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INDUSTRIALIZATION IN MEXICO: ISSUES AND STRATEGIES

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ABSTRACT

This study evaluates from a historical perspective the consequences of various industrialization strategies adopted by the Mexican governments, identifying with each strategy major issues and constraints on industrial development. In the discussion, special attention is given to the roles of trade and industrial policy in affecting the development of industry. Such issues as protection versus liberalization, export-promotion versus import-substitution, and private sector versus public sector are carefully examined in the context of the Mexican economy. The paper concludes with a critical review of the current administration's industrial policy, and some suggestions for future directions of development for Mexico.

RESUMEN

Este estudio evalúa desde una perspectiva histórica las consecuencias de varias estrategias de industrialización adoptada por los gobiernos mexicanos, identificando en cada una de ellas los asuntos más relevantes y las restricciones en el desarrollo industrial. Se da especial importancia a los papeles de la política comercial e industrial con respecto a su efecto en el desarrollo industrial. Problemas como protección versus liberalización, promoción de exportaciones versus la substitución de importaciones y sector privado versus sector público son cuidadosamente examinados en el contexto de la economía mexicana. Este ensayo concluye con una revisión crítica de la política industrial de la actual administración, y apunta algunas sugerencias para las orientaciones futuras de desarrollo para México.

1. Introduction.

In view of the current economic and financial crisis, unprecedented in Mexico's modern history, it has been argued that Mexico fared fairly well in achieving its short-run objectives of achieving macroeconomic stability. The stabilization program of the de la Madrid administration generated a stunning improvement in Mexico's trade position in 1982 and 1983, and has considerably reduced inflation rates.[1] It must be remembered that the alleged success of the program that helped create trade surpluses was, however, achieved at the cost of employment, real wages, and production (See Table 1). In particular, the severe restrictions on imports required for continued industrial growth, combined with government austerity policies, have wreaked havoc with the country's productive apparatus. The productive capacities on which sustained future growth must rely have been the main casualties of the crisis.[2] Thus, there is a real need now to explore development strategies for establishing a viable industrial structure in Mexico.

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[1] The inflation rate was 99.0 % in 1982 and fell to 81.04 in 1983 and 59.0 % in 1984.

[2] The impact of the crisis on the private sector seems particularly serious. Many firms in Mexico have a dangerously low levels of inventories of materials and parts due to the severe cutback in imports, are operating at less than half of capacity and are unable to pay their debts.

Table 1 Mexico: Major Economic Indicators, 1978-1983

	1978	1979	1980	1981	1982	1983
	(millions of dollars of 1970)					
Real Gross domestic product	60,091	87,460	94,719	102,338	102,174	97,372
Population (millions of inhabitants)	65.7	67.5	69.4	71.2	73.1	74.8
Gross domestic product per capita	1,219	1,296	1,365	1,437	1,398	1,302
	(millions of dollars)					
Trade balance	-593	-1,575	-2,225	-4,658	5,436	14,170
Variation in foreign currency reserves	455.0	356.0	938.0	762.0	-3,185	3,106
Total external debt (at end of each year)	33,946	39,685	49,349	72,007	78,000	82,000
	(Growth rates)					
Gross domestic product	8.1	9.2	8.3	8.0	-0.5	-4.7
Gross domestic product per capita	5.0	6.3	5.3	5.3	-2.7	-6.9
Value of exports of goods and services	37.9	40.8	55.1	23.1	-5.6	-1.5
Value of import of goods and services	47.9	47.4	53.8	30.6	-34.9	-41.9
Consumer prices, December-December	16.2	20.0	29.8	28.7	98.8	80.8
Money Supply (currency and checking accounts)	32.7	33.1	33.5	32.8	62.1	42.0
Minimum wages (annual average)	13.5	16.8	17.8	30.9	52.1	55.4
Open unempolyment rate (percentages)	6.9	5.7	4.7	2.5	6.8	12.4
Total government expenditures	27.1	57.0	60.3	64.1	101.7	72.9
Total government deficit (percentage)	19.7	20.0	16.4	30.3	44.1	30.8
Public Sector deficit as % of GNP (percentages)	5.3	5.4	8.5	14.5	17.8	8.7

SOURCE: Naciones Unidas, CEPAL, "Notas para el estudio económico de América Latina, 1983, México" Report E/CEPAL/MEX/1984/L. 19, May 16, 1984, Mexico, D.F.) or Appendix Table I, W. A. Cornelius "The Political Economy of Mexico Under de la Madrid: Austerity, Routinized Crisis and Nascent Recovery" Mexican Studies Vol. (11), 1985, p. 123.

Compared with other developing countries, Mexico already has a relatively well developed industrial structure. At this level of development, it is hardly necessary to attempt to justify Mexico's efforts for industrialization.[3] The historically important roles played by the industrial sector in the overall development of advanced, industrialized countries are well-known. One simply cannot find a developed economy in which the share of industrial output in GDP is insignificant.

Given the important role of industry in the overall development process,[4] it seems that Mexico, with an industrial base serving the domestic market, must continue to strive for rapid industrialization if it desires to expand opportunities for employment and for the production of basic necessities for the working population. Also, it has been argued that exports of manufactures are more apt to be successful for a country such as Mexico with its

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[3] For a comparative performance analysis of semi-industrialized countries, see B.Balassa, et. al., Development Strategies in Semi-industrial Economies (Baltimore; John Hopkins Press for the World Bank, 1982), pp.38-62.

[4] In addition to the large interindustry linkage effects of expanding the industrial sector on income and employment, there is a reinforcing relationship between industry and market size. Manufacturing industries are generally affected by economies of scale that accompany market size. Some industries continue to improve their efficiency with larger scale. As compared with industry, nonindustrial activities (agriculture and services) generally entail less economies of scale as markets expand. For an empirical study on the efficiency saving related to industrial firm size, see P.A. Yotopoulos & J.B. Nugent, Economics of Development: Empirical Investigation, (New York: Harper & Row, 1976), pp. 149-153.

domestic market potential.[5]

This paper is concerned with development strategies for Mexican industry. A careful evaluation of the government's industrial development strategies is undertaken from a historical perspective, so that the failures and successes of a policy can be identified for future lessons. Although the focus is on the industrial sector, the analysis will take into account, as it must, the linkages between macroeconomic and sectoral behavior. In particular, special attention will be given to the relationship between sectoral and trade policies in Mexico.

The paper begins with a discussion of the origins of Mexico's industry, and its historical role in overall development. It proceeds to examine the current situation, to identify constraints on industrial development as well as possibilities of further development. The paper then turns to an evaluation of Mexico's National Development Plan formulated by the current administration, suggesting recommendations for future directions in Mexico's industrial development in the concluding section.

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[5] See J.N. Bhagwati and T.N. Srinavasan, "Trade Policy and Development," in R. Dornbush & J. Frenkel ed., <u>International Economy Policy</u>, (Baltimore: John Hopkins Press, 1979).

2. Development Strategies from a Historical Perspective.

Historically, Mexico's industrialization started with the development of light manufacturing, textiles, paper, tobacco, etc, and during the Porfiriato days mining and petroleum industries were added for exports. The first integrated iron and steel complex was established in Monterrey around the turn of the century. However, national industrialization on an extensive scale really began during the era of the Great Depression in the early 1930s, when the state started to play a more active role in developing industrial infrastructure. A later boost to industrial development came during World War II, when Mexican manufactures were exported to the U.S market. As seen in Table 2, the historical sequence of industrial development in mexico reveals variations in state industrialization policies.[6]

In the post-world War II period the industrialization strategy turned to the production of consumer goods previously imported from abroad. With the adoption of the 1955 law on New and Necessary Industries, the state has emerged as an active promoter of import substitution (IS)industrialization. High tariffs and other barriers to entry were enforced to protect domestic industries.

