U.S.-Mexican Industrial Integration

The Road to Free Trade

Edited by
Sidney Weintraub

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with Luis Rubio F.
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The conference timing was excellent, coming shortly before the joint announcement of Presidents Carlos Salinas de Gortari and George Bush of their intention not only to negotiate a free trade agreement, but also to place top priority on such negotiations. The conference also came at a time when policymakers began discussing the U.S.-Mexican trade relationship in the context of achieving cost-effective production strategies that will allow the two nations to compete effectively with Japan, other Asian countries, and Europe.

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S.W.

ONE

Economic Outlook in the 1990s

Economic Outlook in the 1990s: Mexico[1]

Rogelio Ramírez de la O

Mexico is at a turning point in its development strategy following decades of substantial government intervention in the economic system which, not surprisingly, culminated in the 1982 crisis. During the administration of President Miguel de la Madrid (1983–1988), the government launched many economic reforms that changed the development strategy. The new strategy is not free from contradictions, such as the generation of current account deficits combined with the maintenance of restrictions and a complex set of regulations on foreign direct investment; or the liberalization of foreign trade combined with failure to introduce new labor legislation enabling Mexican industry to compete internationally. Economic reform, once set in motion, calls for ever expanding reform, particularly when the economy needs foreign resources; Mexico's laws and institutions are not yet sufficiently open to foreign equity capital. But even with an open trade and investment regime, which Mexico does not yet have, the challenges involved in overcoming the crisis of the 1980s are still enormous.

Distortions and Crisis

During the 1920s and 1930s, following the Revolution, Mexico underwent a period of reconstruction. This period provided the government with an opportunity to forge a new political alliance among the various revolutionary factions. Central to the new regime was the strong presence of the state in the economy and the pursuit of the public interest as defined in Article 27 of the new Constitution.

The 1930s saw the first wave of economic nationalism and state intervention focused around the new regime. This was preceded by the

founding of the Partido Nacional Revolucionario (PNR), which later was transformed into the Partido Revolucionario Institucional (PRI). The PRI was organized along corporatist lines and became the self-appointed heir to the Revolution. From that point the management of the economy and the promotion of economic development would be linked to single political party rule.

Such a monolithic system created its own informal balance. The Alemán administration (1946–1952) saw correctly that a strong private sector was necessary for post-war industrialization. This was based on import substituting industrialization (ISI) and on large external economies facilitated by public investment in infrastructure. A notion of complementarity between public and private investment was used, with no limits placed on foreign participation in private enterprise other than those explicit in the Constitution.

The one-party, strong presidential rule, and the corporatist structures were, however, to become a problem later on. The Constitution proved to be easily amended on instructions from the executive. Interest groups within the system lobbied for new legislation that was invariably presented by the incumbent president as revolutionary changes justified by popular nationalist sentiment.

Amendments to the Constitution and new laws introduced during the four decades following World War II had a number of related aims: the protection of national capitalist groups from foreign competition; the securing of greater government control over economic activities; justification for the creation of new state enterprises; the granting of greater benefits to organized labor (i.e., unions that were part of the system); and ultimately the consolidation of political and economic control over the country by the interests that controlled the PRI.

The result of this was a gradual asphyxiation of the country's productive forces. The farming system became a fiefdom of political groups, and by the mid-1960s a decline in agricultural output was evident. The industrial sector also showed symptoms of the decline typical of the stage of ISI in which progress is impeded by inappropriate economies of scale, lack of competition and technology, and huge capital shortfalls. In 1973, Mexico enacted legislation to restrict the free use of foreign technology and to limit foreign investment to a maximum of 49 percent in any one company.

Moreover, labor unions obtained growing benefits and a steady increase in real wages. This was justified by growing productivity in the 1950s and 1960s but could no longer be justified in the 1970s and early 1980s. Union power was considerable in most sectors in which government monopolies or similar situations enabled management to negotiate with a single union leadership for an entire industry, such as

in oil and electricity. The unions became de facto co-owners and co-managers alongside the government in many of these fast-growing state enterprises.

Economic Policy

The economic policy of the 1950s through the early 1970s became increasingly sophisticated with the growth of financial markets. This growth was influenced by a world economy undergoing one of its longest periods of stability and growth since World War II.

Macroeconomic policy generally reflected the government's interest in achieving both a high growth rate and price stability. During the 1930s and 1940s, the intermediate macroeconomic targets were not very clear—the foreign exchange gains from exports were large during the war and the excessive expansion that followed caused an external crisis in 1954. Following the devaluation of the peso that year, and with the world economy under a fixed exchange-rate system, the government adopted the nominal exchange rate as its intermediate macroeconomic target.

Between 1955 and 1970, Mexico was able to maintain unchanged the nominal exchange rate while the economy was growing at an impressive rate of 6.7 percent annually. This was made possible by productivity gains arising from public investment in infrastructure, the early stage of ISI, and a favorable external environment of low inflation. The government successfully used interest rates and credit tightening to implement its monetary policy, but this success was also dependent on a rigorous control of public finances. Fiscal policy was thus dictated by the medium-term objective of financial stability, and therefore it was used in the short term to check any excessive expansion in aggregate demand. Also instrumental in the success of this model was Mexico's capacity to attract foreign venture capital—to be distinguished from foreign debt—which, at that time, financed most of the current account deficit of 2.5 percent of gross domestic product (GDP).

