Mexico's Crisis: Financial Modernization and Financial Fragility*

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Mexico's economic policies were drastically changed in 1983, when import-substitution, a government-led strategy, was discarded and a new strategy was implemented. Restrictions on international trade and capital movements were gradually abolished, the role of the state was diminished, and the domestic financial sector was deregulated.

The objective of this paper is to analyze Mexico's recent exchange-rate crisis, and relate it to the debate on financial modernization and external financial fragility. In the first Section I describe some features of Mexico's 1988-1994 economic recovery. In the second Section I analyze some aspects of Mexico's evolution in the light of the financial modernization debate, and suggest an explanation of the crisis which emphasizes Mexico's external financial fragility. The third Section examines the relationship between financial modernization and the external crisis. The final Section summarizes the main conclusions of the paper.

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167

1. Mexico's growth recovery

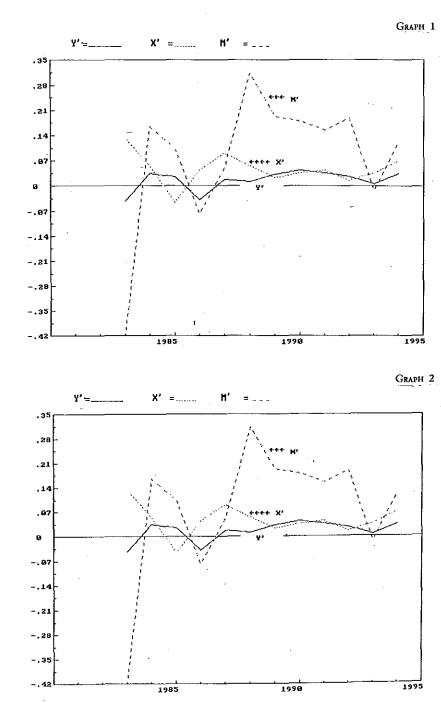
During the 1982-1986 period Mexico suffered two serious external shocks: the debt crisis in 1982 and the huge fall in the price of oil in 1986. Thus, between 1981 and 1987 GDP per head fell by over 11%, while the annual rate of inflation averaged 78% (160 for 1987 alone). However, from 1988 until 1994, Mexico enjoyed a mild growth recovery, which took place within a renewed institutional framework (see OECD 1992, for details).

On the one hand, there was a drastic liberalization of foreign trade, entailing reductions in tariffs and elimination of non-tariff restrictions, associated with Mexico's adherence to GATT (in 1986) and negotiation on and the launch of NAFTA (in 1993).

At the same time, financial liberalization and deregulation measures were implemented (in accordance with the strategy of financial modernization).¹ Most important, asset and liability management was liberalized, compulsory reserves were eliminated, interest rates were freed, banks were permitted to borrow abroad without restriction, and non-residents were allowed to invest in domestic financial assets practically unencumbered.

Thirdly, the privatization of state enterprises took on an additional impulse. Privatization started in 1985, but until 1988 it had involved mostly-small sized firms. However, between 1989 and 1992, some of the most important state-controlled firms, such as banks the national telephone company and mining concerns, were sold to the private sector.

