The Political Economy of Industrialisation in Iran, 1973-1978

Scheherazade Daneshkhu

London School of Economics

PhD
Abstract

This is a study of the impact of international political relations on the domestic economic policy choices of an oil-exporting developing country with special reference to the case of Iran during 1973-1978. These years began with the four-fold increase in oil prices and ended in revolution with the overthrow of Mohammad Reza Pahlavi, the Shah. The analysis is centered on the inter-relationship between the political and the economic to find an explanation for the Shah’s decision to adopt a big push industrialisation strategy in 1974, against the advice of his technocrats, and the reasons for its failure. It is concentrated on two inter-related themes, the nature of the state and its role in the country’s industrial development and the relationship between international political factors and domestic economic policy choices. It is argued that the international political dimension played a crucial part in the Shah’s decision to adopt a big-push strategy, but has usually been ignored. The Shah was an ambitious man who sought to purge the country’s humiliations at the hands of the great powers – Britain, the former Soviet Union and the USA – by building up the country’s military and economy through import substitution industrialisation, in the hope of propelling it into the league of top five world powers. Import-substitution industrialisation has fallen out of favour but we believe it can be a valid development strategy. Its shortcomings in Iran’s case were mainly due to the form of its implementation. The economy was unable to absorb over-accumulated funds caused by the sudden increase in oil prices in late 1973. It was in this rush to industrialise, and the desire to impress the outside world, that the roots of the failure of the Shah’s big push industrialisation policy lay.
CONTENTS

List of Tables ........................................................................................................ page 7

Introduction ............................................................................................................. 10

Chapter 1. Political Economy and Industrialisation: the Case of Iran
  1.1 Introduction .................................................................................................... 13
  1.2 The meaning of political economy ................................................................. 14
  1.3 The nature of the Pahlavi state ..................................................................... 15
  1.4 The drive towards industrialisation ................................................................. 19
  1.5 Oil income and the rentier economy .............................................................. 22
  1.6 Competing theoretical explanations of Iran's industrialisation ................. 23
  1.7 Summary ...................................................................................................... 60
      Endnotes to Chapter 1 .................................................................................. 61

Chapter 2. The Process of Industrialisation
  2.1 Introduction .................................................................................................... 67
  2.2 The meaning of industrialisation .................................................................. 70
  2.3 Measuring industrialisation .......................................................................... 71
  2.4 The role of growth ....................................................................................... 76
  2.5 The objectives of industrialisation: economic development ..................... 80
  2.6 The objectives of industrialisation: labour absorption .............................. 82
  2.7 The objectives of industrialisation: political independence ..................... 84
Tables

3.1 Growth of GNP and GNP per capita, 1959-77..............................page 344
3.2 Industrial Contribution to GNP, 1973-78
(current prices)..................................................................................345
3.3 Industrial Contribution to GNP, 1973-78
(constant prices)..................................................................................346
3.4a Iran's GNP, 1972-78.....................................................................347
3.4b Annual Average of the Wholesale Price Index, 1972-78.............348
3.5 Gross Domestic Product by Kind of Activity, 1970-78.................349
3.6 Sectoral Contributions to the Gross Domestic Product,
1970-78.............................................................................................350
3.7 Annual Growth Rate of Industry, 1973-78....................................351
3.8 Normal Variation in the Economic Structure with
Level of Development........................................................................352
3.9 Structural Changes in the Iranian Economy, 1967-77.................353
3.10 Growth of Manufacturing, 1965-78............................................354
3.11 Value Added of Large Industrial Establishments, 1970-1974......355
3.13 Statistics on Manufacturing Establishments, Employees
and Wages Paid, 1969-79..................................................................357
3.14 Annual Wage of Industrial Workers, 1969-79............................358
3.15 Compensation of Workers Index of Large Manufacturing
Establishments, 1975-79.................................................................359
3.16 Total Wages, Salaries and Fringe Benefits of Employees
in the Selected Industries, 1970-76...................................................360
3.17 Percentage Share of Wages of Employees in the
Selected Industries, 1970-76.............................................................361
3.18 Employment Index of Large Manufacturing Establishments,
1975-79.............................................................................................362
3.19 Number of Workers of the Selected Industries, 1970-76............363
3.20 Percentage Share of Workers in the Selected Industries,
1970-76.............................................................................................364
3.21 Composition of Manufacturing Output, 1977 - 926 Largest
Establishments....................................................................................365
3.22 Composition of Gross Manufacturing Output,
1963, 1968-74....................................................................................366
3.23 Composition of Manufacturing Value Added, 1963, 1968-74.........367
3.24 Share of Capital Goods in Total Manufacturing Value Added
for Various Countries........................................................................368
3.25 Composition of Manufacturing Value Added, 1970 & 1978........369
3.26 Manufacturing Production Index, 1962-72..................................370
3.27 Production Index of Large Manufacturing Establishments,
1974-78.............................................................................................371
3.28 Index Numbers of Industrial Production, 1973-78.....................372
3.29 Fixed Capital Formation for Industry during the Fifth Plan........373
3.30 Total Credits for Industry during the Fifth Plan.........................374
3.31 Characteristics of Operation and Commencement Permits
Issued for Manufacturing Establishments, 1964-73.........................375
3.32 Loans of the Specialised Banks, 1975-78........................................376
3.33 Loan Operations of the Industrial and Mining Development
Bank of Iran, 1970-78.................................................................377
3.34 Loan Operations of the Industrial Credit Bank, 1970-75..................378
3.35 IMDBI Loans to Manufacturing Industries..................................379
3.36 Government Disbursements from Fixed Capital Formation
for Industries and Mines...............................................................380
3.37 Gross Domestic Fixed Capital Formation and Consumption
Expenditure, 1959, 1963, 1972-77..............................................381
3.38 Projected Demand and Supply of Manpower by Occupation
during the Fifth Plan.................................................................382
3.39 Inflow of Foreign Private Capital and Loans through the Center
for Attraction and Protection of Foreign Investments, 1971-77......383
3.40 Inflow of Foreign Private Loans and Capital by the
CAPFI by Countries, 1971-77.......................................................384
3.41 Ownership Pattern of Foreign Firms in Manufacturing ...............385
3.42 Composition of Imports, 1971-78.................................................386
3.43 Value and Distribution of Imports by Main Countries 1973-78....387
3.44 Patterns of Imports and Exports, 1959,1963, 1972-77..................388
3.45 Value of Exports, 1971-78........................................................389
3.46 Export Structure: Percentage Shares of Main Categories of Exports
and Selected Commodity Groups, 1965, 1970, 1974-77...............390
3.47 Iran's Production, Consumption and Exports of Crude Oil,
1967-78.....................................................................................391
3.48 Iranian Ex-Factory and International Prices Comparison, 1971.....392
3.49 Wholesale and Retail Price Increases, 1962-78..........................393
3.50 Real exchange rates, 1972-78....................................................394
3.51 Annual Average of the Wholesale Price Index by Major Groups,
1972-78.....................................................................................395
3.52 Annual Average of the Consumer Price Index by Major Groups,
1972-78.....................................................................................396
3.53 Government Revenue and Expenditure, 1969-77..........................397
5.1 US foreign military sales agreements with Iran and Saudi Arabia,
1968-77....................................................................................293
5.2 US military aid and sales to Iran, 1972-78....................................300
5.3 Value of arms transfers to the Persian Gulf by major supplier
and recipient country, 1973-77...................................................304
This thesis is dedicated in gratitude to my parents
for their unstinting support and patience
Introduction

This is a study of the impact of international political relations on the domestic economic policy choices of an oil-exporting developing country with special reference to the case of Iran during 1973-1978. These years began with the four-fold increase in oil prices and ended in Iran's revolution which saw the overthrow of Mohammad Reza Pahlavi, the Shah. The analysis is centered on the inter-relationship between the political and the economic to find an explanation for the Shah's decision to adopt a 'big push' industrialisation strategy in 1974 and the reasons for its failure. It is argued that international political factors have in this process often been ignored and played a much bigger part in the Shah's decision to adopt a big push strategy than hitherto recognized.

Although it is not within the scope of the thesis to examine the causes of the revolution, it is hoped that, in the process, the analysis helps explode the myth that the Shah's demise was precipitated because he modernised too quickly for his 'backward' people. It is instead argued that the Shah promised much but that his policies were badly implemented with results that fell far short of expectations, leading to economic dislocation and disappointment. Iran's big push industrialisation needed a strong infrastructure and human resources which were lacking at the time but the Shah ignored these constraints because the industrial growth policy was pursued more for geo-strategic reasons than for its economic feasibility.
The analysis is concentrated on two inter-related themes, the nature of the state and its role in the country’s industrial development and the relationship between international political factors and domestic economic policy choices. Although the analysis is concentrated on Iran, it is aimed at making a contribution to the comparative literature through its discussion of the role of geo-political factors in economic policy choices, particularly in developing countries with plentiful resources such as oil-exporters. This is in addition to the more conventional analysis of the problems and obstacles faced in trying to engineer rapid industrial growth. It has become fashionable in recent years to regard plentiful oil revenues as an obstacle to development but that is not the view adopted here. While oil revenues can certainly be a mixed blessing, it is believed that they can facilitate economic development through industrialisation subject to good government and appropriate economic policies.

The thesis is divided into six Chapters. In Chapter 1, we discuss the political economy framework adopted for the analysis and argue that the main literature on the subject of Iran’s industrialisation has tended to fall into two broad camps, both primarily focused on domestic factors. One camp has tended to provide an economic framework while the other has tended to concentrate on a broader political-economic analysis by considering the impact of the state, as an autocratic monarchy and its impact on the country’s socio-economic development. In Chapter 2 we examine the debate on industrial growth strategies and the problems faced by oil-exporting countries and the role of the
state in economic development. We argue that although import-substitution industrialisation has fallen out of favour, it can be a valid development strategy and its shortcomings in Iran's case were mainly due to the form of its implementation. Chapter 3 analyses the economic results of the Fifth Plan period (1973-77). It argues that despite the big push, Iran's manufacturing development fell well short not only of its stated objectives but also of internationally accepted norms.

Industrialisation in Iran was carried out through five-year plans. In Chapter 4, we discuss the planning process and how it came to be politicised and dominated by the Shah during the Fifth Plan period to the frustration of the technocratic planners. We argue that this rush for industrial growth by the Shah lay in geo-strategic reasons rather than economic feasibility. In Chapter 5 we seek to explain why this was. It is not disputed that the Shah was strategically allied to the West and regarded as a client or 'stooge' of the US, although ironically this was not how he appeared to regard himself. Instead he sought to exorcise the earlier humiliations endured as a client through an attempt to strengthen the country's industrial base and thereby achieve economic and eventually, political independence. Chapter 6 provides a summary of the argument and conclusion.
Chapter 1. Political Economy and Industrialisation: The Case of Iran

1.1 Introduction

I am inclined to believe that the extent of opposition to the Shah was not primarily because of his repressive treatment of the opposition, but because of the outrageous simpleness of his modernisation programs which attacked the quiescent and made political activists of them.¹

This thesis will examine Iran’s industrialisation record in the 1970s against its political and international background. It will analyse the inter-relationship between the economic and the political to find an explanation for the adoption and continuation of a big push industrialisation strategy in 1974, a strategy that had profound economic, social and political consequences for the country. For the purposes of this thesis, political economy will be taken to mean the role of political factors in economic affairs. Therefore, we will seek to identify the political issues in play and the manner in which they affected the conduct of Iran’s industrialisation policy during the period under study, 1973-78. This period began with the four-fold increase in oil prices and ended in a revolution that overthrew Mohammad Reza Pahlavi, the Shah. The period also coincided with the country’s Fifth Five-Year Development Plan.

Economic development was, as in many authoritarian countries, to be in the form of a revolution from above. However, the Shah’s system finally collapsed in the face of a genuine social revolution from below. It would be tempting to link the extensive shortcomings in the economy to the revolution. While the social dislocations and mismanagement of the economy caused by the implementation of the Fifth Plan undoubtedly contributed to the revolution, it is not the purpose of this thesis to enquire into the totality of the forces leading to revolution. Some explanations have been put forward by various
writers, but it would not be unfair to say that a definitive analysis of the revolution has yet to be written. Instead, as mentioned, the thesis will confine itself to an analysis of the political economy of Iran’s attempt at industrialisation from 1973, the year that oil prices quadrupled, until the revolution. It will be argued that the forces behind the economic programme cannot be understood without reference both to the domestic political system and structure and Iran’s place in the international system. The latter is a much-neglected factor in studies of Iran’s drive towards industrial growth. However, international political influences and Iran’s own view of its role within that system were crucially important to the decision to embark on such an ambitious programme.

1.2 The meaning of political economy

Economics is a social ‘science’ yet economists disagree over fundamentals, such as how inflation should be controlled or the way in which full employment can be best generated. This disagreement usually stems from different ideas about how society should be governed. Economics grew out of what Adam Smith in *The Wealth of Nations* called the political economy, which he defined as that which caused nations to grow wealthy. The meaning of the term has changed through the centuries into a subject distinct from economics. At its root, political economy recognizes that government action can alter economic variables such as patterns of consumption, supply and demand and prices. In his book, *The Political Economy of International Relations*, Robert Gilpin writes of political economy as ‘the role of economic factors in the affairs of nations’ and defines it as a set of questions arising out of ‘the interaction of the state and the market as the embodiment of politics and economics in the modern world’.
The politics of international economic relations can be further broken down into a domestic-international divide. Some scholars have emphasized the relationship between international and domestic economies while others put greater emphasis on the relationship between the state and society. Frieden and Lake break down these two views into four different perspectives. Following their definition, the argument adopted here combines an international political view with a domestic institutional view. Thus we argue that Iran’s domestic economic policies were caused by its international geo-political experience and that the state, operating as an unaccountable dictatorship, moulded the form and implementation of the big push industrialisation drive. However, the policy ran up against domestic economic limits which ultimately resulted in failure.

1.3 The nature of the Pahlavi state

Iran during this period was a monarchical dictatorship, functioning as a capitalist economy, though one in which the state played a very large role. The structure of the economy will be discussed in Chapter 3. Politically, power become increasingly concentrated in the hands of the Shah, Mohammad Reza Pahlavi, as he grew in strength during his 37-year reign, reaching its apex in the years under discussion. The state functioned in what Gholam Afkhami has called a ‘personalised power’ structure in which major political and economic decisions were made by the Shah, while the institutions of the state were organised in such a way that information had to pass through the Shah before decisions could be made. In such a personalised power structure, the character of the central player becomes important. Thus, the Shah’s own experiences and psychology had a bearing on the policies he decided to pursue. Fred Halliday writes:
The Shah’s personality helped weaken not only the army but also the state. The Shah’s grandiose distance from the realities of Iran helped introduce those development programmes which created the socio-economic context of the revolution; his ignorance of conditions in the country, together with his tendency to withdraw into silent meditation and his paralysis of will, were ill-suited to his coping with the crisis of 1978. He seems to have known from about 1974 that he had cancer, and this may account both for the recklessness of some of his projects and for the fatalism he displayed in his final months of power. If such speculation is possible, one could argue that no monarch could have saved the regime in the last few months of its existence, but that an autocrat of a different stamp might have been able to prolong its existence or take corrective measures early in 1978. Whatever importance this personal factor has, it certainly seems to have contributed to the unexpectedly rapid disintegration of the regime.  

In fact, the rapidity with which the monarchy fell apart has led to a re-examination of the Pahlavi state to see how strong it really was. For example, Mehran Kamrava saw ‘systemic difficulties’ accounting for the state’s weakness at the time of the revolution:

At the same time as it was reaching the height of power, the Pahlavi state underwent atrophy. After 1975 the state structure began to fall apart from within, and whatever the Shah did in order to save his regime met with disapproval and condemnation from abroad.  

The unusual unity of opposition groups in the revolution, which ranged from Islamic fundamentalists through to liberals and communists, underlined the Shah’s overwhelming lack of legitimacy in the eyes of his people. The Pahlavis, father and son, were both regarded as having been brought to power and then kept there, first by the British and second by the Americans for their own interests. This issue will be examined further in Chapter 5, which deals with Iran’s international relations.

Under the Pahlavis, the character of the state changed. Reza Khan came to power in 1921, he later decided Iran should remain a monarchy and crowned
himself Shah in 1925. His consolidation of power involved successfully destroying the power of the land-owning classes. During the reign of his son, Mohammad Reza, many of the former landowning families and the well-to-do merchants entered government service, whether in the Plan Organisation, the oil ministry or the foreign office. Others embarked on entrepreneurial activities provided by the new oil wealth and the beginnings of an industrial infrastructure. These people could be termed the upper end of the Iranian middle class but it is arguable whether they formed an independent middle class since they were so dependent on the state. Writing in 1970, Ahmad Ashraf concludes:

the Persian bourgeoisie is still in its formative period. Though it has gained functional significance, wealth, prestige and power in the past decade, it is not an independent powerful force in this country and is still dependent on the bureaucratic machinery which carries the burden of the centuries of ‘Asiatic’ tradition of total power.

In the countryside, major changes resulted from the land reform programme of the 1960s. Although power was redistributed due to land reform, the poor performance of agriculture during the Shah’s reign pushed many people out of the countryside and towards the towns into which they were further lured due to the large amounts of construction and consumption fuelled by oil wealth. The children of this first generation of urban immigrants were to feel the brunt of the economic downturn in the mid-70s and formed the backbone of the popular protest to the Shah in the form of the huge demonstrations which so characterised the Iranian revolution.

It is not within the scope of this thesis to examine these issues much further, though reference will be made to them in subsequent chapters. It is important to note, however, that whatever the reality, the Pahlavi state seemed
all-powerful at the time, that there was no suggestion of democracy and that an efficient secret police helped spread fear and rumour. All these factors helped the concentration of power in the Shah’s hands. The hallmarks of this system were centralisation of political power under the Shah, a politicised bureaucracy and a weak legislature. Popular participation in the political process was severely limited, underlined by the creation of a totalitarian system in 1975 with the establishment of a single party, the Rastakhiz (Resurgence) Party, adherence to which the Shah regarded as a necessary demonstration of loyalty not only to him as head of state but also to Iran itself. One former bureaucrat and supporter of the old regime has described how democracy was envisaged:

Political participation, on the other hand, was seen primarily as an education program by which the virtues of the political system, the sanctity of its symbols, and the correctness of the socioeconomic philosophy underlying the Shah-People Revolution were to be imparted to the people. The monarch represented the basic symbol of the educational process and was, therefore, a referent in all popular expressions of gratitude for the newly achieved stability, security, and progress under his benevolent leadership.

The same paternalistic view of the Shah as teacher is clearly delineated in the Rastakhiz party’s handbook, *The Philosophy of Iran’s Revolution*: ‘The Shah-in-Shah of Iran is not just the political leader of Iran. He is also in the first instance teacher and spiritual leader, an individual who not only builds his nation roads, bridges, dams and qanats [waterways], but also guides the spirit and thought and hearts of his people’.

In his rule of the country, the Shah took care to incorporate symbols and terminology designed to deflect the discontent of would-be dissenters. Thus, the development of the country was described in terms of the ‘Shah-People Revolution’, or the ‘White Revolution’ in order to appropriate Marxist
terminology. The Shah regarded the threat from the left as one of the most important challenges to his power, a legacy of the strength of the Iranian Tudeh ('masses' or communist) Party in the 1950s. In addition, most aspects of development were couched in nationalistic terms of the highest order. This process culminated in the celebration of 2,500 years of monarchy at Persepolis, southern Iran, in October 1971, where the Shah invoked the glories of the Persian empire and implied that the Pahlavis formed part of this great tradition. The nationalism was therefore distinct from that of Dr Mohammad Mossadeq, who had nationalised the Anglo-Iranian oil company in 1951 and had prompted the exile of the Shah for a brief period. It was nevertheless a form of nationalism designed to neutralise the threat from that quarter.

1.4 The drive towards industrialisation

The Shah's strategy for economic development favoured government-planned large-scale industrialisation, a policy which increased in importance in the 1960s and 1970s with the growth of oil wealth. The Plan and Budget Organisation (PBO) was established in 1947 and was in charge of administering the seven- and five-year plans introduced from 1948. During the Fourth Plan period (1968-72), Iran enjoyed one of the highest growth rates in terms of Gross National Product in the world, stimulated by oil revenues and reflecting the importance of economies of scale. The relative success of this Plan, together with political developments in the region, prompted the Shah to develop his aspiration of bringing about what he termed the 'great civilisation' in Iran, by which the country was overtake France as the fifth most industrialised nation by the turn of the century. The material means by which this was to be brought about was to be massive state expenditure in the economy, facilitated by the four-fold rise in oil prices at the end of 1973. To this end, the already ambitious
Fifth Plan (1973-77) was revised in 1974 and public expenditure was doubled. However, structural imbalances in the economy, especially in terms of supply rigidities, were exacerbated and rampant inflation from 1974 led the Shah to declare a series of politically unpopular measures in an attempt to bring the economy under control. Pesaran writes:

The rate of increase of retail prices rose from 3.7 per cent per annum during the Fourth Plan to 15.5 per cent in 1974 . . . consumer prices started accelerating from 9.9 per cent in 1975 to 16.6 per cent in 1976 and finally to 25.1 per cent in 1977, while at the same time the growth of domestic value added started declining.  

Before the economy could recover, the country became politically unstable from early 1978 and a year later the Shah was overthrown by a coalition of popular forces. Many of the problems which Iran experienced in its attempt to develop, such as excessive centralisation, an extended bureaucracy, inefficient industrial production, a lagging agricultural sector, a shortage of skilled labour and high inflation are ones shared by other developing countries. For example, Turkey pursued an import-substitution industrialisation programme in many ways not dissimilar to Iran’s. From the 1920s, the leaders of both countries, Mustafa Kemal Ataturk in Turkey and Reza Shah in Iran, took a conscious decision to ‘modernise’ on a secular, Westernising, path. Great emphasis was placed on the modernisation taking place within a nationalist context, where the state was to be the main engine of development and the clergy’s role was to be severely circumscribed. As in Iran, a privileged Westernised elite emerged in Turkey, while the majority of the people remained close to their religious heritage and, in economic terms, drew startlingly uneven benefits from the rewards of the development process underway in the country.
But there are also major differences in the experience of the two countries. Despite its growing pains, modern Turkey had the confidence of having been the core of a recently-dismantled empire while Iran had suffered humiliating foreign interference in its domestic affairs throughout the nineteenth and twentieth centuries. Another core difference was that Iran had capital in the form of oil-wealth while Turkey fell prey to international debt in order to finance its development projects. The difference in form of capital accumulation seems to have dictated the course of development in economic and social terms for both countries. While the public sector remained dominant in Iran (because oil revenues accrued directly to the government), in Turkey, the private sector began to play the majority role from the late 1940s onwards. Despite Iran’s advantage in having what amounted to a private source of income, the Shah’s dream ended in revolution, the creation of an Islamic Republic and international ostracism, particularly during the first 10 years of the revolution, whereas Turkey’s aspirations have resulted in a credible application for membership of the European Union.

It would not be wise to draw too many conclusions between the development experience of the two countries without more detailed analysis. However, it is clear that what differentiates Iran very sharply from what might otherwise be a fruitful comparative exercise are two unusual features of Iran’s development process. One is the revolution, which came soon after the effects of the deterioration in the economy began to hit all sections of society apart from the very wealthy; the other is oil revenue.
1.5 Oil income and the rentier economy

For most countries, the main barrier to development is usually posed by the need to generate financial resources and to break through a cycle of poverty and stagnation. As far as the development experience goes, the Organisation of Petroleum Exporting Countries (OPEC) was a new phenomenon in this respect. Oil wealth gave rise to the notion of the 'rentier' economy in which the sale of oil can be seen as a form of rent accruing to the government. However, it has become clear that the rentier economy has its disadvantages, most notably in the economic distortions it can produce. The consequences of the sudden rise in oil prices in 1973, and again in 1979, have also underlined the significance of an economically interdependent world, in which the OPEC states were not in the end able to 'get away' with commanding high prices for oil. Some of the deleterious consequences of this move finally rebounded on to their own economies, in the form of more expensive imports, imported inflation and a drop in demand for petroleum.21

Most Middle Eastern OPEC countries are limited in terms of their domestic population and surface area. As such, their development model has been outside the usual experience of a less developed country, characterised by a burgeoning population and dependent on the export of agricultural products.22 This is not true of Iran, however. It is the most populated of the Middle Eastern OPEC countries and, as such, is able to overcome two of the main difficulties facing the small Arab countries of the Persian Gulf, such as Kuwait, or even Saudi Arabia itself, by having a potentially large domestic market and a large indigenous labour force. And, unlike some of the smaller overpopulated states of south-east Asia or the city-states of the Arab OPEC countries, its resources offer the possibility of a self-sustaining economy within a viable state structure.
However, freedom from capital constraints has not proved to be the development panacea for which the oil-rich states hoped. The existence of capital cannot in itself allow the domestic economy to bypass the usual production processes, including the development of an industrial infrastructure, though it can mask the difficulties for a period. In addition, the oil industry itself operates as an 'enclave' industry since it has very little input as far as the production process goes. No significant linkages are made with the rest of the economy; backward linkages are low because of the need to import advanced technology from abroad and forward linkages are similarly weak, since oil products tend to be exported. Indeed, according to one pioneering writer looking back at the Iranian experience in the 1950s and 60s:

If the economic performance of most Rentier states is found to be as unimpressive as that of Iran during the period 1954-65, there would appear to be sufficient justification for doubting whether the availability of capital and foreign exchange are as crucial as they are sometimes assumed to be in the process of economic development.

The contradictory impact of dramatically increased oil revenues on the economy is therefore crucial to any understanding of Iran's development policy. This thesis will argue that the policy must also be set in its political and international context, since these played a crucial role in the Shah's decision-making process. The policy also contributed to an idiosyncratic political system within whose constraints the economy had to operate.

1.6 Competing theoretical explanations of Iran's industrialisation
Studies of Iran's development process in the 1970s fall into two broad camps. The first focuses on the suitability or otherwise of the economic mechanisms
employed by the government and the planners. The second provides an analysis within a broader socio-economic framework by considering too the nature of the Iranian state, the political context of economic decision-making and the interaction between economic policy and the political system. Some have gone on to link this with the revolution. None, however, has supplemented such an analysis in any detail with a consideration of Iran’s industrial drive within its regional and international context. While there have been many studies of Iran’s foreign policy, this has usually been a separate field of enquiry not linked with the development process. Such an analysis is therefore long overdue. Before elaborating on this, it would be useful to summarise briefly the arguments and approach of six other writers. We shall begin with those who follow predominantly an economic analysis of the development and planning process in the 1970s.

In his book, *Economic Origins of the Iranian Revolution*, Robert Looney provides a detailed analysis of the Iranian economy in the last decade under the Shah and links developments within the economy to the collapse of the government. He argues that the Shah’s downfall was due to a set of economics-related factors, namely, the lack of an agricultural strategy, runaway public spending leading to inflation and a widening income gap. Looney identifies a set of economic problems, elements of which had already begun to make their appearance during the last years of the Fourth Plan (1968-72), and links these to shortcomings in the government’s economic strategy. He terms the government’s policy a technocratic one, whereby the main economic objective was to increase output. Looney believes that most of Iran’s economic woes in the late 1970s can be put down to the ‘mindless implementation of technocratic strategy’. By contrast, a reformist approach would have placed
increased emphasis on redistributing income, he argues, while reconciling greater equity with faster growth through institutional change.\textsuperscript{27}

Institutional weakness is a recurring problem and a considerable hindrance to the formulation of appropriate economic policy. Looney believes that the reason that the government endorsed a policy of industrial controls and licensing, which had the effect of assuring monopoly profits to a tiny industrial class, was not necessarily to benefit the Shah's own family but was a consequence of the institutional weakness of the government. This meant that planners relied on helping industry indirectly through credit programmes based on the banking system.\textsuperscript{28} Furthermore, though the economy was ostensibly liberal capitalist, in fact, property ownership was very concentrated. Looney asserts that the inequality of income fostered by this system, was not regarded as a problem by the government. On the contrary, it was welcomed because it was believed that the savings of the rich would contribute to faster accumulation and growth.\textsuperscript{29}

The main features of Iran's manufacturing sector by the mid-1970s were heavily geared towards the production of consumer goods; weak linkages with other sectors with a tendency for the linkages to become weaker over time; growing reliance on imports for sustaining production; and declining export capacity.\textsuperscript{30} Looney puts most of the blame for the disappointing performance of industry and imbalances in the economy on the government's import-substitution policy. He also cites shortcomings in market planning of such magnitude that 'one is drawn to conclude that little or no economic considerations underlay the industrial selection process'.\textsuperscript{31}
According to Looney the incentives of the government to the manufacturing sector in the form of import-substitution industrialisation (ISI) were ill-conceived for three main reasons. Firstly, the industries that were established, such as the motor vehicle industry, tended to be those that made Iran dependent on the outside world in terms of imports of foreign technology, skilled manpower and capital goods. Iran’s vulnerability to international market movements and pressures therefore increased with this strategy. Secondly, the strategy concentrated on productivity was effectively a wasted effort, according to Looney, since the internal market was too small for many of the planned products. Thirdly, the industrialisation process did not generate enough foreign exchange to finance its own requirements. This, combined with a high level of protection, increased the dependence on oil revenues so that the whole industrial process became isolated from competitive checks. This also resulted in lack of constraints on the cycle of wage and price increases.32

While the productivity of capital fell in the post-1973 period, Looney believes the main reason for industry’s loss of dynamism was the impossibility of sustaining the momentum built up in the 1960s and after the oil price rises of 1973-74. Moreover, oil-induced economic development meant that production and trade had evolved in an artificial environment in which distortions came to be built. These distortions then impeded diversified economic development and actually created a stagnant-prone productive structure. By 1977, the economy was decelerating towards stagnation:

the authorities should have realized that, even though oil revenues transformed the economy into a capital surplus position, this was only a temporary and transient state. The government received ample warning at the time that Iran was not a true capital surplus economy as perhaps Saudi Arabia was.

It appears that the post-1973 growth strategy was based on the premise of capital abundance, and therefore economized on labor by
increasing the capital intensity investment projects. The strategy further was predicated on the notion that labor both in quantity and quality would soon catch up so that, by the time capital inflows from the oil sector began to diminish, the process of capital generation would have become internalized and the country's growth momentum self-sustaining . . . there is little historical precedent or empirical evidence for accepting the momentum thesis. The economic solution would have instead been to base the strategy on long-term scarcities rather than short-term abundances, i.e., the government should have aimed at maximizing the long-run return per unit of capital.33

While being critical of ISI in Iran, Looney also states: 'A careful reading of the industrial history of this period shows that in many respects Iran's import substitution strategy was similar to that taking place in a number of other countries'.34 Does this therefore mean that ISI has inherent weaknesses that prevent it being successful no matter what its form of implementation? If this is case, the thrust of Looney's criticism should be against ISI as a strategy rather than Iran's implementation of it. Or does it indicate that, as in several other countries, ISI was not correctly implemented in Iran?

Unfortunately, Looney does not deal explicitly with this subject. However, it seems that his argument is a combination of both. He appears critical of ISI as a development strategy when he states that 'the consequences of import substitution industrialisation were the high costs of production, a decrease in quality of products because of heavily protected domestic industry, and perpetual dependence on world markets'.35 It is reinforced by Looney's approval of George Baldwin's assertion that ISI in Iran evolved out of necessity as a reaction to the economic crises of the early 1960s rather than as a planned strategy, and later developed in a whimsical fashion by emulating other countries.36
On the other hand, Looney does make reference to ISI as it developed specifically in the Iranian context. He discusses how ISI as implemented in Iran created a number of structural imbalances, unemployment and underemployment of resources. He does not, however, discuss countries in which ISI has successfully been developed or describe the conditions under which it might succeed. Looney writes that though Iran’s strategy of ISI was similar to that adopted by a number of other developing countries:

there was one major difference: many of the newly-industrializing countries, in addition to relying on primary exports and foreign loans, also promoted their manufacturing exports to pay for a proportion of their imports of capital and intermediate goods. However, Iran continued instead to rely heavily and almost exclusively on oil exports.37

Looney’s overall argument regarding industrialisation in Iran during this period can now be summed up. The form of ISI implemented in Iran produced severe distortions which the government was then unable to deal with. These distortions were a result of ISI itself, government policy (or, in some cases, lack of it) and the loss of momentum to the economy once oil revenues dropped in the late 1970s. There is little reference to the country’s political system other than mention of the weakness of government institutions, which had some impact on the formulation of policy. But overall, Looney considers the Shah’s downfall to have been the result of almost entirely economics-related factors and his work does not put these into a political or international context.

Parvin Alizadeh studied ISI in Iran during the 1960s and 1970s with particular reference to the motor vehicle industry.38 Alizadeh’s main objective was to examine government industrial policies to see whether these were appropriate to the declared aim of transforming the Iranian economy from one
based on oil into one based on industrial production. The motor vehicle industry was chosen as a case study because of the emphasis placed on its development by the government which intended to transform Iran into one of the top automotive producers in the world market. A combined study of the petrochemical industry, another priority industry, could not be pursued because of lack of information, according to Alizadeh.

Alizadeh finds that by 1977, manufactured exports accounted for only 0.3 per cent of GDP, as compared with 7.1 per cent which is considered the normal figure for countries with a similar level of income. The government’s avowed objective was to develop manufactured exports, Alizadeh maintains that such exports declined in absolute terms in the post-1973 era. The reasons for this decline, argues Alizadeh, were the direct result of government policy over the period and comprised three underlying factors: the expansion of the domestic market, the lack of consistent policy regarding the development of non-oil exports and a deterioration in the competitiveness of locally-produced products.

Alizadeh uses the case study of the automotive industry to illustrate some of these points and to examine the development of the industry in relation to the generation of backward linkages and to examine the effectiveness of government policies towards vertical integration. Some of her findings will be discussed at greater length in Chapter 3. Alizadeh shows that heavy promotion and protection of the automotive industry led to growth within the industry, but that the government was far less successful than it had hoped to be in transforming the industry from assembly status to a nearly wholly vertically-integrated industry. Alizadeh finds several reasons for this. Firstly, basic
industries, particularly the metallurgical and producers goods industries, remained undeveloped. While 80 per cent of the weight of a finished vehicle consists of steel parts, 90 per cent of the raw material requirement of the industry was imported. Secondly, the industry is highly susceptible to economies of scale, which usually concern the size of the plant and the range of output over which unit cost savings are greatest. The level of output over which unit cost savings are greatest is known as the 'critical minimum level'.

Of the five automobile plants operating in 1978, none was producing enough units for an optimal scale of output. The largest plant, which was four times the size of the second largest was producing 125,000 units per annum. This is substantially below the 200,000-250,000 units considered as the 'critical minimum' level of output for integration into the production of parts and components. In addition, the lack of a developed supplier industry to specialise in the production of parts and components meant that these were mainly in-plant manufactures by the automobile plants:

In other words, the disadvantage of small-scale automobile plants, which is a well-known feature of the structure of industry in most underdeveloped countries, is compounded by the lack of a developed part supplier industry to specialise in production of parts and components.

The consequence was uneconomical and costly production. At the largest plant, the domestic ex-factory price of a car was 23 per cent above the CIF (cost, insurance and freight) price of similar vehicles. For the other plants, which were essentially assembly operations with limited local content, the divergence between the two prices was far more substantial, ranging from 41 to 63 per cent. Thirdly, Alizadeh believes that the government lacked a coherent policy to regulate the operation of international automotive firms. The industry was
not dominated by foreign capital in terms of ownership but substantial control was nevertheless exercised by multinational companies as licensors or minority shareholders. The Iranian government, unlike Brazil or Mexico, was either unable or unwilling to implement appropriate policies towards these companies.46

Finally, despite substantial state intervention in industry, Alizadeh believes Iran’s record is poor when compared with government policies in Brazil, Argentina and Japan where rationalisation (reorganisation of the industry to achieve greater efficiency) took place. In Iran there were no plans for rationalisation, either by preventing the emergence of several firms in industries highly susceptible to scale economies, or by encouraging mergers between firms:

In this respect, it can be argued that the irrational structure of production in certain industries in LDCs does not reflect excessive state intervention but the lack of such intervention to restructure the organization of production to ensure viability.47

Does this mean that ISI was inappropriate for Iran? A detailed discussion of ISI and other industrialisation strategies is given in the next chapter, and Alizadeh also considers the question at length.48 She acknowledges that:

ISI in Iran bears substantial similarities to that of several other LDCs. For instance, import-substituting industries not only did not play any significant role in the development of manufactured exports but also remained highly dependent on imported parts and components, as the case study of the Iranian automotive industry clearly indicated. Indeed, if it were not for the growing availability of oil income, ISI in Iran would have faced a severe foreign exchange crisis.49

However, Alizadeh concludes that the fault lies not so much with ISI as a strategy than with the content and design of the strategy. She concedes that ‘it
is very difficult to envisage which type of state is best capable of formulating and implementing a rational viable industrial strategy.\textsuperscript{50} Alizadeh writes that industrially successful countries, such as China, have relied heavily on socialism while non-socialist countries such as Brazil, India, and South Korea have also pursued industrialisation with success. This has taken place:

under a variety of different economic regimes. A country like Brazil has relied on a relatively open policy with regard to foreign investment by MNCs and achieved rapid industrial progress. On the other hand, India has followed the path of strict control on foreign capital in building up its industrial base, which includes the most sophisticated capital goods industry in the Third World.\textsuperscript{51}

Reluctant, therefore, to generalise on the elements needed for successful state intervention and while noting that the duration of ISI in Iran was short when compared with South American countries or India, Alizadeh does identify three specific ‘mistakes’ made by the Iranian government in its implementation of ISI:

Not only was the duration of IS strategy in the Iranian case relatively short and the industrialist class relatively young, but also the design and content of IS strategy had certain serious limitations. These included: inappropriate choice of the industry; the inability or unwillingness of the State to promote a rational production structure; and lack of a coherent policy vis-a-vis the import of technology.\textsuperscript{52}

Like Looney, Alizadeh has identified a set of problems with the industrialisation process in Iran and has rooted these within a critique of government economic policies. The study is firmly grounded in the economics sphere and is not concerned with political aspects, whether domestic or international.
Massoud Karshenas has studied Iran’s industrialisation in the context of the challenges faced by an oil-producing state. He dismisses the thesis that oil revenues are a hindrance rather than a help to economic development, arguing instead that oil income, while not an unmixed blessing, can contribute greatly to industrial growth as long as the government adopts appropriate policies.\(^{53}\) Karshenas adopts a structuralist framework in which to examine the economy, arguing that there are constraints to growth which are fashioned by social and technical conditions of production and which cannot be resolved by market forces or price adjustments because of social pressures which arise and resist the distributional effects of relative price changes.\(^{54}\) He defines a structural bottleneck in terms of: ‘the social and technical conditions of production in particular sectors of the economy, or the overall economic institutions of a country which limit and condition both effective economic intervention by the government and the operation of the market mechanism.’\(^{55}\) The cause of a structural bottleneck depends on the historical development experience of the country; thus his study of Iran begins in 1800 with most of the analysis concentrated on 1953-77.

As the main recipient of oil income, the state’s role in capital accumulation was transformed radically. In post-1953 Iran - after the oil industry was nationalised by Mohammad Mossadegh, the prime minister who was later overthrown in a coup d'état instigated by British and US intelligence - ‘the clientelistic form of representation of the state, based on the exchange of political support in return for the allocation of state resources had an important impact on the nature of capital accumulation and its distributional implications without being consciously intended by the government.’\(^{56}\)
In the 1920s, the state adopted a caretaker role by providing basic politico-legal and infrastructural requirements. Government expenditure was primarily financed through indirect taxes - a burden which fell mainly on lower income groups - or deficit financing. But foreign capital was not forthcoming and exports stagnated. As the main recipient of oil income, particularly after the 1953 oil nationalisation, the role of the state in the process of accumulation was transformed, according to Karshenas. Instead of mobilising resources for investment in a predominantly agricultural economy, the state's role became that of distributing and allocating an already centralised economic surplus.\textsuperscript{57} Demand for products far outweighed supply, partly due to the lack of industrialisation and low productivity in established industries. Given the low productivity and the impressive results that an import-substitution industrialisation would be bound to show, at least in the medium-term, the government opted for an ISI strategy. The size of its development plan was largely determined by the expected oil revenues. This skewed the development process since it was not balanced by the imposition of taxes:

Considering the cumulative effect of high rates of growth of fixed investment on government recurrent expenditures as well as the growing requirements of government expenditure on social overheads in support of accumulation, in order to sustain such high elasticity values in the long run it was clearly necessary to take effective measures to increase revenues through taxation. ... failing to take such measures, the government was faced with chronic fiscal problems which constantly threatened the stability of the accumulation process.\textsuperscript{58}

This is a characteristic of the oil-based economy, argues Karshenas. Easy access to foreign exchange can allow reasonable growth without the need for structural change to the economy but only in the short-term. In the long-run, it can lead to 'perverse growth' - a phrase originally coined by Kalecki\textsuperscript{59} - and periodic balance of payments crises. But this can be avoided if the oil exporting
economy adopts a pattern of structural change which ensures the feasibility of the growth path. However, this did not happen in Iran. Despite a fourfold increase in per capita incomes, between 1963 and 1977, Karshenas shows the total tax burden rose just 33 per cent, from 8 per cent of GNP to 10.6 per cent. The government chose not to use taxation to play a part in redistributing income even though it would have been easy, he argues, to have increased modestly the tax on the highest earners without any burden on the lowest 80 per cent of the wage-earning population. A household in the wealthiest 20 per cent income bracket benefitted six times more from government expenditure than those in the lowest 60 per cent.

Moreover aspects of government policy militated against the growth of medium-sized manufacturing even though this would have been ideal for generating employment in Iran's labour surplus economy. A worsening distribution of income in the agricultural sector contributed to the rapid growth of rural migrant labourers into the towns, which could only be marginally absorbed by the modern industrial sector.

Instead, the relatively few large-scale enterprises, which were the recipient of more than 95 per cent of loans from the Industrial and Mining Development Bank of Iran (IMDBI), formed technological enclaves within the manufacturing sector depending for their raw material supplies and technology largely on imports. This not only prevented the large-scale enterprises from acting as a vehicle for the diffusion of modern technology into the rest of the manufacturing sector but also prevented the generation of demand for the rest of the sector through inter-industry linkages. The pattern of investment in the
private manufacturing sector was left to the profit motives of the individual industrialists.

The government's policies towards industrialisation led to a duality in the manufacturing sector which was expressed in a widening gap between productivity and wages in small-scale enterprises and the rest of the sector. The absence of a policy aimed at alleviating income inequalities resulted in the pattern of consumption being dominated by the relatively narrow section of the population in whose hands income was concentrated. In turn this led to rapid growth in the market for new durable consumer goods favoured by these groups. Karshenas argues that this lopsided consumption pattern in turn had a significant effect on the structure of manufacturing growth and the nature of the industries which developed during this period:

The growth of final consumer demand, specifically for the new products which formed the market of the modern dynamic subsector of manufacturing production, was dominated by the consumption of a relatively small section of urban households. This meant that to sustain the growth of consumption it was necessary to continuously introduce new varieties of consumer goods to cater for the higher wants of the rich consumers, as the limited degree of diffusion of the new products amongst the majority of low income groups implied a relatively rapid satiation of the market for each new type of good. In other words the characteristics of income distribution never allowed the market for new manufacturing products to become a mass consumption market... This would imply a tendency towards fragmentation of the market instead of the strengthening of the mass consumer goods market.66

The small size of the market made it difficult for these plants to go beyond the assembly plant stage and develop into integrated production processes which could benefit from economies of scale, argues Karshenas. The growth of exports of the modern manufacturing sector was slowed down and created a high degree of dependence on imports.
Industrial output rose from 17 per cent of GNP in 1959 to 23 per cent in 1972. Agriculture declined by 11 percentage points over the same period but still accounted for 43 per cent of total employment. According to Karshenas, these figures illustrate the continued immaturity of the Iranian economy and the existence of a large pool of labour with much lower productivity rates, upon which the industrial and services sector could draw. Nevertheless, by international standards the growth performance of Iran's economy between 1959-72 was impressive. It was sustained by the growth of oil exports that provided the necessary foreign exchange for investment. However, Karshenas argues that from 1963-72, the rate of investment was close to the economy's absorptive capacity. The investment was heavily financed by oil revenues and foreign borrowing and, as such, the rate of growth was not sustainable in the long run, hence the chronic short-term balance of payments problems.

Karshenas poses the question of why Iran's production structure had evolved in such a way and what alternative patterns of structural change could have been implemented:

Had the ease of access to external resources played any part in shaping the process of structural change, or had the inevitability of this particular path of structural change necessitated increasing resort to external resources?

He finds that a large part of the services deficit was composed of interest payments on long-term foreign debts which had arisen to finance the commodity trade deficits. The trade balance was in deficit because the value of imports was far higher than non-oil exports. Despite a 10 per cent average annual rate of growth of private consumption, the rate of growth of consumer
goods imports was no more than 1.7 per cent, implying that ISI was working in this sector. However, there was a rapid growth of intermediate and capital goods destined for the industrial sector. ‘It appears that the industrial trade balance was the main culprit in the balance of payments problems during this period,’ concludes Karshenas.  

Oil surpluses financed an ever-widening manufacturing trade deficit. Measured against international trade indicators for the different branches of manufacturing, the development of manufacturing exports in Iran was poor. Given the government’s ISI strategy, low export rations may not seem surprising when various manufacturing lines are at early stages of development but:

It is at the later stages of import substitution industrialization, when the manufacturing sector has achieved the necessary maturity to compete in the international markets, that the export ratios are expected to rise rapidly. With the continuation of the trends observed over the period under investigation, however, it is clear that the long-term viability of the growth path after the exhaustion of oil resources could not be ensured. Though in the long run the success of import substitution industrialisation depends on the ability to export, the medium-term viability of the strategy depends on the possibility to bring about the necessary adjustments in the import ratios.

