

A MEXICAN ADJUSTMENT SCENARIO

L.R. Klein/Alfredo Coutiño ^{*/}
U.of PA./Ciemex-Wefa
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^{*/} Lawrence R. Klein is Emeritus Professor of Economics at the University of Pennsylvania and a Nobel Laureate in Economics 1980, and Alfredo Coutiño is Director of Macroeconometric Analysis at Ciemex-Wefa.

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Summary

Based on some differences and some similarities between the present Mexican crisis and the 1982-83 crisis, we can expect that the Mexican economy will experience a faster and less severe adjustment, which will allow it to recover to a path of sustainable growth very quickly. According to our estimates of economic growth and trade balance, the Mexican economy could be able to eliminate the external disequilibrium and return to a recovery in 1996, after it faces the recession generated by the adjustment process in 1995.

Background to the Crisis

Just prior to Christmas, 1994, a series of fast moving economic events overtook Mexican authorities, manifesting themselves as currency devaluation, continuing exchange depreciation in a float, capital flight, depletion of foreign exchange reserves, and an international rescue operation. The consensus view is that Mexico will experience a sharp recession, substantial inflation, high interest rates, large scale unemployment, and an overall reduction of living conditions. To a large extent, the consensus view has already become visible in the early months of 1995. The questions to be addressed in this essay are:

- (i) How deep and wrenching will the adjustment be?

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- (ii) How long will it last; when can Mexico expect to recover and by how much?
- (iii) What will be the impact on the United States, on Canada, and on other developing countries in Latin America?
- (iv) What is the relevance of the Mexican crisis for regional trade liberalization in Latin America, as a whole?

By the way these questions are posed, it is evident that a total collapse is not contemplated. Mexico has been through economic crises before and has made the adjustments necessary for recovery. Basically, the analysis is being made on the supposition that Mexico is a richly endowed economy with much potential but has undergone a significant set-back to a concerted effort to reform the economy and enjoy much better performance. Many times over, economic commentators have said that Mexico was a textbook case of reform that foreshadowed strong improvement in the modern international economic environment. It was frequently said that the right things were being done.

What went wrong -- by the end of 1994? In the first place, the reserves of foreign exchange and gold were not being properly monitored, especially by the later months of 1994 and certainly not by the international community at large. Roughly speaking, Mexico had about \$25-30 bn in reserves at the beginning of 1994 but only about \$7 bn at the crisis time in December. This was a rapid draw-down that escaped scrutiny by people who might have acted. In addition, much of Mexico's debt was at very short maturity. A figure of \$30 bn, at less than 30 days maturity, has been cited.

There had been strong capital inflow to cover the current account deficit, which had exceeded \$20 bn for the last three years, running. Domestic savings were low averaging around 16% in relation to GDP. A developing country needs strategic imports for growth -- imports of technologically superior capital and important material for production. These were, in fact, available but were accompanied by a flood of consumer goods imports that were not vital for the development process. It is little wonder that reserves were rapidly being depleted. Many good things for future growth were taking place, but also many diversionary things were occurring at the same time. Even Mexico's favored position as an oil exporter could not be a source of salvation. It is noteworthy that during the run-up of oil prices in August 1990, Mexico could not take full advantage of a windfall because not enough modernization, especially in collaboration with technologically superior international oil companies, had taken place. That is being remedied but not soon enough to change the present predicament.

Apart from the international features of Mexico's economic environment in 1994, it should be noted that there were significant problems of income distribution and political uncertainty. The income distribution issue was one of growing inequality without adequate attention being paid to checking the tendencies in this direction. The changing balance of political power was a source of fear for international investors, thus aggravating the problem of capital flight.

Often times when crisis situations develop, analysts throw up their hands and declare that there are no precedents for judging the vastly changing circumstances. That is not entirely so in the Mexican case because there was an analogous shortage of foreign capital for domestic

investment, and an adjustment process was required to correct the situation. The previous crisis occurred in early 1982, and required at least two years of immediate adjustment, not to mention the decade-long restructuring that ensued. This refers to the international debt crisis, in which Mexico was one of the leading and largest debtors, unable to continue servicing scores of billions of debt at escalating international interest rates. In that situation, the foreign capital inflow was heavily tied up in debt capital, much of it from official sources, but Mexico was not alone. Many other developing countries were involved. Mexico adjusted significantly during 1982 and 1983, but the whole decade of the 1980s -- the "lost" decade as far as economic development for Latin America was concerned -- was spent in restructuring the debt.