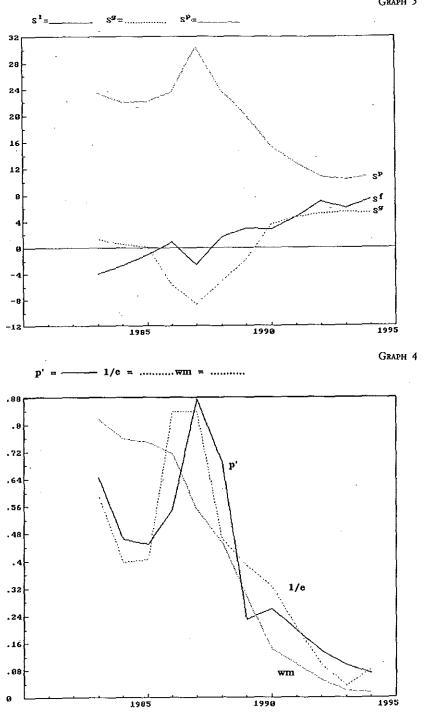
Mexico's growth resumption also showed some significant and novel peculiarities. Graphs 1 to 4 present the basic stylized facts. Graph 1 depicts the annual rates of growth of GDP (Y'), private consumption (CP'), private investment (I'), and government expenditures (G'). Graph 2 presents the rates of growth of GDP, exports (X'), imports (M'), in constant (1980) pesos. Graph 3 displays the behavior of the saving rate (as a percentage of GDP) of the private (s^p), government (s^s) and external sector (s^r). Graph 4 shows the rate of inflation (p'), the minimum real wage rate (uvm) and the inverse of



166

¹ The term financial liberalization is usually used to denote opening-up to capital movements, while deregulation refers to the rules governing the domestic financial sector, and modernization embraces both. I follow this convention here.





169

the real exchange rate (e) (all adjusted for means and ranges). The following peculiarities stand out.

Firstly, unlike most of the previous business upswings, the last one showed private investment (and also non-oil exports; see below) growing at a fast rate, while government expenditures stagnated. The annual rates of growth of private investment, private consumption, exports and government expenditures were 9.1%, 3.8%, 4.2% and 1.5% respectively.²

These developments led to drastic changes in the sectorial expenditure-income balances. On the one hand, the fiscal deficit (5.2% of GDP in 1988) turned into a fiscal surplus (5.3% of GDP in 1994). At the same time, the excess of private saving over private investment (3.6% of GDP in 1988) transmuted into an excess of investment over saving (12.6% of GDP in 1994). Finally, the external saving – i.e., the current account deficit – jumped from 1.58 to 7.32% of GDP between 1988 and 1994.³

In the second place, the recovery went hand in hand with control over inflation. This was achieved thanks to the introduction of two 'anchors': the rate of increase in both the minimum nominal wage and the nominal exchange rate lagged behind the rate of inflation – thus leading to a fall in minimum real wages and an appreciation in real exchange rate. Mexico's is thus a typical example of exchange-rate based stabilization.

Thirdly, appreciation in the real exchange rate induced a huge increase in imports, whose annual rate of growth averaged 20.2% in dollar terms. Since the dollar value of exports grew at a much lower rate (8.6%), this caused a persistent worsening of the trade deficit.⁴ In fact, the worsening of the trade balance suffices in itself to account for the aggravation of the current account deficit.

In the fourth place, in view of the accounting identity whereby the government deficit plus the excess of private investment over private saving equal the current account deficit, it follows from what has been previously said that the latter deficit was entirely due to an

⁴ It seems that the worsening of the trade balance also owes a lot to the opening up of the domestic market to imports, but the econometric estimates available for the trade balance are not conclusive.

² Between 1988 and 1994 the increase in exports plus private investment accounts for 67% of the increase in GDP, and their joint share in GDP rose from 30 to 36%.

³ These figures come from an unpublished study catried out by M. Puchet, C. Guevara and F. Escamilla, at the Maestría en Ciencias Económicas, UNAM.

increase in private investment not matched by a rise in private saving (recall that the public sector was in surplus).

In the fifth place, the average growth rate of GDP, 3.4%, was relatively low, especially when weighted against the expansion of the autonomous components of demand. The reason for this lies in the increase in the import coefficient, which leaked part of the domestic demand away from the internal market and reduced the multiplier of autonomous expenditure. The expansion rate of GDP was low also when compared with previous business upswings (for example, in the 1972-75 and 1977-81 growth recoveries, GDP annual growth rates were 6.9% and 8.5% respectively).

2. Financial modernization in Mexico

The basic tenets of the financial modernization strategy implemented in Mexico and in other semi-industrialized economies stem from the idea that in order to achieve satisfactory growth rates in output, the level and rate of savings and investment should be raised and the efficiency of investment improved.

