The Mexican Peso Crisis: the Foreseeable and the Surprise

Nora Lustig
Senior Fellow
Brookings Institution
June 1995

The author wants to thank Barry Bosworth, Raúl Feliz and Antonio Martín del Campo for their useful comments on an earlier draft. The usual disclaimers apply. The author is also grateful to Marcelo Cabrol and Dan Dougan for their valuable research assistance.

The Mexican Peso Crisis: the Foreseeable and the Surprise

SUMMARY

The financial debacle that followed the Mexican devaluation in December 1994 left many analysts, investors and observers bewildered by its magnitude. This paper argues that the causes of the devaluation are quite different from the causes of the crisis, so different that the financial crisis was partly caused by the devaluation itself. The devaluation was caused --primarily-- by the fiscal and monetary policies followed during 1994. If the government's primary concern was to maintain the existing exchange rate policy (i.e., avoid a discrete change in the exchange rate), both the fiscal and monetary policies were more expansionary than they should have been. But, why did the devaluation turn into a financial crisis? Contrary to what most analysts predicted, far from calming the markets the devaluation resulted in a financial crisis with significant spillover effects on other countries particularly in Latin America. The December devaluation triggered a financial crisis because foreign investors felt tricked and feared a default. Investors were angry for a very simple reason. The devaluation and its mishandling caused them substantial losses. Part of the investors' disappointment arose from the perception, which turned out to be correct, that the fiscal and monetary policies pursued by the government in 1994 were ultimately inconsistent with the exchange rate rule. Another important contributing factor to the debacle of the peso was the replacement of almost the entire short-term government debt from peso-denominated to dollar-denominated instruments (the Tesobonos) because it vastly increased the risk of default. Finally, the lack of competence and the absence of a coherent plan at the time the devaluation was announced, added significantly to the climate of uncertainty.

The financial crisis that followed the devaluation of the Mexican peso in December 1994 left many analysts, investors and observers bewildered by its magnitude. Early on several economists had been saying that the peso was overvalued.[1] If left uncorrected the overvaluation could eventually lead to a speculative attack at a time when international reserves held at the Bank of Mexico were too low. The solution, some argued, was relatively easy.[2] The government should negotiate a devaluation with labor and business leaders. If business and labor were convinced to increase prices with moderation following the devaluation, the inflationary pressures would be kept in check. Following an inevitable initial jump in prices and perhaps a short-lived recession, the devaluation would produce the standard textbook results of export and output expansion. By dragging their feet, these analysts insisted, the Mexican economic authorities were only making matters worse.

The peso debacle that followed the devaluation seems to have proven those analysts right. The Mexican devaluation occurred in an environment much like that predicted: eventually the markets did not believe that the peso parity was sustainable and reserves fell until the government had no other choice but to devalue. Since the exchange rate policy was modified after the reserves had fallen too far, the government lost control: i.e., it was not possible to implement--as intended--a simple increase in the exchange rate band's ceiling. After a couple of days and US$ 5 billion of capital flight, the Mexican authorities were left with little choice but to adopt a floating exchange rate regime.

---

[1]See, for example, Dornbusch and Werner, 1994; Leiderman, Liviatan and Thorne, 1994; Ros, 1994; McLeod and Welch, 1992; Oks, 1992; and Oks and Van Wijnbergen, 1992.

[2]Dornbusch and Werner, 1994, for example.

However, what happened *after* the December devaluation was in fact quite different from predictions.[3] Far from calming the markets, the devaluation resulted in a financial crisis with significant spillover effects on other countries particularly in Latin America. This went far beyond your standard speculative attack. What was originally intended as a 15 percent increase in the exchange rate band's ceiling in a matter of days put Mexico on the verge of default. The furtive flight of capital not only from Mexico but also from other emerging markets in Latin America and elsewhere took governments and international financial institutions by surprise.[4] Why did the devaluation turn into a financial crisis? The causes of the devaluation are quite different from the causes of the crisis, so different that the financial crisis was partly caused by the devaluation itself.

1. The Distant and Recent Causes of the Devaluation

A. The "Pacto", Capital Inflows and Exchange Rate Appreciation

With the launching of the "Pacto"[5], beginning in 1988 the nominal exchange rate was

---

[3]One exception is the analysis presented in the commentary by Calvo, 1994.

[4]Especially those which had much in common with Mexico: large current account deficits and an appreciated currency.