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[6] For an excellent discussion on Mexico's development debate, see Denis Goulet, Mexico: Development Strategies for the Future. (Notre Dame, IN: University of Notre Dame Press, 1983).

MEXICO'S INDUSTRIALIZATION FROM A HISTORICAL PERSPECTIVE

	Key features of Development Strategy	Consequences
Before 1930	Primary-sector based Export expansion	Development of an "enclave" economy; structural dualism; distributional inequities
1930-1939	National industrialization based on Keynesianism and Statism	Economic recovery; consolidation of national industries
1940-1970	End-goods import-substitution industrialization	
1940-1958		De-stabilizing growth
1959-1970		Stabilizing development ("The Mexican miracle")
1970-1976	Basic needs-oriented industrialization	Shared development; economic and financial instability
1976-1982	Economic liberalization	Import-dependency; "Dollarization" of the economy; financial and debt crisis
1982-1985	Crisis management	De-industrialization; economic stagnation

The basic framework of the protective system[7] to promote IS industrialization was in many ways strengthened from the early 1950s through the mid-1970s.[8] The industrial growth was supported by state policies that emphasized appropriate infrastructure development, the strengthening of the private sector under protective trade policies, and low-wage and foreign-investment based industrial projects. By the late 1960s, however, the contradictions of this growth strategy began to appear in the form of urban-rural imbalance, internal migration, worsening of income distribution, and excessive foreign dependence.

Criticisms against such a strategy aside, achievements in industrial development, often referred to as "the Mexican miracle," must be given due credit (See Table 3). Among the more significant accomplishments were:

1. During the decade of the 1960s and the first half of the 1970s, gross industrial output in real terms increased at an annual average of 8.5 percent and 6.7 percent, respectively.

2. Imports of manufactures as a proportion of the gross domestic product declined from 10.5 percent in 1956 to 5.5 percent in 1973.

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[7] In 1970 effective protection in Mexican industry averaged 60 percent with a significant rank correlation between the importance of import-substitution in an industry and the level of protection. See A.Ten Kaate, et al., Protection and Economic Development in Mexico, (Mexico City, 1981).

[8] For instance, the value of controlled imports rose to 72 percent of total imports in 1974, from the prevailing level of 6 percent in the 1960s.

3. During the 1960s, Mexico's exports of manufactures grew at an annual rate of 8.5 percent, jumping to an average annual growth rate of 14 percent in the period between 1965 and 1973. This was above the average performance of all developed countries, and was 4 percentage points higher than the average growth rate of world trade in manufactured goods.

TABLE 3

INDUSTRIAL GROWTH IN MEXICO, 1950-1980* — AVERAGE ANNUAL RATES OF GROWTH (%).

Year	GDP	Gross Manufactured ouput	Import of manufactures	Export of manufactures
1950-1960	5.6	6.3	6.8	4.9
1960-1970	7.2	8.3	4.6	8.5
1970-1980	6.6	7.0	10.2	4.8
1970-1974	6.8	7.4	10.4	8.7
1974-1977	4.4	4.1	-7.2	0.6
1977-1980	8.6	6.8	32.2	9.9

* Base on data in constant prices.

Sources: National accounts data published by the Secretario de Programación y Presupuesto and GDP data taken from World Statistical Tables (IBRD).

As a consequence, Mexico by the mid-1970s became the tenth largest country in the world in terms of gross domestic product originating in manufacturing. By 1980, it produced more than 10 percent of the total Third World manufacturing output. The industrial sector still accounts for nearly a quarter of the gross domestic product, and employs about 20 percent of the country's labor force. In terms of the dollar value of output,[9] the size of this sector is far greater than that in such developed countries as the Netherlands, Switzerland, Belgium, Denmark or Norway; second only to Brazil among the group of developing countries; comparable with that of India or Argentina; and twice that of South Korea (Table 4).

State industrialization policies after 1965 also relied on the use of foreign firms to promote manufactured exports from Mexico. Foreign firms, mostly of U.S. origin, were enticed to use cheap Mexican labor under special provisions arranged by the Mexican government. These "maquiladora" industries located on the border soon engaged in processing imported materials for re-export, mainly to the United States.[10] Mexico's exports from the border industries rose from practically nothing in the mid-1960s to 800 million U.S. dollars in 1980.[11] About 50 percent of this can be attributed to value added in Mexico. In gross term, border-industry exports amounted to some two thirds of Mexico's

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[9] See United Nations, Growth of World Industry, various issues.

[10] Duty-free treatment was accorded beginning in the mid-1960s and a tax rebate scheme on manufactured exports (11 percent) was introduced later in 1973.

[11] These "maquiladora" industry activities are recorded in Mexican balance of payments data as "net income from transformation services."

TABLE 4

THE SHARE OF MANUFACTURING VALUE ADDED (MVA) IN THE THIRD WORLD* COUNTRIES, 1973 AND 1980.

1973 Country	Share of MVA	1980 Country	Share of MVA
Brazil	20.62	Brazil	22.65
Argentina	13.79	Mexico	10.85
Mexico	10.70	Argentina	9.85
India	8.76	India	8.27
Turkey	4.18	Republic of Korea	4.46
Venezuela	2.91	Turkey	3.73
Iran(Islamic Rep.of)	2.76	Iran(Islamic Rep.of)	3.02
Republic of Korea	2.71	Venezuela	2.61
Phillippines	2.36	Phillippines	2.51
Peru	2.25	Thailand	2.01
Total	71.04	Total	69.98

Source: UNIDO (1984), Industry In A Changing World, New York.

* Excludes China and other Asian socialist countries.

total manufactured exports in the same year.[12]

Investigation into the sources of industrial growth in Mexico points to the important role played by domestic demand. According to an estimate (see Table 5), the percentage of increased industrial output attributable to the growth in domestic demand was about 90 percent during

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[12] An important issue concerning the development of border industries is the problem of effectively integrating the maquiladora plants with the rest of the economy. There is some evidence to indicate that small-scale local industries have not been effectively integrated to maquiladora plants.

the 1960s, with the remainder explained by export expansion and progress in import substitution. The share of contribution by increased domestic demand was close to, and exceeded, 100 percent for the decade of the 1950s and the 1970s, respectively. Sustained growth in aggregate domestic demand contributed to reductions in the share of imports in the gross value output, and at the same time, to increases in the proportion of manufactured output exported.

As domestic demand expanded, investment opportunities developed, followed by improved industrial organization, realization of scale economies, and incorporation of new technologies in production--all of which further led to increased productivity. This improved productivity with the resulting narrowing of the differences in internal and external prices, promoted further import substitution industrialization as well as expansion of exports. Perhaps more importantly, this may have directly improved Mexico's industrial competitiveness in the world market.

3. Liberalization Policies and the Setback.

Although Mexico's industrial strategy over the past few decades had led to notable achievements in industrial development, as already mentioned, it had certain weaknesses which were manifest during the early 1970s and reappeared in a more acute form during the recent crisis. It is important to properly account for these weaknesses. Between 1971 and

1970s, the Echeverria administration adopted populist, expansionary policies. Mexico started to experience inflation and balance-of-payments difficulties which eventually led to the 1976 devaluation.

The deterioration in the non-oil external payments balance was due in part to a combination of factors related mainly to basic structural problems of the Mexican economy: (1) a progressive stagnation of the agricultural sector with a gradual diminution of surpluses for export; (2) the worsening in the balance of payments in the services; (3) the expansionary fiscal policies that contributed to government budget deficits and inflationary pressures; and (4) the increasing burden of debt to the rest of the world.[13] Thus, even before the process of import substitution could advance to the next stage, these forces dimmed the prospects for a sustained industrial growth. It must not be presupposed that the worsened balance-of-payments situation was entirely caused by IS industrialization policies.

