INSTITUTIONAL CHANGE AND MACROECONOMIC PERFORMANCE IN IRAN TWO DECADES AFTER THE REVOLUTION (1979-1999)*

Hassan Hakimian

Working Paper 9909

* An earlier version of this paper was presented at St. Anthony's College, Oxford University, UK. I am grateful to the organisers of the seminar as well as its participants for their interest, encouragement and feedback. The views and any errors, however, are entirely my responsibility.

Abstract

Interest in economic policy and performance in Iran under the Islamic Republic remains vigorous two decades after the Revolution. Since 1979, Iran has undergone important socio-economic and institutional changes and has been affected by significant economic and political upheavals. This paper examines macroeconomic challenges during different phases in the post-revolutionary period and assesses the general economic track record since the fall of the Shah. It argues that, two decades after one of the largest mass-based Revolutions of modern times, fundamental economic transformation is as yet unrealized and Iran continues to grapple with important, unresolved dilemmas affecting the nature of her economic policy and institutions.

Introduction

Interest in economic policy and performance in Iran under the Islamic Republic (IRR) remains vigorous two decades after the Revolution. Since 1979, Iran has undergone important changes in its political and economic institutions and has been affected by significant economic and political disturbances. These years have witnessed a succession of oil booms and busts, internal strife and external war, revolution and trade sanctions.

The passage of two decades since the Revolution offers analysts and researchers an opportunity to reflect back on, and take stock of, developments in this important - if little studied - part of Iran's recent economic history. This paper looks at the post-revolutionary macroeconomic policies and performance in a critical context and appraises them against Iran's past trends and performance.

The structure of the paper is as follows. First, we offer a broad overview of Iran's comparative economic performance over the last few decades in regional and historical contexts. Next, we turn to a discussion of policy challenges and responses in three sub-periods under the IRR. Broadly, these are: (a) 1980-88: (the war years); (b) 1989-93 (years of reconstruction and reform); and (c) 1994-present (the 'transition' years). After this, we take another, more detailed, look at performance in the post- and pre-revolutionary periods comparing and contrasting the two eras in key macroeconomic areas. In the final section, a summary and some concluding remarks are offered about the IRR's macroeconomic track record and its future challenges.

The Iranian Economy in a Comparative Context

Iran's economic performance in recent decades has witnessed a significant deterioration both over time and compared to international standards.

Up to the late 1970s, the Iranian economy showed impressive growth rates paralleled only by a few other economies in the MENA region or in Asia (Karshenas, 1998; Hakimian and Karshenas, 1999). In fact, favourable GDP growth rate during this period made Iran one of the few developing countries which succeeded in reducing their relative income gaps with the industrial countries (Figure 1). The situation, however, changed radically after the late-1970s as Iran experienced a retraction in GDP per capita standards throughout the 1980s followed by a generally lack-lustre performance in more recent years.

Comparisons with Turkey and Korea highlight this dramatic reversal of trends in the Iranian economy since the mid-1970s (Figure 1)[1]. During the two decades before 1975, per capita income in Iran grew faster than in Turkey and kept pace with Korea. By 1975, the level of per capita GDP in Iran was more than double those attained in Korea and Turkey. However, since the late 1970s, income per head in Iran has witnessed a rapid decline, while the growth of the Korean economy has continued and that of Turkey has slowed down during a period of substantial industrial restructuring. By 1990, GDP per capita in Iran had declined by half, almost down to the levels prevalent in the early-1960s and falling behind Turkey and Korea (Korea's income was virtually double that of Iran by the early 1990s; see Hakimian and Karshenas, 1999).

Iran's post-revolutionary economic growth can be more specifically studied in three sub-periods (Figure 2):

1. The 1979/80-88 period: these were the years of Revolution, war and populism in Iran. We may think of these years as the 'ideological' period for the incoming Islamic administration.

2. The 1989-93 period: these years saw a major drive at post-war reconstruction and economic reform in Iran under the auspices of the First Five Year Development Plan. This period signifies the onset of a new, 'pragmatist', phase in the development of the IRR.

3. The period since 1994: this period overlaps partially with the Second Five Year Development Plan, which was introduced in 1995 and is still in force. For lack of a better term, we may call this period the 'transition' years.[2]

[1] The choice of these two countries for comparison purposed is deliberate and indicative only: Korea shows a successful case outside the MENA region. By contrast, Turkey is from the region and rather similar to Iran in many respects.

[2] This term is adopted partly to indicate the prevailing state of uncertainty over the future direction of Iran, and partly to ascribe the beginning of the third phase to developments and crisis preceding the current administration

The overall picture of GDP growth performance shown in Figure 2 helps identify three periods of economic crisis in post-revolutionary Iran. These are:

1. The early 1980s, which reflected the combined effects of revolutionary turmoil and war with Iraq.

2. The 1986 crisis, which reflected the international oil price crash of that year and the cumulative burden of ongoing war; and

3. The austerity period of 1993/94, which was associated with a major balance of payments and foreign debt crisis at the end of the First Plan period.

We now turn to a discussion of the nature of challenges and policy responses in each of the three sub-periods mentioned above before coming back to a re-evaluation of economic performance in a later section.

Polices, Challenges and Responses

Populism and War

The period 1979-1999 of Iran's recent economic history is relatively discussed more and perhaps better known (see, for instance, Behdad, 1996, and Mazarei, 1996, for a more extensive discussion of the period). The following is therefore a brief discussion of the 1980s focusing on its salient features only.

