, the interactions between the Argentine economic structure and the shocks to which the country is exposed frequently give rise to "perverse" effects. Specifically, such interactions result in data-generating processes that are unstable (i.e. subject to frequent and unexpected structural changes) and volatile. This means that the potential for inconsistent expectations and the occurrence of "big errors" does not develop from agents' lack of sophistication but from the inherent complexity and instability of the processes that the agent must "model" in order to forecast the future evolution of the variables of interest.[2] These facts have consequences on an agent's economic behaviour. Among the most relevant for understanding the Argentine experience are the shortening of the contract's maturity and the incompleteness of financial markets.

Third, some features of the economic structure contribute to amplifying the consequences of shocks. We will emphasise three features: the type of international integration, the rigidities affecting nominal variables and the policy regime, and the lack of financial depth. Indeed, the absence of fluctuation-dampening factors is particularly apparent in the present circumstances. The financial crisis, the fall in national income, and political uncertainty gave rise to powerful destabilising forces. Without significant offsetting mechanisms at work beyond those of the markets, the economy is now in a state of depression.

This chapter analyses the macroeconomic dimensions of the Argentine crisis. Our previous discussion suggests that structural features play a relevant role. Therefore, the first section studies the problem of structural changes (breaks) and high volatility, as well as their relationship with expectational errors and the characteristics of contracts in Argentina. The second examines the 1998-99 shocks and their interactions with the country's economic structure. We emphasise the role of international integration, nominal and policy rigidities, and financial effects. The third section concludes the chapter.

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[2] See Heymann, Kaufman and Sanguinetti (2000) and Heymann and Fanelli (2002) for a discussion of these issues in the context of Latin American countries.

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Structural Breaks, Volatility, and the Macroeconomy

The literature on macroeconomic fluctuations in developing countries increasingly shows that such fluctuations present some definite properties that differ from those observed in OECD countries (Agenor, McDermott and Prasad, 1999; Easterly, Islam and Stiglitz, 2000; Fanelli, 2000). This fact is often attributed to differences in economic structures. One point that is repeatedly emphasised is the higher volatility observed in the macroeconomic series corresponding to less-developed economies. A second point is the incidence of structural changes. In the case of Argentina, we believe that both factors are relevant. From our point of view, it is the very presence of high volatility and structural breaks that complicates the process of expectation formation and makes the economy unstable.

Of course, it is a very well-known fact that fluctuations in aggregate variables can always be interpreted as a result of plans deliberately chosen by agents holding accurate expectations. Under such hypothesis, the present Argentine recession would be an "equilibrium" phenomenon. But, in contrast to this view, we suggest that in the case of Argentina, agents made important mistakes and that, as a consequence, they are currently making large revisions of their perceived permanent income and are immerse in a generalised process of recontracting. Two facts call for a "disequilibrium" approach. First, it seems very difficult to account for the current deep and long-lasting recession without referring to some sort of disappointing expectations. Besides, Argentina is not only experiencing a strong fall in its activity level, it is also undergoing what we usually call a "crisis": a situation in which a large proportion of agents fail to comply with the terms of the contracts. Many firms and financial intermediaries are facing bankruptcy and, as a consequence, basic fiscal, financial, and even political institutions are under strong pressure. Second, the difference between a "crisis" and the isolated violation of a contract is that the former implies the threat of an across-the-board violation of contracts and property rights. Hence, if we were to assume away errors, we should say that when adopting decisions, agents have already anticipated and internalised the huge transactions costs that they would incur if the "bad" state of nature (namely, a state of crisis characterised by the generalised redefinition of contracts and property rights) occurred.

We would assume that, when agreeing on the terms of a contract, the private sector has fully internalised the costs of the negative "externalities" that a systemic crisis would generate.

One point that is sometimes less emphasised and is important for understanding the Argentine experience is that macroeconomic instability and big expectational errors may also provoke "mutations" in the economic structure. This may occur as a result of the fact that economic agents take into account that they live in an unstable economy and change their behaviour. A typical example of this kind of phenomenon is the shortening of contracts in contexts of high uncertainty, which may have permanent effects on the economy. It can affect financial depth and, in turn, investment and risk management. In this way, instability *per se* may induce structural breaks. Hence, it is necessary to consider the possible interactions between macroeconomic disequilibria and dynamics and the microeconomic structure (Fanelli, 2000). In this section we discuss these issues in more detail and present empirical evidence that we deem valuable to understanding the current crisis.

Volatility, Structural Breaks and Expectations

There is no doubt that Argentina is a highly volatile economy, as the data that we present below show. An additional aspect that must be taken into account is that such volatility is not constant. Periods of turbulence alternate with periods of tranquillity. This indicates that the conditional variance of the stochastic process may show heteroskedasticity. The presence of high volatility and heteroskedasticity has economic consequences because the conditional variance influences the risk premium (Enders, 1995).[3]

Structural change matters in the case of Argentina because the "deep parameters" defining the economic structure[4] tend to change

[3] Periods of turbulence and tranquillity could also be associated with a time-dependent non-stationary variance, that is, with permanent rather than temporal changes in volatility; although I am not aware of any study on the issue in Argentina.

[4] By economic structure we mean the set of exogenous variables and parameters that represents the agents' behavior, the policy regime, and the probability distributions governing stochastic processes. Hence, if we assume that the economic structure can be represented in terms of the reduced form of the model (i.e., in terms of exogenous variables and parameters) we are saying that the

unexpectedly and more frequently than, say, in OECD countries. This has a bearing on stability because, on the one hand, if the structural break is "unique," by hypothesis it cannot be known beforehand (in the sense that agents do not know the probability distribution of these kinds of shocks in advance). On the other, if a sizeable break occurs, agents must learn how the economy works under the new circumstances. This creates "model uncertainty" and makes the formation of expectations difficult. This phenomenon tends to generate "pure" uncertainty because the agent knows that "something" may occur but cannot calculate the probabilities or describe exactly how the event will impact the economy.

If even the best informed agents find it difficult to anticipate the shock and/or to determine its consequences, it is reasonable to expect it to affect the agent's behaviour. However, not all structural changes have the same potential to induce instability and problems of learning. If the structural change is fully anticipated by economic agents, it will be included in the agent's relevant information set and taken into consideration when negotiating the terms of a contract. This is not likely to be the kind of structural change that generates instability and big expectational errors. Instability-inducing structural disruptions are typically associated with the occurrence of events that have not only permanent effects on the economy but are also "unique" or "really new".

Two observational consequences are likely to result from these kinds of events. The first is that the corresponding series should present some discrete jumps and exhibit no tendency to return to the pre-break level. Consider, for example, a one-time permanent change in the mean of an otherwise stationary sequence, or of a single "pulse" that has a permanent effect on the mean value of a unit root sequence. Second, variations in the level of volatility should be observed in the neighbourhood of the points in which the process takes a sizeable discrete jump. This would result from changes in the incidence of forecasting errors. Right after the shock takes place, plans will prove to be wrong and mutually inconsistent in the aggregate. But, as learning reduces expectational errors and contracts are renegotiated, conditional variance should tend toward the

parameters and variables plugged into the reduced form change unexpectedly, following a stochastic pattern that the agent cannot disentangle properly when forming expectations. Of course, agents can learn, but in the meanwhile, their expectational errors will matter to macroeconomic equilibrium.

unconditional one after a period. Likewise, there could be permanent changes in the value of the unconditional variance. This would be the case, for example, if a stabilisation programme succeeded in reducing the variability of relative prices by deflating the economy. It is a well-established fact that there is a positive association between inflation and the variability of relative prices.