While the decelerated pace of industrialization in the first half of the 1970s was largely caused by balance-of-payments difficulties, the reasons for the slow-down in industrial growth in the second half were quite distinct and

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[13] For instance, foreign short-term public debt alone increased from $ 1.5 billion at the end of 1980 to $ 11 billion by the end of 1981.

TABLE 5

SOURCES OF INDUSTRIAL GROWTH IN MEXICO, 1950-1980.*

Year	Domestic Demand	Export Expansion	Import Substitution
1950-1960	99.4	2.1	-1.5
1960-1970	89.0	2.6	8.4
1970-1980	104.0	3.3	-7.3

* For the method of computing the percentage of increases in output related to each component, see Hollis B. Chenery, "Patterns of Industrial Growth," the American Economic Review, 50 (1960) pp. 624-654.

Source: Mexico, NAFINSA, Future Directions of Industrial Strategy, Mexico City, 1980 (mimeo). p. 35.

largely related to abrupt changes in economic policy.

The Lopez-Portillo administration (1977 -82), in an effort to resuscitate the stagnant Mexican economy inherited from the previous administration, quickly resorted to an expansionary policy to stimulate aggregate demand, while increased production and imports could hold down inflation.

The strategy was based on the sudden prospects that the discovery of large oil reserves, supplemented by foreign borrowing, would open the possibility of quickly overcoming the balance of payments constraint and of undertaking expansionary economic policy. The policy framework during the period of 1976-1981 was comprised of two main elements; the first relating to the macroeconomic strategy and the second specifically to the industrial sector. The macroeconomic strategy called for expansionary government spending and trade liberalization. While maintaining a relatively stable nominal exchange rate regime and negative real interest rates,[14] the government resorted to subsidized prices for energy and other basic goods to moderate domestic inflationary pressures. Sector-oriented policies included an incentive system for promoting private investments as well as public-sector investments in "strategic" branches of the industrial sector. Despite the liberalization measures, effective protection levels, reflecting the effects of subsidized inputs to industry, still remained sufficiently high to provide incentives for industrial expansion.[15]

The industrial sector quickly benefitted from these sectoral policy measures. While the real gross domestic product grew at annual average rate of 8.5 percent between 1978 and 1982, industrial output grew at a faster rate of 9.6 percent. The average annual rate of employment absorption in manufacturing reached 5.4 percent and real investment in industry increased by nearly 16 percent per annum. Private-sector investments, largely induced by a new input subsidy scheme, were particularly marked in industries producing intermediate goods intensive in the use of energy

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[14] It may be noted that these factors combined were largely responsible for the acceleration of the 'dollarization' of the Mexican economy during the period.

[15] According to Nacional Financiera data, in 1979 an average effective subsidy rate in intermediate goods industry in Mexico was about 25 percent, and 79 percent in a few capital-goods industries, in contrast to a negative rate in the food-processing industry.

as well as capital goods.

The manufacturing sector, however, after the initial expansion in 1978 and 1979 at an annual growth rate exceeding 10 percent, slowed to that barely exceeding 7 percent in the following two years. This decelerated pace of growth was accompanied by increases in imports of industrial origin and the attendant balance of payments difficulties.[16] In real terms, imports rose by nearly three times between 1977 and 1981. This contrasts with the earlier 75 percent increase registered between 1960 and 1978. Strikingly, imports of consumer goods experienced the largest relative increase. Their share in total imports jumped from 6 percent in 1977 to 12 percent in 1981.[17]

An expansion of this magnitude quickly turned out unsustainable, even with a massive export of crude oil. By 1981 Mexico exported 14 billion dollars worth of crude oil, an amount equal to four times the year's current account deficit. Imports, however, continued to exceed increases in oil revenue with the resulting sizable trade deficits that persisted throughout the 1978-1981 period. For instance, in 1981 total imports reached 24 billion dollars with a trade deficit of close to 5 billion dollars.

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[16] A prevailing view has been that an "overheated Mexican economy" stemming from the expansionist government policy was a fundamental cause of the balance of payments problems. A counterargument is given in the discussion that follows.

[17] Imports of machinery for manufacturing activities also experienced increases with their share in the total rising from 49.4 percent in 1977 to 52.1 percent in 1981.

In the meantime, Mexico continued to borrow from abroad in the attempt to make up for trade deficits and the losses of capital due to its outflow. The total external debt reached as much as 78 billion dollars by 1982 (Table 1). Finally, precipitated by the collapse of oil prices and the rapid rise in interest payments on foreign debt[18] as well as by destabilizing speculation on the peso, the financial crisis stemming from external payments problems culminated in 1982. At the same time, the influx of imports began to adversely affect growth of domestic industries. More importantly, it led to retardation in the development of the intermediate and capital-goods sectors. Within a few years following liberalization measures, the level of investment in these sectors drastically declined as intermediate and capital-goods imports increased sharply.

Various reasons have been advanced for this explosive growth in imports. First of all, there is an explanation seeking the answer in terms of the deterioration of the competitive position of Mexican industry in the world market, which was caused by the accelerated inflationary trend seen during the period. As the inflationary pressures that followed expansionary domestic policy measures mounted, the government's response in order to hold down inflation

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[18] By 1982, debt service payments accounted for 37 percent of Mexico's total export earnings. About a half of the increased debt service was attributed to the rise in interest rates in international capital markets. The short-term LIBOR on dollar deposits rose from an annual average rate of 9.5 % in 1978 to 16 % in 1981.

was to maintain an overvalued peso. Despite an exchange rate policy which permitted the peso to slowly appreciate in real terms following the initial devaluation in 1976, the average unit cost of Mexico's industries relative to that of its trading partners seemed to have remained at a competitive level until well into the late 1970s. Thus, the overvalued peso as well as a rapidly growing economy may have stimulated imports to some extent, but these two factors alone cannot explain the sudden explosive growth in imports.

The second hypothesis contends that as a result of the government's expansionary demand management, bottlenecks in certain sectors characterized by excess demand in relation to installed capacity developed. But this still does not explain why there were substantial increases in income elasticities of import demand in a large number of industries that were not particularly constrained by capacity limits. Moreover, the period of 1977-1981 witnessed substantial investments in industries from both public and private sectors.[19] This should have reduced demand pressures on capacity utilization with a resulting reduction in elasticities of import demand. As is well known, the opposite happened: values of import demand elasticities increased greatly instead of diminishing. There

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[19] Note that foreign investment still represents only 4 percent of total investment in plant and equipment in Mexico, and is not significant.

is also evidence that rates of capacity utilization in industry decreased during this period. This seems to contradict the bottleneck theory for explaining the explosive expansion of Mexico's imports.[20]

The third explanation is that the import boom during the period stemmed from the abrupt shift in economic policy from protection to import liberalization. The government had simply anticipated that oil revenue would continue to increase at least at a rate sufficient to offset any adverse consequences of the overvaluation of the peso. Import liberalization was considered imperative to reduce the existing bias against exports, and thereby to raise levels of industrial efficiency by integrating Mexican industry with that of the rest of the world.

The Mexican government in fact turned to export promotion when it encountered increasing difficulties in the balance of payments. As a means to promote an export-conscious industrial sector, it resorted to various forms of subsidies to exporters, precluding the use of imported inputs in export production when domestic substitutes were available. Thus, at the beginning of the 1970s, manufactured goods exports constituted only 4 percent of the gross value of industrial output with processed foodstuffs accounting

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[20] For empirical evidence, see J. Eatwell, and A. Singh, "Se Encuentra 'Sobrecalientada' la Economia Mexicana? -- Un Análisis de los Problemas de Política Económica a Corto y Mediano Plazo y Post Scriptum," Economia Mexicana No. 3 (1981), pp. 253-278.

for only about one third of export sales. Exports of industrial goods rose to 5.5 percent of the value of industrial output by 1978.