Given the revolutionary fervour of this period, populist themes were prominent and much in vogue. Some of the most important ones were: the Islamization of the economy, emphasis on social redistribution, and the attainment of economic independence and self-sufficiency. However, being the first religious administration in power in Iran (or anywhere else in modern times), the economic content of the government lacked coherence and clarity and was subject to intense debates and political scrutiny by different forces and factions within the regime (Behdad, 1996, pp. 103-9) . While war provided a pretext for tactical patching up of some of these differences, many fundamental differences have persisted to date and still present the Islamic government with important unresolved dilemmas in the economic sphere. We will come back to this point later.

In the immediate aftermath of the Revolution, a considerable portion of the large scale modern industry as well as the entire banking and insurance system were nationalised. These nationalizations were, to some extent, forced on the provisional government led by Prime Minister Bazargan as in many cases the owners and managers of factories had left the country and some enterprises were on the verge of collapse.

With the advent of war in 1980, the debate about the role of the private sector and markets took a new turn as the government introduced an intricate system of rationing and direct subsidies for a large number of commodities. Government controls in other economic spheres also increased significantly. Foreign exchange shortages, which became particularly acute from the mid-1980s, led to a policy of import compression and strict foreign exchange controls and rationing (see Lautenschlager, 1986; Behdad, 1988; Pesaran, 1992; and Karshenas and Pesaran, 1995 for a discussion of the foreign exchange regime in Iran in these years). The shortfall in oil revenues at a time of increasing demand on government resources led to substantial budget deficits that heightened inflationary pressures in the economy.

The expansion in the government role in the post-revolutionary period was thus not solely or even primarily through a shift of balance from private to public ownership. It was manifested in direct interventions in the operations of markets - foreign exchange controls, maintenance of a system of multiple exchange rates, and control on interest rates and bank credits - as well as direct price controls in a large number of markets. By the end of the war, there had appeared an extensive network of markets consisting of some 300 products that were subject to official price controls (Hakimian and Karshenas, 1999) .

Despite the government's multifarious efforts to keep the economy afloat and to avert the worst consequences for the populace, the Iranian economy suffered a great deal in this period. The resource base continued to shrink as there was a massive diversion of resources to military production; the country was subjected to an enormous, and possibly irreversible, international brain drain; and physical and human destruction took place on a massive scale. A major surge in population growth in the first decade after the Revolution (Aghajanian, 1991; Hakimian, 1999) and a dramatic international oil price collapse in 1986 compounded these pressures, which were proving to be unsustainable by the latter part of the 1980s' decade. Indicating the severity of the crisis, the economy shrank by nearly 8% in real terms in the last year of the war (1988) and the government budget was approximately 50% in deficit in the same year (Bank Markazi data). It was against this austere and harsh economic background that Iran finally submitted to a UN-sponsored cease-fire bringing to an end its eight-year war with Iraq.

The Onset of Pragmatism

The end of the war with Iraq in the late 1980s opened up a new window of opportunity for economic reform and restructuring in Iran. The impetus for this new drive came partly from the long process of economic exhaustion Iran had suffered during the war years, and partly by the accumulation of long and deep-rooted economic problems since the early days of the Revolution. It was against a background of mounting economic difficulties, shrinking living standards and a contracting public sector resource base that the government was forced to embark on an ambitious reconstruction and economic reform programme within the framework of its First Five Year Development Plan covering the period 1989-93 (Hakimian and Karshenas, 1999; Nili, 1997).

The Plan aimed at market liberalisation through the dismantling of the intricate network of price and quantity controls that had evolved over the war years, the gradual liberalisation of foreign trade including the removal of quantitative restrictions on imports and exports and the unification of the exchange rate system.

In principle, thus, it envisaged a general reduction in the state's dominance in the economy by promoting private sector initiatives. However, this desire did not materialise in practice, as this phase of economic reform also coincided with one of the most politically ambitious administrations in the post-revolutionary period. Under President Rafsanjani, the government set upon implementing an accelerated schedule of public investment and reconstruction programmes. Many development projects including some grandiose infrastructure programmes were initiated across different parts of the country. While some of these were successfully concluded, many others were laid to waste or their completion dragged on becoming subject to costly delays (Roghani-Zanjani *et al*, 1997, pp. 248-51). Additional burdens were imposed on the economy through poor screening and selection criteria.

Ironically, despite emphasis on the private sector and the need to reduce state intervention in the economy, the regime showed very little enthusiasm in rolling

back its own spheres of influence and direct intervention in the economy. Consequently, the reforms (or at least commitment to them) became caught up in the state's growing web of influence and their implementation had to be modified *ad hoc* to make space for the government's post-war reconstruction ambitions. The results of the First Plan reflect this tension.

During a short and impressive success phase, growth rate shot up to 11%-12% per annum in 1990 and 1991. This was particularly impressive coming after the contraction and decline of the war years. Indicating the general surge in aggregate demand, private consumption and gross fixed investment too grew at 7.8% and 14 % per annum in real terms respectively (Bank Markazi data).

Success on this scale, however, proved short-lived as a major foreign debt crisis broke out in the latter part of the Plan and the attempt to unify the exchange rate system was thwarted. Austerity measures, introduced in 1994 to deal with the debt crisis, signalled the end of the rapid growth phase (in 1994, growth hit a low of only 1.6% per annum). The reforms were gradually scaled back and the familiar spectre of stagflation - the malaise of the 1980s - came back to haunt the Iranian economy.

Despite the First Plan's mixed fortunes and the government's subsequent wavering commitment to reforms, the Plan was a watershed in the development of Iran's post-war economy. First, it played a major part in dismantling the country's centrally-administered economy in the late 1980s. Second, it succeeded in establishing a new agenda for economic adjustment and reform with lasting, albeit moderated, effects to the present.