Some specific phenomena associated with this kind of dynamics are worth highlighting because they will play a role in our analysis of Argentina. First, as Heymann, Kaufman and Sanguinetti (2001) emphasise, after the occurrence of a positive or negative shock that produces a break, agents will find it very difficult to assess what the "true" growth trend of the economy is and, hence, to decide what their level of expenditures and financial exposure should be. If agents mistakenly assess their true wealth, the allocation of resources across time and states of nature will not be efficient and will generate aggregate inconsistency of plans.

Second, to the extent that the real value of assets used as collateral depends on the state of the economy, the change in perceptions about future prospects will influence the conditions of credit markets. Likewise, if the level of volatility changes, the perception of risk will change, as will asset prices, to the extent that they will be negatively related to their conditional volatility. This is especially important if markets are incomplete. Under such conditions risk is difficult to diversify away and hedging possibilities are reduced. Hence, if producers are risk averse, conditional price variability will affect product supply and producers may reduce their exposure by withdrawing from the market in periods of substantial risk. At the aggregate level, if national risk is difficult to diversify away and to hedge in international financial markets, higher volatility means higher risk premium, which in turn affects the allocation of resources and hence growth.

Third, under volatility and structural changes, bygones may not be bygones. Past expectations will affect the present to the extent that they are built into the terms of the contracts signed in the past, which are still in force. If past expectations proved to be "very" wrong *ex post*, one of the parties may be unable to meet the contracts' terms and it will be necessary to redraft the contract. Hence, when making decisions, agents will take into consideration that the probability of being "very" wrong is not nil and, also, that other agents' perceptions about the future may change suddenly. *Ceteris paribus*, one would

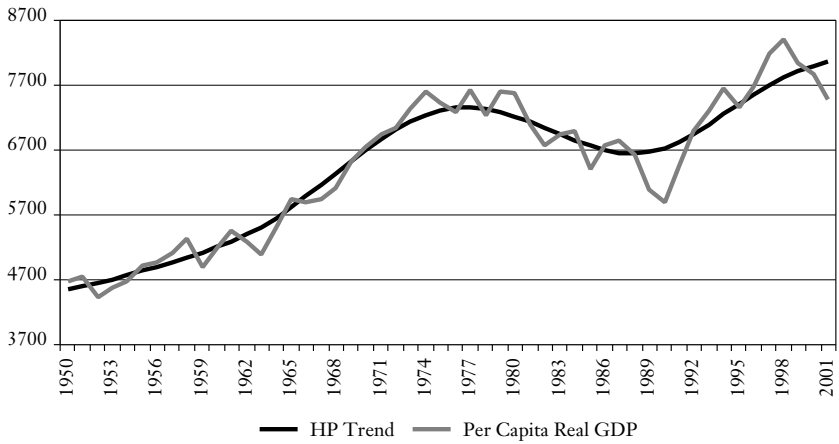
expect that the higher the uncertainty about the "true" shape of the multivariate distribution generating the data in the relevant information set, the shorter the contracts will be. In economies subject to pure uncertainty, we should observe a lower average duration of contracts as agents try to hedge against unique "bad jumps" in the economy's stochastic trend. We should also observe situations of systemic crash in which contracts are violated across the board because of the occurrence of unexpected changes in the economy's stochastic trend and hence in cash flows and collaterals.

Fourth, liquidity has a premium under uncertainty because recontracting is costly and the need to recontract is higher as the probability of having wrong expectations rises. We think that this is one reason why, under the highly uncertain circumstances which precede a permanent shock like the launching of a stabilisation programme, whose consequences are difficult to disentangle, the "wait and see" or "be flexible and liquid" attitudes will be highly profitable, to the extent that the value of the waiting option has higher value. An increase in liquidity preference will be the norm.

Trends and Macroeconomic Instability

Do the properties of the Argentine data-generating processes indicate the existence of volatility and structural breaks that may give

Figure 1 Per Capita Real GDP
(Constant Pesos 2000)



rise to the kind of instability discussed above? That is, are there sudden changes in the growth trend and sparks of volatility? Is the average duration of contracts affected by macroeconomic instability? Are there interactions between credit conditions, shocks, and aggregate fluctuations?

Figure 1 shows the evolution of the Argentine per capita GDP over the last fifty years and the corresponding H-P trend. As can be seen, the average growth rate is low and the trend shows marked changes. Important shifts in the trend are associated with macroeconomic and financial crises, and/or regime changes (1975-76; 1980-81; 1988-89; 1991; 1999-2001). Likewise, large events inducing sharp "kinks" in the activity level and discontinuous jumps in the growth rate are very frequent. If we compared this time series with a typical OECD country, we would see that Argentina shows more ups and downs and that large events are more frequent. In fact, this stylised fact is not peculiar to Argentina. Easterly, Islam and Stiglitz (2000), show that non-OECD countries are far more likely to experience growth downturns (i.e. negative growth) than industrial economies. They maintain that non-OECD countries experience a downturn 22 percent of the time, while OECD countries are in a downturn just above 9 percent of the time. The frequency of downturns in Argentina (36 percent) is well above the developing country's average.

Table 1 Inflation and Growth Instability in Argentina

	1950-1974	1975-2000	1950-2000
Average Inflation Rate (CPI, %)	24.30	94.70	60.90
Coef. of Variation Relative Prices (WPI/CPI)	0.08	0.34	0.27
Average Growth Rate Per Capita GDP (%)	2.02	0.13	1.04
Frequency of Downturns (%)	21.00	52.00	36.00
Coef. of Variation Growth Rate Per Capita GDP	2.08	37.27	4.55

Source: Based on ECLAC (1998, 2002) data.

It is interesting to note that the 1975 crisis represents a key breaking point concerning both instability and the economic regime. After 1975, Argentina definitively abandoned its rather unsuccessful import substitution strategy and adopted a much more market friendly approach to economic policy. The level of volatility is very different before and after this point. Between 1950 and 1974 the probability of a downturn was more or less in line with the one corresponding to developing countries (21 percent). But, in the 1975-2001 period this probability augmented to 52 percent. This means that GDP per capita fell more years than it grew. As a consequence, the average GDP per capita growth rate is much lower while the coefficient of variation skyrockets (see Table 1). Likewise, even though the second period includes the 10 years of Convertibility, during which inflation was very low, the inflation rate and relative price variability were significantly higher in this second period. Very large downturns and steep accelerations of inflation, however, are observed in both periods.

Owing to the abundance of jumps and large events, this dynamic behaviour has been called a "stop-and-go" pattern of growth. One characteristic of the stop-and-go pattern is that all macroeconomic aggregates tend to show marked variability; the volatility of Argentine investment, consumption and GDP growth is high even if we take developing countries as the standard of comparison. Table 2 shows the volatility of such variables in Argentina and in similar Latin American countries.[5]

Table 2 Volatility of Macroeconomic Aggregates

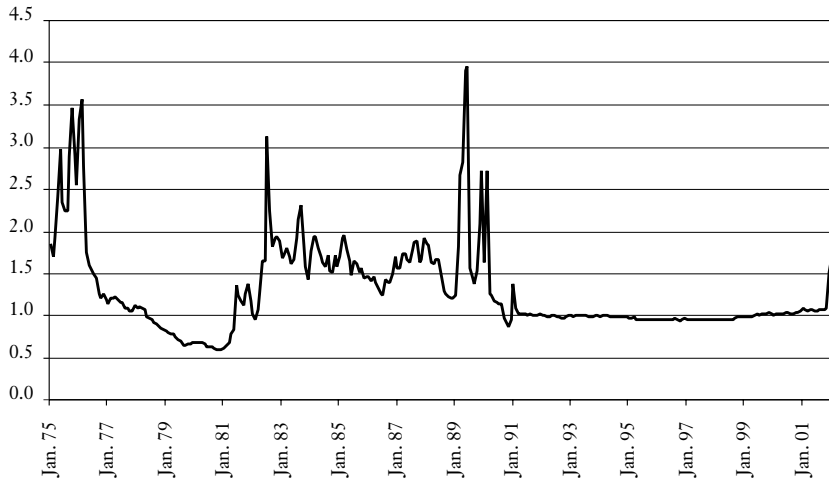
	Coefficient of variation		
	Investment Growth	Consumption Growth	GDP Growth
Argentina	7.1	2.4	1.8
Brazil	2.4	0.9	0.9
Chile	2.6	2.3	1.1
Mexico	3.5	1.0	0.9

Source: Based on World Bank (1999) data.

