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PREMATURE LIBERALIZATION, INCOMPLETE STABILIZATION: THE OZAL DECADE IN TURKEY

Dani Rodrik

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ABSTRACT

In late 1979, Turkey stood in the throes of a foreign exchange crisis, with widespread shortages, negative growth, and inflation into triple digits. A decade later, Turkey has a comfortable balance-of-payments situation, and sits atop considerable foreign exchange reserves. The economy has achieved a remarkable transformation from an inward-oriented outlook to an outward-oriented one. Yet, after some success in the early 1980s, inflation remains unconquered and the public sector budget is out of control.

This paper provides an interpretation of the Turkish experience in the 1980s. It is argued that foreign capital inflows in the early 1980s cushioned the fiscal squeeze, and allowed a relatively painless reduction in inflation alongside a process of export-oriented growth. In the best of all possible worlds, the outward-oriented reforms would have taken sufficient root by the mid-1980s to allow the public sector to undertake the delayed retrenchment as the inflows came to an end, at no great cost to output. Instead, policy followed a mix of liberalization with patronage politics detrimental to monetary discipline. Financial liberalization reduced demand for base money at the same time that fiscal balances came under increasing strain due to the external transfer. Inflation was rekindled under the dual influence of fiscal deficits and a shrinking base for the inflation tax.

Dani Rodrik
John F. Kennedy School of Government
Harvard University
Cambridge, MA 02138

1. Introduction

In late 1979, Turkey stood in the throes of a foreign exchange crisis, with widespread shortages, negative growth, and inflation into triple digits. A decade later, Turkey had a comfortable balance-of-payments position and sat atop considerable amounts of foreign reserves. Exports and foreign exchange receipts from tourism and other services were buoyant. The economy had achieved a remarkable transformation from an inward-oriented outlook to an outward-oriented one, and had undergone significant liberalization in the areas of trade and finance.

However, there remain some disturbing similarities with the late 1970s. Despite a favorable external terms of trade, inflation is around 70 percent and the public sector budget is out of control. While not as severe, a recession grips Turkish industry. Perhaps most ominous, labor and business groups alike have lost much of their confidence in the ability of the government to set things straight. A round of further trade and foreign-exchange liberalization launched in the summer of 1989, and billed as the government's new weapon against inflation, has alienated all but the rentier groups and has had scarcely any effect on prices.

In evaluating the Turkish experience of the 1980s, one has to confront the apparent paradox of a tremendously successful external adjustment pitted against severe internal imbalances. As is by now well recognized, dealing with a debt crisis of the sort that Turkey was subjected to in the late 1970s requires two sorts of adjustment: an external adjustment entailing a net transfer of resources from the domestic economy to foreign creditors, and an internal adjustment entailing a net transfer of resources from domestic

residents to the public sector (which holds the external debt). Turkey was considerably more successful on the former front than on the latter. As we shall see, Turkey's inflation experience can be explained in large part by the needs of public finance: public sector deficits haave been financed at the margin by the inflation tax.

Two aspects of the Turkish stabilization of the 1980s pose puzzles. First, how was the initial reduction of inflation in 1981-82 accomplished at no apparent cost to growth, and, in fact, at a time when growth picked up considerably? Second, what accounts for the persistence of inflation and the two jumps in its level in 1983-84 and 1987-88? The account that follows will focus on these puzzles. Some remaining structural problems and policy dilemmas are discussed at the end of the paper.

2. Background

Turkey's economic troubles date back to 1977, when a public-sector-led investment boom collapsed as a consequence of a foreign exchange crisis. By 1978, Turkey had found herself mired in a severe debt crisis and an extended series of negotiations with foreign creditors, for whom this would prove a dress rehearsal for the more generalized outbreak of 1982. After two years of muddling through, Turkey showed some signs of successful adjustment in the first half of 1980s. But more than ten years after the crisis, Turkey is deeper in debt and macroeconomic stability remains elusive.

The reasons for Turkey's debt crisis of 1977 were essentially twofold. First, expansionary fiscal policy in the wake of the first oil shock wreaked its usual havoc on macroeconomic balances, at a time when restraint would have been the more prudent policy. As Table 1 shows, public investment rose from 7.0 percent of GNP (in 1973) to 13.1 percent (in 1977), while domestic savings

stagnated. The counterpart in the external balances was a turnaround from a surplus of 2.2 percent on the current account to a deficit of 6.9 percent. Yet the crisis could have been averted, or at least postponed, if the foreign borrowing strategy in place had not been inherently destabilizing. After 1975, a major part of foreign inflows were attracted under the infamous convertible Turkish lira deposits (CTLD) scheme. The scheme provided a public exchange-rate guarantee to private borrowers, effectively ensuring that the latter would pay Swiss or German interest rates on loans denominated in Turkish liras, irrespective of Turkish inflation or devaluation. The mad scramble for foreign borrowing lasted for about two years, until foreign banks refused to roll over credits and the Turkish government ran out of foreign reserves. By the end of 1977, the implicit subsidy on foreign borrowing was costing the government on the order of 2 percent of GNP, and would rise even farther as the subsequent, large devaluations entailed even greater capital losses on the CTLD debt.[1]

PLACE TABLE 1 HERE

Between mid-1977 and early 1980, a string of weak governments was unable to arrest the deterioration of the economy. Two IMF stand-bys ended in failure. The foreign exchange constraint led to shortages, which, together with excess liquidity, resulted in rising inflation, reaching 120 percent (annual) in early 1980. Nominal devaluations lagged behind domestic prices, leading to real appreciation (see Figure 1). One positive outcome in this period was a substantial restructuring of the external debt, including the bulk of the CTLDs which were consolidated and converted into long-term liabilities. A summary of this restructuring and the political events surrounding it is provided in Celasun and Rodrik (1989, chap. 9).

PLACE FIGURE 1 HERE

3. Early Results of the 1980 Stabilization

In January 1980, a clear break with the half-hearted measures of the past was signalled by an economic package that went considerably beyond those that had recently been undertaken. The package included a large devaluation (from TL 47.1 to TL 70 to the US$), export subsidies, an increase in interest rates, and substantial price increases for state enterprise products and the promise of abolition of most government subsidies. Perhaps more important than the specific measures was the clear enunciation of a new approach favoring exports, outward orientation, and liberalization. The program was the handiwork of Turgut Özal, the undersecretary to the prime minister in the minority government of Demirel that had taken over in late 1979. So closely was Özal identified with the "January 24 package" that when the military took over in a bloodless coup in September 1980 (in response to the increase in political violence) he was asked to continue overseeing the economy.

With the exception of a 16-month interregnum in 1982-83, Özal has indeed remained at the helm. He became prime minister after the November, 1983 elections, following which he launched a second round of measures aimed at deepening the process of outward orientation. These included a substantial import liberalization and a relaxation of controls on the capital account of the balance of payments. Domestic residents were allowed to establish foreign currency deposit accounts with domestic banks. The import liberalization has since suffered some setbacks, as revenue and protection requirements have forced the government to impose and manipulate some highly discretionary specific import duties. Similar setbacks have occurred in financial liberalization, as interest-rate controls have alternately been lifted and re-imposed in response to financial crises. After a long delay, the process of

privatizing state-owned enterprises was also launched in late 1988. In November, 1989, and after having lost much popular ground in the general and local elections of 1987 and 1989, respectively, Özal had himself elevated to the presidency by a reluctant Parliament. The economic transformation that Turkey underwent under his guidance identifies the 1980s quite clearly as the Özal decade.

Özal's policies hinged on an exceptional restructuring of key relative prices within the economy. The real value of the Turkish lira was kept on a downward path, with a daily crawl on a PPP-plus basis. The initial real devaluation of January, 1980 was therefore not only maintained but steadily reinforced. Second, the weakness of labor unions in the aftermath of the September 1980 coup was used to entrench (and exacerbate) the reduction in real wages that had taken place in the preceding inflationary period. While wage repression may not have been a direct policy goal, it facilitated stabilization by taking cost pressures off the private and public sectors. The considerable flexibility exhibited by the real exchange rate and of real wages in the 1980s is a critical component of the account that follows.

From the very beginning, Özal put heavy emphasis on output recovery alongside stabilization. The two prongs of the growth strategy in the early 1980s were public investment and export encouragement. As Table 2 shows, in the first few years of the program, public investment took an uncharacteristic turn for a stabilization episode: it rose by 2 to 3 percentage points of GNP. Moreover, the structure of public investment was shifted away from manufacturing (which might have simply crowded out private investment) and towards infrastructure (which is possibly complementary to private capital).[2] On the export side, the encouragement took several forms. First, as mentioned above, the exchange rate was maintained on a depreciating path, with an

implicit PPP-plus rule to provide a healthy margin of competitiveness to domestic producers. Figure 1 shows the steady real depreciation of the Turkish lira after 1980, an experience which has no parallel in modern Turkish history. By 1988, the real lira had depreciated by more than 100 percent relative to its level in 1979. Second, exporters were provided with a dazzling array of subsidies, including credit at sub-market rates and tax "rebates" only loosely linked to actual tax payments. The ad-valorem equivalent of these subsidies amounted to 20-25 percent in the early 1980s, with some reduction after 1984 (see Milanovic, 1986, Table VII.4).

PLACE TABLE 2 HERE

Exports responded quickly and, one would guess, beyond the wildest dreams of Özal himself. Within two years, exports had doubled (from $2.3 billion in 1979 to $4.7 billion in 1981), and their value stood at $8 billion dollars by 1985 (Table 2). Despite widespread allegations (and evidence) of overinvoicing, the trend increase in exports remains spectacular even when one adjusts for the "fictitious" component,[3] and continues to baffle skeptics. Thanks to exports and public investment, growth also recovered quickly. After two years of negative growth in 1979-80, the Turkish economy settled on a growth rate of 4-5 percent, with occasional dips and overshoots (see Table 2).

