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Economic Consequences of the Mexican Debt: Implications for the United States

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INTRODUCTION

In one of the more surprising developments since the Latin American debt crisis began in 1982, Mexico in the summer of 1987 found itself with the unlikely dilemma of how to spend nearly $16 billion of foreign reserves.[1] A number of circumstances contributed to the turnaround:

1. Oil prices stabilized in late 1986, then rose with the increase in uncertainty concerning Persian Gulf shipping.
2. Following an earlier delay, the country received a $12 billion disbursement of a credit package agreed with the International Monetary Fund.
3. With successive peso devaluations resulting in an undervalued peso, non-oil exports rose at an annual rate of 30 percent.
4. Improved economic conditions and the undervalued peso resulted in a significant inflow of Mexican assets previously held abroad.

Several options appear to be open to the government, each having its pros and cons. Increased domestic spending to stimulate growth and create jobs would make inflation worse: price rises could easily reach an annual rate of 200 percent within months, with serious implications for wages, foreign exchange, and interest rates. Yet politically in an election year to idly sit on $16 billion, particularly when interest is being paid on a substantial part of that sum, seems unacceptable. Quite a different approach would be to use the reserves to buy Mexican sovereign paper on the secondary market, thus cancelling part of the country's $110 billion foreign debt. Given that most Mexican securities in the summer of 1987 were selling at about 55 to 60 percent of face value, Mexico could reduce its external debt burden by $13 to $18 billion by allocating between $8 billion and $10 billion to this purpose. This would save the country $800 million to $1 billion per year in interest payments. Unfortunately, despite

its technical merits and pressure of its favor coming from the country's creditors, the debt purchase scheme seems politically infeasible without some sort of compensating arrangement with the country's creditors. Analysts stressing this fact note that a nation that has gone through five years of practically no economic growth, a drop of nearly 40 percent in the purchasing power of most salaries, and a virtual suspension of job creation will not readily accept that the best way to spend hard-earned foreign funds is to give them back to the banks. The government cannot publicly acknowledge that in 1986 the economy could not grow because of the lack of money and that in 1987 it cannot grow because of too much money. Nor can a country already suffering from double digit inflation be told that growth must be postponed since it would rekindle inflation.[2]

Castaneda has concluded that

> Mexico's current predicament is more a symptom of the continued protraction of its economy than a sign of its recovery. The debt crisis has not been solved; it has just been postponed, together with economic growth. If anything, foreign reserves are up precisely because growth has been forsaken. Under these circumstances, the wisest course may be then one which President de la Madrid will, it is to be hoped, settle on. It would involve using the reserves partially to prime the economy, achieving some growth and modest job creation at the cost of a moderate increase in inflation, but saving the bulk for de la Madrid's successor.

Clearly whether or not the reserves are spent by the de la Madrid administration, the new president of Mexico, Salinas de Gortari[3] will be forced to tackle the fundamental problem that has confounded recent administrations: how to make the Mexican economy grow at levels compatible with demographic growth and social welfare.

The purpose of this chapter is to examine the relative merits of Castaneda's suggestion that saving the nation's earnings for the Salinas de Gortari administration could be de la Madrid's ultimate tribute to what may well prove to be his most redeeming virtue: *le sens de l'etat*, as opposed to the portfolio manager's despair in the face of idle assets. Hopefully in the process of examining this issue some conclusions can be drawn as to the role of external debt in Mexico's recent economic performance, and guidelines established as to the country's best medium-term strategy for dealing with its external obligations.

PHASES OF MEXICAN DEVELOPMENT

Any discussion of Mexico's current debt problems would be incomplete without some reference to the development strategies that lead to the current situation. Many observers[4] trace the current debt crisis back to the Echeverria Administration (1971–1976). Echeverria sought to address many of the distributional problems associated with the country's attempts at import

substitution industrialization with a modification of this basic strategy dubbed "Shared Development." It had four pillars:[5]

1. the use of public expenditure to stimulate demand and broaden the domestic market;
2. the fuller use of existing productive capacity;
3. the deepening of import substitution; and
4. the expansion and diversification of exports to help confront the foreign exchange bottleneck.

These moves represented an effort to revitalize a strategy of insulation and to introduce a different domestic distribution of gains and losses.[6]

In retrospect it is clear that there were a number of basic dilemmas in Mexican economic policy under Echeverria. These included the desire to use fiscal policy to reform the social structure, but then doing so without creating an adequate tax base; the desire to raise exports, but seeking to do so while maintaining a fixed exchange rate in the face of accelerating inflation; the desire to strengthen public sector enterprises while trying to maintain their prices at unrealistically low levels; and striving for greater industrial efficiency under a policy of protectionism.[7] The net result was that the public sector deficit expanded from an average annual rate of 2.5 percent of GDP in 1965–1970 to 9.5 percent in 1976 and an increase in the external debt; by 1976 Mexico's public foreign debt was $20 billion. These alternative means of supporting "Shared Development" proved unsustainable, however, and in 1976 the development strategy collapsed in the midst of domestic political and foreign debt crisis.[8]