The process of import substitution led to an increased import penetration and it is in this phenomenon, argues Karshenas, that the rapid expansion of manufactured imports led to the recurrent balance of payments problems. For Karshenas, Iran’s industrialisation process was an example of ‘perverse growth’, characterised by growing income inequalities and increasing lopsidedness of the structure of industry. What was needed was a policy framework that would have taken into account the interconnection between the
demand side effects of government policy and its capacity generating impact.

The remedy would have been a more equal distribution of income which:

through its impact on the pattern of structural change, would have allowed to maintain the overall rate of economic growth with a lower degree of reliance on oil income or foreign borrowing to finance investment - an outcome which is contrary to the conventional wisdom about the inverse relationship between the degree of income inequality and the rate of growth.\textsuperscript{73}

The implication, according to Karshenas, is that a more democratic form of government and broader political participation may have allowed more egalitarian income distribution and a more stable and balanced industrialisation to take place.\textsuperscript{74}

Another study concerned primarily with the economic aspects of industrialisation, but which contains elements of a political critique, is Kamran Mofid's \textit{Iran: Oil Revenues, Development Planning and Industrialisation}.\textsuperscript{75} Written as a textbook, it spans a wide period extending from Reza Shah down to the Islamic Republic in 1982. Unlike Alizadeh, Mofid believes that Iran's IS strategy had been in force long enough for positive results to begin showing by the early 1970s. In a section on the Fourth Plan (1968-72), Mofid writes:

\begin{quote}
The increase in imports of intermediate and capital goods during these years was justified in terms of building an industrial base leading to self-sufficiency and the diversification of exports. But by 1972, many years after the adoption of an IS strategy, more than 72 per cent of Iran's non-energy exports were traditional and agricultural goods.\textsuperscript{76}
\end{quote}

Mofid is extremely critical of the government's big push strategy as exemplified by what he calls the 'tragic mistake' of abandoning the original
Fifth Plan in favour of the revised plan. He cites the warning issued in 1972 by the Plan and Budget Organisation of the dangers of overspending, particularly in view of the country's manpower shortages, while noting that these reservations were overruled by the Shah and his prime minister, Amir Abbas Hoveida. The two major consequences of the decision to implement the revised Fifth Plan, according to Mofid, were accelerated inflation and a marked decline in the country's absorptive capacity leading to a substantial degree of waste. The Shah's decree of a 'War against Waste' in an attempt to curb inflation was bound to be ineffective, according to Mofid, because this presupposed a case of cost-push inflation, whereas Iran displayed a classic case of demand-pull and structural inflation. The Shah's refusal to reduce spending and his attacks on the bazaar simply led to rising inflation. Mofid demonstrates absorptive capacity constraints in various industries, including steel and electricity generation, and concludes that:

If the share of domestically-produced items in total consumption keeps falling - while all attempts were made to increase it - this is a clear sign that, given the constraints, the production could not have increased fast enough. We do not expect that the share of domestically-produced items should have increased; it would have been a success if the shares had remained constant or at least not fallen so rapidly.

The consequence of this inefficient absorption of new capital, according to Mofid, was the soaring costs of industrialisation. An inadequate infrastructure, shortages of complementary inputs, planning and implementation inadequacies, as well as political and institutional restrictions all put constraints on the country's absorptive capacity.

Iran's trade pattern during this period fared little better, according to Mofid. The government's professed commitment to export-diversification and
self-sufficiency are not borne out by the results. Mofid shows that imports of consumer goods increased on average by an annual 21.5 per cent from 1968-72 and again by an average of 51 per cent per annum from 1973-77. Mofid uses a concentration index to show that Iran's exports, far from succeeding in becoming diversified after 1973, actually became less diversified. Mofid sums up the government's aspirations thus:

Industrialisation, based on achieving diversification in exports and becoming the fifth industrialised nation by the turn of the century, was the 'crown-jewel' of this period's economic policies. Industrial development was regarded as the basic measure in laying the groundwork of an advanced economy which would pave the way for the "Great Civilisation".

He concludes, instead, that the Shah's modernisation programmes led to oil revenues being wasted, growth halted, inflation accelerated and social tensions heightened.

Five main reasons accounted for what Mofid terms the failure of industrialisation in Iran. The first was the question of the choice of ISI as a strategy of development. Unlike Looney, Alizadeh and Karshenas, Mofid believes the implementation of ISI was a mistake in Iran's case. The reliance on the country's oil and gas resources meant that the constraints to development, such as the shortage of labour and the lack of infrastructure, were masked while oil funds allowed the government to operate with no regard for efficiency. Secondly, the case of inappropriate technology also appears to have arisen. Iran was, in most cases, not able to assimilate advanced technology, which meant that it could not be used efficiently. Thirdly, the exchange rate was kept artificially overvalued in order to encourage the import of capital and intermediate goods for manufacturing. However, the drawback was that this
worked against exports and so Iran showed a continuous decline in the index of competitiveness. Fourthly, Mofid argues that commercial relationships were adversely affected by certain cultural traits, such as fatalism, the desire for quick profits and nepotism:

Maybe the origin of such behaviour could be traced to the ‘despotic’ nature of the many Persian kings, especially the last two and those of the Qajars. If the head of the ‘household’ is corrupt and incompetent, then what could be expected from the rank and file?

Finally, Mofid considers briefly the legacy of outside interference in the country’s internal affairs. He argues that, superpower politics deprived Iran of an opportunity to build strong and coherent socio-political and economic institutions which are so vital for a successful drive towards development and modernisation. Moreover, since Iran was never formally a colony it was deprived of any of the putative benefits of that status. Instead foreign firms came to the country in search of easy money, while some of the multi-national corporations actively discouraged the training of local staff and the export of Iranian-made goods. Mofid concludes, therefore, that:

the inefficiencies present in Iran are the result of underdeveloped institutions which themselves are the result of economic and socio-political factors, caused both internally and externally. Unless these issues are honestly understood, discussed and addressed accordingly, simply to have financial resources to buy the most expensive, complicated and advanced technology is not a substitute for or a guarantee of development.

For Mofid, industrialisation in Iran was a function not only of an economic strategy for development, but also of the country’s political system and historical legacy. While recognizing this, Mofid’s work falls firmly within one discipline, that of economics, and does not devote much space to these wider
issues which he acknowledges are of fundamental importance as a context for
economic analysis.

Another writer who considers both economic and political themes, but in
roughly equal measure, is Homa Katouzian. As its name suggests, *The Political Economy of Modern Iran* is an intermeshing of domestic politics and the economy. It is a wide-ranging book whose theme is summed up in the subtitle: *Despotism and Pseudo-Modernism*. Katouzian argues that oil revenues led to Iran’s Pahlavi kings becoming ‘petrolic despots’ who cultivated the trappings of modernisation and industrialisation, the consequence of their lip-service being a people’s revolution. Analogies are drawn with Iran’s Constitutional Revolution of 1905-1909 and the common theme of a fight against despotism. However, the difference, Katouzian maintains, was that the 1979 revolution was against despotism and pseudo-modernism, while the constitutionalists were fighting against despotism and traditionalism. Katouzian builds up a social and political framework in which to discuss the impact of the oil economy. He outlines certain characteristics of the means of production in Iran, maintaining that Iran has never had a feudal economy because private property ownership was always weak and tenuous. This was due to the nature of the state. It dominated Iran’s classes through its monopoly of power - a power characterised not so much by its absolute nature in laying down the law, as in its ability to exercise arbitrary power in the face of which all citizens, whether landlords or peasants, were equally vulnerable.

When the state’s financial position began to weaken in the nineteenth century, it tried to supplement its income through the sale of concessions to foreigners. However, a combination of religious and merchant opposition to
these moves culminated in the Constitutional Revolution and the downfall of the Qajar dynasty. The discovery of oil in 1908 developed into a reliable source of state income by 1933. Combined with Reza Shah’s ‘pseudo-modernism’ and ‘pseudo-nationalism’, the ‘despotic’ system was extended into the religious leadership and community:

The growth of oil revenues added to the quantity and quality of the financial independence and political power of the state relative to the propertied classes and religious institutions; the growth of state bureaucracy (on which it was partly dependent) increased the demand and supply for European-type education, which became the most important channel for higher bureaucratic positions; and the interdependence of these changes with other material and ideological factors pushed religion, and the religious community, to the periphery of the socio-economic complex.90

Oil revenues allowed the state a good deal of financial and political autonomy from the country’s productive forces; unlike taxpayer’s money, the state is not accountable to its citizens for its expenditure choices. Katouzian argues, however, that oil wealth intensified existing relations between the state and its various groups:

The petrolic system of stratification turns the state into the patron of a growing clientele; the patrimonial guardian of life and labour for the urban masses; and the agent of social excommunication for the peasantry. If, as in the case of Iran, there already exist historical forces and institutions of despotism, and a traditional domination of urban over rural society, the petrolic system merely serves to reshape and reinforce the already existing, or surviving, relations and tendencies.91

Katouzian then outlines certain features of the ‘pseudo-modernist’ economy, characteristics of which appear to be exacerbated by oil revenues. The most important elements concern, firstly, state expenditure. Consumption expenditure increases, resulting in an expansion of bureaucratic and modern services, while state investment expenditure, by emphasising the urban sector,
results in the promotion of construction, heavy industries and capital-intensive technology, and discriminates against agriculture.

Secondly, in a criticism of capital-intensive technology, Katouzian argues that the usual justification in terms of an 'abundance' of finance capital and foreign exchange is invalid because economic resources can only be abundant if they cannot otherwise be gainfully employed. An oil economy does not have excess capital because the surplus can always be invested abroad or circumscribed by leaving the oil underground. Moreover, capital-intensive technology is of many forms, only one of which is the importation of foreign equipment with specific technological characteristics. This form of technology tends to result in the shortage of modern skilled labour while wasting traditional skilled labour.

Thirdly, Katouzian believes that structural inflation resulting from monetary expansion and real income increases is exacerbated by consumption expenditure. This is because in a developing economy consumption goods, urban land and property are status symbols which people will want to acquire:

Further, because of the general atmosphere of insecurity arising from the politico-economic system, as a whole, they will speculate, but their speculation, the type of assets which they purchase, will itself fan the inflationary fire.

In addition, increasing imports of food, raw materials, manufactured goods and machines, will lead to the creation of bottlenecks. This model of the state's strategy of expenditure under the influence of oil revenues can be summed up as resulting in:
the creation of excess liquidity; high aggregate consumption; emphasis on imported high industrial technology - which not only jams the ports but also, more significantly, inflates the purse of modern skilled labour out of all proportion; and a feverish race for higher incomes, increased consumption, greater ostentation and the rest.94

On another level, Katouzian sees the growth of oil revenues since 1964 as the most important factor behind what he terms the success of despotism, as well as the cause of the separation of the state from society. He also underlines the political role of the disbursement of oil revenues in the form of grants and credits, as a means of bestowing privileges to a certain class which used the money to purchase land or invest abroad.95

Furthermore, though import-substitution was left to the private sector this, according to Katouzian, was private only in name. The degree of financial aid given by the state meant that the private sector was more or less employed by the state as agents to use public funds. In this way, individuals were able to receive substantial profits from the use of capital that was not even their own.96 Katouzian is critical too of the way in which industrialisation programmes were carried out and argues there was no strategy worthy of the name. He cites the example of Iran’s commitment to build a $700m gas pipeline from the west of the country to the former Soviet Union as a useless project. This formed part of the 1963 deal with the Soviet Union for the supply of a steel plant in exchange for natural gas, hence the pipeline. The plant was expected to earn the country $600m of exports by 1969-70, but in that [Iranian] year, it only earned $4m.97 Similarly, results fell far short of targets in foreign trade:

At the ‘gates of the Great Civilisation’, exports of Iranian industrial and agricultural goods amounted to only 2 per cent of the country’s total exports. This means that, if the country were to rely on her own production and exportation of goods, without the bonus of oil and gas
revenues, she could only purchase less than 3 per cent of the goods which she is now buying.98

Of this 2 per cent, and despite the state's emphasis on 'forward' industries such as petrochemicals, machine tools and motor cars, agriculture contributed 51 per cent of total non-oil exports, traditional products, such as carpets and handicrafts, a further 28 per cent, while the 'pseudo-modernist' industries made up the remaining 21 per cent.99

Within the context of foreign trade, Katouzian considers Iran's foreign relations. The US, according to Katouzian, had little financial leverage, or indeed, financial interest in Iran but knew that: 'the Shah's militarism, pseudo-modernism and anti-communism automatically ensured that a great deal of the revenues would be spent on weapons, food, consumer products, and technological equipment, in Western markets'.100 To this extent, the US did not mind the Shah responding to Soviet gestures, which were essentially of a politically symbolic nature. According to Katouzian:

The Shah's politiconomic relations with the superpowers, as well as other global and regional powers, were determined by his despotic pseudo-modernism within, and cynical realism outside, the country: he monopolised absolute and arbitrary power inside the country, dreamed of turning Iran into a major industrial and military power, needed as much money as he could think of for realising his obsessive desires, and wanted peace with foreign (especially super-) powers so as to be able to follow his obsessive aims without any major external or internal disturbance. His cynical realism in foreign diplomacy completely paid off; it was his psychopathic designs inside the country which alone spelled his final and complete doom, both economically and politically.101

As the above extract shows, Katouzian provides a highly critical and passionate critique of Iran's political and economic system under the Pahlavis, emphasising the superficial nature of reform carried out in the name of
modernism. He argues that the rise in oil revenues produced no major changes in policy but intensified existing difficulties. His book serves to demonstrate that the development process was, for better or for worse, inexorably intertwined with the political system. The analysis is not systematic, however, and relatively little space is devoted to the international context.

Another book which explores the effect of the political on the economic, but confines itself to the planning process, is *The Political Environment of Planning in Iran* by Hossein Razavi and Firouz Vakil.\(^{102}\) Both were involved in the planning system: Razavi was bureau director at the Plan and Budget Organisation (PBO) from 1976 to 1981, while Vakil served as secretary for informatics there from 1973 to 1979. Material from their book is incorporated into Chapter 4 and, therefore, only a brief appraisal of their contribution to the debate is necessary here.

Originally the PBO was established as a mechanism to co-ordinate the government’s involvement in public projects. But by the mid-70s economic planning had turned into a formality for spending the allocation - ‘This relaxation of the role of economic planning was one of the fundamental problems of the Shah’s regime’.\(^{103}\) Much of Razavi and Vakil’s book is dedicated to explaining this transformation which appears to have come about as a direct result of increased involvement by the Shah in the PBO’s activities. In a section on the preparation of development plans, Hossein and Razavi write that one of the stages involved the submission of the plan to the High Economic Council which was attended by the Shah:

In the early years, a meeting of this council was viewed as a ceremonial gathering in which the development plan was explained to the shah. In the later years, however, the meeting of the High
Economic Council turned into the most crucial step of plan preparation. During this meeting, the shah actually dictated the basic goals and targets of the development plan. This changed the logic of the whole process, and the planning effort was reduced to a futile exercise.\textsuperscript{104}

The increased personal role of the Shah appears to have affected all branches of the planning system with detrimental effects for development. One stage in the implementation of the plans involved field inspection, an area in which the PBO, for a time, had a good record:

In the late 1960s and early 1970s, however, the inspections lost their importance and were not taken to be a serious duty of the PBO. There were two basic reasons for this change. First, the decision-making regarding the development projects became more personal. The PBO's involvement in the detailed technical matters of the development projects had come to be viewed as an obstacle to their completion... The second reason for the decline of these inspections was the shortage of qualified personnel to inspect the large number of projects that came on stream in the 1970s.\textsuperscript{105}

Like Katouzian, Razavi and Vakil place emphasis on the tendency towards token modernisation. For example, an expensive network of computers was installed in the informatics division of the PBO, but it did not promote efficient working patterns, nor did it create its own demand, as hoped. According to Razavi and Vakil, the reason was that a good understanding of the planning process would have been far more conducive to efficiency than new computers. The planning process in Iran was not well understood by many of the division's personnel, in part because the process itself was uncertain and continually subject to revision. The computers, therefore, were inappropriate other than serving as a symbol of westernisation.\textsuperscript{106}

While Razavi and Vakil acknowledge the successes of the Fourth Plan (1968-72), they argue that it nonetheless laid down a set of development
patterns responsible for later economic trends. These included the sectoral imbalances of economic growth, the widening urban-rural gap, increased dependence on foreign imports and deterioration in the balance of payments. By 1972, the economy represented that of a consumption-oriented, largely urban, society with an explosive deficit in the balance of payments. Nevertheless, after 1973 the Shah pressed for big push industrialisation financed by oil revenues. Commissioned advice from the PBO was swept aside as being too pessimistic and in March 1974, the Shah summoned a number of PBO officials to whom he gave directives calling for a big push in investment, interspersed by a few key targets. This was a shock for the PBO officials:

instead of the presentations being given by the PBO officials, the government representatives were lectured by the Shah on his expectations for a modern Iran. The end result was not the hoped for dialogue backed up by prior research, but a compendium of directives, in various sectors, devoid of a time horizon. In a sense, the Shah dismissed the views of his technocrats and called for a Big Push. The question of feasibility did not enter the equation.

Razavi and Vakil delineate clearly some of the trickier political issues with ramifications beyond the domestic economy. At the meeting between the prime minister and PBO officials in July 1974, held at the northern ski resort of Gajereh, to discuss the type of revisions necessary given the Shah’s directives, the prime minister settled on an investment allocation far above that desired by the PBO but also below that requested by the government ministries. However, there was no discussion as to where to place those financial resources not to be used for domestic consumption or investment: ‘The lowering of oil production may, in retrospect, be judged as the best “might have been” policy, but it was never viewed as a politically feasible decision.’
The PBO believed that funds beyond absorptive capacity should be placed abroad. However, public pronouncements regarding instant wealth and a propitious economic future, inhibited the policy-makers in following a large-scale foreign investment programme, according to Razavi and Vakil:

It would have been difficult to justify domestically the export of financial resources when there was still such a crying need at home. Moreover, the industrialized countries themselves, still reeling from the OPEC oil-price victory, did not look kindly on attempts by Third World countries to buy out some of their major industrial enterprises. Thus, although the PBO seemed to have convinced the cabinet to reduce domestic investments in favour of foreign investments, the political pressures, internal and external, were already mounting for a reversal in direction.\(^{110}\)

Razavi and Vakil hold the view that the excessive spending sanctioned by the government as the foremost cause of Iran’s rampant inflation in the mid-70s. The 1974 budget, drawn up by the prime minister and other ministers in the absence of PBO officials, became a ‘carte blanche’ for spending:

The net result was, of course, an overinflated budget, designed with total disregard for the plan, and a strong blueprint for underwriting inflation . . . It seems hard to believe that the policymakers did not know what they were doing. Rather, one must conclude that under the political conditions in mid-1974, their only choice, other then resignation, was to underwrite an excessive spending programme and a large inflation.\(^{111}\)

In addition to inflation and supply bottlenecks, oil prices ceased to increase at the rate at which they had been forecast. The government was caught short and resorted to the international market for borrowing. By October 1976, the Shah ordered the government to economise in all areas, to finish off existing projects but to leave others until the Sixth Plan. Finally, Razavi and Vakil conclude that the high expectations of the early 1970s coalesced with the failures of the Fifth Plan - inflation, power shortages - and the Shah’s attempts to distance himself
from these failures by cracking down on industrialists and the bureaucracy as the perpetrators of inflation to form a movement of public discontent which finally overthrew the Shah.

The importance of Razavi and Vakil’s book lies in its first-hand experience of the practical limitations on formulating and implementing economic policy in an uncongenial political environment. Although in theory there may appear to be little conflict between a dictatorship and planning - the dictator can determine the appropriate strategy without having to be accountable to the electorate - in practice:

The advisors and technical counsellors of the dictator, instead of providing technical advice, have to make feasible the wishes of the dictator. . . Effective economic planning cannot take place in a such an environment. What results is a rigid top-down administration with little room for bottom-up corrective and innovative signals.112

The nature of Iran’s power structure, along with the character of the state, are considered by Hossein Bashiriyeh and Farrokh Moshiri.113 In The State and Revolution, Bashiriyeh describes the traditional Iranian state as being based on a patrimonial and absolutist power structure characterised by the absence of legal private property. The absolutist state began to crumble under the Qajar kings (1796-1925) partly due to lack of money. The reign of Reza Shah Pahlavi saw a return to authoritarianism but not traditional absolutism. According to Bashiriyeh, Reza Shah presided over a new social formation based on capitalism which incorporated the idea of freedom and rights within a civil society. This process continued under Mohammad Reza Shah with power relatively decentralised and the Majlis (parliament) enjoying some authority. Despite challenges to the Shah’s authority from 1941, the system continued
until 1962, which Bashiriyeh marks as a turning point in relations between the state and society.

The 1962 challenge was complicated by external factors such as pressure from the US to reform and so the Shah embarked on the White Revolution with certain aims in mind. Through the White Revolution, the Shah hoped to obtain a rural base of support and to effect a shift in the existing power bloc through a new economic policy. Instead of relying on the support of the landed and mercantile middle class, the Shah engineered a new alliance between the state and the modern bourgeoisie. The aim was to consolidate power through a corporatist political structure which was relatively independent from the dominant classes. The policy led to the rise of a new authoritarianism, according to Bashiriyeh, increased intervention in the economy and the protection of the industrial upper bourgeoisie at the expense of landed and commercial interests.\textsuperscript{114} At the same time, there was a drive towards incorporating the Iranian economy with the central capitalist economies.

In 1963, the New Iran Party was established and the Shah used it as a means of controlling all classes through a single state ideology. Bashiriyeh identifies five foundations on which the Shah had decided to base his regime. These were: state control of oil wealth; the success of the economic stabilisation policy; the creation of an equilibrium of classes through their economic control and through intervention in the economy; an alliance with the upper bourgeoisie as well as control of private enterprise; and an expansion of the coercive forces of the state coupled with a reliance on the US and the West for support.\textsuperscript{115}
Increased oil revenues in the 1960s also meant increased independence such that the Shah decided to establish trade relations with the former Soviet Union as well. On the domestic front, Bashiriyeh emphasises the importance of the benefits of oil wealth to the political system - 'The maintenance of economic stability was to be a major foundation of royal power'.\textsuperscript{116} By the same token, the sharp decline in the economy acted as a catalyst to the revolution. Bashiriyeh quotes James Davies' view of revolution with approval:

'Revolutions are most likely to occur when a prolonged period of objective economic and social development is followed by a short period of sharp reversal.'\textsuperscript{117}

In the two years after the oil price rises, argues Bashiriyeh, all sections of the public benefitted financially amid expectations that the affluence would continue. However, the inflation that set in from the end of 1974 ate into the large wage rises of the early 1970s, with the result that economic benefits began to be neutralised and social inequalities began to grow.

The reactive measures taken by the Shah, including the victimisation of the industrial class, the establishment of a one-party state and the sale of shares in industrial enterprises to workers only served to weaken the government’s base:

In the mid-1970s, although the court was the only hegemonic power, the deeper economic crisis [than the early 1960s] which was affecting the foundations of the regime prompted the emergence of a short-lived fascist phenomenon. . . The court attempted to extend the apparatus of class control by the imposition of a single new political party to mobilise the lower classes. . . The court was thus cultivating the image of being autonomous from the social classes. . . Previously the working class had had no political weight in the state ideology; it had been neutralised rather than antagonised. The new party was to increase this political weight and the previous party was denounced for not having given the working class sufficient attention. Thus, what emerged was a populist attempt, in the sense of the controlled activation of the lower classes on the basis of economic concessions in the form of some redistributive measures to transfer property from
one social class to another. As a result of these populist moves the clientelist relations which had obtained between government and opposition began to weaken.\textsuperscript{118}

The moves did little to check inflation and the worsening balance of payments situation. From 1977, according to Bashiriyeh, the government began to backslide on its populist policies to try to regain the support of the industrial classes. Thus, incentives were given to entrepreneurs to increase domestic investment and some important businessmen were given cabinet posts. This policy meant that the government fell between two stools, according to Bashiriyeh:

It became clear that the regime was launching a contradictory venture, seeking to fulfil fundamentally incompatible commitments. On the one hand it wanted to remove controls on free enterprise and to reserve the role of the bourgeoisie in the economy, and on the other it sought to interfere in the economy to prevent public dissatisfaction. In the end the regime satisfied neither the entrepreneurs nor the lower classes.\textsuperscript{119}

Bashiriyeh argues too that the attempts at economic liberalisation from 1977 were accompanied by a policy of political liberalisation largely induced by external pressures. While the Pentagon and the arms industries supported the Shah's policies, there was increasing criticism of US-Iranian relations as forged under the Nixon Administration, by the State Department and the oil companies.

Bashiriyeh therefore subscribes to the view that US policy towards Iran under Jimmy Carter departed from the stance adopted by the previous Republican Administrations.\textsuperscript{120} However, the differences between the two countries were patched up, argues Bashiriyeh, when the Shah visited the US in
November 1977. Carter praised the Shah’s leadership and promised to consider Iranian arms requests:

In return the Shah agreed not to press for higher oil prices, and although their discussion on the liberalisation policy was not made public, the Shah implicitly agreed to adopt a more liberal policy. After the visit, the Shah remarked that the 'small differences' which had existed between the two countries had been resolved and that his 'heart feels lighter'.

The economic policies of the 1970s also served to erode the five foundations of support, mentioned above, on which the regime had been based for over a decade. Oil revenues no longer afforded the state the same kind of freedom as before, when prices had been higher; economic stability no longer existed, while populist measures and punishment of the industrial classes signaled a dramatic change in policy as well as affecting established class patterns of access to the economy. Bashiriyeh, therefore, paints the picture of a state whose authoritarianism extended to bringing about its own downfall. While there were several causes behind the weakness of the government, he argues that the catalyst for its overthrow was largely a sharp economic decline following a period of relative economic and political stability.

Farrokh Moshiri also sees an understanding of the nature of the state as essential for an explanation of the revolution. He argues that mass discontent was created in the end by a contradiction in the goals of the state. On the one hand the Shah appeared to desire a progressive social system with a modernising economic system which would seem to be modelled on the Western liberal state. On the other hand, the political policies of the state were authoritarian and backward. This argument is similar to Abrahamian’s analysis of the long-term causes of the revolution:
the revolution came because the shah modernized on the socioeconomic level and thus expanded the ranks of the modern middle class and the industrial working class, but failed to modernize on another level - the political level; and this failure inevitably strained the links between the government and the social structure, blocked the channels of communication between the political system and the general population, widened the gap between the ruling circles and the new social forces, and, most serious of all, cut down the few bridges that had in the past connected the political establishment with the traditional social forces, especially with the bazaars and the religious authorities. Thus by 1977 the gulf between the developing socioeconomic system and the underdeveloped political system was so wide that an economic crisis was able to bring down the whole regime.123

Writing well after the revolution, Moshiri concentrates on the roots of religious power and influence in Iran and the relationship of the clergy to the state. The Pahlavis used Shi’ism, argues Moshiri, as part of an anti-communist, unifying design. Iranian opposition to foreigners meant that the clergy became identified with Iranian nationalism, which gave them popularity and influence.124 The impact of the West, both in terms of physical presence in Iran and value systems, also played an important role in delineating the nature of clerical opposition to the Shah. Moshiri argues that though the clergy was opposed to Westernisation, it was not opposed to modernisation or industrialisation. The last two concepts are Western-oriented but they do not affect the value system of a country as much as Westernisation.125 Since foreign influence stemmed from a government-encouraged Westernisation programme and since that government became more authoritarian after 1963, Moshiri believes that as in the nineteenth-century, the roots of clerical opposition lay in antipathy towards foreigners and absolutism.

Finally, Moshiri considers Ted Gurr’s concept of relative deprivation (the actors’ perception of the discrepancy between their value expectations and their
value capabilities\textsuperscript{126} and concludes that by the mid-late 1970s, relative deprivation existed for all the anti-monarchical forces, such as the migrant peasantry, the merchant and commercial classes and the intellectuals.\textsuperscript{127}

He also considers Theda Skocpol’s theory of revolution which he believes does not apply to the Iranian case.\textsuperscript{128} Moshiri argues that an essential part of Skocpol’s theory is the collapse of state power within society but in Iran this was not the case as the state was becoming more powerful and more efficient. From this it is clear that Moshiri takes a different view of the relative strength of the Iranian state from that put forward by Kamrava and discussed earlier.

Skocpol herself also believes that her theory of revolution does not apply well to the Iranian case.\textsuperscript{129} She may be a little too hard on herself in this respect. One of the theories put forward in her book is that revolutions are not caused by an ideological leadership mobilising a mass movement, i.e., revolutions are not made; they come. But in her afterthoughts on the Iranian case she sees a difference - ‘Their revolution did not just come; it was deliberately and coherently made, specifically in its opening phase, the overthrow of the old regime’. This seems highly questionable. The revolution is thought to have ‘begun’ in January 1978 with the deaths of 70 theological students in Qom in riots protesting at a newspaper article slandering Ayatollah Khomeini. Did these people then decide to ‘organise’ a revolution? They had been opponents of the Shah since the 1960s so why did a revolution not occur earlier if they were the revolutionary vanguard? Moreover, the revolution, like that of France, was a negative one in that the only clear desire was for the Shah to go. Beyond this, there was only the idea that a more just and democratic
society would emerge and little conception of what an Islamic republic meant. Each of the groups participating in the revolution followed their own leader, hence the accusation later that Khomeini 'hi-jacked' the revolution. To this extent, Skocpol's rush to rectify matters by putting Iran aside as a special cultural case because of the seemingly abstruse element of Shi'a Islam is a shame. The second reason why Skocpol believes she is 'wrong' where Iran is concerned is that there was no obvious weakening of the state through a war or outside pressure. Here, she is on firmer ground but it is the case that the US president, Jimmy Carter, did put specific pressure on Iran to improve its human rights record from January 1977. In June 1977, a group of politicians of the National Front wrote an open letter of protest to the Shah, itself an extraordinarily bold move at the time. Moreover, the economy was performing badly with inflation hitting the poorest hardest and weakening the state to the extent that it no longer seemed in control of the economy by 1977 and appeared under pressure from its main supporter.

The originality of Skocpol's theory of revolution lies in its emphasis on the need to adopt a structural perspective when discussing social revolutions. Special attention should be devoted to the international context and those developments at home and abroad that affect the breakdown of the state organisations of old regimes and the build-up of new, revolutionary state organisations. Furthermore:

All modern social revolutions must be seen as closely related in their causes and accomplishments to the international uneven spread of capitalist economic development and nation-state formation on a world scale.
The approach taken by Skocpol in emphasising the importance of the international context is a welcome one. Similarly, in this thesis, the big push phase of Iran's industrialisation attempt will be placed in a geo-political context to see whether it might produce a more rounded analysis of the subject. As the above summaries suggest, such an approach has not been undertaken in respect of Iran's industrialisation and an attempt will be made to rectify the balance in Chapter 5.

1.7 Summary

As we will see, the period under study was a crucially important phase not only in Iran's attempt to industrialise but also in the country's broader economic and political development. A four-fold increase in oil prices ushered in fundamental economic changes which helped contribute to severe imbalances in the economy ultimately culminating in revolution and the end of the 70-year reign of the two Pahlavi Shahs. The review of the literature has shown that most analyses of Iran's attempt at industrialisation during this period have tended to explain those economic distortions in terms of economic consequences and constraints or have adopted primarily domestic political economy arguments for the failure of the industrialisation drive. We will argue that the main motivation behind big push industrialisation was international in origin, stemming from Iran's political relations with the West. This has been a neglected factor. But it was Iran's domestic political structure, as an oil-rich dictatorship, which led to the manner of its implementation and to its disappointing results.
Endnotes to Chapter 1

4  Ibid., p.9
6  Ibid., p.8.
11  For a history of Iran this century, see Ervand Abrahamian, Iran between Two Revolutions (Princeton: Princeton University Press, 1982).
16  Those unwilling to join were told that they could take their passports and leave the country.
17  Gholam R. Afkhami, The Iranian Revolution: Thanatos on a National Scale, op. cit., p.64.
18  Quoted in Ervand Abrahamian, Iran Between Two Revolutions, op. cit., p.442.


Kamran Mofid, *Iran: Oil Revenues, Development Planning and Industrialisation - From Monarchy to Islamic Republic*, op. cit., p.318.


91 Ibid., p. 246.
92 Ibid., pp. 247-8.
93 Ibid., p. 249.
94 Ibid., p. 250.
95 Ibid., p. 266.
96 Ibid., p. 278.
97 Ibid.
98 Ibid., p. 325.
99 Ibid.
100 Ibid., p. 250.
101 Ibid., pp. 247-8.
103 Ibid., p.37.
104 Ibid., p.53.
105 Ibid., p.58.
106 Ibid., p.47.
107 Ibid., p.61.
108 Ibid., p.69.
109 Ibid., pp.72-3.
110 Ibid., p.73.
111 Ibid., p.79.
112 Ibid., p.149.
114 Hossein Bashiriyeh, op.cit., p.22.
115 Ibid., p.99-100.
116 Ibid., p.38.
118 Hossein Bashiriyeh, op. cit., p.91.
119 Ibid., p.99-100.
120 Ibid., p.105.
121 Ibid., pp.105-6. No references given for these statements.
122 Farrokh Moshiri, *The State and Social Revolution in Iran*, op. cit.
124 Farrokh Moshiri, op. cit., p.21.
125 Ibid., p.64.
128 Theda Skocpol, *States and Social Revolutions* (Cambridge: CUP, 1980).
129 See Theda Skocpol, 'Rentier State and Shi’á Islam in the Iranian Revolution', *Theory and Revolution* (Vol 11, 1982).
130 Theda Skocpol, *States and Social Revolutions*, op. cit., p. 19.
Chapter 2. The Process of Industrialisation

2.1 Introduction

'The industrially more developed country presents to the less developed country a picture of its own future' - Karl Marx, Das Kapital

The implied inevitability of a universal industrialisation in Marx's now famous dictum understates the efforts and undertakings of the less developed countries in their struggle to industrialise. The difficulties of successfully establishing an industrial base and manufacturing industries to contribute significantly to a country's economic growth and development have, at various intervals, given rise to disillusionment and even a scepticism regarding the utility of the industrialisation process.

This reaction is born partly of a slowdown in industrial production growth rates since the 1980s and partly of an increased recognition of the complicated make-up of the factors which promote development.\(^1\) Between 1963-1973 the annual average rate of growth of manufacturing output in the South was 7.8 per cent compared to 6.6 per cent for the North. The differential was even higher for manufacturing value added which grew by 6.7 per cent in the South between 1963-1979 compared to 5 per cent in the North. Between 1973-1979, manufacturing output in the South grew at 5.6 per cent per annum - twice the rate of the North. But, since 1980, the results have been disappointing and growth has been uneven.\(^2\) Hence the palpable sense of despondency in the United Nations Industrial Development Organization's annual global report of 1985. As a process
industrialisation, 'has not been automatic nor has it been free of crises, setbacks and conflicts. Industrializing is not an easy, natural process of just stepping on to an escalator going upwards. It has sometimes been rapid and sometimes painfully slow.'\(^3\) Despite its importance in raising living standards, the stresses and strains on society brought about by industrialisation as well as continued poverty or lop-sided development have raised many questions about the process. \(^4\) For some, the reaction against industrialisation is a reaction also against a Western, or Eurocentric, development model. \(^5\)

In 1987 the World Bank devoted its World Development Report to industrialisation. 'Practically all societies at early stages of their development have viewed industrialization as the main vehicle for improving living standards,' it wrote.\(^6\) Thirteen years later, the World Bank no longer accorded industrialisation the same place in the development process. According to its 1999/2000 report, industrialisation is no longer the main spur to growth. 'No one policy will trigger development,' it argues. The process of development has instead metamorphosised into a complex bundle of social goals. Achieving them is possible but is neither inevitable nor easy, according to the World Bank. 'Development thinking has evolved into a broad pragmatism, realizing that development must move beyond economic growth to encompass important social goals - reduced poverty, improved quality of life, enhanced opportunities for better education and health, and more.'\(^7\) Past development experience 'emphasises the need to reach beyond economics to address societal issues in a holistic fashion.'\(^8\)

The disillusionment is based on empirical results. Though economic growth
was an objective both in itself and in its effect on the economy - in W.W. Rostow's words, 'a powerful and essential engine of economic transformation'\textsuperscript{9} - it was also deemed desirable because even if it did not contribute directly to an increase in living standards for all, its fruits would eventually 'trickle down' to the poor. This though has not taken place\textsuperscript{10} and growth, in many less developed countries (henceforward LDCs) has remained concentrated on an enclave of organised urban industry - an enclave with relatively limited links with the surrounding economy. It is this same enclave nature of industrialisation that has also been, in part, the cause of its failure to create employment on the scale that had been hoped for, of which more later in this chapter.

In the 1970s when Iran was gearing up to its big industrialisation push, there was no question that industrialisation, as in many other developing countries, was the policy pillar on which the modernisation and development of the country would rest. In this context it will be useful to attempt to reassess the objectives set by policy-makers for industrialisation. If industrialisation has failed to meet these goals, is it because these were either too ambitious or inappropriate? Secondly, a distinction has to be drawn between the failure of a successful industrialisation policy to achieve these objectives and an inherently unsuccessful industrialisation attempt. In other words, a failure to industrialise must be distinguished from a failure to achieve the aims set for it.

We will consider first the concept of industrialisation and ways of measuring it. It will then be necessary to discuss the goals of industrialisation, primarily within the terms posed by a distinction between industrialisation and development. This
will also include reviewing arguments regarding the possibility of a less developed country being able to industrialise at all, as dependency theorists maintained. The final part of the chapter will be devoted to a discussion of the different strategies involved to achieve industrialisation, including import-substitution, export-orientation, theories of the 'big push' and balanced growth, all of which are especially pertinent to the case of Iran. We shall also consider the role of the state in the industrialisation process and the special case of oil-exporters.

The purpose of this chapter, then, is to introduce some of the concepts used in later chapters when discussing Iran's industrialisation efforts. It may be noted that some issues relevant to a general discussion on industrialisation will not be fully treated (for example, strategies of combating shortages of capital), if they are not relevant to the case of Iran.

2.2 The meaning of industrialisation

At the simplest level, industrialisation has, as its central characteristic, machine production. Historically, it has shifted the balance of productive activity from agriculture to industry. Industrialisation represents a form of productive technique based on improved methods of producing wealth not only in manufactures but also in agriculture and mining. It is closely associated with an increase in the scale of production, with the development of capitalistic methods of manufacturing and marketing and with the employment of wage labour - though both capitalism and wage employment predate industrialisation.

When it first emerged in Europe in the middle of the eighteenth century,
Industrialisation was the outcome of a long and complicated historical development which began to replace commerce as the main force of economic life. The main advantage, and objective, of an industrially-based economy is that it reduces the real cost per unit of producing goods and services. This is the opposite of handicraft production, which obeys the law of ‘constant cost’, whereby producers are unable to produce more cheaply in the face of rising demand because the need for additional workers to meet demand would not necessarily lead to reduced overall cost.

Industrial development can be recognised not only in the volume of output but also in a country’s system of economic organisation. In an ‘industrial society’ all aspects of the social structure have some degree of standardisation, while the workforce comprises so many specialised areas which result in a varied set of final products. Much has been written about the social effects of industrialisation but the point to note here is the Industrial Revolution was the outcome of social as well as economic and technological forces. This contrasts with industrialisation as embarked upon by LDCs, which apply primarily economic inputs to a given social situation. To this extent, the process of industrialisation now signifies a very different form of development from that which took place at the end of the nineteenth century.

2.3 Measuring industrialisation

Indicators of industrial development may be represented in the form of statistics, while others are nonquantifiable. The importance of the social context, as well as the structure of economic organisation, has been mentioned above. These play an
important part in determining not only the degree, but also the form, of industrialisation. They also provide the context for statistical indicators, which in themselves, may not prove consistently meaningful.

The difficulties of producing standardised data on statistical indicators of industrial development have been discussed by Simon Kuznets, Bela Balassa, Helen Hughes and Vinod Prakash, amongst others. It is not the purpose of this analysis to enter the discussion, but merely to draw attention to the shortcomings of relying solely on quantitative methods to determine industrial development. Nevertheless, statistical data will be used to determine levels of output and to provide a comparative basis for the years under study but it will be borne in mind that they do not, on their own, measure fully the degree of industrialisation. Non-statistical indicators pertaining to Iran, which include the political and economic environment will be discussed in Chapters 3 and 4. It is necessary now to determine the statistical indicators that will be used in this study.

The term 'industry' will be used to cover manufacturing activities only (unless otherwise indicated); this is in line with the definition given by the United Nations' International Standard Industrial Classification (Rev. 2) Major Division 3. Economic activities such as mining, construction, electricity, gas and water will not be included. Most indicators of industrial development signify some aspects of manufacturing production or trade in manufactures. The products are usually classified by major sectors of production and the breakdown of manufacturing into light and heavy industry or capital and consumer goods. Though growth and output can be measured in this way, it becomes difficult to distinguish different activities
within a given branch of industry. For this, activities need to be examined according to their stage of processing, that is, in terms of primary, semi-finished and finished goods.

The Centre for Development Planning, Projections and Policies of the UN Secretariat takes the share of manufacturing activity in the total gross domestic product (GDP) as the indicator of the relative stage of industrialisation. The same study characterises the industrially more advanced countries as those in which the manufacturing sector accounts for roughly 17 per cent or more of GDP. Other studies calculate the ratio of value added in manufacturing to GDP or gross national product (GNP) - indeed this is the standard measurement. It is applied by the UN in a well-known study using H.B. Chenery's multiple regression technique to determine a set of indicators regarding the level and composition of manufacturing industry in relation to the general level of economic development of an LDC. Similarly, UNIDO uses the composition of manufacturing value added as the main indicator of manufacturing output in order to estimate the relative degree of industrialisation in various countries.

Vinod Prakash following the study for the International Bank for Reconstruction and Development by Helen Hughes and Bela Balassa uses the ratio of value added in manufacturing to value added in commodity production as an indicator of industrialisation. Recent trends in outsourcing have led to some activities previously classified as manufacturing to be designated as services. But this is of relevance to mature economies and not to Iran in the period under study.
Commodity production is defined as the sum of agriculture, fishing and forestry, manufacturing, mining, electricity, gas and water and construction. This measure is preferred by Hughes because:

Typically, the share of manufacturing output in total output first rises and then declines because the traditional service sector, high at early levels of development, falls in importance as industrialization and overall development proceed. Then, as high levels of per capita income are reached, new services such as advertising and tourism become important.19

There are drawbacks with expressing manufacturing in terms of commodity production. For example, in countries with a large agricultural sector, manufacturing sectors will be under-represented even when they are substantial. Conversely, it will be exaggerated in countries which protect the industrial sector, since this tends to be valued above international price levels in national accounts systems whilst most primary production is usually priced at international levels. It does, however, 'provide convenient cut-off points for ordering countries according to four levels or categories of industrial development'.20 These are listed as the industrialised; semi-industrialised; industrialising, and non-industrial countries, in which the share of manufacturing in relation to value added in commodity production is defined, respectively, as more than 60 per cent; 40-60 per cent; 20-40 per cent, and less than 20 per cent.21

Though this is a fair measure for use in comparative analyses, it is not the best indicator of industrialisation within a single country. It is particularly not suited to Iran, where industry was heavily protected and the agricultural sector was shrinking. Therefore, the main indicator used by this study will be the conventional
one, that is, the share of value added in manufacturing in GDP. In addition, where figures are available, the level of industrial development will be represented also by the annual per capita level of value added in manufacturing. This measure is the conventional one for representing labour productivity and, taken with various inputs, such as levels of investment, it can be used to indicate the efficiency of industry. Finally, the gross output of manufacturing is also useful, since it can be used to estimate the supply of manufactures to determine effective protection (if nominal protection is known) by calculating the ratio of value added to gross output in manufacturing.\textsuperscript{22}

These, then, will be the three indicators used to determine quantitatively the level of industrialisation in Iran during this period: the share of value added in manufacturing in GDP; the annual per capita level of value added in manufacturing, and the gross output of manufacturing.

In conclusion, it should be mentioned that Iranian industrialisation will not be measured against some arbitrary (or objective) criterion whose conditions need to be fulfilled in order to determine whether the country is industrialised or not.\textsuperscript{23} Instead, Iran’s industrial sector will have to be measured both against the objectives that the government sought to attain and against reasonable expectations of performance for such an economy.
2.4 The role of growth

Can we measure the success of industrialisation in terms of manufacturing growth rates? The objectives of industrialisation will be examined in the next section but one motivating force for LDCs is the hope that industrialisation will lead to more rapid rates of economic growth which will eventually lead to a higher standard of living for the population. This was certainly the main view when many of the LDCs started their plans for industrial expansion in the early 1960s.

The statistics for growth rates during the 60s and 70s for the LDCs are impressive; by the 50s, the LDCs had overtaken the developed capitalist world in growth of manufacturing and, in the three decades after the end of the Second World War, manufacturing grew at an average of 7 per cent a year in comparison with 5 per cent for the industrialised countries. The share of the GDP of low-income countries arising in the industrial sector rose from 25 per cent in 1960 to 34 per cent in 1981, and for manufacturing the rise was more modest, though still large, from 11 per cent to 16 per cent.