[5] For more evidence on this issue see, IADB (1995).

Notice that consumption growth is more volatile than GDP growth. This suggests the existence of important failures in capital markets which obstruct consumption smoothing, and indicates that the welfare costs induced by market failures in financial markets may be significant. It also indicates that Argentina faces severe constraints to diversify national risk.

Figure 2 Real Exchange Rate (WPI) US - Argentina
(Index 1993 = 1)



Periods of tranquillity and turbulence can also be identified in the Argentine economy. The presence of volatility sparks is especially apparent in relative price series. To illustrate the point, Figure 2 shows the evolution of the real exchange rate (RER) over the last 25 years.[6] Note, first, the relationship between breaks and volatility: sharp upward jumps in the RER are followed by variations in the volatility level. In a more formal analysis using ARCH and GARCH models, Fanelli and Rozada (1998) showed that the variance of the real exchange rate presents conditional heteroskedaticity. That is, the conditional variance depends on the past realisations of the error process and, hence, "big" errors induce "big" variance in the neighbouring observations. A second characteristic is that jumps in the RER and radical changes in volatility tend to be associated with

[6] RER is defined as the US wholesale price index times the nominal exchange rate over the Argentine wholesale price index.

regime changes. The more marked jumps in the RER tend to coincide with the sudden ends of currency pegs of some type or other after balance of payments crises with significant capital flight. Such regime changes (in 1975, 1981, 1989, and 2001) were associated with major swings in economic policies. The two periods of lowest volatility in the series correspond to systems where the exchange rate was used as the nominal anchor: the "tablita" 1978-1981 and the decade of convertibility (1991-2001). We interpret this as evidence that the monetary and exchange rate regime may not be neutral, namely, that different regimes will have dissimilar effects on the real side (Fanelli and Heymann, 2002).

The importance of regime changes is also suggested by the studies on Mercosur. During the 1990s, the transmission of macroeconomic impulses between the Mercosur countries grew more important as the volume of trade expanded, starting from quite low levels. In consequence, the bilateral real exchange with Brazil became an increasingly significant variable for Argentina. Chudnovsky and Fanelli (2001) examined the properties of the series using GARCH models. This study found significant volatility in the variable, with strong effects of regime changes such as the launching of the Argentine convertibility in 1991 and the floating (*cum* devaluation) of the Brazilian currency in 1999.

The instability in the RER compounds with variations in real GDP to determine wide fluctuations in the dollar value of GDP. The coefficient of variation of the Argentine real GDP in constant dollars is almost twice the coefficient corresponding to real GDP in constant pesos (0.66 and 0.36, respectively). The contribution of the tradable and non-tradable sectors to the variance, however, is very different. The fluctuation in the dollar value of the non-tradable sector is much higher. Figures 3 and 4 show the evolution of total output, tradables and non-tradables in constant dollars and pesos. Note the sizeable and increasing gap between the dollar value of tradables and non-tradables under Convertibility (1991-2000) and, also, under the "tablita" (1978-81). It appears that the dollar value of non-tradables tends to inflate under systems that peg the nominal exchange rate. The appreciation in the dollar value of non-tradables, nonetheless, disappears together with the peg systems. This may be a source of financial fragility if, under a peg system, inflated non-tradable productive assets are used as collateral by firms to demand dollarised credit in the domestic banking system and/or in foreign credit markets.

Figure 3 GDP, Tradables and Non - Tradables
(Millions Constant Dollars 2000)

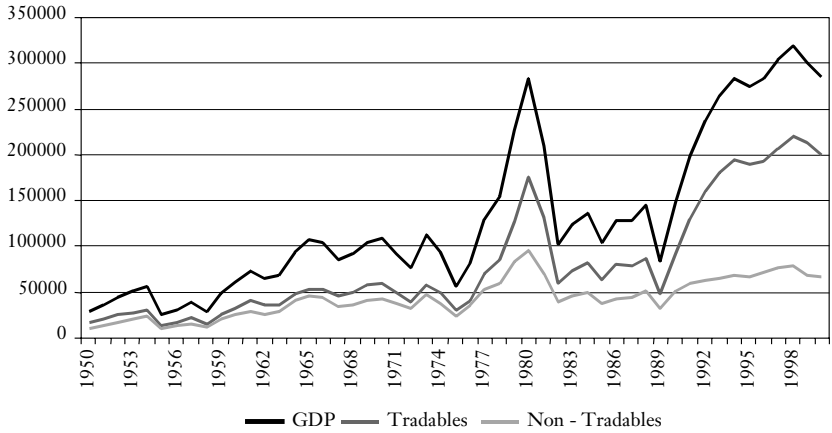
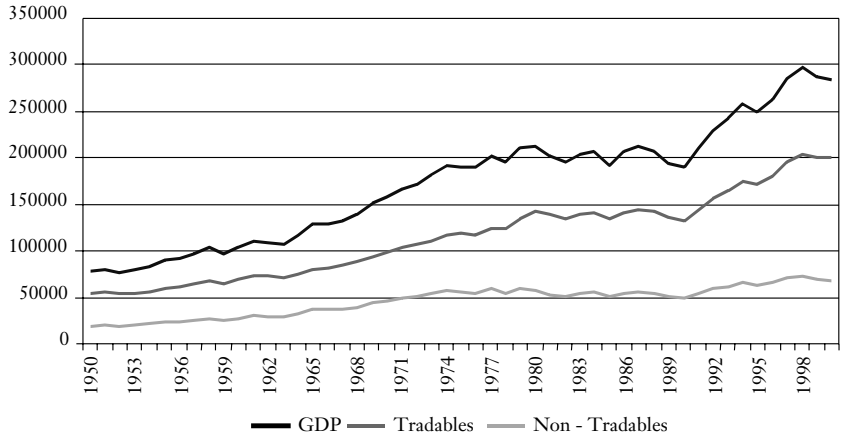


Figure 4 GDP, Tradables and Non - Tradables
(Millions Constant Pesos 2000)



We have already pointed out the higher macroeconomic instability of the 1975-2001 period. The figure clearly shows that the fluctuation in the dollar value of GDP and, particularly, in the dollar value of non-tradables is wider in this period. This fact may also have a bearing on the recurrence of financial crises in the last 25 years. For one thing, unlike the 1950-75 period in which capital flows were not important and dollarisation unknown, from the late seventies on capital movements became increasingly important as Argentina

began to open its capital account. At the same time, there was a persistent tendency for the domestic financial instruments to be denominated in dollars. In this way, firms producing products with highly volatile dollar prices faced a gradual disappearance of peso-denominated credit instruments. We are not implying a simple causal relationship exists between capital account liberalisation, dollarisation, and instability. Rather, we stress the perverse interactions that may take place in such a context.