José Lopez Portillo (1976–1982) began his administration with an IMF stabilization program, and a promise of structural change. Once the petroleum revenues began coming in, however, attempts at stabilization were abandoned as Lopez Portillo decided to spend his way out of trouble through adopting a massively expensive development program.[9] As the oil revenues increased foreign borrowing also accelerated; control over spending became increasingly lax as the government undertook a major expansion in infrastructure investment.[10] Instead of cutting back expenditures in the wake of the 1981 decline in oil revenues (reaching only $14.5 billion instead of the $20 billion projected in the 1981 budget), the government continued its spending by even heavier foreign borrowing, mainly short term. By the end of 1981 the public sector foreign debt, scheduled to rise during the 12 months from $34 billion to $40 billion, actually jumped to $53 billion of which $14.5 was due for repayment in 1982.[11]

Progress in Dealing with the Debt

When President De La Madrid took office on December 1, 1982, the country was facing a dual economic crisis, domestic in origin, and external

conditions were intensifying the problems. The first crisis, which could be considered cyclical, required frank and immediate attention, while the second, more structural in nature, would take years of constant effort to overcome.

Consequently, the economic and social strategy incorporated into the 1983-1988 National Development Plan centered on two interrelated lines of action: one of immediate, short-term economic measures and the other of structural change. Both involved reducing the public deficit, increasing domestic savings, and reducing trade barriers, while, at the same time, protecting productive capacity and employment, and bringing down inflation.

In an inflationary context, interest payments on debt contain a sizeable component corresponding to the inflationary depreciation of that same debt. If this factor is applied to Mexico, it is evident that during the 1983-1985 period there was significant progress in lowering the relative value of the public debt:[12]

1. The domestic public debt, after having increased 60 percent in real terms during 1982, fell 30 percent between 1983 and 1985.
2. Also during this period, foreign public debt, in relation to the gross domestic product, fell from 43.9 to 40.6 percent. This reflects a decline in the growth rate of net borrowing, which fell from levels surpassing 7 percent of the GDP in 1981 to 3.1 percent in 1983, 1.5 percent in 1984, and 0.4 percent in 1985.
3. In the 19 months prior to July 1986, the country received no net financial resources from the rest of the world.

The country has also made important improvements in public finances, in trimming the size of government, and in increasing efficiency in public enterprises.[13] Between 1983 and 1985 the total public sector deficit decreased from 18 percent of the GDP to 9.2 percent.

4. A better way of evaluating the adjustment is in the primary deficit (total deficit minus interest payments on the debt). In 1981, the primary deficit amounted to 8.1 percent of the GDP in 1986; despite the fall in oil prices it was anticipated that there would be a surplus of 3.9 percent.
5. The largest part of the reduction in the fiscal deficit came from cuts in government spending on goods and services before interest payments; spending has declined almost eight percentage points of GDP since 1981.
6. The system of state subsidies was also completely revised. Between 1982 and 1985, government transfers to public companies—excluding support for debt service—declined three percentage points of GDP. In real terms this means that transfers declined by 40 percent between 1982 and 1985.
7. Finally, an effort has been made to reduce the gap between the general price levels for consumer goods and the prices of public goods and services, especially in energy. This has reduced implicit subsidies and eliminated distortions in relative prices.

To stop capital flight, the government has set interest rates well above the inflation rate. In addition, the government, beginning in the summer of 1986, introduced a new type of government savings instrument whose value in Mexican pesos is tied to the value of the dollar. In other words, Mexicans are now able to invest their money within the country assured that the money will grow as if it were held in dollars in a U.S. bank account.[14] The authorities have also created incentives for export-oriented companies and companies generating new jobs. Government subsidies on gas, electricity, mass transportation, and basic foods are being phased out. They are also divesting themselves of many state run firms.

On another front the government has enjoyed some success in its debt-capitalization program.[15] Launched in June 1986, this program allows debt to be converted into capital by foreign investors. Conversion is authorized if the applicant can persuade the government that it will create new jobs, increase exports, or introduce advanced technology. Depending on the nature of the project, the debt is exchanged for pesos at 76–100 percent of face value (unlike the Chilean regime, introduced a year earlier, which exchanges at par).[16] By late 1986 some $200 million in external debt had been converted under this system and the government had more than 70 applications pending.

A parallel scheme was suggested to the Mexican government by the International Finance Corporation (IFC): a closed-end fund which would buy up foreign loans, and convert them into peso-denominated direct investments in Mexican companies. The IFC itself would be the direct investor, though it would make a secondary offering of its own shares to private investment. Clearly, this indirect procedure only slightly obscures the fact that in opting for debt-equity swaps Mexico has had to overlook many of its selective restrictions on foreign investment, another traditional banner of the country's nationalism.[17]

Most importantly the country's debt-for-equity swap plan not only rids the state of costly firms, but adds needed dollars to the treasury and is a strong stimulus in luring direct foreign investment. Debt-for-equity agreements amounted to $850 million in foreign investment in the last nine months of 1986. Primarily because of fears of inflation, the program ceiling for 1987 was set at $1.5 billion.[18] While optimists contend that this program could liquidate 8 percent of Mexico's external debt, and that the country could get rid of a major source of federal budgetary deficits[19] by offering discounts of 5 to 25 percent to foreign investors wishing to purchase shares in 55 state-run firms currently facing indebtedness and liquidity problems, it is not at all clear that the program will make more than a token dent in the country's external debt.[20] At most, foreign bankers and Finance Ministry officials estimate debt swaps will retire about $3 or $4 billion of Mexican debt. Officials characterize the debt-for-equity scheme as a temporary measure that may become more restrictive and eventually be eliminated entirely.[21]