Iran, in particular, experienced high growth rates. The annual average GDP growth rate rose from 5.6 per cent (1959-63) to 11.5 per cent (1963-72) and then to 12.6 per cent (1973-77). For the period 1951-69, Iran's annual average rate of growth of manufacturing was 11.2 per cent. These growth rates exceeded the expectations of many economists and led some writers to see this development as past of a process leading to the lessening of dependence of the LDCs on the developed world and consequently, to a more egalitarian distribution of power internationally at a much faster rate than was ever thought possible. Nevertheless,
by the mid- to late-70s, it was clear that the high growth rates did not, for many countries, signify the hoped-for prosperity.\(^{29}\)

The main reason is that growth rates only measure production which is simply one aspect of economic development. Dr Ali Attiga, secretary-general of the Organisation of Oil-Exporting Countries (OPEC), emphasised the dangers inherent in equating rapid growth with rapid development, particularly when it is caused by the export of a valuable commodity:

A rapid increase in oil income tends to accelerate internal socio-economic conflicts in all directions. It also gives rise to rapid economic growth which is easily mistaken for real economic development. Perhaps this illusion is the most serious obstacle facing economic planners in the oil-exporting countries.\(^{30}\)

As Gunnar Myrdal has argued, GNP as a measure of production is often calculated in an arbitrary way and can give a misleading idea of what is being presented.\(^{31}\) Some income items, for example, represent expenditure that is caused by an undesirable social situation, such as the costs and losses arising from the existence of slums or, in the case of the US, a high crime rate.\(^ {32}\) For Myrdal, the attempt to be precise can only be deceptive, because of the deficiencies in statistical measurements: ‘The very idea that it should be possible, even if only for one set of factors in development, viz., production, to characterize the situation in a country and its change by an index is logically invalid’.\(^ {33}\)

The attempt is made more valid, though, when examining particular items under the level of GNP, ‘if the items have been defined properly . . . It is the aggregation into a total figure for production we have to watch against’.\(^ {34}\) What
Gunnar Myrdal has highlighted is the distinction between growth and development - the one does not necessarily reflect the other.

UNIDO has also drawn attention to the dangers of equating the two. In World Industry since 1960, it states: 'economic growth is an imperfect indicator of social well-being for a number of reasons. The growth rate of GDP is based on market prices, which studies have shown to be poor indices of social value'. This is mainly because of distortions in market prices which can, for example, exaggerate the contribution of an import-substitution industry when the goods are measured in domestic market prices instead of world market prices: 'In some instances such industries may even contribute negative value added, in the sense that measured in world prices the value of imported inputs used by an industry may exceed the value of that industry's outputs'. Since Iran chose a policy of import-substitution to implement industrialisation, this point is relevant.

Rapid growth will not always indicate increased well-being for the population. Arthur Lewis noted it was possible for output to grow yet for the mass of the people to become poorer. Similarly, a high rate of manufacturing output in an LDC can reflect a small industrial base, a fact which has to be borne in mind when considering the country's industrial achievement. The ambivalent nature of growth was well-noted by Lewis:

Economic growth is only one thing among many, and we can take it to excess. Excessive growth may result in, or be the result of, excessive materialism, excessive individualism, excessive mobility of population, excessive inequality of income or the like . . . . It is because economic growth has both its gains and losses that we are all almost without exception ambivalent in our attitudes towards economic growth.
Mancur Olson has argued that rapid economic growth can imply a worsening situation in income distribution which could lead to disruption. Economic growth comes about not through simple capital accumulation, but through innovation and technical change. This involves great changes in methods of production and, in a rapidly growing economy, in the distribution of income:

... economic growth increases the number of nouveaux riches, who may use their economic power to change the social and political order in their interest and . . . economic growth may paradoxically also create a surprisingly large number of 'nouveaux pauvres' who will be much more resentful of their poverty than those who have known nothing else.'

The 'losers' in such an economy, for example, those unskilled labourers made redundant by the introduction of modern technology, are a potentially destabilising social force but the 'gainers' can be equally disruptive. Olson argues that because many of them have had to uproot themselves from their community to find work in the towns, they may feel alienated from society. In addition, individuals who gain can find themselves in an economic position at variance with their position in the old social hierarchy. Such social dislocation can be very disruptive especially since it involves the growth of cities which are, in effect, a unit of organisation in which new ideas can spread rapidly and revolts can be led.

Olson concludes: 'there is no necessary connection between rapid economic growth and short-run increases in the incomes of the mass of the people. And even when the incomes of the mass of the people are increasing, it does not follow that their standards of living are increasing, for the increased rate of saving concomitant with economic growth may reduce the level of consumption'. It should be
emphasised that Olson's discussion is on the short-run effects of rapid economic growth; he concurs with the view that, in the long-run, high rates of growth are beneficial and can provide a higher standard of living.

None of this is to deny that economic growth can play an important role in a country's economy but to highlight that high rates of growth should not immediately be equated with greater prosperity or development. The causes of the growth, or the costs incurred in achieving high growth, should be examined first before such a conclusion can be drawn. The discussion is particularly relevant to the case of Iran which enjoyed rapid rates of growth followed after a relatively short period of time by political destabilisation. Some economists point to the impressive growth rates achieved under the Shah as evidence of the economy's strength but as discussed above, high growth rates cannot be taken at face value. When examining Iran's growth rate, whether in GNP or manufacturing, we shall have to consider the extent to which that growth reveals real progress as well as its impact on society.

2.5 The objectives of industrialisation: economic development

As we have seen, industrialisation has to be distinguished from the idea of economic development. The term 'development' signifies primarily qualitative change in the society, economy and institutions of a country; 'economic development' denotes similar progress in the economy alone. Since industry refers to one sector of the economy, industrialisation is one contributor to economic development - it cannot be expected to bring about the desired changes in isolation. The processes involved in achieving economic development are complicated, as
mentioned above, depending not only on economic inputs, such as natural resources, capital and labour but also on the social structure and attitudes of people.

Industrialisation was given pride of place in early development literature. When the less developed countries gained their independence in the 1930s and 1940s, they tended to assume the main reason for the underdevelopment of their economies was the low proportion of national income derived from manufacturing and service industries compared to wealthier countries. Thus industrialisation came to be regarded as the main impetus to development. Bela Balassa wrote in 1980: ‘the development of manufacturing industries is part and parcel of overall economic development’. A prosperous and diverse economy is likely to have a strong industrial sector but it has long been recognised too that there are exceptions to the pattern. Simon Kuznets, the Nobel prize-winning economist for his work on measuring the growth of national incomes in developed countries, found a high positive correlation between the size of per capita income and the contribution of manufacturing to total income but noted some important exceptions. Yugoslavia, for example, which derived 42 per cent of its income in 1961 from manufacturing and mining, was one of the poorest countries in Europe. By contrast, New Zealand had the sixth highest level of per capita income in the world in 1961, though it derived 22 per cent of its income in almost equal parts from agriculture and industry.

Jacob Viner, in an attack on those whom he saw as identifying agriculture with poverty also cited the examples of New Zealand, Australia, Italy and Spain as refutation of these ‘mischievous fantasies’. He thought it was a fallacy to
suppose that agriculture and poverty went hand in hand and that industrialisation would necessarily lead to wealth. The most promising field for rapid economic development, he believed, lay in agriculture. Writing in 1953, before Kuznets’ study, Viner was scathing about an article using similar methodology to show that the higher the proportion of the population in secondary and tertiary industry manufacturing services and professions, the higher per capita incomes. He questioned in particular the use of per capita incomes as a measure of the effects of income derived from industry:

I feel confident that if the data were available, it could be demonstrated that the positive correlation between the percentages of the national populations who were dentists or hairdressers and the national per capita incomes was even higher than Bean’s correlations. If we followed his logic, we would take this as a demonstration that the way to cure poverty is to increase the number of dentists and beauty parlours.

Agriculture may be the way forward for some countries but notwithstanding Viner’s scepticism, industrialisation is still held to be the important element to aid economic development. There is however, a greater appreciation that the manner in which it is implemented is important to its ultimate efficacy and that it no longer is the key to development but one of a number of important factors, as noted by the World Bank, above.

2.6 The objectives of industrialisation: labour absorption

A second objective of industrialisation was the belief that it would provide employment for the growing populations of the less developed countries. This was due to the notion that the marginal rate of return in agriculture was low due mainly to the ‘stagnant’ nature of agricultural production and the problem of land shortage.
in the face of population pressure. Agriculture would then be unable to absorb excess labour but the industrial sector, as a dynamic and growing force, would be able to relieve the problem of under-employment. In fact, manufacturing has provided little scope as a significant employer of labour, though mining and construction offer more in terms of employment opportunities. The reason is usually cast in terms of an attack on the techniques of production used by the LDCs for using capital-intensive rather than labour-intensive methods. But,

even in the relatively labour-intensive and rapidly growing industrial sectors, manufacturing has provided for only a small proportion of total employment, at a far slower rate of growth than that of industrial output. Much of the impact of industrial growth on employment has been indirect, through activities that serve industry.

Helen Hughes nevertheless noted that the industrial sector could have a direct impact on employment through the establishment of small-scale enterprises using labour intensive methods and the production of mass consumption goods. The drawback of an excessive reliance on these methods though is that they could affect growth adversely and become a source of inefficiency by ignoring economies of scale. A trade-off is therefore required between the predominantly capital- and labour-intensive industries, or else agriculture has to be re-examined as a source of employment. We will examine the role of agriculture in industrialisation later in this chapter.

In some ways, the assumption that industry would be able to use the same labour that worked on the land was unrealistic. This is not simply because of the need for skilled labour in some parts of industry but also because industrial labour in the sense of what Alexander Gerschenkron called a ‘stable, reliable and
disciplined group' is scarce in the LDCs and the creation of such an industrial labour force is a difficult and protracted process.

2.7 The objectives of industrialisation: political independence

The political arguments in favour of industrialisation have always been at least as important as the economic ones, particularly the desire for economic independence as a means of asserting national independence or importance. For Iran, industrialisation was to be the main driving force behind the establishment of what the Shah termed the ‘Great Civilization’;50 the Shah repeatedly stated his aim was for Iran to become the world’s fifth most industrialised nation before the end of the century. By implication, that would also make it the fifth most powerful.

The pursuit of this aim included great emphasis on defence and on military power. A similar motivation to industrialise can be seen in many other LDCs, for example, in Brazil and Argentina where the military have played an important role in the political system. The same drive lay behind the major industrialisation efforts of Russia, Japan and Germany with the concomitant characteristic that the state played a leading role, or at least provided the impetus for the industrial process.51 In W.W. Rostow’s phrase, this can be seen as a form of ‘reactive nationalism’ whereby states react to international political competition to achieve industrial transformation.52 This similarity in motivation has caused at least one writer to assert: ‘Thus, at bottom, the motivation for rapid industrial change is almost invariably of a military nature’.53
Following Gautam Sen’s argument, the industries which are then established in an industrialising country tend to be more or less the same. These ‘industrialising industries’ are often pursued because of their complementarity - the products of each can serve as an input for the others. They are also inputs for the final products in the consumer goods sector. So, although they can be considered strategic for achieving economic independence, Sen notes that they are of strategic significance too, for the production of military goods. Six industries form this strategic set, according to Sen. These are iron and steel, chemicals, textiles, machinery, paper and paper products and transport equipment. Successful implementation of these industries is necessary to economic growth to such a degree that: ‘industrialisation can be interpreted as the process by which these industries become established in an economy’. This argument has relevance for Iran and will be reconsidered later.

Fear of industrial backwardness in a world of industrially and militarily advanced nations prompts the state to intervene. For Gerschenkron, successful industrialisation required a strong state. The role of the state was crucial if ‘backward’ economies were to catch up with industrially advanced countries. In Russia, ‘the state, moved by its military interest, assumed the role of primary agent propelling the economic progress of the country’. The rate of economic development increased when military necessities were pressing and subsided at other times, according to Gerschenkron, thus underlining both the role of the state and the power of military motivation. We shall consider the role of the state in fostering industrialisation later in this chapter under section 2.9 Contending strategies of industrialisation.
2.8 Industrialisation: the political context

For structuralists such as Rostow, Lewis and Chenery, successful industrial development lay in embarking upon a process which included achieving the correct mix of financial and economic conditions. Dependency theorists, however, recognised the importance of the political context in - mostly - hindering economic development. Dependency theory is mainly the search for an explanation as to the continuing state of poverty in the LDCs and their poor development record. But it also makes a contribution to the debate on industrialisation and offers an explanation regarding the political motivations of government by separating the interests of the government in an LDC from that of the population as a whole. Dependency theory attributes the inability of LDCs to become economically and nationally independent to features in the international political system instead of the implementation of an inappropriate strategy of industrialisation.

What, then, is it to be dependent?

By dependence we mean a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected. The relation of interdependence between two or more economies, and between these and world trade, assumes the form of dependence when some countries (the dominant ones) can expand and can be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion, which can have either a positive or a negative effect on their immediate development.

The slowness of countries to develop or modernise themselves is seen as a consequence of the expansion of capitalism in the world. The theory is diametrically opposed to that of Peter Bauer's, for example, which seeks to explain
underdevelopment in terms of deficiencies in the indigenous characteristics of the LDCs.\textsuperscript{57} Dependence existed during three different eras: colonial, financial-industrial and, since the Second World War, technological-industrial, to use Dos Santos’ terminology. It is this last which is of interest here.\textsuperscript{58} This new dependence, according to Dos Santos, is still part of a system of international economic relations based on monopolistic control of large-scale capital and on a monopoly of complex technology, leading to unequal development at a national and international level. There are three important characteristics of this new dependence. The following is a paraphrase of Dos Santos’ argument. Firstly, industrial development is dependent on an export sector for the foreign currency necessary for the purchase of the inputs needed by the industrial sector. This means that the traditional export sector has to be preserved even though it means the perpetuation of backward relations of production. (This would be of greater relevance to Iran if her export earnings had been predominantly from the traditional exports of dried fruit and carpets.)

Secondly, this means that industrial development becomes strongly conditioned by fluctuations in the balance of payments. The relations of dependence continually cause the LDC to be in deficit due to deteriorating terms of trade,\textsuperscript{59} the repatriation of capital derived from foreign investment\textsuperscript{60} and the consequent need for even more foreign capital to cover the deficit and to finance industry through loans. Thirdly, industrial development in the LDCs is strongly influenced by the monopoly that the imperialist centres have over technology. The goods and machinery needed by the LDCs are usually patented by the big companies and are sent to the LDCs in the form of investment rather than sold to them outright: ‘This is how machinery which is replaced in the hegemonic centers
by more advanced technology is sent to dependent countries as capital for the installation of affiliates.\textsuperscript{61}

This ‘dependent structure’ obviously has effects on the productive structure within the LDCs. According to Dos Santos these are the need to conserve the agrarian or mining export sector, which results in the main centres of the country exploiting the backward areas such that: ‘the unequal and combined character of capitalist development at the international level is reproduced internally in an acute form\textsuperscript{62}; the industrial and technological structure that does emerge in the LDC is more responsive to the interests of the multinational corporations (MNCs) than the internal needs of the country\textsuperscript{63} and finally, the wholesale transfer of the technological and financial methods of the developed countries to the LDCs does not take into account their very different economies and causes a highly unequal productive structure to develop, with a high concentration of incomes and the under-utilisation of installed capacity.

Such a productive structure leads to a highly unequal distribution of income and high prices for industrial products which have been protected and subsidised by the government. It also limits the growth of the internal market. This is because the exploited labour force’s purchasing power has been reduced, few jobs are created in relation to the growth of the population because of the use of capital intensive methods in industrialisation, thereby limiting the generation of new sources of income. The profits which are sent abroad, carry away with them part of the economic surplus generated within the country. For all these reasons, the creation of basic national industries to establish markets for capital goods is limited.
For Dos Santos, as for most other dependency theorists, dependency came about because of the way capitalism developed. Arguments that the development of the LDCs are stimulated by contact with foreign capital are, therefore, held to be erroneous. Indeed, Andre Gunder Frank termed the phrase 'the development of underdevelopment' to reinforce the idea that the LDCs became underdeveloped through their participation in the process of world capitalist development. The structural influences generated by such contact have to be understood in terms of a metropolis-satellite relationship, according to Frank. The satellite state sucks economic surplus out of its own satellites and channels part of it to the world metropolis, of which they are all satellites. The national metropolis maintains the structure of monopoly and exploitation of the whole system. For Frank, it follows that the greatest economic development of the LDCs takes place when their ties to the metropolis are at their weakest such as Argentina, Brazil and Mexico during the Depression and the Second World War. Conversely, the most underdeveloped nations are those that have had the strongest links with the metropolis in the past.

The language of 'structure' is used to show just how embedded this system of unequal exchange is, as well as to emphasise the impossibility of changing it through conventional measures, since the rulers of the LDCs share interests closer to those of the metropolis than their own populations. According to Baran, this is because the 'bourgeoisie' in the LDCs is underdeveloped having not been part of a capitalist structure; poor and fearful of socialist revolution: 'they sought nothing but accommodation to the prevailing order.' The fear prompts such governments to ask for aid from abroad 'in order to stave off the impending disaster' and though
such aid promotes some economic progress, it cannot bring about real development since that would require domestic changes at odds with the interests of the ruling classes. In effect, such aid reinforces those social and political systems which are hostile to development.

For Frank, development within the system has little meaning, while for Baran a certain, though basically ineffectual, measure is possible. Wallerstein regards development as a zero-sum game: ‘Of course some countries can develop. But the some that rise are at the expense of the others that decline’. All these writers share an extremely pessimistic view of the possibility of capitalist industrialisation in the LDCs. Even the seemingly successful industrialising countries such as Japan and the south-east Asian ‘tigers’ are dependent on foreign markets for their exports.

Neo-classicists would find it hard to regard free trade as sinister. For them, dependence on market forces is not ‘bad’. A successfully industrialised country may ultimately achieve some form of self-reliance in the long-run but a certain degree of dependence is inevitable in the short-run; the extent of this dependency is determined, amongst other things, by the policy of the government and the relationship that it has with the economically advanced nations. Even the industrialised countries of the West began their industrialisation through a measure of dependent development. Gilpin writes: ‘Every developed country, including the United States and Japan is an example of dependent development and Japan remains a highly dependent country on foreign markets and raw material.’ He argues further that a clear distinction must be made between dependence and underdevelopment and that it is a common mistake to assume the first causes the
The less developed countries have a high degree of dependence and continue to be vulnerable precisely because they are underdeveloped. The lack of an effective and appropriate development strategy to overcome this situation is most important in holding them back. Their foremost problem is not external dependence but internal inefficiency.\(^7\)

But for dependency theorists neither political nor economic independence can be gained through a process of capitalist industrialisation. Instead the LDCs need to cut themselves off from the industrialised world and pursue a non-capitalist road to industrialisation that would, of necessity, be autarkic. R.B. Sutcliffe, who advocated a similar strategy in his book, *Industry and Underdevelopment*, later dissented for two main reasons.\(^7\) Firstly, the example of Soviet industrialisation regarded by most dependency theorists as the model to be emulated by the LDCs, was based on certain political realities, namely, Stalinism:

I have always believed that in some sense Stalinism held back rather than advanced the development of the Soviet Union by imprisoning the creative endeavour of the majority of its citizens. But I do not think that means that economically the same process would have been possible in a more humane environment. The kind of nationalist industrialisation which took place in the Soviet Union in some ways required the politics which went with it.\(^7\)

Hence, Sutcliffe argues, dependency theorists use socialism to bring about the separation of states from the international capitalist economy rather than as a means to establishing social justice. In this way, socialism as a euphemism for nationalism is debased. Secondly, the evidence of the 1960s and 70s showed that: ‘a form of industrialisation has been taking place in quite a widespread manner. But in many countries it is composed of different elements which are not homogenous and do
not unambiguously represent economic modernisation'. Instead:

what seems to be happening is that modern industry is growing at high
and rising productivity levels and at the same time small-scale, more
primitive industry survives at low, possibly declining productivity levels,
but provides a meagre living for a growing share of the people. What
may be occurring therefore is a process of internal polarisation, one
which is more complex and more extreme than I envisaged when writing
Industry and Underdevelopment and one which is very different from
what took place in the successful industrialisations of the past.

What is important to note here is that industrialisation takes different forms
and produces different results or effects. Dependency theorists, perhaps more than
anyone else, have measured industrialisation in terms of their definition of
economic development. But this is not helpful to an assessment of the degree of
industrialisation in a country for two reasons.

Firstly, industry is only one (non-qualitative) input towards the search for
economic development. Secondly, the characteristics of an economically
developed society are not universally agreed upon, except in a very general sense.
For dependency theorists, however, an economically developed society is a socialist
one in which the distribution of income is fairly equal; for others it is the
establishment of an extensive welfare state, for yet others it is a flourishing free
market and 'equal opportunities' that count. The relative merits of each of these
societies is not at issue here. What is at issue is that if industrialisation does not
conform to one definition of economic development, then the proponents of that
definition may discount completely what industrialisation has taken place. The
extracts from Sutcliffe illustrate this; industrialisation in the LDCs has not resulted
in a fairer distribution of wealth and therefore (since industrialisation is being
measured in these terms), that which has taken place has not been recognised by the dependency theorists. This is the danger, then, of judging a value-free concept such as industrialisation, in terms of qualitative results. In a nutshell, industrialisation without development is possible.

Is it really the case, though, that industrialisation can be regarded as a value-free concept? It is necessary here to distinguish between industrialisation as a means to an end and industrialisation as an end in itself. The lesson of dependency theory is that when measuring the degree to which a country is industrialised or the success of a certain industrialisation strategy, the industrial sector needs to be judged solely on its achievement of the quantitative objectives set for it. For this purpose industrialisation has to be seen as an end in itself. It is here too, that the strategy adopted needs to be considered since this determines the form that the industrialisation process takes.

It is clearly the case, though, that when a country decides to industrialise, it is not industrialising for industrialisation's sake, but because there are certain goals it assumes industry will help to attain. It is at this point that industrialisation becomes a means to an end. But to what end is industry to be the sole means?

From what has been said about the goals of industrialisation, the ends in question are both economic and social. The attainment of the economic ends depends not only on the industrial sector but also on the other sectors of the economy and the strategy adopted. By itself, industry cannot achieve economic growth and industrial progress depends on all-round progress in the economy.
According to UNIDO:

It is essential to recognize that, while the industrial sector may be the most dynamic sector in the economy, the way to industrialisation and thus to the transformation of society and the fulfilment of social and economic objectives is very long indeed and involves a highly complex process. Furthermore, industry does not operate in a vacuum. If development is to entail the transformation of a present economic structure into another characterized by higher efficiency, diversification of output and social justice, the role of industry, although certainly central, is just one of many complementary roles to be played by all sectors. This is a crucial point to remember, since industrialization has been regarded so far by many developing countries as a separate effort.

In broad terms, the economic ends of industrialisation are the means by which a country acquires wealth. What a country then does with this wealth is usually seen as the social objective of industrialisation. Put in this way, it should be clear that industrialisation has little to do with social equality, well-balanced regional development or even higher levels of employment. It is government policy which, over and above everything else, affects these things. Therefore, the success or failure of realising social objectives cannot be a reflection of the strength of industry in a country.

The policy of the government towards industrialisation might affect these things but this is different from saying that industrialisation has caused this or that social phenomenon. For example, a government may decide to build a factory in the countryside in order to increase employment opportunities there and to stem the flow of workers to overcrowded cities. It may also hope that this will also bring about a better distribution of wealth in the country. But the factory's success would have to be measured as an end in itself, i.e., in quantitative terms. It would be incorrect to base its success on the numbers of workers it employed (output might
be just as high with half the number of workers intended for it by the government), or on the continued tide of workers to the cities (population growth could be at ever increasing rates). Similarly its success cannot be gauged in terms of the living standards of those resident in the same area (managers of the factory might be living well at the expense of the workers).

The attainment of the social objectives is a byproduct of a successful industrialisation strategy. If the social objectives are of over-riding concern, it may be the case that industrialisation is not the best way of attaining these. Or it may be that the establishment of heavy industry or a rapid pace of industrialisation are not suitable and that a policy of small-scale industrialisation implemented gradually might be more successful. The strategy adopted, then, is of overwhelming importance to the success or failure of industrialisation policy and must always be considered regardless of whether industrialisation is being considered as an end in itself or as a means to an end. As noted by Paul Streeten:

The disenchantment with industrialization in recent writings and speech is based on a confusion: it is a disenchantment with the form that economic growth has taken in some developing countries and with the distribution of its benefits...Much of the recent criticism of inefficient, high-cost industrialization behind high walls of protection and quantitative restrictions should be directed at the types of product and of technique which cater for a highly unequal income distribution and reflect entrenched vested interests. It is in no way a criticism of industrialization for the needs of the people.77

To conclude, dependency theory holds that many developing countries have found that to arrive at some form of self-reliance through industrialisation, they need the help of the economically wealthy countries. Such assistance can take the form of economic aid, technical assistance and training and foreign investment.
This has led to a situation in which the process of industrialisation creates new forms of dependency on the industrially-developed world - instead of being suppliers of raw materials, the LDCs become consumers of imported technology. While remaining economically dependent, an industrialising LDC often develops cultural dependencies too which may be at variance with its indigenous culture. Even if a country pursues a successful industrialising policy, it will be dependent on the world economy through the need to trade, the argument goes. Only countries such as the US, the former Soviet Union and China, which have a resource base large enough for a basically autarkic manufacturing sector, can hope to be properly self-reliant. The south east Asian newly-industrialising countries, which are export-oriented, are dependent on foreign markets for their goods.

The broader political context is of crucial importance in understanding the forces operating behind a development strategy and may provide the reason for the success or failure of the same strategy operating in countries under similar economic but different political conditions. As we shall see in Iran’s case, political considerations, chiefly of a geo-strategic nature, distorted the pattern of development and were of extreme importance in hastening not only economic but also, political disaster. First, however, we must consider the processes by which industrialisation is achieved.

2.9 Contending strategies of industrialisation: import-substitution and export-orientation

In 1960, Hollis Chenery published what became a very influential paper in which
he sought to establish patterns of industrial growth through the use of multiple regression techniques. Chenery focused on the similarities in the pattern of growth while also revealing ‘the substantial variation that exists and the need to separate particular from universal factors’. Chenery found a fairly uniform pattern in the change of production and imports of industrial products as income rises. Most importantly, Chenery reversed the assumption that changes in demand were the main cause of industrial growth, showing instead that supply changes were far more crucial:

Changes in supply conditions resulting in relative factor costs as income rises, cause a substitution of domestic production for imports and, to a lesser extent, of factory goods for handicraft goods and services. These supply changes are more important in explaining the growth of industry than are the changes in demand.

Chenery identified three causes of industrial growth. The most important was the substitution of domestic production for imports, which Chenery claimed accounted for 50 per cent of industrialisation. The other two causes were the growth in final use of industrial products and the growth in intermediate demand stemming from the above two causes. Import substitution (IS) was defined as the difference between growth in output with no change in the import ratio and the actual growth. Thus:

leading sectors are likely to be industries in which import substitution becomes profitable as markets expand and capital and skills are acquired. Even in Japan, the most successful of the low-income countries in increasing industrial exports, import substitution accounted for nearly 40 per cent of the rise of industry (from 23 per cent of GNP to 33 per cent between 1914 and 1954) as compared to less than 10 per cent for exports.
Chenery's results confirmed what many LDCs had experienced - high rates of growth while choosing ISI. His work unleashed a debate that continues to this day about the merits or otherwise of IS as an industrialisation strategy compared to export-oriented industrialisation. Some writers believed Chenery was wrong to assume that IS was a cause of such growth, rather than simpler a concomitant\textsuperscript{82} while others disagreed with Chenery's definition of IS and questioned the validity of the results of the multiple regression analysis as a whole.\textsuperscript{83}

Certainly some of the debate on the success of ISI has hinged on its definition. In broad terms, import substitution can be defined as the domestic production of that which would otherwise have been imported. Countries close their market to imports of manufactured capital and consumer goods through a range of protectionist measures and through investment supported by tariffs and subsidies to substitute domestically-manufactured goods for those which would have been imported. The difficulty arises in trying to assess what would otherwise have been imported. If the same composition and level of goods would have been imported, then IS becomes a measure for the decline in quantity of imports. But there is no reason why a country should not produce some of the goods which it would otherwise have imported while importing an increased number of other goods instead.

Another definition used by Chenery was that import substitution had occurred when there was an increased share of domestic production relative to total supply. The drawback with this measure is that since it seeks to aggregate, it cannot describe very accurately the effect of IS policies on specific industries, nor the
efficacy of individual IS policies, such as the level of investment. One way of measuring the success of an IS policy is to take into account the aims of that policy and, if possible, to make a selection of the industries concerned and take a relative measure for each of these.

IS was the dominant form of industrialisation until the mid-60s when growth rates began to decline in ISI countries. The central criticism of import substitution, about which so much has been written, is that it encourages industrial growth up to a point but then the danger of fostering infant industries through protection emerges - they never grow up because the lack of competition renders them inefficient and costly. The success of export-oriented policies, particularly of the south-east Asian countries have provided an alternative model, although recent debate has tended to focus on the interdependence of the two seemingly distinct policies. In their attempt to explain the slowdown, development economists split the ISI process into different stages and argued that the longer ISI continued, the more inefficient it became.

Writing about Latin America in 1966, Celso Furtado observed, 'there is a general consciousness of living through a period of decline. The phase of “easy” development, through increasing exports of primary products or through import substitution has everywhere been exhausted'. The phase of 'easy' development refers to the primary stage of IS, which is the replacement of an existing market for (usually non-durable) consumption goods, such as textiles, shoes and household goods by domestic production. It is called ‘easy’ because cutting down on imports is not difficult, especially if there is a balance of payments deficit. In fact, a
necessary course of action can later be described as a strategy for growth. This led Albert Hirschman to draw a distinction between the reasons behind the implementation of IS:

It is useful to keep in mind these distinct origins of ISI - wars, balance-of-payments difficulties, growth of the domestic market (as a result of export growth) and official development policy - in focusing on the distinctive characteristics of the process.88

Whatever the initial impulse behind IS, a fairly uniform pattern is followed in the initial stages whereby, if necessary, the materials for the consumer goods are imported and manufactured at home, while the finished good itself is no longer imported. The changes in factor supply and the increase in demand89 then lead to a boom period (as many LDCs experienced in the 1950s) but after a while, it becomes difficult to sustain the same rate of momentum so that the growth rate of output declines to that of consumption.

Another stimulus is then needed, and if the IS strategy is to be continued, it involves extending production backwards to durable consumer goods, intermediate goods and, eventually, capital goods. This is known as second-stage IS and it has proved far more difficult to implement, causing, at least in part, the general disillusionment with IS.

The more general reasons for the difficulties of forming such backward linkages are fairly well-established. Unlike primary stage IS, the production of intermediate goods is far more capital-intensive and requires a greater amount of skilled labour. The whole enterprise is therefore more expensive than in the 'easy'
stage, since the cost of producing intermediate goods domestically is higher relative to their import costs than with consumer goods. Economics of scale, market size and the degree of horizontal and vertical specialisation all have a greater part to play in second-stage IS. For some writers, the distortions caused by primary-stage IS are so great that it becomes almost impossible to implement the second stage.90

The World Bank in the late 1970s recognised that the process of ISI gave rise to vested interests which would resist change. The trick was to get the timing right by nimbly jumping from ISI to export-orientation before it was too late:

The Republic of China, the Republic of Korea and Singapore switched to export promotion relatively early in the industrialization process....Many other countries, recognizing the limitations of prolonged reliance on import substitution, have also redressed, at least partially, a bias against exports. Their experience suggests that the transition to more outward-looking trade policies increases in difficulty with the duration and extent of import-substitution policies. Countries that are in the preliminary phases of import-substitution are well advised to initiate their policy transition before the emergence of politically vocal and strongly entrenched vested interests.91

The importance of the political context was also recognised by Hirschman who argued that the loss of momentum towards the end of the import-substitution of consumer goods was not so much due to the size of the market and of economic plants, as many critics of IS argue, but rather: ‘it appears instead that the difficulties that may well dog the backward linkage process are to a considerable extent a matter of economic environments and policies, instead of being determined exclusively by objective quantities’.92

If, for example, an industry’s output is heavily protected and its inputs subject to
low tariffs, profits will be fairly high. Any attempt to manufacture domestically rather than import the inputs will mean a reduction in profits. In this way, industrialists can oppose further industrialisation. Similar socio-political constraints exist when considering how to encourage exports during the IS phase. Hirschman asks:

why not tax the export sector, subsidize the new industries and do away with the overvalued exchange rate so that industrial exports are encouraged? To ask this question is to answer it: in most Latin American countries such a course would have been politically impossible. . . . Viewed in this way, the inability to export manufactures appears as the price which had to be paid for building up an industrial sector under adverse sociopolitical conditions.

As we shall see in Iran, ISI benefited a privileged industrialist class which the Shah co-opted for political reasons. We will argue that the political economy of implementing ISI in Iran contributed to the disappointing results. For advocates of free trade, however, issues of government intervention and protectionism vindicate their scepticism about ISI. The argument was put succinctly by Little, Scott and Scitovsky, writing in 1970:

Given the disadvantages of present policies, including the distortions caused by import restrictions, the inefficiency of government intervention and controls, and the bias against agriculture and exports, we believe that developing countries would benefit from adopting, in general, a more decentralized approach with greater use of the price mechanism; and, in particular, given that there are good prospects for exports, a more open approach to foreign trade with less protection and use of controls. We believe that such an approach is both consistent with sufficient industrialization, and conducive to much more efficient industrialization.

But the free rein of market forces and liberal trade policies have proved too simplistic an explanation of the success of the export-oriented economies. Debate
on the strategy of industrialisation has centered firstly, on the fact that many export-oriented countries initially underwent a period of import-substitution, which raises the question of whether it is possible to separate the two processes. Secondly, the experience of the most successful export-oriented countries, including South Korea, Taiwan and Singapore showed that government intervention was instrumental in fostering the process, which has led some economists to try to distinguish between 'good' forms of intervention and 'bad'.\textsuperscript{95} Let us briefly examine these points.

Alice Amsden has argued there has been a tendency to understate the importance of import-substitution by measuring incorrectly the division of output between import substitution and domestic demand and exports.\textsuperscript{96} If:

\begin{quote}
exporting of a particular industry or product does not begin at once but, instead, begins after a time-lag, the length of which varies with technology and other factors and the policy supports of which appear indistinguishable from those associated with 'import-substitution', the policy regime necessary to stimulate exports is more complex than market-oriented economists would allow.\textsuperscript{97}
\end{quote}

The East Asians fared better than Latin America possibly because they had emphasised for a longer period both import-substitution and exports and not one or the other which the Latin Americans tended to do. The East Asian case (both North and South) supports the view that export-led growth and import-substitution are not two separate strategies but rather an organic, inseparable whole. Many East Asian countries had a long gestation period under state promotion; exporting did not begin immediately after the industry was established, argues Amsden. Moreover, given the reputation of ISI as encouraging inefficiency, how was it that Thailand
became export-oriented so readily? This was mainly because government subsidies were allocated in exchange for performance, which encouraged business discipline. A policy of ISI does not have to result in inefficiency if well implemented, she says.

The lesson for other countries from East Asia's trade and industrial policy is not necessarily to abandon subsidized import-substitution - otherwise exports may fail to become more diversified and knowledge- and capital-intensive. Instead the lesson is to subject every import-substitution industry to various forms of discipline, including possibly some export target, however modest.98

Singer and Alizadeh have also argued that the two seemingly opposed industrialisation theories go hand-in-hand: 'IS was often needed to provide the necessary volume basis for competitive export promotion. Seen in this light, IS and export-promotion are complementary rather than alternative strategies.'99 But they also argue that there are lessons to be learnt from past mistakes:

Any new domestically-oriented industrialisation strategy must pay more attention to monetary, price and balance of trade and payments implications than the old ISI did. It must also encourage exports more. In other words, it must be a synthesis of the old ISI and the more recent EOI, both of which have proved to be flawed, at least in the case of Latin America; more a move forward to something new than a return to the old. In this sense also, the debate between the proposals of ISI and EOI as exclusive alternatives is dangerously misleading. We need ISIEOI, a strategy which combines the best elements of both and utilises the complementarities of the two.100

Indeed the experience of South Korea, the country routinely held up as the most spectacular success story in the region, shows the process was not to stop import-substitution and then begin export-orientation, as had previously been thought. According to Eprime Eshag, the effect of presenting Korea's industrial development after 1960 as growth through export promotion after a period of
import-substitution gives: 'the somewhat misleading impression that after 1960, the government consciously abandoned the policy of import substitution in favour of export promotion.' Instead, the authorities were far more pragmatic:

within their overall strategy of rapid industrial development through industrialisation, seems to have been one of industrial diversification. This resulted in a significant degree of import substitution but also necessitated a high rate of growth of exports primarily due to the relative size of the internal market and the lack of natural resources in Korea. In other words, the success of the above strategy depended on the growth of exports, or on the adoption of an outward-looking strategy, because of the need to finance the inevitable growth of imports and exploit the economies of scale in some industries. 

Recent literature on industrialisation has been more sympathetic then to import-substitution, which had fallen sharply out of fashion with the resurgence of neo-liberal free trade economics. Import-substitution is as valid a development strategy as export-orientation - indeed it can be regarded as part of the same strategy. It was appropriate to Iran, which unlike South Korea and Taiwan, had a large population and enjoyed adequate raw materials and energy resources. Size, according to the World Bank, does matter in ISI: 'At a given level of average income, large countries such as Brazil and Turkey, which rely predominantly on domestic markets, have tended to attain higher levels of industrialization than small nations, which rely more on international trade for their development.'

2.10 The role of government: intervention and economic planning

The experience of the export-oriented countries has shown that government in south-east Asia did not leave industrialisation to market forces and free trade but intervened, often extensively. To have succeeded otherwise would have been remarkable. All the major industrial powers, with the exception of Britain adopted
protectionist policies in the early stages of their industrialisation. This includes France, Germany, the US and Japan. Britain was the first country to industrialise in the late eighteenth century and, since it enjoyed a comparative advantage in manufacturing, did not need to adopt a protectionist policy.

In trying to explain the reasons for the success of south-east Asia, neoclassicists - who have always acknowledged that government intervention is justified when free markets fail - have tended to focus on the extent of intervention and types of intervention.\(^{103}\) In general, the more limited the intervention and the more transparent the controls, the better, they argue.\(^ {104}\) However, recent debate has recognised the importance of socio-political factors in explaining why some governments have a better record of intervention than others. In their attempt to explain why the fastest-growing economies of recent decades are concentrated in East Asia, Leipziger and Thomas conclude that:

> it was not more government that had a positive effect, it was better government. East Asia makes a case neither for a laissez-faire approach to economic policymaking nor a heavy hand on the tiller. The crucial factor was the way that governments supported markets in helping to unleash entrepreneurship.\(^ {105}\)

The authors, however, appear perplexed as to why some governments are good and some bad: ‘Development economics lacks an adequate theory of why good government policy, combining economics, political organization, and technocratic decision making, is pursued by some countries and not others.’\(^ {106}\) To which the answer, were it not presumptuous, would have to be - to invert the quotation - ‘It’s politics, stupid.’
The government in many LDCs represents or conditions the interests of groups on whose support it depends. Policy-makers, the administration and industrialists come to represent a certain class and seek to further the interests of that class by drawing from their own members for employment in the administration. Where there is lack of political accountability, corruption and venality, governments will pay lip service to the goals of industrialisation and the broader aims of development but subjugate these objectives to that of remaining in power. Iran’s industrialisation process was fashioned by the internal politics and geopolitical obsessions of an unaccountable and autocratic government. This, as we shall see, distorted the industrialisation process and ended eventually in political upheaval and revolution. As the World Bank acknowledged in 1997: ‘Good government is not a luxury - it is a vital necessity for development.’ Bad government will always be the greatest obstacle to the implementation of, if not good, at least appropriate policies. It is as much, if not more, responsible for the success of a strategy of industrialisation as the soundness of the economic doctrine underlying it. This was clearly recognised by Eshag:

.... we nevertheless believe that in most LDCs the policies pursued by governments themselves are to a large extent responsible for their slow rate of development, as indicated by their growth of production and the pattern of investment. In other words, we maintain that the failure of the authorities to give the development objective the high priority it deserves, has played an important part in their low rate of development in relation to their potential.

One important role for government in fostering industrialisation has been through national economic planning. When Soviet-style centralised planning appeared successful, it influenced the uptake of development planning in LDCs. In the post-colonial era, many governments of newly-independent states regarded a
development plan as a sign of national prestige, in much the same way as an airline or national flag. It was also thought that the government was best placed to provide the co-ordinating function and drive necessary for economic development.

Typically, planning took the form of drawing up a strategy and targets for the development of the economy, usually over a five-year period. Such planning also met with the approval of the World Bank. In the post-Second World War period international lending agencies were happier to provide loans to countries with economic plans. According to the World Bank’s 1949-50 Annual Report, member countries: ‘know too, that if they formulate a well-balanced economic development program based on the [Bank] Mission’s recommendations, the Bank will stand ready to help them carry out the programme by financing appropriate projections.’

But national economic planning, like import-substitution industrialisation, has fallen out of fashion. This is partly due to the collapse of the centrally-planned economies of the Soviet Union and eastern Europe. The demise of the Soviet Union revealed an economy more akin to that of a developing country than a superpower. The poor economic record of many state-dominated economies, whether capitalist or socialist, in the developing world has also contributed to the fall from grace of economic planning. Economists are divided, however, over whether it is ineffectual or corrupt governments which are at fault or the planning mechanism itself.

In a review of planning in developing countries during the post-War period, Balassa found that planning failed to have favourable economic effects and this contributed to its demise in the 1980s. ‘This decline may be explained by the lack
of success of planning and by the growing understanding of the importance of incentives and markets. An important aspect of increased reliance on incentives and markets is participation in the international division of labor that conflicts with planning. At the same time, participation in the international division of labor brings important benefits in increasing total factor productivity and thereby contributing to economic growth.\textsuperscript{110} Balassa, who believes in the superiority of private enterprise over public enterprise, argues the state's planning role should be confined to public sector investment in infrastructure as an aid to the private sector.

Ramgopal Agarwala is also sceptical about the role of planning, but notes that the degree of success achieved by planning is difficult to assess:

The lack of adherence to targets is not necessarily an indicator of failure because change in circumstances might have made the departure from targets desirable. In fact, in the successful cases of development, such as Japan, plans were neither detailed nor rigorously adhered to. Strictly speaking, the only valid criterion for judging the impact of plans is whether the performance would have been better or worse in the absence of plans, and that is obviously difficult to assess.\textsuperscript{111}

Nevertheless he concludes that in most developing countries, planning failed to live up to expectations. Typical problems are a weak database, a shortage of trained staff, inadequate co-operation between the planning agency and other ministries and poor links with the budgeting and evaluation process. More serious are technical, political and administrative problems.\textsuperscript{112}

Agarwala believes that the experience of those countries with the best planning record - in east Asia and south east Asia - shows the importance of combining planning for the public sector with the avoidance of price distortions in
the economy as a whole. Nevertheless he concludes that the planning machinery need not be abandoned but reorientated towards new goals. These include: greater emphasis on streamlining the incentive system rather than on preparing blueprints for development and sectoral investment and output targets; co-ordination and consultation both within government and in the private sector, and programming public investment instead of national investment.

If planning has 'failed', however, this may be due more to the nature of government than the method itself. The removal of controls and the reliance on the market mechanism in the former USSR has not led to a substantial improvement in the economy. This could indicate that economic stagnation before the fall of communism had more to do with the corruption of the Communist party and its bureaucracy than the instrument of planning. Following Kalecki, Eshag argues that development planning is essential in order to stimulate development:

the formulation of a meaningful and coherent policy for the allocation of investment resources can only take place within the framework of a development plan. Such a plan should give at least a broad indication of the projected movements in the volume and pattern of production and demand, as well as the requirement for productive capacities, including raw materials and labour.

The extent of the role of the state in development is thus still the subject of debate but there is no doubt that it has an essential part to play. According to the World Bank: ‘An effective state is vital for the provision of the goods and services - and the rules and institutions - that allow markets to flourish and people to healthier, happier lives. Without it, sustainable development, both economic and social is impossible.’ However the Bank argues that instead of the state acting as
the direct provider of growth, its role should be that of a catalyst, partner or facilitator of development. Experience has shown the damage that can be done by bad governments:

Governments embarked on fanciful schemes. Private investors, lacking confidence in public policies or in the steadfastness of rulers, held back. Powerful rulers acted arbitrarily. Corruption became endemic. Development faltered and poverty endured. ¹¹⁶

As we shall see, much of this held true in Iran during the Shah’s autocratic rule.

2.11 Balanced growth and big push strategies

Balanced growth can refer either to a simultaneous expansion of a set of industries or it can refer to such an expansion between agriculture and the industrial sector. The big push theory, first advocated by Paul Rosenstein-Rodan, concerns a sustained investment effort as a prerequisite of getting industrialisation off the ground: ‘Proceeding “bit by bit” will not add up in its effects to the sum total of the single bits. A minimum quantum of investment is a necessary, though not sufficient, condition of success. This, in a nutshell, is the contention of the theory of the big push’. ¹¹⁷

However, as Auty has noted, although sound theoretical arguments can be mounted in defence of a big push, ‘implementation has always been the Achilles heel of that strategy’. ¹¹⁸ Auty has developed a macroeconomic model of the consequences of a big push in heavy and chemical industry development. ¹¹⁹ This suggests that a construction boom to build these industries triggers inflation and fiscal and trade imbalances, which require macro stabilization just as the long-
gestation heavy and chemical industries come onstream. The resulting deflation depresses domestic demand, shrinking the scope for heavy and chemical industry plants’ higher-margin domestic sales. Provided the stabilization policy is effective and the industrial projects soundly implemented, the performance of the industries will rebound as the economy recovers. But in a country pursuing an autarkic industrial policy - stressing economic self-sufficiency over the efficient allocation of resources - stabilisation will not be effective and economic performance will be severely impaired.\textsuperscript{120}

Big push theory is relevant to the case of Iran because the fourfold rise in oil prices in December 1973 gave the Shah the economic resources with which to initiate a fast-track route to industrialisation. But successful industrialisation also requires substantial and efficient investment in supporting infrastructure - something which did not adequately accompany Iran’s big push drive, as we shall see, and its absence contributed instead to much of the economic and political turmoil which followed the oil price hike. In addition, the sudden abundance of investment funds can allow money to be wasted, such that a pattern emerges: ‘The resource curse theory suggests that a favourable resource endowment may be squandered through the pursuit of less prudent policies than would be practical in a more resource-constrained country.’\textsuperscript{121}

The Shah was not unusual in having dramatically increased public spending after the oil windfall. In fact all the oil-exporting countries followed a similar strategy. But very soon the boom had turned into bust and their economies showed classic symptoms of ‘Dutch disease’ - whereby favourable price changes in one
sector of the economy cause distress in other sectors. In a valuable study, Terry Lynn Karl has provided an explanation of why the oil-exporters, which benefitted from such a large transfer of wealth, followed a development path which led to economic deterioration and political decay. Iran is the example par excellence. Nowhere else were the political consequences of the economic effects of the oil windfall so dramatic, ending in revolution just five years after the oil price rise.