Leading up to the crisis of December, 1994, Mexico had done many things that drew widespread approbation, and these changes should lead to a better adjustment during 1995-96, than during 1982-83, but there are many similarities in the two episodes.

- (I) The peso fell rapidly
- (II) The current account was deeply in deficit
- (III) Inflation and recession occurred about right after the crisis became apparent
- (IV) The immediate reaction was to restrain imports, especially those from the USA. Exports were simultaneously increased.
- (V) The current account was quickly turned from deficit to surplus.

The political situation was different; the special border industries (Maquiladora) had not yet completely flowered, and there was, in fact, little precedent for the earlier crisis situation.

Additionally, we should point out that a default has not been declared in the present

crisis, and there is international backing for debt servicing. The inflationary situation that Mexico now faces is not one of hyperinflation as in 1982-83. Also the fiscal imbalance is not chronic. Therefore, in spite of many similarities, there are good reasons for expecting a faster and less severe adjustment process in 1995.

Some Statistical Comparisons, 1982-83 and 1995-96

Now, we might turn to examination of some key short run indicators, to see whether we can gain some insight from the 1982-83/1995-96 comparisons.

One might have thought that a shift from reliance on debt capital from abroad, to a large amount of equity capital from abroad, would have avoided a repeat occurrence of a crisis, but the problem is that a country must take further steps to have the equity capital portion heavily in foreign direct investment (FDI) rather than portfolio investment (lured by investment bankers to exploit the potential gains of "emerging markets"). To a distressingly large extent the portfolio equity investment turned out to be so-called "hot money." In the future, that source should not be heavily relied upon, but the debt-equity balance should favor the latter.

The tables below, with some comparisons between 1981-84 and 1993-94, provide a basis for projecting the whole years 1995 and 1996. In 1982, the burden of debt servicing became apparent in Mexico early in the year and grew into a problem of world significance well before the year's end. It is evident that the economy grew strongly in 1981 and fell stagnant for the year as a whole in 1982. The deterioration was very deep in 1983. It was a two-year adjustment to the crisis situation. The improvement in 1984 was not sustained, but it was a good recovery

TABLE 1
MEXICAN ECONOMIC INDICATORS

	1981	1982	1983	1984
GROSS DOMESTIC PRODUCT (% real growth)	8.8	-0.6	-4.2	3.6
INFLATION RATE (% annual average)	28.0	58.9	101.9	65.5
EXCHANGE RATE (annual av.- ps/dls)	24.5	57.2	150.3	185.2
CURRENT ACCOUNT BAL. (billion dollars)	-16.1	-6.2	5.4	4.2
TRADE BALANCE 1/ (billion dollars)	-3.8	6.8	13.8	12.9
TOTAL EXPORTS 1/ (billion dollars)	20.1	21.2	22.3	24.2
TOTAL IMPORTS 1/ (billion dollars)	23.9	14.4	8.6	11.3
MAQUILADORA EXPORTS (billion dollars)	3.2	2.8	3.6	4.9
MAQUILADORA IMPORTS (billion dollars)	2.2	2.0	2.8	3.7

1/ Excludes maquiladoras.

Source: Ciemex-Wefa with information from Banco de Mexico and INEGI.

TABLE 2
MEXICAN ECONOMIC INDICATORS

	1993				1994				1995
	I	II	III	IV	I	II	III	IV	I
GROSS DOMESTIC PROD. (% real growth)	2.4	0.2	-0.8	1.0	0.7	4.8	4.5	4.0	-0.6
INFLATION RATE (% quarterly)	2.7	1.7	1.8	1.6	1.8	1.5	1.6	1.9	14.6
EXCHANGE RATE (quarterly av.- ps/dls)	3.11	3.11	3.12	3.13	3.17	3.34	3.39	3.60	5.97
CURRENT ACCOUNT BAL. (billion dollars)	-5.7	-5.8	-6.6	-5.3	-6.7	-7.1	-7.7	-7.3	-1.2
TRADE BALANCE 1/ (billion dollars)	-3.6	-3.4	-3.4	-3.1	-4.3	-4.6	-4.8	-4.8	0.5
TOTAL EXPORTS 1/ (billion dollars)	11.8	12.9	12.9	14.3	13.8	15.0	15.1	17.0	18.7
TOTAL IMPORTS 1/ (billion dollars)	15.4	16.3	16.3	17.3	18.1	19.6	19.9	21.8	18.2
MAQUILADORA EXPORTS (billion dollars)	4.6	5.5	5.6	6.2	5.7	6.5	6.7	7.4	7.0
MAQUILADORA IMPORTS (billion dollars)	3.6	4.1	4.3	4.5	4.5	5.0	5.2	5.7	6.0

1/ Includes maquiladoras.