More specifically, it is claimed, in the first place, that higher interest rates will increase private savings – due to an intertemporal substitution of future for present consumption – while at the same time more financial resources will be channeled towards the formal financial sector, assumed to be more efficient than the informal sector. The greater availability of financial resources will thus stimulate private investment.

Secondly, it is maintained that financial modernization will do away with the pre-existing financial repression and raise real interest rates⁵ which will attract foreign funds and expand foreign savings, thus leading to an increase in total saving and investment.

Finally, it is claimed that investment will become more effective. On the one hand, reducing the role of the government will free funds, which will lead to a substitution of private (highly productive) for public (less productive) investments. On the other hand, only private projects with rates of returns which are high enough will be financed and undertaken.

In Mexico's recent experience, the liberalization of capital movements did not bring about a large upsurge in direct foreign investment, but did in fact attract a large inflow for financial resources. This inflow resulted in heavy external indebtedness for the private sector, particularly the banks, whose international debt rose from about 19,000 (millions of dollars) in December 1992, to about 24,000 in December 1993, and to 25,000 in December 1994.

Besides, this inflow and the consequent demand for Mexican financial assets raised the dollar value of shares, of the equity of the large Mexican firms and of private wealth, and allowed real interest rates to be lower than they would probably have been otherwise. Hence they prompted decisions for higher private spending.

A part of the 'extra' spending decisions prompted by financial modernization took the form of consumption demand and particularly of imported consumer goods. Another part went into investment.⁶

Association between the price of shares in dollars and private investment in Mexico's recent experience has been positively established (Mántey 1996).⁷ This association could perhaps be rationalized on the basis of Minsky's (1975) and Tobin's (1969) theories. The rise in the value of the firm's capital probably reduced the marginal risk of new investments, and also left firms with an untapped indebtedness disposition, because the ratio of commitments to own capital declined when the value of the latter rose. Besides, additional private investment decisions succesfully became investments because the financial sector was able to respond to the additional demand with increased supply.

New investment was not financed to any large extent through the equity market, which actually did not grow in step with financial modernization. Rather, firms went into debt both with domestic banks and (in the case of large firms) with the international capital market.

⁵ Interest rates will rise for depositors, but much less so for borrowers, since the latter are usually forced to borrow on the informal credit market, where interest rates are normally very high.

⁶ It is likely that greater wealth also stimulated portfolio diversification by means of which locals increased their holdings of foreign assets. However, this is a hypothesis that we are not able to verify with the available data.

⁷ Guerrero (1997) carried out an econometric estimate of private investment in Mexico, which corroborates the positive impact of the shares price index on investment.

BNL Quarterly Review

Deregulation of the domestic financial sector gave the banks greater scope in the management of assets and liabilities, and further opportunities to reduce their reserve requirements and innovate with new financial instruments. It also increased Mexico's domestic financial fragility, as will be shown shortly.⁸

Firstly, there was a rise in total credit and in the credit multiplier (the ratio of M2 to the monetary base). Thus, between 1988 and 1994 the share of outstanding credit of firms with the banking system rose from 8.9% of GDP to 35.5%; for households that share rose from 14.2 to 55.3% (OECD 1995).

Secondly, the share of government loans in total loans from the banking system declined from just over 60% in 1988 to less than 10% in 1994, with the corresponding increase in the share of loans going to the private sector.

Thirdly, the deregulation of credit, together with the rise in the multiplier of credit and with the reduction in the share of the safe (government) loans in the total loans of the banks, brought about an enlargement in non-performing loans. The share of the latter in the total assets of the banking system grew from less than 1% in 1988 to over 5% in 1994.⁹

Finally, since credit rationing seems to be pervasive in Mexico and given the high concentration of the banking system, real interest rates and the differential between the lending and the deposit interest rate rose considerably.¹⁰ However, since bank credit to the private sector greatly expanded, some of the previously unsatisfied borrowers could now obtain finance through the formal credit market, with real interest rates probably below rates in the informal market. In other words, a larger part of latent demand for credit could now manifest itself as actual demand, even when the supply of money accommodated to the increased demand – just as the theory of endogenous money would have predicted.