While demand for Mexican equity remained strong through most of 1987, the Mexican government seems unlikely to raise its self-imposed ceiling on

the supply of such swaps. In part the main reservations Mexican authorities have with the program (in addition to purely nationalistic concerns) involve the fact that

1. The country may be simply foregoing foreign exchange, since most swap investment would have arrived anyway in real dollars. This is most likely the case in the automotive industry but less clear in tourism, and in the *maquiladoras*, which have become the new foci of debt-swapping.
2. The cheap investment pesos may fuel a surge in inflation.[22]
3. Debt swaps give multinational subsidiaries with preexisting expansion plans a steep discount in a local currency that is already substantially undervalued. There is no evidence, moreover, officials acknowledge, that the program is attracting investors not already established in Mexico.[23]

Finally, by joining the General Agreement on Tariffs and Trade (GATT), the country hopes to increase trade with the United States, which already accounts for 60 percent of their total trade, and to expand and diversify trade with Europe. The major measures under the GATT agreement include:[24]

1. The basis of the current protection system is primarily on tariffs, compared with the previous structure that relied mainly on import licenses. About 89 percent of the items covered by tariffs, amounting to about 65 percent of the value of imports, are now license-free. In 1982, only 20 percent of the value of imports escaped quantitative restrictions.
2. Import tariffs have been cut from an interval ranging from 0 to 100 percent to one between 0 and 45 percent in 1986.
3. Beginning in April 1985, there was a gradual reduction in tariff levels; by the end of 1988, the levels will fall to a maximum of 30 percent.

In summary, since 1982 Mexico has progressively moved toward a pragmatic external approach to its massive debt problems. Debt restructuring with international creditors and foreign governments, mostly the United States and Japan, has had top priority. In terms of internal policies, reforms have been undertaken in the fiscal and industrial sectors. Mexico has slowly moved toward supply-side economics by cutting both personal and corporate income taxes to stimulate increased investment and consumption.[25]

In addition:

1. Public spending as a proportion of GDP has been reduced from 32 percent in 1981 to 19 percent in 1986; real public investment from 11 to 3 percent of GDP over the same period.
2. Public sector enterprises in the same period were reduced from 1,155 to 820 with a further 123 companies due to be sold or closed immediately.
3. Real wages were cut by about 45 percent for half of the 25 million workers with full-time jobs.

4. Subsidies have been cut back radically and even dangerously. For instance, Conasupo, the government company that produces or buys and distributes subsidized staple foods, has cut subsidies by a full 70 percent since 1982. In 1986 the maize subsidy for tortillas, the staple diet of the poor, were about one-quarter of their 1985 levels.
5. Imports have been liberalized with 62 percent in volume now free from import licenses while the country has overcome a generation of nationalist inspired trade isolationism and applied to join the General Agreement on Tariffs and Trade (GATT).
6. The more liberal trade policy is helping to diversify the economy away from oil so that by mid-1986, 30.8 percent of exports were manufactured goods, up from 17.77 percent in 1981.
7. The government in 1984 handed back to the private sector an additional 339 companies taken over by the state when the banks were nationalized in 1982. This entailed privatization of most of the country's brokerage and insurance houses, which by now have become a dynamic alternative to the state banks and channel a fifth of national savings.[26]

The 1986 Rescue Package

Mexico has been very successful in achieving its external goals. In fact Mexico was the first and so far only country to gain IMF approval of repayment linked to its principal export, oil. In the negotiations with the Paris Club, the country also achieved limited legitimacy concerning other new debt servicing principles. Two of the more far reaching and provocative principles were the priority of a minimum growth rate over strict payback requirements; and the potential of debtors deferring payment of interest.

More precisely Mexico's latest major loan package (which was finally approved in March 1987) and involved as much as $7.7 billion has as its principal provisions:

1. A longer time schedule is allowed to repay $43.7 billion in existing loans to Mexico, extending to 20 years, with no principal due for the first seven years.
2. Interest rates are reduced on the $43.7 billion in old loans, and on the $8.6 billion in loans made in 1983 and 1984, and on the $7.7 billion in new money. The interest rate will be 13/16 of one percentage point above the London interbank offer rate (LIBOR), the standard measurement for banks' cost of funds.
3. Of the contingency loan fund $500 million would be available, if the Mexican economy grows slower than its growth targets during the first quarter of 1987 and $1.2 billion would be available if export receipts—principally oil—are lower than expected.[27]

The 1986 crisis initiated widespread debate about the causes, consequences, and costs of the debt. Popular public point of view was that Mexico could not and should not have to face more years of harsh austerity

just to satisfy the IMF and commercial bankers, but more conservative elements of the Mexican government felt that it was critical that Mexico meet the demands of the IMF and obtain the loans necessary to avoid a default. Others argued that the loans were necessary, but felt that concessions should be made by the IMF and the international banking community. This faction maintained that Mexico had attempted to restructure its economy and had imposed austerity. The unfortunate collapse of oil prices in 1986, they insisted, should be a responsibility shared by the commercial banks and the international financial institutions.[28] In essence, the new loan package provided for loans of over $12 billion for the period 1986–1987, and appears consistent with U.S. Treasury Secretary Baker's Third World debt program:

