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MEXICAN OPTIMISM AND ECONOMIC REALITY: AN ANALYSIS OF THE MEXICAN INDUSTRIAL DEVELOPMENT PLAN

by
ROBERT E. LOONEY (*)

Abstract

The publication of the Plan Nacional de Desarrollo Industrial in March 1979 clarified and structured Mexico's oil-based development strategy. The initial reaction to the industrial plan was generally good in business circles because it helped to reduce uncertainty about the future, but the industrial strategy has been questioned by different groups because of the overall ideological orientation and role of the government in the economy espoused by each. A more fundamental criticism of the plan can be raised, however, from a purely technical point of view. As the paper demonstrates, the plan is weak in its identification of several key economic relationships, makes unrealistic assumptions about certain exogenous factors and could be considerably improved upon at little cost or loss of goal attainment simply through rescheduling of several of its key expenditure streams.

Introduction

Former President Lopez Portillo (1976-1982) described Mexico's oil based industrialization strategy as representing the country's first genuine opportunity to establish an independent model of economic development. The publication of the Plan Nacional de Desarrollo Industrial in March 1979 clarified the nature of this model; the debate around the

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plan immediately following its introduction also threw more light on the fundamental policy choices that had been made by the government and that the authorities felt at the time would determine the socio-economic course of Mexico until the end of the century (1).

The plan represents the determination of the Mexican government to overcome the structural problems of the economy by applying its oil resources to public and private investment in heavy industry and manufacturing exports. Incentives are geared to reducing regional imbalances, providing employment (through the decentralization of plants and the support of small business), and expanding capacity. The participation of foreign firms is encouraged in branches involved in technology transfers and exports.

The initial reaction to the industrial plan was generally good in business circles because it helped to reduce uncertainty about the future, but the industrial strategy has been questioned by different groups because of the overall ideological orientation and role of the government in the economy espoused by each. A more fundamental criticism of the plan can be raised, however, from a purely technical point of view. As the following sections demonstrate, the plan is weak in its identification of several key economic relationships, makes unrealistic assumptions about certain exogenous factors, and could be considerably improved upon at little cost or loss of goal attainment simply through a rescheduling of several of its key expenditure streams (2). These facts have been borne out by the recent (February 1982) devaluation, mounting government deficits, and austerity program introduced by the government. A critique of the plan is given in the sections below.

Analysis of the Industrial Development Plans Macro Forecasts

In terms of specific forecasts, the average annual rate of growth in GDP for the first years of the Lopez Portillo administration (1977-79) was forecast by the plan to be 7.5 percent, and having reached 10.6

(1) E. V. K. FITZGERALD, « Oil and Mexico's Industrial Development Plan », *Texas Business Review* (May-June 1980), p. 133; see also James STREET, « Prospects for Mexico's Industrial Development Plan in the 1980s », *Texas Business Review* (May-June 1980), pp. 125-132, and Victor URQUIDI, « Not by Oil Alone: The Outlook for Mexico », *Current History* (February 1982), pp. 28-81.

(2) One might also argue that the overall orientation of the government has been to emphasize industry to the neglect of agriculture. See, Sam LANFRANCO, « Mexican Oil Export-led Development and Agricultural Neglect », *Journal of Economic Development* (1981), pp. 125-151, for an articulation of this view.

percent in 1982, it was expected to stay about that level until 1990 and into the 1990s. What is implied by the plan, therefore, is a gradual acceleration and then leveling off in the country's growth profile. The higher rate of growth from the mid-1980s on is possible notwithstanding the precipitous decline forecast by the plan in the growth of the petroleum and the petrochemical group in 1982 after which it will remain relatively constant until 1990 with the production of crude oil on its platform of 2.25 million barrels a day (or possibly higher).

Investment Requirements

High rates of investment are clearly the link to increases in real GDP counted on by the plan. Total investment in 1975 pesos comes to 243 billion in 1978, up to 291 billion in 1980, on to 357 billion in 1982, 510 billion in 1985, and finally 634 billion in 1990, for a total increase of 161 percent. The average annual increase in 1978-80 is 9.9 percent and in 1980-82, it is 11.3 percent. In the next three years, 1982-85, it is 14.3 percent, while from 1985-90 it averages 4.5 percent. From 1978 to 1990, therefore, the average annual rate of real investments is 8.3 percent. How growth in GDP is to be sustained while the rate of increase in real investment falls is not spelled out by the plan. Nor is it clear how the overall rates of GDP can be achieved with the rates of investment proposed by the plan.

It should be noted that during the 1971-79 period, Mexican GNP increased at 5.4 percent per annum on average in real terms while fixed investment expanded at 7.0 percent per annum. During the 1960s growth was higher but the rate of expansion of fixed investment moved ahead proportionately more rapidly. In the peak growth years of 1963, 1964, 1972, 1978, and 1979, the GDP growth exceeded 7 percent. The rate of growth in mixed investment ran ahead at between 15 and 20 percent.

The same reservations apply to the initial period; i.e., the growth rates averaging 10.3 percent per annum anticipated by the mid-1980s were expected to be produced as a result of average real increases in fixed capital formation of as little as 12.2 percent.