[5]The Pact of Economic Solidarity, better known as the "Pacto," was signed simultaneously by the government and representatives of workers, agricultural producers and the business sector in December of 1987. Its basic components included a commitment to further reductions of the fiscal deficit, tighten monetary policy, liberalize trade and, for the first time since the crisis of 1982, implement an incomes policy which would cover wages, prices and the exchange rate (Aspe, 1992; Lustig, 1992). Later, the "Pacto" changed its name but continued to be used as the mechanism to set macroeconomic policy until the plan of March 9, 1995, the first in recent years designed outside the "Pacto."

used as an *anchor*: that is, as an instrument which would contribute to the elimination of inertial inflation and--at the same time--guarantee that the fiscal policy would maintain the necessary discipline. The "Pacto" was successful in bringing inflation down but as experience shows the use of the nominal exchange rate-based stabilization results in a recurring real appreciation of the local currency because it always takes time for the differential between the domestic and foreign inflation to decrease. (Table 1) Mexico was no exception. Even when the exchange rate regime passed through several modifications[6]--from a fixed to a crawling peg and, subsequently, to an adjustable band (which in time, had its boundaries widened)-- the appreciation continued because the observed inflation rate was systematically higher than the target.[7] Table 1 shows the evolution of the real exchange rate from 1987 onwards. Independent of the definition used, the real exchange rate shows a significant real appreciation.

The exchange rate real appreciation was exacerbated by the large amounts of capital inflows experienced by Mexico (as many other developing countries) in the early 1990's. The capital inflows were the combined result of a deliberate policy of attracting private capital and,

---

[6]The policy based on a fixed exchange rate, designed to fight inflationary pressures, was implemented at the end of February, 1988. Beginning in 1989, the fixed exchange regime was replaced by a crawling peg. Originally, the crawl was fixed at one peso per day (equivalent to the annual depreciation rate of 16%), in 1990 this was reduced to 80 centavos daily (11% annual depreciation) and, in 1991, the crawl was fixed at 40 centavos daily (5% annual depreciation). In November 1991, the crawling peg was replaced by a band within which the exchange rate was allowed to fluctuate. The ceiling of the band was adjusted daily by 0.0002 new pesos (or 20 cents of the old pesos). This adjustment was increased in October, 1992 to 0.0004 new pesos daily while the floor was maintained at 3.0512 new pesos per dollar. On December 20, 1994 the ceiling of the band was increased by 15% while its subsequent daily increase of 0.0004 new pesos was maintained. This policy proved to be unsustainable and was abandoned two days later when the Mexican authorities were forced to adopt a floating exchange rate regime because they had run out of international reserves (Bank of Mexico, 1995 and 1994).

[7]Leiderman, Liviatan and Thorne, 1994

perhaps more importantly, the fall of interest rates in the United States. From the beginning of 1990, Mexico, as well as other of the so-called "emerging" markets, received a strong inflow of portfolio capital as many mutual funds and other financial intermediaries looked for better returns.[8] At the same time the Mexican government attracted foreign capital through highly visible means. Among these, two are notable: the privatization of the banks announced in May 1990, and the intention to negotiate the free trade agreement with the United States.

Mexico, as many other developing countries emerging from the trauma of the debt crisis, received the capital inflows with glee. Toward the end of 1988 Mexico had reduced its inflation rate considerably and introduced a number of reforms, but the Mexican economy had not grown for five years (Table 1).[9] Economic recovery required a reversal of the trends in net resource transfers, (close to 6% of GDP per year on average between 1983 and 1988): that is, to attract foreign capital and reduce the debt burden. The latter was accomplished through the negotiation of the Brady Plan completed in February of 1990.[10] The former, by means of a deliberate strategy oriented toward making Mexico more attractive to international investors. The objective of reversing the net resource outflows was achieved starting in 1989 (Table 1) and portfolio capital inflows became a very important source of foreign savings. The downside is that portfolio capital --by its nature--tends to respond with greater speed to changes in the

---

[8]Gross capital flows toward Mexico rose from US$ 3.5 billion in 1989 to US$ 33.3 billion in 1993 (Bank of Mexico, 1994). Some of those inflows reflected the repatriation of capital which had left in previous years. But a large proportion was due to new portfolio investment. Practically nonexistent in 1989, total portfolio investment was 3.4 billion in 1990 and 28.4 billion in 1993. These investments came from pension funds and other financial intermediaries, which with growing fervor entered Latin American Markets in search of better yields.

[9]See Aspe, 1993 and Lustig, 1992.

[10]Devlin and Lustig, 1990 and Van Wijnbergen, 1991.

environment than direct investment. As we shall see later, the unforgiving side of portfolio capital made its appearance with a vengeance after the December devaluation.

The capital inflows exacerbated the appreciation of the exchange rate because they put pressure on the domestic supply of non-tradeables and slowed down the inflation-reducing process. Although the "Pacto" has considerable sucess in reducing inflation, actual inflation continued to be higher than the target and hence the real exchange rate continued to appreciate.

To what extent does the real appreciation of the exchange rate explain the rising current account deficit shown in Table 1? In macroeconomic terms the current account is determined by the difference between domestic saving and investment. Between 1989 and 1993, the savings-investment gap grew by seven percentage points (as a proportion of GDP).