> The Baker plan . . . emphasized that the debt crisis could only be resolved through sustained growth by the debtor countries—that austerity alone would be self-defeating in the longer run. To achieve the requisite growth, the plan prescribed orthodox programs of economic reform and structural adjustment for the debtor countries, including greater reliance on the private sector, curtailment of state subsidies and price controls, measures to stimulate both foreign and domestic investment, and export promotion and trade liberalization. The plan also called on private banks and international institutions to step up sharply their lending to indebted countries. The banks were urged to provide new commercial credits of $20 billion over a three year period, while the World Bank and the Inter-American Development Bank would contribute an additional $9 billion in loans.[29]

The rescue package called for the commercial banks to generate approximately $6 billion of new loans. The IMF and World Bank loans were contingent on the commercial bank loans being secured. This package also contained some concessions for Mexico. The World Bank agreed to provide additional credit if real economic growth was less than 3.5 percent in 1987. The IMF loan of $1.6 billion guaranteed additional credit if oil income fell below $9 billion. In exchange for this jumbo loan package, the IMF required Mexico to continue to sell off and reduce the number of state-owned enterprises, to liberalize trade, to attract more foreign investment, and to reduce its domestic deficit by three percent of GDP.

The program has come under fairly severe criticism. Critics charge that it only addresses the short-run problem of servicing immediate debt obligations, and will take the pressure off the economy only if oil prices stiffen or even increase, that the global economy continues to grow, and that interest rates do not rise, all questionable assumptions.

Furthermore, critics assert that adding another $12 billion to Mexico's debt will merely increase the nation's long-term debt service obligations. More importantly, they argue that this loan package will not reverse the negative transfer of capital from Mexico to the advanced nations; instead, it will merely perpetuate this negative flow. The critics also warn that this package will simply draw United States banks further into the debt

quagmire. Moreover they argue that the Mexican people should not have to suffer through more years of austerity and a further decline in their already low standard of living.

IMPACT OF EXTERNAL DEBT AND FISCAL POLICY ON THE ECONOMY

Clearly the long-run impact of Mexico's external debt on the country's future growth will in large part depend on how the debt is used, and whether or not the debt actually results in new productive resources becoming available for capital formation. A particularly important question is: Has external debt and/or government deficits "crowded out" private sector investment? FitzGerald's work,[30] drawing largely on Mexican Treasury data, suggests that in Mexico's case government deficits tend to displace or crowd out private consumption. His empirical results indicate that private savings increased to pay for the deficit. According to FitzGerald, however, the increase in savings came at the expense of private consumption rather than private investment. Thus government deficits have had a stimulating effect on growth by mobilizing savings for increased levels of investment.

The results obtained by FitzGerald led him to conclude that development finance in Mexico was unlike the orthodox view.[31] Under this view, savings is the constraint on investment. If the government finances the deficit through the use of savings, investment is crowded out. Savings, being the residual after consumption, thus determines investment. In the Mexican case, FitzGerald concludes that consumption and savings are residuals after investment and deficit levels have been met. Thus investment and the deficit determine the levels of consumption and savings.[32]

However, using International Monetary Fund data, Looney and Frederiksen[33] found evidence for the more orthodox view of savings and investment in Mexico. Their findings indicated that both changes in savings and the level of savings were closely related to changes in GDP and the level of GDP respectively. Contrary to FitzGerald, they found that increases in savings were associated with decreases in the deficit. In addition they found that increases in government expenditures reduced private savings. With regard to the level of savings the government deficit had a minor negative impact. Government borrowing, as to be expected, was strongly related to the level of saving.

In sum then, the picture that develops from these results is one of little direct crowding out. Private savings seems to be undertaken primarily to finance investment—the orthodox view of savings. While not tested directly, there is some evidence to suggest that increased access to credit through the banking system stimulates savings and in turn private investment. The only crowding out seems to be increased savings (decreased consumption) through the inflation effect of an expansion in government expenditures.[34]

With regard to investment, Looney and Frederiksen found a pattern similar to that of consumption and savings, that is, the level of investment appears largely determined by changes in GDP. Importantly, it does not seem that government financial actions significantly crowded out investment. Government credit from the banking system was positively related to investment as were increases in the deficit (when changes in GDP were included in the estimating equation).

> In general government activities (both on the expenditure and financial side) do not appear to have crowded out investment, other than through the adverse effect of inflation diverting funds away from capital formation. . . . It appears that Mexico is typical of the Keynesian case, increases in the deficit were accompanied by increases in consumption. Apparently enough slack existed in the economy so that as deficit spending increases, the available resources were more fully utilized. There were subsequent increases in national income and consumption. The results also indicate that private investment is adversely affected by inflation (the latter presumably stemming from government deficits.[35]

Looking at different time periods however, Looney and Frederiksen concluded that for the later periods (1965–1981), as opposed to earlier periods (1951–1965), the impact of government fiscal policy was shifting from positive to negative:

> In general the results for the later periods suggest, contrary to FitzGerald, that the government deficit may over time be weakening in its impact on expanding the GDP. If so the impact of the deficit on investment and growth in Mexico may now be a net negative. The implication is that Mexico will not be able to overcome its current economic crisis until the government's fiscal position is under control.[36]