An import license system was used to grant protection to domestic producers from foreign competition but also to prevent a rapid deterioration of the trade balance. Import restriction also affected output, since Mexico remained dependent on foreign supplies of intermediate and capital goods. Price controls were often used as a quid pro quo for trade protection and to guarantee the availability of low-priced basic goods for a growing urban work force. In summary, the policy contained many ad hoc instruments and measures of direct control, but even so fiscal policy was the principal basis of financial

stability. A sound fiscal policy facilitated the task of monetary policy which was focused on a nominal exchange rate target. As long as fiscal policy remained sound and the balance of payments did not deteriorate badly, the fiscal-monetary policy mix provided a good macroeconomic background. Table 1.1 summarizes some of the features of this period of stable growth.

It is difficult to identify the specific causes that triggered the collapse of this model. The first signs of deterioration were evident in the mid-1960s, especially in farming, but a pre-condition for the loss of stability was the abandoning of the macroeconomic rule of maintaining public finances in equilibrium. This happened only in the 1970s and was accompanied by greater state intervention in the economy and deteriorating business confidence.

The government's nationalistic rhetoric became louder in the 1970s, accompanied by high current account deficits and growing foreign indebtedness. State investments no longer created the external economies expected of them, owing largely to their increased diversification into manufacturing and services and errors in the planning of large state concerns. The understanding between the government and the business sector that had been a feature of the regime until 1970 was sacrificed to the government's efforts to regain urban political support, especially among the young, by attacking the interests of privileged groups.

When this process fell apart in 1976 and Mexico had to seek International Monetary Fund (IMF) assistance, the problem was diagnosed as one of regaining macroeconomic equilibrium, at most requiring a short recession and adjustment of relative prices. Such an adjustment was initiated in 1977 and was on the verge of completion when Mexico suddenly found itself rich again with the discovery and

TABLE 1.1 Indicators of Growth and Stability, 1955–1970 (percentages)

Indicator	*Percentage*
Real annual GDP growth	6.9
Population growth rate	3.3
Real per capita income growth	3.6
Annual inflation	4.5
Annual import growth	7.4
Annual export growth	5.0
Current account balance/percentage of GDP	-2.5
Real annual growth in minimum wages	5.5

Source: Author's compilation.

rapid exploitation of vast oil reserves at a happy moment of world scarcity. Oil and foreign debt were the tools of the high growth achieved during 1978–1981, but this growth had even less healthy bases than that of the early 1970s. When oil prices fell in 1981 and foreign credit dried up, the economy collapsed again.

The crisis so frequently referred to is the period of flat growth and lack of material opportunities for the mass of the population that followed 1982. It was also a period of collective reflection and an opportunity to tackle some problems at their roots. Tables 1.2 and 1.3 show relevant macroeconomic indicators during the period leading up to the crisis. The earlier GDP growth of 5.8 percent annually turned flat, and per capita income plummeted 14.8 percent over the entire period. The contrast between yearly payments on the foreign debt of $482 million (11.3 percent of exports of goods and services in 1972) and $11.3 billion (38.9 percent in 1982) is also relevant, as it reflects the efforts the economy would have to make in adjusting itself while servicing a huge foreign debt.

Adjustment and Economic Reform (1983–1988)

It is unclear whether the new government of President de la Madrid understood the depth of the required economic reform. Most public statements made at that time suggested that it did not, but rather that it believed a three-year conventional macroeconomic adjustment would be enough to correct the imbalances. The government carried out a campaign of moral renovation and some constitutional reforms, but there was no clear indication of any attempt to change the structure of political and economic power or the relationship between the state and the different interests. The resulting mix of this program was a strong macroeconomic adjustment aimed at correcting long-existing imbalances, carried out in a political vacuum and consequently lacking popular support.

This poor mix could be explained by the thesis that the Mexican government was not ready in 1983 to embark on wide reforms, owing to internal divisions within the PRI over the direction of such reforms. Such divisions probably reflected what was happening in the country at large, where strong right-wing and left-wing groups had emerged. Since the government was not prepared to outline a reform program, the macroeconomic adjustment would lack the necessary structural changes and would eventually lose public credibility and support.

Some groups within the government and in the private sector pressed for structural changes and some of these were started after an initial dragging of feet on the part of the authorities, such as cutbacks in the

TABLE 1.2 Macroeconomic Performance 1972–1988
(Annual percent except as noted)

Indicator	*Period of Growth and Distortions 1972–1982*	*Period of Adjustment 1983–1988*
Real GDP growth	5.8	0.1
Real per capita income growth	2.8	-2.4
Annual consumer price inflation	22.7	92.9
GDP price deflator (annual average)	23.6	88.1
Annual real exchange rate change	3.1	1.2
Current import growth	18.2	19.6
Current export growth	29.0	-0.7

Source: Banco de México, various reports.

TABLE 1.3 Macroeconomic Performance 1972–1988
(millions of U.S. dollars except as noted)

Indicator	*1972*	*1982*	*1983*	*1988*
Current account deficit	-1,006	-6,221	5,418	-2,901
Factor payment outflows	626	11,405	10,714	10,403
Foreign investment remitted profits	144	526	184	512
Interest on foreign debt	482	10,879	10,103	8,800
Inflows of foreign direct investment	156	1,657	461	2,590
Inflows of foreign credit to public sector	149	5,259	4,291	946
Inflows of foreign credit to private sector	460	2,223	-2,309	-3,428
Stock of foreign debt ($ billions)	5.5	87.6	93.8	103
Fiscal deficit as percentage of GDP	-3.5	-16.9	-8.6	-12.3
Flow of banking system obligations as a percentage of GDP, excluding foreign liabilities	5.7	16.1	13.2	6.9

Source: Banco de México, various reports.

bureaucracy and the sale of some state enterprises. These, together with trade liberalization, supported the government's plans for gradual change, but seen in perspective, represent the seed of a structural reform which only later took a more concrete form. This reform was oriented toward opening the economy and, by implication, transforming the country's political structure.