Karl argues that dependence on oil shapes a state’s political institutions, its framework for decision-making and the decision path of policymakers:

Similar disappointing macroeconomic and political outcomes in nations as widely disparate as Iran and Venezuela can best be explained as the result of a common condition created by the interaction of commodities, booms and states. Oil booms seem to promise the opportunity for real choice and for the alteration of a development trajectory. But when they occur in countries with a legacy of oil-led development, especially a decision-making apparatus dependent on petrodollars, choice is in fact quite narrow. Regardless of the other alternatives available, booms generate powerful and even overwhelming incentives to sustain existing trajectories but on a grander, more accelerated, and ultimately unmanageable scale. Thus they are the catalyst for further trouble.

Under Karl’s analysis, the pattern is as follows. Citing Hirschman, Karl finds that the petro-state generates few forward and backward links with the economy. Oil technology is capital-intensive, so its inputs have to be imported. Fiscal linkages encourage overvalued exchange rates which promote a reliance on imports and inhibit the development of agriculture or industrial activity. The oil sector is characterised by low employment generation, employing only between 1-2 per cent of the workforce and, because of the large capital and technological resources necessary to exploit the mineral, foreign oil companies become dominant internally in the oil exporting country. Oil revenues pour into the state and not
private enterprise so an oil price rise enhances considerably the role of the public sector. Because oil rents are captured by linking up with the state, business, the middle class, organized interests, firms and individuals all search for political influence in order to gain economically:

their share of oil rents depends on chasing after state patronage, high tariff barriers, cheap imports, profitable contracts, and subsidies. These goals are powerful incentives for them to form tight links with politicians and bureaucrats in order to offer favors for benefits received. Such rent seeking, of course, is a classic formula for corruption, which in itself raises new demands. It is also the antithesis of the efficient market mechanisms and productive economic decision-making necessary to create a self-sustaining productive base separate from petroleum.  

Given the access to easy revenues from oil, governments of petro-states do not seek to supplement their income through taxation. But with no link between domestic taxation and state-building, petro-states generally lack the ability to establish distinct public institutions with some autonomy from civil society:

The petro-state is more dependent on a single commodity than any other state and the exploitation of this commodity is more depletable, more capital-intensive, more enclave-oriented, and more rent-producing than the exploitation of any other commodity.  

In an oil boom, petro-states find it impossible to absorb their surplus, even by generating new public-sector projects. While facing the impending threat of massive inflation, they reach for capital-intensive and long-gestation projects. The boom creates new demands from state and civil society and the state, inefficient and unable to cut down on expansionist public sector programmes, faces growing budget and trade deficits and foreign debt. The illusion of independence is created but, in fact, the oil exporter becomes even more dependent on petro-dollars. When
oil prices finally drop - as oil-importers become more fuel-efficient or new entrants come to the market - the boom quickly turns into the basis for a bust. ‘This is the paradox of plenty. But it is not inevitable,’ concludes Karl, who argues that if petro-states try to build state capacity through diversified tax structures, professionalised civil services and more representative and equitable institutions, they can break out of the vicious cycle of petro-development and avoid economic deterioration and political decay.127

Auty has also found that resource-rich countries are tempted to grow out of their development difficulties through a state-engineered big push. But unless carefully managed, expansion outstrips domestic absorptive capacity, triggering inflation, fiscal repression and a growth collapse. Once again, misallocation of resources is dependent on the development of strong institutions.128

Rosenstein-Rodan linked the theories of big push and balanced development together to produce a strategy based on a big push towards balanced growth but the two need not necessarily be connected. Some writers have altered Rosenstein-Rodan’s original big push theory to apply to agriculture instead of industry, arguing that the indivisibilities on which his theory rested, are present and even more crucial in agriculture.129 Rosenstein-Rodan’s main concern was to show ‘why the whole of the industry to be created is to be treated and planned like one huge firm or trust’.130 This necessitated the state taking on the bulk of investment and planning large-scale industrialisation based on the complementarity of different industries: ‘The planned creation of such a complementary system reduces the risk of not being able to sell, and, since risk can be considered as cost, it reduces costs.
It is in this sense a special case of ‘external economies’.  

The logic of the argument is based on taking advantage of external economies and recognising where they exist. Howard Ellis challenged the importance that Rosenstein-Rodan attached to external economies, arguing instead that far from being significant, in most developing countries they are negligible. Following Jacob Viner, he favoured foreign trade as the means by which a developing country could take advantage of the more substantial economies open to them on world markets. In fact, the real disagreement stems from differing views on the role of the state in the economy.

Apart from the gains to be had from external economies, Rosenstein-Rodan argued that the indivisibilities from which they stemmed, required a high initial investment in order to make way for additional directly productive investments. As well as recognising the overwhelming importance of infrastructure to a successful industrialisation strategy, Rosenstein-Rodan saw the necessity of a well-equipped industrial labour force, hence: ‘The first task of industrialisation is to provide for training and “skilling” of labour which is to transform Eastern European peasants into full-time or part-time industrial workers’. This very nearly constitutes a ‘prerequisite’ for industrialisation and taken with the emphasis on infrastructure, it can be seen that the big push is the attempt to establish conditions under which an industrialisation programme might succeed. It is not simply a question of pumping large sums of money into and across a set of industries and expecting them to function efficiently.
Like Rosenstein-Rodan, Ragnar Nurske regarded balanced growth as the simultaneous expansion of a number of manufacturing industries. He regarded it as a means of accelerated growth - 'As a way of escape from slowness if not from stagnation, the balanced growth principle envisages autonomous advance along a number of lines more or less simultaneously.' Capital-intensive methods of establishing and running industries were to be preferred to those which were labour-intensive. Why?

The answer is obvious. As an adaption to existing circumstances, including the existing factor proportions, the pursuit of labor-intensive production methods with a view of economizing capital may be perfectly correct. But the study of economic development must concern itself with changing these circumstances, not accepting them as they are. What is wanted is progress, not simply adaption to present conditions. And progress depends largely on the use of capital, which in turn depends on adequate and growing markets, which in the absence of a strongly rising world demand for the country's exports means a diversified output expansion for domestic use.

Unlike Rosenstein-Rodan, Nurske did not believe that balanced growth necessarily implied government planning or large scale investment by the government. Instead, balanced growth was relevant to a private enterprise system and Nurske applied the concept to economic development with unlimited supplies of capital, where the main problem might be demand for capital rather than increased supplies of capital. It should be mentioned that Nurske recognised the importance of a balance between agricultural productivity and industry so that both sectors could move forward otherwise the passivity of one would slow down the growth of the other. He also warned against a too literal interpretation of balanced growth:

Producing a little of everything is not the key to progress. The case for balanced growth is concerned with establishing a pattern of mutually
supporting investments over a range of industries wide enough to
overcome the frustration of isolated advance in order precisely to create a
forward momentum of growth.\textsuperscript{141}

There have been many critics of balanced growth, many of whom argue from a
position which they regard as more 'realistic', either historically or prescriptively.
Thus Hughes has argued that the history of successful industrial growth has not
been on the basis of balanced growth.\textsuperscript{142} Instead, as Rostow has also argued,
leading industrial sectors pushed ahead and, with the help of technological
breakthroughs, opened up new markets.\textsuperscript{143} Some industries do lag behind, but their
performance is made up for by the dominant industries which carry the economy
along with them. Since change is always occurring, no given set of industries have
been responsible for growth and thus, industrial development cannot be said to
depend on, or even be aided by, a defined industrial structure.

Aside from historical argument, critics point to the difficulties LDCs would
have both in acquiring the requisite amounts of capital and skilled labour to attain
balanced investment over a large number of industries. Furthermore, Hirschman
argues that unbalanced growth can bring about a higher rate of growth and
development than can balanced growth, precisely because of imbalances which
would set up stimuli and pressures conducive to the taking of investment decisions:

Our aim must be to keep alive rather than eliminate the disequilibria of
which profits and losses are symptoms in a competitive economy. If the
economy is to be kept moving ahead, the task of development policy is to
maintain tensions, disproportions, and disequilibria.\textsuperscript{144}

Though Hirschman's discussion of the economic environment of investment

118
attitudes is valuable, it is unclear how much imbalance is desirable and where to create these imbalances. While imbalance may create desirable attitudes, an unbalanced economy may not be the most suitable form of development for any given LDC. Again, the individual characteristics of the country in question are important: 'No general formula will serve. The correct division often cuts across these categories. The question is what combination of resource policy, reform of attitudes (including “incentives”) and of legal, social and cultural institutions is necessary in a particular situation.'

A balanced growth in the economy, especially in the areas of agriculture and industry, is highly desirable, as is some sort of regional balance. This does not imply the same rates of growth, but rather an appropriate ratio, by which one sector does not slow down to the extent of acting as a brake on the growth of the other sector. The means by which this balance is to be achieved may well be through a policy of unbalanced investment.

2.12 The role of agriculture

Industrialising countries have faced a common conundrum in deciding how to support industrialisation without discouraging agriculture. As far back as 1950, W. Arthur Lewis argued for the complementarity of industry and agriculture in a discussion on the West Indies. 'The creation of new industries is an essential part of a programme for agricultural achievement. This is not generally realized. There are still people who discuss industrialisation as if it were an alternative to agricultural improvement'. And in the early 1960s, it was Dudley Seers' contention that there was: 'no question of choosing between agricultural and
industrial development, merely of striking the right balance between them. To over-emphasise industry, as some countries have found cut to their cost, leads paradoxically in the end to a slower rate of industrialisation.\textsuperscript{147}

As a response to what many economists saw as wilful neglect by LDC governments of the agricultural sector in favour of the more glamorous industrial sector, often in contravention of their own policy statements, the concern with restoring the importance of agriculture as a major pillar of any development strategy took on new force after a publication of the Paris-based Organisation for Economic Co-Operation and Development (OECD) in which the authors put forward the argument that:

industry has been over-encouraged in relation to agriculture, and that, although there are arguments for giving special encouragement to industry, this encouragement could be provided in forms which would not, as present policies do, discourage exports, including agricultural exports; which would promote greater efficiency in the use of resources; and which would create a less unequal distribution of income and higher levels of employment in both industry and agriculture.\textsuperscript{148}

What policy there has been towards agriculture in industrialising LDCs has usually depended on the role that agriculture is seen to play with regard to industry. Hence, one argument in favour of developing agriculture has hinged on that sector serving as food supplier to the urban areas. Though this sounds logical, many countries have had great problems in ensuring a continuous supply of agricultural goods to the urban sector without turning the terms of trade against agriculture.\textsuperscript{149}

LDCs with limited resources have preferred to invest heavily in industry in the short-run in the hope of benefiting both industry and agriculture in the long-run.
One danger, however, is that in attempting to build up an industrial state, a form of economic organisation is imposed which ignores the possible benefits from encouraging agriculture. These include the absorption of labour, particularly since many forms of manufacturing tend not to be as labour-intensive as agriculture. Lewis urged: ‘Unemployment in the towns cannot be ended by spending more in the towns. The basic solution is rather to make the countryside economically viable, with a larger cultivated area, with rising productivity on the farms, more rural industry, and better social amenities’. 

Finally, it should be mentioned that some states, through the reform of agriculture, seek the basis for the later financing of industrialisation. This has usually been undertaken by socialist states, for example, Cuba, Tanzania and China. It is based on the argument that industrialisation should take place with minimum recourse to foreign capital and that the creation of a group of ‘privileged’ workers who lose solidarity with other urban workers can be avoided through less industrialisation and more emphasis on agriculture.

2.13 Summary

LDCs have long believed industrialisation is the key to economic development. Productivity seemed to increase at a faster rate in manufacturing industries than in agriculture. A more rapid rate of expansion in industrial production would lead to growth and to an increased diversification of the economy. The growth of industries would also increase supplies of goods for the basic needs of people and goods that enlarged the base for further expansion all round. In this way, economic and social development would be accelerated. Because of modern technology,
ran the argument, there would be an important spillover effect on the rest of the economy. In this sense, industrialisation was seen as a dynamic force transforming agriculture, construction, transport and other service industries into highly productive sectors.

Secondly, it was thought that industrialisation was the means to provide work for the growing populations in the LDCs. Thirdly, a central theme of industrialisation has been a desire for economic independence as a means of escape from post-colonial domination and as a means of sustaining military power and thus, national independence. This was key to Iran's objectives in the 1970s. Industrialisation conferred greater national prestige than economic development brought about through agriculture.

Most of these objectives were present in the Iranian government's statement of its expectations from industrialisation. These cover the arguments regarding a modern economy, employment opportunities and national prestige. The aims were listed in Iran's Fifth Development Plan (1973-77):

> Industrial development is of particular importance in view of the fact that it provides protection and incentives for the progress of the other sectors of the economy, and is a most important factor in raising the national income and providing opportunities for productive employment.

> At this stage of the country's economic development, industrialization is considered important as an element of sustained, long-term economic growth, not just because industrial units established during the Plan period will continue to operate in the years to come but rather because the measures taken or postponed in this field will determine the country's future. Industrial development not only results in the supply of industrial goods required by society but also facilitates increased productivity and innovation in other sectors of the economy, and leads to the introduction of new and improved methods of management and higher levels of technical skill.

In the Fifth Development Plan the country's industrial development is
regarded as a basic measure in laying the groundwork of an advanced economy which will pave the way for the Great Civilization.\footnote{152}

We have also discussed the main issues involved in implementation. Iran adopted an ISI strategy as did many countries in Latin America and the Middle East under the auspices of state direction. We do not accept that ISI is a faulty strategy but instead agree that it can be seen as the first step towards an export-oriented strategy. We believe its success is dependent on the manner of its implementation and on good government, a factor increasingly recognized by the World Bank:

Centralized planning, corrective interventions in resource allocation, and a heavy hand in infant-industry development were part and parcel of this [ISI] strategy. Economic nationalism was added to the mix, to be promoted through state enterprises and encouragement of the indigenous private sector......By the 1970s, the costs of this strategy were coming home to roost. The oil price shocks were a last gasp for state expansion. For the oil exporters, they created a bonanza, which many threw into even greater expansion of state programs. As long as resources were flowing in, the institutional weaknesses stayed hidden....State-dominated development has failed but so will stateless development. Development without an effective state is impossible.\footnote{153}

Iran did not suffer from the more common problem of resource poverty faced by most LDCs in trying to industrialise. But we have seen that Iran’s oil wealth was a problem in that it made tempting a state-sponsored big push strategy without the strong institutions and good government essential to the implementation of a successful strategy. Here the inter-relationship between politics and economic is crucial to an assessment of Iran’s industrialisation policy. As Gilpin acknowledged: ‘economic factors alone will not explain success or failure in economic development......economic forces operate within a larger political context’.\footnote{154} We shall examine that context in the next three chapters.
Finally, in assessing Iran's industrialisation performance quantitatively in Chapter 3, we shall look at manufacturing activities (by excluding the contribution of mining, electricity, gas and water) and use three conventional indicators: the share of value added in manufacturing in GDP; the annual per capita level of value added in manufacturing; and the gross output of manufacturing.
Endnotes to Chapter 2


4 One of the most famous challenges to industrialising economic development came from E.F. Schumacher, Small is Beautiful (London: Sphere Books, 1974).


10 See World Bank, World Development Report 1999/2000, op. cit., p.1, which states that 50 years of development experience has shown that 'growth does not trickle down'.


12 See the title essay in A. Gerschenkron, Economic Backwardness in Historical Perspective (Cambridge, Mass.: Belknap Press, 1962) for a discussion of the different conditions necessary for the growth of industrial development in 'backward' countries.


17 UNIDO, Handbook of Industrial Statistics (New York: UN, 1982).

18 B.Balassa and H. Hughes, op. cit., and Vinod Prakash, op. cit.


22 Vinod Prakash, op. cit., p.5.

23 Such a 'test' was devised by R.B. Sutcliffe, Industry and Underdevelopment (London: Addison-Wesley, 1971). See also Helen Hughes, as mentioned in text, in John Cody et al., op. cit.

24 Quoted in Helen Hughes in John Cody, et al., op. cit., p.12.


33 Ibid., p.4.
34 Ibid., p.10.
36 Ibid., p.127.
38 Ibid., pp.429-30.
40 Ibid., p.541.
44 Ibid., Viner's attack was on Louis H. Bean, 'International Industrialization and Per Capita Income', Studies in Income and Wealth (New York: National Bureau of Economic Research, Vol.8,1946). He also addressed the same remarks to a book by Mihail Manoilescu, The Theory of Protection and International Trade (London: 1931). Manoilescu's contention was that since per capita income was higher in manufactures than in agriculture in all countries, predominantly agricultural countries would raise their per capita income by establishing tariff protection for manufactures as a means of increasing the proportion of the labour force engaged in manufactures.
45 Jacob Viner, op. cit., p.46.
48 Helen Hughes in John Cody et al., op. cit., p.17.
50 The Shah coined the grandiose phrase to describe the march towards the goal of becoming the world's fifth industrialised nation while conjuring up the image of Iran's imperial past in the ancient world. See Borozou Faramarzi, Towards the Great Civilization, (Tehran: Ministry of Information, 1974).

126
54 Ibid., p.65.
55 A. Gerschenkron, 'Economic Backwardness in Historical Perspective', op. cit., p.17.
57 P.T. Bauer, Dissent on Development (London: Weidenfeld & Nicolson, 1971), in which Peter Bauer argues that official foreign aid reinforces the tendency in the LDCs to politicise economic life. For Bauer, economic progress depends on human aptitudes and attitudes, on social and political institutions and historical experience. It is to a far less extent dependent on external contacts, market opportunities and natural resources. See also P.T. Bauer, Equality, the Third World and Economic Delusion (London: Weidenfeld & Nicolson, 1981).
58 For an explanation of the other terms, see T. Dos Santos, op. cit., p.232.
59 There is much debate about the veracity of the argument regarding deteriorating terms of trade. For example, Dudley Seers, Development in a Divided World (Harmondsworth: Penguin, 1971), who contends that it is a fallacious argument. He maintains instead that the gap between the rich and poor countries is an outcome of the weakening of trade as a stimulus and population growth in the LDCs, pp.22-23.
60 Lenin was the first systematic exponent of the idea that surplus capital from Europe was invested in the colonies to produce huge profits which then returned to Europe, thereby impoverishing and distorting the economies of those countries. See his Imperialism, the Highest Stage of Capitalism (Hampstead: Penguin, 1916). Since then empirical evidence has seriously undermined his argument. See M. Barratt-Brown, Essays on Imperialism (Nottingham: Spokesman, 1972).
61 T. Dos Santos, op. cit., p.234.
62 Ibid.
63 For more on the role of MNCs in dependency theory, see H. Radice, International Firms and Modern Imperialism (Hampstead: Penguin, 1975).
64 The term was first used in the context of Latin America where most dependency theory originates. See A.G. Frank, Capitalism and Underdevelopment in Latin America (London: Monthly Review Press, 1967).
65 Ibid.
66 Paul Baran, 'On the Political Economy of Backwardness' in his collection, The Longer View: Essays Toward a Critique of Political Economy (London: Monthly Review Press, 1969), p.262. The underdeveloped bourgeoisie is the result of imposing capitalism and trade from the outside on essentially feudal systems; the capitalism that develops then within LDCs is deformed and does not become a progressive force. This is a controversial view of the role of capital, separating the neo-Marxists from the dependency school.
70 Ibid., p. 304.
71 R.B. Sutcliffe, Industry and Underdevelopment, op. cit.
73 Ibid., p.128.
74 Ibid., p.129.
75 See Centre for Development Planning, Projections and Policies of the UN Secretariat, 'Industrialization and Development: Progress and Problems in Developing Countries, op. cit., which concludes that 'the ability to sustain a high rate of increase in manufacturing itself hinges on whether the expansion of the rest of the economy is adequate or not' (p.7) and therefore, 'development
policies need to be directed to all sectors of the economy in an appropriate mix, rather than confined to one sector' (p. 15).


79 Ibid., p. 651.

80 Ibid., p. 644.

81 Ibid., p. 651.


83 R.B. Sutcliffe, Industry and Underdevelopment, op. cit., pp. 251-6. Sutcliffe distinguished between three different senses of IS: the substitution of domestic production for goods once imported; changes in the pattern of consumption away from goods normally imported, and changes in the import content of total supplies of manufactured goods. While Chenery's definition described the reduction in the import content of manufactured supplies over a period of time, Sutcliffe used IS to cover only the direct substitution of domestic production for the import of the same product, thereby dealing with a much shorter time span than Chenery.

84 Alice Amsden criticised Chenery's method for underestimating ISI's importance by defining it in an industry as a one-time event instead of a stream of activities. This creates measurement biases across countries which have 'probably generated higher recorded levels of import substitution in Latin America and India, with relatively long histories of middle-class importation than East Asia.' See Alice H. Amsden, 'Structural Macroeconomic Underpinnings of Effective Industrial Policy: Fast Growth in the 1980s in Five Asian Countries', Discussion Paper No. 57 (Geneva: UNCTAD, 1993), p. 3.


87 But, 'note that it is the initiation of IS that is stated to be 'easy', not its effective implementation', Henry Bruton, 'The Import-Substitution Strategy of Economic Development', The Pakistan Development Review (Vol. 10, No. 2, Summer 1970), p. 126.

88 Albert O. Hirschman, 'The Political Economy of Import-Substituting Industrialization in Latin America', The Quarterly Journal of Economics (Vol. 82, No. 1, Feb. 1968), p. 5. In the absence of a single impulse to cut down on imports, it becomes important to know what process is to be implemented, since this affects the course of the IS policy. For example, if the primary impulse to industrialise arises out of a response to a sudden balance of payments crisis, this leads to a bias in favour of luxury goods and other non-essential industries. Quite the opposite effect should occur if IS is undertaken as a deliberate policy for furthering development.

89 Or what seems like an increase in demand, since domestic production replaces imports as well as any increases in consumption.

90 See John H. Power, 'Import Substitution as an Industrialization Strategy', The Philippine Economic Journal (Vol. 5, No. 2, 1966). Power believed 'the crude policies of protection that may serve adequately in the first stage, and the economic structure that try encourage, are likely, in my
opinion, to become barriers to growth in subsequent stages' (p. 170). According to Power, these barriers consist of economic inefficiency, technical inefficiency and the failure to achieve an adequate rise in domestic saving, all of which are a result of the imposition of high and general protection rates and an overvalued domestic currency which discourages exports and the establishment of backward linkages by industrialists. Writing before the rise of the Asian tiger economies, Power had some policy recommendations but remained pessimistic about ISI in general while believing also that, 'the alternatives to an import substitution strategy are not very promising either.' (p.197).

World Bank, World Development Report, 1979 (Washington: IBRD/World Bank, 1979), p.69. But note that in a survey of selected countries during the 1960s, the UN found a number had gone on successfully to experience growth in second-stage IS: 'in the group of heavy industries that manufacture mostly intermediate goods, durable consumer products and capital goods, import substitution played a far more potent and pervasive role during the past decade. ... import substitution still has a considerable potential in heavy manufacturing industries in the developing world. Within the component of the manufacturing output generated by heavy industries, imports generally loom large in the available supplies of machinery and equipment, basic metals ... and industrial chemicals. Undoubtedly, therefore, efforts will be made in many developing countries to seize the opportunities for further import substitution in these industries.' Centre for Development Planning, Projections and Policies of the UN Secretariat, 'Industrialization and Development', op. cit., p.39.


Ibid., p.27. Export-orientation is not immune from this type of analysis. C. Hamilton, 'Capitalist Industrialisation in East Asia's 'Four Little Tigers'', Journal of Contemporary Asia (Vol.21, No. 1,1983). Hamilton argues that a particular form of state and class relationships developed in Taiwan, South Korea, Hong Kong and Singapore leading to a successful export-oriented industrialisation after a short phase of ISI.


See, for example, World Bank, World Development Report, 1991 (New York: OUP, 1991), which conceded that 'government intervention is essential for development' and provided a checklist of 'good' intervention. This included reluctant intervention; the application of checks and balances and open intervention (such as tariffs instead of quotas), p. 5.


Ibid., pp.3-4.

Ibid., p.4. See also Richard M. Auty, Economic Development and Industrial Policy: Korea, Brazil, Mexico and China (London & New York: Mansell Publishing, 1994),who, while sympathetic to Amsden's counter-argument to the 'oversimplistic market-driven model of Korean success', claims she underestimates the contribution of macroeconomic management to Korea's success. Auty argues that 'effective macro management is essential for a successful industrial policy, which, even then, may find its principal justification on strategic military grounds rather than economic ones.' (p. 41).

varied from country to country. But the fact that all of them were working in a positive direction, thereby reinforcing one another, is a point of great importance; for it provides convincing evidence that the various strategies of industrialization are not necessarily competitive forces or alternatives among which the developing countries must always make a choice. Depending on the prevailing circumstances, it may well be in the interest of the developing country to pursue all three strategies simultaneously.\textsuperscript{12}  Centre for Development Planning, Projections and Policies of the UN Secretariat, 'Industrialization and Development', op. cit., p.44.


\textsuperscript{102} World Bank, \textit{World Development Report 1979}, op. cit., p.59. The Bank advises that in countries where the domestic market is relatively small, ISI beyond the early stages should be viewed with caution. These countries should switch instead to production for export because manufactured exports tend to be more labour-intensive and less skill-intensive than import substitutes. See p.68.

\textsuperscript{103} See Robert Wade, \textit{Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization} (Princeton, NJ: Princeton University Press, 1990) for an analysis of the role that governments played in the export successes of the south east Four Asian Tigers. See also Hubert Schmitz, 'Industrialisation Strategies in Less Developed Countries: Some Lessons of Historical Experience', \textit{Journal of Development Studies} (Vol.21, No.1, October 1984). Schmitz also dismisses the idea that market forces adequately explain the very impressive achievements of the Asian experience but argues they were able to exploit privileged access to foreign capital and markets.

\textsuperscript{104} World Bank, \textit{World Development Report 1991}, op. cit. and World Bank, \textit{The East Asian Miracle: Economic Growth and Public Policy} (New York: OUP, 1993). For a discussion of the World Bank's reluctant acceptance of governments' role, see Renee Prendergast, 'The Environment for Entrepreneurship' in Richard M. Auty and John Toye (eds.), \textit{Challenging the Orthodoxies} (London: St. Martin's Press, 1996). See also Vinod Thomas and Yan Wang, \textit{The Lessons of East Asia: Government Policy and Productivity Growth - Is East Asia an Exception?} (Washington: World Bank/IBRD, 1993). The authors acknowledge there is no single or uniform model of success in the region given the considerable variation in the degree to which governments intervened in different economies. They argue that the main reason for East Asia's superior performance was not that governments intervened less - on average they intervened as much as anywhere else in some areas such as public expenditure - but that they intervened 'efficiently and in ways that contained and minimized overall price, trade and macroeconomic distortions.'


\textsuperscript{106} Ibid.


\textsuperscript{109} Quoted in Bela Balassa, 'Indicative Planning in Developing Countries', \textit{World Bank Staff Working Paper} 439 (May 1990), p.3.

\textsuperscript{110} Ibid., p. 20.


\textsuperscript{112} 'Analytical techniques cannot cope with the complexity of economic change to produce comprehensive and up-to-date plans; plans constrain the economic choices of politicians, and obstruction by bureaucrats - as individuals or as groups pursuing their own interests - lead to administrative failures which are even more serious than market failures.' \textit{Ibid.}, pp. 11-12.

\textsuperscript{113} Michael Kalecki, \textit{Essays on Developing Economies} (Hassocks: Harvester Press, 1976). Kalecki argued that government should play an active role in determining the pattern of investment to
discourage investment in the production of inessential luxury goods in order to avoid lop-sided
development, and to ensure adequate resources for the production of necessities.

114 Eprim Eshag, Fiscal and Monetary Policies and Problems in Developing Countries, op. cit., p. 173.
116 Ibid., pp. 1-2.
117 Paul N. Rosenstein-Rodan, 'Notes on the Theory of the “Big Push”', in Howard S. Ellis (ed.)
119 These industries comprise basic metals, non-metallic minerals, chemicals, engineering and
machinery. Their attraction to developing countries lies in their association with modern economy
and their reputed role as a catalyst whose linkages can trigger the proliferation of new industries.

121 Ibid. Other proponents of the resource curse theory include A.H. Gelb, Oil Windfalls: Blessing or
Curse? (New York: OUP, 1988); G. Ranis and S.A. Mahmood, The Political Economy of
Development Policy Change (Oxford: Blackwell, 1992) and J.E. Mahon, 'Was Latin America too
rich to prosper? Structural and political obstacles to export-led growth,' Journal of Development
123 Ibid., p. 17.
124 Albert O. Hirschman, 'A Generalized Linkage Approach to Development, with Special
Reference to Staples', Economic and Development and Cultural Change (Vol. 25, 1977),
supplement.
126 Ibid., p. 238.
127 Ibid., p. 242.
128 Richard M. Auty, 'Resource Abundance and Economic Development: Improving the
Performance of Resource-Rich Countries', (Helsinki: United Nations University/World Institute for
130 Paul N. Rosenstein-Rodan, 'Problems of Industrialisation of Eastern and South-Eastern Europe',
131 Ibid., p. 206.
132 Howard S. Ellis, 'Accelerated Investment as a Force in Economic Development', Quarterly
133 As quoted by Ellis; the reference is: Jacob Viner, 'Stability and Progress: the Poorer Countries'
Problem', in Douglas Hague (ed.), Stability and Progress in the World Economy (London:
134 Ellis argued against interventionist policies; though he recognised the success of concentrated
state investment in the industrialisation programmes of Japan and Russia, they were not the only or
primary means of bringing about development. He argued that alternative policies, such as the
encouragement of private investment, had greater merit. The gains from big push investment could
be overestimated. 'The economic development of the most advanced countries, at least, scarcely
seems to be the result of crash programmes,' he argued. Howard S. Ellis, 'Accelerated Investment as
a Force in Economic Development', op. cit., p. 495.
135 This was particularly so for social overhead capital which comprised basic industries such as
power, transport and communications, and which Rosenstein-Rodan regarded as the main obstacle
to development in the LDCs. For a discussion of the indivisibilities and the wider issues of
infrastructure and industry, see, Mrinal Datta Chaudhuri, 'Infrastructure and Location', in Cody,
Hughes and Wall (eds.) Policies for Industrial Progress in Developing Countries, op. cit.
136 Paul N. Rosenstein-Rodan, 'Problems of Industrialization of Eastern and South-Eastern Europe', *op. cit.*, p.204.
137 For an excellent discussion on the notion of prerequisites see, A. Gerschenkron, 'Reflections on the Concept of “prerequisites” of Modern Industrialization', *Economic Backwardness in Historical Perspective, op. cit.*
144 Albert O. Hirschman, *The Strategy of Economic Development* (New Haven: Yale University Press, 1958), p.66. Hirschman suggests that since genuine decision-making is a scarce resource in most LDCs, it is better to try and economise on it and set up instead a process by which decisions to invest are induced, namely, unbalanced growth and the establishment of forward and backward linkages.
148 I. Little, T. Scitovsky and M. Scott (eds.), *Industry and Trade in some Developing Countries, op. cit.*, p.1. This study is better known for arguing for the reversal of import-substitution policies.
150 Argentina is a case in point. The development of industry was sought through a policy of price discrimination against agriculture and in favour of industry followed by disappointing growth rates in the 1940s and 1950s. See C.F. Diaz-Alejandro, *Essays on the Economic History of the Argentine Republic* (New Haven: Yale University Press, 1970).
151 W. Arthur Lewis, 'Development Strategy in a Limping World Economy', *The Elmhurst Lecture*, The International Conference of Agricultural Economists (Banff, Canada, Sept. 3-12, 1979), p.8. Though Lewis advocated industry for employment in 'The Industrialisation of the British West Indies', *op. cit.*, his views had changed by the mid-70s.
Chapter 3. Economic Policies and the Effect on the Economy during the Fifth Plan Period

3.1 Introduction

This chapter will examine the Iranian economy during the Fifth Plan Period (1973-77) and explore specifically the level of industrial development and manufacturing growth achieved through the big push industrialisation policy. In this period, the state dominated the economy through public investment financed by rising oil revenues. The Fifth Plan was revised in 1974 to increase expenditure by 90 per cent with the aim of restructuring the economy through a big push to lessen dependence on oil and encourage manufacturing growth. But the policy ran into difficulties of shortages of skilled manpower and absorptive capacity and helped fuel rampant inflation. This chapter will use the yardsticks established in the previous chapter to measure the degree of manufacturing growth in the economy and the extent to which this performance lived up both to the government’s objectives and to internationally accepted norms.

3.2 Cycles of economic boom and crisis

Iran’s economy between 1950-1979 was characterised by a tendency towards cyclical growth. The economy went into decline after the 1951-53 oil nationalisation attempt, when the government was prompted to devalue the rial. With the restoration of oil revenues and as a result of increased government expenditure and the extension of credit to the private sector, Iran experienced its first major boom in the post-war years from 1957-60. However, ensuing
inflation and large current account deficits signalled an end to the boom and a deep recession set in during the early 1960s. The economic situation deteriorated to such an extent that the government was obliged to resort to an International Monetary Fund-prescribed stabilisation programme, which eventually proved successful. One element of the belt-tightening stabilisation programme was the reduction of imports, in particular of non-essential or luxury items. Import restrictions were retained by the government even after they were no longer needed (the balance of payments began recovering from 1962) and were combined with promotional policies designed to develop the country's industrial structure. It was thus that the government's import-substitution strategy towards industry evolved. The policy can also be seen as part of a broader attempt by the government to operate a successful investment programme, one which Farhad Daftary has suggested, was launched in the mid-1950s when the current expenditure of the government rose from 16 billion rials in 1956 to 37 billion rials just four years later, in 1960.¹

Seen in the light of the post-1953 coup, it appears that the government may have been trying to ease urban discontent among the middle classes who had supported prime minister Mohammad Mossadeq, by increasing effective demand and supplying goods and services. The relaxation of import controls from 1954 onwards meant that import traders benefited considerably from the subsequent expansion in imports. In fact, their accumulation of funds needed investment outlets and this fact too may have augmented the attractiveness of an import-substitution policy, from the government’s point of view.
From 1963 the country entered another boom period which lasted until the end of the decade when, once again, the deficit on the current account grew alarmingly, accumulating to $2.6 billion over the period 1963-72. This time, however, the government was able to solve the problem through pressure for higher oil prices, resulting in the February 1971 Tehran Agreement and, more dramatically, in the quadrupling of oil prices in late 1973. As a direct result of this, Iran’s foreign exchange earnings enabled the government not only to balance the books but also to embark on its big-push drive by revising the Fifth Plan to increase expenditure by 90 per cent, from 2,486 billion rials to 4,697 billion rials.

Unfortunately for the government, oil prices stabilised far sooner than expected and indeed began to fall off, thereby bringing to an abrupt end the period of massive public expenditure, culminating instead in a deep economic crisis from which the government was not to recover. This process has been succinctly summarised by Robert Looney:

With the leveling off in oil revenues and cutbacks in government expenditures in the mid-1970s, momentum began to slacken. The strategy [ISI] became self-defeating and sterile. Domestic saving could not be generated to finance the social overhead capital and it was necessary to resort to deficit financing which was inflationary. The government-imposed controls began to reduce subsidies; groups had become accustomed to increased standards of living. This led to political pressures for more controls which led to further distortions in the allocation of resources. Zero sum activities such as avoiding controls, capital flight and speculative investments in urban real estate became common. Without momentum the country quickly became mired in a vicious cycle of financial repressions, distortions,
social conflict and political instability from which it was impossible to break out.4

Table 3.1 shows the annual growth of gross national product (GNP) and gross domestic product (GDP) per capita between the years 1959-1977 in constant prices. Between 1963 to 1972, GNP grew at an annual average of nearly 11 per cent, while per capita income more than doubled during the 10 years from $178.6 to $366.3. The impact of the increase in revenue from higher oil prices can be clearly seen in the sudden jump in the growth rate, by over 40 per cent, from 1972-74. However, GNP grew at only 1 per cent in 1975 and it actually fell in real terms in 1977.

The cycle just described formed one of two boom periods, beginning, ending and punctuated by three periods of economic crisis. The earlier boom period, from 1962-1970, was far more prolonged than the second period (1973-76), and the 1976 economic crisis was far more pronounced than that of the early 70s. The main reason for this was that though the growth rates of the second period were spectacularly higher than those of the 1960s, the basis for their growth was actually weaker, while the degree of expenditure at the government’s disposal allowed those distortions in the economy induced by the government’s economic policies, to become far more pronounced during the second period. In part too, it was this very magnitude of the country’s economic crisis from 1976 that made it one far harder to control.
These periods of economic crisis are interesting for both their similarities and their differences. The most important feature of the early 60s and mid-70s was the fact that the economic difficulties were accompanied by widespread political disturbances; again, these were far more pronounced in the mid- to late 70s. This is in contrast to the balance of payments difficulties of the early 70s, when political upheaval did not occur. The main reason for the difference is, of course, due to the fact that the government was able both to prevent the unhealthy balance of payments situation from developing into a crisis which would have affected the population.

It can be said, therefore, that the political discontent brought about by high inflation and the fall in the standard of living in the late 70s, had a precedent in the early 60s, since the economic difficulties which affected the urban population in particular acted both times as a catalyst, bringing out widespread political grievances. The revolution of 1978/9 was the more intense protest movement, in part because more time had elapsed for grievances to grow but also, because it formed the response to a more sudden drop in the standard of living following a period in which expectations regarding the country's imminent achievements had been kept very high by the government.

The government did not, in the late 70s, have the same opportunity to augment its income through external means, as it did in the early 70s. While it tried to deflect attention from its own mismanagement of the economy, through a policy of price control, anti-profiteering and wage increases in 1975, it had,
nonetheless, come to be identified with the economic, in particular, the industrial policy it had put forward. The sudden downturn in the economy, which had not been anticipated by the government, meant that it was to be held responsible for this.

3.3 Import-substitution as economic policy

The decision to use protection methods in order to industrialise was made explicit from 1963 onwards. Tariffs, rather than quotas, were the preferred system. Import-substitution was rigorously implemented through a package of tariff protection, industrial credit, production licensing and tax holidays. Tariffs were highest on consumer goods and durables and lowest on capital goods, indicating a commitment to building up, or creating, the industrial infrastructure, though this measure also meant that in many cases, it was more profitable to use capital-intensive, rather than labour-intensive methods of production. The policy and its objectives were clearly stated in a brief passage in the Fourth Plan (1968-72):

The Fourth Plan is the first stage of a long-term programme to industrialize the country, the objective of which is to make the country independent of consumer goods and to manufacture capital and intermediate goods inside the country so as to minimize the volume of imports, and to diversify the export of locally manufactured goods to foreign countries. This will reduce the dependence of the economy on oil revenues.

The industrial sector, therefore, would gradually replace oil production as the driving force behind the economy. This policy was reiterated in the 1970s by M. Agah, the Secretary of State for Executive Affairs:
For all who know the Iranian economy, it is clear that the fundamental feature of Iran's long-term development strategy is to use the income earned from oil and gas, while at its highest, to diversify and build the productive capacity of the economy, so that other forms of industry can gradually replace oil, which is expected to decline in the 1980s. Only in this way can the country achieve self-sustained economic growth... In developing non-oil sectors of the economy, agriculture has only limited possibilities due to climatic and physical conditions such as low rainfall and limited arable lands... Thus, attention should be focused on the industrial sector. 8

This suggested, therefore, a policy of deepening import-substitution into the production of intermediate and capital goods and of raising non-oil exports, in particular of goods other than primary exports. Another important feature was that the main groundwork for these aims should be laid from the income derived from the sale of oil, 'while at its highest'. Since oil reserves were expected to decline in the 1980s, the target date would be towards the end of the 70s, when real results should have been apparent.

During the Fourth Plan Period, the Ministry of Economy showed impatience with a capital constraint, which it perceived to be responsible for slowing down the growth process in the country:

Iran aims at being a modern, advanced, industrialized country and is making a major effort to achieve this goal. The magnitude of the effort can be appreciated by the size of allocations in the 3rd as against the current 4th Development Plan. In the 3rd Plan, which ended in the spring of 1968, a total of some 20 billion rials was allocated to the industrial sector. The current allocation is 20 billion rials per year, which means that the allocation in each year of the 4th Plan equals the five years of the 3rd Plan. If more capital were available, more could be productively absorbed in prepared projects as the country goes through a period of one of the highest rates of industrial development in the world. 9
With the jump in oil prices from $3.29 a barrel in 1973 to $11.58 in 1974, this constraint was lifted and the Shah's objective became that of achieving within 10 years the standard of living enjoyed by Western Europe. Within one generation Iran would be one of the five most advanced and powerful countries in the world. The World Bank explained the Iranian government's position thus:

With the upsurge in oil prices and the expectation after 1973 that Government revenues from oil and gas during the period 1979-80 were likely to exceed $20 billion a year in foreign exchange . . . capital became more abundant than before, especially in relation to the available resources of labor and management and to the infrastructure that had so far developed. Two major alternative courses thus appeared to offer themselves to Iran's planners: either to maintain roughly the old pace of development (which was far from being slow) while systematically working on the bottlenecks that would impede faster development (and thus banking or investing abroad for a time the surplus earnings); or alternatively to accelerate Iran's economic development by the injection of most or all of the increased earnings in the domestic economy with the view to revolutionising Iran's economic structure within a relatively short time. In the event this latter alternative was chosen, principally to fulfil a desire to raise Iran to the level of an industrialised European country within a decade.10

In a report on the feasibility of achieving this aim, Bahman Abadian concluded that though such a goal had never been attained before in such a short period of time, it was nonetheless possible but crucially dependent on many carefully chosen and difficult policies, which he listed:

The improvement in the quality and style of life comparable to those in the West will require many institutional changes . . . It should be pointed out in conclusion, that there is no historical precedence for such a radical structural and socio-institutional change in a short span of ten years. If Iran accomplishes this without significant side effects, it would be a socio-economic miracle dwarfing Japan's meteoric performance during the past two decades.11
The Fifth Plan, which had been duly revised in 1974, set out its general objectives thus:

a) to raise the quality of life for all social groups;
b) to maintain rapid, balanced and sustained economic growth, together with minimum price increases;
c) to increase the income of various groups, particularly with a view to raising living standards among low-income groups;
d) to expand comprehensively social, economic, political and cultural justice with particular emphasis on the equitable distribution of services among all social classes and groups;
e) to improve the quality and increase the supply of active manpower so as to increase productivity and eliminate development bottlenecks;
f) to preserve, rehabilitate and improve the environment, and raise the quality of life, particularly in large centres of population;
g) to develop science and technology and promote creativity and initiative;
h) to establish relative competitiveness in the production and export of industrial goods, at the international level;
i) to utilize foreign exchange reserves to the full so as to remedy domestic shortages and check inflationary pressures, for foreign investment and for the creation of sources of national wealth to replace depleting oil resources;
j) to maintain and resuscitate the nation’s valuable cultural heritage, carry out research and teaching in cultural and artistic fields, expand culture and the arts, establish facilities for artistic and literary creation and promote cultural relations.\textsuperscript{12}

The interesting thing to note here, apart from the comprehensiveness of this as an ‘all-good-things’ list, is the high priority given to economic growth as an objective compared with solving the problem of skilled manpower shortages (and similar bottlenecks), and the creation of an alternative source of income in the face of oil reserve depletion. For industry, the revised plan listed its overall objectives as:

a) to increase the value of industrial production from 509 billion Rials in the last year of the Fourth Plan to 1,130 billion Rials in the last year of the Fifth Plan, an annual average growth of about 17 per cent;
b) to increase the value added of the industrial sector from 164 billion Rials in the last year of the Fourth Plan to 408 billion Rials in the last year of the Fifth Plan, an annual average rate of increase of about 20 per cent;
c) to revise the existing system of operations so as to make economies, lower production costs, improve quality and make the maximum utilization of the productive capacity of industrial units;
d) to establish new industries and develop existing ones on the basis of the relative advantages of each;
e) to raise the export capacity of industrial goods so as to expand the markets of domestic industries and ensure long-term requirements of foreign exchange.\textsuperscript{13}

The Fifth Plan envisaged, therefore, bringing about major structural changes in the economy, particularly in the contribution of the industrial sector to GNP but as we shall see in this chapter, the results fell far short of the objectives.

3.4 The level of industrial development

In 1968, the Plan and Budget Organisation divided countries into three categories in terms of industrial development, namely, industrially-developed countries with an industrial sector accounting for 25 per cent of GNP, developing nations with a 15 to 25 per cent contribution and the underdeveloped countries, whose industrial sector accounted for less than 15 per cent.\textsuperscript{14} With a 16 per cent industrial sector contribution to GNP, Iran fell just within the second category in 1968.\textsuperscript{15} Bearing this in mind, we would expect it to have grown, at the very least, to 20 per cent by 1978, since the target of realising a European standard of living involving, amongst other things, industry accounting for over 25 per cent of GNP, would be only five years away.

Table 3.2 shows the industrial sector’s contribution to the GNP in current prices for the Fifth Plan period (1973-77). From this we can see that the industrial group’s contribution is somewhat erratic, though stabilising at just
under 17 per cent in 1976 and 1977 and increasing to 17.8 per cent in 1978. This represents, therefore, an increase in 1978 of just 2.3 percentage points over the sector’s contribution to GNP in 1973 and therefore places Iran at the lower end of the 15 to 25 per cent bracket of the PBO’s definition of a developing country. More disappointingly, if we look at the contribution of the manufacturing sector within the group as a whole, we can see that it actually declined in the GNP, from 9.7 per cent in 1973 to 7.5 per cent in 1978. Nonetheless, it grew at a yearly average of 18.3 per cent in current prices, though the pace declined – apart from in 1977 – over the period.

