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MEXICO AND THE UNITED STATES

Studies in Economic Interaction

dited by
Peggy B. Musgrave

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Preface

This volume explores major issues posed by the interaction between the neighboring economies of the United States and Mexico. The important problems that are addressed include the key areas of Finance, Trade and Industry, Economic Fluctuations and Growth, and Labor Markets. In each of these areas the papers highlight elements of economic interdependence and examine mutual approaches to the solution of joint problems. The enormous weight of the U.S. economy and its close proximity to Mexico render the future of the Mexican economy highly dependent on the health and vitality of the U.S. economy. But the interdependence is mutual; Mexico is an important trading partner of the U.S. and a vital factor in the economic life of the North American continent.

The papers were presented initially at a conference held at the University of California, Santa Cruz, jointly sponsored by the UCSC Seminar in Applied Economics, the UC-MEXUS Consortium and the UCSC-MEXUS Committee. It is hoped that this volume will make a contribution to mutual understanding between Mexico and the United States and to progress in seeking joint solutions. We are grateful to our Mexican participants for their contributions as well as to our American colleagues, all of whom have greatly added to the success of this endeavor.

Peggy B. Musgrave
Director of Seminar in
Applied Economics

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Part 1

Finance

1

Investment and Debt

Francisco Gil Díaz

INTRODUCTION

The topic of this book immediately suggests the problem of savings, since high levels of investment together with insufficient internal savings have led many countries, including Mexico, to their present situation of high external indebtedness. On the other hand, growth models have shown that no relationship exists between savings and growth. Changes in the savings ratio influence growth only temporarily as the economy glides from one steady state to another. But whatever growth models indicate, economists and concerned lay people have been preoccupied with the sufficiency of savings to generate or sustain growth. Perhaps this worry has its origins in the perception of the huge capital needs of a developing country to increase its infrastructure and to make its basic social investments.

The notion of insufficient savings ought perhaps not to exist. Compound economic growth provides some of the required savings and "reasonable" amounts of foreign capital should provide the rest; but often--and perhaps this is the root of most of the concern about the insufficiency of savings--the widespread involvement of the public sector in the economy will, through the prolonged and subsidized pricing of some government-supplied goods and services, continually build up their demand. The greater quantity demanded will require additional investment expenditures, since the government puts itself into the position of provider, in which it would find it politically difficult not to commit greater resources to satisfy the distorted levels of induced demand. Thus, savings are reduced and expenditure needs, however artificial, are raised.

The first and more general section of this chapter discusses Mexico's recent experience regarding its investment ratio and growth rate. It will be argued that the recent enormous rise in the investment ratio, associated with a slight decline in per capita growth, is

partly a statistical fallacy and that future growth does not necessarily require the enormous amounts of savings that might be inferred from these numbers, if investment decisions are more carefully screened and if the pricing of some government-provided services follows an altogether different strategy.

The second section of the chapter follows through on some of the ideas in the first part, using a case study of water pricing in the Federal District. Its purpose is to illustrate the chain of decisions involving subsidized pricing, lower savings, and higher expenditures by the public sector. The section ends with a numerical exercise on the overall budgetary consequences of subsidized public prices.

In the third section, we show how the openness of economies is affected by income generated in the country and not consumed may be enough to finance investment, if it were retained in the country. But the greater the risk associated with a currency or the country's economy, the less savings will be retained and the more outside capital will be needed to maintain investment. Since the greater risk is also perceived by foreigners, the cost of these funds will rise, especially if it comes in the form of debt. Economic growth is retarded, the required return on capital is missed, and unskilled labor income is depressed. It will be shown how Mexico's rising indebtedness, due to policies of this sort, has pushed the country into a situation of financial openness or vulnerability, much beyond what might be considered reasonable under a normal functioning of international portfolio selection.