Since financial modernization went hand in hand with an exchange-rate based stabilization strategy, it was necessary to keep the

nominal exchange rate from depreciating at the same rate as inflation. Thus monetary policy aimed at, and to some extent succeeded in, raising the real interest rate and ensuring higher than international dollar interest rates.¹¹

As previously mentioned, appreciation in the real exchange rate resulted in the consecutive current account deficit and huge amounts of foreign saving. However, private saving did not rise; it actually fell by almost 40% between 1988 and 1994, and its share in GDP fell from 24% in 1988 to 11% in that period. Thus, in Mexico's recent experience financial modernization did result in higher foreign savings, but failed to raise private savings.

The argument – also known as the 'Lawson rule' – that foreign saving was beneficial for growth, since it was entirely accounted for by the excess of private investment over private savings, rather than by a government deficit, helps us understand why before the crisis neither the government nor the international financial agencies ever showed any concern with regard to the persistent growth of the current account deficit.¹²

There were some reasons to be optimistic about Mexico's future prospects. As already mentioned, between 1988 and 1994 private investment grew at a fast pace. Furthermore, non-oil exports were burgeoning, with an annual growth rate of 12.6% in US dollar terms. It is true that imports, and particularly consumer-goods imports, were growing much faster than exports. But then, imports are mostly capital goods and intermediate inputs (they represent jointly about 85% of total imports). It was thus claimed that their growth helped the accumulation process and modernization of Mexico's economy.

Nevertheless, as the crisis itself showed, Mexico's foreign indebtedness had gone too far, and its accumulated current account deficit brought about an increasing external financial fragility. To this aspect we turn now.

⁸ Most of what follows owes a great deal to different papers by, and to discussions with, Mántey. See especially Mántey (1996).

⁹ González (1997) estimated an econometric model for non-performing loans for the 1980-1995 period, where the importance of the deregulation of credit and of the fall of the share of government loans in total loans is confirmed.

¹⁰ The real interest rate was negative until 1988, when it turned positive, reaching a peak of about 20%, and fell afterwards. The differential between the lending and the deposit rate rose from about 10% in 1987 to about 30% in 1993.

¹¹ This was not a drastic change from the pre-existing situation, given that prior to the liberalization of the financial sector, capital movements in Mexico were already subject to few restrictions, and the rate of interest for domestic savings (in dollars) had to be competitive.

¹² Two weeks before devaluation and the crisis Miguel Mancera, Governor of Mexico's central bank, stated: "The size of the current account deficit is, in a certain manner, the measurement of the country's success, not of its failure [...;] the greater the success of Mexico as an attractive country for investment, the bigger the current account deficit will be".

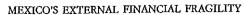
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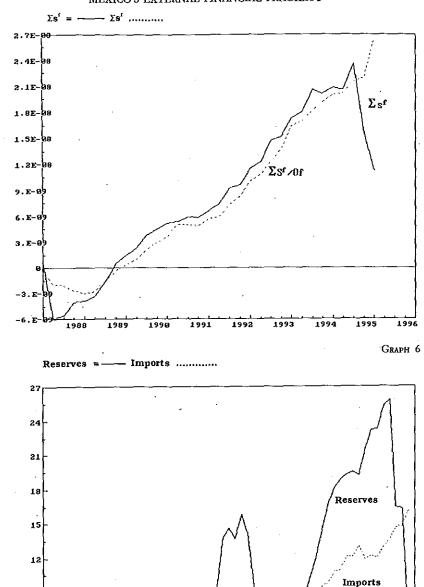
External financial fragility is here defined as a situation in which there is high risk of holding insufficient foreign reserves to face a significant conversion of liquid saving in national currency into foreign currency. Graphs 5 to 8 display some stylized facts about Mexico's external financial fragility. Graph 5 presents two ratios – the ratio of the accumulated current account deficit to GDP ($\Sigma s'$), and the ratio of the accumulated current account deficit to total current account outflows ($\Sigma s'/Of$).¹³ Graph 6 shows the evolution of international reserves and imports. Graph 7 depicts the behavior of peso-denominated and US dollar-denominated government public debt (Cetes and Tesobonos, respectively). Graph 8 presents the evolution of the ratio of M2 to international reserves (in the same currency).