As Table 2 shows, the stabilization program was successful in bringing inflation down from its peak of 107 percent in 1980 to the more reasonable level of 25 percent in 1982. In 1980, Turkey was still an economy with few sources of inflationary inertia: real wages had proved flexible downwards in 1978-79, and they did even more so with the military at the helm. The trick in bringing inflation down then was aggregate demand restraint, of which a healthy dose was applied in 1980-82. As we shall see below, despite the rise in public investment, the adjustment in public enterprise prices, real wage

cuts, and output recovery allowed the public sector deficit to come down from 10 percent (of GNP) in 1980 to 5.4 percent and 6.0 percent in 1981 and 1982, respectively. Monetary restraint took the form mainly of increases in interest rates. With the liberalization of bank deposit rates in mid-1980, depositors began to face something they were unaccustomed to: positive real interest rates. Demand for broad money increased considerably as a result, with the M2/GNP ratio rising from 15 percent in 1980 to 23 percent in 1982 (see Figure 5 below). This re-monetization of the economy played a crucial role in controlling inflation, leading Rüşdü Saracoglu, current Central Bank governor, to comment that "interest rate policy ... was perhaps the single most important factor in lowering the rate of inflation" (Saracoglu 1987). But other changes in relative prices also helped by reducing aggregate demand: real wage cuts, deterioration in agriculture's terms of trade (as price support programs were de-emphasized), and public sector price increases all implied a transfer of real income from the private to the public sector, with a corresponding cutback in expenditures by the former and the deficits of the latter (Celasun and Rodrik 1989).

What then allowed Turkey to bring inflation down in such a short time, and in the context of a growing economy, where so many other countries have failed? Part of the answer necessarily has to do with the single-minded dedication with which sharp changes in relative prices (exchange rates, interest rates, public-sector prices, real wages) were imposed on a society rendered temporarily docile by military rule. These relative-price changes were the counterpart to the fiscal and monetary contraction of 1980-82, as they allowed the public sector deficit to be cut and private absorption to be reduced. And the military's role was not altogether malicious: the alleviation of the intense cycle of political violence that had prevailed

prior to September 1980 endowed the new regime with an initial period of goodwill and public confidence. This breathing spell allowed Özal to implement a set of radical policies which would have been unimaginable in normal times.

But a large part of the answer has to do with the external balance. Compared to other countries going through their crises after 1982, the Turkish government was initially granted exceptionally favorable terms on the external debt front. The foreign exchange constraint was alleviated practically overnight in 1980, not only because of the government's policies, but also because of generous inflows from official and multilateral sources. The Turkish public sector consequently never experienced a sharp turnaround in net resource transfers from abroad, and therefore had less need for inflationary finance at home.

Tables 3 and 4 show the net resource transfers (NRT) to Turkey during the 1980s. In Table 4, estimates of the breakdown of the total NRT between the public and private sectors are provided; due to the nature of the assumptions made in calculating this breakdown, these numbers are less reliable than the aggregate figures shown in Table 3. Nonetheless, interesting conclusions emerge. First, in aggregate it is not really until 1985 that the Turkish economy starts to generate net resource transfers abroad of any sizable magnitude; there are large net inflows especially in the first two years of the adjustment program. Note that 1985 comes five years after the start of the adjustment program, and eight years after the initial debt crisis. Other heavily-indebted countries did not have this luxury; as Table 3 shows, they were forced to generate a NRT of 4-5 percent (of GNP) almost as soon as their debt crisis hit in 1982.

PLACE TABLES 3 AND 4 HERE

Since the relationship between external debt service and domestic inflation is intermediated by the public-sector budget, of more interest is the NRT undertaken by the public sector. Here, Table 4 shows a picture that is once again quite favorable, especially in the early years of adjustment. It is only in 1983 that the Turkish public sector first makes a positive NRT, and the magnitudes thereafter are not particularly large. Over the 1980-87 period as a whole, the public sector is a net recipient of NRT from abroad (of 0.1 percent of GNP).

We see now the key difference with other highly-indebted countries. These countries had to substitute inflationary finance for external finance when their debt crisis hit. In Turkey, this was also the case initially in 1978-79. But from early 1980 on, the Özal program coincided with an alleviation of the external finance constraint. The requisite squeeze on fiscal balances was correspondingly smaller, and the resort to the inflation tax less pronounced. I will return to the budget-inflation nexus later on.

What then accounts for the fact that Turkey was provided, in Lance Taylor's (1990) words, a "long leash" by international finance institutions in the early 1980s? Here the story once again gets political. Around 1979-80, Turkey's geopolitical importance to the Western alliance was highlighted by a series of crises: the Turkish threat to move closer to the Soviet Union, the Iranian revolution, and the Soviet invasion of Afghanistan. The fragile political situation within Turkey added to the worries. These prompted a rescue operation to be launched by the leading OECD countries in early 1979.[4] Turkey consequently became the recipient of medium and long-term loan commitments in 1979-81 that were on average twice as large as in 1975-78 (the latter covering mostly the period prior to Turkey's debt crisis, in which capital was flowing in smoothly), and of public commitments three times as

large (Celasun and Rodrik, chap. 9). The World Bank extended five consecutive Structural Adjustment Loans, the largest number ever made to a single country. The IMF helped out with a three-year stand-by in June 1980, rewarding Turkey with 625 percent of Turkey's then quota--the largest multiple awarded by the IMF until then. These flows were facilitated by the obvious re-direction of economic strategy sought by Özal. They were also easier to come up with in an international environment in which Turkey was the only large country in a debt crisis. But the significance of Turkey's renewed strategic importance cannot be underestimated.

To summarize this section, the fight against inflation was won in 1980-82 with considerable assistance from external creditors. Capital inflows from public sources postponed the need for a drastic fiscal retrenchment and reduced the recourse to the inflation tax. Some reduction in public deficits did take place, mainly through relative price changes which benefited the public sector at the expense of the private sector. Economic activity did not suffer as the reduction in domestic absorption was counterbalanced by exports, which received hefty and sustained encouragement.

4. Inflation in the 1980s

As the second column of Table 2 indicates, the success against inflation was rather short-lived. Figure 2 provides more details on price developments since 1980. After reaching the low 20s, the inflation rate rose again in 1983, reaching 50-60 percent. In 1985 and 1986, inflation slowed down again, but only to pick up in 1987. Currently, inflation roams around the 60-70 percent range, a level higher than any since 1980. As the Figure makes clear, there is some evidence of a political cycle at work. The sharp fall in inflation in late 1980 is, as discussed above, partly associated with military

rule. The acceleration of inflation in 1983 and in 1987 coincides in both cases with general parliamentary elections.

PLACE FIGURE 2 HERE

What accounts for the inability to bring inflation down? As noted above, inertial factors were relatively unimportant in the early part of the decade, and as the large variability of inflation would suggest have not played an important role since then (with the possible exception of in the last year or so). This would suggest that the monetization of public sector deficits is the primary culprit.

PLACE TABLES 5 AND 6 HERE

Tables 5 and 6 provide the relevant data for an analysis of seignorage and the inflation tax in this period. Seignorage here refers to the revenue raised by the monetary authorities by issuing non-interest-bearing liabilities, i.e. base money (MB). On the Central Bank's balance sheet, the increase in MB is the counterpart to the domestic credit extended by the Central Bank to the Treasury (and public enterprises), once we regroup net foreign assets of the Central Bank under public sector foreign borrowing. Table 5 shows the computation of the monetary base, while Table 6 calculates seignorage revenues (as a share of GNP) as given by the increase in MB in a given year divided by that year's GNP. The inflation tax, in turn, refers to the increase in nominal (base) money which individuals have to accumulate to keep their real balances constant (see below). This is also calculated in Table 6. Since part of money base (required reserves held by commercial banks) pays interest, the revenues derived by the government by issuing money should net these payments out, and this is also done in Table 6. The difference between seignorage and inflation tax arises from changes in real money demand, which in turn may be the consequence of financial liberalization

or changes in the inflation rate, real income, and interest rates. This difference is sometimes referred to as the non-inflationary component of seignorage, as it is the increase in money demand that is consistent with a zero inflation rate.

As these tables show, the Turkish public sector has consistently relied on revenues from seignorage and the inflation tax on the order of 1.5-3.0 percent (of GNP), even in the low inflation years. Notice also that high-inflation periods do not necessarily generate larger seignorage, as the higher levels of inflation in these periods result in substantial erosion in the real demand for money and reduce the base of the tax. For example, total seignorage in 1981 surpassed the level in 1980 even though 1981 had an inflation rate practically a quarter of that in 1980. A quick comparison of the annual inflation rates with the consolidated public-sector deficit (the latter shown in Table 4, col. [1]) will show a broad correlation between the two.

Now let us pursue further the logic of the public-finance view of inflation. Assume that fiscal deficits are financed at the margin purely by money creation (i.e., seignorage) and that other financing items do not respond systematically to the deficit. Then the public-sector budget identity can be expressed as:

$$(1) \quad d = m(\Delta MB/MB),$$

where d is the deficit-to-GNP ratio, m stands for the share of base money in GNP, and other financing items are ignored for notational simplicity. In any given year, let the proportional change in demand for base money ($\Delta MB/MB$) depend on inflation and real income in the following manner: $\Delta MB/MB = \pi + \mu n$, where π is the inflation rate, n is the real growth rate of GNP, and μ is the

income elasticity of demand for base money. Then we can re-write (1) as follows:

(2) $d = m(\pi + \mu n)$.