Based on historical experiences in Mexico and in other countries, it would appear that an acceleration in the annual rate of increase of fixed investment to 12.2 percent would merely raise growth onto a plateau of 6.5 to 7.5 percent. By contrast moving GDP growth ahead to a steady rate of 10 percent per annum or more would appear to require a sustained rate of increase in fixed investment volume in excess of 20 percent per annum.

The most rapid increase in federal government investment foreseen in the plan is over the 1980-1982 period, with a rise of 100 percent. While in that period private investment increases more moderately by 55.6 percent, it is still a high rate. During that period private investment under the plan is much more above the base than is federal government investment. After 1982 until 1990, the opposite trend occurs, the differential over the base rising in the federal government investment from 17.6 percent to 65.2 percent, while falling in the private sector from 45.8 percent to 20.3 percent.

Investment by the federal government is anticipated by the plan to increase continually to 1990, while in the private sector it is expected to decline from the annual peak of 14.0 percent in 1982 and from the quinquennial average peak of 12.6 percent in 1980-85 to an annual average of 8.9 percent over the last five years of the plan.

The rate of increase in investment by the public enterprises reaches a peak of 15.3 percent in 1980 when production of PEMEX reaches its « platform » of 2.25 million barrels a day. This decline is very steep indeed in 1981 (to 1.6 percent from the 15.3 percent in 1980), and thereafter the next two five-year periods show an average rate of growth less than a quarter of that by the federal government and about one-half that by the private sector.

Financing the Plan

In terms of the financing of investment, the plan forecasts that the proportion contributed by domestic savings grows steadily until 1981 when it is 101 percent (because foreign savings make a negative contribution indicating that foreign debt is being repaid). Thereafter domestic savings decline and foreign savings increase until they reach 5.0 percent of the total in 1990. These projections indicate that policy makers never really took seriously the popularly expressed view that increased petroleum resources will make Mexico a capital exporting country in the foreseeable future.

Unfortunately, fiscal reform in Mexico has been largely postponed, if not abandoned, in favor of selected improvements in the tax rate structure and in the administration, budgeting and tax collecting procedures, including the coordination of federal, state and local systems. Until 1982 at least, petroleum revenues have tended to stiffle any sense of urgency in developing a modern, efficient tax system. The short fall in hydrocarbon revenues in 1982 has however, prompted a number of fiscal reforms and modifications of the tax system. As of January 1, 1980, Mexico had substituted a value-added tax (VAT) for its old tax on gross business receipts (impuesto sobre ingressos mercantiles) and for seventeen other indirect taxes on specific commodities and services (3).

The VAT is an improvement of sorts since this tax avoided the cascade effect of multiple taxing which is characteristic of the gross receipts tax, and the VAT may be rebated to exporters even under the rule of the GATT. But the value-added tax has created considerable confusion among consumers and small businessmen in Mexico since computation of taxable value-added requires considerably more sophisticated book-keeping than did the simpler flat rate tax on gross sales receipts. Moreover, VAT hurts in the same way that the gross receipts tax hurts; it must be paid by every business firm whether the firm sustains profit or loss. Small businesses everywhere have opposed the VAT because it is not based on the ability to pay; they much prefer a tax on business profits. The VAT hurts most — as did the gross receipts tax — those very sectors of the economy which the Mexican government says it wants to help: labor intensive, small firms in industry, construction and the service trades. The VAT, whatever its name, is however still a sales tax with a regressive impact. Large oligopoly firms can shift it forward to consumers in the form of higher prices; all firms will try to shift it backward to labor in lower wages; small competitive firms may not be able to shift it at all. The VAT in Mexico states a uniform rate of 10 percent (except for the border areas and free zones where a preferential 6 percent will prevail), and it is estimated not to collect any larger share of the GDP than the taxes which it replaces. But neither does it ameliorate any of the adverse effects of those indirect taxes on Mexicans of low incomes (4).

In short, despite the Mexican government's commitment to capital formation, as the major source of national income growth, no significant improvements were or have been made in the methods of financing public expenditure (other than of course indirectly through investment in the oil sector). Given that current expenditures have historically outrun

(3) As documented in John Evans, « The Evolution of the Mexican Tax System During the 1970s », Paper presented at the Southern Economic Association Meetings, Washington, D.C., November 5, 1980.

(4) Calvin P. Blair, « Economic Development Policy in Mexico: A New Penchant for Planning », *Technical Papers Series No. 26,* Office for Public Sector Studies, Institute of Latin American Studies, the University of Texas at Austin (1980), p. 15.

revenues, there is little reason to believe this pattern will be broken by the plan. Furthermore, given its emphasis on development and employment, the government has little choice but to maintain aggregate demand with the sharp increases in the deficit likely at times resulting in rapid expansion in the money supply and inflationary pressures. The social costs of slower growth or of recession would include an increase in political unrest, more violence, increased illegal migration to the United States, and more land invasions by campesinos without employment alternatives.