As noted, the empirical work of FitzGerald, and Looney and Frederiksen were largely concerned with short-run impacts of the government's deficit on savings and investment. One of the more interesting results of this analysis was the finding by Looney and Frederiksen that several of the mechanisms linking the government sector to private sector activity seem to be breaking down; that is, the positive links that government expenditure, particularly its allocations to infrastructure,[37] may be breaking down, and in fact, turning negative. To test this hypothesis a longer term estimation procedure was utilized, that is, it can be demonstrated that an equation of the Koyck[38] form:

$$\text{(a) } y = ax + byL + z$$

where (y) represents a macroeconomic aggregate such as consumption investment or gross domestic product; and (x) represents a government fiscal variable such as borrowing, or expenditures. The formula implies an exponential decay scheme whereby the effect of a once-and-for-all change in

government fiscal activity (expenditures, deficits, external borrowing, etc.) would affect private consumption, investment, and growth not only during that period, but would also have (in declining terms) an impact on their level in future years. It can be shown that this result stems directly from the inclusion of national income lagged one year (*byL*) on the right hand side of the equation.[39]

Impact patterns along these lines are easy to imagine in Mexico's case where debt-supported government expenditures might be felt heavily during the first few time periods, decaying gradually thereafter.

To test for a general secular decline in the effectiveness of government expenditures in stimulating growth, a dummy variable was added to the regression equation. Much of the literature on Mexico treats each six-year presidential term (*sexenio*) as a fairly homogenous policy environment in which presidential economic programs[40] can be fairly easily categorized, that is, the stabilizing development of Diaz Ordaz, the shared development of Echeverria, the high growth policies of Lopez Portillo, and the austerity programs of De La Madrid.[41] A dummy variable (*DUMP*) was created to capture each presidential *sexenio*.[42] The Diaz Ordaz years, 1966–1970 = 0; the Echeverria years, 1971–1976 = 1; the Lopez Portillo years, 1977–1982 = 2; and the De La Madrid years, 1983–1988 = 3. Each government fiscal variable (x in equation [a]) was in turn multiplied by this political dummy to create a variable depicting any potential change in the slope of the fiscal-macroeconomic relationship.[43] The final equation used for estimation was therefore:

$$\text{(b)}\quad y = ax + byL + dx + z$$

where dx = the dummy (*DUMP*) times the fiscal variable, (x). Statical significance of this variable would indicate a secular (by *sexenio*) change in the manner in which government fiscal activities impact on the economy. The fiscal variables examined in the regression equations were:
GEP = Government expenditures (line 82, IFS);
BDP = Net government domestic borrowing (line 84a, IFS);
BFP = Net government foreign borrowing (line 85a, IFS).
DGEP, DBDP, and *DBFP* represent these fiscal variables multiplied by the political *sexenio* dummy, *DUMP*.

EMPIRICAL RESULTS

Estimates of the distributed lag impact of fiscal developments debt on various macroeconomic aggregates over the 1966–84 period produced the following results.

Private Consumption (*PCNP*):

(1) $PCNP = 1.05\ PCNPL\ (24.36) + 0.29\ GEP\ (1.19) - 0.17\ DGEF\ (-2.74) - 0.02\ RHO\ (-0.08)$
$r^2 = 0.975; DW = 1.85$

(2) $PCNP = 1.05\ PCNPL\ (54.27) + 1.35\ BDP\ (2.19) - 0.79\ DBDP\ (-3.20) - 0.20\ RHO\ (-0.83)$
$r^2 = 0.979; DW = 1.94$

(3) $PCNP = 1.07\ PCNPL\ (125.28) + 0.99\ BFP\ (1.11) - 1.28\ DBFP\ (-4.5) - 0.45\ RHO\ (-2.131)$
$r^2 = 0.995; DW = 2.16$

Gross Capital Formation (*TINP*):

(4) $TINP = 1.17\ TINPL\ (4.71) + 0.02\ GEP\ (0.05) - 0.09\ DGEP\ (-1.14) + 0.09\ RHO\ (0.37)$
$r^2 = 0.832; DW = 1.72$

(5) $TINP = 1.12\ TINPL\ (14.91) + 0.60\ BDP\ (0.89) - 0.52\ DBDP\ (-1.90) - 0.04\ RHO\ (-0.18)$
$r^2 = 0.874; DW = 1.87$

(6) $TINP = 1.16\ TINPL\ (31.32) - 0.30\ BFP\ (-0.25) - 0.83\ DBFP\ (-2.03) - 0.43\ RHO\ (-2.00)$
$r^2 = 0.963; DW = 2.19$

(7) $TINP = -0.14\ TINPL\ (-1.04) + 0.89\ PCNP\ (6.48) - 0.01\ DPCNP\ (-0.60) - 0.13\ RHO\ (-0.171)$
$r^2 = 0.819; DW = 2.00$

Gross Domestic Product (*GDPNP*):

(8) $GDPNP = 1.10\ GDPNPL\ (26.01) - 0.07\ GEP\ (-0.22) - 0.13\ DGEP\ (-1.54) + 0.31\ RHO\ (1.34)$
$r^2 = 0.971; DW = 1.62$

(9) $GDPNP = 1.07\ GDPNPL\ (60.18) + 1.11\ BDP\ (1.36) - 0.80\ DBDP\ (-2.14) + 0.15\ RHO\ (0.63)$
$r^2 = 0.978; DW = 1.76$

(10) $GDPNP = 1.08\ GDPNPL\ (113.51) - 0.38\ BFP\ (-0.26) - 1.11\ DBFP\ (-2.10) - 0.24\ RHO\ (-1.04)$
$r^2 = 0.995; DW = 2.08$

