

The Iranian Economy Under the Islamic Republic:
Institutional Change and Macroeconomic Performance (1979-90)

by

Adnan Mazarei, Jr. *

Department of Economics
UCLA

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Department of Economics
University of California, Los Angeles

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Introduction

The modern economy of Iran, both during the oil boom years of the early seventies and the current experience under the Islamic Republic, offers valuable insights into the process of social and economic development in oil-exporting economies. While the pre-revolutionary economy of Iran has been frequently studied, the period since the revolution requires more intense review and analysis. Since 1979, the Iranian economy has experienced profound changes in economic institutions and has been subjected to severe macroeconomic disturbances. The revolution has led to the disruption of production and to the loss of capital and skilled labor and the economy has been harshly taxed by the decline in oil revenues and by the eight-year war with Iraq.

My approach in this paper will be to offer a discussion of the changes in economic institutions in Iran and to provide an interpretation of the Iranian revolution as populist collective action aimed at the income and wealth redistribution and reorganization of the economy.

I will then examine the economic performance of Iran in light of these developments. While recognizing the profound impact of revolutionary disruptions, the decline in oil revenues, the war with Iraq and the economic blockade imposed by the West against Iran, I will argue that the prevailing economic conditions in Iran are also largely the outcome of the populist and redistributive nature of the revolution and the economic policies which have been adopted by the Islamic Republic. Among these are ambiguous and vague policies concerning property rights and the domain of the private sector as well as such policy measures as the heavy emphasis on economic self-

sufficiency, and a significantly over-valued exchange rate. In so doing, I also hope to contribute to an understanding of the institutions and policies that often doom populist economic experiences and have, thus far, led to the deterioration of the welfare of some of the intended beneficiaries of the revolution.

I. The Political-Economic Structure of Iran in the Post-Revolutionary

Period: Rent-Seeking and Populism in a Rentier Society

The most fundamental features of the Iranian political economic structure are the accrual of sizable revenues to the government because of its monopoly rights over oil, and that the political legitimacy of the regime depends, in part, on the egalitarian and productive use of these resources.¹ A corollary feature of the Iranian economic structure is that the sizable revenues from oil accruing to the state are potential targets of rent-seeking activity by various individuals and social groups.² Prior to the revolution, given the government's commitment to rapid industrialization, these rents took the form of direct subsidies, low-interest credit from the banking system, lucrative government contracts on development projects, etc.³ Given the size of the oil revenues, rent-seeking is, naturally, a major form of economic activity

¹ For discussions of the rentier nature of Iranian society and some of its political and economic consequences see Mahdavi [1970] and Najmabadi [1987].

² Here, rent-seeking is defined as activities directed at obtaining non-privately owned resources. See Buchanan, Tollison and Tullock, Eds. [1980] for discussions and applications of the theory of rent-seeking.

³ For a discussion of these, particularly the issue of credit subsidies, see Salehi-Esfahani [1989].

and an important source of income.

A further consequence of this economic structure is that property and wealth are often viewed to be the results of successful rent-seeking activity and not of legitimate economic enterprise; hence, property and wealth enjoy less legitimacy and are very susceptible to contentious challenges.

In view of this background, the Iranian revolution could be analyzed as a massive collective action by a vast coalition of diverse social groups who felt that the state had failed to distribute the revenues from oil in an egalitarian manner and position the economy on a solid development path.⁴ Through capturing the state, these groups sought to redirect much of the benefits of government expenditures away from a thin layer of Iranian society which was believed to have received an undue share of the public wealth because of its exclusive relationship with the government and the court. Moreover, many aspects of the country's social and economic development strategy, such as the biases against the traditional sectors of society and the sizable military expenditures, were questioned.⁵ The revolutionary movement was also largely a popular, urban, multi-class, and traditionalist movement which partly legitimized itself through appealing to the egalitarian and puritan elements of Islam.⁶ These features of the Iranian revolutionary

⁴Pesaran and Gahvari [1987] discusses the developments in income distribution in pre-revolutionary Iran.

⁵For general discussions of the various aspects of the Iranian revolution see Abrahamian [1980], Amirarjomand [1988] and Milani [1988].

⁶While this paper is not a treatise on Islamic economics, one of its underlying hypotheses is that it is the populist interpretation of Islam which has helped define the course of economic performance in the post revolutionary era. I believe that the most important effects of the Islamic nature of the revolution and the government have been-- with the probable exception of Islamic banking-- on the political and social structures. I would also submit that religion has been used largely as a rent-seeking and

movement, along with its leadership by a charismatic figure, are largely shared by populist political and economic experiences.⁷

Among the concrete demands of the populist movement were:

1. the redistribution of wealth and income toward the lower income echelons of society,
2. an increased role for the state in the provision of social welfare,
3. policies favorable to the agricultural sector,
4. Political and economic independence from the West and increased economic self-reliance.⁸

The redistributionist nature of the revolution manifested itself, in the period immediately following the revolution, in the expropriation and reallocation of property, reorientation of government expenditures toward the lower-income and the rural sectors, increased minimum wages and the rise of new para-statal institutions for the subsidization of the living standard of the lower-income segments of the population. These para-statal organizations include the Foundation for the Oppressed (which took over the assets of the

rent-protecting device by the Islamic elements in the political movement that toppled the Pahlavi regime. Through their ability to exclude many secular (and even some Islamic) political tendencies from the political process, the fundamentalist Islamic groups have secured their control over the country's economic resources. Kuran [1986] offers a critical discussion of Islamic economic thought.

The religious nature of the movement could be also interpreted as an attempt to impose some ethical constraints on the rent-seeking process. None of these suggestions, however, detract from the historical and sociological reasons behind the Islamic orientation of the Iranian revolution. For a discussion of the Islamic nature of the Iranian revolution see Keddie [1981].

⁷ For discussions of populism, particularly in the Latin American context see Conniff, Eds. [1982], Drake [1982], Dornbusch and Edwards [1989] and Sachs [1989].

⁸ These points are reflected in the Constitution of the Islamic Republic. See Algar (1980).

Pahlavi family), the Reconstruction Crusade (for rural construction), the Housing Foundation (for rural and low-income housing), The Martyr Foundation (for assistance to the families of the military personnel killed in the war) and the Foundation for the Affairs of the Refugees of the Imposed War. These organizations are financed with confiscated property along with public and private funds. However, all of these organizations have, over time, become dominated by various powerful factions and individuals within the government and have become the locus of much rent-seeking activity.

The populist orientation of the revolution has also contributed to the transformation of the role of the state in the economy. First, the revolution ushered in an expanded role for the state in the economy which has been facilitated by the nationalization of large business concerns, insurance companies, and the entire banking sector.⁹ Furthermore, the constitution of the Islamic Republic granted the government power over foreign trade. Hence, the state obtained both extended control over the means of production and achieved new powers in the aftermath of the revolution. It should be noted that the exercise of redistributive policies and expansion of state control should not be entirely attributed to conscious planning and design as much of these were effected through spontaneous and reactive decisions.

Among the most dramatic and the least appreciated transformations in the structure of the Iranian state has been its evolution from a rather monolithic and centralized entity to a more decentralized and participatory one. Although the state is very much confined to Islamic political forces, the political process has become, in comparison to the Pahlavi era, far more

⁹For full details of these nationalizations see the Central Bank of Iran [1985].

inclusive of diverse socio-political tendencies. Consequently, the state has become a more open forum for political and economic activity and pressures from various social groups. This political transformation contributes to more effective public oversight of government expenditures and a more competitive rent-seeking process and, hence, to a partial correction of institutional limitations under the monarchy for public oversight over the distribution of oil rents.

This relative democratization of the state has had several other significant ramifications. First, the state - particularly the parliament - has become a very significant locus for the advocacy of redistributionist and populist policies. On the other hand, it has made far more difficult the formulation of economic policy for the government and has hindered the rise of stable political and economic institutions. Given that a wide coalition of social groups participated in overthrowing the monarchy in 1979, the various components of the coalition have expressed vastly different and conflicting notions and ideals about how the Iranian economy should be organized. These differences have spanned the issue of income distribution, property rights, the role of the state in the economy, land reform, development strategy, foreign trade, etc. Conservative advocates of free enterprise and socialist-oriented etatists have been carrying on a hitherto unresolved debate over the most vital economic issues.¹⁰ Although some segments of the political spectrum such as leftist organizations have been eliminated from the official political arena, many of the possible perspectives on economic policy and organization are nevertheless represented

¹⁰ See Behrouz [1989] for a discussion of the political factions within the Islamic Republic and some of their different perspectives on economic and political issues.

in the country's political and economic debates.

With the general reduction in oil revenues since the revolution and the consequent decline in the resources available to the government, however, populism and rent-seeking have been more seriously extended to the domain of macroeconomic policies.

In two recent works focusing on the Latin American experiences, Dornbusch and Edwards [1989] and Sachs [1989] have provided a framework for understanding macroeconomic policies under populist regimes. They suggest that populist macroeconomic experiences arise in countries that are characterized by significant disparities in income distribution and economic stagnation. Populist macroeconomics tries to remedy these problems through:

1. Economic reactivation,
2. Increasing real wages,
3. Refusal to consider devaluations in order to avert inflation and the erosion of the public's level of consumption,
4. Economic restructuring to deal with the shortage of foreign exchange,
5. Increasing reliance on distributive rather than redistributive policies as the political costs of increased taxation might be very high.¹¹

These authors suggest that although economic reactivation and redistribution are both understandable and noble aims, the particular policies adopted by populist regimes result only in short-term gains, and that accumulating macroeconomic problems such as increasing budget deficits, inflation and balance of payments crises lead to the eventual abandonment of the populist

¹¹This latter point is particularly emphasized by Sachs.

policies and to the adoption of conservative stabilization policies. In the process, in spite of initial gains, the intended beneficiaries of the populist regimes suffer a dramatic decline in their welfare.

While the Iranian case has differed in several ways from the Latin American experiences, it, nevertheless, shares many of their features. The most important differences has been the lack of a major economic downturn prior to the revolution. Oil revenues did decline somewhat in 1977 and the economy experienced a surge in inflation, yet economic reactivation could not be viewed as a very significant motive in the Iranian case. More important than the decline itself, I believe, was that the government's attempt at stabilization (particularly of inflation) penalized, through drastically imposed price-controls, the traditional merchant classes the most. Hence, more significant than the economic decline were the clear signals that indicated which social groups would carry the disproportionate burden of economic stabilization. The traditional bazaar merchants later became a cornerstone of the Islamic movement in Iran as a reaction to the nature of the stabilization policies adopted under the shah. Furthermore, unlike many Latin American episodes, Iran has not experienced severe bouts of high inflation nor sizable increases in its foreign debt.

Prior to undertaking a detailed analysis of these issues, however, a discussion of the shocks to the Iranian economy in the period under study is required. These disturbances have been the decline in oil revenues and the eight-year war with Iraq.

II. The Shocks to the Iranian Economy

2.1 The Decline in Oil Revenues

The revolution, the war and unfavorable conditions in the international petroleum market have all contributed to both a drastic decline and an increased volatility in oil revenues. Table 1 demonstrates the decline in the production and exports of crude oil in the post-revolution period. These exports declined from 1,261.1 million barrels per year (mby) in 1978/79 to only 278.1 mby in 1980/81.¹² Although oil exports have recovered partially since, the revenues from oil have, nevertheless, declined dramatically. Figure 1 illustrates the decline in both the nominal and the real price of Iranian crude oil. The resulting decline in oil revenues is demonstrated in table 2 and figure 2. It is evident that oil revenues declined dramatically in the first three years after the revolution to nearly one half their pre-revolution level. In spite of a surge in oil revenues from 1982 to 1984, the tanker war in the Persian Gulf and the precipitous fall in oil prices since 1985 reduced Iran's revenues from oil.¹³ In 1987/88, nominal oil revenues stood at 40.4 percent of their level in 1977/78.

¹²Each Iranian calendar year covers the period from March 21 to March 20 of the following Gregorian year. For example the Iranian year 1359 is equivalent to the period from March 21, 1980 to March 20, 1981 or 1980/81, for short.

¹³A combination of political and technical reasons have led also to a drastic reduction of Iran's oil production capacity and market share in OPEC. Fesharaki et. al. [1989] report that the country's oil production capacity has declined from 7 million barrels per day in 1979 to only 2.8 mbd in 1988. Figure 3 illustrates Iran's declining share in OPEC and world crude oil production.