Fanelli and Heymann (2002) stress that, in a highly dollarised economy such as Argentina, this fact may severely affect financial stability. The difficulty in determining sustainable levels of spending can deteriorate the quality of decisions (Heymann, Kaufman and Sanguinetti, 2001). With a shifting trend, agents may learn at some point that their expenditures have been in fact highly pro-cyclical and that they had been "living beyond their means". The problem of identifying permanent incomes cannot be bypassed when making decisions dealing with production, spending, and asset holding. In post-1998 Argentina, the realisation that wealth estimates had been exaggerated caused an extremely traumatic adjustment and the current crisis was the ultimate result. The system of mostly dollarised financial contracts that developed under the convertibility monetary regime was highly vulnerable to fluctuations in the dollar value of incomes. This resulted in the breakdown of contracts, which was itself a source of economic disorganisation to the extent that it triggered a financial crisis. Likewise, we must consider that, for an indebted country with a dollar-denominated debt, the dollar value of its GDP is relevant because it is utilised in the assessment of the country's ability to pay. There is a widespread use of the debt to GDP ratio as an indicator of ability to pay. To the extent that the dollar value of GDP directly affects creditworthiness there is a linkage between the expected trend of country's income expressed in dollars and the evolution of the country risk premium. The abandonment of Convertibility in December 2001 and the ensuing steep depreciation of the peso revealed that dollar incomes would be much lower than expected.

Contract Maturity and Financial Deepening

According to the hypothesis concerning micro-macro interactions that we discussed above, the stop-and-go pattern and the changing level of volatility should permanently have affected the agents'

behaviour and, hence, should have induced structural changes in the economic system. We think that there is evidence that important innovations have effectively occurred. It seems that macroeconomic instability has induced important changes in the agents' preferences regarding key aspects of the terms of a contract. In the context of high instability in the period that began in 1975, it is possible to detect substantial changes concerning the maturity, currency denomination, and risk characteristics of contracts. This has had permanent and non-neutral effects on the economy, which are relevant to understanding the current situation.

In the case of Argentina, the maturity of contracts is affected by changes in inflation and volatility and by changes in the monetary regime. After the inflationary spurts in 1975 and 1989, there were significant across-the-board permanent shrinkages in contract duration in the goods, labour, and financial markets. Although maturity length increased in the context of low inflation under Convertibility, the phenomenon of contract shrinkage proved to be very persistent.

Some evidence of the preference for flexible short-term contracts has to do with studies on purchasing power parity property (PPP). In the case of developed countries, the PPP-property does not hold in the short run but seems to apply after a long adjustment period; there is no evidence of this behaviour for developing countries due to lack of data (Froot and Rogoff, 1995; Edwards and Savastano, 1999). In the case of Argentina and Brazil (perhaps because of the comparatively weaker price inertia in economies with inflationary experience) the variance around the mean is larger than for other economies, but deviations have smaller mean durations. In fact, the presence of a unit root is rejected more easily for the Argentina-Brazil bilateral real exchange rate than it is for the exchange rates of developed countries (Chudnovsky and Fanelli, 2001). That is, the historical experience shows a bilateral exchange rate that has varied a great deal, but does not seem to have a "permanent" drift. This suggests that the lower inertia reflects shorter contracts under high volatility.

The relationship between macroeconomic instability and contract duration can also be detected by examining financial intermediation. After years of very high inflation, in 1990, the M3 to GDP ratio was around 5 percent and the maturity of credits and deposits was extremely short. The fall in inflation and volatility under Convertibility encouraged financial depth and the lengthening of contracts,

although the process was slow. In 2000, after nine years of Convertibility, the average maturity of 70 percent of the banks' assets and 82 percent of banks' liabilities had a maturity of less than 90 days. But, in any case, these developments were not firmly rooted. The current financial crisis is completely erasing the positive financial developments of the 1990s and, in fact, the bank run was facilitated by the short duration of deposits.

Low financial deepening has been a permanent problem in Argentina and the history of macroeconomic instability and repeated financial crises greatly contributed to this result. Lack of financial depth is a source of inefficiency and a deterrent to growth as some firms may forgo profitable opportunities because they do not have fluent access to credit markets and because of financial market failures. Likewise, when financial failures are pervasive, macroeconomic fluctuations affect the financial position of the firms making it very difficult to manage risk and the consequences of cyclical downturns.

The results in Bebzuck, Fanelli and Pradelli (2002) support this hypothesis. They used a panel of Argentine corporate companies and GMM estimations both to trace the effects of financial market imperfections on the investment process and to test whether the firm's financial structure was dependent on the macroeconomic situation and the evolution of financial deepening. To examine the importance of macroeconomic disequilibria they introduced the country risk premium and the private credit to GDP ratio into the right-hand variables in an investment equation and in two financial structure equations in which the dependent variables are the proportion of long-run debt and the proportion of dollar-denominated debt, respectively. Regarding financial development, the hypothesis states that increasing financial deepening and capital inflows increased credit supply in the 1990s, thus allowing firms to elevate their leverage after a long period of tight rationing. They found that both the macroeconomy and financial deepening matter to debt composition in terms of maturity and currency denomination. Specifically, the country risk coefficient is significant and negative (implying a negative association between the proportion of long-term debt or dollar-denominated debt, and country risk) while the influence of the credit to GDP ratio is significant and positive. In these two financial structure regressions, the variables that reflect information and agency problems, such as firm size, and

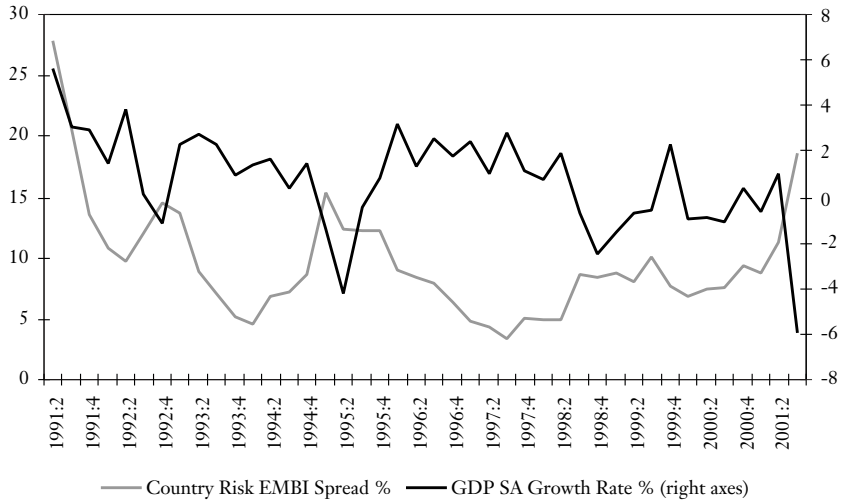
tangibility also have a significant effect. Concerning the investment equation, cash flow and the country risk are also significant. In sum, this suggests that financial imperfections matters and that there is a direct link between aggregate variables and decisions at the micro level.

The coexistence of free capital mobility and lack of financial deepening may be a source of macroeconomic and financial uncertainty as international capital flows into "emerging" countries are far from stable. At the same time, the tools in the hands of authorities to smooth the consequences of sudden changes in the intensity and direction of flows are rather limited. In the case of Argentina, under convertibility and free capital movements, there was a close association between capital flows, the generation of credit, and the activity level. After late 1998 this association resulted in a perverse macroeconomic dynamic that ultimately led to external and domestic default.

Under convertibility, external shocks, both positive and negative, influenced the cost of domestic credit. In this regard, the main link between external and domestic credit markets is the country risk premium. Changes in the conditions in emerging countries' capital markets and/or in the domestic macroeconomic scenario are reflected immediately in changes in the country risk premium. The volatility of domestic and external conditions echoed in the evolution of the country risk. Via its influence on the cost of credit, this volatility increased the variance of aggregate demand. Figure 5 shows the evolution of the country risk premium – as measured by the Emerging Markets Bond Index (EMBI) spread – and compares it with the economy's quarterly rate of growth. Both variables show high volatility and there is a marked and negative association between changes in the country risk premium and changes in the growth rate of quarterly GDP.