The First Plan's successes emanated partially from the energising effect of the reform measures themselves, which proved to be particularly important after years of central control and state administration of the economy. Although few far-reaching measures were adopted to address the problem of weak productive efficiency in the economy (such as in the ailing industrial sector), the reforms did, by virtue of their focus on allocative efficiency, take important, if somewhat modest, steps to address some of the gross distortions that had crept into the Iranian economy during the earlier populist years.

Another impetus to success came from the 'peace dividend' itself. For the first time after about a decade, resources did not have to be diverted to maintain an expensive war effort.

Economic boom was also fuelled, at least partially, by a fortuitous increase in oil revenues in these years. This was true of the early years of the Plan, in particular, when government spending was boosted by a doubling of oil revenues. For instance, foreign exchange revenues from oil sales almost doubled between 1988 and 1991: rising from $9.7 billion to about $18 billion (PDS, 1998).

There were other contributory factors too. First, the baby boom of the early 1980s had moderated substantially by now although due to the population momentum built-in earlier, the effects were delayed.[3]

Second, after years of pursuing seclusionist policies and relative insulation from the rest of the world, external savings began to supplement domestic resources. Foreign capital (mostly bank loans) began to flow into Iran soon after the reconstruction programme got under way. While foreign competition to lend to Iran was keen, Iranian appetite for foreign loans was also significant. By 1992, however, it was already clear that short-term debt had been accumulated in an unsustainable manner and the country was in the throes of a big debt crisis. This experience itself was nevertheless indicative of major weaknesses and fragility in Iran's system of macroeconomic management and deserves some attention.

At its peak in 1993, Iran's total foreign debt stock was just over $23 billion. This put Iran 21 among the most highly-indebted LDCs judged by volume of debt (in fact, Brazil and Mexico each had six times more debts than Iran). As a proportion of GDP, too, Iran's relative standing was far from alarming: Nigeria's foreign debt was 133% of her GDP; Egypt's and Venezuela's debts were two-thirds of their respective GDP's compared to Iran's one-third only (World Bank, 1998; for a more extensive discussion of the debt crisis, see Hakimian and Karshenas, 1999).

There were, however, a number of alarming features, which explained why a full-scale debt crisis became inevitable in Iran. First, was the pace of debt accumulation: total foreign debt stock had risen four-fold over the 1988-93 period (Bank Markazi data). Second, its composition, which consisted principally of

[3] Reflecting the slowdown in the 1980s' baby boom, the inter-censal population growth rate for 1986-96 dropped to 1.96% p.a. from 3.9% p.a. a decade earlier, 1976-86 (SCI figures; see Hakimian, 1999).

short-term debts of less than one year maturity (short-term loans indeed averaged some 80% of the total during the entire First Plan period putting Iran at the top of the debt league table in this respect). Third, and perhaps most significant, the onset of the debt crisis exposed lack of cohesion, communication, monitoring and coordination among top policy making layers of the Iranian government.

When the crisis was first brought to light, there was little precise information about its size and composition. It was obvious that proper monitoring channels and an effective debt management strategy could have helped avert the crisis: these were, however, largely conspicuous by their absence. The crisis also exposed the high economic cost of Iran's isolationist stance. The inability of the country to raise long term credit in international markets meant that much of the debt consisted of suppliers' credit, suggesting that short-term finance had been used on a large scale for medium and long-term investment projects with longer gestation periods.

The government's abortive attempt at the unification of the exchange rate system in March 1993 too is another example of reform measures turning sour during these years. This event was also indicative of a similar process of administrative inconsistency and lack of cohesion and coordination at policy making and implementation levels that ultimately marred the results of the reforms. Unfortunately, due to lack of space, we are unable to enter into a detailed discussion of this issue here (see, however, Farzin, 1995; Karshenas and Pesaran, 1995; and Hakimian and Karshenas, 1999)

The 'Transition' Years

From an economic point of view, interest in the 'transition' years will probably be dominated by the slump in the international price of oil, which began in the last quarter of 1997 and has adversely affected Iran (and other OPEC producers). As suggested earlier, the timing has been significant: within a few months of President Khatami taking up office in August 1997, crude oil prices started their famous recent slide which continues to date with little current prospects for improvement.

The extent of the fall has taken most analysts by surprise as oil prices have been pushed down to levels not experienced since the crash of 1986. The average monthly price of Iranian light crude has been only $12.9 p.b. during the current administration's days in office so far (ie, Aug 97- to end January 99), with a low of $8.6 p.b. recorded in December 1998 (Datastream figures). This compares unfavourably with the average monthly price of $17.6 p.b. since the start of the Second Plan until the new President took office (that is for the period Jan 95-July 97). Moreover, the average realised price of oil during Khatami's first budget year in 1998/99 (that is the period March 98-Jan 99) has been only $10.8 p.b.[4]

Just as the 1986 oil price crash proved devastating for Iran more than a decade ago, the consequences of the current oil bust too appear no less harmful. In 1986, both the unit price of oil and export earnings were slashed by about 50% (PDS, 1998). Although the impact was particularly harsh at the time of financing an external war, the slump was relatively short-lived mainly as a consequence of OPEC managing to restore unity among member countries and going on to achieve relative stability for the price of oil. By contrast, the current crisis appears to be more prolonged.

But while the oil price slump and its largely unexpected character are likely to add to the mountain of challenges facing the new administration, it is wrong to ignore the inherited weaknesses and fragility of the Iranian economy, which were inherited from previous administrations. Two factors deserve special mention in this regard.