(11) $GDPNP = 0.12\ GDPNPL\ (2.29) + 1.20\ TINP\ (17.23) + 0.04\ DTINP\ (1.25) + 0.21\ RHO\ (0.98)$
$r^2 = 0.970; DW = 1.43$

(12) $GDPNP = 0.26\ GDPNL\ (1.97) + 1.12\ PCNP\ (6.25) + 0.05\ DPCNP\ (2.17) + 0.43\ RHO\ (1.98)$
$r^2 = 0.981; DW = 1.50$

In general the results indicate:[44]

1. Given the low t-values on the *bx* term, government expenditures or borrowing have had, at best, only a marginally positive impact on private consumption over the period examined. In addition there has been a decreasing effectiveness in the ability of the government to increase private sector consumption with the negative sign on the dummy term, indicating that private consumption as a proportion of government fiscal activity is decreasing considerably with each successive presidential *sexenio*. In terms of the strength of fiscal policy, private-sector consumption has been most adversely affected over time by external borrowing, followed by domestic borrowing, with government expenditures having the least negative impact.
2. Gross capital formation has not been stimulated by government expenditure or borrowing. If anything, the negative slopes on the dummy terms indicate that government fiscal actions are increasingly crowding out productive investment. On the other hand, private-sector consumption appears to be a major factor stimulating increased levels of investment. In contrast to fiscal policies, private consumption has not experienced diminishing returns over time in affecting investment.
3. Gross domestic product has also not been positively affected by government expenditures or borrowing. As with investment, whatever impact government actions have had on GDP appear to be encountering decreasing effectiveness; that is, GDP as a percentage of government expenditures or borrowing has been decreasing with each successive presidential *sexenio*.[45] On the other hand both investment and consumption have had a strong positive impact on GDP, with no signs of diminishing returns.

To sum, it appears that whatever positive impacts government expenditure and borrowing may have historically had on the economy, these effects are no longer present. In fact there is evidence that Mexico is increasingly facing diminishing returns in terms of the government's ability to inject a net positive stimulus to the economy. Apparently any near term revitalization of the economy will have to be derived from an autonomous expansion of private rather than public-sector expenditures.

CONCLUSIONS

The empirical results above suggest several principles that should serve as the basis of resolving the Mexican government's current short-term dilemma of the best use to be made of the country's large reserve position, together with the longer term problem facing both the United States and Mexico as to the resolution of the country's external debt situation.

In terms of the short-run problem, it is apparent that when Carlos Salinas de Gortari assumes office in late 1988 he must tackle the fundamental problem that has confounded the present administration as well as its predecessors: how to regain the high rates of growth that characterized the Mexican economy over the 1955–1970 period. Since the early 1970s successive governments have attempted to solve this dilemma by either exporting oil, or increasing the country's external debt. Although there has been

some progress in transforming the structure of the Mexican economy, there is little reason to believe that simply increasing government expenditures will return the country to a self-sustaining high growth path. As Castaneda notes, whatever policies he chooses, Salinas de Gortari will need all the foreign reserves and breathing room he can get. Saving the nation's reserves for his successor could be President De La Madrid's wisest move.

In terms of longer run policies for dealing with the varied issues surrounding the country's external debt, the options appear to be (a) default, (b) a further variant of the current Baker-type stabilization program agreed to in March 1987, or (c) a combination of (a) and (b).[46] The default option can probably be rejected out of hand for political reasons, although it is not apparent that from a purely economic viewpoint there would be any great costs to Mexico.[47] The first offspring of the Baker Plan was the "growth oriented" adjustment plan for Mexico put into effect in March 1977. Another version of this approach to external debt is the Bradley Plan. As in the Baker Plan, Mexico would be required to liberalize its international trading arrangements and generally adopt market-oriented reforms. Clearly any approach to alleviating the debt problem that is likely to revive economic growth in Mexico (and other indebted countries) is welcomed. Yet the Baker and Bradley type proposals raise some disturbing questions both as to their feasibility and their desirability.[48]

> Countries get into debt servicing problems for two kinds of reasons: bad luck and bad management or bad policies. (Among the latter we include those that get into trouble by design.) Bad luck includes such external (to borrowing countries) shocks as the rise in world wide real interest rates (largely made in the USA), adverse shifts in the terms of trade (the decline in the oil price in the case of Mexico) . . . . The proposals are unfair in that they do not make the magnitude or the terms on which the relief is provided contingent on whether the country's problems are due to bad luck or bad management. Past policy performance is not taken into account. Future policy reform and performance is of course put at the center of the stage, but it is doubtful whether this can be taken too seriously, precisely because past policies (or how a country got into the current mess) are not taken into account. By treating the existing debt as a bygone and focusing exclusively on (promises of) future policies for trade liberalization, privatization, fiscal probity etc., these proposals contribute to an environment in which countries are more likely deliberately to build up their debt once more to unsustainable levels in the expectation of a Bradley Plan Vintage II when the next crisis hits.[49]

The empirical analysis above, while acknowledging that Mexico has had its share of bad luck,[50] also identifies a long-run secular decline in the effectiveness of government expenditures as a major cause of the country's current debt problems. Until this limitation to growth is overcome, it is unlikely that the current stabilization effort or future Baker-Bradley type programs will be of any real value in solving the country's growth difficulties.