The most interesting feature of the table is the part played by construction in the industrial group. The rate of growth of construction was on average a massive 48.8 per cent for these years, and unlike manufacturing, the growth rate increased, from 47.3 per cent in 1973 to an extraordinary 101.3 per cent increase in 1976, before falling off. It was therefore construction that accounted for the greater part of the growth of the industrial sector as a whole, and overtook manufacturing in its contribution to GNP. While manufacturing accounted for 9.7 per cent of GNP in 1973 and construction 4.3 per cent, by 1978 construction contributed 9.1 per cent as opposed to manufacturing’s 7.5 per cent.

As we shall see, the mid-70s inflation accounted for much of the growth of the construction sector, and for some of the industrial sector as a whole. Certainly, in the urban centres and Tehran in particular, there was a severe
shortage of housing and a property boom, with much private wealth being
invested in property speculation, which was far and away the most profitable
investment activity at the time. Growth in construction also reflected the very
high share it was allocated in total fixed investment, as well as indicating the
high level of economic activity.

For a better comparative basis than the current prices of Table 3.2,
Table 3.3 shows the industrial sector's contribution to the GNP in constant
prices. It should be noted that the Bank Markazi statistics from which these
results are derived include mining in manufacturing. From this table, it can be
seen that manufacturing's growth rate of an average 4.5 per cent a year was the
lowest growth rate of the group as a whole, and of its constituent sectors.
Construction made a far less dramatic contribution, though its boom years were
still 1975 and 1976. The industrial group as a whole contributed no more than
17.5 per cent of GNP, at its highest, in 1976, before falling off. The
manufacturing and mining sector contribution was by far the highest to GNP
within the group, reaching 11.7 per cent in 1976, before falling off.

These results should be set against the objectives laid down by the
government for the Fifth Plan period, in order to see how successful the
government was in realising its objectives. The revised Fifth Plan stated the
quantitative objectives for GNP:

During the Fourth Plan period GNP at 1351 prices rose from 686
billion Rials to 1,165 billion Rials, an average annual rate of increase
of 11.2 per cent. During the Fifth Plan period GNP in real terms will
rise by 25.9 per cent annually, from 1,165 billion Rials to 3,686 billion Rials.\textsuperscript{16}

Table 3.4a shows GNP in constant 1974 (1353) prices for the Fifth Plan period. The annual average rate of GNP growth was 2.4 per cent, falling far short, therefore, of the 25.9 per cent projected by the government. Even if the year 1978 is taken as exceptional, because of the industrial halt in the economy, the average growth rate of 1973-77 was still only 6.9 per cent per annum.

Definitions of an industrialised country and measures of industrialisation have already been discussed in Chapter 1. One of the favoured measures was that put forward by the Centre for Development Planning, Projections and Policies of the UN Secretariat, which regarded an industrially advanced country as having a minimum 17 per cent contribution of manufacturing to GDP. Robert Sutcliffe looked towards an industrial sector employing 10 per cent of the population and contributing 25 per cent to GDP, with 60 per cent of industrial output being in manufacturing.\textsuperscript{17}

Figures for the sectoral contribution to GDP give a much better idea of the productive structure of the economy than GNP estimates. Table 3.5 shows the GDP in Iran by kind of activity for 1970 and 1972-78, in constant prices. The UN figures have been used in preference to Bank Markazi statistics because they have the advantage of classifying manufacturing activities separately from mining. GDP more than doubled during the eight years from 1970 to the peak year, 1977, rising from 1,943.8 billion rials to 3,924 billion rials. It increased
by 20 per cent during the Fifth Plan years. The slowest growth was in agriculture with an annual average of 3.5 and the fastest growing sector was services, with an annual growth rate of just under 17 per cent for the Fifth Plan period. Table 3.6 gives the sectoral contribution to the GDP in percentage form, while Table 3.7 gives the breakdown for the industrial sector. What is most noticeable about the figures in Table 3.6 is not the declining contribution by the oil and mining sector but its replacement in importance by the services sector rather than industry. Hence, oil and mining decreased from 52.3 per cent in 1973 to 30.7 per cent in 1978, while the services sector increased rapidly from 26.5 per cent to 46.1 per cent for the same years.

Manufacturing’s contribution to GDP was never more than 8.3 per cent, though it rose from 6.8 per cent in 1973. Table 3.7 shows that the average annual increase of manufacturing was 10.5 per cent (the lowest rate of increase in the industrial sector and below average for the sector as a whole) during the Fifth Plan period, and its rate of increase also declined over these years. As indicated in previous tables, construction grew considerably, increasing by 36.1 per cent in 1975 and over 50 per cent the following year.

The figures for the contribution of the industrial sector and manufacturing to GDP nowhere reach the ones given above for an industrially advanced country. Manufacturing contributed 8.3 per cent at its highest compared with the minimum of 17 per cent suggested by the UN while the industrial sector contributed 14.8 per cent before declining, in comparison with
Sutcliffe's 25 per cent for the industrial sector as a whole. Moreover, the statistics do not suggest that industry was growing, but rather, that the main period of growth was already over before the end of the Fifth Plan period.

The GDP figures also fell far short of the government's own objectives regarding the industrial sector. The Fifth Plan aimed to increase the value added of the industrial sector from 164 billion rials in 1972 to 408 billion rials in the last year of the Fifth Plan, which corresponds to an annual average increase of about 20 per cent.\(^{18}\) Table 3.7 shows that industrial growth during the period was erratic, in that it showed a 1.6 per cent decline in absolute terms following a year in which the rate of increase had been just over 26 per cent. For the period as a whole, the annual average increase was 11.8 per cent and not the projected 20 per cent. In part, this average has been brought down by the very low figure for 1978, when industry suffered a 15 per cent decrease in real terms. But even if we assume a 7.5 per cent decrease for the year, in order to compensate for the strikes and industrial upheaval in the last quarter, the annual average increase would still be only 13.1 per cent.

3.5 Iran's industrial growth in a comparative context

Nevertheless, an 11 per cent or 13 per cent industrial growth rate is a high one by the standards of most developing countries and it might be worthwhile at this point to compare the growth process in Iran with a typical or 'normal' pattern of growth. The model used will be that provided in a 1975 study by Chenery and Syrquin.\(^{19}\) The study gives a quantitative analysis for over 100
countries across the period 1950-70, on the basis of certain structural similarities, that is, market size and trade pattern. Three standard growth patterns are derived by taking resource allocation into account. These are identified as firstly, large countries with balanced allocation; secondly, small countries with primary allocation and finally, small countries with industry specialisation. A large country is one with a population of 15 million or more in 1960; this definition embraces Iran.

Like all normal growth pattern studies, which are based on cross-section regression analyses, the assumption is that all the countries face similar world market conditions, regardless of changes over time. This is definitely a drawback, since such conditions may not hold for all countries; indeed, some countries may be bound by restrictive trade agreements with other countries. Nevertheless, in spite of such shortcomings, the Chenery-Syrquin study provides a useful yardstick for the classification of countries.

Table 3.8 shows the 'normal' variation in economic structure of large countries, using per capita income as a measure of development. Table 3.9 provides relevant data for Iran as the basis for comparison. Looking at the tables together reveals a striking deviation between Iran's economic structure and that expected of a 'normal' economy at any given income level. As income rises, primary production is usually expected to fall. It remained very high in Iran's case, contributing 41.1 per cent of GNP at an income level of just under $800 compared with Chenery and Syrquin's expected 13.6 per cent for the same
income level. The reason for this is the importance of oil, which unlike most primary products has a high elasticity of demand. The Iranian agricultural sector fell to a lower than expected share, indicating that with the growing importance of oil, the government felt less concern over the performance of agriculture.

The share of industrial production, on the other hand, is much lower than the expected pattern. Iran’s 21.8 per cent share at an $800 per capita income is less than that expected of a ‘normal’ economy with income levels of just $200. In spite of a four-fold increase in the level of per capita income in Iran, the production level of the industrial sector did not increase significantly between 1967 and 1977; it rose from 18.5 per cent to 21.8 per cent for these years, but this increase was due to the performance of the construction industry. Manufacturing, if anything, actually declined.

Iran’s structure of trade was again very different from the ‘normal’ pattern. The share of primary exports for Iran’s oil-based economy was very high and actually increased with the level of income, though it peaked in 1975. Manufactured exports were very low, though in the light of a much lower than expected industrial production structure, this is hardly surprising. At the $800 income level, manufactured exports had only a 0.3 per cent share compared with an expected 6.4 per cent share. More interestingly, taking into account the government’s objectives of increasing manufactured exports, the share of these exports actually fell from 1973, the 1977 figure of 0.3 per cent being much lower than the 1971 figure of 1.0 per cent. The shares of imports, investment
and government consumption are more in line with the 'normal' economy, though after 1973, they suddenly increased, especially in the case of investment and imports and rose some way ahead of the expected pattern. Hence, for the $800 per capita income levels, Iran's imports were between 22.7 per cent and 19.1 per cent against an expected 15.1 per cent; the country's investment and government consumption share stood at, respectively, 34 per cent and 20.1 per cent for the same income level, compared with Chenery and Syrquin's 23.6 per cent and 13.6 per cent respectively.

The post-1973 rise in the aggregates for these sectors — imports, investment and government consumption — reflect the government's policy of injecting large amounts of money into the economy in a big push towards industrialisation. Since the increased revenue came from charging a higher price for oil, a change in the country's production structure was not evident up to this point. But after 1973, the increased expenditure did not appear to make the intended changes; on the contrary, the adverse tendencies in the economy were exacerbated and the distortions made more acute. These distortions were not induced solely by the peculiar nature of an oil-based economy; they were also dependent on the way in which the government chose to direct the economy through the expenditure of its privileged source of income. 20

3.6 The manufacturing industries: structure, employment and growth

It has been seen that manufacturing grew at a fairly rapid pace throughout these years, in spite of a disappointing performance in the GDP, relative to the targets
the government had set. Table 3.10 shows the growth of manufacturing value added from 1968 to 1978. The annual growth rate for these years was high at an average of 10 per cent. The year in which the fastest growth occurred was 1974 with 18.3 per cent, but by 1977 the manufacturing value added fell in real terms by 15 per cent. The fall continued into the next year such that manufacturing value added for 1978 had declined to the 1974 level, in real terms. The important point to note from this table, is the fall in manufacturing productivity after 1976 just a year or two after the implementation of the revised Fifth Plan.

Table 3.10 covers the productivity of all manufacturing establishments, large and small alike, while Table 3.11 sets out the value added for specific industries and for manufacturing as a whole, based on large manufacturing establishments only, that is, establishments employing 10 or more people. It can be seen that for the period shown, productivity increased in most industries, many showing a sizeable increase from 1973, due to the rising level of investment.

Table 3.12 compares the totals of total manufacturing with those of large manufacturing establishments. It can be seen that the manufacturing value added of the large establishments accounted for 56 per cent of total manufacturing value added in 1970. This proportion decreased to 51.3 per cent in 1973 before increasing once again to just over 56 per cent in 1974. Since it was the large establishments which represented the modern side of the industrial effort, they were to be the engine of the country’s industrial growth.
and development. It is their performance which is, therefore, of the most concern. Seemingly in recognition of this, the government ceased compiling detailed statistics for the small establishments after 1972.

Table 3.13 sets out information regarding the number of industrial establishments, the total persons engaged and the wages paid. The information for 1979 is included as a comparative basis, though that year is outside the period examined here. For the years in which statistics on both small and large establishments are available, it can be seen that just under 3 per cent of all establishments were large industrial establishments, employing roughly 33 per cent of the total industrial workforce. Their workers earned between 62 per cent and 67 per cent of all industrial wages. The table shows that the number of large establishments increased by just over 2000 in the three years between 1974 and 1977, yet employment increased by only 73,720, i.e., an average of 37 workers per factory. Comparing this figure with the increase of around 1000 large establishments, between 1969 and 1973, when employment went up by over 105,000 we can see that effectively, a 100 per cent increase in the number of industrial establishments was accompanied by only a 35 per cent increase in the number of workers during this latter period. This suggests a trend towards greater automation, or more capital-intensity, as industrialisation proceeded.

The annual wages of industrial workers, on the basis of the information provided from this table are given in Table 3.14. As would be expected, the wage rates in the larger industrial establishments were substantially higher than
in the small establishments and grew at a much higher rate of increase. Wages in the small establishments are really very low and well below the per capita GNP for these years. These small industrial establishments were mostly engaged in handicraft production, such as carpet-weaving and small-scale semi-agricultural activities, such as the packaging of fruit and nuts for export.

A more detailed picture of wages and employment in large manufacturing establishments can be seen in the following six tables. Tables 3.15-3.17 provide information on wages and Tables 3.18-3.20 consider the numbers employed. Unfortunately, Bank Markazi does not give a unified set of statistics for these years. Table 3.15 shows the compensation of workers index from 1975 to 1979, taking 1974 as the base year. Leaving aside 1979 for the time being, it can be seen that wage rates rose substantially from year to year, by at least 40 per cent and by as much as nearly 70 per cent from 1977-78. By 1978, workers were earning, on average, three times what they had earned just four years before. This increase in earnings reflected the rapidly rising cost of living as well as the demand for skilled labour during this period. The interesting thing to note from the table is an even greater upsurge in wages after the revolution. The index jumped to 512 in 1979 from 319.8 in 1978, an extraordinary rise in income.

Table 3.16 shows a breakdown of earnings across selected industries for 1970-76. The average annual increase in wages was 29.5 per cent, but above average increases occurred after 1973. In 1975, there was a 45.7 per cent increase on the previous year and an increase of 33.7 per cent in 1976. These
increases can be seen more easily in Table 3.17. The lowest were in the textile, leather and glass sheets industries and the highest in the automobile and automobile tyre industries. Of the wages in the selected industries, between one-third and one-quarter were earned in the spinning and weaving industries. However, their share of the income dropped from 32.8 per cent in 1970 to 26.5 per cent in 1976. The automobile industry earnings were second to spinning and weaving with 14.1 per cent in 1976. Wages here replaced the higher percentage earned in the tobacco industry in the years prior to 1972.

Table 3.20 shows how employment in the automobile industry increased rapidly after 1974. There were also significant increases in numbers employed in industries as diverse as dairy products, paints and electrical tools. Again, spinning and weaving revealed itself to be the highest employer in the selected industries. In 1970 it employed 49 per cent of workers in these industries; they earned only 32.8 per cent of the wages. However, spinning and weaving was one of the few industries that did not expand its workforce after 1975, resulting in a drop of its share to 38.5 in 1976 with its workers earning 26.5 per cent.

A comparison of Tables 3.17 and 3.20 indicates that, in general, industries demanding skilled workers enjoyed higher than average earnings. The automobile industry had been singled out by the government for expansion and development not only for the domestic market but for export too: 'The Shah in person has set the goal for Iran National [the largest producer] to become one of the world’s top auto makers within seven years. This implies a
major breakthrough in foreign markets. This explains the particularly large increase in workforce in the industry for the years under study. In numerical terms, the increase was from 9,125 workers in 1970 to over 20,000 workers in 1976, as shown in Table 3.19. From this table too, it can be seen that spinning and weaving also expanded its workforce by 10,000 workers, in the five years from 1970 to 1975 before losing 2,000 of them in 1976. The top five industries, in terms of numbers employed in 1976, were spinning and weaving, automobiles, household appliances, tobacco and cement. All other industries employed less than 10,000 workers and the majority of these, under 5,000.

The total number of workers in the selected industries rose by almost 45 per cent from 1970 to 1976. Unfortunately, the employment index given in Table 3.18 does not cover the same years, so the employment increase of 24 per cent from 1974 to 1978 does not strictly bear comparison. From this table, which covers all industry, it can be seen that the greatest increase in employment took place in non-metal mining, followed by the food, beverages and tobacco industries. The total number employed in the selected industries amounted to 177,841 in 1976. This compares with the figure for all large manufacturing establishments given in Table 3.13, as 470,000 for 1977. In other words, the selected industries list leaves out an estimated 292,000 workers who must have been employed in a wide spread of much smaller industries. More information is given on this in Table 3.21. It lists details of the 926 largest manufacturing establishments for 1977. From the table, it can be seen that these establishments employed nearly 275,000 workers. Of the 470,000
workers employed in 8,200 establishments, almost 275,000 were employed by only 926 establishments. In other words, in 1977, 58.5 per cent of workers were employed by only 11.3 per cent of the total number of large manufacturing establishments. Industrialisation on a large scale was, therefore, fairly limited in Iran, even as late as 1977.

3.7 The manufacturing industries: sectoral contribution to output

From Table 3.21, it can be seen too, that intermediate goods accounted for 35.4 per cent of manufacturing output in 1977, just ahead of consumer goods with 34.5 per cent. Capital goods accounted for 28.3 per cent. During the 1960s and early 70s, import-substitution was implemented especially in the consumer goods industries. Thus, tariffs were highest on consumer goods and durables and lowest on capital goods. During this period, however, the consumer non-durable group had a negative ‘real’ contribution to the national income:

This indicates general inefficiency in the Iranian manufacturing industry and inefficient investment decisions in the sheltered markets of the country, at a cost to the national economy, especially amongst consumer goods industries.22

By 1977, the output of the consumer goods industry was in decline relative to intermediate goods and even capital goods. This was most noticeable after 1972, when the government concentrated on increasing substantial amounts of investment to some intermediate goods industries and most capital goods industries, in particular the motor vehicle industry and basic metals. Table 3.22 outlines this trend from 1963 to 1974, in terms of gross output of manufacturing
establishments. The composition of manufacturing value added in percentage form is given in Table 3.23 (this is an expansion of Table 3.11) across similar years.

From Table 3.23, it can be seen that the percentage contribution of manufacturing value added on consumer goods declined from 69 per cent in 1963 to roughly 51 per cent in 1970 and 1971 before finally falling to 39.6 per cent in 1974. Intermediate goods rose, however, from 23.2 per cent in 1963 to 30.3 per cent in 1970 and then 44.7 per cent in 1974. The capital goods industry experienced the biggest growth of manufacturing value added. The increase was from a 6.7 per cent contribution in 1963 to 15.6 per cent in 1974. However, as Parvin Alizadeh also acknowledged:

> Despite the rapid growth of intermediate and capital goods industries over this period . . . the 'capital goods' sector remained structurally narrow and undeveloped. 23

Alizadeh has studied the machine tools industry and has researched extensively into the motor vehicle industry in Iran; her findings will be summarised here.

The machine tools and machine industry were technologically the most important part of the capital goods industry. The capital goods sector can be divided into electrical and non-electrical machinery (ISIC Groups 383 and 382). The output of subsector 383 was mainly in the consumer durables area, its major component being subdivision 3832 (radios, TV, etc.) while subsector 382 for the most part encompassed the production of industrial machinery.
Table 3.24 compares the contribution of Iran’s capital goods sector to manufacturing value added (MVA) with other countries for similar years.

From the table, it is clear that Iran’s capital goods sector was geared towards the production of goods from subdivision 383, the consumer durables sector. The ratio of 383 to 382 shows the degree to which the productive structure of the capital goods industry varied from country to country in the 1970s. It was less than one for highly industrialised countries such as the USA and Japan, indicating that goods from subsector 382 were the majority share of those being produced. This was also the case in India and Brazil. Of the other countries, Iran had the highest ratio of consumer durables production to industrial machinery. In fact, the table represented an improvement on Iran’s earlier performance in the output of goods in subdivision 382, since it was virtually non-existent in the 1960s, contributing as it did between 0.5 per cent to 0.6 per cent in MVA. This compared with 5.1 per cent to 6.2 per cent for India, 3.4 per cent to 4.4 per cent for Brazil, 2.6 per cent for Turkey, 2.3 per cent for South Korea and 1.1 per cent for Colombia.24 These figures, taken together with the fact that Iran’s per capita income was higher than that of India, Brazil, Colombia, South Korea and Turkey, all indicate the narrow and underdeveloped structure of the Iranian capital goods industry.

The main drawback of a narrow capital goods sector is that it cannot then aid the vertical integration of manufacturing industries. This is particularly
important for those industries that are heavily import-dependent for their component parts. Alizadeh cites the case of Japan:

At the level of speculation, one can argue that the presence of a relatively developed capital goods sector in Japan provided a fertile ground for the rapid development of the Japanese industries in the 1950s and 1960s. In this respect, one can refer to the development of the Japanese automotive industry. This industry, which was almost wholly dependent on imported parts and components in the early 1950s, achieved 100% local content by the late 1950s and also Japanese firms began to develop their own models by the mid-1960s.25

Iran’s manufacturing industries were marked by the degree of their import-dependence, particularly in the intermediate goods, capital goods and consumer durable industries. In 1970, the import-content of the pharmaceutical industry was 100 per cent, tyres 90 per cent, air coolers 88 per cent, and passenger cars 80 per cent.26 Alizadeh’s study of the motor vehicle industry reveals that the local content of the industry was limited to the extent that almost all the locally-produced passenger car models were essentially an assembly operation. The revised Fifth Plan envisaged the local content of the vehicles manufactured domestically would reach 75 per cent during the course of the Plan. However, by 1978, the actual weighted local content of domestically-produced vehicles averaged 45.3 per cent.27

Returning to the manufacturing industries as a whole, Table 3.25 presents UNIDO’s statistics on the composition of manufacturing value added for the two years, 1970 and 1978. These show a 6.6 per cent decrease over the period for consumer goods and a decrease, too, of 7.8 per cent for intermediate goods. The capital goods industry shows an even more pronounced increase than in the
other tables, an increase of 226.5 per cent. UNIDO’s statistics show consumer goods contributing 28.2 per cent to the manufacturing value added in 1978, intermediate goods a massive 60.7 per cent (through the inclusion of petroleum refineries), while in spite of its rapid growth, the capital goods industry contributed only 11.1 per cent. Both the original and revised Fifth Plans emphasised the importance of the intermediate and capital goods industries. The original plan listed as its second qualitative objective:

> to establish new industries related to existing industries and available resources, particularly producing capital and intermediate goods, and thereby reduce future dependence on imported goods.  

The revised plan explained the importance of these industries thus:

> In the Fifth Development Plan the country’s industrial development is regarded as a basic measure in laying the groundwork of an advanced economy which will pave the way for the Great Civilization. Thus, while the necessary measures are envisaged in the Fifth Plan to meet existing shortages and ensure current requirements, an appropriate climate will be created for the production of a wide range of machine tools, industrial equipment and base metals required for the manufacture of capital goods.  

Finally, the productivity of the main sectors can be seen in the production indices for the period. Table 3.26 covers the years 1962-72, while Tables 3.27 and 3.28 cover the period after 1972 for both large manufacturing establishments and industry as a whole. Apart from fluctuations in some of the consumer goods industries, Table 3.26 bears witness to the success of the Fourth Plan, with substantial increases in productivity for intermediate goods industries such as chemicals and basic metal, and for capital goods industries, in particular transport equipment and electrical machinery. The combined index
rose from 60 to 100 from 1962-67, during the Fourth Plan period it rose even more spectacularly from 100 to 198.

By contrast, the general index of industrial productivity rose only 17 points during the Fifth Plan period (Table 3.28), partly due to the inclusion of mining which dropped from 109 points in 1973 to 97 by 1978. The manufacturing index rose by 59 points, the most noticeable increases in productivity being in the beverages and machinery industries. The index numbers for both electrical and non-electrical machinery experienced their greatest increases before 1976, when production for non-electrical machinery rose from 18 in 1973 to 121 in 1976 and from 40 to 116 for electrical machinery across the same period. Between 1976 and 1978, there was only a five point rise for non-electrical machinery, while electrical machinery actually dropped in productivity from 116 in 1976 to 106 the following year, before rising again to 137 in 1978.

3.8 Structure of investment

In order to attain the envisaged objectives of increasing the value of industrial production from 509 billion rials in 1972 to 1,130 billion rials in 1978 (an annual average growth rate of 17 per cent), and of increasing the value added of the industrial sector from 164 billion rials to 408 billion rials over the same period, the revised Fifth Plan projected an investment level of 780.1 billion rials. This compares with 506.4 billion rials envisaged in the original Fifth Plan, that is, an increase of over 50 per cent.
In addition, credits for industry would rise from 103.5 billion rials in the Fourth Plan to 194.5 billion rials in the original Fifth Plan, and 368.09 billion rials in the revised plan. Table 3.29 shows the projected fixed capital formation for industry during the Fifth Plan, and Table 3.30 shows the total credits for industry. The revised Fifth Plan took the opportunity of increasing development credits to the private sector from 20 billion rials in the original plan to 100 billion rials, as can be seen in Table 3.30. Of the 780.1 billion rials allocated for investment, 36 per cent would be in the public sector and 64 per cent in the private sector. This was in line with an established policy of encouraging private sector participation in the country’s industrialisation programme. Reference is made to this in a section of the revised plan, the objective being:

> to transfer gradually to the private sector public-sector industrial units which have in the past been established to guide and encourage private interests to invest in industry.31

In a speech to the Iran-United Kingdom Financial Conference in 1975, the prime minister, Amir Abbas Hoveida outlined the government’s policy towards the private sector:

> The Government has always valued the role of the business community in the growth of the economy, both in domestic and foreign trade. This country’s development plans are closely predicated on a close, complementary cooperation between the public and private sectors... Our commitment to a mixed economy will never change. The private sector is expected to play a very substantial role in the current Fifth Plan: to provide 43 per cent of all new investment in agriculture; 64 per cent of investment in industry; and nearly three quarters of the investment in housing. And these are only examples.
Moreover the private sector has been invited to involve itself in such traditionally public sector preserves as road and port construction, port management and in steel and petrochemicals, after the primary processing stages. The Government will continue its active role in infrastructural development and the provision of social services, and is perfectly willing to leave to the private sector the more profitable activities.\textsuperscript{32}

Emphasis on private investment in manufacturing began in the early 1960s with the Third Plan. The primary means of bringing about increased participation from a private sector traditionally wary of unfamiliar and risky enterprises was to provide:

- a) protection of the domestic industry by banning the import of goods similar to those being manufactured in Iran,
- b) exemption from customs duties for machinery, certain spare parts and raw materials destined for Iranian factories,
- c) tax holidays . . .
- d) the granting of loans and equity participation in industrial firms on the part of the Industrial and Mining Development Bank of Iran . . .\textsuperscript{33}

The industrial banks were very important in this process and they were responsible for over 75 per cent of private investment in industry in the ten years from 1962.\textsuperscript{34} In that decade, industrial investment amounted to 357 billion rials, of which 62 per cent was in the private sector.\textsuperscript{35} An assessment of the success of the Third Plan’s policy of encouraging private sector investment was made by the PBO in the Fourth Plan:

Together, the public sector and the private sector will have made a total investment of 70 billion rials in industry and mining by the end of 1346 [1967]. Of this sum Rials 46 billion was invested by the private sector and 24 billion rials by the Plan Organization. Private investment therefore exceeded that originally provided for by the Third Plan by 50 per cent. At the start of the Third Plan, it was recommended that Government intervention should be confined to a few basic industries and to investments in projects which, for one reason or another, fall outside the private sector. In practice, however, the Government, in addition to laying the foundations of future basic industries, by providing effective assistance to and even participating
in private industry, also spurred the private sector to greater industrial investments during the Third Plan.

At the start of the Third Plan the private sector, owing to economic stagnation, did not show much inclination towards making new investments. But from the end of 1342 [1963] private investment started picking up at an unprecedented rate. In this revitalized activity the assistance provided by Plan Organization and the industrial banks played an important role. The policy of the Government in encouraging and protecting the private sector resulted in increasing confidence on the part of private investors who channelled their savings into the industrial sector.\footnote{36}

The private industrial sector grew mainly because increased revenue from oil had led to higher government expenditure which in turn, raised total market demand. Other incentives included the heavy tariff protection and increased foreign investment in industries as well as long-term loans by the development banks. The main problem in persuading investors to look to industry was, as Parviz Sadigh also points out, that great profits were to be made in land speculation. Although government incentives and the newly established Tehran stock exchange did prove fairly successful, the vast majority of investors and entrepreneurs still preferred to invest in land, particularly urban land.

For a small group of private investors, the development banks, in particular the Industrial and Mining Development Bank of Iran (IMDBI), provided cheap and long-term credit.\footnote{37} The Bank itself received substantial government subsidies, although nominally a privately-owned joint stock company.\footnote{38} Because of the high cost of administration of small loans, the IMDBI preferred to give large loans, thereby effectively depriving small industrial establishments of the facility to obtain cheap credit. This, as well as the fact that companies had to apply to the Ministry of Economy for licences
(known as Commencement and Operation Permits) usually resulted in potentially profitable projects being given to established industrialists with political connections. Table 3.31 outlines the characteristics of these permits for the period 1964-73.

Since a licence was a prerequisite for eligibility to apply for a loan, the allocation policy resulted in the creation of an industrial elite and the concentration of industrial ownership:

In principle, licensing laws represent sound policy for a developing nation that would like to have some say in how capital resources are utilized, how much foreign investment is permitted, and to have the size, number, location, and products of enterprises in any one industry controlled. . . In practice, however, the licensing laws in Iran could not achieve these goals. From the legal point of view, the laws specified a confusing array of elaborate regulations necessary for the application of a license, but did clearly define how one proposal would be judged better than another. Furthermore, there was neither a consistent long-run plan from which administrators could work nor the experts capable of assessing the relative merits of the proposals. . .

In effect, the licensing laws have, by limiting the expansion of the entrepreneurial class, ensured that industry was controlled by a small handful of the favored elite. On the negative side, the removal of government support as granted under licensing helped to see that these businessmen did not overtly defy the government. On the positive side, the laws ensured entrepreneurs were not only willing to give the Shah a financial return from their operations but were also directly or indirectly through an immediate family member active participants in the Shah’s government. 39

It was oil wealth allowed the government to create powerful social groups by bestowing favours on them. The regulations regarding licences enabled a handful of industrialists to become a favoured group. The same group benefited from the extensive transfers of credit from the government to the private sector
in the 1970s. While banks based their decision to give loans on the creditworthiness of borrowers:

What made the system in Iran really different was the extent to which 'creditworthiness' was correlated with political power... The advantage of the modern bourgeoisie in benefiting from credit subsidy mainly resulted from its political and cultural proximity to the Shah.40

What also differentiated the social and political environment in which the banks operated from that prevailing in most other developing countries, was:

heavy subsidy which raised the stakes for the borrowers, government control of banks which reduced the chance of the banks to act independently of the center of political power, and, most important, the unique role played by the royal family which made those with close ties to it less of a credit risk.41

Salehi-Isfahani also describes the drawbacks for the banks of this politicised form of credit subsidy. For example, not only did political connections facilitate the acquisition of a loan, they also helped in delaying repayment by obtaining new loans to cover old ones. This situation became increasingly serious by the late 1970s, so much so, that cost overruns of 20-100 per cent had to be met by the specialised banks. The chairman of the Industrial and Mining Development Bank of Iran (IMDBI) in his 1977 annual speech regretted to:

repeat once more that a large part of the Bank's financial assistance had to cover shortages of financial resources due to cost inflation and overruns and not for new investment.42
Salehi-Isfahani draws the conclusion that credit subsidy became a means by which one section of the bourgeoisie was favoured at the expense of the other. The traditional merchant class had less access to credit subsidy than the new industrial and westernised elite. This unequal access between the traditional and modern bourgeoisie meant that:

their confrontation in the 1979 revolution could not be blamed on an inevitable historical necessity. Nor can it be blamed purely on their cultural and political differences. Rather, the blame should go to the dictatorial political system which amplified these differences into more serious conflict in the economic sphere.43

It is not necessary to agree with Salehi-Isfahani’s final conclusion to note that credit subsidy as a form of encouraging private sector participation in industry had become a politicised process in Iran, whereby industrialisation was used as a tool of patronage and control. The extent of the Shah’s involvement in the private sector reinforced the political nature of the industrial experiment, as part of an overall politicisation of important sectors within the country, which in itself derived from the nature of government in Iran:

The Shah and his family were able to gain a measure of control over the private industrial establishments through direct ownership. Every large establishment in Iran needed the Shah’s blessing to remain operative. As a result, industrialists generally gave the Shah shares in the operation. (One businessman who was interviewed for this study stated that 10 per cent was customary.) These shares were never in the Shah’s name, and rarely in those of his family, but in the name of one of the organizations he controlled. The most commonly mentioned organizations in this regard were the Pahlavi Foundation and Bank Omran. Shares in the enterprises were usually too small to involve the holding organizations directly with the day-to-day administration of the company but were large enough to give the royal family access to confidential information and to allow audits conducted by their own personnel.44
Bank Omran was one of the commercial banks which, along with the Central Bank (Bank Markazi) and Bank Melli, also gave loans to the private sector. Table 3.32 shows the activities of the specialised banks, which includes the IMDBI, the Development and Investment Bank of Iran and the Industrial Credit Bank (ICB), for the years 1975-78. From this it can be seen that the number of applicants was fairly low, the highest figure being 618 applicants in 1975. The amount paid out was high in relation to the number of applicants, especially since the number of application for loans did not necessarily represent the number finally approved. Assuming, however, that it did, each applicant in 1975 would average a loan of 82 million rials and one of just over one billion rials in 1977. The industrial enterprises favoured, therefore, were large, certainly in terms of capital.

The amount paid by the banks increased by roughly 11 billion rials from 1975 to 1977, but then decreased in 1978 along with a fall in applications for loans. Taking inflation into account and the decrease in applications for loans, it can be argued that the 11 billion rials increase does not represent a substantial increase in loans paid by the banks. If 1978 is included, the average for the period is 51.3 billion rials, which is nearer the amount paid out in 1975 than any other year. Tables 3.33 and 3.34 show the loan operations of the two largest specialised banks, the IMDBI and the ICB. The ICB was a government-owned bank funded by the Plan and Budget Organisation. The amount paid out by the ICB increased from 1.3 billion rials to 13.75 billion rials (current prices) in 1975. After 1973, the share of working capital dropped from around one
third to 7.2 per cent in 1974 and 6.1 per cent in 1975. The IMDBI increased the value of its loans similarly after 1973 and the number of its applicants also increased suddenly. In 1973, 7.5 billion rials was paid out and just two years later, in 1975, 33.6 billion went in loans, the increase being a direct result of greater government revenue made available to the bank. It should also be noted that the amount approved by the banks varied substantially from what was actually paid out. For some years, this could be as much as double or more.

Table 3.35 is concerned with the activities of the IMDBI only. From this, information regarding the number of borrowers and the degree of foreign shareholding is given. Throughout the period, the total number of borrowers numbered no more than 650, which was a fairly small proportion of the manufacturing establishments in existence (8,200 large manufacturing establishments in 1977, to say nothing of 191,070 small manufacturing establishments in 1972). This would tend to support the view that easy credit was available to an elite among the private industrial sector and, at the very least, to large capitalist industrial establishments.

While the majority of credit was extended to those establishments producing intermediate or capital goods, this meant also that nearly half the bank’s customers were borrowers with foreign shareholders. Table 3.36 shows the government’s credits to industry and mining and demonstrates the degree of government commitment to the more capital-intensive industries. The metallurgical and metal industries received over 60 per cent of government
credits in 1973, though this proportion dropped to 41.4 per cent in 1976. The chemical and petrochemical industries enjoyed the next largest amount, which in 1973, formed 14.2 per cent of credits and in 1976, 12 per cent. Together, these industries obtained well over 50 per cent of government credits for this period, which rose from just over 17 billion rials to a massive 69.4 billion rials within three years. The increase in government investment expenditure played a large part in the government’s ability to encourage the private sector to take part in industrial investment. Table 3.37 provides information on the pattern of investment and consumption expenditure. Government investment expenditure rose from 20.4 billion rials in 1963 to 143.4 billion rials in 1972 and then to 1,055.1 billion in 1977. At constant 1974 prices, this represented a less dramatic, but still sizeable, 3-fold increase for 1972-77.

Private investment rose from 31.9 billion rials in current prices in 1959 to 144 billion in 1972 and to 776.8 in 1977. In constant prices, this was a 150 per cent increase for 1972-77, with the annual average growth for 1973-77 being a sizeable 51 per cent compared with just over 24 per cent for 1963-72. In spite of these large increases, private investment expenditure was never as high as government expenditure after 1960. Indeed, the ratio of private to government expenditure declined significantly from 1.53 in 1959 to 1.00 in 1972 and finally to 0.74 in 1977. Again, this reflected the far greater sources of revenue the government had at its disposal than the private sector.
Although government expenditure was great, government consumption was greater still.\textsuperscript{45} In fact, it grew at an accelerated rate during the 1960s and 70s. From Table 3.37 it can be deduced that private consumption in 1977 was 8 times what it had been in 1963, while public consumption had grown almost 27 times during the same period. For this reason, Katouzian has argued that it is erroneous to assume that the Shah's mistake lay in accelerating \textit{growth} at a high rate; state consumption was the 'real culprit', resulting in the rapid depletion of resources and negative net savings.\textsuperscript{46} In part, state consumption was high because its income came in the form of oil revenues and, as such, Katouzian goes on to say, it was easier to spend than earn income.

Finally, it should be noted that although the state was able to encourage increased private investment, the private sector was very much under state control and not as independent of the public sector as would usually be the case. For example, in his report of the early 70s, Dragoslav Avramovic writes:

While most of the industrial growth has taken place in the private sector of the economy, the government has continued to exercise a major influence on investment and output decisions. Some projects, notably in petro-chemicals, are government-owned; and the integrated steel mill, presently under construction, is also in public ownership. Perhaps more important, the government authorities decide on the structure and location of output through the tariff and import policy and through licensing of new investment. An essential link in the relationships of the public and private sectors and of the domestic economy and international capital is the rapidly-growing Industrial and Mining Development Bank of Iran. It has participated in the promotion, financing and direction of almost all new industrial projects undertaken in the last few years. The government through its industrial policy, and the IMDBI through lending and equity investments, are in a position to exercise strategic leadership in industrialisation, while continuing to rely on private sources of savings and private management of individual enterprises.\textsuperscript{47}
The government's pervasive regulatory powers in the activities of the private sector, also resulted in frustrating delays for individual businesses:

Government bureaucracy has really slowed the pace of business. The private sector is required to obtain the approval of the state bureaucracy even for most of its minor decisions.48

The aims of the Fifth Plan regarding the private sector had been:

- to encourage private sector savings and investment in productive activities and to strengthen the capital market;
- to ensure greater cooperation between public sector and private sector activities.49

Superficially, the government did succeed in raising private sector investment, but the basis on which this was achieved was not a solid one nor did it meet the government's objective that fixed capital formation for industry by the private sector should exceed that of the public sector by at least 80 per cent (see Table 3.29). The pursuit of quick and easy profits was the main motive of the private sector and it was greatly aided in this by the provision of easy credits by the government. Once the government was no longer in a position to do this, the private sector began turning to other activities or sending capital abroad. In other words, the private sector was heavily subsidised by the government and did not turn into the independent engine for growth that the government ostensibly envisaged.
3.9 Foreign direct investment and skills shortages

The Iranian government’s interest in obtaining foreign investment and technical expertise originated in the 1950s and the Law for the Attraction and Protection of Foreign Investments was passed in 1955. The main provisions of the Law were the following:

1) Capital imported into Iran shall be subject to the legal protection of the Government and all the rights, exemptions and facilities granted to the domestic capital and private productive enterprises shall also apply to foreign capital and firms. In the regulations, foreign capital is defined as foreign exchange imported through authorised banks, machinery, equipment and parts, patent rights, expert services and the like.

2) The Government guarantees the repatriation of profits in the same currency as that originally imported and in the case of nationalisation [of which there was no case up to 1979] will provide fair compensation for foreign firms.

3) The Law applies to all foreign investment for development, rehabilitation, and productive activities in industry, mining, agriculture and transport. Development activities are redefined as those activities which help raise the production level and income of the country, or directly or indirectly earn foreign exchange, or affect an economy in its expenditure.

4) Investment in the banking sector will also enjoy the privileges of the Law.

5) The capital is privately-owned without any foreign Government participation.

The Law did not cover the purchase of foreign technology and was designed to be as attractive as possible to potential foreign investors. Iran’s needs however, changed considerably over the period after 1955 but no amendments were made to the Law to keep up with the developing situation. The major change was that the capital constraints of the 50s and early 60s gave way to a more urgent constraint in terms of skilled and technical manpower. This deficiency had been acknowledged by the government as one of the failures of the Third Plan:
Despite the efforts made in the Second and Third Plans to industrialize the country and the successes achieved so far, the industry and mining sector still faces basic problems, some of which are enumerated below:—

a. Insufficient numbers of skilled workers, specialists, management experts and difficulties in employing foreign experts; 51

The inability to attract foreign investment on a large-scale basis was identified by the Fourth Plan as a major impediment to the expansion of the mining industry. One problem was the attraction of experts to fill the skills constraint, the other was the necessity of a policy geared towards:

The gradual replacement of foreign experts by Iranians, and greater emphasis on training and employing the technical talents of Iranians and the adoption of policies aiming at further participation of industrialists and entrepreneurs in on-the-job training in industry; 52

During the Fifth Plan period, the government devised its policies in the full knowledge that there would be a shortfall in skilled manpower. Table 3.38 lists the projections calculated by the PBO, according to which out of a demand for 2,112,000 jobs, 721,200 would not be available. This represented a 34.1 per cent labour shortage. Most of these shortages were for skilled industrial workers and skilled construction workers. The revised Fifth Plan showed an awareness that this would be a problem in the face of the amount of investment it wished to undertake:

... three new dimensions have been added to Iran’s medium-term planning discipline, all directly as an increase in oil revenues:

a. planning on the basis of the availability of national resources, limiting infrastructural capacities, and other limitations to production, including the shortage of skilled manpower;
b. planning with regard to the importance of the proper utilization of that part of the country’s foreign exchange earnings which cannot be absorbed in the short term;
c. planning with no constraint on foreign exchange, with particular stress on procuring domestic needs from foreign sources of
supply and increasing the capacities, organizations and systems necessary for such procurement. 53

While point c) explicitly states that internal shortages of supply would not impede the government in its determination to carry through the big push, nevertheless, it seems that the government was not prepared for the problems which would arise. Thus, although Iran planned to recruit 10,000 foreign experts in 1976 in addition to the 50,000 already employed from countries such as India, the Philippines, South Korea and Vietnam, 54 it did not plan to cover more than 15 per cent of the 34 per cent labour shortage with foreign workers. 55 The rest were to emerge out of an increased number of Iranian students abroad deciding to return home and from more intensive education and training programmes within the country. There was little prospect, however, of a sufficient number of people being trained in the short term, and the returning students could not make up the shortfall, their numbers being very low. During 1971, 1,946 students returned and from March to November 1975, 2,916 returned. 56 But this was a drop in the ocean compared to the 595,000 vacancies which needed to be filled domestically.

A Foreign Employment Centre was set up in 1975, but by the end of 1977 the shortages of skilled manpower, whether foreign or national, remained a serious constraint on the government’s investment programme. The Minister of Education and Science, Manuchehr Ganji, appealed to industrialists to invest in technical and vocational training facilities. 57 Nevertheless, the problem was not circumvented and the government was obliged to continue to rely on a visible
number of foreign technicians, who enjoyed higher salaries than their Iranian counterparts and a more affluent lifestyle and thus became a source of nationalist grievance. In any case, the employment of foreigners is usually only suitable as a short-term remedy, but in Iran's case the need for skilled workers was so great that the dependence would have had to have been for a substantial period of time. There is no evidence to show that the implications of this had been fully considered by the government. 58

Tables 3.39 and 3.40 show the inflow of foreign private capital by amount and by country for 1971-77. The Center for the Attraction and Protection of Foreign Investments (CAPFI) had been set up under the 1955 Law and it channelled the funds into the appropriate industries. Foreign investment increased from under 1.5 billion rials in 1971 to 6.3 billion in 1977. Table 3.39 is noticeable for the diversity of the year-to-year investments as these were mainly determined by the project at hand. Nevertheless, it is clear that after 1973 petrochemicals took on a new importance as did metallurgy from 1976. The country most involved in the petrochemical industry was Japan; indeed, in 1977 all foreign investment for petrochemicals came from Japan.

Agreement on a huge petrochemical complex at Bandar Shahpur on the southern shore of the Persian Gulf was reached with a Japanese consortium in April 1973. This signified the creation of the Iran Japan Petrochemical Company (IJPC) in which each country had a 50 per cent holding. The plant was to produce olefins and aromatics and then to move into salt electrolysis.
Both the cost of the plant and the date it was due to come on stream were constantly revised upwards and forwards. Originally the complex was estimated to cost between $900 million and $1 billion, by 1977 the costs were estimated at $2 billion and in February 1979 the amount had gone up to $3.25 billion.59

The rising costs were in part affected by the initial rise in oil prices but later, and more importantly, by the fact that the costs of the project were denominated in yen. When the yen rose rapidly in 1978, the costs of the enormous project soared. The complex was 85 per cent complete at the time of the revolution but by 1984 Japan decided that it was economically unviable and reduced its stake to 25 per cent, as well as making the Iranian government agree to bear the costs of completing the project.

While the Shah cannot be held responsible for what happened to the plant after the revolution, there is good reason to think that the IJPC complex was never a suitable project. It aimed to produce at least ten petrochemical products without being certain of the markets for each of these:

... both Iranian and Japanese sources claimed that between 50 and 70 per cent of the complex's products would be absorbed by the internal Iranian market - a goal which interested outsiders suspected would stretch Iranian and Japanese ingenuity. The problem was not of there not being sufficient domestic demand, but of attracting the necessary downstream investments to convert IJPC's intermediate products into marketable end-products... Petrochemicals being complicated affairs, the planners have only to miscalculate the demand for two or three of the end-products and the economics of the others are also affected... Even if the events of late 1978 had not occurred, IJPC's planners were probably being too ambitious to establish such a complex project in Iran by the late 1970s.60
Because of the huge sums of money involved in the IJPC project from 1973, Japan became Iran's largest foreign investor as shown in Table 3.40. In 1977 just under 40 per cent of foreign capital came from Japan. The US was, on balance, the second largest investor, though until Japanese involvement it had been the largest. The amount of foreign capital increased from 1.47 billion rials in 1971 to a peak of 6.54 billion in 1976 before falling off slightly the following year. Of this foreign investment, 35 per cent and 40 per cent was in petrochemicals in 1976 and 1977 respectively, as can be seen from Table 3.39.