First, as mentioned before, the growth prospects for the Iranian economy had already been lowered by the debt hang-over from the First Plan years and the austerity measures, which were introduced to deal the balance of payments crisis in 1994. This was mainly achieved through a strict regime of import compression, which was designed to enable the government to meet its foreign debt service and loan repayment commitments. Imports were slashed by one-third in 1994 alone (falling to one-half of their peak level in 1991) and have been subsequently maintained on average about a third lower during 1994-1997 compared to the First Plan years (Hakimian and Karshenas, Table 4). But while successful in terms

[4] Khatami's first budget (for 1998/99) was initially based on an average per barrel price of $17.5. This was subsequently revised down several times to reflect the sliding oil prices. At the time of writing, even the latest proposed budget for next year (for 1999/2000) which assumes an average price of about $11.8 p.b. appears unduly optimistic.

of its contribution to foreign debt reduction[5], import compression also exacerbated the problem of low capacity utilisation in industrial units by restricting their access to imported intermediate products and capital goods, in turn, accentuating the low growth cycle.

The second inherited weakness relates to the fragile state of public finances in Iran. As suggested above, President Rafsanjani had continued to push ahead with increasingly ambitious budgets whilst resorting to a practice introduced since the late 1980s, which effectively downloaded the financing requirements of the state enterprises onto the Central Bank. Under this system (known as '*tashilat-e taklifi*', or compulsory credit facilities), the Bank was obliged to extend credits to ailing state industries in order to cover their annual deficits (see Nili, 1997, p. 21 and pp. 376; Roghani-Zanjani *et al*, 1997, p. 255). This practice allowed the government to conceal its real budgetary financing requirements whilst ostensibly 'balancing' its budgets. It amounted to a round-about method of deficit-financing and continued well into the First Plan years and beyond, heightening inflationary pressures in the economy, as we shall see below.

In general, the first few years of the Second Plan (before Khatami's term of office began) had seen the resumption of the stagflationary cycle that had dogged Iran for much of the 1980s: save for a short and unsustainable modest growth phase in 1995 and 1996 (when annual real GDP growth rate was about 5% p.a.), the economy was largely beset by sluggish growth and large unemployment on one hand and rampant inflation on the other. Growth has averaged 3.7% p.a. during 1994-97 compared to the Second Plan's projected target of 5.1%. Moreover, whilst falling in 1997, inflation reached heights not previously seen in Iran: it peaked at nearly 50% in 1995 with an average annual rate of 35% for 1994-97 (PDS, 1998). The oil price slump has thus helped highlight, as well as accentuate, some of these underlying weaknesses and fragility.

[5] According to Bank Markazi, total foreign debt had been successfully re-negotiated and reduced to about $12.1 billion by the end of 1997- that is, almost half its peak level in 1993.

In view of the relative youth of the new administration, it is still not possible to draw from hard evidence in assessing its economic policies or record.[6]

There are some indications, however, that Iran may be witnessing a return of a particular or modified form of populism punctuated by occasional bouts of pragmatism under President Khatami's administration.

The populist tendencies are manifest in a variety of ways ranging from the administration's landslide electoral victory and its massive support base (especially among the youths and women) to the uneven and contradictory nature of political forces making up its institutional power base (as seen in the peculiar alliance of the 'Islamic left' forces with the technocrats, or the so-called '*Kargozaran*', meaning functionaries). These factors are further compounded by Khatami's ambiguous signals so far emphasising ideals of social justice and 'sustainable development' alongside economic and managerial efficiency.[7]

[6] Some broad hints and deductions can, however, be made from a limited number of sources so far. These are mainly:

1. President Khatami's interviews, especially those dealing more specifically with economic issues (see, e.g., *Hamshahri*, 15 March 1998, no. 1505).
2. His budgets presented to the *Majlis* so far: one for 1998/99 another for next year, 1999/2000.
3. The so-called '*Tarh-e Saman Dehi Eqtesadi*' (plan for the amelioration of the economy), which was drawn up by a wide-ranging consultative working party of economists and advisers following the intensification of crisis in summer 1998 (see *Hamshahri*, 8-12 August, 1998; nos. 1609-1613).

[7] *Tarh-e Saman Dehi* perhaps best epitomises some of the contradictions of the administration in the economic policy domain. This is largely a descriptive document about the current economic problems with some remedial policies such as: employment generation; promotion of non-oil exports; creation of a secure environment for private investment including foreign investment; the need for reform of public finances; privatisation, etc. It is explicit on the need to undertake structural reforms and deep-rooted corrections. Nevertheless, it denies that there need to be 'any conflicts between the government's twin objectives of growth and social justice' and goes on to rule in favour of the latter (social justice) lest such a conflict arises. Furthermore, the document is not time-bound, giving it the standing of a statement of intention, and is lacking a clear timetable for its implementation.

But with the intensification of the economic crisis, and as options appear to gradually run out, the need for more radical reform measures too have surfaced more forcefully again; hence, some recent signs of pragmatism.[8] It is as yet too early to predict the eventual outcome of policy direction in this crucial, transition, phase in Iran's economic development. What is clearer is that the economic sphere is likely to see an intensification of political and ideological struggles and feuds that have characterised the post-revolutionary period. Indeed, reconciling the strong populist base of the current administration with the hard, and potentially unpopular, choices looming on the horizon remains a daunting challenge facing the new administration.

The Economic Legacy of The Islamic Republic Re-examined

The above sections have discussed the challenges and difficulties faced by the post-revolutionary government and the type of policies pursued through three different phases since 1979. This section is devoted to a re-examination of the macroeconomic track record during these phases. Moreover, a broad comparison is also made of various macroeconomic performance indicators during the IRR years and the Shah's period. For this purpose, the latter period is also broken down into:

a) The period covering 1959-78 for which there is consistent time series data; this is referred to as 'the Shah's years'; and

b) The oil-boom years of the 1970s immediately before the Revolution (1973-77).