The savings-investment gap widened because there was a simultaneous fall in saving and a rise in investment, both led by the private sector. Private investment rose as a result of the change in perceptions about Mexico's future economic performance. It was the by-product of the at last successful stabilization effort and the market-oriented reforms introduced by the Mexican government since the mid-1980's. However, the investment boom --as well as the consumption boom--were also caused by an expansion of credit that, due to an inadequate regulatory framework went too far, as indicated by the growing number of nonperforming loans since 1993. The overexpansion of domestic credit has been a phenomenon observed in past episodes of large capital inflows to countries in Latin America --particularly those with fragile banking systems and inadequate prudential regulation--.[11] To an important degree the vulnerability of the financial system, resulting from a deficient regulatory framework, lack of transparency and a

[11]Calvo et al, 1993.

weak enforcement capacity, are factors which lie at the center of the current Mexican crisis.

The factors explaining the reduction in private savings are not fully understood. Clearly the expansion of domestic credit for consumption purposes mentioned above must have played a role, particularly in Mexico where this type of credit had been usually very limited. In addition, the real exchange rate appreciation probably played a role as well in explaining a once and for all shift in consumption following the trade liberalization which accelerated in 1988. There was the "lack of credibility" effect: i.e., people did not believe that the trade liberalization was a permanent policy move especially if accompanied by a persistent cheapening of imports as a result of the exchange rate policy. Thus, it was rational to purchase imported goods, in particular, durable goods, while the trade liberalization episode lasted. Also, there was the "pent-up demand" effect: imported consumer goods were so cherished that when trade liberalization and the exchange rate appreciation made them not only available but affordable, there was a huge jump in their consumption.

Hence, the immediate impact of a less that fully credible trade liberalization explained in part the fall in domestic private savings. The lack of credibility in the trade liberalization was probably exacerbated by the accompanying exchange rate appreciation. In fact, the results of econometric analysis indicate that the real exchange rate appreciation has been associated with the fall in domestic private savings,[12] very marked between 1989 and 1993 when savings fell from 19.5% to 12.6% of GDP.[13] Part of the impact of these two factors was undoubtedly temporary: i.e., with NAFTA trade liberalization would be perceived as permanent. Also, the

---

[12]Oks, 1992.

[13]World Bank, 1994.

"pent-up demand" effect would subside as people completed the purchases of the long desired durable goods. Nonetheless, as long as the exchange rate appreciation continued, the switch towards imported consumer (and, imported investment) goods was likely to continue.

Thus, a pattern emerged. The real exchange rate appreciation resulted in a growing disequilibrium in the current account (Table 1). This disequilibrium was financed by capital flows from abroad. With time, capital inflows caused the real exchange rate to appreciateeven further and worsened the current account deficit through both their impact on exchange rate appreciation and the savings-investment gap. For a while, then, the current account deficit was "overfinanced" in the sense that so much capital was flowing into Mexico that the central bank was able to accumulate international reserves. But, this strategy was highly vulnerable. The low domestic savings rate could make debt servicing very difficult in the future and, more importantly, if faced with exogenous "shocks" that affected the pace of capital flows, the Mexican economy could be forced to a sudden and major adjustment due to its dependence on these flows.[14]

In addition, to the great disappointment of policymakers and Mexico fans, at the same time that investment was expanding rapidly, GDP growth rates recovered only slightly. In 1989, the per capita growth rate became positive for the first time since 1985. After 1990, however, the per capita growth rate declined year after year until it turned negative in 1993 (Table 1). It is not clear why the Mexican economy did not grow more rapidly despite the macro and microeconomic reforms introduced since the early 1980s. However, without attempting to

[14]See, among others; Ros, 1994; McLeod and Welch, 1992; Oks, 1992; and Oks and Van Wijnbergen, 1992.

answer this question, it is worth noting that one likely cause was the appreciation of the exchange rate itself because it had a negative impact on demand (and, hence, output) of domestic tradeable goods. With existing exchange rate policies, unless productivity grew sufficiently fast to shift the equilibrium real exchange rate, the future of the economy would be one of low growth rates or, in the worst case, Mexico would confront another balance of payments crisis. The latter would not occur as long as foreign capital flows could finance the current account deficit. But the day that the capital flows slowed down, Mexico would find itself in a serious bind.

Some economists aware of the risks of Mexico's economic strategy recommended on many occasions that the government change its exchange rate policy.[15] In particular, the government was advised to widen the exchange rate band or increase the daily depreciation of its ceiling in order to curb the appreciation of the real exchange rate. Even if in the short-run such a move may not have changed the observed nominal exchange rate, largely determined by capital inflows, it would have increased the margin of policy action in the event capital flows reversed or slowed down. In fact, the government shared this concern and in October, 1992 increased the daily depreciation of the ceiling of the exchange rate band from 0.0002 to 0.0004 new pesos[16] while the floor was maintained at 3.0512 new pesos to the dollar. Nonetheless, the fact that the current account deficit continued to worsen probably should have sent the signal that additional policy changes were necessary. In particular, if a larger depreciation of the peso was deemed not feasible because the capital inflows or the government's commitment with price stability made it

[15]See, for example, Dornbusch and Werner, 1994; Leiderman, Liviatan and Thorne, 1994; Ros, 1994; McLeod and Welch, 1992; Oks, 1992; and Oks and Van Wijnbergen, 1992.