This change of direction took place in the midst of a confusing economic program in which policy goals were almost never reached

while the government continued to proclaim them as top priorities. The most obvious examples were inflation and the public sector deficit. But rather than being a change of direction imposed by a new government, we argue that this change was endogenous in that it was a result of disenchantment of the same domestic forces with the old model of state intervention and protection against foreign competition and capital. The government found itself in the middle of a struggle between the old vested interests of the system and new groups that were aware of the increasing internationalization of economic forces and the consequent need to become internationally competitive. Even though the de la Madrid administration showed an understanding of these issues, I believe it lacked the coherence and internal consensus to impose the necessary radical reforms.

The administration often referred to gradual changes instead of radical reforms and proclaimed that the change of direction in its policy was only a change of tactics. The opportunity to carry out a radical reform at the point of crisis was thus lost, but in the end the government could not prevent the transformation of the economy and of the private sector, which underwent a significant adjustment and reoriented its operations to become more competitive. After five years of partly failed economic programs and gradual changes, the government still faced the problem of high inflation and was more willing to effect radical reforms. But this new attitude would materialize only in the following administration of President Carlos Salinas de Gortari.

Macroeconomic Performance

The linchpin of the macroeconomic program started in 1983 was the regaining of external equilibrium in order to correct a current account deficit of $12.5 billion in 1981 and $4.9 billion in 1982. The program was supported by the IMF through an extended credit facility loan of $3.8 billion and fresh bank loans of $3 billion that the government did not fully use. Both the Mexican government and the IMF believed Mexico could start to grow again by 1985 and did not foresee that the economic contraction would be as far-reaching as it actually was.

Both the government and the IMF underestimated the exchange rate depreciation required to stop capital flight and to turn around the heavy deficit on the current account of the balance of payments. Between 1981 and 1983, the real exchange rate, according to the Bank of Mexico's definition, depreciated by 48.9 percent—far more than was anticipated in the IMF adjustment program and more than the

deterioration in the terms of trade during those years (-20.5 percent) would suggest.

This explains why Mexico started its economic program in 1983 with an overshooting of the current account target and of the programmed increased in international reserves, higher inflation, and a greater economic contraction than envisaged, as shown in Table 1.4.

An extremely weak peso coincided with the rapid economic recovery in the United States. Mexican firms, the largest of which had exported in the past as a supplement to domestic sales, switched quickly to exports and produced a current balance which made it unnecessary for Mexico to use the full amount of the commercial bank credit negotiated earlier. This boosted external confidence in Mexico, but the crucial question of regaining domestic credibility and delivering long-required economic reform remained unresolved. Economic agents remained skeptical of the ultimate success of the government's economic program and therefore postponed their repatriation of capital from abroad despite high real interest rates for peso assets. The negative capital account thus reflected the current account surplus in the balance of payments, but to the extent that the latter was achieved with no economic growth, capital exports reflected lack of confidence and insufficient domestic investment rather than greater export competitiveness.

Capital outflows increased as oil prices fell in 1985 and 1986. Outflows were large also at the end of 1987, when the Mexican stock exchange collapsed. The negative capital account was not corrected until 1988 when the exchange rate was fixed and policy announcements were clear, but this still necessitated an extremely high real rate of interest, as shown in Table 1.5.

TABLE 1.4 IMF Program Targets and Actual Outcomes, 1983–1985

	1983		*1984*		*1985*	
	Target	*Actual*	*Target*	*Actual*	*Target*	*Actual*
Inflation (percentage, December annual)	55.0	101.9	35.0	65.5	20.0	57.7
Public sector deficit (percentage of GDP)	8.5	8.6	5.5	8.5	3.5	9.6
Change in international reserves (billions U.S. $)	2.0	3.1	2.0	3.2	2.0	-2.6

Source: International Monetary Fund, various reports.

TABLE 1.5 Real Ex-Post Interest Rates of 28-Day Mexican Treasury Certificates and Capital Account Net-of-Term Loans to Government and Banks, 1983–1988 (millions of U.S. dollars)

Year (Months)	*Interest Rate (percent)*	*Capital Account*[a]
1983 (January-June)	-189.3	-248
1983 (July-December)	-34.7	-4,069
1984 (January-June)	45.0	-1,562
1984 (July-December)	30.7	-1,159
1985 (January-June)	38.4	-261
1985 (July-December)	-8.7	-1,422
1986 (January-June)	-12.7	874
1986 (July-December)	57.4	-222
1987 (January-June)	26.1	-1,213
1987 (July-December)	36.4	-4,906
1988 (January-June)	42.8	-1,435
1988 (July-December)	19.3	-3,359
1989 (January-June)	57.1	-1,183

[a] Negative signs indicate negative capital flow.

Source: Banco de México, various reports.

The high interest rates, combined with volatile oil prices, put such pressure on public finances that the government was never able to deliver the promised reductions in the fiscal deficit. It nonetheless tried to minimize the inflationary impact of these two variables by reducing non-interest public expenditure, hitting public investment in particular. Although there were no massive layoffs of public employees, their average real wages fell along with wages in the rest of the economy, as shown in Table 1.6.

Thus, despite the significant reduction in public expenditures, fiscal policy lacked credibility until the government changed its strategy. In 1987, it adopted as a fiscal policy target a primary budget surplus, which excluded all interest payments and transfers to state governments.