Source: Ciemex-Wefa with information from Banco de Mexico and INEGI.

year. Inflation and exchange depreciation were already high in 1981 but doubled or tripled in 1982 and 1983. Inflation, but not exchange depreciation, was reversed in 1984. As part of the adjustment process, both the trade balance and the current account balance improved during the two adjustment years, with trade going into surplus faster than the current account. Exports were maintained throughout the process, and even grew, but imports were radically cut back. This cut back was felt especially severely by the USA, where economic recovery was stalled early in 1982. On a monthly basis, by May 1982, the trade balance turned from deficit to surplus. The Maquiladora trade, both for export and imports, barely paused during 1982.

In terms of history, by quarterly periods, GDP growth turned from recessionary rates in 1993 and early 1994, to become respectably high during the last 3 quarters of 1994. Inflation was very low (under 10% annually) during 1993 and 1994. The peso-dollar rate was on a steady trend path of small depreciation until the fourth quarter of 1994 (December 1994) when devaluation and continuing depreciation set in. The peso-dollar rate moved from 3.5 to more than 7.0 in 1995 and then receded. The trade balance and current account both held steady throughout 1993 and 1994. Exports and imports both grew -- in total and for the Maquiladora trade.

It is too early to be able to report comprehensive figures for 1995, we have only limited monthly information. What we do have looks remarkably similar to the 1982-83 adjustment process. The commercial balance fell from -\$1688 mill., December, 1994, to -\$304 mill. in January, 1995. This balance turned positive in February, March and April (\$384 mill., \$460 mill., \$801 mill.). The Maquiladora balance went from \$485 mill. during December, 1994, to

288, 316, 383, and 314, respectively, in January, February, March, and April. Maquiladora imports grew steadily from December, and their exports hesitated briefly, but are expanding on track during March, 1995. Oil exports have shown no hesitation throughout the present adjustment period, and aggregate exports show no perceptible decline, even momentarily, but total imports are definitely in decline. Beyond the monthly trade figures, we can already see high monthly inflation rates, high interest rates, high peso-dollar rates, high unemployment rate and falling indexes of industrial production.

TABLE 3
SELECTED MONTHLY DATA, 1995

	Inflation (Monthly Rate)	Interest Rate (CETES)	Exchange Rate (Average) ps/dls	Unemployment Rate	Industrial Production (Index)	Trade Balance (mill. dls.)
January	3.8%	37.25%	5.51	4.5	129.7	-303.9
February	4.2	41.69	5.69	5.3	122.3	384.1
March	5.9	69.54	6.70	5.7	131.0	459.6
April	8.0	74.75	6.30	6.3	...	800.8

A Simulation Exercise

From the statistics of monthly developments in 1982 and 1983, we can estimate the sensitivity of exports and imports to the exchange rate movements that took place. These estimates are not from carefully crafted and specified trade equations, but merely from correlations between current-priced exports or imports and exchange rates and activity rates. Within a short span of 24 months, the lack of homogeneity of the trade equations (presence of "money illusion") is not likely to be of major consequence. These estimated trade equations are

used, together with all the non-trade equations of the CIEMEX model in order to project the response to exchange rates of 6 or of 7 pesos/dollar. These are extreme values among those being considered at the present time.

Cutbacks in spending coupled with an assumption that private consumption and investment spending would respond in the same way as in 1982-83, high interest rates of 50% in 1995, and inflation of consumer prices at 50% were also imposed on the model solution. The high rates (exchange, interest, and consumer price inflation) all work in a direction of restraining domestic activity, but we superimposed some additional private spending restraints in order to have private consumption and investment react in the same manner as in 1982-83. The cutback in public investment and the strict credit conditions are part of the official stabilization adjustment package being implemented by the Mexican government.