[16]Or, from 20 to 40 of the old centavos.

very difficult, the authorities should have increased domestic savings via fiscal policy. It is quite conceivable that a more conservative approach in the exchange rate[17] and/or the fiscal front starting in 1993 would have reduced the chances of a crisis like the one which occurred in 1995.

Why did the government decide not to change the policy course? Because it assumed that the growing current account deficit was temporary. The large imports of capital goods and the efficiency-enhancing structural reforms were expected to result in eventual higher productivity growth. As a result, the current account deficit would come down even with the same nominal exchange rate policy. During the transition, the capital inflows would finance the deficit. Moreover, the 17.4% growth rate for non-oil exports in 1993 was seen as a strong indication that Mexico was able to compete in world markets and that the peso was not overvalued.

Furthermore, from the point of view of the monetary authorities, it was more important to confirm the government's commitment with price stability than to promote competitiveness through changes in exchange rate policy. To modify the exchange rate regime would send the wrong signal concerning stability. For a number reasons[18], the government did not believe that investors would stop investing in Mexico. Thus, Mexico could continue to finance a large current account deficit. In practice it was not considered that, instead of finding itself on the path toward modernization of the productive sector, the economy was confronted with unsustainable disequilibria. From this perspective, it was rational for the government to avoid the costs in

[17]In the case of exchange rate policy, a more "conservative" approach would have been to put more emphasis on policy flexibility: i.e., widening the band even further.

[18]For example, the passage of NAFTA, the government's commitment with market-oriented reforms and price stability, the overall prestige enjoyed by Salinas and his administration, let the government to believe that capital would flow into Mexico for a long time to come.

terms of macroeconomic instability or economic slowdown that changes the in exchange rate or fiscal policies would bring. Nevertheless, even if the optimistic hypothesis could have been viewed as risky but reasonable during 1993, in 1994 the evolution of international reserves and of the composition of domestic debt should have led to a drastic revision of the diagnosis and the policies.

Before moving onto the next section, perhaps it is worth mentioning that the policy debate concerning exchange rate policy reflects the lack of consensus within the economic profession. Although the current dominant view among academic economists and policymakers emphasizes flexibility and competitiveness as the appropriate long-run goal for exchange rate policy, many of the same people favor the use of the exchange rate as an anchor for short-run stabilization purposes. Yet, no means have been found to move from one regime to the other without considerable risks of instability. In addition, even if it is a minority, there is a group of prestigious academic economists and policymakers -- and a large proportion of the portfolio investors (see below)-- who favor a *permanent* fixed-exchange rate, particularly if accompanied by the proper institutional framework such as those present in a currency board.

The Mexican case probably became a classical example of what this lack of consensus with respect to exchange rate policy can do to an economy when the two views coexist within the same government. To some extent (how much we can't know) the coexistence of the two disparate views with respect to exchange rate policy with the outgoing administration favoring the fixed-exchange rate regime and the incoming one favoring a more flexible arrangement explains some of the inconsistencies of policymaking during 1994. In addition, it also helps explain the haphazard way in which the changes in exchange rate policy were brought about at

the end of that year.

1.b U.S. Interest Rates, Tesobonos and Monetary Policy in 1994

Because of the sustained economic recovery in the United States and fears of inflationary pressures in 1994, the Federal Reserve decided to raise interest rates and thus slow the accelerated pace of economic activity.[19] The result was an increase in the yields of financial instruments in the United States starting in February (Table 2). As various studies have shown, the flows of capital in the international market are very sensitive to interest rate changes in the United States.[20] Because of this, a change in external conditions--an economic recovery or a rise in interest rates in the United States--can bring about serious problems for countries which depend on attracting capital to finance their external deficits and to maintain exchange rate parity. In particular, the problems could become worse if the period of inflows was associated with bubbles in the stock markets or commodity markets and an excessive expansion of consumer credit. In the last case, the sudden flight of capital could threaten the stability of the financial system.[21]

The available information shows that the increase in U.S. interest rates had an adverse impact on net capital flows into Mexico. But, as shown by the behavior of international reserves and outstanding Tesobonos (Table 2), the fall in capital flows did not happen suddenly. Neither did the armed uprising in Chiapas have a noticeable immediate effect. The first sharp fall in

---

[19] The first interest rate hike was announced in February, 1994 when the Federal Funds rate rose from 3.0% to 3.25%. The Federal Funds rate increased six times during the year.

[20] Calvo, 1993. See also Ros, 1994.

[21] See, for example, Calvo et al, 1993.

reserves occurred immediately after the assassination of Colosio, at the end of March, 1994 when they fell from US$ 26 billion to US$ 18 billion almost overnight.