Monetary policy measures in Mexico have largely reflected the needs for financing the federal deficit. The Mexican authorities have allowed rapid growth in the money supply in all but a few of the recent years — averaging around 33 percent per annum in 1979, 80 and 81. Mexican money markets have also grown more integrated with world money markets; the authorities have recently created a treasury certificate which can be used in open market operations, and they will move slowly toward the use of general quantitative credit controls, gradually giving up the elaborate quantitative system of direct credit and managed interest rates which characterize Mexico's monetary policy. When petroleum exports receive from the 1982-83 downturn, they may create future inflationary pressures as foreign exchange is sold for pesos to commercial banks and to the central bank of Mexico ([5]).

External Balance

The external accounts over the plan period should reflect the changes that are anticipated to occur in the domestic economy. In this regard it is interesting to note that in spite of the fact that the petroleum industry and the surplus that it is yielding are the key elements of the plan, and the further fact that the production and exportation of petroleum and petrochemicals are identical in the base and the plan projections, enormous differences do exist, however, between the plan and base in the various items that make up the balance of payments.

The greatest difference between plan and base (the plan differential) exists in the current account balance, which shows a deficit in 1990 of — $26.4 billion in the plan and a surplus of $4.6 billion in the base. The plan differential is also large in 1982, when both the plan and the base

([5]) *Ibid.*, pp. 15-16.

show a surplus, although under the plan it is about to turn into a deficit (6).

The differential in factor payments is zero or small through 1982, but by 1990 it is very large. Total receipts from capital and labor are identical in the base and in the plan. The chief items in receipts are interest and remittances, and in the 12 years to 1990 the former increases more than five times while the latter quadruples. The plan differential of 230 percent must obviously be entirely due to payments abroad. And within payments abroad, the differential is caused entirely by payments of interest on public debt. In fact these payments are ten times the amount forecast for the base while for the same time period, foreign direct investment is forecast as identical in the plan and the base.

The large plan differential in the importation of goods reflects the intention to borrow more abroad. Presumably, the foreign borrowing base increased identically in the two projections, insofar as it depends on the oil surplus. It makes little sense, therefore, to forecast such different volumes of borrowing in the base and plan forecasts. The plausibility of these forecasts is all the less because past policy on which the base projection is founded is accused of having borrowed abroad too much. It is, therefore, somewhat inconsistent to project that it will borrow too little in the plan period.

In terms of exports of hydrocarbons, the production and export of crude petroleum and derived products is projected identically for the base and the plan. This is another apparent inconsistency; i.e., that the exports of petrochemicals will be identical in view of the large plan differentials in other important respects. For example, the plan differential for total goods exported is 38.7 percent in 1990. It is negligible until 1982, and then it becomes only 2.6 percent. In the plan petroleum and petrochemicals exports will have risen to 61.0 percent of total exports of goods by 1982 (from 34.4 percent in 1978), after which they will fall to nearly 40 percent in 1990. In contrast, they will fall to only 51.2 percent of the total in the base forecast. This difference between the base and the plan is, of course, entirely the result of the much greater increase of non-petroleum exports under the plan. It would seem, however, that exports of this magnitude will ultimately depend on American policy towards Mexican imports, and it is by no means clear given the growing sentiment of protectionism in the United States that accommodations anywhere near these levels will be made.

(6) These patterns are common to oil exporters. See Alan Gelb, « Capital-Importing Oil Exporters: Adjustment Issues and Policy Choices », *World Bank Working Paper No. 475* (August 1981) for a comparison of Mexico and other developing country oil exporters.

Role of the Government

As noted earlier, the government is to play a more active part in directing the economy. This is readily apparent by comparison of the levels of public sector expenditures in the plan and base forecasts. Available resources consist of gross domestic product plus imports. Resources are used by intermediate demand which consists of industrial inputs, private consumption of final products, government consumption, fixed capital investment, allocations to inventories and exports (7).

Clearly, under the plan an effort was being made at least up to 1982 to increase investment rather than consumption. The share of intermediate demand (industrial inputs) diminished, but it was accompanied by the biggest proportional change (66.7 percent) in the share of addition to inventories. Presumably, the plan anticipates industry will be stocking up in view of the high rate of fixed investment to be achieved during the 1982-1990 period (increasing its share to 16.5 percent as compared with 11.6 percent in 1978-1982). This is the only category that declines continuously (from 44.1 percent of resources in 1975 to 39.1 percent in 1990). The share of government consumption is to be constant until 1982, but then is forecast to increase by a larger percentage than any other category over the 1982-1990 period. Then the share of exports are forecast to decline heavily after 1982 because exports of petroleum products and petrochemicals are held at their platform rates.

Oil Production — Exports

Mexico's oil industry had begun to show signs of slowing down in the 1960s. In mid-1973 a group of international petroleum experts estimated that Mexican imports of petroleum products would have to rise from 100,000 bpd to 4.5 million bpd by the end of the century. Assuming that the price of crude would triple to $9 a barrel (a pre-1973 estimate), the cost of imports would be about $15 billion a year. The dramatic nature of the improvement resulting from the new finds is indicated by the fact that the National Plan for Industrial Development estimated

(7) Calvin BLAIR, « Mexico's Economic Development and Relations with the United States », *Texas Business Review* (March-April 1979), p. 41. See also Stanley Ross, « Key Issues in Mexican-United States Relations », *Texas Business Review* (March-April, 1979), pp. 51-53, and Richard ERBAND, Stanley Ross, eds., *U.S. Policies Toward Mexico* (Washington: American Enterprise, 1979).

that exports of petroleum products would be earning $15 billion in foreign exchange by the year 2000.