2.2 The Iran-Iraq War

The war with Iraq which started in September 1980 has imposed a heavy burden on the economy. The direct loss of output, heavy destruction of parts of the country, and the draining of labor and scarce foreign exchange reserves have been most costly. Moreover, the war interrupted the export of oil and left much of the countries petroleum installations in ruins. The government has arrived at an estimate of the war damages, including the decline in oil revenues, at over five hundred billion dollars.¹⁴ Between 1981 and 1986 war expenditures comprised, on average, 16.9 percent of total government expenditures. A study by the Stockholm International Peace Research Institute, SIPRI, suggests that the financial costs of the military activities alone have ranged from 74.4 to 91.4 billion dollars for the 1980-88 period.¹⁵

III. Macroeconomic Policies and Responses

What have been the policy responses by the government to the disturbances to the Iranian economy? The recent literature on the effects of primary export booms would lead us to observe a reversal of the symptoms associated with the "Dutch Disease" in response to the decline in oil revenues.¹⁶ This reversal should have entailed, among other things, a depreciation of the real

¹⁴Amirahmadi [1990] and Plan and Budget Organization [1983] provide explanations of the methods of computing the war damages.

¹⁵See SIPRI [1989].

¹⁶For a discussion of the "Dutch Disease" problem see Neary and van Wijnbergen [1985]. Also see Gelb [1988] for an analysis of adjustments by petroleum exporting countries to fluctuations in oil revenues.

exchange rate, the relative resurgence of output in the exportable goods sector and the relative decline of the non-tradable goods sector. Appropriate government policy would have been required to facilitate the transition to lower oil revenues. Reasonable policies would have included a depreciation of the rial, tight fiscal control and encouragement of non-oil exports. These policies could indeed have been supplemented by the temporary application of import restrictions and dual exchange rates.

Yet matters have turned out rather differently from what a simplistic "Dutch Disease" model would have predicted. In the following sections I will describe the policy measures adopted by the Islamic Republic in the exchange rate, fiscal and monetary areas and, then, proceed to a discussion of the actual performance of the Iranian economy.

3.1 Foreign Exchange Policy

The foreign exchange policies of the Islamic Republic have been among the most severe policy dilemmas of the past decade and will serve as the analytic cornerstone of my examination of Iran's macroeconomic policies. The decline in oil revenues in the face of extraordinarily high demand for foreign exchange due to military imports and capital flight has led to the intensification of capital controls and the introduction of a system of multiple exchange rates and the rise of a very active black market for foreign exchange. The foreign exchange constraint has been made even more stringent as a result of the freezing of Iran's foreign assets in the West and the summary payment of her foreign debt in accordance with the Algiers agreement which led to a reduction of Iran's available foreign assets from eleven

billion dollars to about four billion dollars.¹⁷

Black market activity which intensified in 1978 with the rise of political tensions had been virtually dormant since the balance of payments crisis of the early nineteen sixties. Figure 4 depicts the movements in the black market premium for the U.S. dollar which is defined as the ratio of the black market rate to the official exchange rate.¹⁸ The premium which has exceeded two thousand percent is among the highest ever observed internationally. The black market premium has maintained its steep ascent since 1978 with only one serious exception, namely the temporary decline in 1988 with the acceptance of the UN Security Council Resolution 598 calling for a cease-fire in the Iran-Iraq war.¹⁹

With the official exchange rate set at an artificially low level, the economy has suffered from a remarkably long period of real exchange rate misalignment. Figure 5 illustrates the severe real appreciation of the bilateral real exchange rate, BRER, between the rial and the U.S. dollar.²⁰ Further evidence is provided by the multiple real exchange rate, MRER. This index has been computed for two different base years, 1976 and 1985, in order to capture changes in Iran's import pattern since the revolution (see figure

¹⁷ For details of the Algiers agreement see the report by the Committee on Banking, Finance and Urban Affairs [1981].

¹⁸ See Appendix I for variable definitions and data sources.

¹⁹ The monthly nature of the data does not capture the finer movements in the black market rate that occurred on August 20 and 21, 1988 when the Security Council resolution was accepted. In those days, the black market rate collapsed from about 1500 rials per dollar to 350. The central bank had to intervene in support of the dollar to avert a collapse of the price of importable goods and financial panic in the bazaar.

²⁰ Appendix I provides details of the computations of real exchange rate indices.

6).²¹ Between 1979 and 1989, the bilateral and the multilateral exchange rates (using 1985 import weights) have appreciated 75.0 and 77.4 percent, respectively. These real exchange rate indices, which purport to demonstrate the movements in the price of tradable goods in relation to the price of non-tradable commodities, illustrate the profound misalignment of the real exchange rate which is, arguably, the most important relative price in an open economy.

The extent of the overvaluation of the rial becomes even more severe if we realize that the equilibrium real exchange rate should have depreciated in the period under study because of several factors such as the decline in oil revenues. The reduction in the country's productive potential due to the war and the revolution, increased capital flight and the decline in the credit-worthiness of Iran in the international capital markets because of increased political risk also indicate the need for such a depreciation.²²

The Islamic Republic's exchange rate policies have had a number of effects on the rest of the economy. A policy of dual exchange rates could be viewed as a justifiable short-term response to temporary balance of payments problems.²³ It may be prudent to maintain the current account rate somewhere close to its expected long-term norm for meeting vital needs while at the same time allowing less essential types of demand for foreign exchange to be filled in the black market. Such a system of dual exchange rates may have short-term merits but the argument does not extend to the maintenance over long periods

²¹Ibid.

²²For a comprehensive discussion of the determinants of equilibrium real exchange rates see Edwards [1989].

²³See Dornbusch [1986a], [1986b] for discussions of use of multiple exchange rates as tools of temporary balance of payments adjustment.

of time of an unrealistically over-valued exchange rate, nor of a complex system of multiple rates. This is what actually prevailed under the Islamic Republic. While instrumental in maintaining low prices for essential goods, Iran's foreign exchange policies have contributed to massive distortions of the price system, high budget deficits, severe pressures on foreign exchange reserves, the deterioration of the non-oil current account and other macroeconomic distortions.²⁴ The sustainability of such a highly over-valued exchange rate has been due largely to the fact that the Iranian government is the recipient of foreign exchange through oil exports; under other circumstances the country would have experienced a far more acute balance of payments crisis and destructive speculative attacks against the rial.

It should be noted that the motivations for the persistence of the prevailing foreign exchange policies have been the subsidization of the public's standard of living and the allocation of sizable rents to the recipients of foreign exchange at the official price and to importers of goods who can sell their commodities at prices governed by the black market exchange rate. These recipients have included the bazaar merchants who are among the principal constituents of the Islamic Republic. Naturally, the potential rents involved in such transactions have exacerbated the prevailing problems of rent-seeking and corruption in the economy.

3.2 Fiscal Policy

In an apparent contrast to what might be expected from a populist regime, the Iranian government has adopted a rather restrictive fiscal stance. The

²⁴Behdad [1988], Lautenschlager [1986] and Pesaran [1990] discuss some of the effects of an over-valued exchange rate on the Iranian economy.

ratio of government expenditures to GDP has declined from 42.6 percent in 1977/78 to 16.0 percent in 1988/89. This notable decline should however be interpreted as an outcome of the decline in oil revenues and not entirely of conscious policy. Figure 7 illustrates the dramatic decline in real government expenditures. The overall fiscal position of the government is summarized in table 3.

On the expenditure side the most notable development has been the shift away from capital to current expenditures. The share of capital expenditures in GDP has declined from 15.6 percent in 1977/78 to 3.1 percent in 1988/89.

As a result of this, maintenance and improvements in the country's infrastructure have been delayed at a heavy, long run expense. This reduction in development expenditures has several possible explanations. First, and most obviously, the war and the decline in oil revenues have precluded the allocation of sizable funds for development purposes. Second, in a situation of profound political uncertainty, long-term projects are easily sacrificed as these have long gestation periods and potential beneficiaries might not be around to enjoy them. One expects rent-seeking activity by potential beneficiaries of government projects to be concentrated on short-term ventures.

As a consequence of the above developments, and in spite of the transfer of a large portion of the country's productive assets to the state, the contribution of the public sector to consumption and investment have declined sharply. Figure 8 depicts the share of public consumption and investment in their corresponding totals.

On the revenue side, the decline in oil revenues has meant a higher share of taxes in total revenues. In spite of this, real tax revenues have declined

noticeably since the revolution. Taxes as a percent of GDP have declined from 8.4 percent in 1978/79 to 3.7 percent in 1988/89. (See figure 9). The decline in real tax revenue has had several causes. As Tanzi [1989] has pointed out, fluctuations in tax revenues are largely determined by economic institutions and macroeconomic policies. In Iran the decline in tax revenues has been due to an increase in the size of the parallel economy and the service sector in relation to the manufacturing sector, the government's ability to finance its budget deficit from the banking system and the potential costs of raising income taxes in a politically unstable society.

One of the most important factors behind the decline in tax revenues has been the drastic reduction in imports, the tariffs on which comprise a major share of the government's tax revenues. Another reason for low tariff revenues has been the artificially over-valued official exchange rate at which the imports get appraised.

Table 3 also indicates that the government has increased its revenues since 1984/85 through the sale of foreign exchange in the free market.

In spite of a rather restrictive expenditure stance, the government budget deficit has risen sharply from 458.0 billion rials in 1977/78 to 2125.6 billion rials in 1989/90. Table 3 also illustrates the growth of the budget deficit in relation to the GDP.

Assuming away taxes other than import duties, the government budget deficit may be formulated as the difference between government expenditures on the one hand and revenues from oil and from tariffs on imports on the other:

$$D_t = G_t(P_t) - E_t OR_t - r_t E_t M_t (OR_t) \quad (1)$$

where:

D - budget deficit,

G - government expenditures, $G' > 0$,

$P = P_n^\alpha P_x^\beta (E^W P_m^*)^{1-\alpha-\beta}$, $0 < \alpha, \beta < 1$, the domestic price level,

P_n - price of non-tradable goods,

P_x - price of exportable goods,

P_m^* - price of importable goods,

$E^W = E^\delta B^{1-\delta}$, $0 < \delta < 1$, a weighted average of the official and the black market rate,²⁵

B - black market exchange rate, $B = B(OR)$, $B' < 0$,

E - official exchange rate,

OR - oil revenues which are received in dollars,

τ_t - the tariff rate,

M - imports, $M' > 0$ on the assumption that imports are limited by the availability of foreign exchange which is fundamentally determined by oil revenues.

It is obvious from the definition of the budget deficit equation above that a decline in oil revenues will lead to an increase in the budget deficit. First, a sharp decline in oil revenues will lead to an increase in the black market exchange rate and, hence, the price level. Holding other things constant, this will increase the level of government expenditures. Second, the decline in oil revenues will also reduce not only the direct revenues from oil, but also tariff revenues as the volume of imports is largely determined

²⁵This is justified by the observation that some imported goods are sold at prices based on the official exchange rate and some based on the black market rate.

by the amount of foreign exchange made available by oil exports in that period.

It should also be transparent that, in any period, the government budget deficit could be reduced or completely eliminated by a devaluation of the official exchange rate.²⁶ Concerns about inflation in ensuing periods and the consequent decreases in real wages and the consumption of wage-earners have, however, precluded such a policy.

Given the lack of access to the international capital market and the limitations on foreign borrowing imposed by the political conditions in Iran, the government deficit has been covered mostly by borrowing from the banking system. Barring short-term credit, the government has not been able to borrow abroad and has, in fact, paid off much of its outstanding foreign debt in accordance with the terms of the Algiers agreement which settled the hostage issue in 1980. As a result of these developments, Iran's long-term foreign debt has declined from 2,875.9 million dollars in 1980/81 to only 255.6 million dollars in 1989/90.²⁷ Though not entirely voluntary, the decline in foreign debt distinguishes Iranian from Latin American populism.²⁸ The inability of the government to generate revenues through increased taxation or borrowing has forced it to resort to inflationary finance.

3.3 Monetary Institutions and Policy

It is necessary to discuss the fundamental changes in monetary

²⁶See Lautenschlager [1986].

²⁷Note that these are developments in long-term debt only; the government has been able to secure some short-term trade credit in recent years.