There were clear signs of external financial fragility. In particular, the ratio of the accumulated current account deficit to GDP and to total current account outflows rose steadily. But what is also striking is that in spite of those signs the government and the private sector could go further into debt practically unencumbered. Thus, reserves continued to rise, and the government could still issue peso-denominated bonds.

During 1994 the government allowed the nominal exchange rate to reach its upper floating band, which caused a depreciation in the real exchange rate. However, in spite of this the current account deficit was not corrected, investors drastically shifted from pesodenominated to dollar denominated-bonds, there was a steep rise in the ratio of M2 to foreign reserves and a fall in the ratio of reserves to imports. Also, the ratio of public short-term debt to reserves, which stood at about 0.6 at the beginning of 1988, had risen about fivefold when the crisis erupted.

Most analysts and international agencies blame some kind of economic policy mismanagement during 1994 (usually an overexpansionary stance on monetary policy, the decision to convert peso-denominated into dollar-denominated government debt, etc.), or specific political or external events (i.e. the Chiapas insurrection, the assassination of prominent political figures, etc.), or both, as the ultimate cause of the crisis (see for example the account given in International Monetary Fund 1995). There is some truth in this view, but it does not tell the whole story.





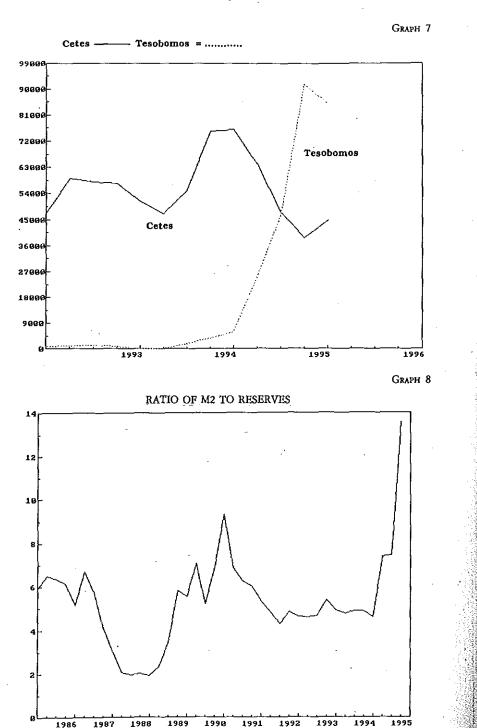
GRAPH 5

1995

1990

1985

¹³ In this Graph the variables have been adjusted to match means and ranges.



BNL Quarterly Review

In the first place, adverse events did provoke significant capital flight and affected Mexico's image. To a certain extent those shocks were absorbed, but reconstitution of the foreign-exchange reserves to their February 1994 peak was never complete.

In the second place, the evidence does not support the hypothesis that a very different policy stance, or behavior of the economy, obtained in 1994.

For one, the Banco de México (1995) has shown in a detailed account that monetary policy was not at all expansionary, but rather responded to the needs of the market. More recently, an econometric study came to the following conclusions:

"First, the substantial increase of the growth rate of Mexico's monetary base [...] probably reflected shocks to demand for money rather than an excessive expansion of the money supply [...]. Second, Mexican monetary policy in 1994 was not significantly looser than that implied by an estimated monetary policy reaction function"¹⁴ (Kamin and Rogers 1996).