While the outlook was made even more favorable by the rise in international oil prices after the plan was published, the country's export prospects have of course been dimmed considerably by the 1981-82 worldwide oil glut, and the resultant shortfall of around six billion dollars in 1981.

The effects of the Reforma discoveries in 1972 were not felt immediately as the production of crude increased in 1973 by only 1.9 percent. But in 1974 crude production increased by nearly 25 percent and except for a drop in 1976 to 11.2 percent, it increased by over 20 percent in each of the following years through 1978.

The percentage increase in the gross income of PEMEX has been greater than that of production due to the international price increases together with a very considerable rise of prices to domestic consumers.

The production of crude in 1979 was expected to increase by nearly 28.0 percent and of gas by 29 percent. Refining, however, was to increase by less than 5 percent over 1978. Exports of crude petroleum alone in 1979 were expected to increase by 83 percent over the 1978 combined total of crude and refined products. The total number of wells planned to be drilled was 409 in 1979, of which 359 were to be on-shore and 50 off-shore.

As a result the petroleum sector's contribution to GDP increased 17.5 percent from 1979-1980, the second highest annual growth registered by this sector since 1950. Crude oil, gas liquids, and condensate production averaged 2.1 million barrels a day, an increase of 32 percent over 1979.

In November 1980 Mexico announced a National Energy Plan with goals for 1990 and projections for the year 2000. The goals and priorities established in the plan are to [8]: (1) export petroleum only insofar as the country can productively absorb resources from abroad; (2) attempt to increase the value-added content of petroleum exports; (3) use the export of petroleum to diversify Mexico's foreign trading partners; (4) take advantage of petroleum sales to absorb modern technology, develop more rapidly the production of capital goods, obtain access to new markets abroad for manufactured goods, and obtain better terms of financing, and (5) cooperate with other countries in the development and supply of

(8) Ministry of National Properties and Industrial Development, Mexico Energy Program: « Goals to 1990 and Projections to the Year 2000 », *Commercio Exterior de Mexico* (December 1980), pp. 438-439.

petroleum and in the exploitation of local sources of energy. For the decades of the 1980s, the plan proposed an export limit of 1.5 million barrels per day of petroleum and 300 million cubic feet of gas. In keeping with a more general goal to diversify foreign trade, Mexico will try to avoid concentrating more than 50 percent of hydrocarbon exports to any one country [9].

Ironically, although oil is supposed to provide an important share of the financial resources necessary to fund various projects discussed in the industrial development plan, the specific links between oil policy and other economic policy objectives have not always been specified. When they are, there are contradictions associated with the actual implementation of policies. More importantly, little has been done in other areas that could more effectively help to achieve stated government objectives in the Plan [10]. Gerardo Bueno, a respected economics Professor from El Colegio de Mexico, has been particularly critical of government policy-making efforts in this area. Bueno has argued that reducing protection would make more goods available at lower prices (assuming imported products were more competitive than domestic products) helping to curb inflation somewhat. And adjusting the exchange rate of the peso closer to its true value would be to promote exports by making Mexican goods cheaper. Bueno asked the poignant question: « Why formulate plans, why approve and sanction them, if in the final analysis the decision making process concerning these crucial questions continues as if such plans never existed or never were approved » [11].

Along similar lines, René Villarreal, another prominent economist at the ministry of Finance in the Lopez Portillo administration has contended that even though oil may be instrumental in dealing with some of the traditional constraints on economic growth (e.g. availability of foreign exchange), the government has not designed ways to deal with other issues such as inflation and the public direct. Villarreal analysis indicates that public savings should be increased to finance investments from the government's own resources and that the economy should be open to greater competition in order to force domestic producers to be more efficient and

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(9) Salvatore BIZZARRO, « Mexico's Oil Boom », *Current History* (February 1981), p. 50.

(10) Daniel LEVY and Gabriel SZEKELY, *Mexico: Paradoxes of Stability and Change* (Boulder, Colorado: Westview Press, 1983), p. 247.

(11) Gerardo BUENO, « Petroleo y planes de desarrollo en Mexico », *Commercio Exterior* (1981), p. 839.

to increase their exports [12]. Thus Bueno and Villarreal are among those who have strongly criticized continued and unqualified pursuit of an import substitution industrialization strategy. It should be recalled that emphasis on producing certain goods for export is an alternative strategy to import substitution strategy and that opening the economy to greater competition does not necessarily mean that Mexico must become a member of Gatt. The point is that government plans do not deal explicity and at the same level of analysis with all issues — issues that are critical for revitalizing the country's over-all economic growth path.