Another important feature is the close association between the supply of credit and the activity level. Indeed, given capital market imperfections, it seems plausible that changes in the availability of credit does matter to the level of activity. Using an error correction model, Fanelli and Keifman (2002) find results that are consistent with the hypotheses of a relevant positive association between credit and output in the short run and of a negative correlation between the country risk premium and the evolution of the macroeconomy.

Figure 5 Country Risk and Economic Activity



Asymmetries, Rigidities, and Dynamic Effects as Sources of Instability

Developing countries tend to be volatile. But the evidence analysed suggests that Argentina is more volatile than one would expect on the basis of its per capita GDP. We do not have any *a priori* element to assume that the shocks hitting the Argentine economy are *a priori* more volatile than those hitting similar developing countries (although we can argue that the specific sequence of shocks in 1998-99 was particularly stressful). This implies that we should look for internal sources of instability. The best candidates are, on the one hand, features of the economic structure (rigidities, asymmetries) that may amplify the impact of shocks and, on the other, dynamic and feedback effects that may leverage shocks such as fluctuations in terms of trade, fiscal impulses, or sudden reversals in capital inflows.

We will focus on two issues. In the first place, we analyse three aspects of the economic structure that have played a crucial role in amplifying the shocks that preceded the fall of the Convertibility Regime and contributed to generating the current state of economic disorganisation: first, the asymmetries in Argentina's integration with world trade and financial markets; second, the constraints posed by nominal and fiscal rigidities and differences in speed of adjustment;

and, third, the lack of financial depth and dollarisation. In the second place, we analyse the 1998-99 sequence of shocks.

Asymmetrical International Integration

The integration of Argentina with the world economy shows two fundamental asymmetries between the real and the financial side. First, while the economy's degree of openness is very low when measured on the basis of trade, its openness to capital flows is much higher. Second, trade flows between Argentina and the US are very low but the bulk of Argentina's external debt is denominated in dollars and domestic financial intermediation is largely dollarised. An additional asymmetry and possible source of instability is that the public sector is heavily indebted, while the private sector holds substantial amounts of foreign assets.

Figure 6 Opennes, Latin America Argentina Brazil Mexico Chile
(Exports plus imports as percentage of GDP, market prices)

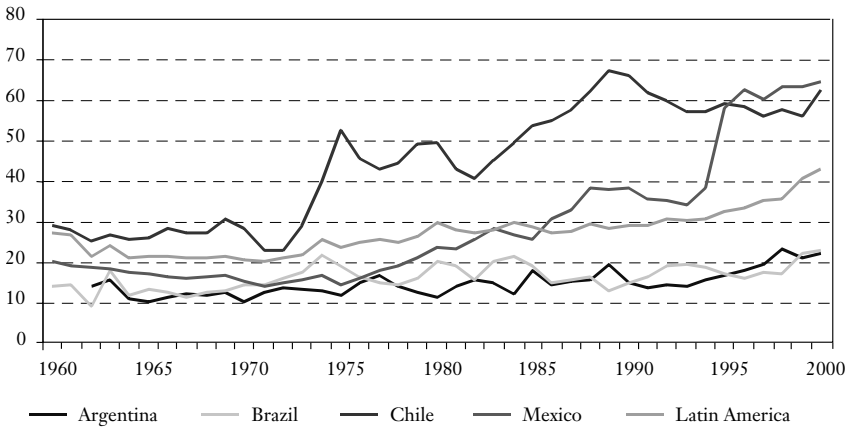


Figure 6 shows the openness of Argentina, other selected Latin American countries, and the region as a whole. The coefficient of openness as measured by the relationship between exports and imports and GDP is one of the lowest in Latin America. This can be partially explained by the fact that the country followed an import-substitution strategy of industrialisation for a long period. However, it is also true that as part of the structural reforms of the 1990s, the authorities implemented aggressive policies to open the economy,

including the participation in a regional agreement in Mercosur. The difficulties that Argentina face to open its economy, nonetheless, are not surprising if we take into account that Argentina's factor proportions determine that the country's comparative advantages are in the "wrong sectors". That is, the possibility of fully exploiting "natural" comparative advantages is severely limited by the Mercantilist agricultural policies implemented in the developed world. Another factor that is not favourable to openness is that its most important neighbour and partner, Brazil, is a rather closed economy while Latin America is also a relatively closed region.

The picture is completely different if we look at capital movements in terms of both stocks and flows. In the 1990s, when the markets where open to the country, Argentina was a privileged recipient of foreign direct investment and capital inflows (see Table 4). The external debt to GDP ratio, in turn, is one of the highest in the region. In a sense, one could say that developed countries acted irrationally: They lent heavily to a country whose products they did not want to buy as revealed by the level of subsidies and protectionism. It can be expected that a country facing severe protectionism may have problems to meet its financial obligations.

This asymmetry between the real and the financial side is a source of financial instability because the economy is highly leveraged in terms of tradables. If we use the foreign debt to exports ratio as a proxy of such leverage, it is clear that Argentina is overly leveraged. Table 3 shows the ratios corresponding to Argentina, Brazil, Chile, and Mexico. The Argentine ratio is the highest and shows an increasing trend in the 1990s, in spite of the privatisation process, which helped to finance the external disequilibrium without augmenting the external debt. Note the highly positive evolution of this indicator in the case of Mexico. There is one main force behind this result: the signing of NAFTA. In the first place, the regional integration with the US resulted in a much higher openness coefficient and, second, the agreement also contributed to incrementing FDI flows. Hence, after the Tequila crisis Mexico's external debt did not increase and the country financed its current account deficit based on FDI flows. This result suggests a secure and sustainable way to reduce external overexposure and financial instability.

Although Argentina's degree of integration with capital markets was much higher in the 1990s, it was also highly imperfect. One important characteristic was the instability of flows, which were

Table 3 External Debt to Exports Ratio

	1980	1985	1990	1995	2000
Argentina	3.4	5.9	5.1	4.7	5.5
Brazil	3.2	4.1	3.9	3.4	4.3
Chile	2.4	5.4	2.2	1.4	2.1
Mexico	2.8	3.7	2.6	2.1	0.9

Source: Based on ECLAC (2002) data.

affected by contagion and sudden stops. The incidence of these factors was critical during the Tequila crisis and after the Russian crisis. A second flaw of the Argentine integration is that the country did not substantially improve its capacity to diversify the national risk away. We have already called attention to the high volatility of aggregate consumption. Fanelli (2000) also shows evidence on the lack of correlation between Argentina's and the world's consumption (proxied by US consumption).

The difficulties to manage national risk create a link between macroeconomic uncertainty and the demand for foreign exchange. In the case of Argentina, "bad" macroeconomic states of nature are typically characterised by a steep depreciation of the currency and recession. Low consumption states correlate positively with high real exchange rates. Hence, under incomplete markets, agents demand foreign assets as a hedge against this "bad" state. It follows that the desire to cover open foreign exchange positions augments, especially when "pure" uncertainty increases.

Table 4 Financial Flows to Argentina in the 1990s
(percentage of GDP, yearly average)

	1991-1995	1996-2000	1990-2000
Foreign Direct Investment	2.4	3.1	2.8
Increment in Foreign Liabilities	3.6	4.2	3.9
Increment in Foreign Assets	3.2	2.8	3.0
Deficit of the Current Account	2.5	3.9	3.0
Accumulation of Reserves	0.3	0.8	0.6

Source: Based on ECLAC (2002) data.