Later, in December 1987, the government reduced the 1988 budget that had been approved only a few weeks earlier and announced policies, which if implemented, would have permitted a gradual reduction in interest rates. But even then the credibility of fiscal policy was not easily regained as the foreign debt remained high and many of the cuts in public expenditure were regarded as temporary.

TABLE 1.6 Real Public Sector Revenues and Expenditures, 1983, 1988 (percentage of GDP)

	1983	*1988*	*Real Change[a] 1983-1989 (percent)*
Public sector deficit[b]	-8.6	-11.7	31.1
Public revenues	32.9	28.7	-16.5
Oil	14.2	9.8	51.4
Public expenditures	41.0	39.0	-12.3
Program expenditures	25.7	18.0	-30.8
Current	17.7	11.8	-19.9
Wages	6.7	5.1	-17.6
Investment	7.5	3.7	-45.9
Interest	12.4	16.6	23.4
Foreign	4.6	3.6	-27.9
Domestic	7.7	13.1	56.8

[a]Deflated with consumer price indices.

[b]The public sector deficit is obtained from the flows of financing granted to the public sector. This does not usually coincide with the deficit resulting from the difference of revenues and expenditures. In addition to this difference, the deficit is increased by the cost of financial intermediation, i.e., the cost of subsidized credit. The public sector deficit shown here is the official figure used for all purposes.

Source: Banco de México, various reports.

Perhaps the clearest signal the government gave was on trade policy, where a wide-ranging import liberalization was announced in 1985, following by the signing of the protocol to join the General Agreement on Tariffs and Trade (GATT) in 1986. Table 1.7 shows the rapid fall in the number of import tariff codes subject to prior license. Moreover, the differences between minimum and maximum tariffs were reduced, and by 1988 the maximum rate on imports was 20 percent, while many items restricted in the recent past could be freely imported.

That trade liberalization took the lead over macroeconomic reform is no coincidence and its relevance in signaling a change of regime should not be exaggerated. First of all, the recession of 1983 and the collapse of public and private investment made it clear that exports would be the only way to maintain employment, and this made a liberalization of imports imperative. The devaluation of the real exchange rate supported this policy and also gave additional protection against imports. The success of the largest exporters in

TABLE 1.7 Import Tariff Structure (number of tariff items)

Type	*1982*	*1985*	*1987*
Total	8,008	8,091	8,446
Controlled by prior license	8,008	839	329
Subject to tariff	—	7,252	8,117

Source: Sixth Presidential Report to Congress, 1988.

maintaining strong cash flows and repaying their foreign debt became a celebrated event. First, exporters who were in a privileged position required competitive supplies. Second, the United States was absorbing growing imports from virtually all developing countries. Third, with a recession in the domestic market and the peso undervalued, import liberalization would not hurt the balance of the current account, allowing the government to claim success on this policy. Actually, imports began to jump only in 1988, when the exchange rate lost its cushion of undervaluation and the fall in inflation encouraged greater private expenditure.

The Real Sector

Despite the buoyancy of the foreign trade sector, GDP recorded hardly any growth and the fluctuations in activity were remarkable. Table 1.8 shows annual changes in GDP, industrial and manufacturing output, manufacturing employment, and imports and exports for the period.

Thus, while exports of manufactured goods recorded annual growth rates of 28.6 percent on average, the export sector was too small to boost the rate of growth of GDP or even that of manufacturing output. Nevertheless, there were activities which recorded significant expansion, including machinery, electronics, petrochemicals, and metals. Other industries showing rapid growth during the upward part of the cycle included automobiles, cement, and paper.

By contrast, industries which suffered falls or stagnated included woven fibers, plastics, structural metallic products, household electric appliances, and non-durable consumer goods.

This uneven distribution of growth is not surprising, given the strong incentive to export and the collapse of the domestic market. In evaluating export performance, we must take into account that the main export drive originates in industries which exhibit a linkage with foreign ownership or with rapid technological change, such as machinery and electronics. Firms with foreign capital or technology

TABLE 1.8 Indicators of the Real Sector, 1983–1989
(annual percentage changes)

Year	*Real GDP*	*Industrial Output*	*Manufacturing Output*	*Manufacturing Employment*	*Imports of Goods*[a]	*Exports of Goods*[a]
1983	-4.2	-8.9	-7.5	-9.6	-40.7	6.2
1984	3.6	6.5	5.3	-1.1	31.6	8.4
1985	2.6	5.2	7.0	2.3	19.6	-9.6
1986	-4.0	-4.8	-3.4	-4.0	-15.1	-26.7
1987	1.5	4.1	3.9	1.7	6.9	28.9
1988	1.1	1.3	2.3	2.1	54.7	0.0
1989	2.9[b]	5.9[c]	8.3	na[e]	31.1[d]	8.1[d]

[a]Imports and exports in current US dollars.
[b]Through the third quarter.
[c]Through June.
[d]Through July.
[e]Not available.

Source: Banco de México, various reports.

were the top exporters of manufactures, and some of them planned expansions even in the midst of general uncertainty.