Future Supplies of Petroleum Products

In October 1977, PEMEX presented its official forecast to 1982 of production of oil and gas, domestic consumption on availabilities for export of gas and the total investment that would be necessary to achieve the predicted production. At the time it was assumed the August 1977 agreement with the private U. S. gas distributors would be soon consummated [13].

The original estimates of gas available for export have been affected by the decision to convert Mexican industry to gas. It will take a considerable amount of time, however, before the effects of the conversion will affect domestic consumption of natural gas (and therefore how big the surplus available for export will be). Similar uncertainties affect the estimates of U.S. future demand for foreign gas. The proposed two billion cubic feet a day of gas through Reynosa would represent only about 4 percent of U.S. current consumption. Some experts believe, however, that the existing Mexican reserves of natural gas would justify the production of as much as 14 billion cubic feet a day, and that quantity would leave much more for export [14].

It should be noted that past efforts to forecast hydrocarbon production have encountered a wide margin of error. For example, estimates of 954,000 bpd for crude production in 1977 was in fact exceeded by about 137,000 bpd while that for 1978 was deficient by about 110,000 bpd. The estimate for 1979 was also about 131,500 above the latter estimate of 620 million

(12) René VILLARREAL, « Petroleum and Mexican Economic Growth and Development in the 1980s », in Jerry R. LADMAN, ed., *U.S.-Mexican Energy Relationships: Realities and Prospects* (Lexington, MA: Lexington Books, 1981), pp. 69-86.

(13) Cfr. George CRAYSON, *The Politics of Mexican Oil* (Pittsburgh: University of Pittsburgh Press, 1980), Ch. 7 for an excellent account of the U.S.-Mexican gas negotiations.

(14) *Ibid.* See also George GRAYSON, « Oil and Politics in Mexico », *Current History* (November 1981), pp. 379-383.

barrels for that year (or 1,700,00 bpd). The 1977 forecast envisaged that in 1982 production would be 2.7 million bpd instead of the production platform of 2.25 million bpd, which was subsequently reached in 1980, two years earlier.

The Plan Nacional published its estimates of the value in constant 1975 pesos during 1978-90 of production and exports of petroleum products and petrochemicals. These estimates were based on the assumption that the price of crude oil would increase by 6.6 percent annually until 1982, and 5 percent annually thereafter. The annual rates of increase are greater for the combined item than for crude alone, except in 1978 when the increase for crude alone is 50.4 percent as against 26.3 percent for the combined item. The actual figure for crude in 1978 was an increase of 22.5 percent — a considerable difference. In 1978 the increase in exports of the combined items were anticipated to be at a maximum, declining very rapidly in 1980, when the production and the export of crude are to reach their platform. The increase in exports was forecast to be zero in 1990. At that time the ratio of exports to production was expected to be at its minimum.

The Petroleum Surplus

The exports of crude, refined products and petrochemicals constitute the « financial surplus from petroleum ». This is defined in the plan « in the broad sense, as the additional spending power that hydrocarbon exports give the economy ». The concept is said « not to be limited to the extra tax revenue the oil surplus brings to the public treasury, nor the additional receipts that it brings to the balance of payments. Having larger external resources at its disposal, the economy can generate more internal resources. The sum of both is the correct measure to the surplus ». This is only partially correct, since both the magnitude and time profile of the surplus are critically dependent on the manner in which the surplus is utilized in the government's budget [15].

In measuring the financial oil surplus, account must be taken not only of the additional exports and the savings on imports of petroleum products, but also in the increase in foreign borrowing power that is associated with the expanded level of petroleum production. The report

[15] An interesting radical critique of the surplus and government corruption is given in Jim COCKCROFT and Ross GANDY, « The Mexican Volcano », *Monthly Review* (May 1981), pp. 32-44.

does not give specific recognition to this fact. Yet this increase in foreign borrowing potential has allowed the country to draw more extensively on foreign savings and thus pushed still farther into the future the balance of payments constraint.

The balance of payments projections in the National Plan forecast a modest current account surplus of $477 million in 1981, dropping to $26 million in 1982, before going increasingly into deficit reaching −$5.3 billion in 1935 and −$26.4 billion in 1990. Petroleum exports are estimated to be $7.4 billion in 1981, $8.4 billion in 1982, and rising to $12.5 billion in 1990. The petroleum exports thus are looked upon as keeping the current deficit low enough to be easily financed by foreign loans. Exports of manufactured products are estimated to grow from $2.4 billion in 1979 to $3.6 billion in 1982, and to reach $16.6 billion in 1990. Manufactured exports were thus obviously expected to play an important role in keeping the foreign account deficit down to financial proportions.

Regrettably instead of using its mounting oil revenue to build up a strong and labor-intensive non-oil exporting industry, the Government used the money to support an overvalued peso and thereby encouraged massive outflows of capital, accelerated imports of luxury items, kept domestic industry heavily protected and in effect mortgaged the country through excessive foreign borrowings ([16]).

By 1983 the De la Madrid Administration while battling an acute liquidity crisis set a target of quadrupling its annual non-oil exports to $20 billion by 1988. Senior trade officials say the target is a matter of economic survival. If it is not achieved the country faces the grim prospect of an even higher and permanent level of unemployment — at present (1983) only three of five Mexicans have full time jobs.