²⁸See Sachs [1989].

institutions in order to understand the context of monetary policy and monetary developments. The most fundamental change in monetary institutions has been the imposition of Islamic banking on the newly-nationalized banking system. Islamic banking is, theoretically, an equity-based, profit-sharing system which eliminates fixed-interest deposits and loans in deference to Islamic injunctions against usury. Under Islamic banking, the lender and borrower share the profits of enterprise according to some previously agreed upon share; the actual size of the remuneration to the lender, nevertheless, is determined after the completion of the project. While this type of financial arrangements might render the economy more resilient to some macroeconomic disturbances, it could have deleterious ramifications for the stability of the banking system and the actual volume of lending for investment purposes. An increase in risk sharing, as prescribed by Islamic banking, could exacerbate the problem of moral hazard where borrowers are encouraged to adopt more risky projects. This would, naturally, make the loan portfolio of banks more risky. Hence, banks might be induced to ration credit more strictly, and to divert a larger part of their assets away from long-term investment loans to commercial and short-term ones.²⁹ One may also anticipate that many potential investors would refrain from dealing with the banking system in order to avert the closer oversight that Islamic profit-sharing schemes require.³⁰ The shift in the portfolio of the banking system toward short-term commercial lending in Iran has been very pronounced. For instance

²⁹For further discussion of Islamic banking see Iqbal and Mirakhor [1987] and Khan and Mirakhor [1987], [1990].

³⁰A further consequence of the elimination of fixed-rate deposits might be the decline in savings if deposit rates do not rise adequately to reflect the increased risk of holding bank deposits. See Khan and Mirakhor [1987] for further discussion.

in 1987/88 62.4 percent of all lending by the banking system to the private sector was for short-term ventures.

What about monetary policy in general? In order to understand monetary policy in Iran, it is useful to outline the money supply process in an oil-exporting country in which the revenues from oil exports accrue to the government. As suggested by previous works on the subject such as Dailami [1979], Morgan [1979] and Pinto [1987], movements of monetary aggregates in such economies are largely determined by the fiscal position of the government and not by changes in the revenues from oil exports, per se. The determinants of the broad money supply are as follows:³¹

$$\Delta M_2 = (G - OR - E.NOR + \Delta NFA^g) + \Delta DC^{nb} + \Delta NFA^b \quad (2)$$

where:

Δ - the difference operator,

G - government expenditures,

E - the official exchange rate,

R - revenues from oil exports,

NOR - non-oil revenues,

NFA^g - net foreign assets of the government,

DC^{nb} - domestic credit to the non-bank private sector,

NFA^b - net foreign assets of the banking system.

Assuming that the government maintains a fixed fiscal stance, any increase in oil revenues will be offset by an equal increase in the net

³¹For derivation of this formulation, which is adopted from Pinto [1987], see Appendix II.

foreign assets of the banking system, leaving the money supply unchanged. Changes in the money supply will occur, however, if the government decides to increase its expenditures and actually use the increased oil revenues in the domestic economy. It is only in such circumstances that changes in oil revenues get monetized.

Given this structure, one would have expected that the recent changes in oil revenues per se would not have had much of an impact on the money stock. Yet, the increase in fiscal expenditures, the decline in non-oil revenues and the reduction in the government's net foreign assets have led to drastic increases in the supply of money.

Although the central bank of Iran has often demonstrated a degree of autonomy vis-a-vis the government, changes in monetary aggregates have been determined by fiscal requirements. In the period since the revolution the central bank and the nationalized banking system have become a prime source of funds for the government and this has manifested itself in the rapid expansion of liquidity (see table 4). As Khan and Mirakhor [1990] have noted, the autonomy of the central bank and the banking system has declined noticeably since 1986. The rapid expansion of the money stock and the rise in the black market rate for foreign exchange have contributed to an acceleration of the rate of inflation (again, see table 4). The consumer price index has risen at an average annual rate of 18.9 percent between 1979/80 and 1989/90.

Close scrutiny of the lending practices of the banking system also indicates a notable change in the real quantity and composition of credit granted by the banking system. Figure 10 depicts changes in the level of real credit to the government and the private sector. It is obvious that the

decline in real economic activity and the rising budgetary needs of the government have made the public sector the largest recipient of credit in the Iranian economy.

The policies discussed above may be compared with those adopted in response to the decline in oil revenues following the nationalization of the Iranian oil industry in the 1951-53 period under Premier Mossadegh. The adjustment to this foreign exchange shock has been recently studied by Clawson and Sassanpour [1987] and Katouzian [1985]. Although the Mossadegh government had many populist characteristics, it still managed to adopt appropriate corrective measures in the form of exchange rate devaluations, import restrictions and encouragement of non-oil exports. As Clawson and Sassanpour have indicated, the government improved its fiscal position through raising customs duties and prices of goods supplied by the public sector. An attempt at raising revenues through floating a bond was not very successful as this practice was at that time unprecedented in Iran.

IV. The Performance of the Iranian Economy

4.1 Overall Economic Performance

How has the Iranian economy performed in the face of the profound changes in economic institutions, the political system and other disturbances in the period since the revolution, and to the policies adopted by the Islamic Republic? The decline in oil revenues and the institutional changes have had adverse effects on both aggregate demand and aggregate supply. On the one hand, the decline in oil revenues has led to sharp reductions in aggregate expenditures. On the other hand, the initial increases in real wages, and the decline in the availability of foreign exchange for the importation of

intermediate goods for industry, among other factors, have induced severe supply shocks. Uncertainty about the role of the private sector has only added to these adversities.

In the period between 1978/79 and 1989/90 real economic activity has virtually stagnated; real GDP, measured in constant 1974/75 prices has moved from 3,266.9 billion rials in 1978/79 to 3,273.0 billion rials in 1988/89. Figure 11, which illustrates the level of real output in Iran since 1960, reveals that output has contracted to the same level as that prior to the oil boom. Real GDP growth rates are provided in table 4. Moreover, the severe decline in real GDP and a rapidly expanding population have contributed to a drastic decline in real GDP per capita from 144 thousand rials in 1977/78 to about 63.7 thousand in 1988/89. This is comparable to the level of consumption per capita in the years prior to the surge in oil revenues in the early 1970s.

Table 5 shows the changes in the various components of aggregate demand. Private investment, measured as fixed gross capital formation, has declined sharply in the post-revolution era. It fell dramatically in the immediate aftermath of the revolution, and in spite of some recovery in 1983 to 1985, has stagnated since. Several factors lie behind the decline in private capital accumulation. The decline in government expenditures and the complementary relationship between public and private investment account for much of the observed trend. Expropriations, labor unrest in the early stages of the revolution and uncertainty concerning the status of private property and the scope of the private sector have also been detrimental. Furthermore, a tightly binding foreign exchange constraint and the heavy dependence of Iranian industry on imported intermediate components have lowered the rate of

capacity utilization in the manufacturing sector to about thirty percent. It should be noted that in 1979/80 about fifty-seven percent of value added in the manufacturing sector was comprised of imported inputs.³² This intensive reliance of Iranian industry on imported intermediate and primary goods is largely due to the pursuit of import-substitution policies prior to the revolution.

The decline in the availability of credit to the private sector and the rise of Islamic banking are other factors explaining the decline in capital accumulation. Both of these trends were mentioned before in our previous analysis of monetary developments since the revolution.

The trajectory of consumption expenditures is very similar to other measures of aggregate economic activity. Total real consumption declined from a maximum of 2,638.3 billion rials in 1977/78 to 2,260.9 billion in 1988/89, a decline of 14.3 percent over eleven years.³³ As table 5 indicates, much of the decline in consumption expenditures has been in the public sector.

The sectoral composition of output has changed dramatically in response to the decline in oil revenues and the macroeconomic policies of the government. The evolution of the sectoral composition of GDP is provided in table 6 and figure 12. The most notable development is the decline in the share of oil. This decline should not be interpreted as indicating a declining reliance of the Iranian economy on oil, however; oil remains the most important source of foreign exchange and revenues for the government.

We also observe a steady expansion in the share of the agricultural output. Real agricultural output has grown at an average annual rate of 5.2

³²This figure is from the Central Bank of Iran [1985], p. 162.

³³In 1974/75 rials.

percent between 1979/80 and 1988/89. The steady growth in agricultural output is largely due to the fact that it has been the sector least disturbed by the revolution and the war. In fact, the agricultural sector has been the recipient of particular attention and subsidy by the government. The primacy given to agriculture has been largely due to the ideological commitment of the government to decreased reliance on the importation of food and to economic independence.³⁴

Among the most significant developments since the revolution, however, has been the hypertrophy of the service sector which is symptomatic of the profound imbalances in the Iranian economy. The decline in industrial output and the resulting unemployment, a highly distorted incentive system (largely due to a highly overvalued exchange rate and the black markets) which strongly encourages trade activities, and the observed bias in the lending operations of the banking system toward the service sector are among the primary factors behind the observed sectoral imbalances.

The external sector of the economy is the next focus of our attention. The decline in both oil revenues and non-oil exports, and trade sanctions imposed on Iran have induced a notable deterioration in the balance of payments. Table 2 demonstrates developments in the external sector. As previously discussed, the balance of payments has been dominated by the oil sector. Yet, the decline in non-oil exports is also noteworthy. These exports declined from 811 million dollars in 1979/80 to their lowest level in 1982/83 and have rebounded since. A fundamental factor in the deterioration of the non-oil current account has been the sizable misalignment of the exchange rate discussed above. Some of the recent improvement in non-oil exports since

³⁴The government has actually failed in curbing food imports.

1986/87 has been due to the introduction of preferential rates for exports and the permission to exporters to sell some of their foreign exchange earnings in the black market. As table 2 indicates non-oil exports rebounded from 465 million dollars in 1985/86 to 1,161 million dollars in 1987/88.

The overall decline in oil and non-oil exports and the ensuing restrictions on imports imposed by the government have decreased significantly the degree of the openness of the Iranian economy. I have computed two indices measuring the intensity of trade.³⁵ The first is an over-all trade intensity ratio, TIR:

$$\text{TIR} = \frac{\text{X} + \text{M}}{\text{GDP}} \quad (3)$$

where X and M are absolute values of exports and imports, respectively. An alternative measure of openness is the non-oil trade intensity ratio, NOTIR:

$$\text{NOTIR} = \frac{\text{NOX}}{\text{GDP}} \quad (4)$$

where NOX is the absolute value of non-oil exports. Both of the above measures of openness are presented in figure 13 and indicate a significant structural change which began in 1977 with the decline in oil revenues and has intensified since the revolution.

Apart from the decline in oil revenues and a misaligned exchange rate, the basic trade policies of the Islamic Republic require more scrutiny in order to understand the developments in the balance of payments. First, the

³⁵See Leamer [1988] for both theoretical and empirical analysis of measures of openness.

long and heated debate, both inside and outside the parliament, over the nationalization of foreign trade and the lack of a clear resolution of this issue contributed to much uncertainty in the private sector concerning the trade policies of the Islamic Republic. In spite of the government's rejection of economic isolation, both the ideological and the psychological orientation of the revolution and of the government have been introverted. While recognizing the significance of ideology and the historical roots of the prevalent introverted psychology, it is necessary to look at this problem as the endogenous outcome of a populist and redistributive regime. When a populist regime rises to power, it is necessary for it to prevent the transfer of the assets of the more wealthy segments of society abroad. This capital flight is fundamentally motivated by fears of expropriation and higher taxes. Due to the restrictions on capital movements since the revolution, private agents have tried to transfer assets abroad in the form of exportable goods such as carpets. Up to recent times the government has been cynically supervising such exports in order to avert capital flight, and as a result, the environment for foreign trade has become more hostile.

4.2 Changes in income distribution

Improvement in the distribution of income and economic equality have been among the primary aims of the Iranian revolution and cornerstones of the policies of the Islamic Republic. Hence, it is pertinent to trace developments in this area.

Changes in the size distribution of income have been studied recently by Behdad [1989]. He has used national expenditure shares to compute Gini coefficients and these are reported in table 7. His results indicate that,

in spite of initial improvements in income distribution immediately after the revolution, distributional inequality has increased steadily since.

The same pattern is observed in the functional distribution of income. Comprehensive wage data are not available for Iran and the best available indicator is the earnings of workers in large manufacturing establishments.³⁶ I have computed a real wage index which is reported in table 4 and in figure 14; these real wages rose dramatically immediately after the revolution because of higher minimum wages and increased labor organization and militancy. The index has fallen steadily since the early stages of the revolution, however;³⁷ The real wage index has declined about 31 percent in the period from 1979/80 to 1986/87.