This effort for export promotion was soon accompanied by policy measures that permitted increased imports. In particular, the dismantling of quantitative controls on imports proceeded rapidly during this period and equally embraced consumption, intermediate and capital goods. Even for industries subject to import controls, import licenses were issued automatically and indiscriminately. Quantitative controls were eventually to be replaced by tariffs yielding equivalent protection, but these were never implemented. The average level of tariff net of subsidies, drastically declined over the period.

By mid-1981, the structure and level of industrial protection was not significantly different from that prevailing in other member states of GATT (General Agreement on Tariffs and Trade), the agreement Mexico has repeatedly boycotted. Moreover, unlike many of the signatory countries, Mexico lacked indirect, subtle mechanisms of protection such as anti-dumping legislation or other industrial or sanitary regulations.

Related to import-liberalization, there are two other important causes of huge deficits in Mexico's external account. First, the Lopez-Portillo administration's expansionary fiscal policy led to sizeable deficits in the public sector, which had to be financed mainly through external borrowing. The economy's productive apparatus was unable to meet the demand stimulated by large public-sector spending. As a result, imports increased dramatically.

Secondly, coinciding with the expansionary policy, the administration adopted policies to further liberalize international capital movements. Mexicans were allowed to open dollar accounts in banks with virtually no controls on flows of foreign exchange. In the face of speculative uncertainties concerning the value of the peso, liberalization of capital markets accelerated the "dollarization" process of the Mexican economy.

In a rapidly "dollarizing" economy shrouded by an atmosphere of unstable currency speculation, no monetary or devaluation policy by itself is likely to be able to halt the deterioration in the external equilibrium. An expansionary monetary policy would clearly be inflationary, leading to increased trade deficits. On the other hand, the tightening of monetary policy would not be helpful either. As the supply of pesos diminishes, demands for dollars are likely to increase, thereby causing depreciation of the domestic currency. The result, then, is a spiral of devaluations followed by inflationsuch as occurred in the waning days of the Lopez-Portillo administration.

4. Protection vs. Liberalization in the Mexican Context.

One of the most important policy options developing country policy-makers are always faced with is that concerning economic liberalization vs. protectionism. Thus, the pros and cons of this option need to be more carefully evaluated in terms, of their economic consequences for Mexico.

Protective policies are generally criticized for promoting inefficiency in industry. The main thrust of the argument is based on the orthodox proposition that free trade results in an optimal use of society's available resources.

It is important to keep in mind, however, that the argument reflects a static point of view, and perhaps the more important issue should relate to the dynamic effects of protection. There is, in particular, little certainty that investments channeled into specific branches of industries will be the ones turning out dynamically viable and efficient. Those industries judged as efficient in the static sense of comparative advantage may not necessarily be the ones in which productivities and technical progress will advance most rapidly; nor will they necessarily become industries whose products command large demand elasticities. Obviously, from a long-run viewpoint, protection must not be used to support dying or out-of-date industries. However, by concentrating protection, if necessary, on those industries where income elasticity of demand as well as interindustry linkages in production are expected to be high, Mexico could hope to employ a rapidly growing labor force.

It is also argued that given the limited size of domestic markets in a developing country, protection creates monopolistic and oligopolistic market structures that lead to distortions in the allocation of resources across industries. The monopolistic gains accruing to the producers under a system of protection could be eliminated by trade liberalization policy.

Theoretical issues aside, there is no strong evidence to suggest that the inefficiency cost of protection would be particularly exorbitant for countries like Mexico. The studies show that for the developing countries on average it amounted to less than 3 percent of the gross domestic product.[21] The cost of protection is likely to be lower in a country such as Mexico with a relatively large domestic market. In any case, as pointed out by many Mexican economists, if a greater degree of competition is necessary to promote industrial efficiency, this can be done through encouraging competition among firms operating within the confines of the domestic market. In this regard, it must be

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[21] See J.Bergman, "Commercial Policy, Allocative Efficiency and X-Efficiency," _Quarterly Journal of Economics_ 88 (1974): 409-33, and World Bank, _Mexico, Manufacturing Sector--Situation, Prospects and Policies_ (Washington, D.C., 1979.)

noted that Mexico's system of protection in the past encouraged private-sector investment. The sudden dismantling of the protective mechanism under the Lopez-Portillo administration adversely impacted investment activities in the industrial sector.[22] Thus if the system of protection is considered to have caused an excessive inefficiency in Mexican industry, the solution to this is not an abrupt dismantling of the protective mechanisms but the rationalization of protection. It should involve the revamping of protective structures according to a timetable determined in advance, as the protected industries mature.[23]

It is also argued that trade liberalization, by expanding exportable output of labor-intensive industries in Mexico, increases employment of wage-earners, thereby leading to a more even distribution of income. While it is true that the protective system installed in Mexico to carry out IS industrialization in the past caused the worsening of income distribution, there is no clear evidence to suggest

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[22] In particular, a large number of foreign firms have invested in Mexico, seeking the benefits of tax shelters under protection. They would be unable to penetrate the market in any other way. With the removal of tariffs many foreign firms will likely decide to divert investments from Mexico.

[23] Other costs of protection, according to the traditional theory, include adverse impacts on economic growth, in particular on productivity improvements. Although a few empirical studies confirmed the presence of positive correlation between output growth and export activities, it must be noted that these studies typically covered the "golden age" period of world trade in the 1960s and in the early1970s. See B. Balassa, et al., Development Strategies in Semi-Industrialized Economies, p. 56.

that changes in trade policy alone would be sufficient to induce improvements in the distribution of income. A recent study shows that the distribution of income in Mexico is not related so much to structures of foreign trade as to such structural factors as land-tenure systems, wealth distribution, and human capital stocks.[24]

Lastly, related to trade strategy and equally significant is the policy issue concerning capital movements liberalization vs. exchange controls in the context of the Mexican economy. As Mexicans were allowed a free hand in converting from pesos to dollars, the ballooning current-account deficit in the balance of payments that began to appear from 1979 on (Table 1) precipitated speculation in the devaluation of the peso and a flight out of pesos into dollars. The Lopez-Portillo administration was unwilling to impose any forms of exchange controls, and instead in its final days, resorted to other policy instruments that included the peso devaluations, rises in interest rates, and fiscal measures to reduce the budget deficit. The government policies failed to improve the conditions of the economy. The public response was capital flight in the form of deposits in foreign banks, purchases of foreign securities and real estate in the United States.[25] Thus, the

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[24] See K.S. Kim & G. Turrubiate, "Estructuras del Commercio Exterior y sus Efectos en el Contenido de los Factores, el Empleo y la Distribución del Ingreso en México," _Trimestre Económico_, (October-December 1983) pp.2173-2192.

[25] The total amount of Mexican assets abroad as of 1982

process of Mexico's de-industrialization was accompanied by a serious drain on foreign reserves, which was fueled by the capital flight in enormous quantities.

In summary, there seems really no assurance that in the future the liberalization policy based on the faith that the market mechanism automatically ensures a sustained, equitable economic growth, will provide a viable basis for Mexico's industrial development. More likely, the net effect of such a measure is to cause a more severe depression of domestic industries than the previous import restriction measures could have inflicted. There have been a number of precedents for such cases, including England, Chile, and Argentina. In those countries, the recession was combined with inflation and recurrent balance of payments problems. Mexico could find itself in a permanent crisis without the prospects for a sustained development process into the future.

5. Issues with Export-Orientation.

In principle, policy measures for correcting external disequilibrium must aim at reducing import dependency through import-substitution, expanding export industries, or implementing some combination of both measures. Having already considered the case of import substitution, we now

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was estimated in the range of 30 to 40 billion dollars.

turn to that of export-orientation in the Mexican context. The question that must be asked is: Is it realistic to assume that Mexican industry will be capable of overcoming its tendency toward external disequilibrium through promotion of manufactured goods exports?