From 1973-77 inclusive, the inflow of foreign investment amounted to 25.3 billion rials while total investment for the Fifth Plan period was projected at just under 4,700 billion rials.\textsuperscript{61} Foreign investment, therefore, played a very small part in the contribution of capital to the country's development. As Fred Halliday notes:

\begin{quotation}
Because Iran has had plentiful supplies of capital, the main aim has not been, as it has in many other third-world countries, to get investment monies from these firms, and indeed they make up a small part of the total invested. . . Moreover, whilst the firms have been guaranteed favourable terms, the Iranian state has imposed strict terms on them in other respects, a strictness made possible by oil revenues . . . The Iranian state, for its part, is heavily reliant on these firms for its industrialization programme since it is only in this way that under capitalist relations it can install and run the equipment needed for developing the medium and heavy sides of industry.\textsuperscript{62}
\end{quotation}

In other words, the shortage of indigenous know-how, managerial and other skills made Iran dependent on foreign firms for the implementation of major projects and enterprises. In addition to this, few foreign concerns invested in those industries involved in exports. In the mid-1970s, only 4 out of 23 firms
with foreign partners exported their goods. It seems that foreign investors preferred those industries geared towards the lucrative home market protected, as they were, behind high tariff barriers. To a great extent, the limitations imposed by the Iranian government on the operation of foreign firms made little difference to their importance. The major limitation was that foreign firms operating inside Iran as a joint venture with an Iranian partner were subject to a maximum shareholding of 49 per cent. Table 3.41 shows the ownership patterns of the 223 foreign firms operating in Iran. Only 11.7 per cent had a majority shareholding, while just under half the companies (48.4 per cent) held 10-35 per cent of the stake. According to Rafii, this is not a good guide to the extent of foreign control actually exerted. Managerial control was almost totally in foreign hands in the joint ventures and in enterprises with 24 per cent foreign equity or more. In addition to this, wholly-owned Iranian companies sometimes brought in foreign collaborators for their expertise and they too could exert significant influence.

However, by the mid-70s, relations between the Iranian government and some foreign companies, in particular those of the US had begun to sour. Bashiriyeh suggests that this was due to Iran’s oil policies and extensive arms procurement programme which irritated some members of the US State Department and Congress. Tension was compounded with the establishment of the Law for the Extension of Industrial Property in 1975. This reduced the amount of shares foreign ventures could own to 25 per cent and some
companies, including B.F. Goodrich, the tyre company, decided to pull out of Iran at that time.

The Law itself, which was established by imperial decree, had been primarily designed to regain populist support for the government. Private companies were to sell 49 per cent of their shares to workers and the general public, while state-owned industries were to sell off 99 per cent. Ostensibly, it was to prevent the emergence of 'industrial feudalism' by broadening the ownership base of Iran's industries and mines. The Shah declared this formed the 13th principle of the Revolution of the Shah and the People, a process which had begun in 1963 with the six point White Revolution and which had land reform as its central pillar. In reality, the move was a populist one made necessary by rising inflation and a sudden downturn in the economy. A policy of price controls and anti-profiteering had also been launched. Shareholding workers could not participate in management and each worker could buy no more than five shares while employers could own 51 per cent. To allay the fears of private industrial owners, the prime minister pointed to the real aim behind the Law and assured owners that: 'they will still have the absolute control of their factory and of the majority of shares. The aim is to create a sense of equality among workers'.

It can be concluded that foreign direct investment in Iran was not large in terms of financial commitment, partly because Iran had large reserves of capital, but also because the opportunities for foreign investment were not
particularly great in terms of developed infrastructure, skilled labour or even the size of the market. The influence of foreign companies in Iran lay instead in the skills they brought with them and the degree to which the country became technologically dependent on them. Unlike some countries, for example Japan, Iran was unable to use the imported technology as a basis for building up local capability and her shortages of skilled manpower ensured an unenviable reliance on foreign know-how. At the time, this dependence was seen by many as a political move, actively encouraged by the government in order to please country’s Western and especially American allies. As a specific act of clientelistic relations, it would be difficult to prove.

3.10 Trade policy

Iran’s trade policies should be seen in the context of its import-substitution industrialisation strategy. As industrialisation proceeded, it would be expected that imports of capital and intermediate goods would increase to extend the range of domestic consumer goods production. At the same time, an increase of non-oil exports would also be expected, especially by the mid-1970s when ISI had already been in force for nearly 15 years and since the whole point of industrialisation was to find a substitute for foreign exchange income after oil reserves were depleted. The revised Fifth Plan has a section outlining policy towards ISI in terms of tariffs on imported goods:

A constant review of the level of tariff protection given to various branches of industry, with due regard for the development potential of each branch, will be a basic principle of the country’s tariff policy,
and this policy will be implemented during the Fifth Plan period in the following manner,

i. In the case of consumer goods, the present policy of reducing tariff protection so as to raise the quality of goods manufactured in Iran and thus enable such goods to be competitive with similar imported goods will be continued.

ii. In the case of intermediate or capital goods, appropriate tariff protection will be given to manufacturers of such goods so as to reduce imports and encourage the domestic manufacture thereof. Such protection will gradually be reduced after a reasonable period of time.\(^6\)

The tariff policy of the Fifth Plan represented a policy change, but one consistent with the objective of deepening import-substitution. Reference has already been made to the government’s early policy of blanket protection of domestic industry evolving out of the economic stabilisation programme of the early 1960s. Tariffs increased throughout the period and by 1970, the level of duty on consumer goods was five times greater than it had been in 1960; it was four times greater for intermediate and capital goods.\(^7\)

In addition to such controls, the quantity of imports was also restricted in the period up to 1973, such that the domestic market became a monopoly for domestic producers. From 1973, the government reduced import controls, in part to promote efficiency but also to meet growing domestic demand, which was increasingly unable to be satisfied by producers within the country. The effect of the relaxation of import controls was to allow a flood of imports. Table 3.42 shows the composition of imports for 1971-78 in US dollars. The value of imports rose five-fold during the period, from $2.1 billion to $10.4 billion. The last figure is for 1978 and itself represents a drop from the year before when imports amounted to $14.6 billion (and therefore represented a

182
seven-fold increase). The year 1977 gives a more accurate picture than 1978, as we have mentioned before, and therefore percentage shares have been calculated for that year rather than 1978.

Just under 65 per cent of imports were of intermediate goods in 1971, 23.4 per cent were of capital goods and only 11.8 per cent were consumer goods imports. This was before restrictions on consumer goods were lifted. By 1977, consumer goods imports accounted for 18.4 per cent of all imports, while intermediate goods had dropped to 54.1 per cent and capital goods accounted for 27.5 per cent of imports. Goods destined for the manufacturing and mining industries claimed the largest part of the intermediate and capital goods imports, accounting for roughly three-quarters of all intermediate goods and two-thirds of capital goods imports. The most eye-catching feature of the table is the huge leap in the value of imports in the two years after the increase in oil revenue. Thus, in 1973, the value of imports was $3,737 million. This rose by just under $3 billion the following year to $6,614 million. In 1975, imports increased substantially again, to $11,696 million.

Table 3.43 shows Iran’s main trading partners during this period. The statistics do not include military imports. From the table it can be seen that in 1973 Iran imported primarily from the former West Germany, followed by Japan and the US. A similar situation prevailed in 1978. Iran’s trade was overwhelmingly with the free market countries of the developed West and Japan. In 1973, just under 77 per cent of her imports was from these countries.
This rose to 84.1 per cent in 1978, despite an increase of imports from the former Soviet Union and Eastern bloc countries from 9.1 per cent in 1973 to 12.4 per cent in 1978.

It is clear from the table that all the countries listed increased the volume of their exports to Iran over the five year period, the US, Japan, former West Germany and the former Soviet Union by three times as much, while countries with a smaller volume of trade multiplied their exports to an even greater degree, such as Spain with a nine-fold rise. Only from Brazil did imports not rise significantly. The most noticeable feature of imports during this period is the rise in consumer goods, especially of food and live animals while intermediate and capital goods, although rising, actually dropped in relation to previous periods. Table 3.44 gives a sketch of the import and export trends from the early 1960s. There are several important features to note here.

Imports at both constant and current prices rose significantly during the 1973-78 period. The rate of growth at current prices was 43.1 per cent compared with 23.6 per cent for 1963-72. At constant prices too the increase was remarkable, from 19.7 per cent for the period 1963-72, to 29 per cent during 1973-78. Kamran Mofid has also demonstrated the degree of import penetration in the economy, by reference to the ratio of imports to GDP. Over the periods 1962-67, 1968-72, 1973-77, the ratio rose from 13.6 per cent to 16.4 per cent and then to 18.0 per cent. If oil is excluded from the GDP, the degree of penetration was even higher. For the same periods it increased from 16.9 per
cent to 20.6 per cent and then to 29.1 per cent for the Fifth Plan period. The main reason for this rise was the upsurge in consumer good imports, which had an average growth rate of 5.7 per cent during 1973-78. This compared with a negative growth rate of -6.7 per cent for 1963-72 (Table 3.44). By contrast, the ratio of both intermediate and capital goods to total imports fell during the Fifth Plan period. Their respective rate of growth had been 1.3 per cent and 2.3 per cent during 1963-72. This compared with negative rates of -1.3 per cent and -3.0 per cent for 1973-78.

The real disappointment was to be felt in Iran’s export performance in spite of the government’s promotion of the 1970s as the ‘Export Decade’. Since the 1960s, the government claim was that import-substitution would result in fewer imports and higher non-oil exports. Diversification of manufacturing production would also result, so the government predicted, in less reliance on oil for foreign exchange. It has already been mentioned that oil reserves were due to start becoming depleted by the late 1980s and that the government’s efforts, therefore, represented a race against time.

By 1977, the reverse of the intended outcome of the government’s trade policy had occurred. Imports, as we have seen, were at an all time high while exports of non-oil products, instead of emerging as a substantial foreign exchange earner by the late 70s, actually declined in absolute terms. The export figures given by Looney in Table 3.44, cover oil and non-oil exports. They show a decline in the rate of growth of exports at current and constant prices in
the 1973-78 period compared with the preceding 1963-72 years. The ratio of exports to GNP showed, for the first time since 1959, a negative growth rate during the Fifth Plan period. Looney writes:

While non-oil exports were able to expand in line with those of the oil sector during the period up to 1973 (albeit from a much lower base), they did not play a significant role after 1973. The inability of non-oil exports to make a major contribution to Iran's foreign exchange earnings, given the emphasis placed on developing alternative sources of non-oil exports, began to cause many observers to question the viability of the country's long-term development strategy . . . it was clear that manufacturing was not moving in the direction of establishing a comparative advantage in any of the major industries that the government counted on as eventually replacing exports, a matter of serious concern given the fact that both oil production and revenues were expected to begin declining in the mid-1980s.72

Table 3.45 shows the composition of Iran's non-oil exports for 1971-78 in terms of their value. The value of exports increased from $334.6 million in 1971 to $625.2 million in 1977, before falling off to $542.8 in 1978. This represents a doubling of the value of exports from 1971-77, which is substantially less than the seven-fold increase in imports for the same years.

In 1971, traditional and agricultural goods, in particular Persian carpets and cotton, amounted to 76.6 per cent of Iran's non-oil exports. This figure declined during the period but by only six percentage points by 1977. The contribution of non-petroleum mining increased from 4.9 per cent in 1971 to 7.5 per cent in 1977. The value of the export of industrial products such as clothing, soap and chemicals rose from 18.4 per cent to 21.7 per cent. These are very modest changes in the composition of Iran's export structure considering the fact that the government had been importing $52 billion of intermediate and
capital goods since 1962 precisely in order to generate the kind of productive structure which would result in a boost to non-energy exports.

When oil exports are included in the country’s foreign exchange earnings, the picture deteriorates further. Table 3.46 shows that Iran’s dependency on income from its export of fuels actually increased during the period, from 86.7 per cent in 1965 to 97.6 per cent in 1977. Exports of manufactured goods fell from 4.4 per cent in 1965 to 1.2 per cent in 1974 and finally to 0.8 per cent in 1977. Some of the increase in reliance on oil exports was due to the rise in oil prices but that was not the sole reason for the increase in revenues. It was also a result of faster depletion of oil reserves and the manifestation of a tendency towards increased reliance on oil revenues which was already apparent before 1973. By 1976, Iran was producing 6 million barrels a day (mbd), which was just 1 mbd below her productive capacity of 7mbd. This amount was kept as spare capacity in case of an emergency. There were many opponents of the Shah’s policy of maintaining high levels of oil production. As Shaul Bakhash writes:

On the eve of the revolution there was already a growing consensus within the administration in favor of lower rates of oil production and more restrained levels of development spending . . . Iran’s oil resources, it was argued were not only being wasted; they were also being plundered. The oil companies were not merely seeking to maximize profits. Along with their governments, they were party to a conspiracy to exhaust Iran’s mineral resources, to undermine native Iranian industry, and to make the country dependent on the West and a consumer of Western products. The shah, in pursuit of his grandiose military and economic programs, was not simply an unwitting tool of the United States and the Western European countries: he was a willing lackey, an active partner, in the despoliation of Iran. 73
Table 3.47 gives information on the levels of production and export of oil from 1967 to 1978 from which it can be seen that both production and exports after 1973 exceeded levels in the previous period. In 1967, Iran produced just over 2.5 billion barrels a day. Production rose steadily until 1974 to just under 6 billion barrels, an increase of around 130 per cent. Exports rose almost in parallel, by 145 per cent for the same years. From 1975 to 1977, production steadied between 5.5 billion barrels a day and 6 billion. Despite a five-fold increase in the price of oil, from $2.47 in 1972 to $11.46 in 1974, therefore, the government followed a strategy of escalated production and exports of oil to fund its big push industrialisation programme.

Nevertheless, industry was not able to absorb the whole of the increase. Indeed after 1973, the share allocated to the Plan and Budget Organisation for development expenditure dropped from nearly 80 per cent to 71 per cent. The excess was taken up by the Treasury General and was spent on increased arms procurement and the development of some social welfare benefits, which required imports of food and clothing.

3.11 Exports and the rise in domestic demand

As we have seen, the big push industrialisation programme in fact resulted in a decline in the value of manufactured goods' exports (Table 3.46), as a percentage of total exports, to under 1 per cent in 1977, while revenue from fuels accounted for over 97 per cent of the state's income. Even those industries
which had been specially selected by the government for priority treatment, fared poorly. For example, the value of the motor vehicle industry’s exports increased until 1975 when they amounted to $28.3 million, before suffering a steady and rapid fall to $9.5 million by 1978. In addition, the ratio of non-energy exports to imports declined drastically after 1973 and therefore, the stated goals of the government to diversify and increase non-energy exports cannot be said to have succeeded.

The disappointing performance of non-energy exports was a reflection of at least two factors; one was the increased size of the domestic market and the other was the relatively poor quality of Iranian goods, caused by inefficient production procedures. In addition to these, it should also be remembered that until the early 1970s, production had been geared towards satisfying domestic demand (which, in the end, it was not able to do) through import-substitution and the transition to export-orientation proved difficult for the government. Many firms had taken advantage of the high tariffs on finished consumer goods and low tariffs on capital and intermediate goods, to set up assembly operations for finished consumer goods. The lack of foreign exchange constraint meant too that finding alternative means of production of capital and intermediate goods would not necessarily be cheaper than their importation. This contributed to the already-mentioned late inception of the capital goods industry in Iran, which in turn constrained the growth possibilities of industry.
Within the consumer goods industry, industrial production was geared towards basic consumer goods. Despite the country’s relatively large population, and therefore, potentially sizeable market, income levels for the great majority of the population were very low, while illiteracy ran at over 60 per cent even by the mid-late 1970s. In 1973, 50 per cent of large urban manufacturing establishments were in the food and textile sectors. These two sectors accounted for 60 per cent of total industrial sales and 52 per cent of urban industrial employment.75

With the government’s massive investment and expenditure programme, which included state subsidisation of basic necessities after 1973, demand did rise but despite increased production levels (Table 3.27), it could not be satisfied. Domestic demand was still rising for basic consumer goods, especially clothing and food, which accounted for the rise in consumer goods imports in relation to intermediate goods in the post-1973 period, as already noted. With the relaxation in import controls, there was an increase too in the importation of consumer durables, though many of these were basically luxury items, such as German cars and washing machines, and appealed to the wealthier sections of the population.

Increasing the level of imports seemed the obvious solution to the problem of a shortfall in supply but the policy encountered difficulties connected with supply rigidities (port congestion, transportation shortfalls etc.), which resulted in money being wasted:
The cost is difficult to quantify. The only readily identifiable costs were demurrage charges for keeping ships waiting at anchor. In 1974/5 these cost Iran over $1 billion, almost 5 per cent of foreign exchange earnings... Delays in the ports almost certainly cost Iran much more than its imported inflation.

In addition to a shortage of goods and services, the country also suffered from a shortage of electrical power. Visitors to Tehran would remark on the irony of power cuts, a phenomenon usually associated with underdeveloped economies, in a country widely imagined to be on the brink of an industrial revolution. The revised Fifth Plan projected an increase of 377.4 per cent in the generation of electric power by publicly-owned facilities over 5 years. In 1972, power generation stood at 6,870 million MWH; this was to increase to 32,800 million MWH by 1977. In fact, it only reached half this amount by then and stood at 15,655 million MWH. Given the amount of investment and the efforts directed to achieving the pre-set goal, the achievement was disappointing and reflected not only the limits to productive investment, but also the degree to which the government had miscalculated the rate of rise in supplies of electricity generation. Needless to say, the power shortages resulted in stoppages of production. For example, the Imperial Commission set up to investigate waste, reported a 43 per cent decline in production at the Arak aluminium plant and a 45 per cent fall in output at the Arak machine tools factory caused by the power failures.

Apart from the increased size of the domestic market, another reason for the poor performance of non-energy exports was government policy towards
export-orientation (already briefly mentioned) as well as the relative lack of competitiveness of Iranian exports on the international market. We have already noted that import-substitution through protective tariffs made the home market more profitable for producers. Export incentives, in the form of cheap export credit, were introduced by the government only in 1970. According to Sadigh, long-winded administrative procedures accompanying the incentives did not make them attractive. Nevertheless, the value of non-oil exports did increase after 1970, from $273 million to $635 million in 1973.

The government laid emphasis on increasing exports as one of its five major objectives for industry in the revised Fifth Plan. It stated the aim was:

> to raise the export capacity of industrial goods so as to expand the markets of domestic industries and ensure long-term requirements of foreign exchange.

However, the government dropped its policy of export incentives from 1974 in an attempt to divert potential exports into satisfying domestic demand. In other words, an entirely inconsistent policy towards the promotion of exports was pursued and one which showed how soon the economy had gone out of the government’s control after implementation of the revised Fifth Plan. It has to be reiterated once again that accelerated investment made possible by the increase in oil revenues was intended to industrialise the country so that non-oil exports would cover foreign exchange earnings after oil supplies ran out. In fact, the government’s industrialisation drive obliged it actively to discourage non-oil exports. This shows that the degree of demand unleashed by the huge
investment programme had not been foreseen by the government, which then had to take desperate steps to control it. Fereidun Fesharaki, who worked in the Plan and Budget Organisation, wrote:

Not only were all the funds injected into the economy, but also Iran began to borrow internationally again. Many planners at PBO felt that, perhaps, one third to one half of the oil funds were wasted through unproductive, unnecessary and over-ambitious “white elephant” projects and imports. The very fabric of the social order was disturbed through uncontrolled spending. Non-oil exports which had reached $600 mn in 1974 fell in absolute terms. People went on a wild buying spree, project costs escalated, inflation which was under 4 per cent in the 1960s reached 30-40 per cent. In short, all the benefits of 20 years of planning were destroyed in less than three years.82

The competitiveness of Iranian goods on the international market is another point to consider on the same issue of non-energy exports. Table 3.48 provides information on the ex-factory price of selected goods compared to the international price for the year 1971. It can be seen that there was no necessary correlation between the rate of protection and the competitiveness of Iranian-produced goods. Most of the consumer goods listed were below CIF prices, with the notable exception of sugar, while intermediate goods were either below CIF prices or only up to 10 per cent above. It was in the relatively underdeveloped capital goods and durable consumer goods areas that prices were in general above CIF prices. Of the 13 examples listed, 11 were above CIF prices, 6 of which were either 20 per cent or above.

It is difficult to find a similar set of figures for the Fifth Plan period but there is good reason to believe that the overvaluation of the rial and accelerating
domestic inflation from 1975 onwards made Iranian goods less competitive than in 1971. Alizadeh's study of the automobile industry reveals that of the five main assembly plants for passenger cars, the ex-factory price of one of these was 23 per cent above CIF prices, while cars produced at the four other plants were more substantially in the region of 41 per cent to 63 per cent above CIF prices. According to Alizadeh this was a reflection of the high cost of locally-produced parts, such as engines, in the case of the exceptional plant, while three of the other four plants, operating at lower levels of production, manufactured cars of limited local content and were essentially assembly operations. The divergence between their ex-factory price and international prices indicates the uneconomical nature of an assembly operation below a certain level. The exceptional plant produced five times as many cars as the next largest plant and was the only plant to work on a two-shift basis.

Another drawback for the industry was the operation of factories below capacity. Alizadeh writes:

Despite increased demand after 1973, especially of trucks, Iranian production capacity was not fully utilised because of the substantial influx of imports. In 1974 and 1975 the government temporarily reduced import restrictions on trucks (and to a lesser degree on other vehicles) and itself imported a large number of trucks for prompt implementation of its own projects.

Inefficiency was caused, too, not only by high production costs and under-utilisation of capacity but also, as already noted, a lack of sufficiently skilled manpower:
Within three years Iran had become an exceptionally high-cost country without the benefits of skilled or efficient labour. General Motors calculated in late 1975 that it took 45 man-hours to assemble their Chevrolet Iran in Tehran against 25 man-hours in West Germany for the same car, the Opel Commodore. GM Iran had managed to reach 45 hours in just over 12 months, having scaled down from 80 hours at the outset of production. The comparative difference of labour costs was 5.2. GM lost $4.2 million in the first two years of operations. In fact the automotive industry's survival depended on high protective barriers (taxes of between 200 and 500 per cent) and a generous pricing policy because so many of the components were imported. (The Chevrolet Iran sold for $8,500 against $4,500 for the Opel Commodore in West Germany.) When price controls were introduced in July 1975, the motor industry was among the first to protest, and indeed was one of the few privileged sectors to have the controls rescinded in early 1976.86

Iranian goods were also less competitive because the rial was overvalued. The high exchange rate was intended to encourage capital imports and to keep food prices down, but it also had the effect of working against small businesses and making Iranian exports expensive on the international market.87 Table 3.50 gives an estimate of real exchange rates in Iran from 1972-78.88

3.12 Fiscal policy and inflation

The impact of increased government expenditure which resulted from the rise in oil prices and led to the revision of the Fifth Plan is best seen in the effect it had on prices during this period. Table 3.49 gives the consumer and wholesale price indices for 1962 to 1978, from which it can be seen that Iran entered a period of price rises in 1973-78 at least four times greater than preceding periods. The average wholesale price increase for 1962-67 was 1.3 per cent; for 1968-72, 3.9 per cent but for 1973 it rose to 12.2 per cent. A similar pattern prevailed with the retail price index, which rose by 129 points during the Fifth
Plan period, compared with a rise of 30 points for 1968-72 and one of just 6 points for the period 1963-67.

The steepest rise in prices for the consumer can be clearly seen in the two-year period from 1975-77, when annual prices rose from 9.7 per cent to 25.5 per cent. Pesaran writes:

. . . at the same time the growth of domestic value added started declining. The growth of real investment in construction which had amounted to 53.2 per cent in 1975 and 22.9 per cent in 1976, declined to 2.7 per cent in 1977. The total gross domestic fixed capital formation at constant prices which had grown by 64 per cent in 1975 and 21 per cent in 1976, grew by only 3.4 per cent. In fact for the first time since 1969 real investment of the private sector in machinery and equipment decreased by 6.8 per cent in this year and largely as a result of a dry year, value added of the agricultural sector also declined by 0.8 per cent in 1977.89

Tables 3.51 and 3.52 give the breakdown in price rises for the wholesale and consumer price index. The wholesale price index shows that domestically-produced goods rose at a faster rate than either imported or exported goods while exported goods rose more rapidly than imported goods. Of the rest, non-metal building materials (particularly cement and bricks) rose by nearly 86 points from 1974-78. All the other commodities, apart from textiles and clothing, rose by between 50-60 points for the same period.

As we have already noted (Tables 3.5 and 3.7), expenditure on, and the value added, of construction grew very rapidly from 1974. For a while, land speculation became the most profitable economic activity for those who could afford to buy up land and build apartment blocks. Table 3.52 shows that the
consumer price index for housing was the highest of all sectors. It rose by 142 points from 1973 to 1977, an increase of almost 170 per cent in four years. Once again, the greatest increase was between the years 1975-77 when the index rose by 105 points, an increase of nearly 90 per cent in two years, an official figure which along with the figures for inflation, are known to be underestimates. Rents shot up and shortages of affordable accommodation became a source of considerable aggravation:

To solve the resulting housing shortage, the government reacted with an even greater effort. Industrial projects now had to have housing components for the workers, thereby tripling development project costs. The already strained market for building materials was thereby further aggravated. . . The circle seemed endless. The situation had become untenable by mid-1975/1976. The whole question of lessening inflation while engaging in a Big-Push development strategy had been erroneously concentrated on emergency programs to solve bottlenecks. Since each bottleneck was replaced by another, the 'more effort' approach only aggravated the situation by requiring more expenditures in an already cash-laden and goods-poor economy. Rather than retrench on the fiscal front, the government - at the urging of the shah - pushed forward, oblivious to the social repercussions and the resulting discontent.

Table 3.52 also indicates the high rise in food prices, particularly that of fresh fruit and vegetables. The index rose by a staggering 114 points between 1974 and 1978 for traditionally cheap and abundant agricultural produce. The government had failed to install a viable distribution system between the farmer and retailer and its pricing policy served to reduce the profitability of investment in farming while having the perverse effect of paying greater sums of money for imports than to the farmer for the same commodity.
The rise in prices was accompanied by substantial wage rises, at first the result of the state’s generosity in the face of increased oil revenues but later, a reflection of the shortage of skilled labour. The compensation of workers index (Table 3.15) shows a rise of 44 per cent in 1975, and a further rise of 37 per cent in 1976. In 1976 the government attempted to curb inflation through a series of measures including a wage freeze (an annual increase of 1 per cent was allowed). Nevertheless, shortages of skilled labour meant that employers could not abide this and in addition, the wage freeze provoked strikes for pay increases in 1974 and especially in 1975, even though strikes were illegal. The increase in wages diminished but was still high at 28 per cent in 1977 and 27 per cent in 1978. Despite the wage rises, by 1976 around 60 per cent or more of workers’ take-home pay went on housing, and inflation continued to hit the unprivileged sections of society. The government took a number of measures during this period to curb price rises, but these proved ineffective since the underlying cause of the inflation, the increase in government expenditure which had caused demand to rise in excess of supply, was not curbed. Nor did the government feel in a position to raise the subsidies it had implemented after 1974 for fear of provoking political discontent.

The most notorious of the government’s policies to curb prices was the anti-profiteering campaign initiated in August 1975 under which the prices of over 20,000 commodities were to be restored to pre-oil boom prices. Those found guilty of over-charging would be imprisoned. Indeed, some prominent businessmen were arrested but since many of these were formerly supporters of
the Shah's regime, it meant that political discontent now penetrated the upper echelons of the propertied class. The anti-profiteering campaign coupled with the implementation of the Law for the Extension of Industrial Property, which has already been discussed, resulted in a lack of confidence by the private sector in the government and in the economy. The recession set in, capital started leaving the country and, after the lifting of foreign exchange controls, the outflow of capital accelerated. It has been estimated at between $4 billion to $6 billion during 1978-79.93

These measures did not lead to a reduction in inflation, as can be seen for the years 1976 and 1977 in Table 3.49. Looney describes the situation as that of an 'empty economy', whereby excess demand is induced by price controls. Price controls can only be effective when there is an attempt at making demand and supply balance at a realistic price. Otherwise resources will then be drawn out of industry into final output and final consumption which in turn will threaten the continuity and efficiency of production and distribution.94 By mid-1977 the government did indeed have a real problem caused by insufficient generating capacity.

Taxation policy was also revised from 1975 and the effect can be seen in Table 3.53. The tax on income and wealth had dwindled from a 14.5 per cent contribution to total revenue in 1970 to 5.1 per cent in 1974. This then rose to just under 10 per cent by 1977. The government raised taxes by 71.6 per cent in 1975; taxes on salaries were raised by 71 per cent in 1976 and 51 per cent in
Indirect taxes were also raised but the balance of payments deficit, which had eased in 1975 to stand at 144.4 billion rials, worsened substantially during the next two years. It increased to just under 170 billion rials in 1976 and then increased by over 85 per cent the following year to stand at a deficit of 314.8 billion rials. The government resorted to domestic and international borrowing.

By late 1976, the Shah embarked on a new policy by urging restraint and belt-tightening measures. He established an Imperial Commission to investigate wastages and corruption in the bureaucratic machinery. For the first time in 12 years he appointed a new prime minister (Jamshid Amuzegar) in August 1977. The new cabinet reversed most of the policies established in 1975; it disbanded the anti-profiteering campaign, checked government spending and attempted to encourage the private sector by extending banking credit and reversing the price control policy. But at the same time it was committed to appealing to the working class by raising wages, raising taxes and implementing the workers' profit-sharing and share-participation scheme. The contradictory objectives of the deflationary programme:

... brought a sudden growth in unemployment, especially among the unskilled and semiskilled, and this, coming after rising expectations, helped create a classic pre-Revolutionary situation. The combination of inflation, shortages and evident income-distribution inequities probably contributed more to growing discontent than did the standard factor cited in the West of "too rapid modernization". It was mainly how modernization was carried out, and the results of these policies, that were important.96
By 1977, it was clear that the predictions of a report by the Hudson Institute made two years earlier on Iran’s industrialisation attempts were vindicated. The report concluded that if Iran did not meet the targets of the Fifth Plan:

Iran, in the final decade of this century, could prove to be no more than a half-completed edifice, with the trappings of power and international influence and none of the substance.

Furthermore, the report indicated that even in the unlikely event of the targets being met, Iran’s economy would be no more developed than India’s or Mexico’s.

3.13 Summary

With the upsurge in oil prices, the Shah took the decision to inject most of the increased earnings into the domestic economy with the aim of diversifying the country’s productive structure and raising livings standards to that of an industrialised European country within 10 years. In this chapter we have seen how that policy misfired.

As we saw in section 3.4 above, the revised Fifth Plan envisaged annual GNP growth in real terms of 25.9 per cent; instead it grew at 2.4 per cent annually, or excluding 1978, at 6.9 per cent in constant prices, according to Bank Markazi. The Plan and Budget Organisation defined an industrially-developed country as one in which the industrial sector accounted for 25 per cent of GNP and a developing nation as one in which the contribution was
between 15-25 per cent. In 1968, Iran's industrial sector contributed 16 per cent to GNP, rising to 17.8 per cent in 1978. According to the PBO's own definition, Iran's industrial performance was towards the bottom of the league table of developing nations by the end of the Fifth Plan, despite the big push. Moreover much of the industrial sector's growth was driven by construction, as property speculation flourished during the period of rampant inflation. Manufacturing's contribution fell from 9.7 per cent of GNP in 1973 to 7.5 per cent in 1978. It was the slowest growing component of the industrial sector with an annual average rate of 4.5 per cent at constant prices during the Fifth Plan period, according to Bank Markazi.

As far as GDP is concerned, manufacturing's maximum contribution, in constant prices, was 8.3 per cent in 1977 and 1978. This was below the average for the industrial sector as a whole of, respectively, 14.2 and 13.9 per cent, as shown in Table 3.6. This compared with the UN's definition of an industrially-advanced country having a minimum manufacturing contribution of 17 per cent. The industrial sector's contribution to GDP, which reached 14.8 per cent in 1976, was also well short of R.B. Sutcliffe's 25 per cent contribution.

We also saw in section 3.5 that though Iran's industrial growth rate was relatively high at an annual 11-13 per cent, comparing its pattern of growth using the Chenery-Syrquin study, its economic structure deviated from that of a 'normal' country, principally due to the role of oil in the economy rather than expected changes in productive structure. Section 3.7 argued that Iran's
manufacturing industries were import-dependent and the capital goods sector relatively underdeveloped, despite the high priority given to the sector under the Fifth Plan. The government's policy of encouraging private sector investment through the grant of industrial licences gave rise to an industrial elite with privileged access to government subsidies and loans. This politicised the process, leading effectively to a state-controlled private sector which enabled the government to continue to control investment and output decisions and did not allow the private sector to develop as an independent engine for growth.

The big push drive ran into serious obstacles, including skills shortages, which made the country dependent on foreign expertise and exacerbated distortions within the economy. Iran's export performance remained weak and manufactured goods' exports actually declined in value, while imports of consumer goods surged. Government spending led to waste, inefficiency and high inflation which by late 1976 had reached serious proportions and measures to control price rises, including anti-profiteering controls, contributed to political discontent. By 1978, the targets of the Fifth Plan had not been met and, instead, the country was in revolutionary turmoil.

In the next chapter we shall consider the state's role in the planning process and the politicisation of the planning mechanism before going on to examine in Chapter 5 the international context lying behind the Shah's desire for big push industrialisation.
Endnotes to Chapter 3

5 For a good account of the political disturbances of the early 1960s, see Ervand Abrahamian, *Iran Between Two Revolutions* (Princeton: Princeton University Press, 1982).
12 Plan and Budget Organisation, *Iran’s Fifth Development Plan, Revised: A Summary*, op. cit., p.3.
17 R.B. Sutcliffe, *Industry and Underdevelopment* (Philippines: Addison and Wesley, 1971), pp.16-17. See also, by the same author, ‘Industry and Underdevelopment Re-examined’, *Journal of Development Studies* (Vol.21, No.1, Oct. 1984), in which he concludes that, in many cases, though a country may fulfil all three criteria, it may be industrialising at a lower level of labour productivity than the industrially advanced countries. This would, therefore, not mean economic progress in the normally accepted sense.


22 P. Sadigh, *op. cit.*, p.49.


34 P. Sadigh, *op. cit.*, p.68.


38 This was acknowledged by the Managing-Director thus: ‘... the Government and Central Bank of Iran with utmost generosity provided half of the financial resources needed by the Bank at very favourable rates of interest. The remainder, however, have to be found by the Bank in the country and outside.’ IMDBI, *Eighteenth Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1977/8* (Tehran, 1978), p.13.


45 The annual average growth rate for public and private consumption at current prices was as follows (billion rials):

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Consumption</th>
<th>Public Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959-63</td>
<td>5.8</td>
<td>7.2</td>
</tr>
<tr>
<td>1963-72</td>
<td>11.3</td>
<td>22.6</td>
</tr>
<tr>
<td>1973-77</td>
<td>25.2</td>
<td>34.8</td>
</tr>
</tbody>
</table>

47 Dragoslav Avramovic, 'Industrialisation of Iran: The Records, the Problems and the Prospects', *Tahqiqat-e Eqtesadi* (Vol.7, No.18, Spring 1970), pp.16-17. In the introduction of the report, Avramovic expresses deep gratitude to the IMDBI for information, 'whole-hearted support' and assistance. His comments on IMDBI should perhaps be read with this in mind.
50 Adapted from *Echo of Iran*, 'Law Concerning Attraction and Protection of Foreign Investments in Iran' (Tehran: Echo of Iran, 1976), pp.1-8.
60 Turner and Bedore, *op. cit.*, pp.35 and 37.
61 Plan and Budget Organisation, *Iran's Fifth Development Plan, Revised: A Summary*, op. cit., p.17. Of the total 4,698.80 billion rials for fixed capital formation, 3,118.57 would be in public sector investment and 1,580.23 in the private sector.
68 Kayhan, 26 Mehr 1354 (1975).
70 *P. Sadigh, op. cit.*


Kamran Mofid, *op. cit.*, p.314


P. Sadigh, *op. cit.*, p.52.


See Hossein Bashiriyeh, *op. cit.*, pp.89-90 and p.103. According to Bashiriyeh, the annual average rate of inflation between 1973-77, officially given at 18 per cent, was nearer 50 per cent while the price of land increased by 500 per cent and rents in Tehran by 400 per cent. Similarly, he finds the rate of inflation in 1977-78 was in the region of 85 per cent as against the official figure of 30 per cent.


Hossein Bashiriyeh, *op. cit.*, p.98.


Quoted in Fred Halliday, 'Iran: The Economic Contradictions', *MERIP* (No.69, July-August 1978), p.17.
Chapter 4. State and Development: The Planning Process

4.1 Introduction

Industrialisation in Iran was brought about through state-driven development planning. In this chapter we will argue that the state’s dominance of the process undermined the independence of the Plan and Budget Organisation. The weakness of the institution and the politicisation of the planning process ultimately hampered the success of industrialisation drive because there were no independent checks on the feasibility of the Shah’s big push policy.

4.2 The origins of planning in Iran

Planning in Iran was primarily a post-war development, ostensibly initiated in order to reconstruct the Iranian economy in the aftermath of the Second World War. Prior to this, Reza Shah had engaged on a programme of modernisation in the 1920s and 1930s which involved the re-organisation of government finances and the imposition of centralised rule over the country.¹ Industrial projects were launched and social reforms undertaken which, in their form, indicated a desire to rebuild the country in the image of the West. Though this policy produced results,² it was sometimes pursued in a way that seemed questionable to observers:

When the Shah orders a railway, a harbour or factory, one has the feeling he does so, not because the estimates of the experts show that it will be profitable, but simply because he feels that every respected country had a railway &c., and because it gives him an inferiority complex not to possess one also.³
In many ways, Reza Shah bore greater resemblance to Russia’s Peter the Great than to Mustafa Kemal, Turkey’s nationalist leader, with whom he is more usually compared. Reza Shah’s policies were to be achieved through the use of the state which he regarded as an instrument for change. Using his considerable organisational abilities and aided by the payment of the first substantial oil royalty in 1921, Reza Shah extended control over the state by building up the army and bureaucracy and diminishing the power of ethnic groups, in particular, the tribes. As head of state, Reza Shah ensured that ultimate control resided with him. Thus, Arthur Millspaugh of the US State Department, who had been head of a financial mission to Iran since 1922, was removed from his post of treasurer-general in 1927 because, ‘there can’t be two Shahs in this country, and I am going to be the Shah’.

Reza Shah regarded economic self-sufficiency through industrialisation as the key to building a self-reliant country, free of foreign influence. To this end, a policy of import-substitution was pursued, following the announcement in 1930 that the government had decided to ‘develop new industries as a means of reducing imports and supporting the exchange’. This policy was implemented in the consumer goods industries, in particular, textiles and sugar. To facilitate the IS policy, a series of measures were introduced, with varying degrees of success. These included the Foreign Trade Monopoly Law, which allowed greater control of imports and exports by the government, foreign exchange controls and import quotas. Increased government intervention in the economy was necessary both for the organisation and implementation of such policies -
no other sector was either willing or able to carry through such a programme.

Hence, Reza Shah’s statement that:

As far as the textile mills are concerned, I know that we should make cloth in our own country and avoid imports and I have told this to many people, but as no one came forward I had to do it.?

4.3 Planning and national independence

A more systematic approach to economic policy did not emerge until after Reza Shah’s reign when planning was finally introduced. Following Reza Shah, the main idea behind planning was to initiate a big push towards economic self-sufficiency. The importance of national independence was impressed upon Reza Shah’s son, Mohammad Reza, even more forcefully after the humiliating 1941 Anglo-Russian invasion of Iran, which prompted the removal of Reza Shah. Mohammad Reza’s desire for economic strength stemmed from a similar wish for political independence with which he equated economic self-sufficiency. His own pursuit was of a nationalism which became paradoxical in form, conditioned as it was by the perceived exigencies of Iran’s international position combined with the resources necessary to reinforce that position. Industrialisation as the means to economic independence was not pursued as an autarkic policy (neither the means nor the ends was autarkic); its aim was to serve the dual purpose of not only preventing outside powers from interfering in Iran’s internal affairs but also of enabling Iran to play a role in international affairs. As Ann Schulz has noted, the Shah’s commitment to economic development had political objectives, particularly in terms of neutralising
potential opposition from three identifiable groups, namely, the clergy, the merchant class and the landowners:

Destroying the political base of these groups is an important part of his model of development. Most critics agree with the Shah that there are few alternatives to his rule, in view of the lack of strong political institutions in Iran. Neither the Parliament, nor the Cabinet as a collective group, nor political parties have acquired any significant power. Within the constraints of the Shah’s national development policies, as they have woven a pattern of personal privilege, no new political institutions appear to be evolving.

After the war and the end of the Anglo-Russian occupation, currency reserves were too low to finance the envisaged seven-year plan. Iran therefore requested a loan from the International Bank for Reconstruction and Development (IBRD). This was only to be granted on a project-by-project basis, the projects themselves having first to be approved on technical grounds by an acceptable agency. It was thus that Iran invited a US consulting firm, Morrison Knudson, to test the feasibility of the plan which, constrained by the terms under which the IBRD loan had been granted, took the form of a list of investment projects rather than a development plan in the usual sense.

The 1949 Plan Act established the Plan Organisation to supervise and coordinate the first and subsequent plans. The allocation of expenditure projected for the First Plan (1949-55) differed from the sectoral allocations in the Fourth (1968-72) and Fifth Plans (1973-77) by laying greater emphasis on agriculture than industry. The 1949 Act authorised the Plan Organisation to distribute 21 billion rials (i.e., 21,000 million rials). Agriculture took 25 per cent; transport
and communications, 23 per cent and 4 per cent respectively; industry and mines, 19 per cent; and social affairs, 29 per cent. Since the object of the Plan was to reconstruct and develop the country, it is interesting to note that it was thought that this would be best achieved through spending more on agriculture than on industry.

Agriculture enjoyed a greater share of expenditure than industry up until the Fourth Plan and this expenditure represented a recognition of the centrality of agriculture to the economy. It is noteworthy that agriculture and the rural sector came to be seen as dispensable largely when increased revenues from the sale of oil enabled the country to go ahead with its ‘modernisation’ programme. In other words, the push towards ever greater amounts of investment in industry, unaccompanied by a strategy for agriculture and at a time when the economy still relied heavily on rural produce (both for internal consumption and for exports), reveals a deliberate reluctance on the part of the government to recognise the enduring importance of the agricultural sector. This neglect is significant because it suggests, perhaps more clearly than anything else, the commitment that deteriorated into a tendency towards industrialisation for industrialisation’s sake.

A number of difficulties arose during the seven-year period (1948-1955) which prevented effective implementation of the plan. For the most part, they arose from the need to build up the embryonic Plan Organisation. In addition, funds for the plan dried up with the 1951 nationalisation of oil and the
subsequent embargo on Iranian oil. The plan was then effectively suspended, having never really got off the ground. It had disbursed only 20 per cent of planned expenditure. Nevertheless, the First Plan had brought about the establishment of the Plan Organisation which was to remain the central planning machinery of the state, though the range of its powers was in debate from the very beginning.

4.4 Domestic politics in the planning process

Much of the history of planning in Iran can be described in terms of a duel between the technocrats of the Plan Organisation and the Shah as head of the Economic Council, a ministerial body. For the greater part, this was due to a difference in outlook and, more damagingly, to a divergence of aims. The staff of the Plan Organisation were economists and administrators who saw themselves as separate from the political system; indeed, they endorsed the name ‘organisation’ in preference to the more political appellation, ‘ministry’. Consequently, political appointments were opposed (though the head of the Plan Organisation was a political appointment) as were attempts at political interference in the work put out by the organisers. Thus, reports and recommendations based on available data and drawn up by the Plan Organisation’s economists were often ignored or adjusted by ministers in what would often seem an arbitrary manner to those in the Plan Organisation.
Yet the general aim of introducing a formal system for planning had been to enable the national allocation of public resources to be organised according to a predefined national strategy of development. This was in contradistinction to the *ad hoc* way in which decisions regarding industrial projects had previously been undertaken by ministers anxious to carry out the orders of the Shah. Once it had been decided that a new body should be created to execute the plan rather than the ministries or the *bongahs* (semi-independent organisations operating certain government enterprises), there was debate over the exact function of the new body. The debate, in the Majlis (parliament) and the Cabinet, revolved around the degree to which the new governmental organisation for planning was to be independent of the ministries, in terms of having executive powers over the plan. Some argued that the Plan Organisation should supervise the decisions made by the ministries and/or the *bongahs* and therefore act as a powerless co-ordinating board. Others thought that it should take on executive decisions itself both regarding expenditure and the execution of projects. In the end, the Plan Organisation was to be:

substantially independent of regular government ministries and had financial allocations apart from the regular budget. Despite its name, it bore no resemblance to the usual central planning agency. It was intended to be an independent action agency able to execute capital investment projects without the delays, inadequacies, and political orientation of the normal government ministries.