The scenario outcome for 7 pesos/dollar shows a 3% decline in GDP for 1995 distributed across all three main sectors -- primary, secondary, and tertiary -- a large decline in imports (by 35%), an expansion in exports (by 27%) and a shift to a trade balance surplus for 1995.

In 1982-83, production also fell heavily in all sectors. The trade balance swings in our simulation from a deficit of \$24 bn. in 1994 to an estimated surplus of \$6 bn. in 1995.¹¹ Total employment is expected to decline by about 5% in 1995. Public expenditures fall in the scenario for both consumption and investment.

There is one important difference between the present scenario and the history of developments 1982-83, namely, that the recessionary adjustment towards fiscal responsibility

¹¹ These figures do not include maquiladoras. Maquiladoras balance represents an additional surplus.

and financial tightening was spread over two years in the environment of the 1980s but is expected to be concentrated in one year, 1995. now. By 1996, Mexico could be on the mend. These estimates are indicated in the analysis of Governor Dr. Rogelio Montemayor Seguy who discussed the Mexican economic situation at the University of Pennsylvania on April 7, 1995. Dr. Montemayor cited the influence of the liberalization of the last decade, the wider opening of the Mexican economy, and the growth of joint ventures with modern producers from USA, Canada, Japan, and Western Europe.

Our interpretation of the public policies being implemented and the structural changes that have already been introduced comes to the conclusion that the present adjustment, though appearing similar in broad perspective to the 1982-83 adjustment, has more flexible dynamics, wiser policies, and more support from the USA and other members of the IMF. This should, as Dr. Rogelio Montemayor suggests, result in a shorter and less erratic adjustment than during 1982-83. Accordingly, we feel comfortable with our slightly more optimistic scenario. An adjustment has already started and will affect economic behavior during this year, but the new resilience of the Mexican economy in the present context should cut short the time duration of the adjustment process.

After the fast turnaround, by 1996, this simulation projects a Mexican economy returning to an expansionary growth path with more growth in investment than in consumption and more help from exports and a trade balance surplus to reduce unusual dependence on the inflow of foreign capital.

If the exchange rate can be held closer to 6 p/\$, as it is presently doing, it is useful to

consider a simulation with a somewhat less severe adjustment imposed, in particular, reductions in public and private spending on both consumption and investment goods at about 80 percent of those assumed for the case in which the exchange rate is 7 p/\$. In this milder adjustment simulation the decline in GDP is only 2.1% and the decline in employment is held to 4% for 1995. The trade balance recovery comes to \$0.1 bn. instead of \$6.0 bn. in the previous simulation. The export expansion is quite similar in both cases, but the import contraction for 1995 is considerably moderated with the more mild case of currency depreciation.

Effects on the Region

At the same meetings where Governor Rogelio Montemayor presented his analysis of the Mexican situation, Dr. Gary Hufbauer of the Institute for International Economics remarked that it is of extreme importance for the future of NAFTA and its enhancement in Latin America that Mexico be helped by the international community in the current financial crisis. There are enough opponents of the NAFTA concept that a serious setback to trading relations within North America would encourage these opponents to resort to extreme political pressure against the steps that have already been taken towards regional economic cooperation. There is no doubt that the next steps, to consider fresh entrants into the NAFTA organization (Chile, e.g.) cannot be taken until the Mexican economy is stabilized and expanding again.

As for the spreading effect of last December's crisis, the most immediate fall-out was the simultaneous decline in several stock markets in South America (Brazil, Argentina, Chile, Peru, Colombia). Temporarily, at least, these market declines have halted, and small upturns are visible. The most sensitive economic changes have been widely noted for Argentina, where

financial conditions have remained reasonably stable, but there will be some effects on the real economy that are similar to those facing Mexico. The quantitative magnitudes are expected to be more moderate.

In a general sense, however, developing countries with external deficits and significant capital inflows will be monitoring those flows carefully and with better understanding of their potential volatility.