The new Government of President Miguel de la Madrid seems determined to learn from Mexico's mistake and to use the crisis to make the economy export oriented once and for all. The peso is now deliberately undervalued to make exports competitive and the country a bargain for tourists. The currency fell against the dollar by 82 percent in 1982.

The level of protectionism will also be gradually reduced to force companies to be more efficient. As of early 1983 almost 100 percent of imports are under the licensing system because of exchange controls.

([16]) Cf. William CHISLETT, « Mexico Pins its Hopes on Non-Oil Exports », *Financial Times* (March 21, 1983), p. 4; Alan RIDING, « Mexico's Road to Trouble is Coated with Oil », *New York Times* (February 21, 1982), p. E3; and William CHISLETT, « Mexico's Gung-ho Businessmen Feel the Pinch », *Financial Times* (March 8, 1983), p. 5.

There are however, a number of problems which are hindering non-oil exports.

First, the private sector which accounts for the bulk of these exports says that the dual exchange rate system with a controlled rate currently (March 1983) at 107 pesos per dollar and a free rate at almost 150 pesos is a deterrent to exporting. Businessmen are having to buy their dollars for imports mainly at the free rate, even for those imports of essential goods which fall within the more favorable controlled rate category. This is because of the dire shortage of dollars in Mexico. Export earning also have to be changed in the state dunking system at the controlled and not the free rate.

Second, as Mexico rejected GATT membership and also has not signed the latest GATT code of conduct on subsidies and countervailing duties, the U.S. does not have to prove economic damage — which is hard to do before imposing duties. Duties have been imposed on Mexican leather goods, ceramic tiles and toy balloons and the two countries are in dispute over shipments of Mexican beer into the U.S.

Mexico has cancelled its programme of tax rebates for exporters and also is going to raise the subsidised rates of interest on its export credits. But the new government is reluctant to commit itself in any way to signing the GATT subsidies code which it would have to consider doing as part of its trade agreement with the U.S.

Plan Performance

Clearly economic events in Mexico have not unfolded as anticipated by the industrial plan. Several manifestations of the failure of the country's growth strategy have been alluded to above. As the following sections attempt to document the failure of government policy in the late 1970s and early 1980s can be ultimately traced to an extreme sense of over optimism on the part of the Lopez Portillo administration concerning the trend in oil revenues and the ability of the government's leading technocrates to manage a disequilibrium system characterized by an over valued peso and severe price distortions throughout the economy.

The Lopez Portillo administration had anticipated that the 1977-82 period would be broken down into three distinct phases and the first two years would be a period of « stabilization and inflation control ». This was to be followed by a period of « consolidation » of stability in 1979 and

1980 and finally by a period of accelerated growth in 1981 and 1982 [17]. The administration therefore planned to undertake an economic program in stages, in which the goals of internal and external stability would be gradually replaced by other longer term goals such as growth and employment. It was intended first to stabilize the economy and then to promote its growth, but always within a framework of low inflation and external stability. Growth would be achieved through the expansion of domestic demand, and stability through an increase in the supply of goods and services, strongly supplemented by imports. This program would be underpinned by the accelerated exploitation and development of oil resources. Financing was to come from the export earnings of oil and gas, supplemented whenever necessary by Mexico's ready access to the international financial markets.

The economic policy instruments called upon to play an important role were public expenditure and exchange policy [18]. In 1981 public expenditures as a proportion of GP amounted to about 36 percent compared with 29 percent in 1976 and 20 percent in 1970. Just as public expenditure was the principal instrument of demand, the exchange rate was the most important instrument of monetary and price policy. Following the devaluation in 1976 and with effect from 1977 a policy of gradual overvaluation of the peso was consciously adopted. This made it possible to channel the inflationary pressures of demand towards the external sector and hence avoid a higher rate of increase in domestic prices. On the costs side, the overvaluation of the peso ensured a supply of imported goods at favorable prices and it also reduced cost pressures for compensatory increases in wages. Finally, it reduced the cost of external credit to enterprises that decided to make it significant use of this method of financing their expansion plans.

While the development and exploitation of oil resources was a growth factor, it was also a source of distortions and caused instability. Indeed without the stability goals planned for the first period having been achieved, the Mexican economy entered upon a stage of rapid and sustained growth from the beginning of 1978. In 1981 the fourth con-

(17) For an excellent critique of this strategy see Sidney WEINTRAUB, « Case Study of Economic Stabilization: Mexico », in William R. CLINE and Sidney WEINTRAUB, *Economic Stabilization in Developing Countries* (Washington: The Brookings Institution, 1981), pp. 271-296.

(18) A more detailed analysis of this policy is given in Robert E. LOONEY, « The Feasibility of Alternative IMF Stabilization Programs for Mexico, 1983-85 », Paper presented at the Eastern Economic Association Meetings, Boston, March 10-12, 1983.

secutive year, the economy continued to grow vigorously, but in the context of strong inflationary pressures and an increasing external dis-equilibrium. Real GDP grew by 8.1 percent, while consumer prices, measured December to December, increased by about 29 percent in 1981 compared with 23 percent in 1976.