This expression shows the combinations of m, π, and n which are consistent with an exogenous level of the deficit. Note that $m\pi$ stands for the inflation tax. Solving for π, we get an explicit formula that captures the essence of the public-finance view of inflation:

(3) $\pi = (d/m) - \mu n$.

This highlights four important determinants of the inflation rate. First, and most obviously, is the deficit. An increase in the deficit of one percentage point of GNP will increase the inflation rate by 1/m percentage points: given the Turkish average for m in the 1980s of around 0.10, this amounts to a 10 percentage point increase in π.[5] A second important determinant, as this example already illustrates, is the monetization of the economy, and more specifically the ratio of base money to GNP. As we shall see, financial liberalization during the 1980s has resulted in a considerable decline in m, exacerbating the inflationary conseqence of a given deficit. Finally, real growth of income and the income elasticity of demand have their predictable effects on inflation via their effects on money demand.

Can an equation like (3) explain much of the Turkish inflation in the 1980s? As a purely descriptive exercise, we can estimate a simple regression of the following form:

(4) $\pi = \alpha_0 + \alpha_1[(d/m) - \mu n] + \epsilon$.

Brushing a whole host of econometric and interpretation problems aside and

limiting ourselves to a "naive" public-finance view, we can here think of α_0 as the "trend" or "inertial" inflation rate. The prediction of the public-finance view of inflation would be that α_1 is statistically indistinguishable from unity. The results of the regression are reported in Table 7, where different values of μ (ranging from 1 to 5) have been tried to generate the right-hand side variable. Notice that period-average m's have been used here (by taking the geometric mean of two year-end MB's) to correct for changes in the level of base money during the relevant year.

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The results are quite consistent with the public-finance view. Regardless of the value of μ used, the intercept coefficient emerges as statistically insignificant from zero. This would suggest that whatever inertial forces may have been at work, they were insufficiently powerful over the entire period. Moreover, while the point estimate for α_1 is always less than unity, it is statistically significantly different from zero but not unity. On the basis of this simple-minded test, we cannot reject the hypothesis of a one-for-one link between public-sector deficits (appropriately scaled) and inflation. The clear implication is that at the margin deficits are (nearly) completely monetized. Note also that the regressions do best with relatively high income elasticities of demand for base money.[6] Demand elasticities of 4 or 5 are too high to be credible. Even if we rule these cases out, the fiscal view, as captured by this regression equation, appears to "explain" around 50 percent of the variation in inflation over the 1980s.

PLACE FIGURE 3 HERE

Figure 3 compares the actual inflation rate with the inflation rate predicted by the above framework. Since α_1 is statistically indistinguishable from unity, the predicted inflation rate is computed simply as $[(d/m) - \mu n]$,

with μ fixed at 3.0. We see that the simple-minded public finance view does an adequate job of capturing some important turning points in inflation: the sharp reduction in 1981, the increase in 1984, and the jump after 1986. It does less well in some other respects: the predicted inflation is significantly higher in 1981 and 1982, and significantly lower in 1984; the actual inflation rate increases sharply in 1988 whereas the prediction is a large fall.

As emphasized above, two key variables that go into the public finance view of inflation are the public-sector deficit (d) and the base money/GNP ratio (m). Let us take a closer look at each.

5. Public Sector Balances

Table 8 displays the consolidated public sector accounts during the 1980s. In Turkey, the two major components are the consolidated government budget and the accounts of the State Economic Enterprises (SEEs). Since 1984, however, Özal has also created a large number of special funds which disburse money in a rather discretionary way and are largely beyond the purview of the parliament. These funds are financed by special earmarked taxes (such as specific import duties) and borrowing through so-called revenue sharing certificates, and in aggregate have been running surpluses (see Table 8). The importance of these funds can be gauged by considering that their revenues amount to a quarter of the regular budgetary revenues.

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As Table 8 shows, after an initial decline in 1981, the aggregate public deficit has hovered around 5-6 percent of GNP during most of the 1980s. The magnitude of this deficit can be put in perspective by noting that this is just about the same level of deficit that obtained during the pre-crisis, boom

years of 1973-77. The considerably larger deficit of 1980 was in large part attributable to the impacts of the second oil shock and the contraction of real activity. Once allowance is made for the special factors that pushed the 1980 deficit up, the magnitude of fiscal adjustment in the 1980s emerges as hardly exemplary.

Several forces interacted to limit the magnitude of fiscal retrenchment. As mentioned above, the presence of generous capital inflows in the initial years of the program made a drastic retrenchment superfluous. In addition, the adjustment of income tax brackets (in response to bracket creep) and the lowering of tax rates in late 1980 led to a reduction in the direct tax intake in the early 1980s: direct taxes fell from 11.7 percent of GNP in 1980 to 6.5 percent in 1985. Some of this loss was made up only later with the introduction of the value added tax in 1985.

Third, revenue enhancement on the part of public enterprises relied almost exclusively on price adjustments rather than on productivity increases, adjustments which became politically more difficult as time went on. The available evidence shows no discernible trend in labor productivity of the SEEs (World Bank, 1988b, pp. 82-84). The price adjustments in turn were typically delayed and bunched after elections, helping generate the political inflation cycle displayed earlier in Figure 2. The acceleration of inflation in late 1987 and early 1988 can be attributed in large part to the effect of delayed increases in SEE prices (Central Bank 1989).

The cycle is reinforced by the pressure on the Central Bank to provide easy credit to popular sectors prior to elections. In 1987, for example, in the second half of the year "the Central Bank was obliged to increase credits extended to the public sector significantly, in particular to the Soil Products Office, and to the state-owned Agricultural Bank, which extends

credits to farmers" in preparation for the November general elections (OECD, 1987-88, p. 38). As John Waterbury has stressed, Özal's politics has two faces: on the one hand it aims to enhance economic efficiency and public sector finances, and on the other it relies on the traditional mechanisms of "coalition maintenance through state patronage". The first is what "Özal wishes to show the donor community, the EC, and international business"; the second reflects the side payments he has to make to ensure the dominance of his center-right coalition (Waterbury 1989, pp. 6-7).

PLACE FIGURE 4 HERE

After 1983, the price of inadequate fiscal adjustment earlier began to be paid in sharply rising debt-service. By the second half of the 1980s, interest payments on external and internal debt became a major force pushing deficits up. As Figure 4 shows, interest payments out of the consolidated budget rose from one percent of GNP in 1981 to 5 percent in 1988. Interest payments now amount to about a third of all current expenditures (inclusive of transfers). Significantly, domestic interest payments have begun to outstrip payments on the external debt since 1987. This reflects a conscious decision after 1983 (as the official capital inflows started to slow down) to increase resort to domestic debt finance as a non-inflationary alternative. Table 9 shows that new public debt issues took off after this date, to the point that the public sector now completely dominates the capital market. Government paper is now bought primarily by commercial banks, who can hold it as part of their liquidity requirement. The bulk of public debt carries a maturity of one year or less, so new debt is now issued primarily to roll over the old debt. While the recent acceleration of inflation has pushed the interest rates on public debt to negative levels in real terms, the real (after-tax) return on public securities averaged around 10-20 percent in 1985-86,

generally above corresponding rates offered by the private sector (Akyüz 1990).

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In Sargent/Wallace-esque (1982) fashion, then, earlier bond financing is now threatening fiscal balances and rendering inflationary finance more likely. And this in two ways: first, the interest burden adds on to the deficit, and increases the pressure on the Central Bank to finance the public sector; second, the presence of a large unindexed debt increases the temptation to erode it by generating a sudden, unanticipated inflation. Since maturities are short, however, the room for the latter is limited.

6. Trends in Money Balances

As pointed out above, the re-monetization of the economy played a crucial role in reducing inflation in the early 1980s. This can be seen clearly in Figures 5 and 6, which document the sharp increase in M2, both in real terms and as a share of GNP, between 1980 and 1983. The primary role was played here by interest-rate reform, and the corresponding sharp increases in time deposit rates after 1980. The reduction in inflation reinforced to some extent the process of re-monetization. In a careful econometric study of money demand in Turkey, Anand and van Wijnbergen (1988) document the sensitivity of time deposits both to nominal interest rates and to expected inflation. Notice from Figures 5 and 6 that MB and M1 were rather stagnant in this period, suggesting that a considerable portfolio shift from currency and demand deposits to time deposits took place as a consequence of the reform. Nonetheless, base money held its own until 1983.

PLACE FIGURES 5 AND 6 HERE

It is after 1983 that we see a definite erosion in the ratio of base

money to GNP. This was a response to the substantial relaxation of foreign exchange regulations in December 1983. Key in this respect was the decision to allow residents (and non-residents) to open foreign exchange deposit accounts in domestic banks, with no restrictions on the use of these funds. It is hard to underestimate the psychological impact of this reform in a country where for a long time individuals could be held criminally liable for possessing even small change in dollars. Indeed, Özal's aim was to demystify the dollar and the Deutschemark. But the reform also had the predictable consequence of setting into motion a portfolio diversification away from domestic money balances and towards foreign currency. By the end of 1986, foreign exchange deposits by residents had grown from zero to almost half of time deposits, and to 16 percent of the stock of all financial assets including government securities (Akyüz 1990, Table 6). Clearly, not all of the growth in these deposits came at the expense of domestic money. But the stagnation of (or decline in) the principal monetary ratios after 1983--and in the context of falling inflation until 1987--strongly suggests considerable substitution. Recent work at the World Bank (1988) uncovers evidence of a structural shift in the demand for currency and sight deposits after 1983 which shows up mainly as a reduction in income elasticities.