Initially, the general rule for exporters was to undergo large reductions in the size of the industrial plant and in employment as well as in the product base. Firms tended to concentrate on fewer and more standardized products once imports were liberalized. A pattern of specialization emerged that in the future would permit an expansion of the industrial plant. The automotive industry exhibited this pattern most clearly, as this industry—owing to its international linkages—adapted rapidly to a changing environment, especially when the changes were in line with its worldwide pattern of sourcing and specialization (see Table 1.9). Most automotive firms reduced their size and the variety of products they manufactured, enabling them to achieve longer production runs. They also exported more, and, at the same time, imported more. Nevertheless, large expansions were delayed, and today this industry cannot maintain exports if the domestic market grows too rapidly. The culmination of this process of specialization would be to make new investments in order to provide for growing exports and specialization while servicing the growing domestic market, which began to recover in 1988. Only new investment can validate the economic reforms and the policy of import

TABLE 1.9 Cumulative Growth of Selected Industries, 1983–1988

Sector	*Percent*
High growth	
Automobile engines, parts, bodies	47.6
Machinery	42.9
Electronics	9.4
Petrochemicals	83.7
Metals	60.4
In-bond food processing	122.5
In-bond textiles	138.7
Negative or no growth	
Woven fibers	-28.4
Plastics	-26.2
Structural metal products	-33.9
Household electric appliances	-40.0
Non-durable consumer goods	3.2
Meat and dairy products	0.9
Footwear	-19.9
Soaps, detergents	-1.9

Source: Banco de México, various reports.

liberalization, and in the modern export sector this means direct foreign investment.

Other firms unable to export tried to maintain their share of the weak domestic market. Price controls were removed in 1983, enabling many of them to rebuild their profit rates, but greater competition among them and low real wages were deterrents. With the opening to imports and the erosion of the exchange rate undervaluation, these firms faced the need to become more efficient and to increase services and quality. At times, they lost market share to competitors. The final pattern of adjustment in the non-tradables sector is not clear, but certainly greater efficiency and lower profit margins will be preconditions to survival in a more competitive environment. Mergers and acquisitions of weak firms by stronger ones are frequent in these sectors.

Table 1.10 shows a crude measurement of the index of average labor productivity in the manufacturing sector, estimated by dividing the index of output by the index of employment. This suggests remarkable gains in productivity which should, however, be interpreted cautiously as the aggregation may result from opposite changes across industries

TABLE 1.10 Productivity in the Manufacturing Industry 1983–1988 (1983=100)

Indicator	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*
Index of output in manufactures	100	105.3	112.7	108.9	113.1	116.5
Personnel employed in manufactures	100	98.9	101.3	97.2	98.8	100.9
Index of productivity	100	106.4	111.3	112.0	114.4	115.4

Source: Banco de México, various reports.

and thus be deceptive on the degree of change in both industries recording positive and negative changes. It may also be influenced by the fact that rigid labor laws prevented many firms from shedding workers, which weakened their capacity to adjust to a new reality.

The New Policy Regime: Outlook and Risks

In 1987, Mexico obtained a new package of foreign finance from official sources and commercial banks on the ground of the previous year's abrupt fall in oil prices. A large amount of these resources was disbursed in 1987 and this, combined with continuing high inflation, caused undue monetary expansion and ultimately a crisis in October 1987.

This crisis was peculiar because no underlying problem appeared to have justified the panic in the financial markets and the capital flight which obliged the Bank of Mexico to withdraw from the foreign exchange market. Only two months earlier, President de la Madrid had delivered an optimistic and confident annual report to Congress. The Bank of Mexico only acknowledged one year later, in its annual report on the economy, that this crisis was provoked by a change in expectations, while the capital flight was attributed initially to the accelerated prepayments of foreign private debt.

Nevertheless, the fact was that inflation remained high, rising from 105.7 percent at an annual rate in December 1986 to 133.9 percent in August 1987. Although the public sector was recording a primary budget surplus of 6.9 percent of GDP, this was insufficient to instill confidence in government policy.

Moreover, the government and its fiscal policy failed to convince economic agents that inflation would be stopped. The 1988 budget finalized during the autumn of 1987 contained provisions for increased program spending of 121.8 percent, more than doubling the 1987 figure, which contained an overshooting of 17.7 trillion pesos over the original

budget of 86.2 trillion pesos. This amounted to 4.5 percent of nominal GDP and 3.7 percent of the actual GDP. The increase in interest payments in the 1988 budget was 128.3 percent over 1987 payments and the public sector borrowing requirement (PSBR) was budgeted at 18.5 percent of GDP compared with 17.4 percent of GDP in 1987.

This seems quite enough to qualify the fiscal policy as one incapable of reducing or contributing to a reduction in inflation during the last year of the administration. The crisis of October 1987, therefore, shook the government's lenient stance towards inflation, obliging it to make significant amendments amounting to a new budget, even though the original one had just been approved by a lenient Congress. The amendments contained a reduction in program spending over the original budget of 6.8 percent, of interest payments of 23.8 percent, and of transfers to state entities of 10.9 percent. The PSBR was put at 10 percent of GDP. These percentages, while significant, nevertheless represented very little to informed economic agents in the light of the systematic budget overshootings of the past. This was so even after the government announced several measures to meet such targets, such as reducing the numbers of telephone lines for the bureaucracy and restricting the making of photocopies in government offices. The amendments to the revenue budget included 50 percent to 85 percent price increases in public sector goods and services. Combined with a general price and wage freeze, these produced a strong budget position.

If fiscal policy lacked credibility and the announced corrections in public expenditure and revenue were not perceived as dramatic, the opposite was true of monetary policy. The government announced a fixed exchange rate for two months and introduced savage credit cuts on outstanding bank lending. The fixed exchange-rate rule was renewed in subsequent agreements among government, business, and labor. These agreements also included small increases in minimum wages and in private sector prices. During 1988, only a 3 percent wage increase was granted over the general increase in January. The labor movement's cooperation was secured by the fixed exchange rate rule that appeared to guarantee workers against unexpected inflation, and by the private sector's commitment to maintain nominal (controlled) prices.