This increase in productive capacity was especially marked in some industrial sector, where it was accompanied by significant increase in output. This applies to the manufacture on non-electrical machinery and equipment and the production of cement and fertilizers. The long lead time of investments in other sectors, such as electric energy generation and basic metal industries has delayed their production increases, however.

The distortions and disequilibrium associated with this growth strategy were primarily concentrated in the external sector ([19]). Indeed whereas exports rose by 9 percent annually in real terms in 1978-81 (6.7 percent in 1971-76), imports grew by 24 percent annually, four times higher than in 1971-76. The significant openness of the economy was accompanied by a notable concentration of exports. This was due, on the one hand, to the rapid growth of crude and gas exports and, on the other, to the virtual stagnation of other merchandise exports. Indeed, whereas exports of crude increased more than five fold, exports of manufacturers increased at an average annual rate of only 2.2 percent in the same period and in 1981 they fell by 10 percent. This unfavorable performance was due in part to the increase in domestic demand, but mainly to the overvaluation of the peso which reduced competitiveness in the international market. The relative share of hydrocarbon exports rose from approximately 21 percent in 1977 to 71 percent in 1981, whereas that of manufactures fell from 46 percent to 17 percent.

Furthermore, efforts to cushion the inflationary impact of this accelerated growth policy, though the exchange policy and the opening up of the economy to the external market, were only relatively successful. In 1981 for the second consecutive year, the inflatio~~n rate~~ was slightly less than 30 percent annually while efforts to reduce it significantly were unsuccessful. The high inflation rate, approximately three times higher than the world inflation rate, led to a gradual overvaluation of the peso which was only partially eased by mini adjustments in 1980 and 1981. Efforts to keep the exchange rate under control forced the monetary authorities to make increasing use of interest rates to strengthen the balance of

([19]) William R. CLINE, « Mexico's Crisis: The World's Peril », *Foreign Policy* (Winter 1982-83), pp. 108-109.

payments and support the peso. In December 1981 the normal interest rate on time deposits (90-179) days dominated in pesos was approximately 32 percent, that is 19 percentage points higher than the London Interbank Offered Rate (LIBOR) ([20]).

The vulnerability of this growth policy is shown by the fact that in 1981 approximately 15 percent of the available goods were financed with external inflow, 70 percent of which were generated by exports of a single commodity.

In February 1982, the Bank of Mexico withdrew from the dollar market and the peso floated freely. There was an immediate 30 percent depreciation of the currency followed by another 18 percent devaluation in May 1982. At the same time, the government instituted a program of « self-discipline » styled after IMF programs. The program did not, however, involve the IMF. Some of the measures enacted included: a reduction of the deficit/GNP ratio, price controls on certain basic and industrial products, limits on public and private sector imports, and nationalization of banks in September 1982.

While well structured, the program was by and large unsuccessful, especially in the key area of public finance since the government was unwilling to reduce expenditures and limit credit expansion. Unable to raise enough capital in financial markets, the government approached the IMF in the summer of 1982 for a major loan.

On November 10, 1982, a letter of intent was signed by the IMF and Mexico. While only a first step in a final IMF loan package, the letter outlined a three year economic adjustment program for Mexico. The main thrust of the letter was to reduce the size of the deficit. Specifically the letter called for deficit to GNP ratios of 8.5, 5.5 and 3.5 percent in 1983, 1984, 5 and 1985-87, respectively, which implies major public expenditure cuts. The country made a specific commitment that the debt, now at approximately $60 billion, would not increase by more than $5 billion in 1983. The Mexican government initially rejected the Fund's proposal to remove exchange controls, eliminate the three tier exchange rate system, or raise domestic interest rates. However, the government has now agreed to a compromise on each point. Incremental movements towards the Fund's position will be implemented over time.

At present (early 1983) there is widespread concern in Mexico, especially among politicians, that the policies embodied in the letter of

([20]) INTER AMERICAN DEVELOPMENT BANK, *Economic and Progress in Latin America, 1982 Report* (Washington: IBRD, 1982), p. 285.

intent could lead, in the context of an inflation rate of around 100%, to negative growth rates over the 1983-84 period.

Conclusions

Historically, two extreme paradigms of national economic policy have been used to characterize the experience of Latin American countries. One is a « nationalist-structuralist » regime in which high rates of domestic production of domestic industry, for purposes of import-substitution, exchange controls, severe restrictions on foreign direct investment and profit remittances, and a general discouragement of the export sector predominate. The other is a more « orthodox » open economy strategy following the pattern of international comparative advantage, foreign investment, free convertibility, flexible exchange rates, encouragement of financial intermediation and international credit flows and with attempts to maintain a wage structure competitive with the most vigorous international trading partners.