Indeed, the steady erosion in the base money-to-GNP ratio after 1983 (Figure 5) is indicative of an on-going process of dollarization (or perhaps more appropriately, DM-ization), rather than a one-time portfolio diversification. This is consistent with experience with dollarization in Latin American countries such as Mexico and Peru, where the process tends to be spread out over time and cumulative (Dornbusch and Reynoso, 1989). In the words of Dornbusch and Reynoso, "the shift [into dollar deposits] can be well approximated by a combination of a traditional portfolio choice model based on

relative rates of return and a dynamics that is represented by the logistic process" (p. 26). In other words, diversification into foreign currency deposits appears to be subject to a learning curve. A serious implication is that a return to local-currency assets is no longer guaranteed (or complete) once the macroeconomic environment stabilizes.

The reduction in the stock of MB is disturbing from the standpoint of inflation control for obvious reasons. The inflation cost of the financial liberalization can be gauged by the following simple exercise. In 1988, the average stock of MB stood at 6.6 percent of GNP, down from 11.2 percent in 1983. Had the public sector deficit remained constant at its 1983 level of 5.2 percent (of GNP), it follows from equation (3) that the inflation rate would have been higher in 1988 than in 1983 by 32.3 percentage points on account of the erosion in MB alone. This amount corresponds roughly to the actual difference in the inflation rates in the two years, which is not surprising since the deficit in 1988 was only slightly higher than that in 1983. In other words, the difference in the levels of inflation between the two years is almost completely accounted for by the de-monetization brought about by the capital-account liberalization. This would seem a high price for de-mystifying foreign exchange.

7. Some Additional Dilemmas

Three further areas where policy has confronted serious dilemmas need to be discussed. These are: (i) exchange rate policy; (ii) investment in manufactures; and (iii) income distribution.

a. Exchange-Rate Policy. On the exchange-rate front, the government's policy until very recently has been to achieve a trend real depreciation, which

amounts to following a PPP-plus rule. The outcome for the real exchange rate was shown earlier in Figure 1, and more detail is provided for the period since 1983 in Figure 7: an occasional real appreciation aside, the real exchange rate has indeed steadily depreciated. The policy had an important signalling effect on top of its direct effect of rendering exporting and import-substituting more profitable: it clearly distinguisned the Özal administration from its predecessors by demonstrating commmitment to outward-orientation.

PLACE FIGURE 7 HERE

It is difficult to see why a policy of real depreciation should have continued to be necessary for almost an entire decade (Rodrik 1990). There are many costs imposed by continuous (and therefore anticipated) real depreciations. First, in an economy like Turkey's they tend to depress real wages. Second, they tend to maintain domestic real interest rates higher than abroad, thanks to arbitrage. Third, they tend to increase the real burden of the public sector's external debt, necessitating a larger fiscal retrenchment than otherwise. Finally, a PPP-style rule threatens to leave the economic system without a nominal anchor, letting the inflation rate wander.

Until recently, the Central Bank appears to have weighed these considerations as less important than that of maintaining (and increasing) external competitiveness. Since late 1988, the Central Bank has slowed down the rate of crawl of the Lira. This appears to be linked to the sluggishness of the inflation response to a considerable weakenening of demand in the second half of 1988. A current account surplus to the tune of $1.5 billion in 1988 must have also provided some confidence for fighting inflation with the nominal exchange rate. In any case, during the twelve months following September 1988 the Turkish Lira has depreciated (in nominal terms) by 33

percent against the dollar and by 23 percent against the DM. Since the inflation rate in this period stood at more than 70 percent, a considerable real appreciation is involved (see the value for 1989:I in Figure 7).

Judging by the behavior of market participants, and the absence of a substantial premium in the black market, the current path of the nominal exchange rate appears sustainable in the short term. But as the Southern Cone countries discovered a decade ago, controlling inflation via the exchange rate is a risky business over the medium- to longer-run. In the absence of a sufficient fiscal retrenchment that would be consistent with lower inflation, one of two things are likely to happen: (a) continued real appreciation with damaging consequences for the export drive and real activity; and (b) a sudden collapse of the exchange rate, putting further upward pressure on inflation. One interpretation of the current Central Bank strategy would be that it is aimed at achieving indirectly the retrenchment needed by forcing exporters to agitate in favor of fiscal cuts.

b. Investment in Manufactures. One of the surprising features of the export boom, which is largely based on manufactures, is the absence of an investment drive that underlies it. Initially, that was to be expected, as the industrialization of the 1960s and 1970s had put in place a substantial manufacturing capacity, which the foreign exchange crisis had rendered idle. This capacity had been heavily dependent on protected domestic markets, which explains the substantial realignment of relative prices needed before Turkish costs could be brought down to world levels. The subsequent export boom relied on this capacity, leading to such anomalies as the iron and steel sector--the epitome of Turkish import-substitution--turning itself into a major exporter.

PLACE FIGURE 8 HERE

As Figure 8 shows, public investment in manufacturing steadily declined after 1980. This was in line with the redirection of public capital formation towards areas that do not compete with the private sector, such as infrastructure. The expectation was that private manufacturing investment would offset this fall once the economy started growing. Figure 8 shows clearly that this expectation was not borne out. After a sharp fall during the crisis years of 1977-80, private manufacturing investment was very slow to recover. Between 1980 and 1988 the trend in real capital formation in manufacturing has been sharply downward in aggregate, and only moderately upwards for the private sector. The rising trend in overall investment displayed earlier in Table 1 reflects capital formation in other areas, mainly housing and to a lesser extent tourism. In 1988, total manufacturing investment still stood at only two-thirds its level in the peak year of 1977.

The reasons for this disappointing performance are not entirely clear. But an important part of the explanation must have to do with the prevailing atmosphere of macroeconomic instability. As discussed above, both inflation and the real interest rate have been quite variable, and Conway's (1988) work demonstrates that manufacturing investment is quite sensitive to uncertainty in these variables. In addition, the level of real interest rates have tended to be higher than at any time in recent memory. This discourages investment not only through its effect on the cost of capital, but also through its negative impact on the balance sheet of highly leveraged firms. Trade policy has aggravated the environment of uncertainty by sending shifting and contradictory signals: import duties and export subsidies have been frequently and arbitrarily manipulated. Investors have found refuge in the comparatively safe sector of housing, for which there is seemingly insatiable demand.

c. Income Distribution. No account of the Turkish stabilization experience would be quite complete without some reference to its distributional consequences. As we have seen, the early stabilization effort was heavily based on relative-price adjustments. These adjustments have since been either frozen, or further continued. The net result has been a regressive redistribution of income from popular sectors (wage and salary earners and farmers) to profits, rents, and interest income.

PLACE TABLE 10 HERE

Table 10 shows the extent of the redistribution that has taken place since the late 1970s. In 1988, the real wage and the agricultural terms of trade both stood at barely over half their levels of 1973; aggregate per capita income meanwhile had increased by more than a third. This has gone alongside a rather striking realignment of factor shares in national income. Agriculture's share has fallen from 24 percent (1980) to 16 percent (1988). The share of wages and salaries has gone down from 27 percent to 14 percent, Meanwhile, profits, rents, and interest income now constitute 70 percent of national income, up from 49 percent in 1980. While these nominal factor shares are no doubt distorted by inflation--only a small part of the interest payments represent real income gains to asset holders--they do reflect a dismal reality with respect to distribution (see Boratav, 1990, and Özmucur, 1989, for more detailed information).

While income distribution is important in its own right, it also has implications for the likelihood of successful adjustment in the near future. Fiscal retrenchment becomes more difficult when major popular sectors already feel that they have paid more than their due. The pressure prior to elections to direct resources toward rural areas has already been noted. Public sector

wage settlements have also come under similar pressures recently. It is difficult to be optimistic about the capacity of the Turkish political system to deliver the kind of social contract that will be needed to conquer inflation once and for all.

8. Concluding Remarks

The early timing of her debt crisis, along with the geopolitical conjuncture, provided Turkey with an opportunity in the early 1980s that no other large country has had the benefit of. Foreign capital inflows in these early years cushioned the fiscal squeeze, and allowed a relatively painless reduction in inflation at the same time that a process of export-oriented growth was launched. The export expansion was in turn enabled by the temporary suspension of normal politics, which allowed a substantial restructuring of relative prices with scarcely any opposition. The capital inflows and the military interregnum were, of course, not to last. In the best of all possible worlds, the outward-oriented reforms would have taken sufficient root by the mid-1980s to allow the public sector to undertake the delayed retrenchment at no great cost to output.

The Özal government that took power in November 1983 instead pursued a curious mix of liberalization with patronage politics. On the one hand, a substantial amount of trade and financial liberalization was undertaken. As I have argued above, the financial liberalization itself proved rather disastrous for inflation and macroeconomic stability, while the jury remains out on import liberalization. On the other hand, the scope of government activity was considerably enlarged via extrabudgetary funds, which could be used and abused for discretionary purposes. External finance was replaced by domestic borrowing, at terms highly disadvantageous to the public sector.

Somewhere down the line, the private sector's confidence in Özal began to erode. The low point was reached in August 1989 when, in a desperate move to control inflation, Özal reduced import duties on a wide range of consumer goods. It is now clear that the opportunity afforded by the favorable conjuncture in the early 1980s was missed.