Inflationary expectations thus began to change as a result of the new rule, reinforced by the much publicized political accord among government, labor, and business. Price increases decelerated markedly, aided by further reductions in import tariffs and the removal of more important license requirements. The fall in expected inflation allowed the authorities to effect massive cuts in budgeted public expenditures without affecting real expenditures. The result was that for the first time during the de la Madrid administration, actual expenditures were

below that budgeted. Expenditures on programs, for example, was 11.7 trillion pesos below the revised allocation of 83.4 trillion pesos, and the PSBR was lowered to 11.7 percent of GDP, despite higher-than-budgeted nominal (and real) interest payments on the domestic debt.

Monetary-led deflation in 1988 thus created the opportunity for fiscal policy to regain credibility. This was largely a one-time effect, however, as the 1989 budget could not repeat the same generous nominal increases as those budgeted for 1988. Thus, for 1989 the budget contained only a 16.6 percent increase in expenditures on programs, a fall of 19.5 percent in debt interest payments (domestic and foreign), and a 29.2 percent increase in taxes. The programmed PSBR was 6.4 percent of GDP, which meant that fiscal policy would soon take center stage again. The result of this budget was a 3.2 percent increase in expenditures, 8.1 percent in taxes, a fall in interest of 17.8 percent, and a 6.3 percent PSBR. On the whole, this was a very good outcome. Nevertheless, the government could not maintain a fixed exchange rate, and the rate had to be devalued as of January 1, 1989 by one peso daily or 16 percent annually.

The potential of monetary policy has not been exhausted, but the absence of a fixed exchange-rate rule prevented a reduction in nominal interest rates. Following the stringent restrictions on credit in early 1988, the monetary authorities relaxed their controls somewhat, and bank credit to the private sector began to rise in real terms. This made the regulating role of monetary policy more difficult. Now, while monetary policy is still the preferred short-term policy, any change in economic conditions or in expectations will be reflected in interest rates.

To summarize the core of my argument: there was a change of regime in 1988 which obliged the government to fight inflation even at the expense of hard-won international reserves. This change moved the central focus of policy away from the external balance and to inflation, and assigned the leading role to monetary policy in the short run. It also established a strong primary budgetary surplus as an intermediate target of fiscal policy. Given the insufficient credibility of fiscal policy, peso interest rates have remained high in real terms, dominated by expectations in financial markets. Today it is the credibility of the exchange rate, the austere fiscal policy, and potential external shocks which determine expectations.

Macroeconomic Strategies and Risks in the New Policy Regime

When we discuss the outlook for macroeconomic policy and its possible outcomes in terms of growth and inflation, we assume that the

shift in the policy regime, which adopted the fight against inflation as its top priority, will remain valid over the medium term. This seems a safe assumption not only in view of government policy announcements, but also because domestic expectations are evolving in a way that makes any departure from established policy politically dangerous for the government. Also, a low inflation rate is a sine qua non of any consolidation of the new economic model which sees the Mexican economy being increasingly open to trade and investment. The other reasons that make low inflation necessary under this model will now be discussed.

Under the new model, the exchange rate regains its character as the intermediate target of monetary policy. As long as Mexico's inflation rate exceeds those of her trading partners and the nominal rate remains fixed, the peso real exchange rate will appreciate, in turn helping to reduce inflationary pressures. The appreciation of the real exchange rate will have two other effects: the current account balance will deteriorate; and real yields of peso financial assets measured in dollars will show a similar appreciation, increasing the scope for capital inflows.

Therefore, in the new regime, the economy must again, as in the 1950s and 1960s, run a current account deficit and regain access to foreign capital. Since voluntary bank credit will not be open to Mexico for some years to come, the only capital that can be counted on is foreign direct investment (FDI) and repatriated Mexican capital. Both inflows will depend on the government showing an unequivocal commitment to maintaining open trade and investment policies and to the integration of Mexico into the global economy. A deterioration in the current account of the balance of payments is a highly probable risk of the new economic program. Table 1.11 shows the deterioration that took place in 1988 and 1989.

This occurred despite low economic growth in 1988 of 1.1 percent in GDP, which recovered to about 3 percent in 1989, such that the prospects of an even greater deficit in the future are related to the permanent recovery in economic activity, given that higher domestic demand will pull more imports and may discourage export growth. Table 1.12 shows the continued rise in imports and how their growth has surpassed the growth of GDP and of exports since the end of 1987.

To consider the likelihood that the real exchange rate (pesos to the U.S. dollar) exerts an independent influence on the volume of foreign trade, we estimated one equation for imports and another for exports of manufactures for the period January 1986 through July 1989. In the import equation, domestic demand as represented by GDP levels (Y) and

TABLE 1.11 Current Account and Trade Balances 1986–1989
(millions of U.S. dollars)

Monthly Avg.	*Current Acct.*	*Exports of Goods*		*Imports of Goods*			*Non-Oil Current Account*
		Oil	*Non-oil*	*Consumer Goods*	*Inter-mediate*	*Capital*	
1986	-139.4	525.6	810.3	70.5	636.0	246.2	-665.0
1987	330.5	719.2	1002.2	64.0	735.4	219.2	-388.7
1988	-241.8	559.1	1162.4	160.1	1079.2	335.9	800.8
1989	-333.7	647.8	1274.1	260.3	1252.4	350.9	
Jan.		612.9	1154.3	187.1	1663.0	325.5	
Feb.		560.7	1167.6	212.8	1155.4	330.5	
March		679.6	1300.4	260.9	1239.3	319.8	-2655.3[a]
April		692.5	1242.6	258.1	1285.5	381.2	
May		681.6	1340.7	300.0	1309.8	347.7	
June		659.3	1438.9	343.0	1361.6	400.8	-3233.3[a]

[a] Total of each quarter.