Although the decline in real wages might be partly due to the pervasive stagnation of the manufacturing sector, the fact remains that the path of developments and the policies adopted by the Islamic Republic have produced results contrary to the goals and intentions of both the populist movement and the intentions of the government.

These recent adverse changes in income distribution could become more grave once we allow for the rise in the rate of population growth from 2.9 percent per annum before the revolution to 3.2 percent which has occurred since the revolution. Besides the immediate problems of declining consumption per capita, such rapid population growth could lead to higher dependency ratios, and to reduced savings and capital formation. Given the unlikelihood

³⁶ Large manufacturing establishments are those employing ten or more workers.

³⁷ The increase in the real wage index in 1985/86 is mostly due to an artificially low rate of CPI inflation of 4.1 percent in that year. (See table 4.)

of the adoption of labor-intensive techniques of production in the foreseeable future, higher unemployment, declining real wages and a deterioration of income distribution are likely to result.

4.3 Changes in the Pattern of Rent-Seeking Activity and their Consequences

Iran is a rentier society and rent-seeking activity is of paramount significance. The institutional and economic developments since the revolution, however, have induced important changes in the pattern and significance of rent-seeking activity. Some of these have been alluded to in the previous sections. The issue, nevertheless, requires a more systematic treatment.

The Revolution and the reduction in oil revenues have had profound implications for the pattern of rent-seeking. High oil revenues allowed for rent-seeking activities directed at winning contracts for government development projects, credit subsidies and some import licenses. In the context of highly aggressive import-substitution policies in the pre-revolutionary era, this implied a favorable position for those engaged in manufacturing and construction. The decline in oil revenues, the adjustment policies adopted by the Islamic Republic and the extension of the control of the state over a larger portion of the means of production through confiscations and nationalizations have altered the pattern of rent-seeking activity in important ways. Now, the significant channels of rent-seeking have become:

1. Obtaining a share of the property confiscated after the revolution. This has been done both by individuals and by para-statal organizations and still continues although the expropriative stage of the revolution has

subsided.

2. The control of state-owned enterprises and the para-statal organizations by different individuals and different factions within the government. This has taken a new twist recently with new attempts to privatize some of the state-owned enterprises.

3. Obtaining exchange rates at official rates which, given the high premia for foreign exchange on the black market, imply significant rents.

4. Gaining licenses for imports (at official exchange rates) which together with the severe import restrictions imply very high profit margins in the free markets.

The rise of the above methods of rent-seeking have had several consequences. First, as discussed throughout this paper, such rent-seeking activities, particularly those instigated by the misaligned exchange rate, have distorted incentives in the economy in favor of the service sector and the merchant class. These have led to a significant redistribution of wealth to these sectors, a tendency which has created new resentments and social tensions.³⁸

The most important and the most damaging impact of these new sources of rents have, however, been that most of them emanate from distorted macroeconomic policies. In the last decade an entirely new class has found itself benefiting from a policy of misaligned exchange rates and the tight control of foreign trade. These people contribute to a dangerous perpetuation of misdirected macroeconomic policies; such a problem is and will be a particularly acute dilemma for rentier economies experiencing reduced external

³⁸Recall, from section 3.3 above, that the credit policies of the banking system have also largely favored trade activities.

revenues.

V. Stabilization and the New Five-Year Plan

The aggravation of macroeconomic imbalances and the cessation of the war with Iraq have forced the government to embark upon an orthodox, multi-faceted stabilization, reconstruction and reform plan.

The center piece of the stabilization package is the First five-year plan of the Islamic Republic for the years 1989/90 to 1993/94 which was adopted in January 1990. The key ingredients of the new plan are:

1. balancing the budget and reducing inflation,
2. overcoming economic stagnation and increasing output and employment,
3. reducing the size of the government, encouraging a greater role for the private sector in the provision of basic services, and privatization,
4. reducing sectoral imbalances particularly the hypertrophy of the service sector.

The underlying perspective of the liberalization-stabilization plan is recognition of the inability of the government to exercise a very high degree of centralized control over the economy and the need for the curtailment of its role. This is to be effected by transferring some of the services provided currently by the government to the private sector, and by privatizing partially or completely some of the state-owned enterprises. The government has also extended incentives for foreign investors and is actively seeking the return of expatriate Iranian skilled labor and entrepreneurs.

What economic trends does the five year plan envision? The average

growth rate targets for the period 1989/90 to 1993/94 are reported in table 8. Given the historical trends in the economy and the unstable political and institutional climate, these targets seem quite optimistic. One could predict, however, that increased availability of foreign exchange will allow for more imports of primary inputs and, hence, higher capacity utilization. The plan also aims at reducing the rate of unemployment from the current rate of 15.9 percent to 14.2 percent in five years.

The plan envisions foreign exchange requirements of about 112 billion dollars over the next five years while it is predicted that Iran will receive only 85 billion dollars from the export of oil and other goods and services. The recent increase in oil receipts due to the current tensions over the occupation of Kuwait by Iraq will, indeed, alleviate some of these pressures. The government, has, nevertheless, been forced to turn to the international capital market and to international organizations for securing the needed foreign exchange.

The question that suggests itself immediately concerns the effects of the stabilization plan on the various sectors of society, on economic institutions and on income distribution. Among the first results of the stabilization plan, if successful, will be the increasing scope for the private sector and a diminished role of the state. Consequently, the role of the state in employment and income distribution will decline. Furthermore, rationalization of the economy will lead to the erosion of the rents accruing to the powerful constituents of the Islamic Republic and, consequently, their political alienation.

Some of the ramifications of the current stabilization plan will depend on the scope and the terms of the agreements between Iran and the

international agencies such as the IMF and World Bank with which Iran has resumed consultations. IMF and World bank assistance is usually conditional on a host of policies aimed at, among other things, reducing the fiscal deficit and managing aggregate demand strictly. Such policy recommendations have, in many past instances, contributed to increased income distribution problems, political instability and the eventual abandonment of the stabilization attempt.

VI. Some Concluding Thoughts

Several major lessons should be evident from the experience of the Iranian economy since the revolution. Firstly, in an economy where the government is the recipient of sizable resources the distributional issues and rent-seeking activity will be primary economic issues. If rent-seeking is not competitive and the allocation of revenues by the state is conducted without adequate regard for distributional consequences in mind, much social tension will result and various social groups will use a large amount of resources to redirect resources. Indeed, this will be done at the expense of directly productive economic activities. Hence, this problem suggests the need for further reflection on the reform of political and economic institutions in these countries. Although the relative democratization of the government increases the public's oversight over government expenditures, the Iranian revolution has not accomplished much in the way of this type of institutional reform.

Secondly, while distributional equality and the correction of the biases effected by the pre-revolution economic policies are noble aims, the elevation

of income redistribution to the level of the highest economic objective and the economic policies pursued by the Islamic Republic have had unfortunate consequences for the sectors of society that were the proclaimed beneficiaries of the revolution. Populist policies and institutions have ushered in new distortions and profoundly detrimental consequences for the Iranian economy. Although the lower income sectors of society have benefited from a qualitative reorientation of fiscal expenditures in their favor and some initial asset transfers, all other evidence such as the increased unemployment, deteriorating income distribution and real GDP per capita suggest that policies adopted in Iran are likely to eventually harm their intended beneficiaries. While the impact of the decline in oil revenues and the other vagaries experienced by Iran are largely responsible for her economic performance, the role of the policies adopted by the government should not be ignored.

Finally, the Islamic Republic's first five-year plan properly addresses and reverses many of the detrimental policies of the post-revolutionary era, the success of the stabilization efforts relies strongly on the ability of the government to exercise fiscal and monetary control. Failure in this could lead to the collapse of the liberalization and stabilization efforts and possibly to a highly unstable economic environment in the Latin American tradition.

Appendix I

The black market premium, BMP, is defined as

$$\text{BMP} = \frac{B}{E_{\text{US}}}$$

where:

B - black market exchange rate (World Currency Yearbook),
E_{US} - the official rial, dollar exchange rate (IFS series we).

The bilateral real exchange rate is defined as follows:

$$\text{BRER} = E_{\text{US}} \frac{\text{PPI}_{\text{US}}}{\text{CPI}_{\text{Iran}}}$$

where:

PPI_{US} - U.S. producer price index (IFS series 63),
CPI_{Iran} - Iran consumer price index (IFS series 64).

The alternative measure of the movements in the real exchange rates is the multilateral real exchange rate, MRER.

$$\text{RER} = \frac{\sum_{i=1}^n W_i E_i \text{WP}_i^*}{\text{CPI}_{\text{Iran}}}$$

where:

W_i - import weights for Iran's major trade partners,³⁹

E_i - the official exchange rate between the trading partner i's currency and the Iranian Rial. Due to lack of data these rates have been constructed as the ratio of the country i's exchange rate vis-a-vis the U.S. dollar divided

³⁹ I have used only import weights because of the small share of non-oil exports in Iran's total trade.

by the official rial/dollar rate:

$$E_i = \frac{E_{i, US}}{E_{US}} .$$

The above approach, indeed, assumes trilateral arbitrage between the three currencies.⁴⁰

WP_i = trading partner's whole sale price index (IFS series 63).

The trade weights used are from IMF's Direction of Trade Statistics and are computed for two base years, 1976 and 1985. This is done in order to capture the changes in the geographical distribution of Iran's imports since the revolution. These trade weights are given below.

Multiple Real Exchange Rate Trade Weights
(In percent)

	1976	1985
U.S.	22.62	10.24 ⁴¹
Germany	24.39	21.25
Japan	22.21	20.31
U.K.	10.49	10.08
Italy	7.22	9.13
France	6.68	2.36
Turkey	0.41	16.06
Holland	4.22	4.09
Australia	1.77	3.15
Total	100.00	100.00

Source: Direction of Trade Statistics,
International Monetary Fund.

⁴⁰See Edwards [1989], p. 126 for a discussion of this approach and its limitations.

⁴¹The trade weights for the U.S. in 1985 have been adjusted to include the increase in the share of Iran's imports from the developing countries (excluding Turkey) since these countries are treated as stops-over for imports of American goods. A prime case is the United Arab Emirates, which, itself is not a major producer of tradable goods, and whose exports to Iran have risen significantly since the revolution.

Appendix II

The money supply equation (2) can be motivated as follows:

$$\Delta M_2 = \Delta DC + \Delta NFA^b \quad (A.1)$$

If we ignore changes in the money multiplier, movements in broad money supply are determined by changes in domestic credit, DC, and in the net foreign assets of the banking system, NFA^b .