Aside from the deeper structural problems mentioned at the end of the paper, inflation remains the unsolved problem of the 1980s. As this paper has shown, a simple-minded public finance view of inflation does a respectable job of explaining why inflation has remained high on average, as well as explaining the timing of its jumps. There is little evidence of systematic cost-push or inertial influences during most of the 1980s. The experience more recently, however, suggests that Turkish inflation may be taking on some Latin American characteristics. For one thing, it has become more difficult to get labor to accept real wage cuts. Second, inflationary expectations have become seriously ingrained. Third, the severe squeeze on industrial activity since the second half of 1988 has brought to the fore cost-push effects: entrepreneurs react to reductions in demand by wanting to raise their prices since their average costs rise in recessions. Finally, the feedback between the exchange rate rule and prices tends to fuel inflation, something that the current policy of slowing the crawl is attempting to tackle. These factors may explain why inflation has continued to rise since 1987 despite the prediction from the public finance view that it would fall (cf. Figure 2).

Whatever the role of inertial elements, fiscal reform will have to be at the core of any serious attempt to reduce inflation to reasonable levels. The large role of interest payments in current expenditures does not allow much room for reduction on the expenditure side (at least in the consolidated government budget). But the tax intake is still too low (less than a quarter

of GNP, compared to 40 percent in Europe) relative to expenditures, and that is perhaps the area, next to the improvement of the performance of public enterprises, where substantial gains can be made. There is a large pool of unreported income that could be brought into the tax base. With respect to financial liberalization, unfortunately this cannot be undone: once the genie of dollarization is out of the bottle, it is impossible to stuff it back in. This leaves a credible, radical package of fiscal consolidation as the only solution to continued economic instability. The alternative, as the experience of the 1980s has demonstrated, is a series of successively higher inflation plateaus, with accompanying deterioration in the performance of the economy.

Notes

Note on sources and calculations: Unless otherwise noted, the main sources for the tables in the text are the standard statistical publications of the Central Bank and the State Planning Organization. In general, all monetary, balance of payments, and debt statistics come from the annual reports or quarterly bulletins of the Central Bank. Data on sectoral saving-investment balances and the public sector accounts come from the State Planning Organization, occasionally via the OECD Economic Surveys for Turkey. The real exchange rate series is calculated as an equally-weighted geometric average of the bilateral real exchange rates vis-a-vis the U.S. and W. Germany, using WPI.

1. For a detailed account of the crisis and the role of the CTLD scheme, see Celasun and Rodrik, 1989, chapter 2.

2. See the discussion in Anand, Chhibber, and van Wijnbergen (1990).

3. Overinvoicing results from the overt subsidies mentioned above. Using partner-country trade statistics, it is possible to put some rough orders of magnitude on the extent of overinvoicing. My calculations (Rodrik 1988) suggest an overinvoicing rate of around 11 percent in the 1981-87 period. But once one allows for the underinvoicing during the later 1970s (on the order of 4 percent), the growth rate of "real" exports is reduced only marginally.

4. For a more detailed account of the international political background, see Celasun and Rodrik, 1989, chapter 9.

5. Önis and Özmucur (1989, p. 63) estimate an OLS regression linking the inflation rate to the public sector deficit for the 1972-88 period. They find that a one percentage point increase in the ratio of the deficit to GNP is associated with a 5.67 percent increase in inflation (with a standard error of 2.52).

6. The available econometric evidence on the structure of money demand in Turkey suggests the presence of a structural break in the mid-1980s, with higher income elasticities earlier than later. See World Bank (1988), Anand and van Wijnbergen (1988) and Kopits (1987).

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Tables and Figures

Table 1: Investment-savings balances, 1973-1977
(percent of GNP)

	1973	1974	1975	1976	1977
Investment					
Private	11.1	10.0	10.3	13.1	11.9
Public	7.0	10.8	12.2	11.6	13.1
Domestic Savings					
Private	11.6	11.0	8.5	11.2	11.7
Public	8.8	7.4	9.0	8.1	6.4
Foreign Savings (current account deficit)	-2.2	2.3	5.0	5.4	6.9

Figure 1

Real exchange rate index (1973 = 1.00)

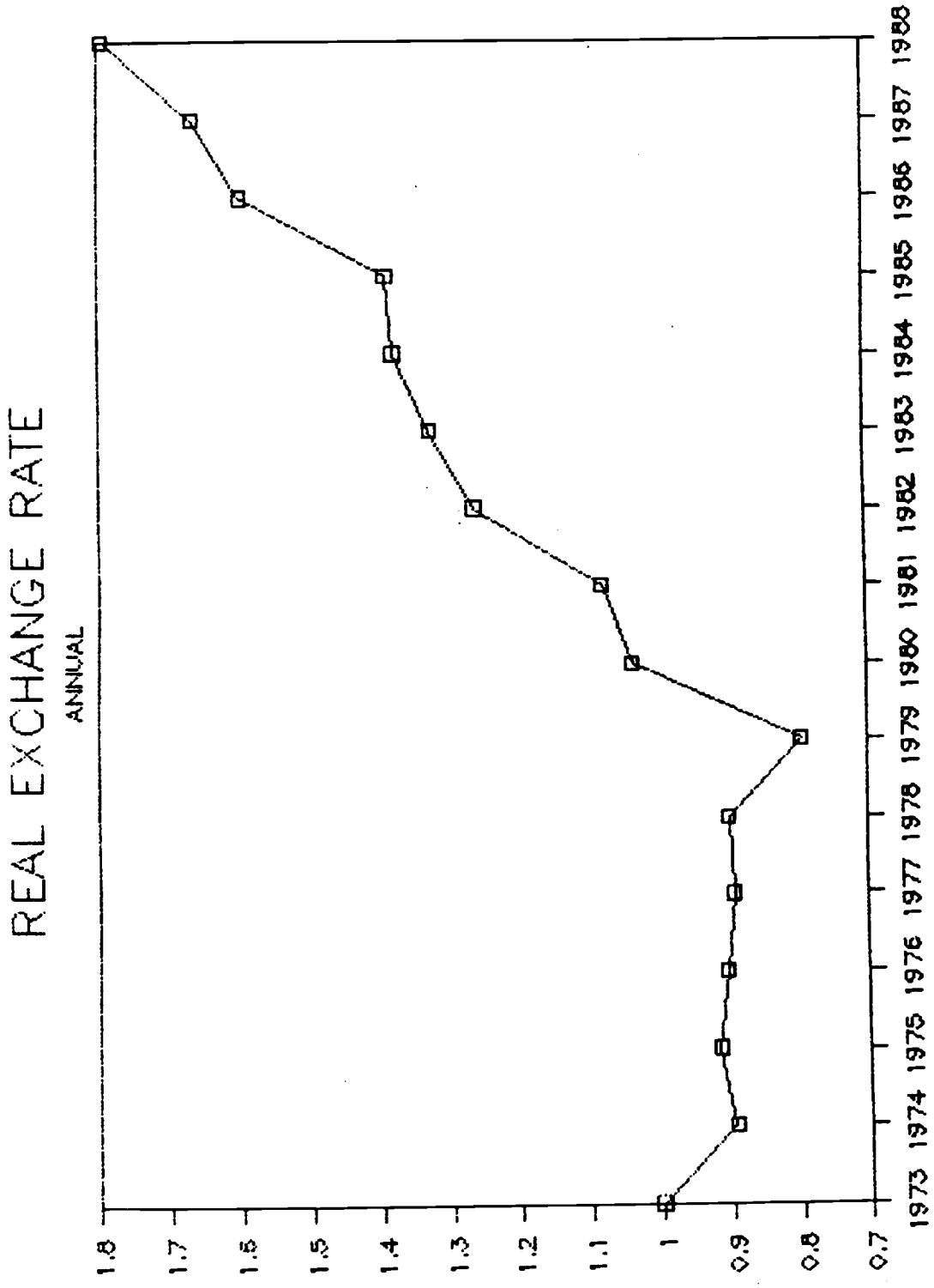

Table 2: Macroeconomic indicators, 1978-80

	(%) GNP growth	(%) Inflation	Merch. exports (mil $)	% of GNP			
				Current account	Investment Total	Investment Public	External debt
1978	2.9	52.6	2288	-2.6	18.5	9.5	32.7[a]
1979	-0.4	63.9	2261	-2.1	18.3	9.5	31.2[a]
1980	-1.1	107.2	2910	-5.5	21.4	11.5	27.2
1981	4.1	36.8	4703	-3.5	21.5	13.2	26.1
1982	4.5	25.2	5746	-2.1	20.3	12.0	29.8
1983	3.3	30.6	5728	-3.5	20.6	10.2	32.6
1984	5.9	52.0	7133	-2.8	19.3	9.7	39.5
1985	5.1	43.4	7958	-1.9	20.8	11.4	47.2
1986	8.1	29.4	7457	-2.6	24.5	13.4	53.1
1987	7.4	32.0	10190	-1.4	25.4	13.3	56.1
1988	3.4	68.4	11662	2.1	23.6	10.3	53.3

Note: [a]Converted to local currency at black-market exchange rates.