Source: Banco de México, *Indicadores Económicos*, October 1989.

the real exchange rate (TC) explain the variations in total imports. Total imports are monthly values deflated by the import price index of the Bank of Mexico, while the real exchange rate is measured by the ratio of the U.S. consumer price index to the Mexican consumer price index, multiplied by the ratio of the nominal exchange rate to the exchange rate of the base period. Given the slow response of trade volumes to changes in the real exchange rate, we included in the equation both the current values of the exchange rate and those of one, two, and three months behind. All values are expressed in natural logarithms (L).

The results of this estimation are as follows ("t" values in parentheses):

$$LM = 10.26^{**} + 1.04LY^{**} - 1.04LTC^{**} + 0.39LTC_{t-1} - 1.01LTC_{t-2}^{*} + 0.8LTC_{t-3}$$
$$(5.8) \quad (3.6) \quad (-3.4) \quad (0.9) \quad (-2.2) \quad (0.3)$$
$$R = .94 \qquad F = 117.6 \qquad D.W. = 1.57$$

* significant at the 95 percent confidence level; ** at 99 percent

As would be expected in economic theory, the growth in GDP (Y) raises imports, in this case, by a factor of 1.04 times. There is a negative relationship between the real exchange rate and imports,

especially with the current value of TC, and its two-month lagged value, which denotes a relatively fast import response or even market anticipation of the exchange rate and the consequent decision to place orders for imports. It is sufficiently clear that imports fall with the real depreciation of the peso exchange rate and rise with its appreciation.

Nevertheless, the major determinant of import growth appears to be the growth in GDP. Although the growth in imports during the period analyzed should also be attributed to the fact that liberalization of trade occurred in several stages, the effects of such liberalization were already present in 1986. Even though trade liberalization was accelerated in December 1987 in support of the anti-inflation program, its effect on trade volumes is mainly a one-time effect.

Exports of manufactures are expressed in current dollar values deflated by the price index for non-oil exports of the Bank of Mexico. The real exchange rate is the same estimate as in the import equation (thus the sign of its coefficient should be positive in the export equation) and foreign demand is approximated by the GDP of the United States (USY) in constant terms. In this equation we had to include a dummy variable (D) to distinguish the period January 1986 to July 1987, when domestic economic conditions began to change and the economy became less able to generate current surpluses owing to rapid domestic growth and to a stronger peso exchange rate. Thus, during that period economic policy was aimed at responding to the lower export revenues following the fall in oil prices via a rapidly depreciating exchange rate. After July 1987, however, the effect of oil prices already had been transmitted onto the economy, international reserves had accumulated, and domestic demand began to rise, accompanied by the strengthening of the peso exchange rate. The coefficient of the dummy variables in the equation below thus represents the difference between the coefficients of two equations corresponding to two groups of observations: those until July 1987 and those from August 1987 onward. The fact that the dummy coefficients are significant means that the difference in export performance between the two periods is significant.

The export equation contains, in addition to USY and TC, a variable denoting the level of capacity use (CU). This is measured as the ratio of current level of the index of industrial output to the level in July 1985, which is a base period, when industrial output reached a peak. If exports of manufactures are constrained by insufficient domestic industrial capacity, CU would have a negative sign in the equation.

The results of this estimate are as follows ("t" values in parentheses):

(2) $LXN = -44.4^{**} + 5.78LUSY^{**} + 1.68LCU^{*} + 1.98LTC^{*} + 1.01LTC_{t-3}^{*} +$
$\quad (-5.5) \qquad (3.2) \qquad (2.5) \qquad (2.5) \qquad (1.7)$
$+44.OD^{**} - 4.49DLUSY^{*} - 1.31DLCU^{*} - 2.30DLTC^{**} - 0.86DLTC_{t-3}^{*}$
$\quad (4.0) \qquad (-1.9) \qquad (-1.4) \qquad (-2.7) \qquad (-1.3)$
$R = 0.84 \qquad F = 16.9 \qquad D.W. = 1.50$
* significant at the 95 percent level of confidence; ** at 99 percent

This equation explains rather satisfactorily the changes in the level of manufactured exports during a period when changes in policy and in economic activity were quite significant. The coefficient of CU (although less significant than those of the other two variables) is positive in the equation and therefore suggests that there was not constraint on capacity during the period, but the same is not true of the dummy DLCU. The coefficient of this dummy suggests that there was a significant difference in the constraint represented by existing industrial capacity and that in the second group of observations. From August 1987 onward, the greater use of domestic capacity is no longer associated with export growth.

The same difference applies to the coefficient of the variable that denotes foreign demand (USY) and its dummy (DUSY), which indicates a significant reduction in the second period in the response of Mexican exports to increases in foreign demand. This means that from August 1987 onward, the increase in Mexican exports of manufactures was only 1.29 times the increase in GDP in the United States, while in the first period it had been 5.78 times. The difference is so significant that it leaves no room for doubt that we are observing two different export curves.