Growth: Some important differences can be seen in the general economic performance of the two periods. Average GDP growth during the Shah's time was nearly 4 times the IRR growth rate (9% p.a. against 2.4% p.a. for the latter; see Table 1). As expected, the war years saw the worst performance with the economy

[8] Khatami's recently approved budget for 1999/2000 contained controversial clauses for raising the price of gasoline and fuel as well as attempting to make the religious foundations (*Bonyads*) subject to general government taxation. The former these was scaled back by the *Majlis* deputies (limiting the price rise to 35 tomans instead of the proposed 75 tomans) while the latter is reportedly blocked by the Guardian Council pending arbitration.

contracting on average 0.1% p.a. Moreover, as suggested in the previous sections, the Second Plan period too has seen a return of the low growth era.

Taking account of demographic trends, in fact, the IRR record appears even more disappointing: while the Shah's period saw a GDP per capita growth rate of 6% p.a. (broadly in line with the economic performance of the fast growing East Asian economies in this period), the IRR experienced *an annual fall of 0.5%* as a whole (Table 1). Again, the war years were worst in this respect recording an annual real per capita contraction of just under 4% p.a.[9] Only the growth performance of the First Plan years comes close to matching the pre-revolutionary standards (at 5.3% p.a.). Moreover, sizeable reductions in fertility in the 1990s are also behind the Second Plan's modest per capita annual growth rate of 2.2%.

In terms of sectoral growth rates too, there are marked differences (Table 2). Industrial growth exemplifies these differences best: the Shah's period recorded a remarkable average real growth rate of 13.4% overall and benefited from a phenomenal 19% p.a. during the oil boom era. By contrast, the overall average for the IRR is less than a quarter of the former (at 3.2%) and even a healthy growth rate of 8.6% during the First Plan years is markedly below the pre-revolutionary standards.

The extraordinarily rapid pace of capital accumulation and investment in the industrial sector before the Revolution indicates favourable initial conditions which the IRR undoubtedly benefited from. This useful and strong base was no doubt an important factor enabling Iran to endure austerity and hardship better than expected during the harsh economic period that followed after 1979.

Agriculture, however, seems to have fared relatively better in this context. The post-revolutionary performance (measured by growth of annual real value-added in the sector) seems generally to have been sustained at some 4.5% p.a. before and after the Revolution. Again, the best results in the latter period were achieved during the First Plan years (6% growth p.a.). This also appears to have been accompanied with a generally lower volatility in the sector's performance (as indicated by lower standard deviations in Table 2).

[9] Some of this contraction is due to the rapid population surge brought about by a strong baby boom in the 1980s. Growing at 3.9% p.a., Iran's population growth rate was indeed one of the highest in the world at the time (Hakimian, 1999).

Nevertheless, and despite this relatively favourable outcome, just as in the pre-revolutionary period, Iran's appetite for food imports has remained high and the country continues to be a major world importer of grains (it is currently the fourth largest in the world).

Inflation: The IRR's legacy is also most disappointing with respect to inflation (Table 1). Iranians born in the past two decades have not known average inflation rates of less than 21% p.a.. This is well over 3 times the average for 1960-78 (at 6.5% p.a.). This is true of all three sub-periods during the IRR years. In fact, there has been a deteriorating trend during the 'transition years' which have seen a worrisome resurgence of inflation to unprecedented rates (the average rate of inflation during 1994-97 was 31.3% and a peak rate of nearly 50% was recorded in 1995; PDS, 1998).

External Accounts: The IRR's overall record of low growth and high inflationary environment is coupled with serious similar imbalances in its external accounts position (Table 3). On average, net current account recorded a deficit of just over $700 million each year for the past twenty years (compared with consistent surpluses before the Revolution and especially during the oil boom years). Worst were the First Plan years when, as we saw earlier, the foreign debt crisis indicated a substantial deterioration in Iran's net current account position (average annual deficit in this period reached $6 billion). The Second Plan years have seen a substantial improvement thanks partly to better than expected oil income until 1997 and partly due to the import compression policy designed to meet Iran's foreign debt dues.

Still on external accounts, IRR's ability to generate oil income also comes in interesting comparative light over time: on a per capita basis, each Iranian seems to have earned on average $300 of oil income during the IRR years with a moderately declining trend in more recent years (Table 3). Although in nominal terms, this compares favourably with the general average for the Shah's years as a whole, it is almost half the per capita earnings during the period immediately preceding the Revolution, i.e., the heydays of the oil boom (1973-77).[10]

The same table also shows the predominance of oil exports in total exports in the past three decades. It can be seen that in an oil-economy like Iran, non-oil exports are generally dwarfed by the size of oil exports. Although the underlying trend for non-oil exports has been up during the IRR years, the actual size of these earnings remains very modest (with nominal per capita earnings of only $31 compared to $307 for oil exports during 1979-97) and it has been associated with greater general volatility.

Oil Dependency*:* Since oil dependency has been a strong feature of the Iranian economy in the past and given its prominence in popular criticisms of the *ancien* regime, it seems appropriate to evaluate developments in this field after the Revolution, too.

Figure 3 depicts the annual growth paths of oil exports income and real GDP over the post-revolutionary period (1980-79). Even a cursory look at the figure shows the remarkably-interlinked nature of the two cycles and the large sway oil export earnings have continued to have over Iran's growth prospects. As we shall see below, however, this association appears weaker during the First Plan years.

To put oil dependency in a broader perspective, Figure 4 shows partial correlation coefficients calculated for annual percentage changes in oil exports income and annual percentage changes in real GDP over all different periods and sub-periods examined so far. Remarkably again, oil dependency appears to have been heightened during the post-revolutionary periods (with the coefficient going up moderately over the oil-boom years). Again the war years appear worst in this regard followed by the 'transition' period. The sharp fall in the correlation coefficient in the First Plan years, interestingly, signifies Iran's resort to foreign savings in these years and the growth of non-oil exports (see the discussion in Section 3 and data in Table 3).