Although the Plan Organisation tried to guard its independence, the Shah and his politicians fought for control of the organization. The fight could lead to the downfall of a powerful Director. As Nikki Keddie writes:
In addition to inexperience, corruption, and sometimes bad foreign advice, Iranian plans suffered from jealousies between ministers and government departments that wanted the PO [Plan Organisation] to give them the money and let them implement projects. The PO, on the other hand, wished to have ministries act under its instructions on development projects. This unresolved and continuing dispute, punctuated by currying of favor with the top by the involved parties, was one cause of Ebtehaj's forced resignation as head of the PO in 1959 and his replacement by more pliable and less competent directors in the next few years. Ebtehaj also disagreed with economically irrational royal interference with the plan.\textsuperscript{15}

4.5 The Ebtehaj affair

Given the nature of the political system and the lack of strong institutions in Iran, it is not surprising that the degree of importance or strength of an organisation often lay with the personality of the man at the top. The Plan Organisation's 'golden age' was in the 1950s and early 60s when it attracted skilled manpower and benefited from the competent leadership of Abol Hassan Ebtehaj, a widely-respected economist.\textsuperscript{16} The formulation and execution of the Second Plan (1955-62) were almost completely the responsibility of the Plan Organisation which was granted 90 per cent of the government's net oil revenues in October 1954 by the Majlis as development expenditure. The Plan was prepared for an outlay of 68 billion rials.\textsuperscript{17} But before the Second Plan had run its course, Ebtehaj had, in 1959, tendered his resignation and in 1961 he was held in police custody for seven months without being formally charged. Released on bail, he was then acquitted in 1964. The circumstances leading to his resignation and 'arrest' are of interest and merit discussion. The account regarding his resignation can be found in George Baldwin's book from which the following figures are taken.\textsuperscript{18}
In 1958, two petrochemical projects were under consideration by the Plan Organisation, in order to make use of the large amounts of gas ordinarily wasted during the production of oil. The projects were considered for the Khuzestan area in southern Iran, which needed help in development. One was for the country's first chemical fertiliser plant, designed by Belgian consultants, at the cost of $23 million. The other was a programme by an American company for a $10 million PVC plant. It had been decided that both plants should be located at Ahwaz. It was recognised by the American company that Iran's consumption level of PVC was very low but the company argued that such a market could be created which would also promote the production of five fundamental chemicals, demand for which exists in any country embarking on industrialisation.

In the event, the PVC plant had to be dropped from the Second Plan in early 1959 as part of an overall cutback in investment expenditure when it became clear that the Plan Organisation's share of oil revenue had taken a significant fall. (This was despite Majlis approval for a doubling of expenditure since the implementation of the plan.) Nevertheless, the Plan Organisation intended to stick to the Second Plan in keeping the fertiliser plant project for Ahwaz, when the Ministry of Industry and Mines announced it had signed a contract with three European firms to build a nitrogen fertiliser plant at Shiraz. The plant would have the same capacity as the one designed by the Belgians for the Plan Organisation but would cost 50 per cent more; it was not known to
have been studied; moreover, the Ministry had no funds for a project of this size.

It became clear that not only was the Ministry’s project more expensive than the Plan Organisation’s, but that it was also inferior. It had been designed by equipment suppliers, lack of competitive bidding meant that its capital costs per ton put it amongst the highest in the world, its location was also inferior - Shiraz had no railway nearby and was over 100 kilometres from the nearest source of natural gas. Baldwin writes:

The Ministry’s tactic of committing the country to a major foreign exchange payment in moral violation of a government pledge to the World Bank and in defiance of the development plan was symptomatic of the lack of control and discipline within the government. Would an ambitious Minister dare risk his political future with such an act if he had not first cleared it with the Shah? And if this had happened, why would the Shah let one of his Ministers play such a game in violation of all the Shah’s assurances that he believed in planning and financial responsibility? These were questions which never got answered.19

Under the circumstances, Ebtehaj felt obliged to resign if the government was really serious about going ahead with the project. The Shah chose not to support Ebtehaj and his resignation was accepted. Subsequently, the Plan Organisation’s independence was weakened by making the director responsible to the prime minister and by transferring the industrial plants owned by the Plan Organisation to the Ministry of Industries. These changes were later written into the Third Plan Law. Two years later, in a manner seemingly unconnected with his resignation, Ebtehaj was arrested. The prime minister at the time, Ali
Amini, publicly disclaimed responsibility for the arrest. Ebtehaj was never formally charged, but, ostensibly, he was held for corruption and wasting public funds. He was finally acquitted with no explanation but it seems likely that the arrest was caused by his forthright criticism of the US aid programme to Iran, made in a speech in San Francisco just one month earlier:

Even if a recipient government becomes convinced in all good faith of the fairness of certain bilateral programs offered by another country, it would soon be condemned in the public mind. Opposition leaders will charge the government with selling out to the imperialists, and the public will believe these charges.

. . . Where the recipient government is corrupt, the donor government very understandably appears, in the judgement of the public, to support corruption . . .

Even more pointedly:

I can think of no better summary of all the disadvantages and weaknesses of the bilateral system than the modern history of my own country. Not so very many years ago in Iran, the United States was loved and respected as no other country, and without having given a penny of aid. Now, after more than $1 billion of loans and grants, America is neither loved nor respected; she is distrusted by most people, and hated by many. . . Social and political unrest is a manifestation of the despair and lack of faith of the people [a reference to the strikes and disturbances taking place in the country, which were to reach their climax in June 1963], of their distrust of incompetent and sometimes corrupt governments, and of the whole pattern of bilateral agreements that seem to support the bankrupt system.²⁰

Given the weakness of the government case against him and the frankness with which he had criticised the main pillar of the Shah's foreign policy, it seems likely that the offence Ebtehaj committed was political. For the Shah, the affair represented the necessity of bringing the Plan Organisation more directly under the control of the government and of preventing its director from gaining too
much in the way of status or importance. Indeed, no successive director was to criticise the Shah’s policies so vocally.

4.6 The expansion of the planning process

An improvement in the machinery of planning took place during this period with the establishment of a planning unit in 1957 named the Economic Bureau, which later became known as the Division of Economic Affairs. It attracted newly-returned Iranians studying abroad, but also drew on economic advisors from Europe and the US - for example, the Harvard Advisory Group. It quickly grew in importance in the Plan Organisation, undertaking a mid-period evaluation of the Second Plan and designing projects for the second half of the plan period. In mid-1959, the division was entrusted with the duty of preparing the Third Plan, which was to begin in September 1962. The Cabinet informed the division that the plan was to be much broader in scope than previous plans. In fact, the Third Plan represented the first attempt at comprehensive planning and, as such, was to be concerned with the overall rate and pattern of development in the whole economy. One major change, though, referred to above, was of a decrease in the responsibility of the Plan Organisation for plan implementation. All development projects, after being considered and approved by the Plan Organisation, were to be executed by the ministries and other government agencies. A High Economic Council, outside the Plan Organisation, was created ‘in order to coordinate economic activities of different government organizations and to secure the Plan’s proper enforcement.’

220
One major problem detrimental to efficient planning was the constant revisions made to the development expenditure of the plan in operation. Mention has been made of this with reference to the Second Plan but another example occurred in 1962 when the Third Plan, which had been drawn up essentially by the division of economic affairs in the Plan Organisation, was submitted to the Majlis. The Third Plan’s budget of 190 billion rials had already been reduced to 140 billion rials, when it was approved by the Majlis. Nevertheless, this was overruled by the prime minister just two weeks later when the budget was again cut back by nearly one-third. Ten days after this decision, a newly-appointed prime minister then increased the budget to nearly 200 billion rials. These were alterations made to the public sector programme. Farhad Daftary writes:

The rationale of these revisions was never explained, nor were the effects of these changes on private investment activities and the overall growth target ever discussed.\(^2\)

In fact, these manoeuvres were connected to the uncertain political conditions created by the economic difficulties and political discontent of the early 1960s, which was also reflected in the office of prime minister changing hands four times in three years. During this period, the Agricultural Minister, Hassan Arsanjani, introduced the Land Reform Law of 1962 which aimed to create a class of independent farmers. The Shah later amalgamated land reform into a wider development programme – the famous ‘White Revolution’ – though by altering Arsanjani’s proposals for the second stage of reform, he
rendered them less effective. According to George Baldwin, the Shah’s land reform hijacked the sensible Third Plan proposals, land reform itself being the outcome of pressure on the Shah by the US Point IV programme, begun in 1952, as a means of giving technical assistance to the Ministry of Finance. (It was to this bilateral assistance which Ebtehaj had referred in his San Francisco speech.)

Arsanjani was a member of Ali Amini’s reformist government, which was reluctantly appointed by the Shah in the face of increased pressure by the Kennedy Administration to instigate economic reforms. Disagreement between the Shah and Amini regarding the size of military expenditure, as well as the decision by the entire directorate of the Plan Organisation to resign in protest at a move by Ministry of Justice officials to inspect their books, ensured Amini’s downfall after only 14 months. Thus, the downward revisions to the budget of the Third Plan need to be seen against the background of the launch of the White Revolution, which required budgetary support that had not been included in the Third Plan. An increase in oil revenues accruing to the government was the cause of the subsequent upward revision to the budget of the Third Plan. In this way, international and domestic pressures affected the planning system and frustrated some of its reformist attempts.

Obviously, ministerial interference with a Majlis-approved budget created uncertainties regarding sectoral allocations for the Plan and contributed to a generally inefficient procedural system. This was recognised in 1964, when
the government decided to adopt the Comprehensive Budget principle, thereby introducing programme budgeting. In addition, responsibility for preparing the budget was handed from the Ministry of Finance to the Bureau of the Budget which was created in the Plan Organisation for this purpose. Hence its change of name some time after to the Plan and Budget Organisation (PBO). Nevertheless, for better budgeting procedures to be introduced, it would have been necessary to adhere to two principles, namely, that once made, the budget should be respected and, that once promised, money should be made available when it was due.

4.7 The erosion of the PBO’s independence

From the mid-60s, with the removal of executive authority from the PBO, a steady weakening of the impact of PBO contribution to decisions regarding development (industrialisation) policy took place. This coincided with the Shah’s growing personal interest, which was also accompanied by a greater increase in oil revenue. The Shah acted through the High Economic Council:

In the early years, a meeting of this council was viewed as a ceremonial gathering in which the development plan was explained to the Shah. In later years, however, the meeting of the High Economic Council turned into the most crucial step of plan preparation. During this meeting, the Shah actually dictated the basic goals and targets of the development plan. This changed the logic of the whole process and the planning effort was reduced to a futile exercise.

According to Razavi and Vakil, the process had a demoralising effect on those working within the PBO. For example, the Technical Affairs Division of the
PBO, which ensured the technical quality of development projects through evaluation and inspection, had been known for its satisfactory performance of these duties. This was jeopardised in the late 1960s when technical evaluation of a project became a formality and when, in effect, only two of the six bureaux remained active – ‘the remaining bureaus joined the alienated and indifferent majority of PBO employees.’ By the mid-70s, planning had become reduced to the simple disbursement of assigned expenditure.

A different view of this process has been given by a former director of the PBO, Khodadad Farmanfarmaian, who headed the organisation in the 1970s. Reflecting on the origins of the Plan Organisation, he begins by giving weight to Olsen and Rasmussen’s view that the old bureaucracy was unable to undertake reform:

As a consequence, the Shah’s regime narrowed the base of popular support even further by creating what was called “planning mechanism” as a bridge approach to do what was needed. The planning groups were given full authority for designing, for planning, for budgeting, for disbursing, for execution of plans. This new organization, which was insulated from the rest of the Iranian government and did not represent the popular will, became the main arm of reform and development.

There was a great deal of opposition to this nascent organization. The old bureaucracy challenged the new planning organization power, and gradually the Plan Organization was folded into the traditional government.

It is interesting to note Farmanfarmaian’s implication that the Plan Organisation was somehow working ‘out-of-bounds’ until it was put under the supervision of a ministry, the philosophy of its existence and its achievements being resented.
by the old bureaucracy. Implied too is that the push for development should be the prerogative of the central government (not that the Plan Organisation ever worked independently of the government), as the only true representative of the people. In the post-revolutionary era, it is feasible to question even the legitimacy of the Shah's regime in the eyes of the people, let alone its degree of representation. Nevertheless, Farmanfarmaian does confirm the point made here, namely that the Plan Organisation's power was significantly reduced once it came under the ministries. The main reason for this, as we have seen, was not administrative but to ensure that the Plan Organisation could more easily be influenced as part of the political process. This was part of an overall policy, though one which was never explicitly stated, of political centralisation and it extended to all aspects of government, from the army to political parties and the press.

4.8 Obstacles to planning

Much has been written about the shortcomings of planning in Iran and many causes ascribed to it. The main criticisms range from the plans themselves to the social and political climate in which they were drawn up and executed. In 1950, under the title, 'Can Persia Plan?', *The Economist* magazine considered the question mainly in the context of the difficulty of raising the necessary funds against an unfavourable economic climate. The importance of administrative co-ordination and the need for good management were also mentioned. But commenting on the Iranian desire for less foreign interference in the country's internal affairs, *The Economist* wrote:
... two facts reduce their chances of being left alone. One is their position on the map, which keeps them within the orbit of the cold war. The other is the course of recent events in China, which suggests that they must now choose between two patterns of social change - either the ruthless, methodical process now being imposed upon China; or the more hesitant, unspectacular transformation that takes place when eastern feudalism accepts western aid for "social development". . . . a ruling class of the present pattern must inevitably choose the western way. In practice, they have done so, for two years ago they accepted a modicum of American military assistance, and recently the Shah made an official visit to the United States. So far, however, by no means all Persian politicians have faced the implications.  

The implication was that if Persian politicians wanted reform, they would have to follow the Shah in embracing 'the western way', which referred not only to a form of economic development but also to a political camp. The article is noteworthy for seeing the one as entailing the other, by placing state planning within a geopolitical context. The basis for the strategic alliance is promulgated somewhat disingenuously, by fashioning the developmental choice in terms of stark alternatives. According to The Economist, Iran's strategic importance meant that she would always be interfered with by outside superpowers, her only choice being to decide by whom, one way of conveying this decision being through the selected method of development. One does not have to accept the logic of this argument to recognise that Iran's developmental process has indeed taken place within a geopolitical framework and one, furthermore, that has exerted an active influence on the nature of that development. This will be discussed in greater detail in the next chapter.
Daftary sees the narrowness of the first two plans as impediments to a serious development effort, and cites too, the problem of a scarcity of statistical data and arbitrary methodology on the part of the planners. Commenting on the planning experience up to the 1960s, Olsen and Rasmussen make a number of points. They mention government over-centralisation as a limiting factor, administratively, on the implementation and supervision of projects in the provinces. Another administrative difficulty lay in the co-ordination and co-operation of non-Plan Organisation planning agencies. These agencies were representatives of various ministries and other governmental institutions:

Some agencies showed no willingness at all to cooperate with Plan Organization. This was typically the case where the agency had its own revenue and clearly saw that over-all planning might involve part of this revenue being used for investments in different parts of the economy.

Olsen and Rasmussen also identify a problem which existed in the early 60s and became far more pronounced in later years, namely, the lack of skilled manpower in Iran. They write:

... the limiting factor in the economic development seems neither to be the level of capital formation nor a permanent lack of foreign exchange but the level and training, or rather the speed with which the expansion of education and skill formation takes place.

This shortcoming is also stressed by Hossein Baher, who argues that decisions should have been based on a reasonably articulate manpower plan. Writing in the mid-70s, Baher found a shortage of almost all sorts of skills in Iran,
particularly for medium-level occupations in most sectors and especially in manufacturing. This shortage of skilled labour is particularly important in an economy which was in any case attempting to develop industry at the expense of agriculture. Baher saw the scarcity of skills as serious enough to present a real threat to the feasibility of the Fifth Plan and any subsequent plans. The shortage of adequate levels of skilled labour in Iran is not a matter of opinion but a fact of the most crucial importance. Development theory has recognised the inadequacy of relying solely on high levels of capital and growth to foster development. Amartya Sen has pointed to skilled manpower as being probably the most vital component of a successful industrialisation effort.36

The need for experienced managers and trained personnel was recognised by the Industrial and Mining Development Bank of Iran (IMDBI) in its annual report for the last year of the Fourth Plan (1968-72):

Adequate financial and credit resources will be available to carry out the Plan (the Fifth) but the most serious shortage will be in adequate managerial resources which are requisite for effective use of men and minerals. Experience has showed that competent, sensible and thrifty management, in all phases of project implementation . . . makes billions of rials difference in costs and it constitutes, all too often, the difference between success and failure, or prosperity and bankruptcy.37

On a different level, Olsen and Rasmussen comment on the unfavourable social and political climate as a hindrance to efficient planning. They point to the ‘late-feudal’ way in which government posts were given to political favourites, or in order to balance political rivals. This lack of professionalism
resulted in a high turnover of personnel, which, in turn, led to abrupt changes of policies. Furthermore, the centralised decision-making process meant that there was a general unwillingness on the part of individuals to carry responsibility, combined with a sense of distrust of colleagues. This then:

led very often to decision by committee, the most important committee being the Council of Ministers. Decisions are sometimes made on the spur of the moment without any preparation and without the support of recommendations resulting from an analysis of the problem by competent and informed professionals. Consequently quite a few laws, decrees, and regulations on the statute books and quite a number of policies in the administrative practice are mutually inconsistent and sometimes contradictory.  

The importance of the political climate is also emphasised by George Baldwin, who argues that the failings of government placed the greatest handicap on economic planning and effective administration. Indeed, he goes so far as to say that the success of a development plan centres on politics, not policies. In other words, development planning can only work in a favourable political and cultural environment. On the situation in Iran specifically, he concludes: ‘Iranian politics and an organized development effort are uncongenial bedfellows’ and that attempts to circumvent Iranian politics by placing the Plan Organisation outside the ministries still failed because of the difficulties of insulating a government body from the prevailing patterns of political behaviour. But since Iran did achieve some measure of economic growth and industrialisation, Baldwin draws the conclusion that economic development and economic planning are not interdependent and that a failed planning experience does not necessarily mean that economic development will not take place.
A somewhat similar view is taken by Razavi and Vakil who argue that good fortune rather than good planning accounted for much of Iran’s economic success. Commenting on the achievements of the Third Plan, for example, they write: ‘Good planning clearly had not been a predominant causal factor in the process, though, and we are left feeling that the economic results were achieved independently of the plan.’ In part, their view is influenced by what they see as a failed attempt to draw up comprehensive plans, though it could be argued that if a plan succeeds, it should not matter whether or not it conforms to a certain style of planning. The success of the Fourth Plan is ascribed to the high levels of investment and good financing involved. In a sense, this is true, since Iran’s industrial and institutional development, even at the end of the Third Plan, were young enough to respond dramatically to heavy spending of the sort that took place during the Fourth Plan period.

Jahangir Amuzegar, who has written extensively and positively, on Iran’s economic development describes a paradoxical situation in the late 50s. He writes:

Despite the state’s concerted efforts . . . its plans and programs do not seem to have achieved their proclaimed objective of improving the living conditions of the Iranian masses. Although there is no statistical proof, there seems to be conclusive evidence that in the last thirty years the lot of the average individual in Iran has deteriorated and the inequalities in the distribution of wealth and income have been intensified.

In view of the many conditions favorable to Iran’s economic growth, one cannot help wondering why public industrialization schemes have had but very few significant and lasting results.
Amuzegar hazards two guesses as to why this should be. One concerns the ‘mentality’ of the Iranian elite, which, according to Amuzegar, had become self-interested and cynical as well as unable to accept responsibility for its own actions. Instead:

there should be a change of heart among the Iranian elite so as to accept economic enterprise and material wealth as desirable social goals; national prestige and political power should no longer be the exclusive prerogatives of the successful bureaucrats but should be shared also with business leaders and corporation managers.\(^{42}\)

Emphasising the need for a resourceful and independent work force, Amuzegar criticised the government for failing to set the necessary example. It had not been able to control the economy and frequent manipulation of exchange rates and created uncertainty amongst the business community. More importantly, the government should try to obtain the full backing of the people: ‘Without this support, the state development programs will fall prey to the vagaries of public indifference, subconscious opposition, or deliberate sabotage’.\(^{43}\) By changing its economic policies, the government could try to create a self-reliant citizenry; in order to make growth self-sustaining, it had to increase skills and technology and accept that: ‘people should have every opportunity to employ their initiative, talents, and capabilities, and also every desire to use their knowledge, training, and education in the service of the country’s progress. In a word, they should be able to identify themselves with their government and their interests with state interests.’\(^{44}\)
Though Amuzegar wrote this in 1957, much of what he says rings true for a much later date. If anything, by the mid-70s, the workforce became even more dependent on the government for the execution of its duties as the consequence of an ever more centralised approach to administration and decision-making. This affected all areas of government and not just the economic sectors.\textsuperscript{45} Similarly, the degree of political repression increased in later years, in particular after the urban unrest of the early 60s, indicating a very high degree of mutual distrust between the Shah and the population as a whole.

\textbf{4.9 The rush to industrialise during the Fourth and Fifth Plans}

The Fourth Plan (1968-72) had achieved a high rate of growth combined with price stability. The overall growth target of 9 per cent per annum (a high target by any standards) was exceeded, so that real GNP increased by 11 per cent in the final year of the plan.\textsuperscript{46} Manufacturing value added grew very rapidly, at an average of 12.3 per cent per annum over the five-year period. This was about twice as fast as in other developing countries.\textsuperscript{47} It was achieved by very high levels of investment in construction and imported machinery and equipment. Import controls and easy private sector credits led to high profit expectations, which sustained the growth levels of industry during this period. The adverse trends which resulted from this pattern of economic development were sectoral imbalances of economic growth (agriculture had done less well than expected and grew at only 3.9 per annum), a widening urban-rural gap, increased government involvement in investment and the production of goods, growing
dependence of foreign imports and foreign know-how, as well as a deterioration in the balance of payments.

By the early 70s, development prospects were not looking very good because of a relative shortage of foreign exchange. The income from oil revenues was not enough, despite an increase in the price of oil, to satisfy Iran’s foreign exchange requirements during the Fourth Plan period. The price of heavy crude rose from $1.72 to $2.125 per barrel, and that of light crude from $1.79 to $2.17 after the agreement signed at the Tehran Conference in February 1971. At the national level, this represented a rise in oil income from 80.8 billion rials in 1967 to 163.7 billion rials in 1972 (constant prices) - in effect, a doubling of income over five years, though sustained by a higher rate of reserve depletion. But by March 1973, Iran had a foreign debt of $5.9 billion, the long-term repayment of which represented between 11 and 18 per cent of oil revenue in 1971-73.

The government expected a major balance of payments crisis in the Fifth Plan period (1973-77) and this might well have played an important part in the Shah’s push for increased oil prices in December 1973. The Fifth Plan represented an opportunity to redress these imbalances and adverse trends, especially after the increase in revenue from oil. The Shah, however, decided to continue the acceleration policies of the Fourth Plan, ignoring the negative findings of a project he had commissioned from the PBO. This report drew attention to the volatile nature of oil revenues given their dependence on world
supply and demand conditions. It did not think that Iran could become the world’s fifth industrial power by the end of the century and it pointed to the major bottlenecks that needed immediate attention - transport, power supply and the ports. It also emphasised the need for the promotion of non-oil exports.

The Fifth Plan period coincided with the worst economic crisis in Iran since the early 60s. A significant factor was the rapid, increased spending of the early 70s and, by the mid-70s, the crisis indicated an inadequacy in the economy’s infrastructure as well as the limit to the country’s absorptive capacity. As in the 1960s, the crisis took the form of runaway inflation but then developed into deep stagnation. Looney attributes a stagnant-prone productive structure in Iran to its oil-induced economic development. Since the oil industry retained its ‘enclave’ nature, it did not import dynamism to the economy in the same way as a fully integrated and productive industrial sector. This meant that production and trade evolved in an artificial environment in which distortions came to be built. These distortions then impeded diversified economic development and created a stagnant-prone productive structure.

Another writer examines the specific impact of Iran’s rentier economy on the domestic political process. While the rentier economy is usually considered in terms of its economic impact, Afsaneh Najmabadi sees it as a means of depoliticising the Iranian elite, manifested by the marked reluctance of the nouveaux riches in showing a desire to shape political events:
This was best demonstrated by the remarkable ease with which they packed their bags and left the country when the chips were down... No other class in history has behaved quite like that at a time of revolution. What accounts for this total political abdication of the upper classes in Iranian society?

The answer, Najamabadi believes, lies in the ability of the Iranian state, with the Shah at its head, to distance itself from the rest of society through its independent source of income – oil revenues. This put the government in the singular position of being independent of the population for its income, instead of relying on taxation:

A curious inversion of the classical formula ‘no taxation without representation’ occurred; the Iranian state felt no compulsion to be representative since it was effectively not taxing the population. The population itself gave up political claims on the state, since it was not being taxed.

But two dangers are apparent, one mentioned by Najmabadi, the other a logical derivation of her argument. The first is that oil is a natural resource and, as such, may be perceived as a form of national wealth, not one accruing solely to the government. This would not be of great concern to the wealthy elite, since, as in the case of Iran, they would already be deriving the benefits of its exploitation. But, for the poor, it would be a different matter. They would believe that a national resource should be distributed equally amongst the population and not monopolised by its elite. An awareness that oil reserves, exploited at a rate of 6 million barrels a day, would not last more than another decade or so, had taken root. For whole sections of the population, this meant
they would have been unable to enjoy the benefits of oil wealth and, with no prospect of a self-sustaining economy being set up, the reserves would have been largely wasted.

Secondly, Najmabadi comments on the characteristics of this form of apolitical elite:

Such a system can last only so long as the state continues to be all powerful and all resourceful. But there is no mechanism for repairing even the slightest fissures. The political vacuum that the state has created leaves with it no capacity for self-reform.54

This would appear to fit the situation as it developed in Iran. The government was able to support the ‘no taxation and no representation’ system while oil revenues and income were high but the system broke apart remarkably quickly once the government found itself both short of cash, by the late 1970s, and unable to control the economy. Moreover, one of the tactics it employed was to blame the merchant class and members of the industrial elite for high inflation because of their alleged profiteering and corruption. Once this was done, the state was making claims on its citizens and they in turn were able to make counter claims, thus breaking down the ‘no taxation and no representation’ situation. Latterly, some industrialists began to complain that they had been denied participation in the political process, whilst the merchant class, though it had benefited in economic terms from the Shah’s economic policies, took an active part in the revolution.
These developments meant an uneven course for the Fifth Plan itself; it was substantially revised in December 1973 and effectively abandoned in late 1976, while preparations were made for a Sixth Plan which would be taken out of the PBO altogether and given over to a number of committees to disburse the funds. This never got off the ground, and in 1978, the Shah announced that the country no longer needed planning, calling instead, for long-term ‘guidelines’ with a one-year development budget. In effect, the revised Fifth Plan had signalled the end of the growth of the planning process in Iran.

4.10 The Fifth Plan in political context

The revised Fifth Plan can best be understood within the context of the ‘Great Civilization’ which it strove to attain through industrialisation. Thus:

In the Fifth Development Plan the country’s industrial development is regarded as a basic measure in laying the groundwork of an advanced economy which will pave the way for the Great Civilization. Thus, while the necessary measures are envisaged in the Fifth Plan to meet existing shortages and ensure current requirements, an appropriate climate will be created for the production of a wide range of machine tools, industrial equipment and base metals required for the manufacture of capital goods. The utilization of the country’s vast resources of natural gas and mineral ores, which constitute the basic fundamentals of the petrochemical and metallurgical industries, forms the main axis on which industry itself and the other economic sectors will develop.55

Reaching the Great Civilization had not been a stated objective in the original Fifth Plan. Another interesting difference between the two plans is the emphasis on the importance of a more equitable distribution of income in the
original plan; this concern was placed before that of economic growth in the list of priorities:

The experience of other countries, both developed and developing, indicates that rapidly rising national income is not necessarily accompanied by the more equitable distribution of this income among the various social groups. Nevertheless, as a result of Iran's social and economic revolution, not only have per capita incomes risen rapidly but major progress has also been made towards a more equitable distribution of national income. As the Shahanshah Aryamehr said in a speech from the Throne inaugurating the current session of parliament, "Our policy in the Fifth Five-Year Plan is to lay particular stress on the twin policies of agricultural development and extended social welfare, so that by implementing the Plan living standards, especially among the lower income groups, are raised, and at the same time every Iranian feels deeply conscious of his responsibility to improve the society he lives in and participate in his country's affairs, to the best of his abilities."5 6

This concern was dropped from the revised plan; the closest objective was a pledge to 'increase the income of various groups, particularly with a view to raising living standards among low-income groups'.57 The shift from concern with income distribution to that of paving the way towards the Great Civilization is indicative of the mood created after the monumental success in pushing through a four-fold increase in oil prices. It is best characterised, on the part of the Shah, by great confidence bordering on arrogance. Politically, the Great Civilization concept was accompanied, for the first time in Iran, by the formal imposition of one-party rule and the introduction of the new pre-Islamic calendar. The population was to be left in no doubt that the Great Civilization would be an entirely monarchical creation.
The revised plan is written in a style that reflects the Shah’s great personal interest in the document, hence too, the change of emphasis in its contents. In the meeting held to revise the Fifth Plan, at Ramsar, on the Caspian coast, in August 1974, the Shah declared:

Two years ago, when the Fifth National Development Plan was being drafted I was constantly on the look-out for loftier and more extensive objectives for the country’s social and economic development, and came out vigorously in support of proposals of this nature that were submitted. At that time, the very idea of such objectives was unthinkable for some people. But I now see that Iran is racing towards development faster than was envisaged, and that we shall attain these objectives.58

This is dangerously close to expressing a desire for pursuing objectives that look impressive rather than desirable.

4.11 Summary

So far, we have discussed some of the issues involved in the planning experience in Iran. These were: the use of the state as an instrument for change, the economic goal of self-sufficiency through import-substitution industrialisation and the political ends that such independence was ultimately to serve (internally, by consolidating an autocratic structure and, externally, by aspiring to hegemonic status). The result of striving for political ends through economic means can be seen in the subsequent political interference in the economic process. This was reflected here in the experience of the Plan Organisation. We saw in the previous chapter how such interference impeded the progress of the Fifth Plan.
A point of clarification should be made about subsuming economic activity to political ends. In some ways, it is widely assumed that economics serves politics and, somewhat cynically, that any government will manipulate the economic process in order to benefit itself. There has also tended to be a direct relationship between the accumulation of wealth at the level of the state, and an increasing nationalism which may develop, under the aegis of the state, into the desire for conquest. Joan Robinson writes:

A government is bound to be concerned with the economic affairs of its subjects, if only to establish the basis for taxation. National power has always been used (even under the guise of laissez faire) to promote national interests...it is clear enough that national patriotism was developed and systematized in Western Europe along with the commercialization of social relationships, and that it gave national governments great support in the schemes of economic expansion through conquest and trade which soon brought everyone under their sway and in the end, by revulsion, spread national feeling to the rest of the world.59

The essential thrust of the argument that politics and economics are inseparable is not challenged here. But a distinction can be made between political objectives and economic goals, more precisely the use of the economic process to support the political objectives. Iran was to be the world’s fifth industrialised power by the 1990s - that can be regarded as both an economic and political goal. The unstated objectives were the fulfilment of certain geostrategic goals, principally to attain equal terms with the world’s largest economic and political powers. The continued security of the Shah’s own rule was another important political objective to be bolstered by the economic ambitions. This is the context in which the big push towards industrialisation can be understood, with
its concomitant characteristics of intensity and scale, such as the decision to go
for growth maximisation over and above the economic justification for it, the
high rates of military spending and the cultivation of an exaggerated
nationalism, which were all intended to impress and give an aura of
permanence for both internal and external reasons. We shall go on to examine
the international political forces behind the Shah’s industrialisation drive in the
next chapter.
Endnotes to Chapter 4


2 For a positive assessment of these results, see Willem Floor, *Industrialization in Iran 1900-1941* (Durham: Centre for Middle Eastern and Islamic Studies, University of Durham, 1984). The general economic situation can be found in Julian Bharier, *Economic Development in Iran 1900-1970* (Oxford: OUP, 1971).

3 Rab Butler to Anthony Eden, 26 June 1936, FO 416/94, f.97.

4 Reza Shah is usually credited with establishing stability in the country after the turmoil of the Constitutional Revolution and the fall of the Qajars. He is also credited with single-handedly restoring the country's finances and establishing a disciplined army. This thesis is brought into question by Anna Enayat, who argues that the conditions for stability were already in existence when Reza Khan came to power in 1921, through a fortuitous combination of political consensus regarding the desirability of a centralised state and the payment of the 1921 oil royalty which gave a vital measure of economic flexibility. Anna Enayat, 'The Foundations of the Pahlavi State', paper presented to The Middle East Study Group (London: Birkbeck College, 9 May, 1987).


9 For a more detailed discussion of the First Plan, including the 1952 upward revision, see Hossein Motamen, 'Development Planning in Iran', *Middle East Economic Papers* (Beirut: Economic Research Unit, American University of Beirut, 1956).

10 In fact Robert Looney believes that if one economic factor leading to the revolution had to be chosen, it would be the lack of implementation of a coherent strategy for agriculture. Robert E. Looney, *Economic Origins of the Iranian Revolution* (New York: Pergamon, 1982), p.58.

11 A legislative approach to planning was undertaken at the suggestion of the prime minister, Ahmad Qavam, so that no minister would be able to alter the terms of the plan at will.


15 For an account of the Ebtehaj years, see Frances Bostock and Geoffrey Jones, *Planning and Power in Iran: Ebtehaj and Economic Development under the Shah* (Frank Cass, 1989).

16 These figures are from Hossein Motamen, *op. cit.*, pp.106-7.

17 The account is in a section entitled, 'Planning and Anti-Planning in Petrochemicals', in George C. Baldwin, *Planning and Development in Iran* (Baltimore: Johns Hopkins Press, 1967), pp.110-114. Baldwin was one of the original members of the Harvard Advisory Group appointed to assist the planning effort in Iran.


22 George C. Baldwin, op. cit., p.47.
27 For a description of how this worked, see Ferydoon Firoozi, 'The Iranian Budgets 1964-70', International Journal of Middle East Studies (Vol.5, No.3, June 1974).
28 Razavi and Vakil, op. cit., p.53.
29 Ibid., p.47.
31 'Can Persia Plan?', The Economist, 6 May 1950.
32 Farhad Daftary, op. cit.
33 P. Bjorn Olsen and P. Norregaard Rasmussen, op. cit., p.236.
34 Ibid., p.248.
38 P. Bjorn Olsen and P. Norregaard Rasmussen, op. cit., p.228.
40 Razavi and Vakil, op. cit., p.31.
41 Jahangir Amuzegar, 'Iran's Economic Planning Once Again', Middle East Economic Papers, 1957, p.3.
42 Ibid., p.8.
43 Ibid., p.9.
44 Ibid.
45 For insight into the effect on the armed forces, for example, see General Robert E. Huysen, Mission to Tehran (London: Andre Deutsch, 1986).
46 Razavi and Vakil, op. cit., p.34.
53 Ibid., p.215.
54 Ibid., p.217.
58 Ibid., preface.
Chapter 5. The International Dimension

5.1 Introduction

In Chapter 3 we provided an in-depth examination of the results of the Shah's big push strategy and demonstrated how these fell well short of its goals. We have argued that the main reason for the failure was because the policy was pursued primarily for political reasons instead of economic feasibility. We saw in the last chapter that the autocratic nature of the state under a monarchical dictatorship, in which oil wealth accrued to the government, gave the Shah the means to politicise the planning process and prevent the emergence of strong institutions.

Why, against all the odds, did the Shah harbour the unrealistic ambition of turning Iran into the world's fifth most industrialised nation by the end of the twentieth century? In this chapter we will argue that the Shah's rationale stemmed from international factors, specifically the humiliations wrought upon Iran as a strategically important oil-producing country, caught between superpower politics. For the Shah, the way out of such tutelage was through the establishment of economic strength and independence, which he thought could be achieved through a big push industrialisation drive to propel Iran into the ranks of the world's largest economies and make it a power to be reckoned with. Before turning to the international drivers, let us first consider the identity of the powerful nation the Shah strove to create.
5.2 Monarchy and the nation

There was no doubt in the Shah’s mind that he, as monarch, would lead Iran to such independence. He made the major economic and political decisions and he aimed to foster a national identity based on the glorification of the monarchy. We saw in Chapter 3 that the Shah used the process of industrialisation as a tool of patronage and control over the emerging middle class. This patronage system is a hallmark of personal rulership; the two are forms of political organisation that are often closely identified with nation-building. Zonis, Jacobs, Binder and Fatemi have, amongst many others, detailed the form of personal rule that existed in Iran under the Shah while Roth has examined patrimonialism as a form of rulership in what he terms ‘new states’.2

In his view, many of the new states are engaged in a form of empire-building, rather than nation-building:

One of the major reasons for the predominance of personal rulership over legal-rational legislation and administration in the new states seems to lie in a social, cultural, and political heterogeneity of such magnitude that a more or less viable complementary and countervailing pluralism of the Western type, with its strong but not exclusive components of universality, does not appear feasible.3

The problem of ‘empire-building’ in the sense used by Roth had largely been solved by the Shah’s father, Reza Shah, who used suppression to control Iran’s ethnically diverse population, including the Kurds in the west and the Baluchis in the east, and the main tribal groups, such as the Bakhtiaris and the Qashqa’is, Some ethnic problems persisted throughout the Shah’s rule, principally the
Kurdish question, but empire-building in the sense of consolidating and extending centralised control was essentially achieved in a process which Dupree describes as ‘internal imperialism’. The process was made easier by the fact that ethnic Persians formed a majority and, because of the country’s history, had a keen sense of Iran as a nation. This can be contrasted with younger countries such as Iraq or the Persian Gulf states which have had to foster a sense of nationhood.

Instead, the Shah used personal rulership to define Persian nationhood, by equating Iran with monarchical rule and by aiming to create a powerful new force in international politics. It is argued here that the motivation behind economic policy, particularly the industrialisation programme, was inextricably bound up with the latter aim. An economically powerful Iran, transformed from an agrarian-based society with high levels of illiteracy to a major player in international politics, would reflect on the dynamism and success of the country’s leadership, in the form of personalised monarchical rule. This form of nationalism would, therefore, be distinct from the nationalism of Dr Mohammad Mossadeq, the populist prime minister who nationalised the Anglo-Iranian oil company in 1951. To this end, the Shah embarked on a policy of glorifying the monarch. So confident was the Shah of his grip on domestic politics that this policy was aimed as much, if not more, at the outside world than to his people. There were at least three major landmarks in this process.
The first was in October 1967, when, after 26 years on the throne, the Shah held a coronation ceremony amidst much publicity and splendour. At the ceremony, the Shah crowned himself as emperor, his wife Farah as empress and his son Reza as crown prince. Secondly, in an opulent ceremony in October 1971 the Shah celebrated 2,500 years of monarchy amidst the ruins of the ancient seat of the Persian Empire, *Takht-e Jamshid*, or Persepolis. ‘It was fabulous; it really was like one thousand and one nights’, said one guest. The problem was that the show was all too obviously put on to impress and seek the endorsement of foreign heads of state. Marvin Zonis writes:

For the Iranian people, however, the institution of monarchy was not significant. That anniversary had never before been noted, let alone celebrated. But worse, the Shah intended to orient the celebrations not to the Iranian people but rather to the heads of state of all the world’s countries. They would be the guests of the Shah. The people of Iran were not invited to the party.

Thirdly, the Shah imposed a new monarchical calendar to replace the old Islamic calendar. Thus, 1976 became 2535 (2500 years of monarchy plus the Shah’s 35-year rule), instead of 1355. The unpopularity of this move was scarcely confined to the clergy – it were as if the Queen of England had decided overnight to replace the Christian calendar with one beginning with the rule of Alfred. The inconvenience of the measure was seen at home as an extremely unnecessary way of bringing home the importance of the monarchy.

Questioned in 1976 as to whether the institution of monarchy was doomed to extinction, the Shah replied: ‘I find that the monarchy has served us well, as
well in the present nuclear age as it did in the days of our first great empire. The prosperity and power that Iran commands today provides the best argument for this claim. The Shah also defended strongly the extravagance of the celebration of 2,500 years of empire:

The Iranians think of their sovereign as a father. What you call ‘my celebration’ was to them the celebration of Iran’s father. The monarchy is the cement of our unity. In celebrating our twenty-fifth hundredth anniversary, all I was doing was celebrating the anniversary of my country, of which I am the father.

But as one of the Shah’s biographers has written:

There were two other reasons the Shah did not mention: He wanted to show the Iranian people that Iran had once again become a great nation, triggering a national awareness of a new Iran restored to the great days of Darius. And he wanted to record Iran’s entry onto the international stage, impress the emirs of the Persian Gulf and the people of the third world.

Two tools were to be used in propelling Iran onto the world scene; one was the creation of a strong military, the other the economic programme geared towards making Iran the world’s fifth industrial power. Moreover, though Iran was allied to the West, the Shah regarded the eventual success of his policies as providing an alternative to the materialism of the Western world:

I am convinced that a return to the Aryan path alone can save humanity from a world escalating to war, decadence and doom. When I read about events in Vietnam or see the so-called ‘drop-outs’ of Western civilisation - hippies, nihilists and followers of strange cults - I get a feeling that before the century is out, the weapons of death, drugs and self-destruction will have wrecked our world and forced humanity back into the caves. The time has come, therefore, for those
who believe in a spiritual, moralistic, peaceful way of life to stand up and show mankind the other high road, the Aryan path of salvation.\textsuperscript{11}

It is argued here that unrealistic ambitions and the hasty implementation of the big push industrialisation programme were severely detrimental to the success of this strategy. Although the strategic alliance between Iran and the United States formed the backbone of the Shah’s military and political ambitions, rising oil income afforded him the opportunity to try to step beyond the relationship and assert Iran’s power as a sovereign nation state. The relationship between social and political organisation on the one hand and its effect on economic growth and development on the other, has often been questioned. In a study of developing countries between the years 1950-70, Meyer and Hannan concluded that the dominance of the state in society has a positive effect on economic growth and that the expansion of the world system during these years affected forms of social and political organisation. But they also argue that ‘economic success apparently involves the ability of a state to organize effectively its population rather than its ability to compete with other states’.\textsuperscript{12} A similar causal relationship between the strength of the state and Iran’s economic development is not made here; simply, that the Shah recognised that military strength was useless without economic strength and believed that a nation’s independence entailed having both.
5.3 Iran’s early foreign relations

At the turn of the last century, Iran was a poor country ruled by the corrupt and
indolent Qajar kings. Their unpopularity led to the Constitutional Revolution, a
nationalist revolt which broke out in 1905 and culminated in the overthrow of
the Qajar dynasty. Iran at this time was not a formal colony but British
influence was so strong that the country can effectively be regarded as having
had a semi-protectorate status. During this period, Britain and Russia clarified
their respective positions towards Iran through the 1907 Anglo-Russian
agreement, which divided the country into spheres of influence.

However, by 1911, Iran’s independent constitutional government
threatened the interests of the two powers and in November 1911, Russia
delivered a British-backed ultimatum to the Iranian government which included
a prohibition on the hiring of foreign advisors without the prior consent of
Russia or Britain. This reference was to the American financial advisor,
Morgan Shuster, who had arrived in Iran in 1909 to reform the country’s tax
administration. Russian troops invaded the north and threatened to occupy
Tehran. British forces were already in the oil-rich province of Khuzestan.

The Tehran invasion was averted by Iran’s acceptance of the ultimatum,
but the Russian and British occupation remained. The Russian revolution led to
a short period of Soviet disengagement from Iran’s internal affairs. Instead, the
Iranian government entered into a secret accord with Britain in 1919 whereby
the British would control the armed forces, transportation and communications
and administrative advisors, in exchange for a loan. The agreement finally collapsed in the face of popular unrest and opposition, resulting in the fall of the government of prime minister Vosuq ul-Dawleh government in 1920. Reporting on the disturbances in the country, the Commander of the British Military Mission wrote:

It does not appear to be realised at home how intensely unpopular the agreement was in Persia and how hostile the public opinion had become to Vosuq’s cabinet before it fell. It was believed that the agreement really aimed at the destruction of national independence and that the prime minister had sold the country to Britain. The secrecy with which the agreement was concluded, the fact that the Majlis was not summoned and attempts were made to pack it by the most dishonest methods . . . all added to the conviction that Great Britain was in reality no better than the hereditary foe, Russia.\textsuperscript{14}

The absence of a stable government enabled a colonel in the Cossack Brigade stationed in Qazvin to march on Tehran and seize power. The degree of British involvement in the coup has been subject of controversy but it is known that the commander of the British forces in Iran, based on Qazvin, Major-General Sir Edmund Ironside, had selected Reza Khan as a potential leader. In his diary Ironside noted: ‘Reza Khan has carried out a coup d’état in Tehran, but true to his promise to me he has declared his loyalty to the Shah . . . I fancy that all the people think I engineered the coup d’état. I suppose I did strictly speaking’.\textsuperscript{15}

Reza Khan was first appointed Army Commander, then war minister before becoming prime minister in 1923. Two years later, parliament abolished the Qajar dynasty and Reza Khan was made Reza Shah:
So ended the Qajar period. And with it the British lost, one by one, the various privileges and concessions that had given them such a special position in Persian eyes during much of that period. Capitulations and consular courts; sowar escorts and seigneurial rights at Gulhek; British telegrams, stamps and bank notes; a British quarantine service; naval bases on Persian islands; the Residency at Bushire; the oil company in Khuzistan; and, last of all, British paramounncy in the Persian Gulf - all had to go before the Persians would feel able to live in their own country amongst the English on terms of equality.16

But all did not go unduly quickly and, in 1941, the 1907 Anglo-Russian agreement was implemented when Soviet and British forces, alarmed at Reza Shah’s support for Nazi Germany and driven by the convenience of an Allied supply route through Iran, invaded the country. Reza Shah was deposed and his 21-year old son, Mohammad Reza, installed as Shah instead. The humiliation of the Allied invasion left a deep impression on the Shah, as did the expulsion of his father by the British, first to Mauritius and finally to South Africa, where he died three years later. There were lessons to be learnt, ones which the Shah was afforded the opportunity of implementing decades later with the increase in Iran’s oil wealth:

I came to the conclusion that besides the Nazis and the fascists, there were obviously other moral outcasts in the world. I realised also that unfortunately in this world of ours it’s always the one who is stronger who is right. Might is right and to be strong you need a people who are united, a sound economy and of course, adequate weapons.17
5.4 US-Iranian relations

In order to understand the Shah’s motivation in choosing big push industrialisation, it is necessary to trace the history of Iran’s relations with the US. Contact between Iran and the US began in the early nineteenth century but it was not until the 1940s that the US became a serious rival to British and Soviet domination of the country. After Reza Shah’s overthrow, Britain and the new Shah agreed on the necessity for reforms to build up an efficient administrative machinery and restore the country’s fortunes. In 1942, the Iranian government agreed to co-operate with a team of American military advisers headed by Dr Arthur Millspaugh, Iran having been made eligible for lend-lease aid. A year earlier, 30,000 American troops had arrived in Iran to help with war shipments to the Soviet Union. The Chief of the Division of Near Eastern Affairs, Wallace Murray, remarked that ‘we will soon be in the position of actually “running” Iran through our impressive body of American advisers eagerly sought by the Iranian Government and urgently recommended by the British Government’.18

Iran’s strategic importance had begun to be acknowledged. A US memorandum described in September 1942: ‘The urgent advisability of placing Americans in strategic positions in the Iranian Government and, in particular . . . the necessity of sending a military mission to observe and, if possible, check any internal plots in the Iranian Army.’19 By 1943, six major American
missions were located in Iran. These were the US Army missions of Generals Wheeler, Greely and Ridley in 1942; the Gendarmerie Military Mission, known as GENMISH in 1943; the Persian Gulf Service Command of General Donald H. Connolly in 1943; and the American Financial Mission of Dr Arthur Millspaugh, also in 1943. An agreement signed that year allowed the chief of American military advisors, under the command of the US War Department:

any and all records, correspondence and plans relating to the administration of the Army, needed by him. He was also given the power to investigate, summon, and question 'any member of the army' in 'matters which in his opinion will assist him in his duties; and the option to recommend appointment, transfer, or dismissal of Iranian officers to the Shah'.