The role of foreign assets as a hedge can be traced in the balance of payments and the stocks held by the private sector. Concerning the stocks, the hedging motive is reflected in the fact that Argentina's net external indebtedness is very low. Argentina, as a whole, is not a heavily indebted country: foreign assets in the hands of the private sector represent around 75 percent of the stock of external debt, which is largely held by the government. The relationship between the stocks of assets and liabilities is consistent with the evolution of the capital account of the balance of payments in the 1990s. Table 4 shows that the flows of financial assets and liabilities are practically matched in the 1990s. This means that FDI flows would have been sufficient to finance the disequilibria in the current account. This fact suggests that there is a purely financial dimension in the "debt problem" that has more to do with risk hedging and moral hazard (see below) than with the demand for foreign savings to finance domestic investment. In net terms, the increase in foreign debt went to finance asset accumulation and not real investment.[7]

This picture of stocks and flows seems to be at odds with the picture of the present financial crisis. One main cause of the crisis was the existence of large positions in foreign exchange that were not effectively covered. This is true. But there are several factors that must be considered. First, it must be taken into account that it was not the private sector but the government that had the largest uncovered position. Second, there may have been a moral hazard problem. Many firms that were heavily indebted in dollars may have assumed that the government would implement a "pesification" of dollar liabilities in case of a generalised crisis originating in an abandonment of the currency board. *Ex post* they were right. Third, mismanagement of risks may have played a role. Specifically, bank managers may have ignored the phenomenon of risk migration from currency risk toward credit risk.

Rigidities and Dynamic and Financial Effects

It seems that open economies are more volatile but grow faster (Easterly, Islam, and Stiglitz, 2000). Argentina, however, is rather closed, grows little, and is volatile. We will now briefly examine some

[7] Note that the same happened in Chile, a country whose economic policy is of much better quality than Argentina's.

rigidities, and dynamic and financial effects that may have bearing on this and that played an important role under Convertibility.

Typically, the market imperfection that breaks neutrality and incorporates monetary problems into the analysis is some kind of rigidity in the adjustment of nominal prices. Under nominal price inflexibility, monetary policy can have a real impact not only on aggregate demand but also on the real exchange rate.[8] We have already commented that price rigidities and different adjustment speeds have certainly had a role in explaining the high volatility of the observed real exchange rate (see Figure 2).

Easterly, Islam and Stiglitz (2000), nonetheless, call attention to two points that generally have not been sufficiently emphasised. First, there are the differences in adjustment speeds, as well as the distributive effects that arise from price changes, especially those against which individuals cannot be insured (reflecting incomplete contracts). Under these circumstances, income effects can overwhelm substitution effects arising from price changes. Second, there are dynamic effects arising from firms' and financial institutions' wealth and cash flow constraints.

Income and financial effects are relevant in the Argentine case. This was especially evident in the interactions between fiscal adjustment, tax collection, and the activity level from 1998 on. At the beginning of 2000, when the economic recession was well under way, the new Administration made important efforts to reduce the fiscal deficit. They assumed that the reduction in the deficit would restore confidence and foreign investors would bring the much needed funds. However, the results tended to be just the opposite. Tax collection did not increase and the economy went into deeper recession. This kind of destabilising effect is typical of the Argentine economy and is generated by the conjunction of strong income effects and the pro-cyclical behaviour of capital markets. Everyone would agree that it is not all that wise to increase taxes during a downturn and that the income effects of tax increases should be avoided. However, to avoid adjusting during a downturn, the government should be able to finance the deficit. And this was not the case of Argentina in 2000. Obviously, the best way out is to have prudential fiscal policies. For example, one of the important sources

[8] In the literature on developed countries this imperfection is supposed to be the most relevant empirically (Basu and Taylor, 1999; Taylor, 2000).

of the budget disequilibrium was the ill-designed reform of the social security system that generated a sizeable deficit. The excesses during the electoral process in 1998-99 were also relevant. In this regard, one negative feature of the Convertibility system was the assumption that a currency board would automatically discipline the government. The government could not print money and the markets would not lend to governments with soft fiscal policies. These arguments assume away expectational errors, and this does not seem prudent in the context of a volatile economy.

The concern over the firms' and financial institutions' balance sheets is also warranted in the Argentine case. Credit conditions can react quickly to changes in investor sentiment and, hence, the evolution of overall volatility and national risk is highly relevant. The evidence in Bebzuck, Fanelli and Pradelli (2001) shows that, when the macroeconomic setting worsens, there is, simultaneously, a shift toward the demand for foreign exchange and a mounting demand for short-term financing. Hence, economic downturns create pressures on both foreign exchange and domestic financial markets. When the exogenous macroeconomic shock is strong enough, this combination of events can trigger the so-called twin crises which, in fact, have occurred in Argentina.

Negative shocks reduce the firms' net worth, increasing the probability of financial distress. A regression exercise shows that a one-percentage-point increase in the country risk premium reduces the value of firms listed on the Buenos Aires Stock Exchange by 2.2 percentage points (Fanelli, 2000). Under such circumstances, creditors react by shifting their demand toward assets with short-term maturity to better monitor the behaviour of debtors and because the liquidity premium rises in uncertain environments. But, if we assume that the duration of assets is somewhat constant throughout the cycle, when the shortening in the term to maturity of debt occurs, the firms' financial position further deteriorates and default becomes more probable. This increase is perceived by creditors as an upward movement in the costs of financial distress (if we calculate these costs as the probability of default times its cost). Under these circumstances, a logical result is that creditors will try to shorten maturity to better monitor and discipline debtors. If this reasoning holds, there are endogenous factors which tend to reduce maturity and increase financial duress during recessionary periods.

The phenomenon of risk migration is closely related to this issue.

Risk tends to migrate in the financial system because hedging does not reduce systemic risk. It only transfers the exposure elsewhere or transforms the type of the exposure. Because of risk migration, activities such as hedging do not reduce the amount of systemic risk. This is very important in the case of Argentina. When the level of perceived systemic risk increases, banks hedge against currency risk and seek a better matching of the duration of assets and liabilities. The counterpart of this is that firms' liquidity falls and the duration of their liabilities shorten during downturns. This augments the firms' vulnerability, increasing counterparty risk. The ultimate effect of the banks' attempt to hedge is that risk migrates from currency risk to credit risk. And the greater the amount of risk mitigation by banks, the more likely it is that unforeseen losses will migrate quickly from one market to another. As risk migrates through the system it tends to emerge in its most basic form, as credit risk (Kimbal, 2000). When one takes into account the phenomenon of risk migration and its effects on banks solvency, the Calomiris and Powel (2000) argument about market discipline seems weaker. They argue that tight credit supply during downturn is a sign of the financial system's strength because tight credit supply in the face of a recession and high loan losses is precisely what one would expect from a banking system that is subject to market discipline. The Argentine case suggests that in the context of a generally weak economic system, a financial sector is no more healthy if it simply transfers its risk to firms, because this too rebounds on it.

Simultaneous Shocks and Financial Distress

We have already called attention to the striking differences in the economic performance of Argentina between the 1991-98 and the 1999-2002 periods. The breaking point can be situated in the third quarter of 1998 when the current long-lasting recession began. The various external shocks that severely hit the economy in 1998-1999 played a critical role. Any of these shocks would have been enough to induce significant macroeconomic imbalances. But their occurring almost simultaneously compounded their effects and the economy was ill prepared to absorb and manage the consequences. We have identified weaknesses in the economic structure and dynamic mechanisms that may have substantially amplified the impact of the shocks.