Domestic credit, in turn, is comprised of credit to the government, DC^g , and credit to the non-banking private sector, DC^{nb} ,

$$\Delta DC = \Delta DC^g + \Delta DC^{nb}. \quad (A.2)$$

The budget deficit is defined as the excess of expenditures over oil and non-oil revenues and is financed by increases in the debt of the government to the central bank and by changes in the government's net foreign assets

$$D - G - E.OR - NOR = \Delta DC^g - \Delta NFA^g. \quad (A.3)$$

Upon substituting equations A.2 and A.3 into equation A.1 we obtain:

$$\Delta M_2 = (G - E.OR - NOR + \Delta NFA^g) + \Delta DC^{nb} + \Delta NFA^b. \quad (A.4)$$

Figure 1

The Nominal (PIL) and the Real (RPIL) Price of Iranian Oil (dollars)

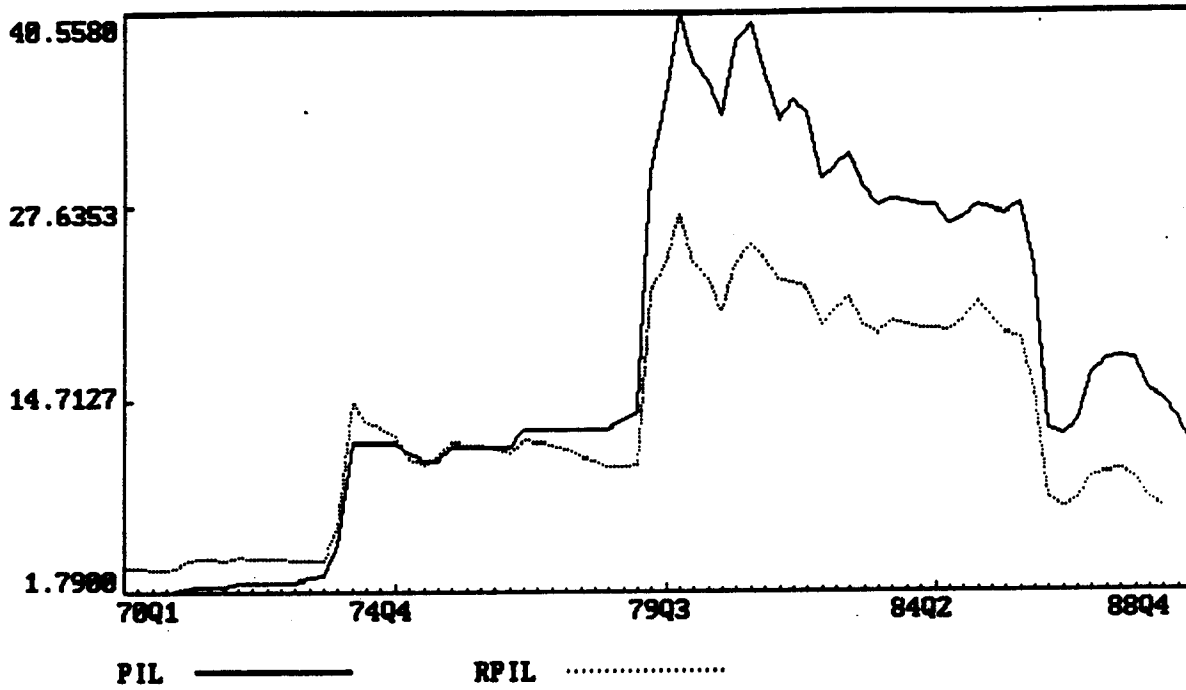


Figure 2

Exports of Oil and Gas (millions of Dollars)

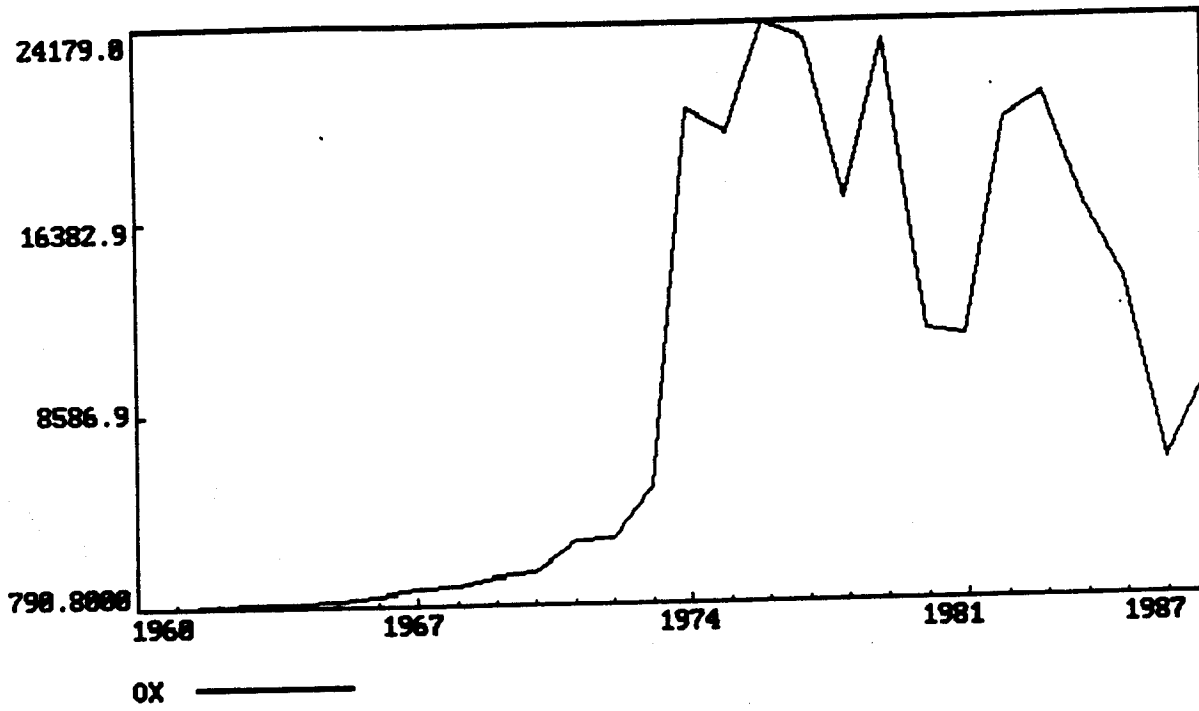


Figure 3

Iran's Share in OPEC (SOPEC) and in World (SW) Oil Output (percent)

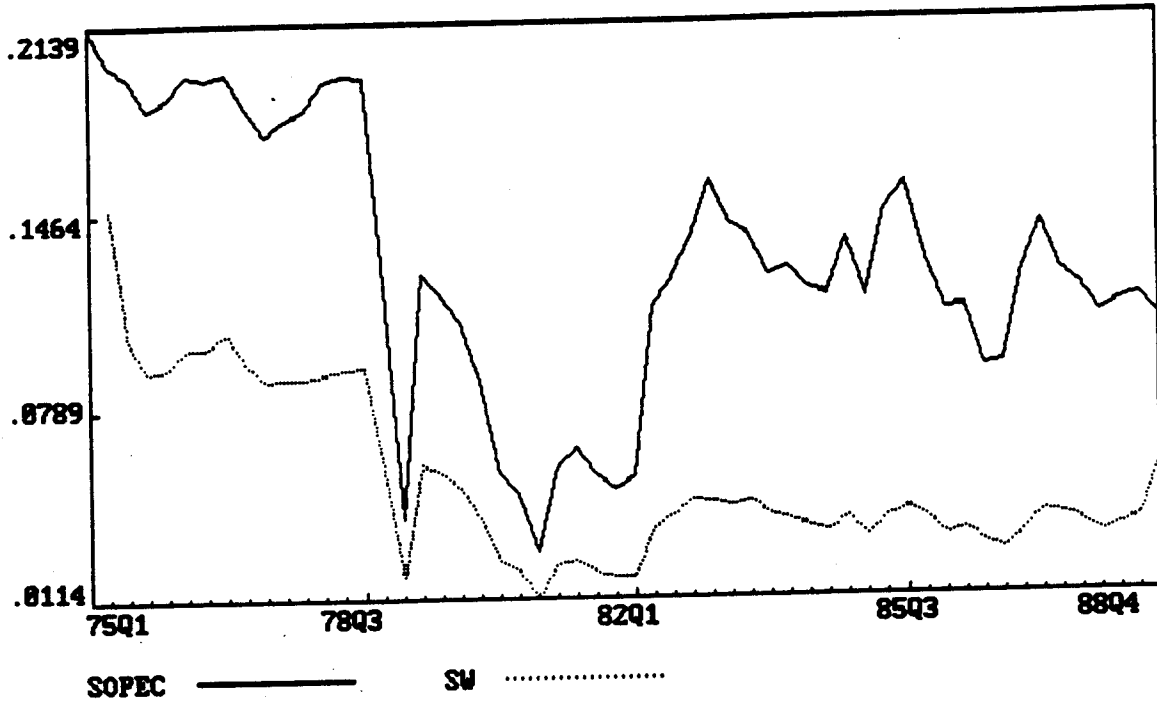


Figure 4

The Black Market Premium for the U.S. Dollar

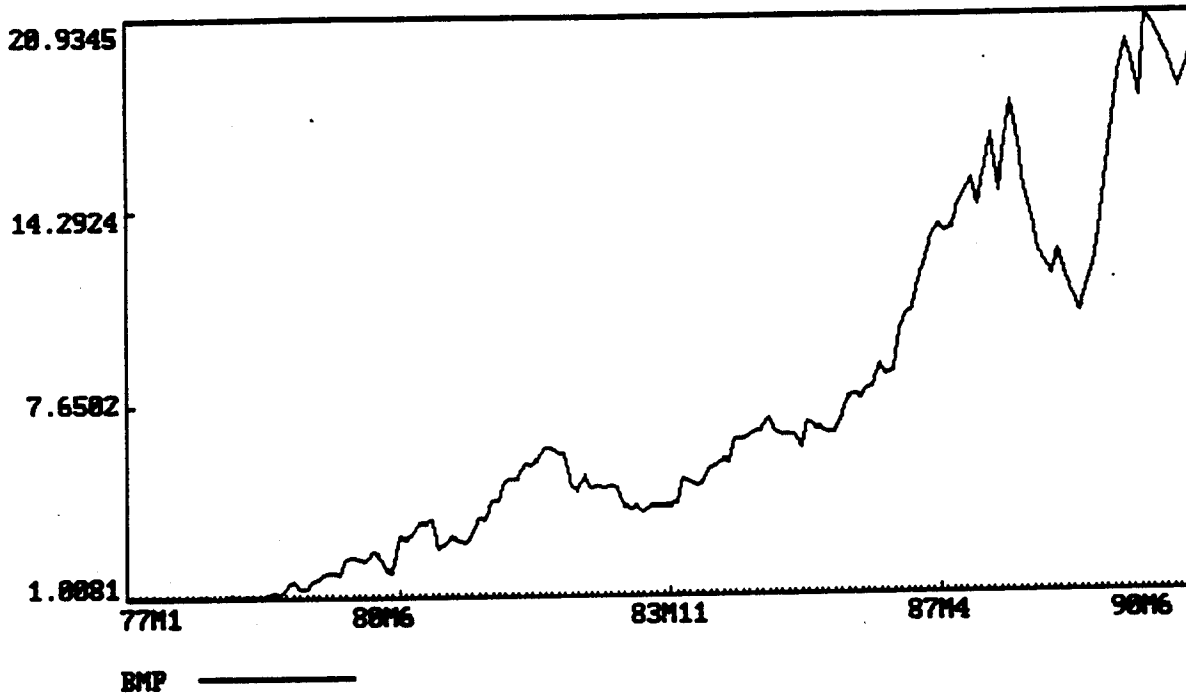


Figure 5

The Bilateral Real Exchange Rate (1985=100)

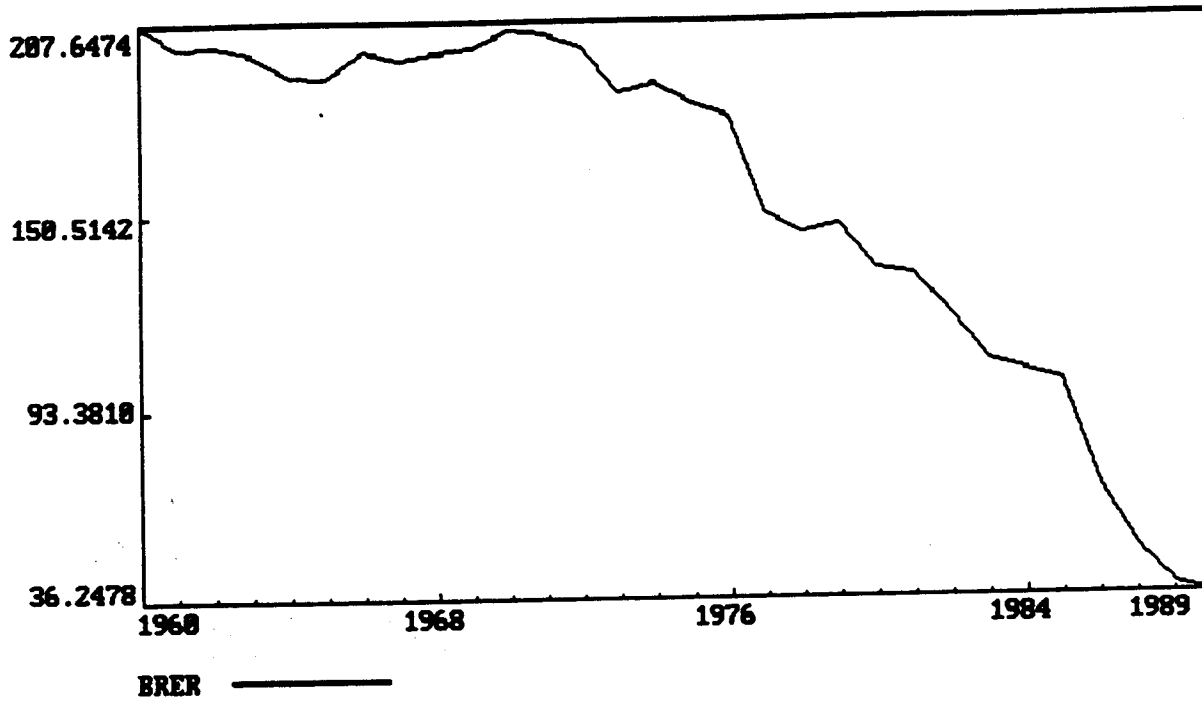


Figure 6

Multiple Real Exchange Rate Indices (1985=100)