Table 3: Net resource transfers to Turkey
(percent of GNP)

	Current account	Interest payments	Net resource transfer	Net resource transfer to 17 HICs
1980	-5.5	1.0	4.5	
1981	-3.5	2.0	1.5	
1982	-2.1	2.7	-0.6	0.8
1983	-3.5	2.8	0.7	-2.8
1984	-2.8	3.2	-0.3	-4.8
1985	-1.9	3.3	-1.4	-4.2
1986	-2.6	3.7	-1.1	
1987	-1.4	3.7	-2.2	
1988	2.1	3.9	-5.9	

Table 4: Sectoral distribution of the net resource transfer (NRT)
(percent of GNP, unless otherwise indicated)

	PSBR (1)	share financed by for. borrowing[a] (2)	public net for. borrowing[b] (3)	public for. int. payments[c] (4)	public NRT[d] (5)	private NRT[e] (6)
1980	10.0	0.355	3.55	0.85	2.7	1.8
1981	5.4	0.628	3.39	1.76	1.6	-0.1
1982	6.0	0.495	2.97	2.42	0.5	-1.1
1983	5.2	0.239	1.24	2.59	-1.3	2.1
1984	6.5	0.516	3.35	2.78	0.6	-0.9
1985	4.9	0.153	0.75	2.81	-2.1	0.7
1986	4.5	0.536	2.41	3.08	-0.7	-0.4
1987	8.3	0.345	2.86	3.12	-0.3	-2.0

Notes: [a]Source: OECD (1987-88). [b]Col(1) times col(2).
[c]Total interest payments (from Table 5), multiplied by the share of public debt in total external debt.
[d]Col(3) minus col(4). [e]Total NRT (Table 5) minus col(5).

Figure 2

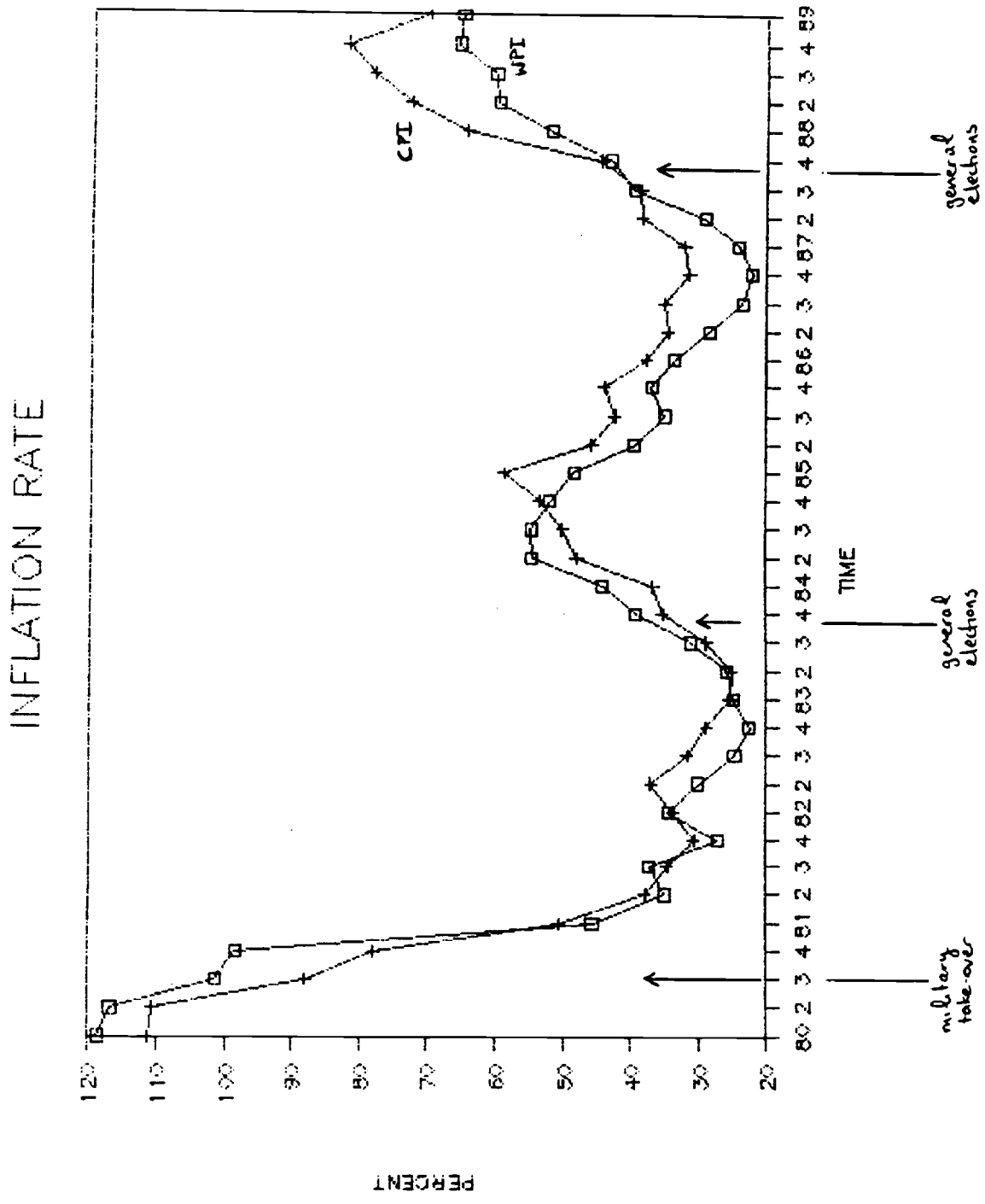
INFLATION RATE
PERCENT
TIME
CPI
WPI
120
110
100
90
80
70
60
50
40
30
20
80 2 3 4 81 2 3 4 82 2 3 4 83 2 3 4 84 2 3 4 85 2 3 4 86 2 3 4 87 2 3 4 88 2 3 4 89
military take-over
general elections
general elections

Table 5: Monetary base (billion TL)

(all stocks are at year-end)

	Currency[a]	Deposits with CB[b] comm. banks[c]	oth fin inst	oth sectrs	Monetary Base[d]	GNP
1979	144	261	0	27	432	
1980	218	299	0	58	575	4435
1981	281	416	1	135	833	6554
1982	412	533	1	103	1049	8735
1983	548	704	1	141	1394	11552
1984	736	1150	4	145	2035	18375
1985	1011	1518	0	41	2570	27789
1986	1415	1740	7	208	3370	39310
1987	2275	2431	2	45	4753	58390
1988	3426	5382	31	390	9229	102443

Notes: [a] Currency in circulation minus cash in CB vaults.
[b] Excludes deposits of public sector.
[c] Includes import deposits.
[d] Sum of first four columns.

Table 6: Seignorage and inflation tax (percent of GNP)

	Seignorage (ΔMB/GNP)	Inflation[a]	Inflation tax[b]	Interest paid on req. reserves[c]	Adjusted seignorage[d]	Adjusted infl tax[d]
1980	3.2	94.9	9.2	0.22	3.0	9.0
1981	3.9	24.2	2.1	0.51	3.4	1.6
1982	2.4	24.8	2.4	0.67	1.8	1.7
1983	3.0	40.9	3.7	0.79	2.2	2.9
1984	3.5	66.7	5.1	1.10	2.4	4.0
1985	1.9	38.2	2.8	0.62	1.3	2.2
1986	2.0	24.4	1.6	--	2.0	1.6
1987	2.4	49.0	2.8	--	2.4	2.8
1988	4.4	69.6	3.2	--	4.4	3.2

Notes: [a]WPI inflation during year. [b]Col(2) times MB_{-1}/GNP.
[c]Source: World Bank (1988). [d]Interest paid is subtracted.

Table 7: The relationship between public deficits and inflation, 1980-88

Equation	μ	α_0	α_1	R^2	d.f.
(1a)	1.0	0.04 (0.20)	0.65 (0.30)	0.40	7
(1b)	1.0	--	0.71 (0.09)	0.40	8
(2a)	2.0	0.04 (0.19)	0.70 (0.28)	0.48	7
(2b)	2.0	--	0.76 (0.09)	0.40	8
(3a)	3.0	0.05 (0.18)	0.73 (0.25)	0.55	7
(3b)	3.0	--	0.81 (0.09)	0.54	8
(4a)	4.0	0.08 (0.16)	0.74 (0.22)	0.61	7
(4b)	4.0	--	0.87 (0.09)	0.59	8
(5a)	5.0	0.12 (0.15)	0.73 (0.20)	0.65	7
(5b)	5.0	--	0.92 (0.09)	0.60	8

Note: Standard errors in parenthesis.