At this point, the government had two options: to increase the crawl of the ceiling of the exchange rate band or even widen the band with a discrete shift, or make no change in the exchange rate policy and instead raise domestic interest rates, make use of international reserves and issue more of the dollar-denominated short-term government debt instruments known as Tesobonos.[22] The authorities chose the second option and decided to wait it out until expectations were reversed.[23] As a result, interest paid on 28-day CETES[24] rose to 16.25% in April 1994 (Table 2) and outstanding Tesobonos begun to increase by leaps and bounds (see below). The package received the support of the United States and Canada in the form of "swap" arrangements for close to US$7billion.[25]

After April 1994, the dollar often was at the ceiling of the band[26] but the information available indicated that international reserves were maintained at around US$ 17 billion throughout most of the period until November.[27] The Bank of Mexico has argued that the

---

[22]Tesobonos are short term public debt instruments redeemable in pesos but denominated in dollars. By covering investors against the risks of a devaluation, the Tesobonos were meant to deter capital outflows.

[23]According to one analyst this decision was made not without pressure from foreign investors (Naim, 1995).

[24]CETES is the abbreviation for Treasury Certificates, public debt bonds.

[25]The United States' contribution was equal to US$6billion and the Canadians put $1 billion of Canadian dollars.

[26]The ceiling of the band in this period was equal to a little more than 3.4 new pesos to the dollar. The movement experienced by the dollar within the band implied a 10 percent increase in its value during 1994 (before the devaluation announced on December 20).

[27]With the exception of a fall of around 2 billion in June/July which was recovered rapidly (Bank of Mexico, 1995).

relative stability of the international reserves during this period was a clear sign that the peso was not under unmanageable pressures. However, the huge change in the amount of Tesobonos held by the public shows that something anomalous was happening. Between March and June of 1994, the sum of Tesobonos increased from US$ 3.1 billion to US$ 12.6 billion; the figure rose to US$ 19.2 billion in September and US$ 29.2 billion in December. Throughout the year, the composition of the government's debt held by foreigners had changed radically: in December, 1993, 70% was in CETES and 6% in Tesobonos; in December, 1994, 10% was in CETES and 87% in Tesobonos.[28] Clearly, many investors feared that the exchange rate policy in the end was not sustainable and prefered to hold Mexican debt denominated in dollars.

The systematic increase in Tesobonos held by the public ought to have been seen as an unequivocal sign of the lack of credibility of the exchange rate policy. It also implied that the Mexican government was undertaking a large portion of the exchange rate risk given that these short term obligations were indexed to the dollar. This "dollarization" of the internal public debt probably explains the surprising stability of international reserves from April onwards in the face of the rise in external interest rates and the internal political uncertaintity.[29] The Tesobonos, in fact, gave a false sense of security both to the creditors and to the government. As we will see later, the US$ 17 billion of Tesobonos held by foreigners was one of the principal causes of the financial crisis which followed the December devaluation: given the large magnitude of the short term debt indexed to the dollar, investors feared a default and began the panic selling.

Unfortunately, the assumption that the slowdown in capital inflows was temporary and

---

[28]Mariscal, 1995.

[29]For example, the great fear that the elections of August could be accompanied by spurts of violence.

reversible led to a monetary policy--especially in the last quarter of 1994--which proved incompatible with the exchange rate policy. The monetary authorities decided to "sterilize" the fall in international reserves by increasing net domestic credit and so keep the monetary base approximately constant (Graph 1).[30] This led to a fall in the domestic interest rates beginning in July, a trend contrary to the interest rate in the United States (Table 2 and Graph 2). The expansion of net credit exacerbated the pressures on the peso. Confronted with the panorama of falling domestic interest rates while the United States rates were rising, a current account deficit of 8% of GDP in 1994 and a similar deficit expected in 1995, and the memory that approximately every six years since 1976 the government abandoned its vows not to devalue, investors --in particular, Mexicans-- increasingly began to flee. On December 16 international reserves had dropped to around US$ 11 billion.[31] Faced with the situation of dwindling international reserves the government called for an extraordinary meeting of the "Pacto." At this meeting it was agreed to raise the ceiling of the band within which the dollar was allowed to fluctuate to 4 pesos to the dollar (a rise of about 15 percent in its value). This new ceiling was announced and took effect in the morning of December 20.

Following that announcement, the value of the dollar reached the 4 peso ceiling immediately and it is estimated that in the course of two days US$ 5 billion left the country. The markets were sending a clear message: the new exchange rate ceiling was not credible. On December 22, the monetary authorities had no other option but to switch to a floating exchange rate: i.e., the Bank of Mexico would no longer intervene to maintain the dollar within a pre-

---

[30]For a detailed analysis of the problems with monetary policy in 1994 see Sachs, Tornell and Velasco, 1995.

[31]Bank of Mexico, 1995, p.32.

specified band. What followed was a financial "meltdown" with big spillover effects on other countries, particularly in Latin America.