[10] These figures are in nominal terms. They do not reflect either real domestic or foreign purchasing power as they do not take account of domestic and foreign currency or price movements. This is because the comparison has a limited purpose here.

It is perhaps ironic that oil dependency was in fact heightened during relatively more insular periods of the Islamic Republic - supposedly when it was meant to go down. This is perhaps not a surprising outcome considering IRR's notion of economic independence as identified with insulation and autarky rather than a managed, active and diversified pattern and set of interactions with the outside world.

This result is also significant in another respect: the early revolutionary fervour was *inter alia* blazed by strong economic ideals. Aspirations such as the 'de-dollarization of the economy', achieving 'economic independence', 'transformation of agriculture' and particularly attaining 'food self-sufficiency' were rife and widespread among the populace since the early days of the revolution. But as with many of those ideals and aspirations, it appears that a desire to break the cycle of dependency on oil has been a lost cause at least until so far.

Summary and Conclusion

Two decades after the Revolution, the structural features of the Iranian economy are remarkably unchanged: a state of severe oil-dependency continues; the general investment climate is extremely weak and beset by uncertainty; public finances are fragile; and the economy continues to be inward-looking and unsure of its position in the wider international economy.

Macroeconomic performance during these two decades has inevitably borne out some of the internal tensions and external dislocations experienced by the Iranian economy.

Internationally, Iranians have witnessed a considerable retrogression in their living standards measured in GDP per capita terms and compared with other countries with similar or even lower initial conditions at the end of the 1970s. The domestic economic setting too has been marked by an uneven, and generally disappointing, set of economic fundamentals over the three sub-periods studied in this paper. The economy has zigzagged through cycles of prolonged bust and moderate booms. This has been coupled with other serious signs of internal and external imbalances as seen in heightened inflationary trends and deteriorating external accounts balances. Only agriculture seems to have fared relatively better. Even this performance has to be qualified by the fact that agriculture has just about maintained its pre-revolutionary performance track despite receiving priority treatment in the past two decades, and much of it is lost to rapid demographic growth for a considerable part of the period.

The purpose of this paper has been to highlight macroeconomic challenges faced by the new government, the broad policies it has adopted and the general economic track record since the downfall of the Shah. It has not sought to conduct a thorough assessment of the achievements and failures of the post-revolutionary regime in Iran nor to offer a cost-benefit analysis of the results of the Revolution itself.

We have seen that debate over the nature and direction of economic policy in Iran has intensified - not subsided - in recent years. We have also seen how through three ostensibly different phases, Iranian policy makers have confronted specific challenges in each period: from external war to reconstruction and reform; from foreign debt and currency crises to austerity and consolidation of the economy during peacetime.

While differences have been substantial and this paper has highlighted many, they should not mask the constancy of the challenge faced by the IRR from its inception: the need for achieving clarity and consistency over the very notion of Islamic economics and the nature of the Islamic economic system and project that has been unfolding in Iran.

Today as before there are many unresolved dilemmas in Iran in key economic spheres which need to be reconciled with the realities of the late twentieth century. Some relevant examples are: Islamic banking and finance; operation of religious foundations (*Bonyads*); position of women in the economy and the extent and nature of Iran's participation in the global economy. A consideration of domestic economic performance along the lines offered in this paper can hopefully serve to highlight the need for such clarity.

Persistent cycles of slow growth and high inflation in the Iranian economy cannot be resolved without contemplating more fundamental institutional changes and a reform of its system of governance.

But whether and when these challenges can be successfully met will depend only partially on the design and adoption of appropriate economic policies, important though these are. The experience of the last round of economic reforms in fact

points strongly to the need for an equally far-reaching and comprehensive package of political and institutional reforms. Delaying these reforms can only add to the eventual costs and pains of future adjustments.

References

Aghajanian, A. (1991). "Population Change in Iran, 1976-86: A Stalled Demographic Transition?" *Population and Development Review* 17, 703-15.

Alizadeh, P. (ed., 1999). *Controversies and Consensus over Iran's Post-Revolutionary Economic Development*. London, I.B. Tauris, forthcoming.

Bank Markazi Iran (The Central Bank of Iran). *Annual Report and Balance Sheet*. various issues, Tehran.

Behdad, S. (1988). "Foreign Exchange Gap, Structural Constraints, and the Political Economy of Exchange Rate Determination in Iran" *International Journal of Middle East Studies*, 20, 1-21.

__________ (1996). "The Post-Revolutionary Economics Crisis" in Rahnema and Behdad (1996). *Iran after the Revolution: Crisis of an Islamic State*. London, I.B. Tauris.

Farzin, Y.H. (1995). "Foreign Exchange Reform in Iran: Badly Designed, Badly Managed". *World Development* 23, 987-1001.

Hamshahri, a Tehran daily newspaper. Also accessible on the internet: http://www.neda.net/hamshahri/.

Hakimian, H. (1999). "Population Dynamics in Post-Revolutionary Iran: A Re-examination of Evidence", forthcoming in Alizadeh (1999).

___________ and M. Karshenas (1999) Dilemmas and Prospects for Economic Reform and Reconstruction in Iran, forthcoming in Alizadeh (1999). *Controversies and Consensus over Iran's Post-Revolutionary Economic Development.* London, I.B. Tauris, forthcoming.

Karshenas, M. and M.H. Pesaran (1995). "Economic Reform and Reconstruction of the Iranian Economy". *Middle East Journal* 49, 89-111.

__________. (1998). "Structural Adjustment and the Iranian Economy" in Shafik, N., (ed., 1998) *Economic Challenges Facing Middle Eastern and North African Countries - Alternative Futures*. Basingstoke and London, Macmillan Press. (202-24).