If solutions (a) and (b) to the debt problem are not viable, what is left? Pragmatic Mexicans realized some time ago that a number of political and

economic reforms need to be enacted before the country will be able to return to any type of growth path resembling that achieved in the 1955–1970 period.[51] Controls on capital flight, privatization of inefficient and corrupt state-controlled industries, a lowering of trade barriers, and tax reform and price controls have been instituted or are being considered.[52] It will be politically impossible to fully implement these reforms without a significant reduction and eventual elimination of the debt burden. A long-term debt moratorium (like a Chapter 11 bankruptcy filing in the United States) would guarantee Mexico a new start and some hope of success.[53] In return, however, Mexico would be required to exchange at a rate of 50 cents on the dollar, an increasing volume each year of debt for equity, and in fact encourage the expansion of such programs.

The empirical analysis above indicated that any long-term solution to Mexico's growth-debt problems must involve a gradual contraction of the public sector in the economy and an expansion of private sector activity. Using this general principal, several guidelines for a long-term solution to the country's economic problems are apparent:

1. Reforms must be adequate in scope to end the negative capital flow from Mexico to the advanced industrial nations. Clearly this will involve tax and other measures to increase the private rate of return on investments in Mexico.
2. Any new money loaned to Mexico must be used for productive investment that increases capital formation and the competitive productive capability of the nation. To increase the attractiveness of these loans, the United States government should provide the guarantee.
3. To reduce the increasing burden posed by public sector deficits, the government will have to make a more determined effort to raise domestic revenues, both through tax reform and increased tax collection.[54]

If implemented, these policies should enable the country to achieve a long-run solution to its debt problems, while at the same time assuring a sustainable flow of external capital.

NOTES

1. Jorge Castaneda, "The Unlikely Dilemma of How to Spend It," *Financial Times*, August 26, 1987, p. 16.

2. Castaneda, "The Unlikely Dilemma," p. 16.

3. Larry Rohter, "Waiting Game Is Over In Mexico As Presidential Choice Is Named," *New York Times*, October 5, 1987, p. 1; David Gardner, "Youth and Ability Win Day for Salinas," *Financial Times*, October 6, 1987, p. 6.

4. See, for example, Redvers Opie, *Mexican Industrialization and Petroleum* (Mexico City: ECANAL, August 1979).

5. David Mares, "Mexico's Challenges," *Third World Quarterly*, July 1987, p. 795.

6. Mares, "Mexico's Challenges," p. 795.

7. Travier Marquez, "La Economica Mexicana en 1977 y su Futuro," Madrid, October 1977 (mimeo).

8. For a complete account of this period see Robert E. Looney, *Mexico's Economy: A Policy Analysis with Forecasts to 1990* (Boulder, CO: Westview Press, 1978).

9. Cf. Robert E. Looney, "Mexican Optimism and Economic Reality: An Analysis of the Industrial Development Plan," *Rivista Internazionale di Scienze Economiche & Commerciali*, May 1984.

10. Robert E. Looney, "The Mexican Oil Syndrome: Current Vulnerability and Longer Term Viability," *OPEC Review*, Winter 1985. See also Robert E. Looney, "Scope for Policy in an Oil Based Economy: Mexican Stabilization Policies in the 1970s," *Socio-economic Planning Sciences*, 1987.

11. An analysis of the events leading up to the 1982 crisis is given in Robert E. Looney, *Economic Policy Making in Mexico: Factors Underlying the 1982 Crisis* (Durham, NC: Duke University Press, 1985).

12. Pedro Aspe, "Charting Mexico's Economic Progress," *The Wall Street Journal*, August 8, 1987.

13. Aspe, "Charting Mexico's Economic Progress."

14. William Stockton, "Mexico's New Bid to Stem Capital Flight," *New York Times*, July 28, 1986.

15. In the Mexican case, debt swaps work this way: A foreign company buys Mexican government debt on the secondary international market at the usual discount (in 1987 this was about 55 cents to the dollar) and redeems it within Mexico for pesos. For the highest priority investment projects defined as the purchase of state enterprises, the government will supply pesos at the loan's full face value. In the lowest ranking of the nine investment categories defined under the plan, Mexico will hand over the peso equivalent of 75 percent of the loan's dollar value. Most transactions approved so far have fallen under the third category, which gives a 92 percent rate for projects oriented toward exports or high technology or that will be located in designated industrial development zones. Also included in this category is foreign equity participation in existing Mexican-owned enterprises. The pesos must be used for approved capital investments, not for import financing, foreign debt payment, or as a cheap source of local working capital. The pesos are paid out directly to the foreign investor's local suppliers, creditors, and contractors. Cf. "How Debt Swaps Work," *Journal of Commerce*, December 16, 1986.

16. Eduardo Crawley, "Mexico," in World of Information, *The Latin America and Caribbean Review*, 8th ed., (Saffron Walden, Essex: World of Information, 1987), pp. 95-96.

17. Crawley, "Mexico," p. 96.

18. "Heels Dragged on Local Debt Swap," *Latin America Weekly Report*, July 16, 1987, p. 4.

19. "Mexico," *Latin America Weekly Review*, October 2, 1986, p. 2.

20. William Orme, "Debt-Equity Swaps as a Passing Mexican Fancy," *Journal of Commerce*, December 16, 1986.

21. Orme, "Debt-Equity Swaps."

22. David Gardner, "Bankers Rush for Mexican Equity," *Financial Times*, June 2, 1987.

23. William Orme, "Swaps Spur Foreign Investment in Mexico," *Financial Times*, January 5, 1987.

24. Aspe, "Charting Mexico's Economic Progress."

25. "Mexico," *Latin America Weekly Review*, November 20, 1986, p. 5.