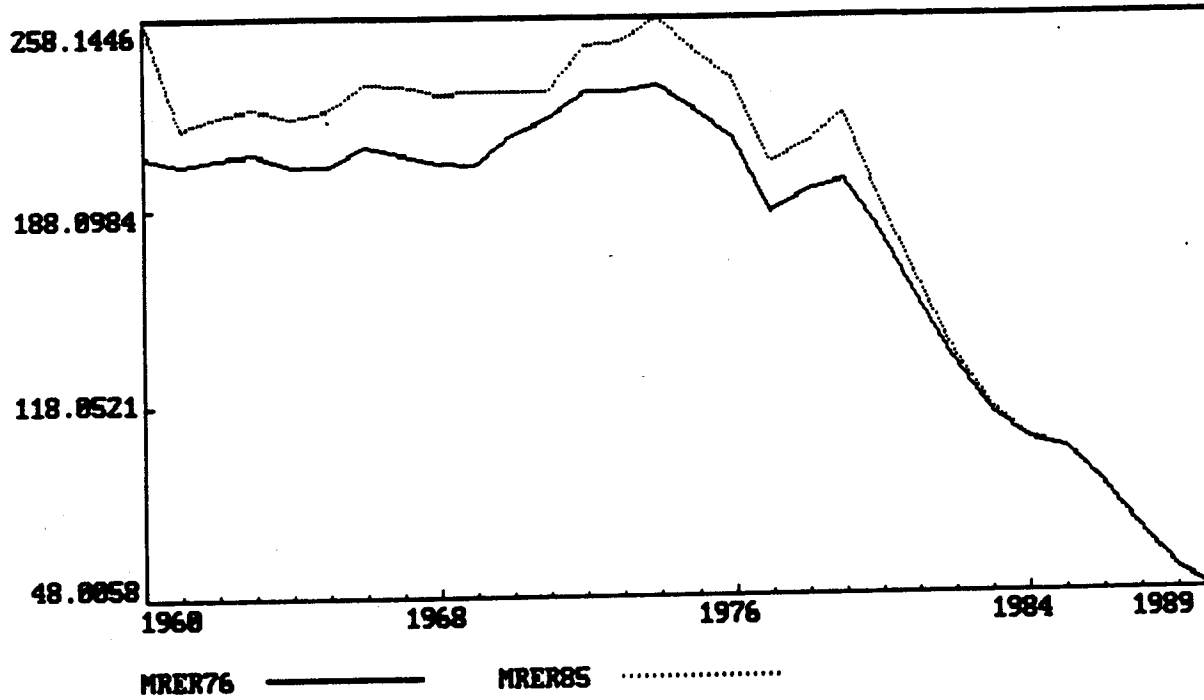


Figure 7

Real Government Expenditures (billions of rials, 1974 prices)

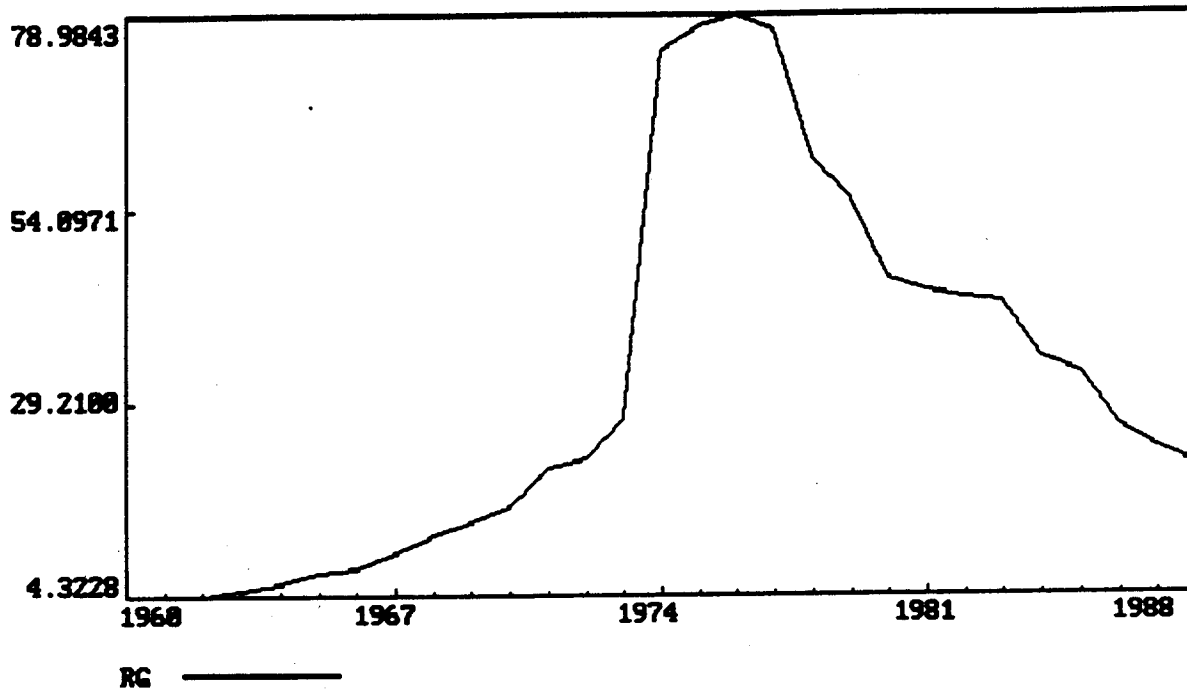


Figure 8

The Share of Government in Total Consumption (SC) and Investment (SI)

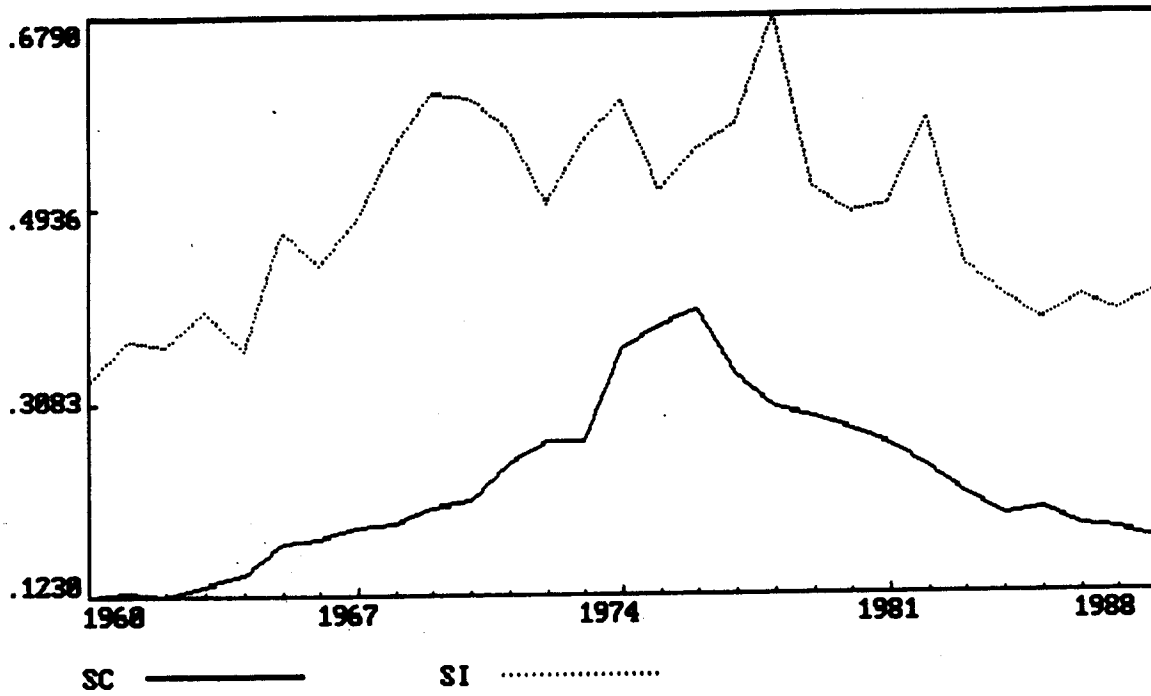
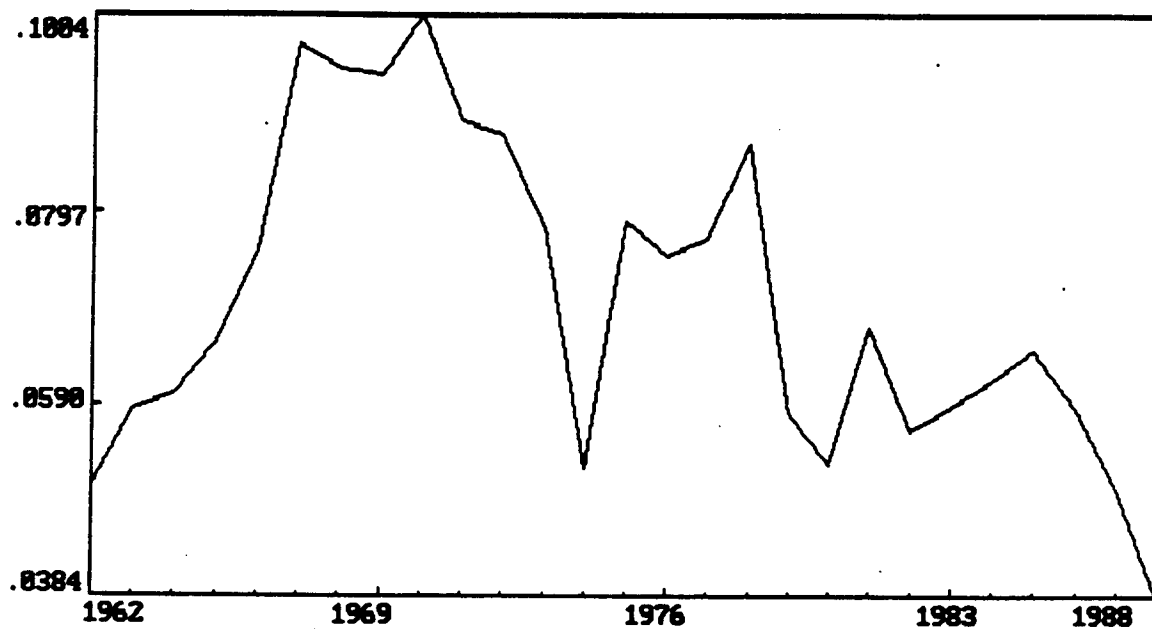


Table 9

The Ratio of Taxes to GDP (percent)



TY ———

Figure 10

Real Credit to the Private Sector (CP) and to the Government (CG)