The answer to this question is not simple. The reason for this lies in the profound changes in the world economy that have taken place in recent years. If one considers the historical evolution of the world economy, the post-World War II period until the first oil crisis in the early 1970s can be viewed as the "golden age" of world trade. During this period many developed countries could attain and sustain a rapid, near full-employment growth rate, which stimulated expansion of the world market. As a result, the developing country share of the total world industrial output climbed from 6 to 9 percent. The fruits of this world trade expansion were reaped, in particular, by those Newly Industrializing Countries (NICs), including Mexico. A few NICs registered as much as 14 to 16 percent annual growth rates, which undoubtedly contributed to their sustained drive for rapid industrialization.

This process came to an abrupt halt in the early 1970s. From 1973 to 1978 the total volume of world trade in manufactured goods grew by 5 percent annually between 1950 to 1970. The growth rate of the NICs declined to about 9 percent while Mexico's growth dropped to 7 percent. More recently during the 1979-1983 period world trade in manufactured goods stagnated, which began to severely affect the economies of the NICs. The neo-protectionist policies of industrialized countries appear to have discriminated against exports from the NICs.

Mexico was no exception to this trend. For instance, the United States, which has accounted for the lion's share in Mexico's total trade, recently imposed a number of restrictive measures against Mexican exportables. In 1980 the U.S. excluded some fifty Mexican export products from its generalized system of preferences. An additional forty-four products were added to the list the next year. The U.S. government was also obligated to impose a countervailing duty on Mexican export products benefitting from Mexican government's subsidy. Thus, in the first four months of 1981 Mexico's trade deficit with the United States reached 1.4 billion US dollars, nearly twelve times the deficit for the same period in 1980.

Although the prospects for world trade have somewhat improved since, to date there is little evidence that the industrialized countries have sufficiently recovered even to absorb imports from many developing countries enough to cover their debt-services. The world economy is expected to grow much more slowly than it has in the past. It is unlikely that the economic growth of the industrialized world will by itself be sufficient to return developing countries to economic growth rates comparable to the past. On top of this, the adverse impact of the recent recession in the industrialized countries on developing country terms of trade has proven to be longer-lived.[26] Given the dim prospects for an immediate terms-of-trade reversal, worsened export prices facing developing countries are likely to impinge on their efforts for export expansion.

Thus, there is a need for developing countries to reevaluate the relationship between growth and trade, and particularly the role of exports in overall development. In this respect, the structuralist argument popular in the 1950s and 1960s in Latin America gains a new momentum. Unless the current world recovery turns out to be a very strong one, the argument is likely to focus on two policy dimensions: renewed emphasis on import substitution strategy, and policy priority on technical and economic cooperation among developing countries. The structuralist argument lost its cogency during the period of trade prosperity when the opening of the economy seemed a key to the success in industrialization.

Many economists cite the experiences of the East Asian countries during the 1960s and 1970s (South Korea, Taiwan, Singapore, and Hong Kong) as model cases of the export-oriented strategy. It is important to remember, however,

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[26] The terms of trade confronting the Latin American countries fell by 13.6 percent between 1980 and 1982. See International Monetary Fund, World Economic Outlook, 1983, Table 14, pp. 183-184.

that their success was achieved under the rather propitious circumstances of expanding world markets. These countries, to begin with, were relatively small in size of the market and had no options but to open their economies to world markets. The largest of the so-called "Gang of Four", South Korea, today has a manufacturing sector which is only a half of Mexico's. The East Asian economies have structural characteristics very different from those of industrializing countries of relatively large size.[27]

In this connection, there is a other reason for being concerned with trade liberalization policies for Mexico. A recent study shows that about a half of Mexico's manufacturing exports are related to intra-firm transactions by the multinational firms in Mexico.[28] This leaves these exports vulnerable to the economic activities of parent firms in their countries of origin. The automobile industry in Mexico is a case in point. Despite large investments in plants in Mexico, export-oriented production has not materialized because of the recent depression of industries in the United States.

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[27] For discussions on South Korea's export-oriented strategy, see Kwan S. Kim, "Industrial Policy and Industrialization in South Korea: 1961-1982," Helen Kellogg Institute for International Studies Working Paper, 39, University of Notre Dame, 1985.

[28] R. Ramirez de la O, "Mexico-U.S. Trade and Foreign Investment: A Firm Level Study of International Trade Pattern of American Firms in Mexico." Ph.D dissertation, University of Cambridge, 1982.

6. Towards a Synthesis in Strategy.

The principal conclusion emerging from the foregoing discussion is that during the current decade many Third World countries, including Mexico, may have to rely, much more than in the past, on the dynamics of their own internal markets and domestic competition for economic growth.[29] For example, even Japan, whose success in manufacturing exports cannot be questioned, is an economy in which total exports constitute a relatively small proportion (12 percent) of its gross domestic product, and whose growth has depended mainly on the expansion of internal markets. It will of course be easier for a relatively large developing country like Mexico to pursue a domestic market-oriented industrialization strategy. A large market is a prerequisite for the development of scale economies in production, which is indispensable for a sustained industrial growth. A recent study finds that Mexico's internal market is sufficiently large to justify installation of a large number of industrial plants for producing capital goods.[30]

The industrial strategy described above by no means implies an economic autarky. It is clearly wrong to advocate an import-substitution strategy on the assumption

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[29] The National Industrial Plan prepared by the Secretaria de Patrimonio y Fomento Industrial and the Global Plan formulated by the Secretaria de Programación y Presupuesto also subscribe to this view.

[30] See NAFINSA-ANODI, A Strategy for Developing Capital Goods Industry in Mexico. (Mexico City, 1977).

that Mexico's domestic markets can support virtually all industries. There is no question that Mexico must continue to rely, to a large extent, on international specialization to ensure efficient production in many non-traditional industries. Given the current circumstances, some emphasis on exports will be inevitable, since massive new foreign credits will no longer be accessible to Mexico, and Mexico must learn not to rely excessively on revenues from oil exports.

Measures for export promotion must be industry-selective, based on the principle of complementarity with a viable industrial structure for the economy. In this context, it is important to realize that in pushing for exports, Mexico's major problem is not so much the overpricing of its exports as its lack of marketing skill and connections. What Mexico needs to develop is an improved contact with large marketing channels abroad, as many other developing countries will be counting on exports to the industrialized countries to bail them out of economic difficulties.

On the other hand, import-substitution possibilities must not be overlooked for industries where demand growth is expected to be more dynamic (engineering and durable consumer goods),[31] or where economy-wide linkage effects in

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[31] This refers to the case in which the income elasticities exceed one.

production are substantial (capital goods).[32] In particular, despite Mexico's rapid industrial expansion over the three decades 1950-1980, its capital goods industry is much less well developed than other industrializing countries like Brazil, South Korea, Taiwan and India. Currently, capital-goods and intermediate goods inputs account for close to 90 percent of total imports.[33] Thus substitution of capital-goods imports by domestic production may be one of the few remaining possibilities for Mexico.

Available studies indeed show that the domestic market size and technological capacity for producing capital goods should not provide real obstacles to sustained progress any more in Mexico than in other leading Newly Industrializing Countries.[34]

It must be realized, however, that for Mexico the easy stage of import substitution is over. Given the relative scarcity of physical and human capital in Mexico, an inward-oriented strategy is likely to entail rising costs, as requirements for skilled labor as well as for intermediate and capital goods tend to increase at the next stage of

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[32] It is important to note that as shown by the historical experiences of many countries, export possibilities generally follow a full development of domestic market-oriented industrialization.

[33] The recent balance of payments statistics show that Mexico's capital-goods imports during the first quarter of 1984 amounted to as much as 11 billion U.S. dollars, which represented an increase of 5.6 percent over the previous year.