MEXICO'S RECENT EXPERIENCE WITH INVESTMENT AND GROWTH

When growth rates are shifting from 8 percent in 1981 to perhaps -4 percent in 1983; when the immediate prospect is at least a couple of years of relatively low growth; and when the capital stock grew so rapidly up to the previous 1981 peak, the usual steady-state projection of output with nice, smooth growth rates in productivity, labor force, and capital stock is no longer immediately applicable. Nevertheless, a brief look at the Mexican experience, which until 1981 had been one of relatively uninterrupted growth, can be informative. To do this, it will be useful to set out the basic long-run trends and variables of the Mexican economy.¹

The basic data and assumptions concerning growth in the Mexican economy are (a) a Divisia index of real wage growth of 2.5 percent between 1939 and 1979; (b) physical capital depreciating between 2 and 3 percent, with a declining trend from 1939 to 1979, or between

TABLE 1
Savings Ratios Consistent with Balanced Growth of
Mexican Economy

Rate of Growth		Gross Savings/GDP
GDP	Labor	
0.0	-2.4	7.0
1.0	-1.5	9.8
2.0	-0.5	12.6
3.0	0.5	15.4
4.0	1.5	18.2
5.0	2.4	21.0
6.0	3.4	23.8
7.0	4.4	26.6
8.0	5.4	29.4
9.0	6.3	32.2

6.5 and 8.5 percent measured as a percentage of gross domestic product (GDP); (c) a labor share of GDP of about 45 percent; and (d) a labor-augmenting technological change between 1 and 1.3 percent. To pin down the data, we shall assume that the capital-output ratio is 2.8 (it has fluctuated between 2.8 and 3.3), technological change is 1.1 percent, and the depreciation rate is 2.5 percent. With these data, the gross savings-to-GDP ratio necessary to finance a steady-state growth of 6 percent, with the labor force increasing at 3.4 percent per year, will be 23.8 percent. These data are fairly consistent with our experience.

When different assumptions about growth in GDP and employment are combined, the resulting gross savings-to-GDP ratios consistent with the parameters for the Mexican economy in a steady-state growth are those shown in Table 1. These figures fit reasonably well into part of Mexico's recent experience. From 1956 to 1973, GDP growth was 6.8 percent per year whereas investment averaged 20.3 percent of GDP. Per capita growth in the same period was 3.4 percent per year.

Table 2 shows the figures for the gross fixed investment (GFI)/GDP ratio from 1956 to 1981. With the exceptions of 1958 and 1959, the average investment output ratio of 20.3 percent varies little in the 1956-1973 period. The story is quite different from 1974 onward. Investment reaches an up-to-then unprecedented 26 percent of GDP and stays at high levels, reaching an unheard-of 30 percent in 1981.

Although higher investment ratios do not raise the permanent growth rate of an economy, one would expect

TABLE 2
Ratio of Gross Fixed Investment to Gross Domestic
Product in Mexico, 1956-1981 (in percentages)

Year	GFI/GDP	Year	GFI/GDP
1956	21.5	1969	21.0
1957	20.0	1970	24.0
1958	17.6	1971	22.0
1959	16.9	1972	19.0
1960	20.0	1973	20.0
1961	19.0	1974	26.0
1962	18.0	1975	24.0
1963	20.0	1976	24.0
1964	20.0	1977	23.0
1965	22.0	1978	25.0
1966	21.0	1979	28.0
1967	22.0	1980	29.0
1968	21.0	1981	30.0

Source: Banco de México

a significant, if transitory, rise in total and per capita output as a result of such a dramatic increase in investment. But per capita yearly growth fell from the 3.4 percent mentioned for the 1956-1973 period to 2.8 percent in the 1973-1982 period. Total output growth went from 6.8 percent to 5.8 percent in the respective periods.