Another factor that contributed to aggravating the downturn and exacerbated financial fragility was the poor quality of economic policies in a context of political instability. The counter-cyclical instruments in the hands of the authorities were rather limited. Hence, it is clear that Argentina would have suffered an important recession under any post-shock scenario. But the point is that the available instruments were not used efficiently. The influence of political factors was a determinant in this regard. In the pre-election 1998-99 period the authorities followed inconsistent fiscal policies which resulted in public sector over-borrowing, disarray in the relationship between the Federal and the Provincial governments, crowding out of the private sector, and rising financial stress. The policies implemented by the politically weak Administration that took office in December 1999, in turn, did not reverse the situation.

The appreciation of the dollar and the global financial crisis of 1997-98 played a critical role in generating the shocks. They triggered various events that negatively affected the Argentine economy. Table 5 shows the most relevant effects corresponding to the 1998-1999 period.

Table 5 The 1998 – 1999 Shock

Fall in the Terms of Trade (variation in percentage)	11.1
Fall in Export Prices (variation in percentage)	20.0
Fall in Exports to Brazil (variation in percentage)	30.0
Brazilian Real Depreciation (vis-à-vis the peso, WPI index)	18.4
Dollar Appreciation (vis-à-vis the euro, percentage)	10.0
Net Capital Outflows (percentage of GDP, FDI excluded)	1.4
Increment in Interest Payments (public sector, in percentage of GDP)	1.0

Source: Based on ECLAC data.

Under Convertibility, the dollar appreciation directly affected the competitiveness of Argentine exporters because the bulk of the country's trade does not target the United States. Given that the Argentine peso was pegged to the dollar, a strong dollar meant an overvalued peso. The strong dollar had another important consequence. In 1998, Brazil was using the nominal exchange rate as an anti-inflation device and the real was more or less pegged to the dollar. Under such circumstances, the stronger dollar increased pressure on the Brazilian real exchange rate and the country ultimately adopted a floating system in January 1999. With the elevated depreciation of the Brazilian real, it was much more difficult for Argentina to compete with its neighbour's exports. This was aggravated by the fall in the domestic global demand in Brazil. Argentine exports fell substantially in the two years following the devaluation (See Table 5). The asymmetry between the direction of trade flows (toward Europe and Mercosur) and financial flows denominated in dollars also played a role. As Table 5 shows, the deterioration in the terms of trade was accompanied by a fall in the nominal value of export prices. *Ceteris paribus*, this increased the real debt burden in terms of Argentine exports and deteriorated the debt to exports indicator. Argentine creditworthiness was affected by these developments to the extent that the country's solvency was put under severe scrutiny.

In the period that began with the Asian crisis, and especially after the Russian episode, the interest rates that Argentina paid to its foreign and domestic creditors increased substantially. Table 5 shows that government interest payments augmented by one percentage point of GDP in 1998-99. However, this was only the beginning. In 2000, the interest burden would reach 3.3 percent of GDP (from 1.8 percent in 1997). Likewise, net capital inflows fell by more than one percentage point of GDP. Soaring interest rates and tight liquidity constraints quickly eroded solvency.

Argentina's level of debt was not high in terms of GDP. The debt to GDP ratio was 43 percent in 1997. This ratio was in line with Latin American standards. Other Latin American countries like Argentina in this respect did not default on their external commitments. This fact, however, conceals the role played by some of the structural destabilising mechanisms that were discussed above. Namely, the elevated debt to exports ratio – which was increasing because of the fall in exports – and the fact that investors may have anticipated that

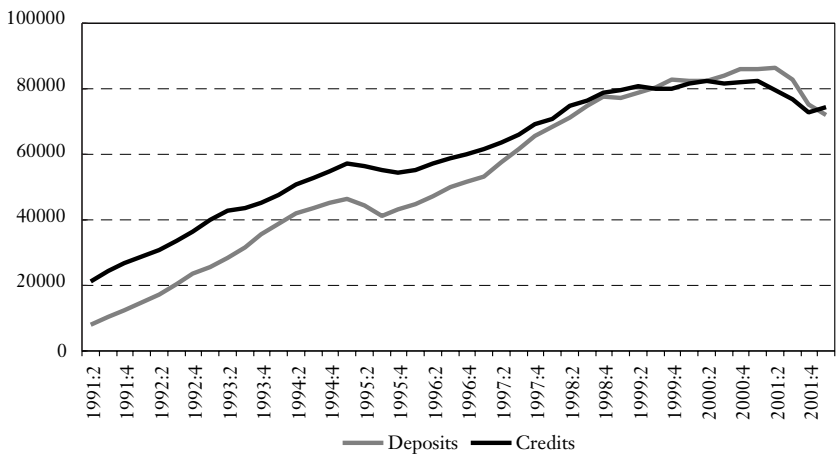
the dollar value of GDP and, hence, government revenues, would plunge if the Convertibility system were abandoned. Under these circumstances, macroeconomic disequilibria triggered feedback effects. As the likelihood of devaluation grew, borrowers had to offer higher interest rates to compensate lenders for the increasing credit risk. The increase in interest rates, in turn, contributed to elevating the risk of default, which led to even higher interest rates and so on.

Although this dynamic represented an increasing threat to the banks' financial position, in the first stages of the crisis the banking system could confront the pressures well. After the Tequila crisis, bank reserves increased substantially and tighter prudential regulations based on Basel Accords were implemented, which resulted in stronger bank capitalisation (11.5 percent of assets at risk). But even bank assets of reasonable quality and liquidity can deteriorate heavily when the economy experiences a resilient recession, risks migrate, and financial contracts tend to be short.

As "pure" uncertainty about the future rose steadily in 2001 – hand in hand with the increasing likelihood of a regime change and the deepening of the recession that deteriorated banks' assets – depositors quickly cashed their deposits. In 2001, total deposits in the financial system fell by 16 percent. This gave rise to mounting liquidity problems, in spite of the high reserves ratio and the strong capitalisation of private banks at the beginning of that year. Figure 7 shows the evolution of deposits and credit under Convertibility.

Figure 7 Deposits and Credits

(millions of pesos)



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Another disturbing consequence of the continuous deepening of the crisis was the persistent deterioration of the budget equilibrium. To a certain extent this was an endogenous consequence of the recession-driven fall in government revenues. In mid-2001, the tight international and domestic credit rationing obliged the government to launch a "deficit zero" policy that quickly failed. As a consequence of this failure, the IMF refused to disburse the funds corresponding to a previous agreement. Under these circumstances, the government had no choice but to default in January 2002.

In December 2001, several banks showed an unsustainable liquidity position while the deposit drain accelerated. To stop the drain, the Government implemented the so-called "corralito". It prohibited the withdrawal of deposits from the banking system, although it was possible to transfer deposits between banks. There was, however, a continuous "trickle-down" of liquidity from banks because some depositors found legal ways to overcome the prohibition and because of some exceptions to the 'corralito' (the so-called wage accounts). The restrictions were later tightened in order to restrain liquidity and stop the continuous depreciation of the peso, but the authorities only partially succeeded.

Another key initiative to manage the crisis was the "pesification" of private credits. The stock of private credit in the banking system is now denominated in pesos and partially indexed to inflation. The pesification created a sizeable gap between the value of banks' assets and liabilities that, in practice, completely eroded the banks' net worth. The situation is currently at a sort of standstill. Private banks are claiming 12 billion dollars as compensation for the pesification. The government intends to replace the deposits in the corralito with government and bank bonds. In this context, the credit supply has evaporated and it is very problematic to finance working capital, not to mention investment. There also exist huge problems to re-establish a fluid payment system. In sum, after the implementation of the corralito and the adoption of a floating system, the economy is undergoing severe financial, fiscal, and inflationary problems.