Lautenschlager, W. (1986). "The Effects of an Over-Valued Exchange Rate on the Iranian Economy, 1979-1984". *International Journal of Middle East Studies* 18, 31-52.

Mazarei, A. (1996). "The Iranian Economy Under the Islamic Republic: Institutional Change and Macroeconomic Performance (1979-1990)", *Cambridge Journal of Economics* 20, 289-314.

Nili, M. (ed., 1997). *Eqtesad-e Iran (The Iranian Economy)*. Institute for Research in Planning and Development, Tehran.

___________ (1997). *Tahlil-e Amal-Kard-e Siasathay-e Ta'dil-e Eqtesadi* (An Applied Analysis of the Economic Liberalisation Policy) in Nili, M. (ed., 1997). *Eqtesad-e Iran (The Iranian Economy)*. Institute for Research in Planning and Development, Tehran (357-444).

PDS (1998) Pre-Processing Data System - Economic Time Series Database of Iran. Institute for Research in Planning and Development, Tehran.

Pesaran, M.H. (1992). "The Iranian Foreign Exchange Policy and the Black Market for Dollars". *International Journal of Middle East Studies* 24, 101-25.

Rahnema, S. and S. Behdad (eds., 1996). *Iran after the Revolution: Crisis of an Islamic State*. London, I.B. Tauris.

Roghani-Zanjani M. *et al* (1997). *Tahlil-e Amal-Kard-e Budge* (An Applied Analysis of the Budget), in Nili (1997: 219-58).

Shafik, N., (ed., 1998). *Economic Challenges Facing Middle Eastern and North African Countries - Alternative Futures*. Basingstoke and London, Macmillan Press.

SCI, Census Publications for 1966, 1976, 1986 and 1996; The Statistical Centre of Iran, Tehran.

The World Bank (1998). *World Development Indicators.* CD-ROM, Washington, DC.

Table 1: A Comparison of Growth Rate, GDP per Cpita Growth Rate and Inflation Rate in Different Periods, Iran: 1960-97

Era	Years	Real GDP Growth Rate	Per Capita GDP Growth Rate	Inflation Rate	
		(% p.a.)	(% p.a.)	(% p.a.)	STD*
The Shah's Years	**1960-78**	**9.0**	**6.0**	**6.5**	**6.7**
Oil-Boom Years	1973-77	8.6	5.6	15.6	5.9
IRR Years	**1979-97**	**2.4**	**-0.5**	**21.6**	**9.8**
War Years	1980-88	-0.1	-3.7	19.8	7.6
First Plan	1989-93	7.3	5.3	18.8	6.1
Second Plan	1994-97	3.7	2.2	31.3	14.2

* Standard Deviation

Source: PDS, 1998; and Bank Markazi.

Table 2: Comparison of Sectoral Performance, Industry and Agriculture in Different Periods, Iran: 1960-97

Era	Years	Growth in Real Value-Added Industry		Growth in Real Value-Added Agriculture	
		(% p.a.)	STD*	(% p.a.)	STD*
The Shah's Years	**1960-78**	13.4	9.5	4.4	4.4
Oil-Boom Years	1973-77	19.0	13.8	5.5	6.0
IRR Years	**1979-97**	3.4	8.5	4.3	2.7
War Years	1980-88	1.5	8.4	4.1	3.3
First Plan	1989-93	8.6	6.5	6.0	1.8
Second Plan	1994-97	5.8	1.3	2.4	0.9

* Standard Deviation

Source: PDS, 1998; and Bank Markazi.

Table 3: A Comparison of External Accounts in Different Periods, Iran: 1960-97

Era	Years	Net Current Account Balance (Average, $ m p.a.)	STD*	Per Capita Oil Exports (Average, $ p.a.)	STD*	Per Capita Non-Oil Exports (Average, $ p.a.)	STD*
The Shah's Years	**1959-78**	**1,306.5**	**3,268.9**	209.5	252.5	10.6	5.2
Oil-Boom Years	1973-77	6,034.8	3,611.2	584.5	181.3	17.5	2.1
IRR Years	**1979-97**	**-573.9**	**5,697.1**	307.3	121.3	31.0	22.9
War Years	1980-88	-833.3	3,828.3	303.2	129.8	13.2	6.2
First Plan	1989-93	-6,105.4	3,922.7	278.2	40.9	41.8	19.4
Second Plan	1994-97	3,581.0	1,145.8	270.2	33.9	59.9	15.7