Much the same can be said in connection with output growth. This did recover its trend in 1994, after falling in 1993 to 0.6%. But in each and every quarter of 1994, its (deseasonalized) growth rate was within its previous norm (i.e. average for the 1988-1993 period, plus/minus two standard deviations).

Nevertheless, the persistence of an unchanged policy stance and the unfolding of the moderate economic expansion widened the gap between the accumulated current account deficit and what may be called its long-term level of equilibrium, thus aggravating external financial fragility. All this raised doubts about the future stability of the peso. Thus the conditions were established whereby any event might cause an external crisis, as indeed happened.

A host of models, usually based on Krugman (1979) and Obstfeld's (1986) seminal papers, exist which may explain a crisis under conditions of external financial fragility with rational expec-

¹⁴ Of course, the Banco de México could have refused to accommodate the 'extra' demand for money. But it is well known that the estimates of money demand are not very reliable, and that monetaty restriction is usually difficult to tune to the right degree. Monetary restraint could have brought about a decline in domestic spending and in profits much larger than intended. In its report for 1994, the Banco de México (1995, p. 68) came somewhat close to this conclusion, when justifying in the following terms its policy of accommodating the supply of money base "an additional increase in the rates could have provoked even more jitteriness and turbulence in the markets".

tations. More recent models (see Calvo and Mendoza 1996), based on standard portfolio diversification and on the notion of "herd behavior", could also explain why devaluation in a situation of external financial fragility leads to massive runs against peso-denominated financial assets, thus thwarting the efforts of the authorities to correct the original imbalance.

It is not difficult to specify a model capable of explaining Mexico's balance-of-payments crisis, e.g. a situation "[w]hen the government is no longer able to defend a fixed parity because of constraints on its actions" (Krugman 1979, p. 311), under different and more realistic assumptions, that is, imperfect information and confidence breakdown. Consider first the well-known interest-rate parity condition:

$$\rho^{e} = \rho^{x} + (E^{p} - E)/E$$
(1)

$$E = E^{p}/(\rho - \rho^{x} + 1)$$
(1a)

Where ρ^e and ρ^x are the (equilibrium) domestic and the international interest rates, E and E^p are the current and expected nominal exchange rates, respectively, and risk is abstracted from.

In standard models E^p is given a very definite value, usually based on rational – or, better, consistent – expectations. It is not necessary to go that far, however. Consider a situation where there does not exist an accepted reference value for certain key variables (for example, the 'sustainable accumulated current account deficit'), and where expectations are not independent amongst investors, but rather:

"[...] asymmetr[ic], which makes one person the imitator of the other, the imitated or opinion leader. [In that kind of situation ... t]here will be clusters of expectations round an opinion leader. These clusters usually will be unstable as opinion shifts to new leaders [...]. If the imitation concentrates and leads to agglomerations in one or another direction, the market will become bearish or bullish as the case may be [...]. The most extreme loss of independence occurs in a crash. Here one opinion has come to dominate and the other condition for steady state, the existence of a belief in certain limits or standards, has also disappeared" (see Steindl 1990, pp. 374-75).

In these types of situations, the expected value for the nominal exchange rate may change abruptly. This may be depicted according to the following simple rule, which assumes that E^p changes over time as:

$$\frac{dE^{p}}{E^{p}} = \begin{cases} \alpha \text{ for } \Sigma(s^{f}) \leq k \\ \beta \text{ otherwise, } \beta \gg \alpha \end{cases}$$
(2)

That is, the expected nominal exchange rate increases at a rather low rate, α^{15} leading to a moderate depreciation of the current exchange rate (equation 1a), provided the accumulated current account deficit as a share of GDP, s⁴, remains below a certain value k i.e. the 'sustainable' accumulated current account deficit – which is based purely on conventions. But when that value is exceeded, the expected exchange rate rises at a much higher rate, β . If the monetary authorities do not intervene, foreign-exchange reserves will dwindle, and eventually the current exchange rate will have to depreciate by a large amount. Alternatively, the monetary authorities may raise the domestic interest rate, so as to maintain the current nominal exchange rate; but the rise in the domestic interest rate may have to be very high.