26. David Gardner, "Mexico Looks to IMF for Appreciation of Its Efforts," *Financial Times*, July 1, 1986.

27. Anne Swardson, "Banks Agree to Lend Mexico As Much As $7.7 Billion," *Washington Post*, March 21, 1987.

28. John C. Pool, and Steve Stamos, *The ABC's of International Finance* (Lexington, MA: Lexington Books, 1987), p. 113.

29. Art Pine, "Mexico-IMF Reach Tentative Agreement on Economic Restructuring Framework," *The Wall Street Journal*, July 15, 1986.

30. E. V. K. FitzGerald, "The Fiscal Deficit and Development Finance: A Note on the Accumulation Balance in Mexico," *Working Paper No. 35*, Cambridge: Cambridge University Center of Latin American Studies, 1979; E. V. K. FitzGerald, "A Note on Capital Accumulation in Mexico: The Budget Deficit and Investment in Finance," *Development and Change*, July 1980, pp. 391–417; and E. V. K. FitzGerald, "Looney and Frederiksen on Mexican Fiscal Policy: A Reply," *World Development*, March 1987, pp. 405–406.

31. While the mainstream of the FitzGerald model is non-Keynesian, he did demonstrate for at least one variable and one time period (nonhousing rate of depreciation for 1960–1976) the presence of a Keynesian relationship. He also confirmed the result using Hacienda data and model. See FitzGerald, "A Note on Capital," p. 412.

32. FitzGerald, "The Fiscal Deficit," pp. 14–15.

33. Robert E. Looney, and P. C. Frederiksen, "Fiscal Policy in Mexico: The FitzGerald Thesis Reexamined," *World Development*, March 1987, pp. 399–404.

34. Looney and Frederiksen, "Fiscal Policy in Mexico," p. 401.

35. Looney and Frederiksen, "Fiscal Policy in Mexico," p. 401.

36. Looney and Frederiksen, "Fiscal Policy in Mexico," p. 404.

37. Robert E. Looney, and P. C. Frederiksen, "The Regional Impact of Infrastructure Investment in Mexico," *Regional Studies*, No. 4, 1981, pp. 285–296.

38. Cf. L. M. Koyck, *Distributed Lags and Investment Analysis* (Amsterdam: North Holland, 1954).

39. Potluri Rao and Roger Miller, *Applied Econometrics* (Belmont, CA: Wadsworth Press, 1970), Chap. 7.

40. See, for example, Leopoldo Solis, *Economic Policy Reform in Mexico* (New York: Pergamon Press, 1981).

41. Cf. Wayne Cornelius, "The Political Economy of Mexico Under De La Madrid: Austerity, Routinized Crisis, and Nascent Recovery," *Mexican Studies*, Winter 1985, pp. 1–28.

42. The available data on government finances cover only the years 1966–1984, and are therefore not comprehensive for the entire span of the De La Madrid and Diaz Ordaz administrations. Estimates are from the *International Financial Statistics* (1986 Yearbook and August 1987 volumes).

43. A similar analysis is contained in Robert E. Looney, and P. C. Frederiksen, "Consequences of Military and Civilian Rule in Argentina: An Analysis of Central Government Budgetary Trade-Offs, 1961–1982," *Comparative Political Studies*, April 1987, pp. 34–46.

44. All of the equations are estimated in constant 1980 prices.

45. Robert E. Looney, "Mechanisms of Mexican Economic Growth: The Role of Deteriorating Sources of Growth in the Current Economic Crisis," *Journal of Social, Political and Economic Studies*, Spring 1987.

46. The more traditional IMF Stabilization Programs are dealt with in Robert E. Looney, and P. C. Frederiksen, "Feasibility of Alternative IMF-Type Stabilization Programs in Mexico, 1983-1987," *Journal of Policy Modeling*, October 1983.

47. Cf. Anatole Kaletsky, *The Costs of Default* (New York: The Twentieth Century Fund, 1985); and Arthur MacEwan, "Latin America: Why Not Default?" *Monthly Review*, September 1986, pp. 1-13.

48. A full analysis of these proposals is given in W. H. Buiter, and T. N. Srinivasan, "Rewarding the Profligate and Punishing the Prudent and Poor: Some Recent Proposals for Debt Relief," *World Development*, March 1987, pp. 411-418.

49. Buiter and Srinivasan, "Rewarding the Profligate," p. 413.

50. See also Robert E. Looney, "Mexican Economic Performance During the Echeverria Administration: Bad Luck or Poor Planning?" *Bulletin of Latin American Research*, May 1983.

51. Cf. Jorge Castaneda, "Mexico's Coming Challenges," *Foreign Policy*, Fall 1986, pp. 120-160; and Carl Migdail, et al., "Mexico Is Going to Make It," *Washington Quarterly*, Winter 1986, pp. 171-186.

52. Pool and Stamos, *The ABC's of International Finance*, p. 117.

53. Pool and Stamos, *The ABC's of International Finance*, p. 116.

54. William Orme, "Tax Evasion Takes Its Toll of Mexico's Revenue," *Financial Times*, August 21, 1987, p. 4.