TABLE 4
SIMULATION 1
(Exchange rate 7.0 ps/dls)

	1995	1996
GROSS DOMESTIC PROD. (% real growth)	-3.0	2.8
Primary sector (%)	-1.9	1.1
Secondary Sector (%)	-1.9	3.8
Tertiary Sector (%)	-3.7	2.6
TRADE BALANCE (bill. dls) 1/	6.153	4.848
Exports (%)	27.2	20.5
Imports (%)	-34.6	27.4
EXCHANGE RATE		
Annual Average (ps/dls)	7.000	8.505
Change (%)	108.0	21.5
End of Period (ps/dls)	7.681	9.333
Change (%)	50.6	21.5
PUBLIC EXPENDITURE (%) (Consumption & Investment)	-15.9	5.5
LABOR SECTOR		
Annual Average Real Wage (%)	-13.1	3.2
Employment Formal Sector (%)	-4.8	0.8
INFLATION (CPI)		
Annual Average (%)	50.7	30.3
End of Period (%)	82.7	29.7
INTEREST RATE (Annual Average) 2/		
Nominal	50.01	31.56
Real	8.33	4.81

1/ Excludes maquiladoras.

2/ Corresponds to the Treasury Bills Rate (Cetes 28 days).

TABLE 5
SIMULATION 2
(Exchange rate 6.0 ps/dls)

	1995	1996
GROSS DOMESTIC PROD. (% real growth)		
Primary sector (%)	-2.1	2.9
Secondary Sector (%)	-2.5	0.6
Tertiary Sector (%)	-1.1	3.9
Tertiary Sector (%)	-2.5	2.6
TRADE BALANCE (bill. dls) 1/	0.056	-4.691
Exports (%)	25.8	19.5
Imports (%)	-24.7	30.6
EXCHANGE RATE		
Annual Average (ps/dls)	6.000	7.016
Change (%)	78.3	16.9
End of Period (ps/dls)	5.934	6.939
Change (%)	16.4	16.9
PUBLIC EXPENDITURE (%) (Consumption & Investment)	-12.7	5.5
LABOR SECTOR		
Annual Average Real Wage (%)	-13.0	3.4
Employment Formal Sector (%)	-4.0	0.7
INFLATION (CPI)		
Annual Average (%)	50.7	30.3
End of Period (%)	82.7	29.7
INTEREST RATE (Annual Average) 2/		
Nominal	50.01	31.56
Real	8.33	4.81

1/ Excludes maquiladoras.

2/ Corresponds to the Treasury Bills Rate (Cetes 28 days).

ANNEX

Estimates of the Exchange Rate Effects on Exports and Imports, 1982-83 (months)

(Equations used for the scenario)

Non-oil exports (mdse.)

$$\ln(\text{tegon } \$) = -11.31 + 0.17 \ln(\text{rexsm}^{-1})$$

(2.54) (1.85)

$$+ 2.13 \ln(\text{USIP})$$

(2.09)

$$R^2 = 0.66 \quad DW = 1.88$$

$$e = 0.33 e_{-1}$$

(1.54)

Tourism exports

$$\ln(\text{tesbtn} \$ + \text{testun} \$) = -5.02 + 0.44 \ln[\text{USIP} * \text{rexsm} * P / \text{Pe}]$$

(1.51) (1.07)

$$R^2 = 0.66 \quad DW = 1.74 \quad [\text{activity level and exchange rate effects are the same (elasticities)}]$$

$$e = 0.67 e_{-1}$$

(7.60)

tegon\$ = dollar value of Mexican non-oil exports
rexsm = peso per dollar exchange rate
USIP = index of US industrial production
tesbtn\$ + testun\$ = tourism receipts
USIP*rexsm*P/Pe = value of US industrial output in pesos deflated by

Total imports (mdse)

$$\begin{aligned} \ln(\text{tmpmn}\$) = & -1.02 \ln(\text{rexsm}) + 0.43 \ln(\text{rexsm})_6 \\ & (2.41) \qquad (1.44) \\ & + 5.45 \ln(\text{ipi}) - 4.84 \ln(\text{ipi})_6 \\ & (5.09) \qquad (4.75) \end{aligned}$$

$$R^2 = 0.69 \quad DW = 1.89$$

tmpmn\$ = dollar value of Mexican imports
ipi = domestic (Mexican) industrial production index.

Tourism expenditures (Mexican)

$$\begin{aligned} \ln(\text{tmsbt}\$ + \text{tmstun}\$) = & -1.40 \ln(\text{exsm}) \\ & (2.92) \\ & -2.10 \ln(\text{rexsm})_1 + 2.14 \ln(\text{rexsm})_6 \\ & (2.87) \qquad (4.22) \\ & +5.70 \ln(\text{ipi}) - 4.58 \ln(\text{ipi})_3 \\ & (3.84) \qquad (3.22) \end{aligned}$$

$$R^2 = 0.83 \quad DW = 2.14$$