Concluding Remarks

Argentina has no choice but to face the future. If we assume that the government's or the IMF's actions are not completely useless as a way

to dampening the effects of shocks and crises, we should conclude that better domestic policies may be designed and that a deeper involvement of multilateral organisations would greatly help Argentina. Better policies may prevent Argentina from experiencing further destruction of its productive capacity than is necessary and its population from quickly falling below the poverty line.

Although the obstacles may appear insurmountable at first sight, we can make educated conjectures on the sequence of policies that the country should implement to restore macroeconomic and financial stability. Specifically, we will discuss four steps.

Restore Institutional Order and Fiscal Stability

The imposition of the "corralito", the default, and the depreciation of the peso induced an across-the-board violation of contracts and property rights. This fact, together with the acceleration of inflation and the sudden change in relative prices exacerbated pure uncertainty. Given the link between uncertainty and the demand for foreign assets that we discussed above, these events have been continuously pushing the demand for foreign assets to the right. This resulted in a mix of repeated reserve losses and exchange rate overshooting. Under these circumstances, the authorities face the dilemma of letting inflation skyrocket or letting reserves drop to zero.[9]

The first step, then, is to attack uncertainty which is at the core of this dilemma. To reduce uncertainty it is critical to restore and reinforce the institutional and contractual infrastructure that collapsed after the fall of the currency board. Under fuzzy property rights it makes no sense to invest efforts if it is not clear who has the right to claim the future return of assets. In this sense, a minimum level of institutional order is crucial for the activity level to recover. This is no exaggeration. The financial system is in a mess. Nobody can tell what the value of banks' assets and liabilities is. The contracts of newly-privatised firms supplying basic services like water, energy,

[9] There is a vicious circle between banks' financial fragility, budget imbalance, inflation, and depreciation. If the government helps the banks via rediscounts or prints money to finance the deficit, it will increase the monetary base and feed the demand for foreign assets. If the government lets the nominal exchange rate adjust, inflation will accelerate. If the Central Bank sells foreign exchange to accommodate the increase in the demand, reserves will quickly dry up.

and communications need to be renegotiated after the abrupt change in relative prices, and some of these firms have defaulted on their debt obligations. The government also defaulted on its external debt, as did a good part of private agents. In addition, the law regulating bankruptcy is now being changed. This suggests that institutional building and transparency are key inputs to any consistent economic policy.

Undoubtedly, the place to begin with the reconstruction of institutions and the macroeconomy is the financial system. To avoid hyperinflation it is necessary to stop the Central Bank from assisting the banking system. Likewise, the banking system is critical to restoring the payment system, to financing working capital, and to advancing in a more precise definition of property rights. The restructured banking system, nonetheless, will not be able to generate a substantial supply of credit. It will resemble a system of narrow banks. This means that Argentina will have to develop other capital market segments. In the current situation, nonetheless, the priority is to restore the capacity to provide basic services associated with transactions and working capital.

The restructuring of the banking system is no easy task from the political point of view. Under the present circumstances the government cannot afford the costs of the financial crisis in full, as was the case in previous financial crises. This suggests two *sine qua non* conditions to solving the crisis. First, the costs of the restructuring must be shared by tax payers, banks, and depositors alike. Second, the financial position of the public sector is so weak that it will not be able to implement a credible restructuring without some sort of explicit and active external support.

If the government succeeds in eliminating the corralito and avoiding hyperinflation at the same time, it is likely that the nominal exchange rate will stabilise together with the activity level. If these circumstances materialise, it might be possible to take a second step: to focus on the stabilisation of public revenues and the negotiation of a new agreement with the provinces.

Restore Monetary Stability

The third step toward stabilisation should be to consolidate a sounder monetary and exchange rate regime. This is crucial to restoring the ability to contract. The economic system needs a

nominal anchor to denominate the contracts. Under conditions of instability in the demand for domestic assets, it seems reasonable to concentrate on the stabilisation of the inflation rate. We have discussed this issue in depth in another paper (Fanelli and Heymann, 2002). In any case, if the country avoids dollarisation, the "monetary regime" in the near future will be characterised by a more or less "dirty" management of the exchange rate, including capital controls.

One privileged policy goal should be to avoid "big" mistakes in the management of the exchange rate or the design of the exchange rate regime. Argentina's goals should be modest but firm in this respect: the country should avoid economic policies that combine a rigid exchange rate system, external over-borrowing, and fiscal flaws, as was the case of the Tablita and Convertibility. These policies allow the country to approach "first world" per capita GDP and to reduce volatility artificially for a while, but only at the cost of an inflated dollar value of the non-tradable sector output. Sooner or later, agents revise their expectations and recalculate their permanent incomes on sounder bases and, as a result, the economy collapses. We believe that Argentina should not implement full dollarisation. Dollarisation would probably lead to problems like those of the currency board (Fanelli and Heymann, 2002).

Another important goal should be to implement "long-run" policies of macroeconomic stabilisation, namely, policies that seek to transform the economic structure so as to eliminate the features and deactivate the mechanisms that make the economy volatile. In the chapter, we illustrated at length the fact that volatility and structural breaks matter in Argentina and matter a lot. In fact, given the country's history of perverse interactions between growth and instability, the building of macroeconomic buffers should be one of the most important elements in a sustainable growth policy.

Solve the Debt Problem and Restore Growth

The fourth step to stabilising the economy is to reach an agreement with foreign creditors. This step, however, cannot be taken before the others. It would be difficult to negotiate with a government that cannot collect taxes or guarantee basic social institutions as property rights and contracts. The alternative to overborrowing, nonetheless, is not zero borrowing. This is why Argentina needs to solve its debt problem as soon as possible. The country needs to access inter-

national capital markets. In addition to the need for foreign savings, we have seen that there is a diversification motive. In this regard, Argentina has a lot to learn from the Chilean pragmatism.

What about growth? Are there "hidden" resources that could be mobilised to restore growth? Let us conclude the paper with some conjectures on this issue. A first not-so-hidden resource is that Argentina is reasonably rich in human and natural resources. To keep these stocks from deteriorating further it is vital to solve the crisis and to implement, simultaneously, policies that mobilise the resources. In this regard, Argentina should take full advantage of the current increase in the tradables' relative prices and complement it with aggressive policies to improve the non-price dimension of competitiveness and to open new markets.

Developed countries that invested heavily in Argentina in the 1990s and have lately witnessed the value of their bonds and physical assets plunge could greatly help both Argentina and the recovery in the value of their investments. As part of an emergency package they might soften trade protectionism in specific sectors for Argentina to gain market access. In this sense, Argentina could offer "more rapid debt repayment for market access". In the end, not only Argentines but consumers and investors in the G-7 countries would be better off. Argentina has the rod, and knows how to fish. The problem is how to get the ticket to the fish market. The Mexican experience is very important in this respect. After joining NAFTA, Mexico's external indicators improved substantially. The improvement was driven by the spurt in export and foreign direct investment.

A second hidden resource is the stock of foreign assets in the hands of the private sector. To a great extent, the accelerated accumulation of these assets in recent years was the counterpart of increasing economic uncertainty. Valued at the current exchange rate, the stock of financial resources held by the private sector is sizeable. They represent roughly 100 percent of the current GDP. The real peso depreciation must have had an important positive wealth effect. As soon as the economy stabilises, this wealth effect can become a powerful incentive to effective demand. Besides, we must take into account that after a long recession there will likely be an increase in the demand for capital goods and consumer durables that had decreased during the downturn. Likewise, the existence of liquid financial assets held by firms means that investment projects could be financed with owned funds.

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A third resource that can be mobilised is Mercosur. The agreement has the potential to supply many of the inputs that Argentina needs to sustain the growth process: new markets for exports, the attraction of FDI, and the development of larger and deeper capital markets at the regional level.[10]

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