[34] See NAFINSA-UNIDO (1979). The Supply of Capital Goods in Mexico. Mexico, D.F.

import substitution.[35] Also, internally-oriented industrial sector development cannot, however, be expected to result in an immediate reduction in imports, nor can it be expected to quickly reduce the size of import coefficients. Expansion of industries oriented toward the domestic market is likely to generate, at least initially, an increased demand for capital-goods imports from abroad.

Thus, the long-term solution to Mexico's economic problems will require that it relies on more eclectic development strategies, including expanding the capacity for both traditional and high value-added nontraditional exports and strengthening its high-linkage import substitution industries. In this context, the widely-held view tells us that import-substitution oriented policy in the past has discriminated against export expansion. A careful analysis, however, does not justify this assertion. As has been shown, it was precisely during the period when import controls were rigorously imposed that performance of exports was satisfactory on its own terms as well as in relation to other countries. If import substitution policy does cause an excessive bias of incentives against the export sector, the industries that are to be promoted can be provided with production subsidies on a value-added basis rather than

[35] Similar results are likely to follow even with an export-oriented industrialization strategy for Mexico. As a newly industrializing country, Mexico is unlikely to be able to continue to sustain export expansion in traditional, labor-intensive manufactured goods. Capital or technology intensive export efforts are likely to be costly for Mexico.

through import protection, inasmuch as they can be financed from budgetary revenue generated by oil exports. In this way, excessive distortions that would have favored capital-intensive activities in the past can be ameliorated.

In the long run, as the Japanese experience reveals, there does not have to be a conflict between a domestic market-oriented IS strategy and other complementary policies leaning toward export promotion. History is replete with other examples of industries developing with a growing domestic market and gradually expanding to markets abroad.[36] Indeed for Mexico a fully-developed industrial structure with its diversified products in a growing domestic market would form a better basis for future expansion of manufactured goods exports. Thus, in the future when the world economy recovers, a better strategy for promoting exports should still be based in large measure on a set of policies aimed at consolidating a dynamically viable industrial structure.

I. Other Policy Issues.

At present, another crucial issue facing Mexico is: what policy measures must be adopted to encourage investment in plants and equipments required for strengthening the

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[36] See, for example, the argument by S.B. Linder in _An Essay on Trade and Transformation_, (New York: Wiley, 1961).

productive structure of industry? How can Mexico finance the production that such a reindustrialization strategy presupposes?

Mexico faces a really serious problem on the supply side of investment capital. Under the corrosive effects of inflation and economic stagnation, domestic savings in Mexico have declined drastically in recent years.[37] To this may be added the effects of the recent devaluations and high interest rates, which undoubtedly have generated further disincentives to investors. Prospects for obtaining funding from external sources have similarly diminished. First of all, resources of multilateral donor agencies have recently been greatly strained because of large commitments of involuntary lending to the developing world. And given the current debt problems in Latin America, banks in general are taking a much harder look at international operations, and Mexico will also be in stiff competition not only with other Latin American countries but with other developing countries with a better risk perspective.

In order to mobilize domestic savings, it is imperative for the recently nationalized banking system to recapture public confidence in the financial system. In this regard, the recently reduced inflation rates and high deposit rates

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[37] Currently, the Mexican banking system has high liquidity due to increased peso deposits by the firms that owe dollars that they cannot obtain for settlement of their foreign accounts. This phenomenon is temporary, pending restoration of mechanisms for the payment of foreign debts.

offered by the banks seem to have encouraged some domestic savings.[38] It is clear, however, that domestic savings alone are not likely to be sufficient to support economic recovery. Mexico will clearly need to supplement domestic savings by external capital. That is, a much larger role played by foreign investment in the restructured economy is to be anticipated. There is a need to define areas within the industry in which to encourage foreign investment, and to reexamine possibilities of relaxing foreign investment controls. Foreign investors have been cautious because of the economic uncertainties prevailing in the country.[39]

Related to foreign investment, another important issue is: How can the domestic market be expanded without disproportionately stimulating aggregate demand and without incurring external payments deficits? Sufficient reductions in government spending are an obvious option, which is currently undertaken as part of economic stabilization measures. However, since the bulk of government spending in Mexico is on social welfare and on subsidies for production of basic needs goods, there is a real limit to the reduction in spending. Apparently the other inevitable option is to restore measures of restricting imports, at least during a

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[38] According to an estimate, deposits placed with the banking system increased to 509 billion pesos during the first half of 1983, as compared with 421 billion in the first semester of 1982. See F. Solana, Banco Nacional de México, Mexico City; <u>Review of the Economic Situation of Mexico</u>, (July 1983).

[39] Total foreign direct investment fell from $1 billion in 1981 to $400 million in 1983.

transitional period of adjustment.[40]

It seems unavoidable that if Mexico is to escape from balance-of-payments difficulties in the foreseeable future, exports must play a more contributory role. In this regard, excluding the cases of manufactures trade that are highly sensitive to the real exchange rate,[41] a devaluation policy that relies on the working of the pricing mechanism to correct disequilibrium may not be effective for Mexico in view of the expected delay in the realization of its effects and the consequent inflationary impacts.[42] The difficulty is that increases in export supply generally require a long-term gestation period in a developing country. Over this period, as revealed by the recent Mexican experience, attendant inflationary pressures will set in motion the subsequent,

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[40] Reliance on the pricing mechanism for correcting payments deficits is generally considered relatively ineffective in a developing country like Mexico. Some Mexican economists contend that a more effective method is to employ an innovative system of quantity controls on a selective and judicious basis.

[41] For instance, textiles and clothing among non-durable consumer goods have been identified as tradeable goods generally sensitive to the real exchange rate.

[42] For a rigorous estimation of the influences of exchange rate policy, we need to calculate real effective exchange rates--a measure of the real rate after adjusting for changes in export incentives. Because of the lack of data, no such estimates exist for Mexico. However, heuristic evidence exists that shows a general ineffectiveness of exchange rate policy. For instance, between 1970 and 1977 Japan's world market share of manufacturing goods exports increased by 4 percent, despite the fact that her unit cost, measured in dollars, increased at an annual rate of 24 percent. On the other hand, during the same period the share of the United States and England in the world's total manufactured goods exports decreased by 3 and 2 percent respectively, although their respective unit cost increased by only 8 and 14 percent. See OECD, " The International

nominal devaluations of the currency, larger every time, with the resulting reduction in the real wage rate and its adverse impact on income distribution. Indeed, the recent devaluation episode tells us that the stunning improvement in Mexico's current account is mostly the result of a severe cutback in imports through import controls rather than through an expansion of exports.

As argued by many Latin American structuralists, the developing economies are generally characterized by a structural rigidity. Thus, apart from the argument of price-inelasticities in developing country trade sectors, the attempt to stimulate exports by changes in the nominal exchange rate may quickly precipitate inflationary pressures, rendering exchange rate policies largely ineffective. In addition, since many Mexican industries have been operating at an idle capacity of production, the economic rationale of seeking allocative efficiency through devaluation may be questioned.

The success of devaluation policy also depends on the tolerance of the trade unions and workers to accept the reduction in real wages that normally accompanies a devaluation in the short run. Apart from the question of whether or not Mexican workers will in the "national interest" accept any prolonged stagnation in the living standard, a policy of currency devaluations has its costs

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Competitiveness of Selected OECD Countries," Economic Outlook, (Paris, 1978).

in terms of an undue burden imposed on less privileged classes of society.

Once adequate growth in the internal market is secured, other policy measures complementary to import restrictions can be instituted. Among these would be: legislation to redistribute monopolistic gains accruing to protected industries, industry-wide coordination in capital and intermediate goods production, expansion of consumer-goods production to accommodate a growing market, preferential financial terms for capital and intermediate goods industries which generally call for long-term investment, and selective use of subsidies to basic needs goods producers in lieu of price controls.