Figure 3

Predicted and Actual Inflation, 1980-1988

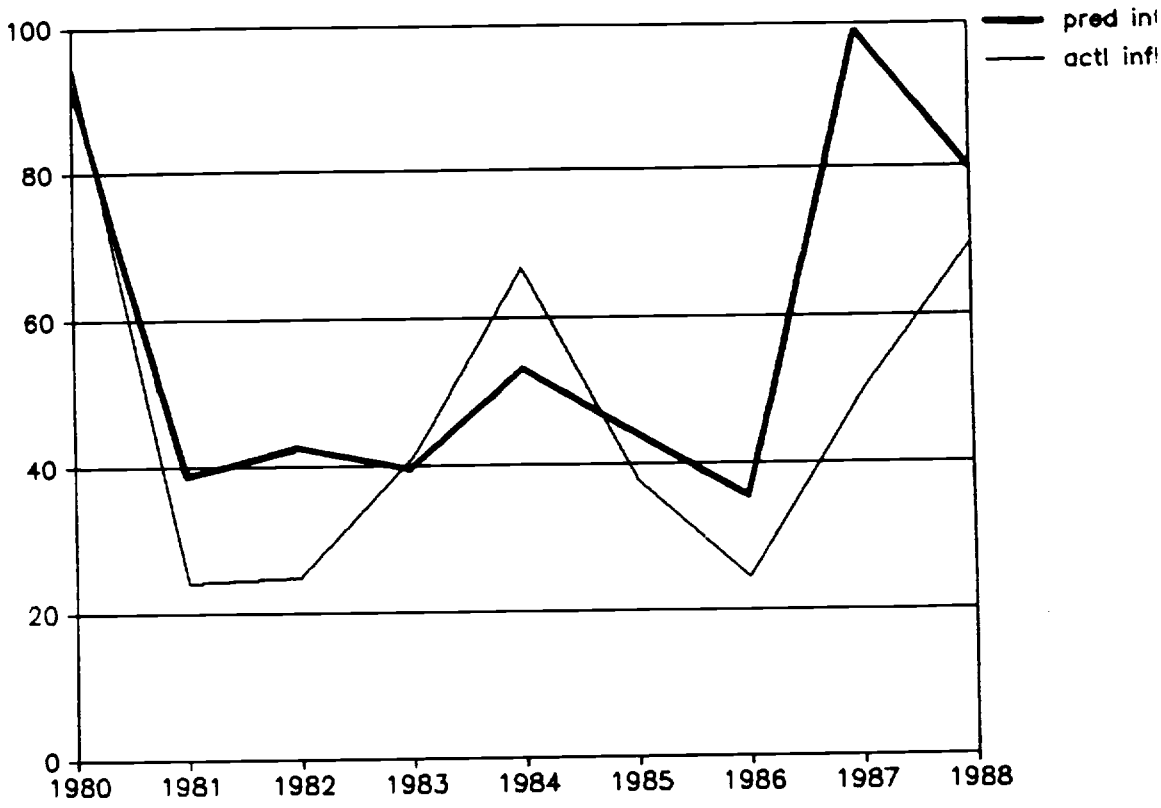

Table 8: Public sector balances (percent of GNP; "-" indicates deficit)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989[a]
General govt.	-3.3	-0.8	-2.0	-2.6	-4.2	-1.7	-1.2	-3.9	-3.6	-3.1
cons. budget	-3.7	-1.8	-2.8	-2.6	-5.3	-2.8	-3.6	-4.2	-3.7	-3.5
local admin.	0.2	0.2	0.1	0.0	0.2	0.2	-0.2	-0.4	-0.4	-0.1
revolving funds	0.2	0.8	0.7	0.0	0.4	0.4	0.4	0.2	-0.2	-0.0
special funds	--	--	--	--	0.5	0.5	2.1	0.5	0.7	0.5
State economic enterprises (SEE)	-6.7	-4.6	-4.0	-2.6	-2.3	-3.2	-3.3	-4.4	-2.8	-2.4
Total public sector	-10.0	-5.4	-6.0	-5.2	-6.5	-4.9	-4.5	-8.3	-6.4	-5.6
Sources of financing (per cent of total)										
For. borr., net	35.5	62.8	49.5	23.9	51.6	15.3	53.6	34.5	41.0	20.2
Dom. borr., net	64.5	37.2	50.5	76.1	48.4	84.7	46.4	65.5	59.0	79.8
of which Central Bank:	34.3	20.0	12.7	11.2	11.1	25.6	14.7	11.9	n.a.	n.a.

Note: [a] Provisional.

Figure 4

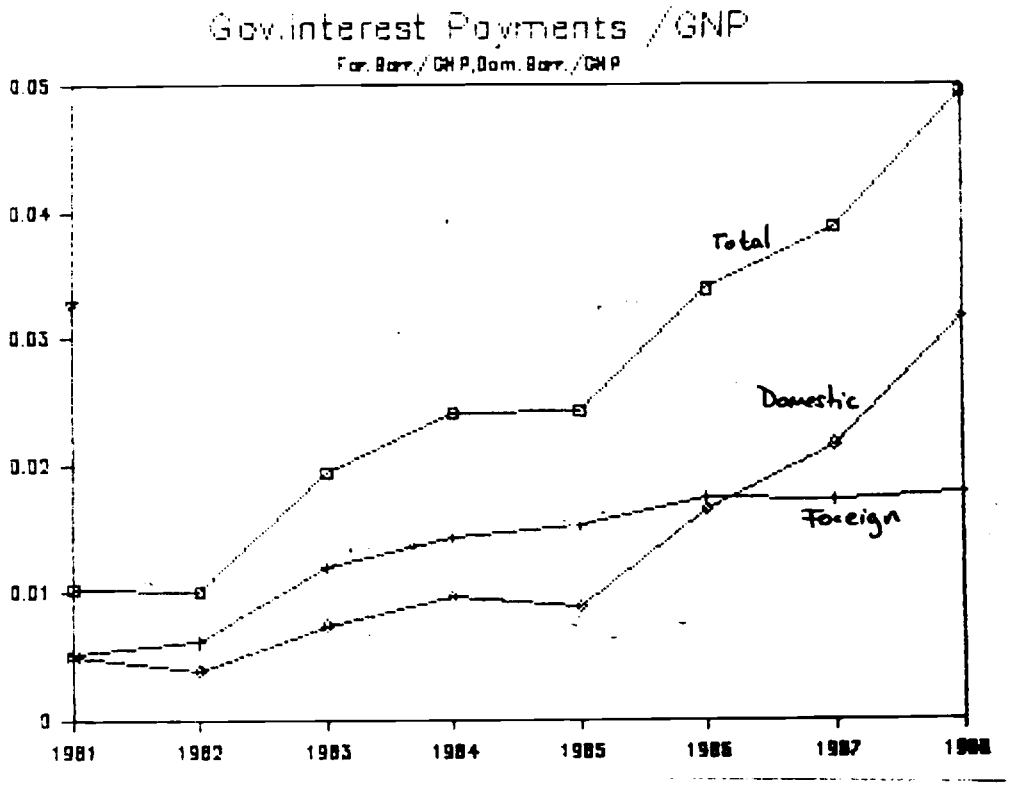
Gov.Interest Payments /GNP
For. Borr./GNP,Dom. Borr./GNP
0.05
0.04
0.03
0.02
0.01
0
Total
Domestic
Foreign
1981
1982
1983
1984
1985
1986
1987
1988

Table 9: Public debt issues

	-----Public debt issue-----		Allocation of government bonds ----- and Treasury notes (%) -----			
	% of GNP	% of all issues	Banks	Pub Sctr	Priv frms	Individ.
1980	1.7	65.5				
1981	2.1	76.6				
1982	0.9	37.9				
1983	2.3	69.9				
1984	4.7	92.0	43.4	26.9	26.2	3.5
1985	6.1	93.8	51.6	22.1	23.6	2.7
1986	7.8	91.8	69.9	26.4	2.7	1.1
1987	10.3	89.8	77.7	18.1	4.0	0.2
1988	8.9	88.8	90.5	6.7	2.8	0.0

Source: Hazine ve Dış Ticaret Mustesarligi, as reported in Cumhuriyet, September 12, 1989, p. 12.