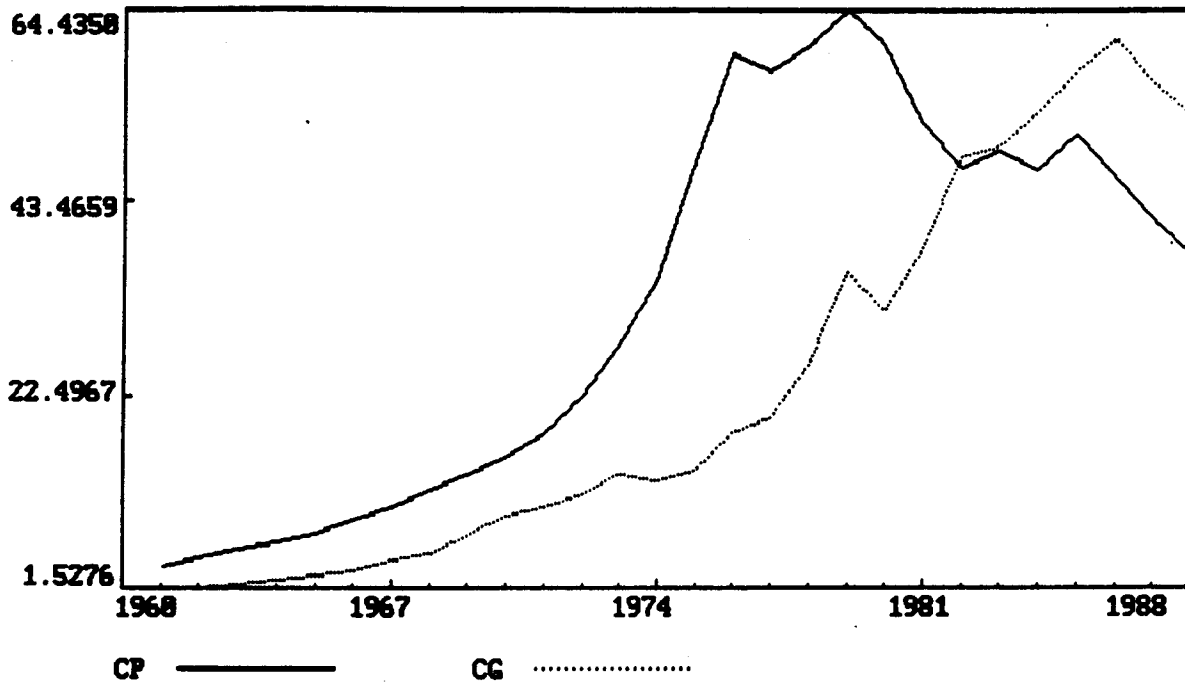


Figure 11

Real GDP (billions of rials, 1974 prices)

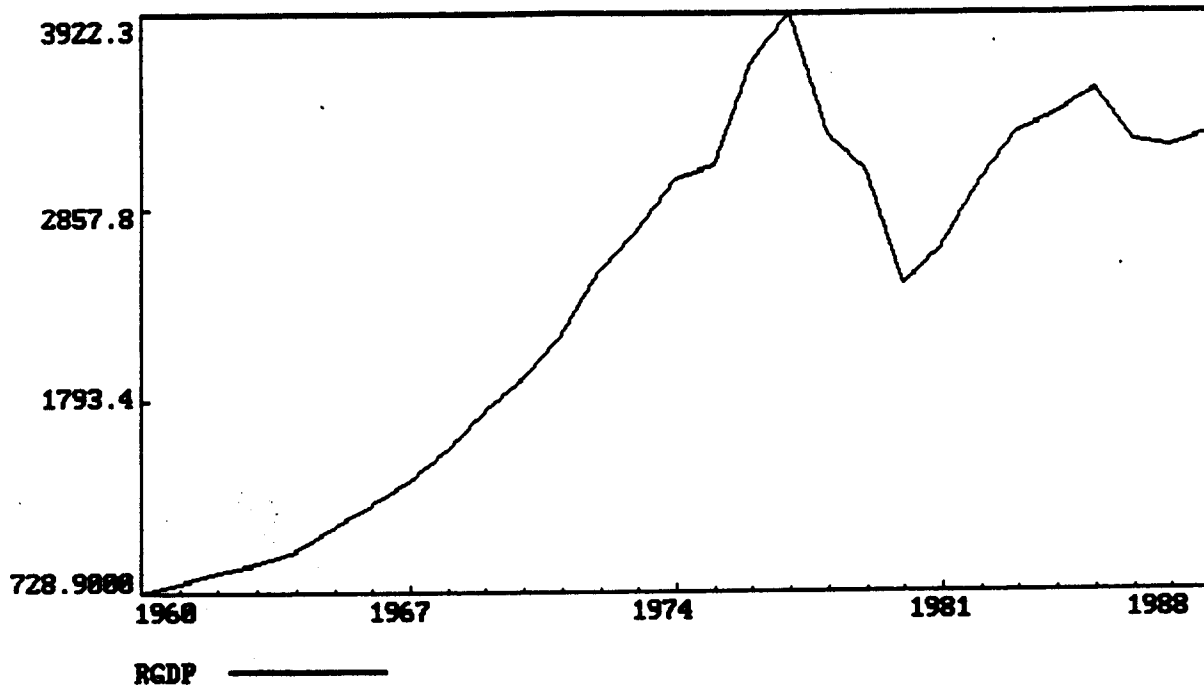
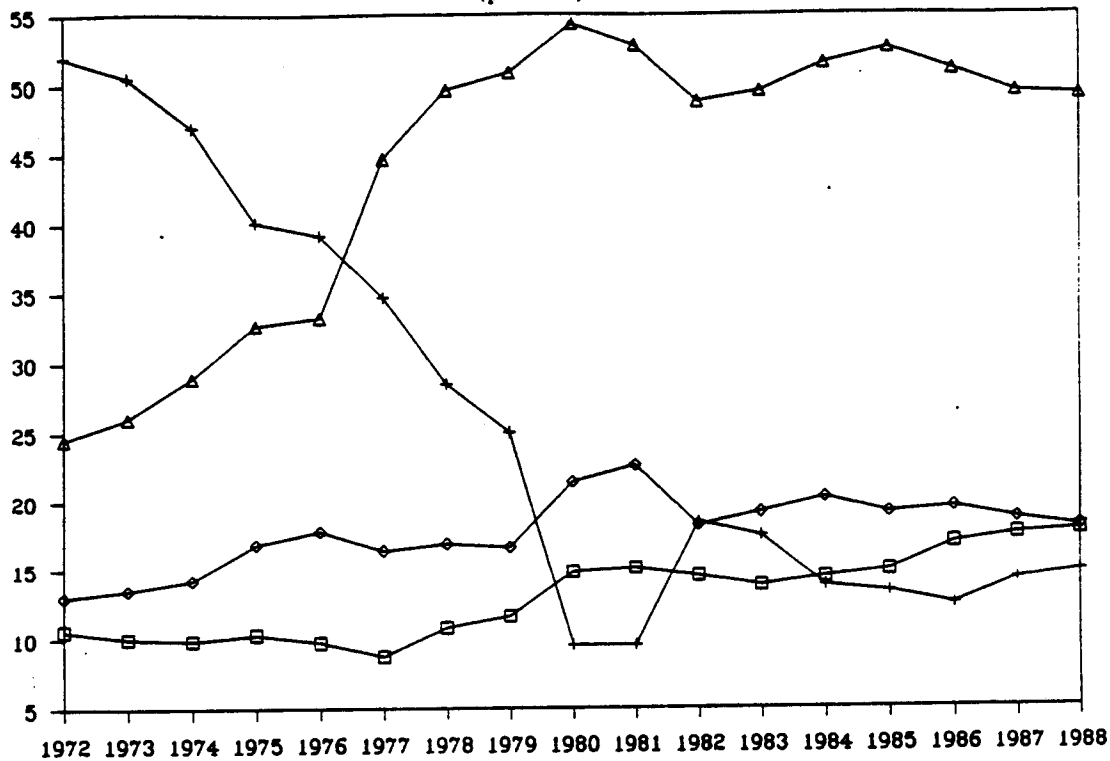


Figure 12

The Sectoral Composition of GDP (percent)



□ Agriculture

+ Oil

◇ Manufacturing

△ Services

Figure 13

Trade Intensity Ratio (TIR) and Non-Oil Trade Intensity Ratio (NOTIR)

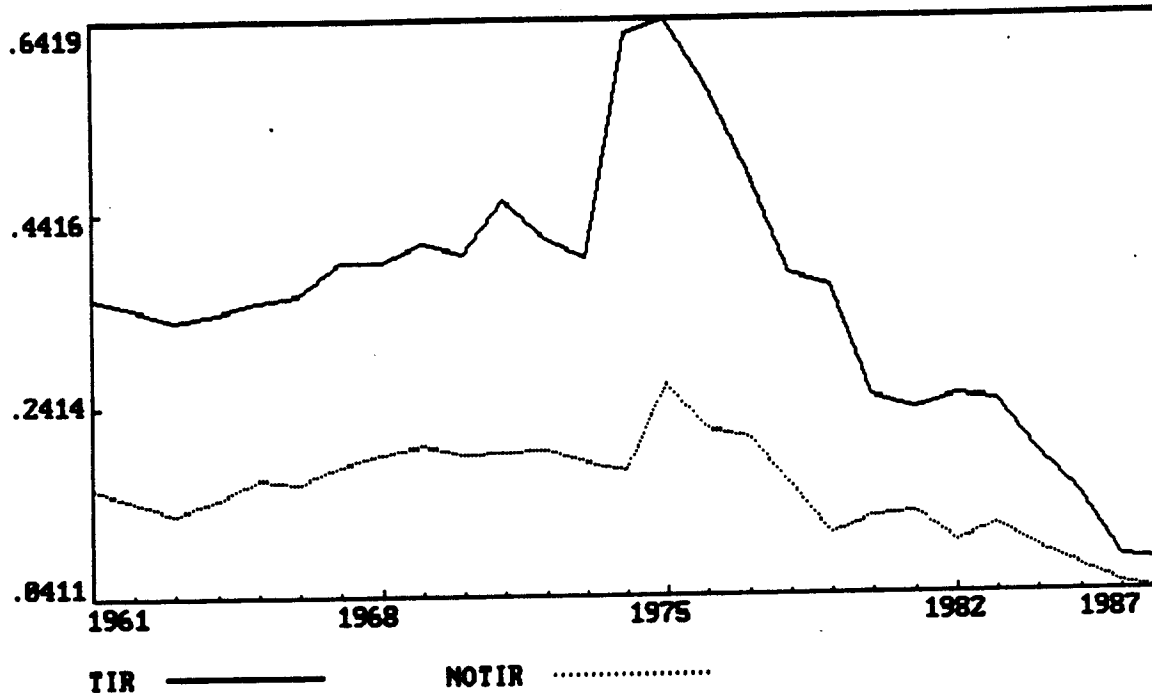


Figure 14

Index of Real Wages at Large Manufacturing Establishments (1974=100)

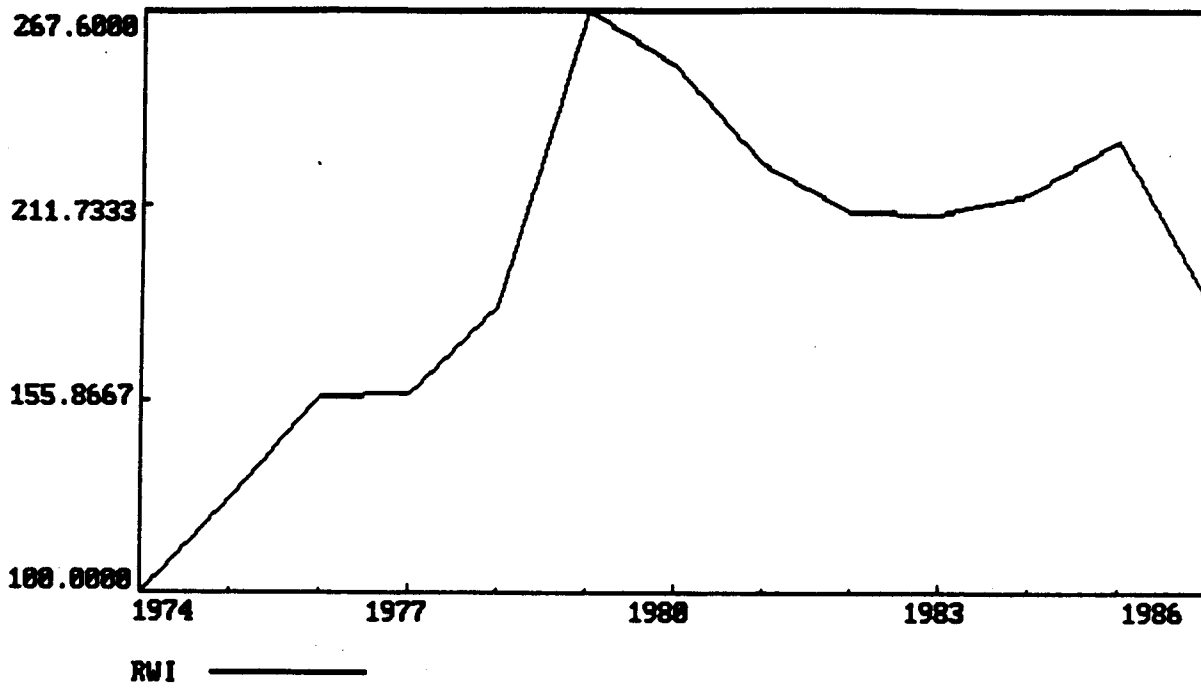


Table 1

**Production and Export of Crude Petroleum
(million barrels per year)**

	Production	Export
1977/78	2038.9	1757.8
1978/79	1552.0	1261.1
1979/80	1253.0	960.7
1980/81	540.9	278.1
1981/82	538.0	289.4
1982/83	979.7	615.4
1983/84	988.8	746.4
1984/85	865.4	586.5
1985/86	914.0	532.9
1986/87	794.2	456.2
1987/88	897.9	564.3
1988/89	927.0	602.0
1989/90	1031.1	646.1

Source: Central Bank of the Islamic Republic of Iran.