In Mexico's case, we may posit that during a first stage, the accumulation of an increasing current account deficit did not pose grave problems. The government acquired increased legitimacy and the country had a very good press; furthermore the renegotiation of the servicing of the external debt reduced foreign payments.¹⁶ But at a later stage, together with the accumulation of an ever increasing current account deficit, its sustainable value was also reduced due to adverse economic and political events, national and international (see for example, Banco de México 1995 or International Monetary Fund 1995, for details).

Thus, the crisis was the consequence of the simple unfolding of economic expansion in the context of ever increasing external financial fragility. In other words, even a moderate growth rate, and an unchanged government policy stance, became extremely risky, and actually were not sustainable any longer under the existing institutional framework – i.e. in a financially very open economy –

¹⁵ For example, α can be equal to, or lower than, the lagged rate of inflation.

¹⁶ Thus, the value of s' was reduced below what it would have otherwise been, and also the value of k was raised.

181

BNL Quarterly Review

because the danger existed that investors might easily switch from peso-denominated to dollar-denominated financial assets. Furthermore, in Mexico's context, this danger had, and still has, a 'structural' basis. Income is highly concentrated in very few hands, which implies that a powerful savings potential exists which is also a potential for speculation.¹⁷ A change of mind of the 'opinion' leaders and few wealthy investors may bring about dramatic changes in the overall situation.

3. Financial modernization and Mexico's crisis

We may conclude our previous analysis as follows. In the first place, financial modernization induced additional private spending decisions and at the same time allowed Mexico's banking system to finance the expansion of both private consumption and investment. Thus, by stimulating private demand and lifting one of the constraints that limit private demand and growth in a capitalist economy – lack of sufficient finance – it contributed to higher growth rates in output. In the second place, financial modernization raised domestic financial fragility to such an extent that it stimulated a modification in the composition of the assets and liabilities of the banking system and of the private sector.

Thirdly, the rise in private demand brought about an exponential expansion in the current account deficit and in foreign savings, even when private saving declined. Thus, Mexico's external financial fragility was also aggravated.

In light of the above, we may conclude that, by increasing external and domestic financial fragility, financial modernization enhanced Mexico's economy sensitivity to exogenous shocks, while simultaneously raising the possibility that any such shock might have a negative and powerful impact on the levels of economic activity. Indeed, in 1995 GDP fell between 6 and 7% with respect to 1994 – its largest fall since the Thirties. We may now ask ourselves a different but related question. What was the specific contribution of the financial modernization strategy, if any, to the enlargement of the current account deficit and to the crisis itself? In other words, had it not been for financial modernization, would the share of the current account deficit in the GDP have grown as fast as it actually did in Mexico?

I think that financial liberalization did in fact contribute to the swelling of the current account deficit. But its contribution was rather indirect in character.

The main factor behind the growth of the deficit was appreciation in the real exchange rate. This was the result of the stabilization policy implemented and was made possible because real and dollar interest rates were kept high. However, interest rates did not increase much after financial liberalization, because, as we have seen, Mexico has persistently been very open to capital movements and domestic interest rates have to be set at international competitive levels.

However, as already mentioned, deregulation of Mexico's financial sector, even when capital movements were further liberalized and the domestic financial market was opened up to foreign investors, allowed the private sector to swell its debt-financed spending and, probably, to diversify portfolios and increase holdings of foreign assets and liabilities. It thus induced financial fragility.

On the other hand, financial liberalization introduced two economic actors that were committed to maintaining a 'strong' peso.

The banks' dollar-denominated debt greatly expanded. This enlarged their lending capacity, but also increased their exposure to the volatility of the foreign-exchange market, and enhanced their interest in avoiding a devaluation of the peso. Foreign investors in the financial market were in a comparable situation – at least until they shifted from peso-denominated to dollar-denominated assets.