In large part, Mexico has followed its own ad hoc policies which reflect neither extreme. For this reason it has been difficult for observers to pinpoint exactly what the economic regime of Mexico is or is likely to be; the government engages in nationalist rhetoric but maintains relatively cordial relationships with foreign investors. Indeed in the last few years there has been an unprecedented inflow of foreign direct investment much of it in the direction of « production-sharing » with the U.S. market through *maquiladoras* and plants which also serve the Mexican market. The principle of comparative advantage has been pursued in this strategy, but at the same time exchange policies (overvaluation of the peso until the recent sharp devaluation) have worked against comparative advantage by pricing Mexican exports relatively high and imports low.

Based on the Industrial Development Plan published in 1979, it appeared that:

1. average annual growth rates of 6.5 percent could be maintained while raising oil exports to around one million barrels per day by 1982, compared with 543,000 barrels per day in 1979. If this were done, it was calculated that Mexico would be in a position to reverse its current account deficit position in the range of $1.6 to $4.2 billion over the period 1975-1979, and to surpluses of the same order in the 1980s; and

2. alternatively with the same level of oil exports, much higher plan trajectories leading to 10.6 percent GDP growth could be maintained,

but with deficits reemerging in the period from 1983 onwards, reaching \$5 billion by 1985 and \$26 billion by 1990, both figures being in current prices.

Other constraints were applied in order to produce these figures. It was assumed, for example, that Mexico would be able to expand its external borrowing without extending its overall level of indebtedness provided that:

1. the current account deficit should not, in any year, be more than two percent of GDP, and

2. in the medium term, net factor payments abroad, including current transfers, should represent an average of less than 15 percent of the export income from goods and services.

Observing these limits, the country would obtain without compromising its economic independence, in the opinion of the government, external resources sufficient to generate additional internal resources to help meet its development objectives.

However, the logic behind these calculations has been shown to be open question on several grounds. Most importantly both the investment requirements and inflationary impact of the plan are underestimated. Second, changes in the world oil situation to better (1979) then worse (1981-82) have altered the expected revenue stream from petroleum exports.

Finally, the Industrial Development Plan is indicative rather than compulsory. Much is said about rewards for those willing to cooperate, but means for enforcement are lacking. In this respect the Industrial Plan is similar to many other planning efforts conducted in the past, all of which were shelfed after some time without having achieved significant results [21]. These critical comments are intended to caution those who hope that oil surpluses and very elaborate plans are adequate to solve the complex issues faced by Mexico's development model. The events of 1981-1982 seem to confirm the more cautious view.

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[21] Daniel LEVY and Gabriel SZEKELY, *Mexico: Paradoxes of Stability and Change* (Boulder, Colorado: Westview Press, 1983), p. 253-254.

L'OTTIMISMO MESSICANO E LA REALTA' DELL'ECONOMIA: UN'ANALISI DEL PIANO DI SVILUPPO INDUSTRIALE MESSICANO

Sulla base del piano di sviluppo industriale messicano pubblicato nel 1979, risulta quanto segue. In primo luogo, si prevede possibile raggiungere un tasso medio annuo di sviluppo di lungo periodo del 6,5% in termini reali, accrescendo nel contempo l'esportazione di petrolio a un milione di barili al giorno dal 1982, rispetto ai 543 mila del 1979. In tale ipotesi, si calcola che il Messico sarebbe in condizione di rovesciare la sua situazione di deficit di parte corrente (dell'ordine di 1,6-4,2 miliardi di dollari per il periodo 1975-79) realizzando un avanzo del medesimo ordine di grandezza per gli anni Ottanta. In secondo luogo, viene calcolato che, col medesimo ammontare di esportazioni petrolifere, sarebbe possibile una traiettoria di crescita assai piú rapida, con tassi annui di crescita reale attorno al 10%: in tal caso, tuttavia, riemergerebbe un disavanzo di parte corrente nella bilancia dei pagamenti dopo l'83, fino a raggiungere i 26 miliardi di dollari a valori correnti nel 1990.

Altri risultati e vincoli adottati nella formulazione del piano indicano condizioni capaci di assicurare credito dall'estero al paese senza accrescerne l'indebitamento globale. Ciò è quanto può accadere, purché il disavanzo di parte corrente venga contenuto entro il limite del 2% del PIL e le rimesse e redditi netti dei fattori all'estero, inclusi i trasferimenti correnti, non rappresentino a medio termine (in media) piú del 15% del flusso di esportazioni di beni e servizi. Di tal natura appaiono dunque essere i limiti, nell'opinione dei programmatori, capaci di garantire adeguato sviluppo al paese senza comprometterne l'indipendenza economica.

Tuttavia queste stime sono criticabili sotto diversi profili. I maggiori riguardano la sottovalutazione del fabbisogno d'investimenti e dei pericoli di tensioni inflazionistiche. Inoltre le valutazioni sugli introiti da esportazione di petrolio appaiono influenzati dalle prospettive quali apparivano al 1979, tali da indurre maggiore ottimismo di quanto oggi paia giustificato. Un'altra serie di rilievi critici riguarda carenze negli strumenti legislativi e negli incentivi che dovrebbero assicurare la realizzabilità del piano stesso. Anche il comportamento recente del sistema sembra suggerire una certa cautela nel valutare le capacità di sviluppo del paese.