Table 2

Balance of Payments

(in millions of U.S. dollars)

Year	1976/77	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
Trade Balance	<u>10852</u>	<u>1450</u>	<u>-1307</u>	<u>7900</u>	<u>3480</u>	<u>2358</u>	<u>2169</u>	<u>-3414</u>	<u>-447</u>
Exports(f.o.b.)	24719	12338	11831	20452	21507	17087	14175	7171	10639
Oil and Gas	24179	11639	11491	20168	21150	16726	13170	6225	9478
Others	540	645	340	284	357	361	465	916	1161
Imports (f.o.b.)	<u>-13660</u>	<u>-10888</u>	<u>-13138</u>	<u>-12552</u>	<u>-18027</u>	<u>-14729</u>	<u>-12005</u>	<u>-10585</u>	<u>-11085</u>
SERVICES	<u>-3182</u>	<u>-3885</u>	<u>-2139</u>	<u>-2167</u>	<u>-3122</u>	<u>-2772</u>	<u>-2652</u>	<u>-1741</u>	<u>-2022</u>
Receipts	3261	1753	1451	1121	1335	1069	763	607	437
Payments	<u>-6443</u>	<u>-5621</u>	<u>-3590</u>	<u>-3288</u>	<u>-4457</u>	<u>-3841</u>	<u>-3408</u>	<u>-2348</u>	<u>-2466</u>
Unrequited Transfers	-17	-2	0	0	0	0	0	0	0
Current Balance	<u>7660</u>	<u>-2438</u>	<u>-3446</u>	<u>5733</u>	<u>358</u>	<u>-414</u>	<u>-476</u>	<u>-5152</u>	<u>-2476</u>
CAPITAL ACCOUNT	<u>-4927</u>	<u>-8238</u>	<u>1441</u>	<u>-1847</u>	<u>-2474</u>	<u>-2818</u>	<u>545</u>	<u>3127</u>	<u>2097</u>
Long-Term Capital	-925	-5261	289	-1866	-271	-421	-160	802	719
Short-Term Capital	<u>-4032</u>	<u>-2977</u>	<u>1152</u>	<u>19</u>	<u>-2203</u>	<u>-2397</u>	<u>704</u>	<u>2325</u>	<u>1378</u>
Errors and Omissions	-290	873	1745	1052	864	-906	549	856	188
SDR Allocations	0	75	0	0	0	0	0	0	0
Overall Balance	<u>2413</u>	<u>-9728</u>	<u>-260</u>	<u>4938</u>	<u>-1252</u>	<u>-4138</u>	<u>617</u>	<u>-1172</u>	<u>-191</u>

Source: International Financial Statistics, IMF.

Table 3

The Government Budget^a
(in billions of rials)

	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
REVENUES	2034.2	1598.2	1692.6	1325.2	1770.1	2501.2	2773.7	2714.8	2666.2	1707.3	2171.3	2005.0
Oil & Gas	1497.8	1013.2	1219.7	888.8	1056.4	1689.5	1779.4	1373.2	1188.7	416.8	766.2	667.9
Taxes	443.6	445.9	368.3	340.4	554.1	613.9	796.5	898.7	1033.7	1024.6	1030.0	986.2
Services & Sale of Goods	20.0	15.5	21.9	29.2	37.0	72.0	81.1	312.3	220.4	146.1	243.6	321.5
Others	72.8	104.3	89.7	67.5	122.6	126.5	116.7	130.5	223.4	119.8	131.5	109.4
Expenditures	2492.2	2207.8	2227.2	2298.4	2707.1	3167.4	3672.3	3353.6	3313.2	3156.8	3640.4	4210.6
Current	1565.4	1550.7	1594.8	1730.3	2032.4	2252.4	2523.7	2475.6	2548.1	2410.3	2911.2	3394.2
Fixed Capital Formation	926.8	657.1	633.1	568.1	674.7	914.8	1148.6	878.0	765.1	746.5	729.2	816.4
Budget Deficit	458.0	608.9	528.3	972.5	937.0	665.2	898.6	638.8	647.0	1449.4	1469.1	2125.6
Deficit/GDP (%)	7.8	11.0	8.3	14.7	11.2	6.0	6.4	4.2	3.9	8.0	6.9	8.1

^aThese exclude special revenues and expenditures.

^bThese include the sale of foreign exchange.

Source: The Central Bank of the Islamic Republic of Iran.

Table 4

Selected Economic Indicators

	(1) Money Supply Growth (M2)	(2) CPI Inflation	(3) Foreign Reserves Growth	(4) Real GDP Growth	(5) Real Wage Index
1974/75	57.1	14.7	220.1	6.9	100.0
1975/76	41.4	12.8	1.8	2.6	127.3
1976/77	39.1	10.9	30.5	12.1	156.9
1977/78	14.7	27.6	23.2	11.1	157.5
1978/79	41.1	11.7	-1.8	-16.7	182.7
1979/80	37.7	10.5	37.4	-6.0	267.6
1980/81	20.8	26.0	-41.8	-20.8	251.7
1981/82	16.6	22.4	44.6	8.9	224.1
1982/83	22.7	19.2	-12.0	14.0	210.0
1983/84	17.2	17.7	-13.5	8.8	209.6
1984/85	5.9	10.5	-16.9	2.8	214.9
1985/86	12.3	4.1	17.0	4.2	231.2
1986/87	18.3	20.8	0.1	-8.1	185.0
1987/88	19.1	27.8	-4.8	-0.1	-
1988/89	22.3	28.9	-7.4	2.2	-

* Employee compensation at manufacturing establishments employing ten or more workers.

Source: The Central Bank of the Islamic Republic of Iran.

Table 5

Gross National Expenditure
(in billions of rials, 1974/75 prices)

	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
<u>Consumption</u>	2638.3	2542.3	2162.6	2039.5	2368.0	2317.7	2548.8	2626.2	2721.4	2410.8	2317.9	2260.9
Private	1839.1	1745.0	1525.9	1458.0	1761.3	1715.7	1951.5	2062.7	2127.6	1936.4	1868.2	1797.0
Public	799.2	797.3	636.7	581.5	606.7	602.0	597.3	563.5	593.8	474.4	449.7	463.9
<u>Gross Domestic Fixed Capital Formation</u>	1074.7	928.3	575.8	562.4	572.8	587.2	809.4	814.3	707.3	543.7	444.8	427.0
Private	412.2	280.7	258.2	268.4	271.1	220.0	417.4	444.5	397.8	297.3	255.3	238.4
Public	662.5	647.7	317.6	294.0	301.7	367.2	392.0	369.8	309.5	246.4	189.5	188.6
Changes in Inventories	-122.0	-308.7	53.6	308.6	437.9	-105.2	211.0	-74.0	43.5	357.7	366.7	286.7
<u>Net Exports</u>	94.7	67.0	182.6	-342.9	-447.1	-100.7	-380.8	-385.0	-258.5	-127.6	-80.4	129.9
Statistical Discrepancies	357.6	130.8	94.6	-74.4	-243.9	375.8	203.0	522.7	437.4	159.3	257.7	257.7
<u>Gross Domestic Expenditure</u>	4043.3	3359.7	3069.2	2491.2	2687.7	3074.8	3391.4	3504.2	3651.1	3343.9	3306.7	3362.2
Net Factor Income from Abroad	-37.7	-71.9	58.6	32.7	51.6	31.1	47.7	38.3	19.2	19.3	6.4	7.8
<u>Gross National Expenditure</u>	4005.6	3287.8	3127.8	2523.9	2739.3	3105.9	3439.1	3542.5	3670.3	3363.2	3313.1	3370.0
Terms of Trade Adjustment	107.7	-0.7	255.1	256.7	269.5	335.2	386.3	366.3	247.4	-85.3	5.1	10.1
<u>Gross National Income</u>	4113.3	3287.1	3382.9	2780.6	3008.8	3441.1	3825.4	3908.8	3917.7	3277.9	3318.2	3380.0

Source: The Central Bank of the Islamic Republic of Iran.

Table 6

The Sectoral Composition of GDP
(in billions of rials, 1974/75 prices, percentage shares in parentheses)

	Agriculture	Oil	Industry	Services	GDP
1972/73	271.0 (10.6)	1333.3 (51.9)	333.4 (13.0)	629.4 (24.5)	2567.1
1973/74	286.5 (10.0)	1450.6 (50.5)	387.7 (13.5)	749.6 (26.1)	2874.4
1974/75	303.3 (9.9)	1441.6 (46.9)	436.8 (14.2)	889.1 (28.9)	3071.9
1975/76	324.0 (10.3)	1264.5 (40.1)	532.5 (16.9)	1029.1 (32.7)	3150.1
1976/77	341.7 (9.7)	1384.6 (39.2)	630.4 (17.9)	1173.2 (33.2)	3529.9
1977/78	340.9 (8.7)	1363.4 (34.8)	645.6 (16.5)	1753.8 (44.7)	3922.3
1978/79	352.6 (10.8)	929.8 (28.5)	553.9 (17.0)	1620.4 (49.6)	3266.9
1979/80	356.3 (11.6)	767.6 (25.0)	511.9 (16.7)	1560.7 (50.8)	3070.5
1980/81	360.3 (14.8)	230.6 (9.5)	520.6 (21.4)	1319.0 (54.3)	2430.5
1981/82	400.0 (15.1)	251.1 (9.5)	598.8 (22.6)	1397.6 (52.8)	2647.5
1982/83	438.7 (14.5)	557.3 (18.5)	551.4 (18.3)	1471.0 (48.7)	3018.4
1983/84	453.9 (13.8)	574.6 (17.5)	630.0 (19.2)	1625.0 (49.5)	3283.5
1984/85	486.9 (14.4)	465.3 (13.8)	684.5 (20.3)	1737.8 (51.5)	3374.5
1985/86	526.0 (15.0)	470.3 (13.4)	673.5 (19.1)	1847.3 (52.5)	3517.1
1986/87	548.5 (17.0)	401.5 (12.4)	632.0 (19.6)	1648.8 (51.0)	3230.8
1987/88	562.9 (17.6)	457.1 (14.3)	599.3 (18.7)	1584.0 (49.4)	3203.3
1988/89	584.9 (17.9)	486.8 (14.9)	592.7 (18.1)	1608.6 (49.1)	3273.0
Average Annual Growth Rates (percent)					
1973/74- 1977/78	5.3	0.9	19.2	21.6	9.5
1979/80- 1988/89	5.2	3.4	1.0	0.3	0.5
1985/86- 1988/89	4.7	1.7	-3.5	-1.7	-0.6

Source: The Central Bank of the Islamic Republic of Iran.

Table 7**Measures of Rural and Urban Expenditure Inequality
(Gini Coefficient)**

Year	Rural	Urban
1977	0.4375	0.4998
1979	0.4789	0.4702
1980	-	0.4040
1982	0.4051	0.4168
1983	0.4161	0.4282
1984	0.4293	0.4205

* The Gini coefficient ranges from zero to one indicating perfect equality and inequality, respectively.
Source: Behdad [1989].

Table 8

**The Growth Targets of the Five-Year Plan of the
Islamic Republic of Iran
(in percent)**

Sector	Targets	Actual Growth 1963/64-1977/78	Actual Growth 1978/79-1987/88
Agriculture	5.8	4.9	5.2
Oil	9.5	9.1	3.4
Manufacturing & Mining	14.3	15.6	1.0
Service	6.7	14.8	0.3
GDP	8.0	10.8	0.5

Source: The Ministry of Plan and Budget.

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