Many may interpret the policy decisions in 1994 as the result of then President Salinas' determination to avoid (or postpone) a devaluation at any cost, in particular, before the August presidential elections. Undoubtedly, to allow the massive conversion of CETES to Tesobonos and resisting a devaluation were surely driven in part by the elections.[32] But, oddly, once the elections were over, the monetary policy which led to a fall in domestic interest rates not only remained in place but was exacerbated in the latter part of the year. If the central objective was to maintain the exchange rate policy, why did the government not take the necessary steps to make macroeconomic policy congruent with this goal? Why did the government decide not to adopt the most conservative line and assume that--given the trend in external interest rate and the nervousness generated by the political assassinations--it was advisable to follow a more restrictive monetary policy and allow the domestic interest rate to climb?

Perhaps, officials were concerned with the potentially destabilizing effect that higher domestic interest rates would have on a fragile banking system. Another reason could have been the desire, especially before the August presidential elections, to maintain the momentum of the economic recovery which had begun some months earlier. Furthermore, as the president of the Bank of Mexico has said explicitly, in the view of the monetary authorities, the slowdown in capital inflows was viewed as temporary and the market was expected to return to "normalcy"

---

[32]The desire of Salinas to leave his post "invicto" -- that is, without a devaluation, without a crisis -- particularly in the light of his candidacy as head of the World Trade Organization probably added restrictions to economic policy.

once confidence was restored.[33] This perception was wrong, and erring on the optimistic side turned out to be very costly.

2. The Devaluation and the Financial Crisis.

Why did the devaluation of the Mexican peso turn into a financial crisis? As much as it is true that several analysts had anticipated that sooner or later there would be a devaluation of the peso, practically no one predicted the financial crisis which followed. The majority of economists from the academic world, governments, and the multilateral lending institutions in Washington were genuinely surprised . Many of them, as already mentioned, had recommended a modification of the exchange rate policy early on.[34] Of course, everybody knew that the cost would have been higher inflation and possibly a recession in the short term but in exchange for more robust and sustainable growth in the medium term.

The events which followed the devaluation of the peso in 1994, however, indicate that there was a serious misjudgment of the potential reaction of financial markets to a Mexican devaluation. Those investors that had their funds in the stock market or in other instruments denominated in pesos interpreted the devaluation as a breach of contract. Their immediate reaction was to withdraw their capital as soon as possible. The outflows soon turned into a stampede and toward the second week of January, Mexico was on the verge of default and the financial markets of Latin America and other regions began to be affected in a growing and

---

[33] See the article by Miguel Mancera published on January 31, 1995 by the Wall Street Journal (section A, page 18).

[34] See the options analyzed by Fischer, 1994.

ominous way .

The rush to the door by many investors was due to a combination of anger, fear and uncertainty. Investors were angry for a very simple reason. The devaluation and its mishandling caused them substantial losses. By some estimates, foreigners who invested in the Mexican stock markets, CETES, Tesobonos and Brady bonds, lost more than US$ 30 billion. These investors felt that they lost money because the Mexican government "tricked" them. They resented the government's reiterated denial that there would be a devaluation, the fact that it did not realign the exchange rate when it was "natural" (for example, when the "Pacto" was renewed in September 1994) or, alternatively, raise domestic interest rates to defend the existing exchange rate policy. Investors were also upset by the lack of competence with which the government handled the devaluation itself. They were surprised --as many others-- by the absence of a coherent macroeconomic plan at the time the devaluation was announced.

Some portfolio investors thought the devaluation was not only unnecessary but counterproductive. These investors argue that the exchange rate was not overvalued and that the financial crisis was principally endogenous, that is, caused by the change in expectations precipitated by the devaluation and the government's poor handling of it.[35] The Wall Street Journal has featured many editorials which hold this view. The most militant branch blames the IMF, the World Bank and the United States Treasury for the crisis because, in different degrees, they had been advising the Mexican government to devalue. Some have gone to the extreme of proposing as a solution to use all the resources available to the Mexican government to buy

[35] It is interesting to note that the above mentioned view held great influence in the United States Congress.

pesos and return to the pre-December parity of 3.46 peso to dollar.[36] Once this level was achieved, Mexico ought to install a currency board and fix the exchange rate forever at that rate.

Another group felt disappointed because the government had the choice of a "soft landing" and did not pursue it. According to this view, raising domestic interest rates would have, on the one hand, reduced the current account deficit because of its recessionary effects; and, on the other, attracted more capital as a response to the increase in yields. For this group it was logical to reduce economic growth to defend the parity of the peso because, in due course, structural reform and NAFTA would raise the growth rate in productivity sufficiently to make the nominal exchange rate policy congruent with the required real "equilibrium" exchange rate. Even if in the short-run the "soft-landing" option meant a recession, in the medium term the reward would be price stability and growth.

Part of the investors' disappointment arose from the perception, which turned out to be correct, that the fiscal and monetary policies pursued by the government in 1994 were ultimately inconsistent with the exchange rate rule. On the fiscal side, the public sector borrowing requirement had in fact risen by more than two percentage points due to the development banks' net lending. Monetary policy ran counter to the exchange rate rule, because rather than keeping domestic interest rates high in the face of rising interest rates in the United States, they were allowed to fall at a time when reserves were falling.