Figure 1: Per Capita GDP Trends in Iran, Korea and Turkey, 1950-95

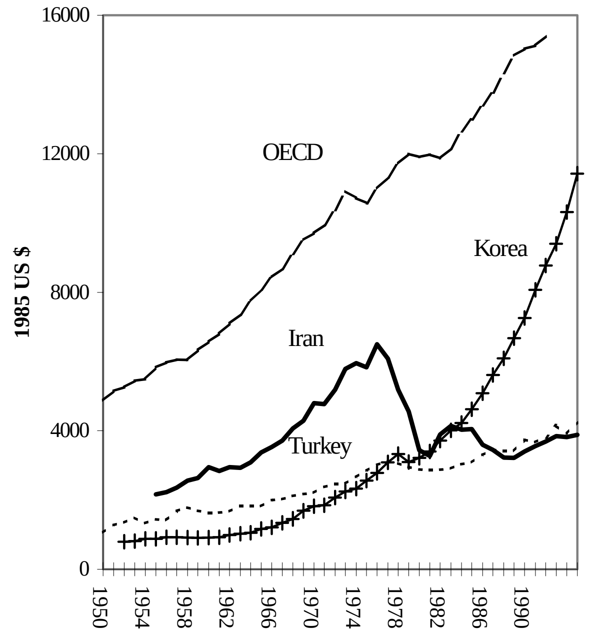
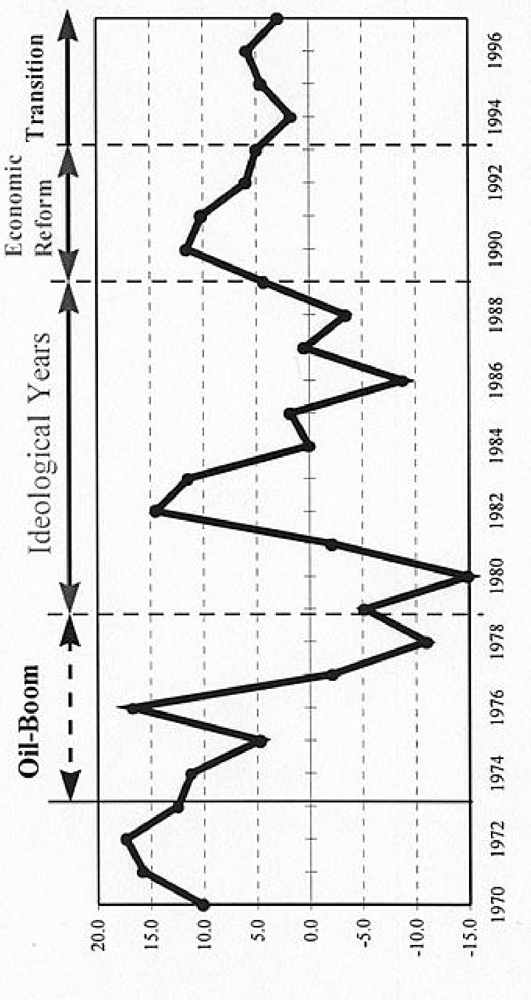
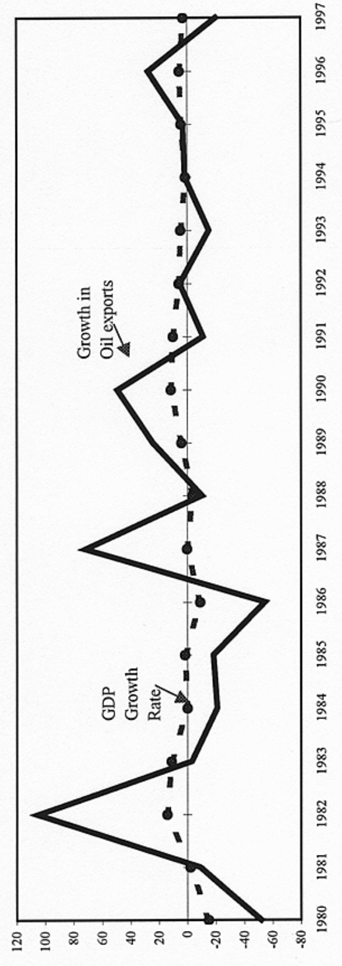


Figure 2: Iran's Economic Growth Rate: 1970-97
(% Change in Average Annual Real GDP)



Source: PDS, 1998, and Bank Markazi

Figure 3: Cycles of Economic Growth and Oil Exports Income: Iran, 1980-97



Source: PDS, 1998, and Bank Markazi.

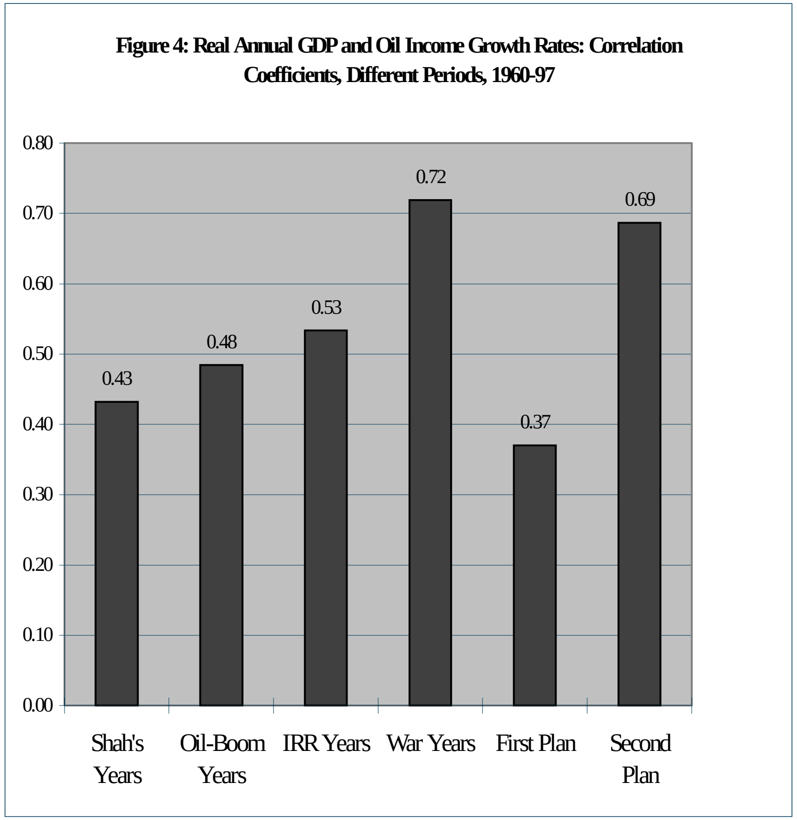


Figure 4: Real Annual GDP and Oil Income Growth Rates: Correlation Coefficients, Different Periods, 1960-97
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.43
0.48
0.53
0.72
0.37
0.69
Shah's Years
Oil-Boom Years
IRR Years
War Years
First Plan
Second Plan