This is further confirmed by the significance of the dummies for the current exchange rate (DTC) and the exchange rate lagged three months (DTC_{t-3}). The equations for the two groups of observations can be obtained by subtracting the values of the dummy coefficients from those of the reference group. Such equations are:

(3) Exports of the first period, January 1986 through July 1987:
$X1 = -44.4 + 5.78LUSY + 1.68LCU + 1.98LTC + 1.01LTC_{t-3}$

(4) Exports of the second period, August 1989 through July 1989:
$X2 = -0.4 + 1.29LUSY + 0.37LCU - 0.32LTC + 0.15LTC_{t-3}$

The difference established is that during the first period, exports of manufactures were supported by foreign demand growth, greater use of domestic industrial capacity (since capacity use was very low at the beginning of 1986), and the depreciation of the real exchange rate of the peso.

During the second period, exports continued to be supported by foreign demand, but they increased at a much lower rate in proportion to the increase in demand, and they were not supported by the greater use of industrial capacity, and they were supported by the exchange rate only to a small degree. It is sufficiently clear that export growth during the second period decelerated quite significantly. In fact, export growth during the first period of 18 months was 65.7 percent in current dollars (2.4 percent in constant terms per month); whereas in the second period of 24 months was 30.1 percent in dollars (0.6 percent in constant terms per month).

Changes in output and in the current account in recent years can be observed in Table 1.12.

The appreciation of the real exchange rate also affects national income and demand via the terms of trade. And here the more rapid increase in domestic expenditure than in output during 1988 and 1989 lends further support to the notion that price disinflation is associated in Mexico with a pickup in demand levels owing to the strong exchange rate.

Domestic Economic Activity

Output is likely to increase, with a time lag, as demand-depleted inventories recover. But output will not recover evenly among the different sectors because of their different situations. The varying performance of industries over the past six years suggests that their idle capacity levels differ. Many firms that performed badly did not invest at the rate necessary to renovate worn-out equipment or to keep up with technological change.

With a strong exchange rate and reasonable tariffs, imports will replace domestic production in some industries that have difficulty in meeting demand because of insufficient capacity or lack of competitiveness in price and quality. At the same time, exports should continue growing in those industries that have proved capable of penetrating foreign markets.

The pattern of trade will change, with consumer goods for a time recording the highest growth, until domestic demand finds its new level and the selection process between domestic and imported goods is completed for the market as a whole. From then on, import levels may stabilize somewhat, but the new mix in the typical consumption basket and in the vector of intermediate demand will be different from the present one. This would entail a negative import substitution process, the reverse of what we observed during the 1940s and 1950s, but will not represent in itself any weakness in the new growth model; it will

TABLE 1.12 Output, Demand, and Current Account by Quarter 1986–1989 (1985=100)

Indicator	*1986*				*1987*				*1988*				*1989*	
	1	*2*	*3*	*4*	*1*	*2*	*3*	*4*	*1*	*2*	*3*	*4*	*1*	*2*
Volume index GDP	97.3	98.1	93.6	98.6	96.4	97.8	97.8	104.8	99.2	98.9	98.6	105.3	1,101.1	1,102.7
Imports of goods	86.6	91.1	80.5	80.7	74.0	84.5	94.8	99.5	106.0	127.8	142.1	148.3	137.9	157.0
Exports of manufactures	115.8	134.3	133.6	170.3	162.1	187.2	180.2	195.0	181.7	205.4	206.5	199.4	192.7	220.3
Domestic expenditures	92.7	106.4	104.2	115.8	115.2	115.7	112.1	117.8	123.3	118.1	112.9	115.8	119.8	121.1
Current account (billions of current U.S.$)	-0.5	-0.9	0.7	0.4	1.4	1.4	0.5	0.6	-0.3	-1.5	-1.8	-0.8	-0.8	-1.2
Non-oil current account (billions of current U.S. $)	-2.1	-2.2	-2.2	-1.3	-0.6	-0.8	-1.0	-1.4	-1.1	-2.1	-3.1	-3.3	-2.7	-3.2

Source: Banco de México, *Indicadores Económicos*, October 1989, and our own estimate on constant-price imports and exports.

merely reflect the reallocation of expenditures between imports and domestically produced goods under a new exchange rate and trade regime.

Because we lack analytical and empirical tools to measure the final effects on trade and economic activity, it is impossible to predict the effect of these changes on the rate of industrial employment. The implication is that any employment forecasts must be regarded with suspicion as is also the case with import forecasts, and macroeconomic plans based on employment levels should therefore be abandoned. The recent U.S. experience of rapid employment growth during recovery, mainly in services, contrasted with that of Western Europe, where unemployment has remained high despite a milder recovery. Some increase in unemployment should be expected in the short run, brought about by the restructuring of many industries in response to the new trade regime.

It is possible, given the strength of the economy in the services sector, that some initial recovery would pull workers toward services, where average productivity is likely to be lower than in the industrial sector. This would conform with the deteriorating educational background of the labor force, which follows a 22 percent reduction in real public expenditure per student between 1980 and 1988. The Mexican government would be well advised to revise its labor laws to facilitate the growth in services, especially in small firms that have been responsible for a large part of the employment increase in these sectors. The government should also consider apprenticeship plans for young workers in industrial activities. The training provided would redress some of the negative effects of the falling quality of education. Part-time and job-sharing plans, especially in services, would be a way of increasing employment. An open trade policy will require a supply of well-trained workers for those industries participating successfully in the global economy. Since these industries are located in specific regions, a successful employment policy would require special educational funding for technical schools in identified growth areas.

Potential Growth

Table 1.13 shows the poor record of GDP and gross fixed investment over the last six years and the recovery observed in 1989. Given this record, I doubt growth can be maintained at high rates in the medium term (1990–1992) unless there are sufficient foreign resources available to Mexico. Even so, we do not know the likely strength of the recovery in domestic demand arising from new opportunities created by economic reforms and the expected greater interplay of Mexico and the world