Regarding the lower growth with higher investment in the 1972-1982 period, it could be argued that the buildup of plant, equipment, and infrastructure of slow maturation will yield a greater output later. Although that statement contains some truth, the bleak economic situation faced by the country in 1972-1984 is not the kind of outcome one could expect from an efficient increase in the investment ratio. The raw aggregate figures look worrisome, since one might conclude from them that the Mexican economy needs to invest 28 to 30 percent of its GDP to achieve its former rate of growth. As shown in column (i) of Table 3, this investment would amount to an increase of almost 50 percent in the internal savings rate.²

Although raising internal savings significantly is quite a feat in any society, it simply does not seem feasible in a situation in which real wages have fallen, corporations are squeezed for cash, and the government is barely able to finance its most urgent current and capital expenditure needs. And yet foreign credit has dried up to the point that the

TABLE 3
Mexico's Internal Savings Adjusted for Changes in the Terms of Trade, 1970-1982

	GDP (a)	Net Internal Savings (b)	Non-Factorial Exports (c)	Export Prices (d)	Import Prices (e)	Terms of Trade* (f)	Savings Rate* (h)	Adjusted Savings Rate* (i)
	(in billion pesos)							
1970	444,271	63,772	34,431	100.0	100.0	100.0	14.4	14.4
1971	490,011	62,648	37,438	104.6	104.5	100.1	12.8	12.8
1972	564,727	74,032	45,540	109.3	110.6	98.8	13.1	13.2
1973	690,891	96,053	58,127	122.7	124.3	98.7	13.9	14.0
1974	899,707	118,865	75,678	159.5	150.3	106.1	13.2	12.8
1975	1,100,050	154,733	75,839	175.4	166.5	105.3	14.1	13.8
1976	1,370,968	184,248	116,396	230.9	210.8	109.5	13.4	12.8
1977	1,849,263	278,373	190,800	330.1	327.9	100.7	15.1	15.0
1978	2,337,348	369,970	244,707	371.4	367.3	103.3	15.8	15.7
1979	3,067,526	506,142	343,284	474.6	418.7	113.4	16.5	15.4
1980	4,276,490	814,506	537,241	700.0	651.8	107.4	19.0	18.3
1981	5,874,386	1,085,540	701,553	860.8	781.4	110.2	18.5	17.6
1982	9,417,089	1,563,268	1,636,503	1,766.5	1,691.7	104.4	16.6	16.0

* $f = d/e$, $h = b/a$, $i = (fb + (1 - f)c) / (fa + (1 - f)c)$

Source: Secretariat of Programming and the Budget.

country has turned into a capital exporter for the first time in many years, as shown by the surplus in the current account in the balance of payments for 1983 and also quite likely for 1984. The short-run outlook for the Mexican economy in 1983 is obviously one of considerable difficulty, but do the facts just mentioned mean that it will continue to require huge savings and sacrifices to sustain growth even after the current crisis has been superseded?

A future resumption of growth will certainly require effort and an appropriate institutional framework, but it may not require a drastic rise in internal savings much beyond what has already been achieved through 1983 by the updating of the prices of many services and goods provided by the public sector, because part of the rise in investment ratio from 1974 to 1981 was only apparent. In other words, many additions to the public capital stock were wasted resources that did not contribute to growth and that might more appropriately be classified as unenjoyed current expenditures.

It is beyond the scope of this chapter to make an economic audit of public capital stock, but an unusable seaport, a perennially fog-shrouded airport, and an unfinished and very expensive nuclear plant are only a few of many proofs of the outcome from spending too much, too fast. Although the amount of waste is nothing to gloat about, the fact that it accounts for what otherwise would seem to be a greater investment requirement for growth is a comforting fact that suggests that, under sound economic policy, the old ratios should again work adequately. Following the logic of the growth model implicit in the previously given figures for required investment--given certain growth rates in output, population, and productivity--one might conclude that little, if any, net investment will be needed through mid-1985, when output will barely reach its 1981 level.

But this would certainly not be the case for public investment because of so many glaring needs for investing in infrastructure; and it might not be the case either for private investment if the new exchange rate is taken advantage of to implement some structural changes. If commercial policy is geared toward efficiency and foreign markets; if the elimination of waiting and red tape, and the adoption of a more liberal attitude encourage investments in border industries; if international air fares are set at competitive world levels instead of those that produce a profit for the national airlines; and if foreign investment is allowed and even encouraged in tourism--if all these wonderful events combine, then a significant amount of private investment will be needed despite the apparent present level of excess capacity. Furthermore,