One could argue that the anger with which investors reacted to the devaluation, or even its mishandling, is not justifiable. After all, that is what financial markets are all about: nobody

---

[36]See, for example, the article by David Malpass, "The Mexican Peso: 3.5 or Bust," Wall Street Journal, January 11, 1995, (section A, page 14).

can expect guaranteed returns. It is difficult to accept that portfolio investors were not aware of the exchange rate risk in a country with such a high current account deficit and a low level of domestic savings, particularly when interest rates in the United States were on the rise. But whether the anger was justified or not is a moot point. Investors' reactions, justified or not, caused the peso to slide well beyond the predictable.

Another important contributing factor to the debacle of the peso was the replacement of almost the entire short-term government debt from CETES to Tesobonos because it vastly increased the risk of default. Shortly after the devaluation, portfolio investors began to express their fear that the Mexican government would be forced to declare the inconvertibility of the peso. This fear surged when through simple arithmetic calculations investors saw that payments coming due in 1995 (estimated at about US$ 50 billion (assuming that most of the short-term debt would not be rolled-over) were far greater than the estimated resources available: international reserves in the Bank of Mexico were about US$ 6 billion and the first international rescue package was equal to US$ 18 billion. The rescue package plus the international reserves would barely cover half of Mexico's financial obligations for 1995.

It became quickly evident that to calm the markets and stop the financial "meltdown," the rescue package had to be large enough to put fears of a default to rest. Otherwise, the panic selling and the spillover into other markets would not be halted. To stop the panic it was essential to find a lender of last resort. With this in mind, the U.S. administration proposed a package of loan guarantees of US$40 billion in the middle of January. Unfortunately, the package faced great difficulties in the Congress. When it became clear that it might not be approved, the U. S. administration proposed an alternative plan and the IMF increased its

financial support sharply. At the end of January the U.S. government announced that there was a financial package ready of approximately US$ 50 billion composed of loans from the U.S. (US$20 billion), the IMF ($17.8 billion), the Bank of International Settlements (US$10 billion), Canada (1 billion of Canadian dollars) and a group of Latin American countries (one billion dollars).[37]

The announcement of the package stopped the panic selling but did not reestablish lasting confidence. In part, this was because the rescue package did not make all the funds immediately available. But, for the most part, the lack of confidence originated in the uncertainty surrounding the path of the economic and political situation in Mexico. Oddly, IMF endorsement of the economic plan did not restore the confidence of the markets either. There were many questions over whether the targets of the economic program announced at the beginning of January were realistic. It was soon obvious that they were not; in particular, the exchange rate assumed in the plan of 4.5 pesos to the dollar was --short of some extraordinary event-- beyond reach.

The major challenge for the Mexican government in early 1995 was to restore its credibility. For this it was necessary to put into place a program with realistic goals, assure that short term real interest rates would be positive, specify clear monetary, fiscal and exchange rate policies and provide, in a frequent and transparent manner, the information necessary to monitor the program. The markets began to react positively towards the end of March more as a result

[37]In March of 1995 it was announced that the financing from the commercial bank of 3 billion US dollars was not completed because an agreement was not reached over the terms. The US$10 billion from the BIS were also not really available because the terms were complicated and onerous.

of economic outcomes than intentions. In particular, the markets seemed to welcome the trade surplus in January and February 1995, the higher domestic interest rates, and the substantial reduction in outstanding Tesobonos. The fact that the U.S. interest rates would not continue to rise also helped to strengthen the turnaround.

Concluding Remarks

Some analysts will identify the delay in changing the exchange rate policy as the principal cause of the peso debacle. Although we will never know for sure whether a change in exchange rate policy in January, April, September, or even on December 1, 1994, would have had less dire consequences, it is reasonable to assume that, with more international reserves and fewer outstanding Tesobonos, the government could have handled the situation with much greater ease. If for no other reason, because the monetary authorities would have had more resources to give credibility to the new parity. It should be remembered that by December, 1994 the international reserves had fallen from US$ 27 billion in January 1994 to US$ 11 billion and the outstanding Tesobonos--all of them due in 1995--had increased from less than US$ 3 billion in January 1994 to US$ 29 billion and became about 87% of the domestic short-term government debt held by foreigners.

Nevertheless, what is peculiar of Mexico's policy in 1994 is not that the outgoing government tried to avoid a devaluation at all costs. This is quite a typical reaction in many developing (and even developed) countries. What is more peculiar about the recent episode is that, once the government had decided not to change the exchange rate policy, it did not go out

of its way to make sure that the rest of macroeconomic policy --monetary policy in particular--was congruent with this objective. In particular, it is puzzling that domestic interest rates were allowed to fall even when external rates were still rising and the foreign investors were showing clear signs of nervousness by switching from CETES to Tesobonos almost in full.