Of course, the persistent overvaluation of the peso cannot be solely attributed to bankers and foreign investors, because the government also had a very strong interest in maintaining a strong peso and avoiding a sharp devaluation.

Many students of the Mexican economy pointed out repeatedly, prior to the crisis, that the peso was becoming grossly overvalued and alerted the authorities to the dangers involved. So, why did they

¹⁷ Press reports and many analysts pointed out when the crisis erupted that capital flight was mostly accounted for by domestic investors. However, no data exist on this point.

allow the real exchange rate to continue appreciating?¹⁸ Two factors serve to understand their behavior.

On the one hand, the overall situation itself was ambiguous. It is true that we can see *ex post* that Mexico's economy was becoming increasingly overindebted. But *ex ante* that was far from obvious, since some of its 'fundamentals' seemed quite sound and there were no clear signs to anticipate the crisis. Profits, output and investment (particularly in the tradables sector) were booming, and the outlook was that foreign credits could be paid in the future through higher exports (and a lower import coefficient).

The other factor is that the authorities probably recognized that sharp devaluation would bring chaos into the economy – thus damaging not only their image but possibly even the future of their model.

It is well known that devaluation – in the absence of other measures – entails costs. From the authorities' point of view, the most important costs were perhaps that it would be detrimental to all agents indebted in foreign currency, and particularly the banks. This was all the more dangerous since the banks were already in a difficult position due to the rise in their non-performing loans.

Besides, devaluation would gravely affect expectations, which would not only unleash strong inflationary pressures, but might also trigger other changes which could be difficult to control (for example, encouraging capital flight).

As previously shown, the preceding inflationary pressures were curbed during this period. But during this period, price stability and the steady value of the peso – together with the growth in exports, and later with the enactment of NAFTA – were expressions and symbols of the success of the economic strategy. One may conjecture that the government authorities were well aware that devaluation above certain rather small value would have severely shaken the faith on which the whole economic strategy was founded, and on which expectations were formed, and could even jeopardize prospects of enacting of NAFTA.

In other words, the institutional reforms and the government measures allowed a situation of both domestic and external financial fragility to develop, because the private debt rose exponentially and, furthermore, foreign-denominated liabilities weighed heavily in the balance sheets of private agents. But then the government had no instrument to cope with a run against the peso – other than reverting to extremely restrictive demand policies. Had the latter been implemented, the crisis might perhaps have been avoided. But the cost would have been a fall in the level of economic activity – milder perhaps than the one ensuing from the crisis, but very drastic all the same.

4. Conclusions

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Our most general conclusion can be stated as follows. To achieve satisfactory and sustainable growth rates of output in Mexico – and also in most semi-industrialized economies –, private demand and private investment must be raised. However, this is not enough, for it is also necessary to lift the foreign-exchange barrier by stimulating a persistent rise in exports, or a decline in the import coefficient, or a combination of both. Otherwise, the current account deficit will grow exponentially and sooner or later growth will come to a halt, either gradually or as a result of a foreign-exchange crisis.

Now, in Mexico's experience, financial modernization did in fact succeed in invigorating private spending and private investment, while at the same time encouraging the expansion of credit by the banking system. However, it did not contribute to stimulating exports or reducing the coefficient of imports. In fact, it may actually have discouraged both. The reason is that financial modernization allowed the real exchange rate to appreciate, which brought about loss of competitiveness for Mexico's domestic production.

A more detailed summary of the main findings of this paper can be presented as follows.

1) Mexico's overall economic performance during the last few years was far from successful. During the 1988-1994 economic recovery, the growth rate was somewhat below its previous records. In spite of this, the current account deficit persistently grew until it reached over 7% of GDP in 1994. The deficit went hand in hand with a rise in government savings and a decline in private savings.

¹⁸ As already mentioned, the appreciation of the real exchange rate was partially reverted during 1994, when the real exchange rate depreciated by about 10%.

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