Figure 5

Money-GNP Ratios: MB, M1 and M2

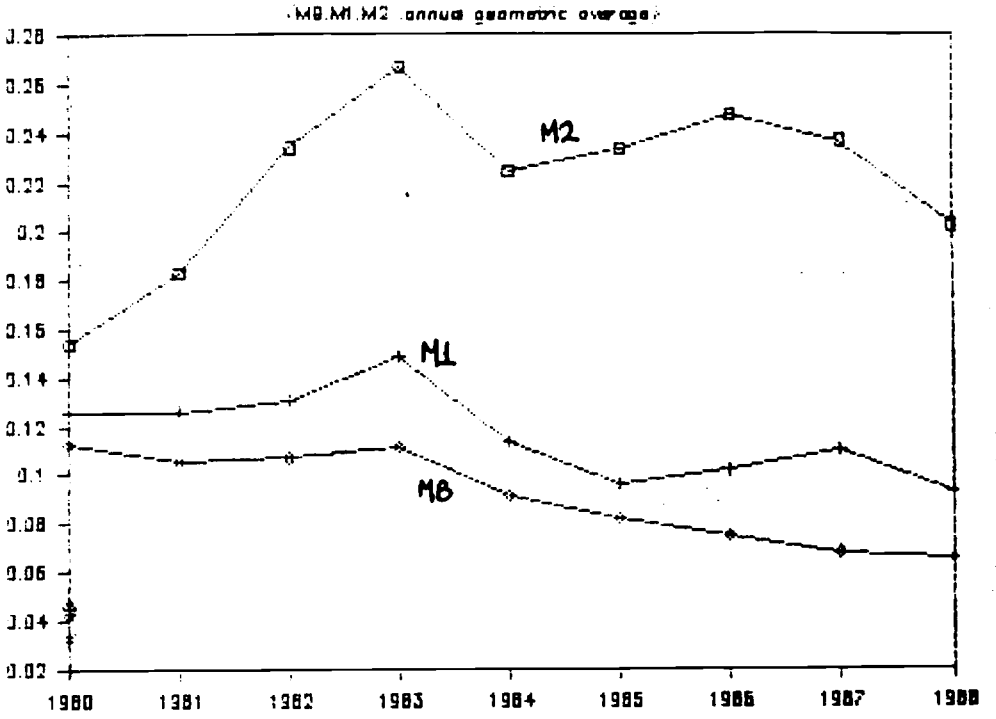

Figure 6

Real Stocks of MB, M1, and M2

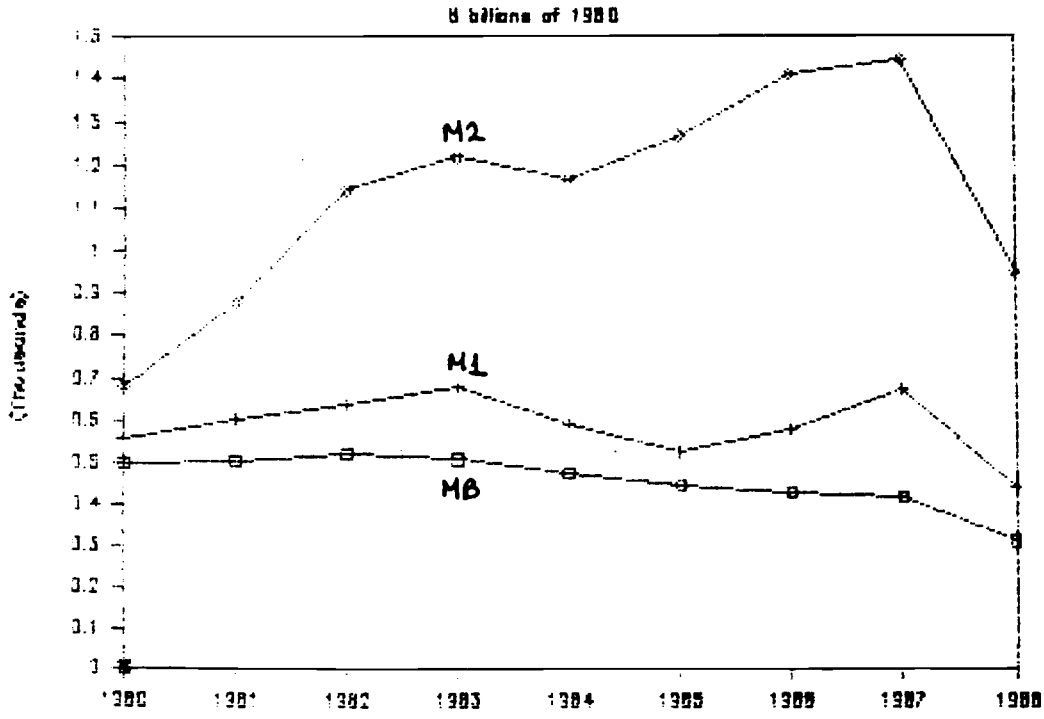

Figure 7

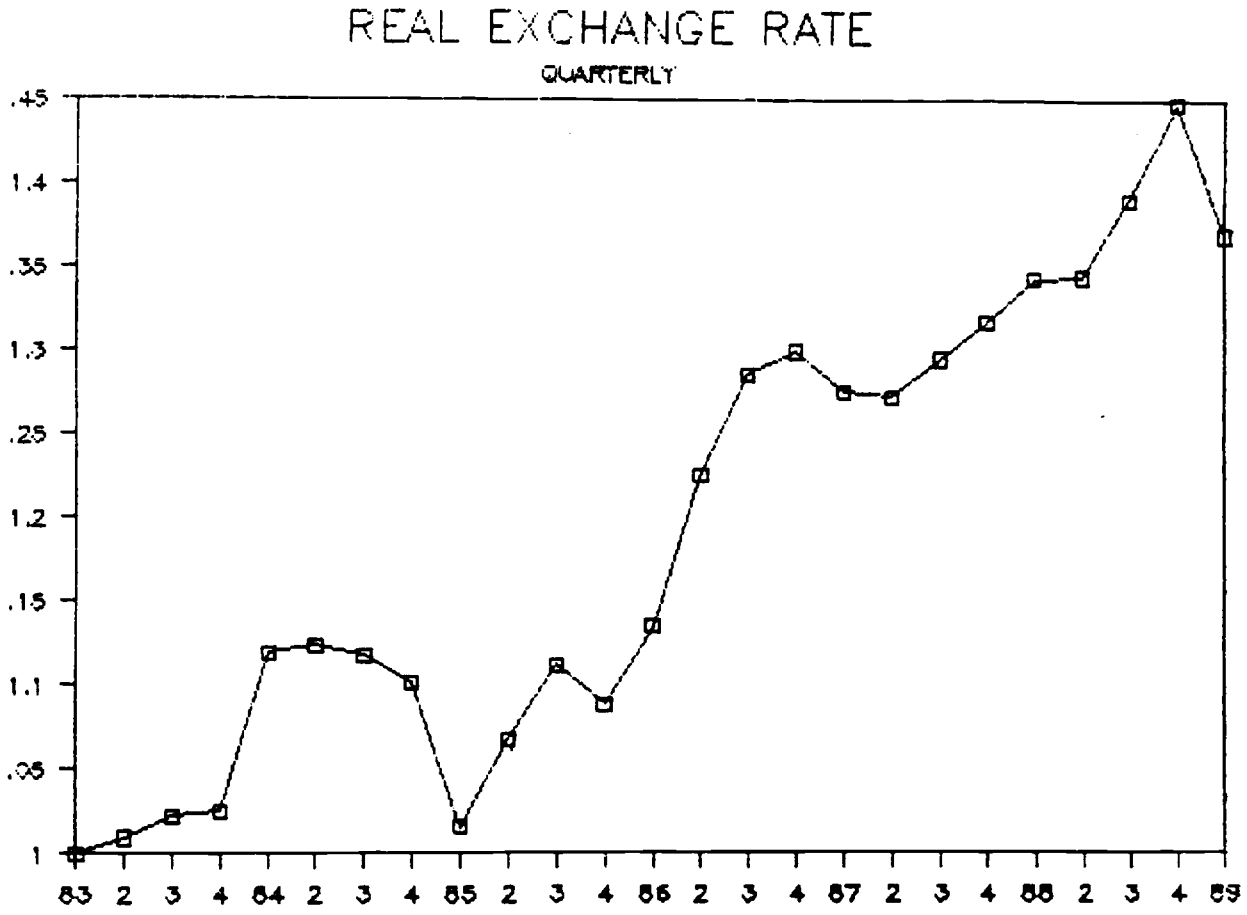
REAL EXCHANGE RATE
QUARTERLY
.45
1.4
.35
1.3
.25
1.2
.15
1.1
.05
1
83 2 3 4 84 2 3 4 85 2 3 4 86 2 3 4 87 2 3 4 88 2 3 4 89

Figure 8

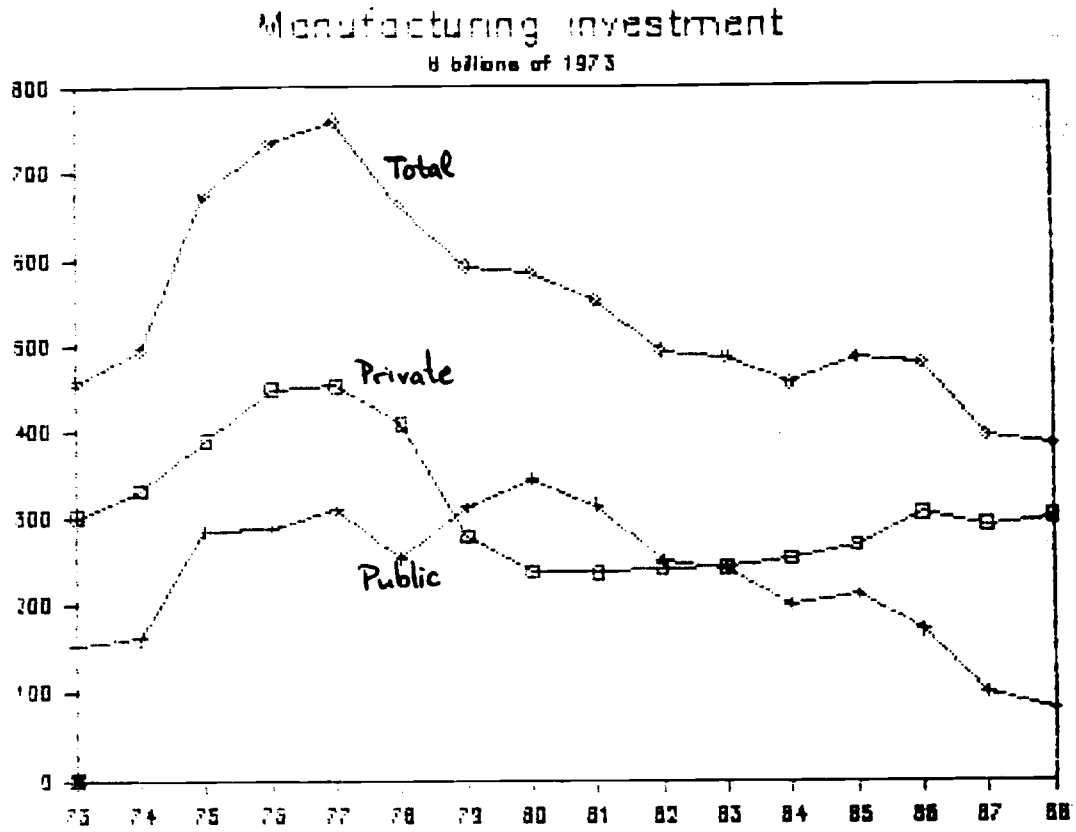
Manufacturing investment
$ billions of 1973
800
700
600
500
400
300
200
100
0
Total
Private
Public
74
75
80
81
82
83
84
85
86
87
88

Table 10: Distributional indicators (1973 = 100.0)

	Real per capita GNP	agricultural terms of trade	real wages
1973	100.0	100.0	100.0
1974	104.7	90.5	97.7
1975	110.1	105.5	105.4
1976	116.4	112.8	121.7
1977	118.5	117.0	124.2
1978	119.4	96.3	122.6
1979	116.5	78.4	101.5
1980	112.9	69.8	72.2
1981	114.4	69.3	64.8
1982	116.2	63.2	64.6
1983	116.9	61.2	67.3
1984	120.2	63.7	61.0
1985	124.9	58.9	54.8
1986	131.3	56.5	54.4
1987	131.8	60.8	55.1
1988	139.2	54.1	54.6

Source: Özmucur (1989), Table 2.