The December devaluation triggered a financial crisis because foreign investors felt tricked and feared a default. In addition, the lack of competence and the absence of a coherent plan at the time the devaluation was announced, added significantly to the climate of uncertainty. After so many years of admiring the Mexican authorities for their policy adroitness, the governent fell into total disgrace.

The sudden and massive response on the part of a large number of investors because of a devaluation is a new phenomenon. Typically capital flight occurs *before* a devaluation and not after. The devaluation lead many portfolio investors to divest their peso instruments and cross out Mexico in their future investment plans. Many analysts see this as a consequence of the fact that portfolio investment is inherently short term and speculative and in the hands of people who are less than well informed. Certainly portfolio investment is much more likely than direct investment to react quickly to capital losses caused by a devaluation. However, with financial globalization, a larger and larger proportion of capital flows will be in the form of portfolio investment. In addition, as has been shown elsewhere, it is rational for portfolio investors to react to "news" even if it cannot be thoroughly confirmed. Rather than resisting these pressures , countries and multilateral institutions should learn to operate in this new context and to take advantage of short-term capital flows rather than be at their mercy.

In this context, the Mexican experience leaves us with three clear lessons: capital flows

should be welcomed but a country should rely on domestic --not foreign-- savings; some measures to deter speculative capital should be applied even if they imply some efficiency losses in the short-run; and, exchange rate policies should be sufficiently flexible to give governments the possibility to act without inflicting upon themselves a serious blow on their credibility. Finally, the Mexican experience seems to support the "Bundesbank view": when in doubt, act conservative.

References

Aspe, P. Economic Transformation the Mexican Way
Lionel Robbins Lectures, MIT Press, 1993.

Banco de México. Report on Monetary Policy: January 1995. Banco de Mexico, 1995.

Banco de México. The Mexican Economy 1994: Economic and Financial Developments in 1993, Policies for 1994. Banco de Mexico, 1994.

Calvo, G. "Varieties of Capital-Market Crises." University of Maryland, February 19, 1995. Draft.

Calvo, G. "Comments and Discussion"to R. Dornbusch y A. Werner. "Mexico: Stabilization, Reform and No Growth." Brookings Papers on Economic Activity. The Brookings Institution, 1994.

Calvo, G; L. Leiderman y C.M. Reinhart. "Capital Inflows to Latin America: The Role of External Factors." IMF Staff Papers 40, March 1993, pp.108-51.

Dornbusch, R. y A. Werner. "Mexico: Stabilization, Reform and No Growth." Brookings Papers on Economic Activity. The Brookings Institution, 1994.

Eichengreen, B. International Monetary Arrangements for the 21st Century. The Brookings Institution, 1994.

Feliz, R. "Credibilidad y estabilización. El papel del tipo de cambio en la reducción de la inflación", Estudios Económicos, Vol. 7, No. 13, January-July, 1992, pp. 85-102.

Feliz, R. "Una prueba econométrica de la cuenta corriente en México", Estudios Económicos, Vol. 9, No. 2, July-December, 1994.

Fischer, S. "Comments and Discussion" to R. Dornbusch y A. Werner. "Mexico: Stabilization, Reform and No Growth." Brookings Papers on Economic Activity. The Brookings Institution, 1994.

Leiderman, L; N. Liviatan y A. Thorne. "Shifting Nominal Anchors: The Experience of Mexico." Preliminary draft, November 1994.

Lustig, N. Mexico: The Remaking of an Economy, Brookings Institution, Washington, D.C., 1992; México: Hacia la Reconstruccíon de una Economía. El Colegio de México, Fondo de Cultura Económica, 1994.

Lustig, N. and R. Devlin. "El Plan Brady un Año Después." Comercio Exterior, Vol. 40, No. 4, April, 1990.

Mariscal, J. "The Mexican Peso Crisis: In Search for Value in Latin American Equities." Goodman Sachs, March 14, 1995.

McLeod, D. and J. Welch. "El libre comercio y el peso." Economía Mexicana. Nueva Epoca, Vol.I, No 1, January 1992.

Naim, M. "Mexico's Larger Story." Foreign Policy, No 99, p.112-130, Summer 1995.

Oks, D. "Stabilization and Growth Recovery in Mexico: Lessons and Dilemmas." Latin America and the Caribbean Regional Office, The World Bank, January 1992.

Oks, D. and S. van Wijnbergen. "Mexico After the Debt Crisis: Is Growth Sustainable?" World Bank, Preliminary Draft, October 1992.

Ros, Jaime "Mercados Financieros y Flujos de Capital en México" in José A. Ocampo (ed.) Los Capitales Externos en la Economías Latinoamericanas. Fedesarrollo and BID, 1994.

Sachs, J.; A. Tornell and A. Velasco "Lessons from Mexico." Preliminary draft, March 1995.

World Bank "Mexico: Country Economy Memorandum on Savings and Growth." *CEM Issues Paper.* Mimeo.