For Mexico, the wisdom of policy to rely on massive devaluations of its currency can be questioned. There is some evidence to suggest that in manufactured goods trade international price differences are less important than differences in product quality or technological innovation.[43] Moreover, the bulk of Mexico's export earnings in recent years have derived from oil and oil-related products, whose supplies are relatively price-inelastic. If anything, devaluations are likely to cause a deterioration

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[43] Using the recent time-series data, Brailovsky found no significant correlations between Mexico's share of exports in world markets and the real exchange rate. See V.Brailovsky, "Exchange Rate Policies, Manufactured Exports, and the Rate of Inflation," Working paper for the Institute for Industrial Planning, Ministry of Natural Resources and Industrial Development (Mexico, 1981).

in the country's terms of trade. The use of frequent devaluations as an instrument to correct external disequilibrium has also serious implications for the level and structure of investment. Frequent fluctuations of exchange rates make planning difficult not only for the government but also for the private sectors. Likewise, as evident in the recent Mexican experience, a devaluation can quikcly lead to inflation and higher interest rates which, even under a sustained demand expansion, will discourage investment, particularly in heavy industrial projects. Thus, although from a short-run viewpoint, devaluation can conceivably be used as part of a policy package designed to solve the balance-of-payments problem, it is clear that it must not be relied on as a strategy for long-run expansion of the economy.

Moreover, in Mexico more than a half of total exports in manufactured goods and in particular more than three quarters of metal mechanical products exported take the form of intra-firm transactions by multinational firms. In the capital-goods industry, subsidiaries of multinational firms mostly carry out capital goods exports. Relatively few exports mainly concentrated in equipment for the oil industry and agricultural implements are exported by Mexican firms.[**] Since many multinational corporations resort to so-

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** C.J. Dahlman and M. Carters, "Technological Exports from Mexico as a Starting Point in the Study of Technological Capability," <u>World Development</u> (forthcoming), 1984.

called transfer pricing, and their export of such products as automobiles and automobile parts is regulated under the export-import link system, an overvalued domestic currency may have relatively unimportant influences over their export activities.

Indeed, available evidence shows that the overvalued exchange rate during the 1978-1981 period[45] did not deter the steady growth in Mexican exports, although the volume of manufactured exports declined somewhat. Total exports rose by 9 percent annually in real terms, as compared with 6.7 percent in 1971-76.[46] The decline in Mexico's manufactured goods exports cannot be solely attributed to an overvalued peso. More likely, the world-wide recession, particularly as it afflicted the industrialized countries more severely, had more to do with decreased demands for manufactured exports from developing countries.

If continuous devaluations are not going to work, other policy instruments are available for correcting distortions without subjecting the economy to inflationary or other repercussions.[47] In this regard, it is worth noting that the

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[45] It is well to remember that under the 1979 program of industrial development the Mexican government provided the production subsidies to exporters. This partially offset the effects of the overvalued peso.

[46] See Van R.Whiting Jr.,"Markets and Bargains: Foreign Investment and Development Strategies in Mexico," in Donald L. Wyman ed., <u>Mexico's Economic Crisis: Challenges and Opportunities</u>, Center for U.S-Mexican Studies, University of California, San Diego, 1983. p. 62. Also refer to Table 1 of this text.

[47] The current administration's strategy calls for maintaining a dual exchange rate system, while it will

total number of major manufacturing export firms in Mexico is less than 600, a relatively small number when considering financial and fiscal support--perhaps in the form of subsidies or tax rebates.

8. Present Strategies: Issues and Challenges.

The de la Madrid administration inherited the two challenging tasks of resolving the short-term foreign exchange and debt crisis and of laying the basis for long-term recovery. In regard to the industrial sector, the key element of the recovery plan is the restructuring of the industrial sector in order to expand export capabilities on the one hand, and to reduce the economy's import dependency on the other. The new strategy envisaged a leaner, more productive public sector; an increased role for the private sector; greater integration of the economy into the global economy; the 'deepening' of import-substituting industrial structure, especially for industries considered vital for decreasing Mexico's import requirements; and a shift to more labor-intensive activities that includes institution of an integrated rural development program.

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continue to adjust the basic rate on a daily basis by a pre-announced fixed amount in order to reflect the domestic-international inflation differential. Imports required for domestic production, however, will be made available on an overvalued exchange rate.

Clearly, the new programs for recovery[48] constitute a welcome departure from the traditional strategy that envisioned the role of a populist, spendthrift state. Nevertheless, the effectiveness of some aspects of the new strategy has to be reexamined in the light of the current domestic and global economic conditions.

The first point to note is the emphasis placed on promotion of non-petroleum, manufactured goods exports. Although Mexico's long-term interest clearly lies in a sustained expansion of nontraditional exports, at present in the face of deteriorating world trade prospects for developing countries, overplaying the importance of promoting nontraditonal exports is not in the immediate interests of Mexico. The more realistic alternative would be the strategy of "deepening" IS industrial structure in such sectors as intermediate and capital goods, while limiting the country's export effort to traditional goods as well as manufactured goods through expansion of the border industries.

Secondly, the Administration's trade policy that relied on the devaluation of the peso to improve the trade balance seems so far to have had very little effect on Mexican exports. The value of exports, mainly in oil products, increased 11 % in January-March of 1983 over 1982, but non-oil exports in fact fell by 9.3 percent. Although imports

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[48] The policy framework is contained in National Development Plan for 1983 - 1988.

declined substantially (70 % in the first trimester of 1983), this was caused not so much by the devaluations of the peso as by the contraction of the economy. Even in the medium run, it is questionable how effectively the devaluation can contribute to Mexico's trade balance since faster rates of inflation have frequently been accompanied by successive devaluations of the peso in the past.

The third point to note is that the National Plan places the emphasis on control of domestic aggregate demand. The immediate issue of a contractionary policy is not how far the government budget deficits can be reduced, but how much more hardship can be endured by the lower classes. Their living standardshave already declined by as much as one third since the government initiated austerity programs in 1982; wage increases have lagged considerably behind inflation without evidence for reductions in open unemployment, and prices of basic-needs goods have continued to rise significantly. This seems to have happened in spite of the government's efforts to fund employment programs and to exercise price controls over the basic-needs goods heavily consumed by the poor. The strategy of restricting internal demand is no longer a viable option for Mexico.

Finally, the new Plan envisions a much larger role to be played by the private sector, at the same time calling for the restructuring of the public sector. However, it is vague as to how the public sector can be reformed.

Recent years have witnessed a rapid growth of public-sector firms in Mexico, which currently account for as much as 60 percent of manufacturing value added. The main issue with the public-sector firms has been a disturbing trend relating to their performance. Mexican public enterprises have shown poor financial performance. Losses were incurred in most public enterprises (with the notable exceptions of steel, chemical industries, and the Pemex) with a resulting rise in the average firm's debt-equity ratio that reached as much as 3.2 by 1975. Between 1978 and 1982, the foreign indebtedness of the public sector accounted for about 70 percent of Mexico's external debt capital.[49]

Admittedly, many Mexican enterprises are trusted with the task of responding to social pressures to maintain low prices to consumers and to other industries. Thus, it is clear that enterprise performance must not be evaluated solely in terms of financial health. Other evidence in broad terms, however, also shows generally poor records of public enterprise. State enterprises in Mexico have tended to be large, capital-intensive with a relatively high capital-output ratio compared to that in private sector. Moreover, according to a World Bank study, increases in labor productivity of public enterprise (excluding the oil industry) during the 1965-1975 period were found to be below

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[49] Donald L. Wyman, "The Mexican Economy: Problems and Prospects," in D.L. Wyman ed., Mexico's Economic Crisis: Challenges and Opportunities, Center for U.S.-Mexican Studies, La Jolla, Calif., 1983. pp. 7-8.

the private sector average despite increased investments undertaken in the public sector.

Certainly, private enterprises are generally better able to exploit market opportunities, and in this regard the private sector must be given a much expanded role to play in the industrial development of Mexico. Especially for those public enterprises which are commercially-oriented ventures, competition with private-sector firms needs to be promoted in the same industry so long as the total production in industry permits a minimum efficiency scale.

It must be kept in mind, on the other hand, that Mexico's need to respond to the challenges of the rapid and fundamental social changes taking place in the country remains unabated. There will be continued pressures to generate growth and create employment in the face of exploding population growth in Mexico, and to narrow the widening gap in the distribution of wealth. These will prove to be more compelling than the demands of cautious financial management on the part of public sector. It is hard to imagine how the policy of public enterprise subsidies can be abandoned in the foreseeable future.

This brings one to ask the hard question concerning the future performance of public enterprises and their control and accountability. In Mexico, there has been a general laxity in financial control of the public enterprise system. The authorities have usually given a low priority to objectives of financial control within state enterprise.

Thus, it is important to devise policies to minimize the social resource costs of public-sector firms' pursuit of multiple enterprise objectives. For instance, explicit subsidies can be introduced that are related to the industry-specific externalities and non-efficiency benefits to society. At the same time, public enterprises should be accorded increased autonomy and be allowed to pursue profit-maximization objectives. It is important that social valuation of public enterprise services is at least explicitly recognized in performance evaluation.

9. Conclusion: Short- and Long-term Perspectives.

The immediate and most severe constraint on Mexican industrial development is its external debt. The situation has reached the point where Mexico's foreign debt problems cannot be resolved through rescheduling which only provides a temporary relief to Mexico. Mexico has to be provided with opportunities by creditor countries for increasing its exports in substantial quantities in order to be able to repay its debt in real terms. Other options to cope with the debt problem are not long-term solutions; the austerity program has already imposed extreme costs on the Mexican people; and drastic reductions in imports would cause greater difficulties in further development of Mexican industry. Mexico has essentially complied with the IMF prescriptions for adjustment that included, among other things, sharp government spending cuts, import cuts, and an August 1985 devaluation of the peso. Mexico, as of the end of 1985, is in a still deeper debt crisis.[50]

It seems that the solution to the debt crisis must be sought from the perspective of structural adjustment rather than from that of financial adjustment. The country must grow rather than contract through austerity. In the short run, industrial strategy needs to contain at least the following three options: the expansion of the productive capacity in raw material exports, the "deepening" of the structure in IS industries, and the promotion of nontraditional exports through increased activities of border industries. It is clear that in all these efforts direct foreign investment will have to play a much bigger role in Mexico than before.

The export of raw materials, especially oil, have so far been the major source of foreign exchange earnings for Mexico. The recent decline in the world oil price that accounts for about 80 percent of Mexico's export revenues, however, provoked a setback in the country's effort for financial stabilization. Despite the price setback, Mexico will have to continue to rely on a strategy of raw material

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[50] According to the Morgan Trust Guaranty estimate, Mexico's external debt was $87.6 billion in 1982, which rose to $96.7 billion in 1984.

exports. The government should promote the development ofthe infrastructure required for supporting these exports.

The strategy of import substitution industries must continue to exploit further possibilities in capital and intermediate goods industries. Mexico's domestic market potential for these industries seems much greater than that of either South Korea or India, both of which have a far more advanced capital goods industry. Judging by Third World country standards, Mexico also possesses a reasonably well-developed technological and scientific infrastructure along with a large and skilled labor force to develop these industries. In any event, as Mexico shifts to more advanced import substitution industries, those industries with the potential for sizeable domestic markets must be selected.

The Mexican government has been actively promoting foreign investment in the maquiladora industry for production of manufactured goods for exports.[51] So far, low real wages and a steadily devalued peso have not only induced foreign investments, but have also helped to stem the leakages of Mexican income for spending across the border. In addition, in recent years the border industry contributed to the earnings of foreign exchange in substantial amounts. In 1985, it brought in $1.3 billion - second only to petroleum, estimated to have earned $ 14.6

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[51] As of 1985, there are about 700 foreign owned factories (maquiladoras) mostly scattered along the 2000 mile border with the United States.

billion in the same year. Thus, for years to come, the border industry will have to continue to serve as an important source of foreign exchange earnings for Mexico. Since 1982, maquiladoras have been the only sector of the faltering Mexican economy generating new jobs. The total employment generated currently is estimated at 600,000. Given the estimate of about 1.5 positions in the local economy indirectly generated by each maquiladora job, total employment effects must be considered substantial.

It must be seen, however, that there is a basic constraint to the Mexican government's relying on maquilas to help steer its faltering economy. There is no extensive transportation and communications network linking the border zone to the interior, and basic infrastructure for production is still inadequate even along the border. Thus, the issues facing Mexico are what may have to be done to assure an increased share of local content for Mexico,[52] and at the same time to strengthen the linkages of maquiladora industries to the rest of the economy.

Thus, the key elements of Mexico's industrial strategy in the short run, at least until the recovery of the economy from the debt crisis, should consist of reliance on traditional exports and intensification of an efficient import substitution industrialization by reequipping the

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[52] According to the new investment law (1985), maquiladoras may sell 20 percent of their finished products in the Mexican market if they purchase raw materials or components from within the country.

industrial sector to expand its productive capacity, possibly with the help of direct foreign investment.

On the other hand, the long-term challenge facing any development strategy for Mexico is the sustenance of socially acceptable economic growth without incurring external deficits that exceed the financial capacity of the country. Acceptable growth can be understood as one which provides productive employment to the rapidly growing labor force, and which provides basic needs goods for a population that will reach 100 million by the end of this century. Hence, the new development strategy must aim at the restructuring of industry for better providing basic needs and at the same time at improvement of industrial productivity to make the economy more competitive as both an exporter and import-competitor in world markets. Mexico's growth in industrial productivity in recent years has been lower than that in other Newly Industrializing Countries.[53]

In this regard, the development strategy must define positions on the issue of how much of the emphasis is to be placed on import substituion and exports to world markets as well as the choice of strategic sectors for development. The recent experience under the administration of President Lopez-Portillo reveals the importance of implementing

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[53] See A. Cristina Laurell, "Crisis y salud en América Latina," Cuadernos Políticos (Ediciones ERA, Mexico, D.F.) No.32 (July-September 1982). There is an urgent need to modernize the plants, especially those of private firms in Mexico. They need all possible support and incentives for improved efficiency from the government.

sectoral policy as an integrated part of an overall macroeconomic policy framework. Open-economy liberalization measures, combined with expansionary domestic policy, turned out to be incompatible with sustained industrial-sector development in the faceof uncertain external conditions. It seems that if the domestic productive structure is to be strengthened and the revitalization of industry is to be assured for Mexico, it will be necessary to do it without resorting to unrestricted trade and capital-market liberalization schemes.

The conventional infant industry argument will still be applicable to sectors with a clear dynamic comparative advantage potential. Of course, extreme care must be exercised to ensure efficiency in encouraging development of domestic industry. For instance, the level of protection needs to be gradually diminished as industry develops. At the same time, one has to be aware of the limits of import substitution for Mexican industry as well as the potential contribution that can be made by certain branches of export industries. Thus, there is a need to take into consideration specific sectoral conditions in implementing any industrial development strategy.[54] The future industrial policy for Mexico needs to be based on a more "eclectic" approach combining the notion of maximally exploiting domestic market

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[54] Some branches of industries (notably, light consumer goods) are known to have a saturated domestic market, limiting further possibilties of import-substitution.

potentials on the one hand, and an emphasis on industry-selective export-promotion measures on the other.