Millspaugh's main aim was to reduce and stabilise prices, which he attempted to do by imposing a progressive income tax but this earned him the opposition of the landowning and merchant classes. In addition, the nationalist and communist groupings resented a foreigner reorganising Iran's economy. He was finally dismissed by the Iranian parliament in 1945, though some deputies feared that this could damage American-Iranian relations at a time when the US was regarded as a 'third force' to counterbalance unpopular British and Soviet influence.

However, the beginnings of the Cold War had already caused the US to think more deeply about the strategic importance of Iran. In 1944, Dean Acheson wrote:
The military, political and commercial security of the United States requires stability and order in the vast belt of territory from Casablanca to India and beyond, which constitutes the Mohammadan and Hindu world. Certainly we favor the evolution of self-government for the diverse peoples of that area, as we favor the restoration of their liberties to the democratic peoples of France and Spain. But we have a stake of our own in their political development.

A year later an American military planner, Colonel Harold B. Haskins, expanded on the lessons learnt from the Second World War:

Unfortunately, Iran's position geographically, bordering Russia on the north, with British oil interests in the south, and its important strategic location in any war, will continue to make this country an object of basic interest to the major powers. It must be borne in mind that in any future war, control of any part of Iran will allow the bombing either of the Russian oil fields in the north or of the British oil fields in the south. In the post-war period, Iran's location is of importance in connection with . . . transit facilities for the various world airways projects. It is these inescapable factors that give Iran an international importance and one beyond what its size and population would otherwise warrant. It is, therefore, not for any sentimental reasons nor even for any idealistic democratic principles, worthy as these may be, that the United States is forced to take a continuing interest in Iran.

US interest in Iranian oil was not confined to protecting British and Soviet oilfields. American oil companies had begun to seek oil concessions from the 1920s, a move which sometimes brought them into conflict with Britain, the dominant oil power in Iran. Historians disagree about the extent to which American entry into Iran was motivated by commercial concerns or by the necessity of a political response to the Soviet Union towards the end of the Second World War. While the revisionists see oil as the primary reason for
American interest in Iran, Cottam argues instead that, 'Iran has the distinction along with Greece and Eastern Europe of being part of the first arena of the Cold War'. Certainly, the Shah himself thought in terms of superpower rivalry, tinged with a deep suspicion of all outside powers:

The first attempt [to efface Iran from the map of the world] went back to 1907: the Anglo-Russian convention of August 30 in that year divided our country into two... The renewal of the same plan in the interests of the Second World War shows the continuity of a certain Western policy with regard to Iran. In fact, in 1945, the British foreign secretary, Bevin, and the American foreign secretary, Byrnes, had suggested to Stalin in Moscow that Azarbaijan, Kurdistan and Khuzestan become autonomous provinces. Initially Stalin accepted this proposition. But Molotov pointed out to him that they only had to wait for the whole of Iran to come under Soviet domination.²⁷

It seems likely that an interplay of political and economic factors accounted for the origins of American interest in Iran and that though Britain and the US were rivals for oil, they were united in their approach to the Soviet Union. As James Bill writes:

This cooperation increased significantly as the Soviets responded by pursuing a heavy-handed policy of lengthened military occupation and direct intervention in northwestern Iran. Thus the economic competition for Iranian oil that marked the early and mid-40s, quickly and directly blended into political rivalry. It was this economic and political competition involving the United States, the Soviet Union and Great Britain that marked the early manifestations of the Cold War.²⁸

But it would be incorrect to regard early US-Iranian relations as instigated solely by the American side. As mentioned, Iran regarded the Soviet Union and Britain as the greater enemies at the time, and even encouraged US involvement
as a means of counterbalancing their influence. And the Shah hoped to trade on
American fear (and his own fears) of the spread of communism to draw the US
into an alliance. He intended to use this relationship to build a strong economy
and military, rather than one doing the bidding of the US. The strategy began to
work, though slowly at first, with both sides portraying the early ties as
mutually encouraging. According to one of the documents seized from the
American embassy in Tehran after the 1979 revolution:

Beginning late in the last century, Iran turned to the United States as
the preferred patron for its international dealings. The United States
responded affirmatively and, particularly after World War II, made a
major commitment to Iran's sovereignty.29

Soviet troops had still not withdrawn from the north, when the rebel provinces
of Kurdistan and Azarbaijan declared themselves autonomous in 1945 with
strong Soviet support. However, the rebel movements were crushed the next
year by prime minister Qavam al-Saltaneh, while the Soviet Union did nothing
to intervene. In fact, Soviet troops chose this period to withdraw from the north
after their long delay. While fear of the Soviet Union was one factor, the
decision to turn to the United States was also a product of a growing power
struggle between the Shah and the prime minister. Quoting foreign office
materials, Azimi writes that in 1947:

The Shah had been pressing for the purchase of American war
materials valued at $40,000,000, and Qavam was opposed to such a
deal, ostensibly because he preferred to spend money on more
constructive ends, but in reality because the additional equipment
would further strengthen the Shah.30
This was a period in which the Shah had not yet managed to monopolise power, leaving parliament and the prime minister considerable room for manoeuvre. The period from 1941 to 1948 is regarded by most Iranian historians as one in which the monarchy functioned essentially as a constitutional one.

5.5 The beginnings of US military aid to Iran

The 1940s saw the beginnings of the Shah’s drive for the accumulation of US arms, a drive which was initially unsuccessful but which took off in the late 60s and 70s. And though domestic control was an integral part of the strategy, the sustaining impulse was a result of international forces, namely, the predicament Iran found itself in the early part of the century. Its effective division between British and Russian domination in the midst of the Cold War, reinforced the Shah’s own desire to begin the build-up of a national deterrent to any Soviet aggression. R.K. Ramazani has written:

The Shah sought American involvement in Iran as a way of strengthening his security forces. He, like his father, regarded military strength as the sine qua non of royal survival. To American officials, he presented military strength as the essential prerequisite for social and economic modernization as well as national independence. Despite American reluctance to get involved at the beginning, the Shah managed to acquire US aid to strengthen the Imperial Gendarmerie and the Iranian Army during the War, and to receive American military equipment soon after.31

That American involvement was not confined to the military, but extended to the economy, is not surprising, since this followed the normal pattern of
superpower strategic involvement. Moreover, it was a reflection of the Shah’s view of the importance of both the economy and the army as twin foundations of a strong and independent nation.

After the ill-fated Millspaugh mission, Iran invited the American engineering firm, Morrison-Knudson to draw up a survey in 1947 for possible development aid. The firm suggested a development plan, a feasibility study for which was drawn up by the American firm, Overseas Consultants Inc, on the advice of the American economic advisor, Max Thornburg. But foreign help in such a key role in the development process was not popular at home and in 1951, the contract with OCI was terminated, though this was also due to the Iranian government’s disagreements with their recommendations.

In 1947, Truman’s declaration that the USA should, ‘support free peoples who are resisting attempted subjugation by armed minorities or outside pressure’ resulted in Congress approving $400 million of aid to Greece and Turkey as an emergency measure. Iran was given $51 million in credit in the same year for the purchase of weaponry; it was to be repaid at 25 per cent interest over the next 12 years. The US did not regard Iran as stable enough to justify substantial military aid and policy was aimed at giving the Shah enough aid to consolidate his position at home. Any Soviet attack would have to be confronted by US troops, if it had to come to that. This view is well illustrated in a 1949 letter from Ambassador John Wiley to Dean Acheson regarding the Military Assistance Program (MAP) to Iran:
No one imagines that now or in future Iranian Army could prevent Soviet invasion. As we understand it, object of MAP from military point of view is to insure internal security and to increase cost of invasion in terms of personnel and time required, and possible to maintain with tribal assistance some form of prolonged resistance particularly in southern mountains.32

But the Shah looked for his own military deterrent. The humiliation of the war, the Anglo-Soviet invasion and his father’s exile meant that the ideal would be for the army to act as an independent force and not be reliant on the American deterrent capability. Seizing on the opportunity accorded by the Truman doctrine, the Shah made his first visit to Washington:

Because I had succeeded over the Azarbaijan rebels under Soviet patronage and Truman had announced containment, I was confident of getting aid from America. Greece and Turkey got substantial US aid but my hopes were belied because when I went to the US in 1949 to ask for increased economic and military aid, I returned home empty-handed.33

Secretary of State, Dean Acheson, who met the Shah, later recorded that he found him to be ‘a very impractical young man. . . full of grandiose ideas; he fancied himself as a great military leader’ while his plan of building an army strong enough to deter the Soviet Union was ‘utterly fanciful and never had any basis at all’.34
5.6 The Mossadeq challenge

One event was to accelerate American involvement in Iran. This was the rise of the Shah’s prime minister, Dr Mohammad Mossadeq and the nationalisation of the Anglo-Iranian Oil Company in May 1951. Two years later, Mossadeq had been overthrown by an alliance of British, American and pro-Shah forces in an operation referred to as Operation Ajax by the Americans, and Operation Boot by the British. Iranians referred to the coup as 28 Mordad, after the day and month it took place. The operation marked a turning point for the Pahlavi dynasty and was echoed 25 years later by the revolution itself:

American policy in Iran increasingly identified itself with the Shah’s regime after the events of 1953. Military, economic, educational, financial, industrial and political ties bound the United States to Pahlavi Iran to such an extent that it became difficult to disentangle the two parties. The world situation after 1953 did much to tighten this linkage. But the events of August 1953 represented the turning point, and, as such, remained indelibly engraved in the minds and memories of the Iranian people. During the revolution of 1978-9, the masses of Iranian opposition to the Shah’s rule, whether secular or religious, were determined to see that 1978 would not be a repetition of 1953. In the process they shouted slogans such as ‘Remember Mussadiq’ and ‘Down with the American Shah’.35

The British, alarmed at the loss of their oil assets, had succeeded in playing on American fears of alleged communist insurgency in Iran to put the coup into place.36 By June 1953, President Eisenhower refused to continue aid to Iran and, along with the British, placed an embargo on Iranian oil. It took several attempts to get rid of Mossadeq but the successful coup took place on 19 August 1953. C.M. Woodhouse, a diplomat based at the British embassy from 1951-2, wrote:
Of course, there were some things we did not plan. We did not plan the Shah's flight from the scene of action. We did not plan the violence which cost over three hundred lives. In other respects the course of the revolution [coup] was more or less what we were trying to bring about... What we did not foresee was that the Shah would gather new strength and use it so capriciously and tyrannically, nor that the US government and the Foreign Office would fail so abjectly to keep him on a reasonable course. At the time we were simply relieved that a threat to British interests had been removed.37

The Mossadeq threat marked a turning point in the Shah’s attitude towards government and was an important step in the evolution of an autocratic system. This had already begun in 1949 when the constitution was changed to give greater powers to the Shah, including the right to dissolve parliament. The move was precipitated by an assassination attempt several months earlier. In September of that year, the US ambassador reported that the Shah had abandoned plans for free elections to the 16th parliament because he thought that:

corrupt and venal political influences were effectively working to take improper advantage of free elections. The Shah was now convinced that with the great illiteracy among and backwardness of the great mass of Iranian people any application of electoral principles of Western democracies would be premature and bad. His Imperial Majesty was determined to have a Majlis with which he could work in harmony. He intended moreover to make considerable reforms of governmental structure but he wanted me to be completely assured that he had no idea whatsoever of setting up a dictatorship.38

In the wake of Mossadeq’s overthrow, the Shah moved to dismantle the former prime minister’s party, the National Front, arrest members of the Tudeh (communist) Party and purge high-ranking members of the army and the executive. According to Abrahamian:
The regime could feel confident that it had eliminated the organization, if not the appeal, of both the Tudeh and the National Front. Muhammad Reza Shah, like his father Reza Shah, could now rule without an organized opposition. History had come full circle.39

5.7 The Shah's doctrine of 'positive nationalism'

The Shah and Mossadeq had been bitter enemies, partly because of the Shah’s opposition to nationalization of the oil industry but later the Shah changed his position. He wrote in his memoirs: ‘On 2 May 1951 the nationalisation of the oil industry was ratified. I was the most convinced partisan of this nationalisation, but it should have been preceded or followed by negotiations.’40 The Shah was critical of Mossadeq but at the same time wanted to take credit for the nationalisation of the oil industry by drawing a distinction between a correct and incorrect set of procedures.

The Mossadeq challenge resulted in the beginnings of an extensive security apparatus and an increase in the Shah’s monopoly on power in the name of efficiency, as he emphasised in an interview many years later:

When there’s no monarchy, there’s anarchy, or an oligarchy or a dictatorship. Besides, a monarchy is the only possible means to govern Iran. If I have been able to do something, a lot, in fact, for Iran, it is owing to the detail, slight as it may seem, that I’m its king. To get things done, one needs power, and to hold onto power one mustn’t ask anyone’s permission or advice. One mustn’t discuss decisions with anyone.41
The Shah also made it clear how important the influence of Mossadeq had been on the evolution of a counter-philosophy:

It was strenuous work to clear away the debris left by his negative policies. I had therefore to evolve a policy of positive nationalism. It was later termed an independent national foreign and domestic policy. The emphasis was always on the word national, meaning thereby that the national capital Tehran, and no other place was the seat of all decisions in all matters, be they national, international, domestic or foreign.42

What had started out as a definition of nationalism ended up as a definition of centralisation and the concentration of power. It became a justification for royal dictatorship. The doctrine of positive nationalism was also meant to appeal to nationalists through the use of the word ‘independent’, since foreign interference in Iran’s domestic affairs was so unpopular. But, the Shah’s definition of nationalism amounted to little more than a statement of what could and could not be tolerated under the country’s political system:

I am strongly of the opinion that what is best for Iran is Iranian nationalism. Obviously, it cannot be communism, nor can it be based on religion. We have no church but we have our mullahs, maulavis and Fadayans. Some of them - fortunately not all - are reactionaries living in the stone age. It is no use trying to balance one’s country between one brand of capitalism, or socialism or any other -ism. If one tries to do so, one may not be able to do anything, for fear of hurting one side or another. In the context of positive nationalism, on the other hand, one does things which are good for one’s country and its people, without performing any rope-walking act. Positive nationalism implies a policy of maximum political and economic independence, consistent with the interests of one’s country.43

The Shah went on to say:
In this way, we become stronger and more prosperous, building in the process a new and resurgent Iran. I therefore laid down a set of guidelines for my people to distinguish positive from negative nationalism:
1- Easy to tear things down, difficult to build them up;
2- Suspect those who attack only one kind of imperialism;
3- See whether those who preach socialism are using policies germinated in Iran or imported;
4- Never be deceived by the high-sounding pronouncements of these nationalists when they hold out promises for the development of the country, but judge whether their promises can be implemented effectively within a given period of time.  

The first point, while being generally cautionary, is a veiled reference to Mossadeq’s nationalisation attempt, which, though popular, had provoked an oil embargo on Iran with its resulting economic hardships. Since the Shah was attacked for succumbing to American imperialism, the second point is intended to spotlight left-wing groupings for not being similarly critical of Soviet imperialism. The third point is also anti-communist: since Marxism did not originate in Iran, it would of necessity be imported. The last point is ironic in retrospect, since it was the Shah’s own ‘big-push’ which fuelled the economic crisis on the eve of the revolution.

In fact, the Shah’s doctrine of positive nationalism was extraordinarily negative, since it sought to attack the traditional pro-Mossadeq and pro-independence nationalists. In addition, it had little ideological content and could not withstand scrutiny as a doctrine in its own right. In his study of Iranian nationalism, Richard Cottam writes:

The Shah was aware of his failure to attract popular support, and he made two independent efforts to attract nationalist (not necessarily
Nationalist) support. One of these was on the propaganda front. Through his speeches and the controlled press he insisted that he, not Mossadeq, was the true nationalist. He described his nationalism as "positive" which means that it was directed toward a real program of improving the welfare of the people, whereas Mossadeq's nationalism was negative and self-destructive. This propaganda carried a hollow ring when viewed in the context of a regime under which corruption had flourished, luxury imports and luxury real estate had consumed much of the oil revenue, the wealthy were virtually untaxed, agricultural reform had suffered a stinging reverse, labor had become the prisoner of criminal elements, and men regarded as servants of foreigners were in high positions.

The other approach was the Shah's sponsorship of a "tame" nationalist opposition.45

In 1954, under financial pressure from the US, the Shah accepted a consortium agreement for oil which would allow Iran to receive royalties on a 50-50 profit basis, while the Anglo-Iranian Oil Company received compensation for the nationalisation of its assets. According to James Bill:

From the Shah on down, the Iranians were not pleased with this agreement. Even Ali Amini [prime minister] often admitted that the consortium arrangement was not what Iran deserved or needed, since control still existed in the hands of the foreigners. On the other hand, it was the best agreement Iran could have gotten given the time and circumstances. In the words of Fatollah Naficy, 'Iran had to choose between the devil and the deep blue sea, between chaos and humiliation. What happened is that they chose humiliation rather than chaos, leading possibly to communism.'46

The Shah had not got what he wanted but the consortium agreement paved the way for gradual Iranian control of the oil industry. Nevertheless, the Shah did not forget the humiliation of having to agree to the arrangement in exchange for increased US aid. It was not until 1971 that he was finally able to turn the tables on the West by pushing through OPEC oil price rises. This humiliation was all
the more acute because of the various constituencies the Shah wanted to please. He wanted absolute power in order to be unchallenged and to govern Iran as he wished; at the same time he wanted to portray himself as a nationalist in order to neutralise the opposition from the pro-Mossadeq lobby and to capitalise on nationalist feeling. These two aims did not go together. Furthermore, genuine fear of Iran's vulnerability drew him into the alliance with the US but this did not square with the portrayal of himself as a nationalist, though it did help him in seeking absolute power. Finally, he hoped to use the US alliance for nationalist ends but in doing so, appeared dependent. The incompatibility of these positions is evident in one of his interviews:

If you're asking me whom I consider our best friends, the answer is: the United States amongst others. The United States understands us best for the simple reason they have many interests here. Economic, therefore direct interests, and political, therefore indirect interests... Iran is the key, or one of the keys, of the world. I only have to add that the United States cannot withdraw within the frontiers of their country, they cannot revert to the Monroe Doctrine. They are compelled to respect their responsibilities to the world and, consequently to attend to us. This detracts nothing from our independence, because everyone knows our friendship with the United States doesn't make us their slaves.47

5.8 The forging of a US-Iranian alliance

Consolidation at home was combined with an increasingly close alliance with the US, primarily through economic and military aid. American aid to Iran had amounted to $500,000 in the fiscal year 1950, growing to $1.6 million in 1951 and $23.4 million in 1952. But the Shah did not regard this as sufficient and the period is dominated by the Shah's insistence on more aid and the US's
reluctance to dispense it. One American embassy report noted in 1950 that: "The Iranians built a dream world in which our part was to loan them $250 million and when we played our role only to the extent of making a $25 million loan, the Iranians thought we had let them down."48

In late 1951, William Warne, country director until 1955, had arrived to administer the Point IV technical assistance programme, which had first been agreed upon in 1949. The object of Point IV, as outlined by Warne, was ‘to help strengthen Iran’s economy and to help underwrite her political integrity’.49 Technical assistance was also to pave the way for American investment in Iran, as was made clear in a 1949 message from President Truman: ‘Technical assistance is necessary to lay the groundwork for productive investment. Investment, in turn, brings with it technical assistance. In general, however, technical surveys of resources and of the possibilities of economic development must precede substantial capital investment.’50 And, the whole thrust of US policy was made clear in a State Department memorandum on the ‘Political and Economic Factors involved in Military Assistance to Iran in FY 1951’:

The primary objective of our policy toward Iran is to prevent its domination by Soviet Russia, and to strengthen its orientation towards the West. Our policy lays first emphasis on economic and social development to strengthen the country’s resistance to communism. Principal reliance in this connection is placed upon the Iranian seven-year program which is expected to draw largely upon the country’s own financial resources for its implementation. American aid to Iran in the economic and social fields, as now planned, will be confined to technical assistance under the Point Four, Smith-Mundt and Fulbright program. A second facet to the implementation of our policy is to develop Iranian self-confidence and power to resist by providing military assistance under MAP.51
The value of the military assistance programmes had been acknowledged at the end of the Second World War. US Secretary of State, James Byrnes had written to Secretary of War, Robert Patterson in October 1945 that:

Continuance of the Military Missions to Iran, at the request of the Iranian Government, is considered to be in the national interest of the United States. Strengthening of Iran's internal security forces by the American Missions contributes to the stabilization of Iran and, thereby, to its reconstruction as a sound member of the international community. By increasing the ability of the Iranian Government to maintain order and security, it is hoped to remove any pretext for British or Soviet intervention in Iran's internal affairs. . . The stabilization of Iran, moreover, will serve to lay a sound foundation for the development of American commercial, petroleum, and aviation interests in the Middle East.

The most important US military mission was the Military Assistance Advisory Group, or MAAG, which was established in 1950 to implement the Mutual Defense Assistance Program. Along with ARMISH, the US Army Mission, the programme lasted until the revolution in 1979. MAAG aimed to improve the Iranian military command structure and to facilitate US military and financial assistance. It also dealt in civilian as well as military sales to such an extent that Ricks comments, 'From 1953 to 1979, MAAG became involved in every branch of Iran's military and police forces and affected nearly every facet of Iran's economy.' One of the ways in which MAAG continued its influence in Iran, albeit in an unofficial capacity, was through its chiefs, who, once retired, found employment with private American contractors anxious to do business with Iran. According to James Bill:
These included ARMISH-MAAG generals Harvey Jablonsky and Hamilton Twitchell (Northrop and Stanford Research Institute, respectively); US Air Force MAAG chief Harold Price (Philco-Ford); and US Navy MAAG head Capt RS Harward (TRACOR, Rockwell International). Jabolonsky represented the archetypal hard-hitting influential military man become arms salesman. As a trusted confidant of the Shah on military matters, Jablonsky was able to whet the Shah's technological appetite in ways favorable to Northrop.\textsuperscript{54}

In such ways American influence became inextricably linked with most aspects of the Iranian military, industry and, ultimately, the economy. George Baldwin also noted that:

The largest, most pervasive source of technical assistance, on manpower problems was the United States foreign aid program, both civilian and military. There was hardly an agency or program of the Iranian Government concerned with training or education that did not have its Point IV experts or US contract group.\textsuperscript{55}

One of the main aims of the American missions was to bolster Iranian internal security after the Mossadeq challenge and, in 1957, an intelligence security organisation, SAVAK, was set up with help from the CIA and, subsequently, Israel's Mossad. However, these developments helped fuel domestic resentment of the US, which accelerated with the increase in American aid and presence and since the Shah's consolidation of power was popularly perceived as due almost entirely to American support. Between 1953 and 1960, American aid to Iran exceeded $1 billion - $567 million was given in economic aid and $450 million in military aid. The relative distribution of the aid is significant since it emphasises the weight that the US gave to the fostering of a stable economic climate over the exigencies of a build-up of the
military. The Shah wanted both, but it was not until oil revenues increased and
the Nixon administration came to power that his protestations regarding the
communist threat were finally to bear fruit in the form of accelerated arms
sales, paving the way for Iran to have an independent military.

Throughout the 1950s, the Shah continued his policy of seeking
increased American aid to bolster his position at home and abroad and sought
to integrate the country into the West’s defensive system. Thus, in 1955, he
took Iran into the Baghdad Pact, a collective security agreement with Turkey,
Pakistan, Iraq and Britain, later renamed CENTO.56 R.K. Ramazani writes that
the Shah:

showed consistent determination to deepen and broaden American
interests in Iran both as a means of strengthening his rule through
military and economic modernization and as a device to resist Soviet
and British pressure.57

The Shah welcomed the Eisenhower Doctrine, a set of proposals for a new
Middle East policy, since it was a public declaration of US military assistance
‘against overt armed aggression from any nation controlled by international
communism’. The US was also pledged to help countries develop their
economic strength. Ties between the two countries culminated in 1959 with a
bilateral defence pact, guaranteeing an American military commitment to Iran.
The previous year, both American and Iranian anxieties had been heightened by
developments in Iraq. In July 1958, a revolution ousted from power the pro-
British Nuri Said in favour of Abdul Karim Kassem. Moreover, the whole of
the Middle East appeared to have been thrown into turmoil by the rise to power of Gamal Abdel Nasser through the Free Officer's coup in 1952, the rise of Arab nationalism and the nationalisation of the Suez Canal in 1956, an echo of Mossadeq's nationalisation of the Iranian oil industry. Though Britain, France and Israel invaded Egypt, Nasser proved more difficult to deal with than Mossadeq, and he stayed in power until his death in 1970.

These developments in the Middle East helped prompt the Eisenhower Doctrine and resulted in an increased commitment to the Shah. This was because Iran was now seen as a crucial link in American strategic plans to isolate Nasser and contain communism through the reinforcement of a pro-Western buffer south of the Soviet Union. Economic links were also reinforced with numerous private American bodies involved in Iranian commerce and industry. American oil companies acquired a share in Iranian oil production for the first time ever in 1954 when they entered the consortium agreement with 40 per cent.

5.9 Towards a political and economic crisis

In 1957, a major private investment and commercial treaty was signed with the US, giving American firms highly favourable terms for participation. An important project to develop Khuzestan was drawn up between the Plan Organization in Iran, headed at that time by the forceful personality of Abol Hassan Ebtihaj, and the Development and Resources Corporation of New York. The American team was headed by David Lilienthal and Gordon Clapp,
chiefs of the New York corporation. The project fell prey to the realities of the Iranian political system, as described in Chapter 4 on the planning process.

James Bill writes:

Because the Shah initially backed the Khuzistan project and because Lilienthal himself became an American appendage to the technocratic elite of Iran, David Lilienthal developed a strong loyalty to Pahlavi rule and became an extremely effective voice for the Shah in the United States. His idealism and dynamic commitment to technocratic success blinded him to the realities of power, poverty and corruption in the Iranian bureaucracy. . . Despite construction of the enormous Dez Dam and other hard-earned, expensive accomplishments, the Khuzistan project had mixed success, and the project gradually ground to a halt after Ebtehaj's fall.

Nor was inefficacity limited to certain development projects. An American investigation into the manner of US aid distribution and its use to Iran reached startling conclusions in 1957:

1. United States aid and technical-assistance programs in Iran which, between 1951 and 1956, totaled a quarter billion dollars, were administered in a loose, slipshod, and unbusinesslike manner.
2. The so-called expanded technical-assistance program which began in January 1952 and resulted in US obligations of over $100 million in a 5-year period, was neither technical assistance nor economic development, but an ad hoc method of keeping the Iranian economy afloat during the years of the oil dispute.
3. The expenditure of technical-assistance funds during these years was undertaken without regard to such basic requirements of prudent management as adequate controls and procedures, with the inevitable consequences that it is now impossible - with any accuracy - to tell what became of the funds.
4. Amounts requested for United States aid to Iran seem to have been picked out of the air. There is no evidence that they were based on an advance study of what the Iranian economy needed, the amount it could absorb, or programs which could be intelligently administered by the United States personnel available at the time to expend the funds.
The fact that American economic aid may not have been put to good use is both a reflection of the political and economic conditions in Iran and the nature of the US-Iranian relationship. Increased US economic aid signified increased US commitment to Iran's defence from the Shah's standpoint. At the same time, though much of the aid may not have been fed successfully into the economy, the appearance was of activity and project-building and, to this extent, served its purpose. In fact, Iran was heading towards a financial crisis as described in Chapter 4. As Reza Moghadam writes:

There was virtually no systematic control over the amount of credit extended by commercial banks, and the quantity of currency put in circulation by Bank Melli, the country's largest commercial bank and the bank of issue, was largely determined by the archaic criterion of maintaining a minimum level of legally prescribed currency cover. Thus a combination of excessive growth of public sector investment expenditures and a rapid pace of credit and monetary expansion led to severe inflationary pressures and a difficult external payments position. By 1960 official foreign exchange reserves had fallen to a very low level and the new central bank had difficulty in assuring adequate foreign exchange for essential imports.61

Iran's total outstanding external debt had increased fifty-fold in the space of five years from $10 million in 1955 to about $500 million in 1960. This was despite a rapid rise in oil revenues from $18.5 million in 1954 to almost $290 million in 1960.62 The government was therefore obliged to adopt an economic stabilisation programme in autumn 1960 with the help of the International Monetary Fund. This aimed to restore domestic price stability and the external balance by containing government expenditure, to restrict the expansion of private sector credit and limit the use of short-term external credit by government agencies. The programme was successful in reducing inflation but
spawned an economic recession which lasted until 1964. The economic crisis triggered off a political crisis, with an open challenge by sectors of the opposition to the government about its conduct in the 1960 elections. The post of prime minister was held by four different incumbents between January 1960 and December 1962. The Shah also had to ward off a serious political challenge in the shape of Teimour Bakhtiar, the first chief of SAVAK, who was plotting a coup against him.

This period of instability coincided with the election of John Kennedy as US President in 1961. Kennedy’s political agenda towards developing nations threatened by the spectre of communism was different from the outgoing Eisenhower administration, with an emphasis on political reform and economic prosperity, rather than a strong military sector, as the key to stability. He outlined this policy within two months of being sworn in, through the Alliance for Progress programme directed at Latin American states in the wake of Fidel Castro’s rise to power in Cuba. According to James Bill: ‘Kennedy and his advisers considered that economic programs focusing on agrarian reform and improved housing, health and educational systems were the best way to head off future Cubas in Latin America.’ The policy was also directed towards Iran and was precipitated by remarks that Soviet Premier, Nikita Khruschev, had made to American officials in April 1961. Khruschev had said that there would be certain revolution in Iran leading to a communist government. According to Fred Halliday, Kennedy: ‘made it clear that there had to be internal reform in Iran if the Shah’s regime was to survive. This was a policy similar to that being
urged in Latin America, and in the Iranian case Kennedy was especially alarmed by Soviet prognoses that the Shah's regime would soon fall'.\textsuperscript{64}

With the US termination of its annual military aid of $30 million to Iran's army and Kennedy appearing to ignore repeated requests for more military assistance, the Shah found himself with little choice but to implement a policy geared towards economic reform. The American government set up a task force to investigate the nature and scope of reforms in Iran and, according to a US official and ambassador to Iran from 1965, Armin Meyer:

The result of that task force activity was to instruct our ambassador that we would provide $35 million in aid to Iran in return for which we would expect from the Iranians various steps which we considered necessary for progress, including even a suggestion as to the prime ministerial candidate we considered best qualified to administer the proposed reforms.\textsuperscript{65}

A series of riots in May 1961 obliged the Shah to dismiss prime minister Jafar Sharif-Emami and to replace him with a man he personally disliked but of whom the US approved, Ali Amini. Amini was not initially a pliant prime minister but he ultimately came to be seen as pro-Shah. Mahdavy explains some of the problems he faced:

Dr Amini came to power with all the appearances of determination to effect reforms. He made immediate concessions to popular demands. Parliament was dissolved, the Economic Stabilization Programme was vigorously implemented, a number of corrupt government officials and military officers were prosecuted and a land reform was promised. Thus the government seemed to be concerned not only with the economic crisis but also with the basic social and political
problems threatening the country. . . However, with Amini’s increasing reluctance to hold elections, it soon became apparent that, caught between the National Front and the Shah, and unable to bring the two together in a compromise solution, he had chosen to side with the Shah.

Under US pressure, the Shah embarked on a series of social and political reforms. Land reform was one of the six points of the Shah’s ‘White Revolution’ which he announced in January 1963. It was to be undertaken in two stages, from 1962-64 for landholdings of over one village, and from mid-1964 for landowners with one village or less. However, the land reform programme was not well implemented, partly because of the government’s lukewarm commitment to its thorough implementation. Hassan Arsanjani, the minister of agriculture responsible for the programme at the time, told James Bill that:

I knew I had to act with power and speed since I had no social revolution on which to base the reform. Even the Iranian constitution justified feudalism and the Pahlavis were the biggest feudals of all. If the program were to be introduced slowly, it would never get off the ground. The entire Iranian government in its heart of hearts was against serious land reform.

Besides land reform, the ‘White Revolution’ comprised the nationalisation of forests, enfranchisement for women, the establishment of a Literacy Corps, workers’ shares in industrial profits and the privatisation of factories. The programme was launched with huge publicity and the Shah used it as a major propaganda tool throughout his rule; he even wrote a book about
The White Revolution was also presented as 'the Shah-People Revolution'. Asked whether Shah and revolution were not a contradiction in terms, the Shah said:

People outside Iran would perhaps consider the term 'a revolutionary monarch' an image-building cliché. The fact is, however, that the revolution in Iran is as much a people's revolution as it is the Shah's. In the contest between the people and the reactionaries, the people won; and since my programme was essentially a people's programme, they called it 'The Revolution of the Shah and the People'.

Q: Was Your Majesty not dubbed a socialist or a communist?
A: What's in a name? I can tell you this much. We were not bound by capitalism or any other dogma. My only concern has been and will ever be the majority of my people.

So through the 1962 reforms the Shah to portray himself as a reforming monarch and, while land reform may not have actually helped the majority of landless peasants, it did restructure land tenure in the countryside in favour of small landlords. These changes also intensified political unrest, culminating in the June 1963 riots in which Ayatollah Khomeini, who came to power after the 1979 revolution, played an important role.

5.10 The attempt to forge an independent military

In March 1962, the US proposed reducing the Iranian army from 240,000 men to 150,000 men over two to three years in exchange for a renewed commitment to Iran's security and a substantial contribution to a sound economic plan. In addition, Kennedy proposed a Peace Corps programme to teach English in Latin America, Africa and the Middle East. In Iran, Americans would go into Iran's countryside to assist the reform programme there. Though the Shah
acquiesced to these demands, he began to look elsewhere in an attempt to diversify his alliance. He moved to break the ice in relations with the Soviet Union in 1962 by promising that foreign missile bases would not be stationed in Iran. This was followed up by a trade agreement. Trade with the Soviet Union picked up from an annual turnover of $31.7 million in 1962 to $41.4 million in 1963, though the real expansion in trade between the two countries occurred after 1966.71

By the end of 1963, President Kennedy was dead and relations with the United States moved into a new and friendlier phase with the Johnson Administration. The US Defense Department’s push for exclusive jurisdiction over American servicemen in Iran finally bore fruit in October 1964, when the Iranian parliament accepted a bill granting diplomatic immunity to American armed forces operating in Iran.72 When it emerged that President Johnson had agreed to give the Shah a $200 million arms purchasing credit four months earlier, many Iranians could not help but think that the country’s sovereignty had been sold to buy American weapons. No one verbalised this more forcefully and publicly however than Ayatollah Khomeini, who deplored the manner in which the bill had been passed and its implications:

The previous government approved this measure without telling anyone. The present government recently introduced a bill in the Senate and settled the entire matter without breathing a word to anyone. A few days ago, the bill was taken to the Majlis and with a few deputies voicing some opposition it was passed. They passed it without any shame, and the government shamelessly defended this scandalous action.

They have reduced the Iranian people to a level lower than of an American dog. If someone runs over a dog belonging to an American,
he will be prosecuted. Even if the Shah himself were to run over a
dog belonging to an American he would be prosecuted. But if an
American cook runs over the Shah, the head of state, no one will have
the right to interfere with him.
Are we to be trampled underfoot by the boots of America simply
because we are a weak nation and have no dollars? . . . The President
of the United States must know that he is the most obnoxious person
in the world in the eyes of our people.73

The Shah expelled Khomeini who moved first to Turkey and then set up base in
Iraq where he continued clandestine anti-government activities. It was the
strength of his opposition to the US which ensured him such popularity some
15 years later. While the alliance with the US was seen as an unequal one by
many Iranians, this was not the Shah’s view. He believed that though the US
was obviously the stronger party, the alliance was one of necessity in Iran’s
defence against possible Soviet aggression. He also regarded it as an alliance
between friends. There has been much debate about whether the Shah’s main
intention behind the alliance was to bolster his own position at home or whether
he hoped to build up a military force capable of taking on the Soviet Union by
itself. For example, Thomas Ricks quotes Senator Hubert Humphrey’s much-
cited statement of April 1961 to the effect that:

Do you know what the head of the Iranian Army told one of our
people. He said the Army was in good shape, thanks to US aid - it
was now capable of coping with the civilian population. That Army
isn’t going to fight the Russians. It’s planning to fight the Iranian
people.74

Barry Rubin quotes a much earlier exchange, when Undersecretary of State
Robert Lovett wrote in 1947 that, ‘US military assistance should continue [to]
be aimed at internal security, not national defense of Iran.’ But, according to Rubin:

The Shah’s views could not have been more different. The Soviets might attack at any time, he told American officials, and Iran needed a strong army of 150,000 men. It would be a good idea to limit Iran’s forces, replied John Jernegan, director of the State Department’s Office of Greek, Turkish and Iranian Affairs, because “it could be such a drain on the national economy as to increase the very poverty of the people, which His Majesty considered the greatest asset of Communism”.

The Shah’s approach to the potential of his army changed during his rule. Internal stability was always a consideration but the ongoing tussle with the United States over the size of the army signified either a disagreement as to the necessary numbers for the maintenance of internal security, or a genuinely ambitious desire on the Shah’s part to begin building up a national deterrent capability. Certainly, from the mid-60s, the Shah was determined to play at least a major regional role and the army enabled him to do this, for example, through his active support of Sultan Qaboos’ throne in Oman. Moreover, his anxiety regarding developments in Iraq led him to regard the threat of an outbreak of war with Iraq as highly probable, and far more likely than with the Soviet Union. In fact, the decision to relocate the country’s main oil export terminals from Abadan, along the banks of the Shatt-al Arab waterway, a border river of disputed sovereignty with Iraq, down to Kharq Island in the Persian Gulf, was determined by the perceived Iraqi threat.
In the 1960s, the Shah became worried about the strength of US commitment to Iran for a number of reasons. One was the Kennedy experience, another was the cut-off in military aid to Pakistan by the Johnson Administration in 1965 because of the war with India. ‘Now we know that the United States would not come to us if we were attacked’, said the Shah. Another bone of contention was the attitude towards Nasser. The Shah objected to the US’s food aid programme to Egypt and to its recognition of the pro-Nasser government in North Yemen. These experiences led to a determination on the Shah’s part that, ultimately, only an independent military would be an adequate guarantee of Iran’s security. Accordingly, he kept up cordial relations with the Soviet Union, both to act as a lever on the US and to pursue a less one-party dependent foreign policy.

5.11 Iran’s military build-up and growing regional role

By the early-70s, the Shah spoke of Iran becoming the world’s fifth power, both in economic and military terms. Within this idea lay the intention that Iran would become an invaluable prop to the West’s defence structure. In an interview in December 1973, he illustrated some of these points:

When negotiating with the Russians, Iran must always remember the chief dilemma: to become Communist or not? There’s nobody so crazy or naive as to deny the existence of Russian imperialism. . . . There exists what I call the USSR’s pincer movement. There exists their dream of reaching the Indian Ocean through the Persian Gulf. And Iran is the last bastion defending our civilization, what we consider decent. Should they decide to attack this bastion, our survival would depend only on our ability and will to resist. So the problem of resistance already looms today.
Q: And Iran is strong today, as regards military preparation, isn't it?

A: Yes, but still not strong enough to be able to resist a Russian attack. That's obvious. For instance, I haven't the atom bomb. However, I feel strong enough to resist should a Third World War break out. ... So, should the Soviet Union attack us, we'd resist. And we'd probably be overcome, after which the non-Communist countries would not just stand there looking on. They would intervene. Which would mean the Third World War. ... I speak of it as something possible with the hope it doesn't occur. As an occurrence in the not-so-distant future, I see the possibility of a small war with some neighbour or other. After all, we have nothing but enemies on our frontiers.78

But Iran's increasing militarisation was incomprehensible to some observers. Writing in 1968, Manouchehr Parvin sought to understand the 'proportionally large allocation of the national budget to military expenditure', through one of a number of hypotheses. The first was that a large army was needed to suppress internal dissent, the second that Iranian national security, for some reason, cost more than that of other nations:

The third alternative hypothesis is that Iran's foreign policy has changed gradually and silently with the result that the Iran of today is pursuing an expansionist policy. It is possible that we may have failed to consider other relevant factors, including a threat of invasion from Mars or elsewhere known to the Iranian government, but unknown to us.

In this article we have implied that it is the business of the Iranian taxpayer to know what criteria have been used to spend his taxes. This does not imply a demand for the publication of military secrets but rather concrete explanations as to the reasons which have necessitated the present amount of military expenditure.79

The US approach to Iran's military has already been surveyed, to which can be added the views of Ledeen and Lewis, namely, that until the early 60s, one of the important aims of US military aid to Iran was to ensure the army became a force for stability within the country:
In a sense, the Iranian military was to serve as a “safety net” for the Palace were it to be threatened once again. The Americans may have concluded that the Iranian military, properly armed, trained, and indoctrinated, could act as a stabilizing force with or without the monarch. As Robert Pranger and Dale Tahtinen noted, the Iranian military became the object of a major campaign: “In fiscal years 1953 through 1961 our total military assistance to Iran was about half the assistance we gave all countries in the 1953-1969 period, and all of it was in the form of outright grants”.  

In 1964, Iran received its first substantial post-Kennedy arms aid from the US and by 1966, the Shah had managed to obtain, after much lobbying, his first F-4 Phantom jets, nearly two years before Israel. At the same time, activities with the Soviet Union and even the Eastern bloc were developing. In June 1965, the Shah made a state visit to the then Soviet Union and signed a major commercial treaty a year later. This provided for a gas pipeline and a steel mill; the latter was particularly welcome since it had been rejected on economic grounds by Western companies. The Soviet Union welcomed Iran’s moves towards a diversification of partners:

Although Iran still maintains its ties with the west and the consortium still controls the lion’s share of the country’s oil resources, and although the system of military and political agreements concluded in the post-war years still exists, the period of one-sided orientation has ended and the first results are apparent.

In 1967, an accord for the purchase of ‘non-sensitive’ arms was completed, with Iran receiving about 100 Soviet BTR-152 armoured personnel carriers, lorries and small anti-aircraft guns. Soviet economic credits and grants totalled
$521 million between 1966 and 1970. The Shah undertook an extensive tour of Eastern Europe in 1966, visiting Romania, Yugoslavia, Bulgaria, Hungary and Poland. By the mid-late 60s, the Shah was impatient to accelerate the pace of economic development and put pressure on the US government to encourage the major oil companies to increase production in Iran, thereby, increasing oil revenues. The State Department co-operated and requested the favour from the oil companies on the grounds of national security. Undersecretary of State Eugene Rostow urged the companies in 1968 to remember that Iran was very important to the maintenance of US interests in the region; that Soviet influence was increasing and that the Arabs might gain control of Middle Eastern oil. Iran was the only Moslem Middle East country that supported Israel, a fact particularly marked in the aftermath of the 1967 Arab-Israeli war. The consortium duly came up with more money.

A growing independence vis-a-vis the US was also evident in the financial sphere. Iran was believed in the US, to have reached the ‘take-off’ stage of economic development by 1967 and American economic aid was virtually terminated. Altogether, some $1 billion had been supplied to the country since 1953. Moreover, increased oil revenues gave Iran greater purchasing power for American armaments, as the US substituted credits instead of grants for Iranian purchases from 1967. A number of other developments aided the Shah in his aim to become a major regional power, the most important of which was the announcement by British prime minister, Harold Wilson, in January 1968 that the Britain intended to withdraw its troops
from the Far East and the Persian Gulf by the end of 1971. In a speech delivered to the Iranian parliament in 1969 the Shah said:

It goes without saying that we shall not hesitate to take any precaution necessary to increase our military preparedness in the defence of our territory and frontier. This policy has now assumed greater significance in view of the unforeseen responsibilities which may confront us when British forces withdraw from east of Suez in 1971. Evidently, Iran will be shouldered with a heavy financial burden. On the other hand, it is only reasonable that the defence for the security of this area should be assumed by the countries of the area.84

The Shah seized on the opportunity afforded by a potential vacuum after the British withdrawal from the Persian Gulf by positioning Iran as a major regional player in an area of possible conflict. Once relations with the former USSR had improved, the Shah moved to strengthen Iran’s defence capability southwards through a repositioning of troops. In 1967, a new Third Army Corps with paratroopers was established at Shiraz in the south; a major Iranian military base was built at Chah Bahar on the Gulf of Oman for the rapid deployment of forces and in 1972, the Khorramshahr naval base, situated on the Shatt-al Arab was moved to Bandar Abbas, near the entrance to the Persian Gulf at the Straits of Hormuz.

At the same time, American perceptions of the Soviet threat had also begun to diminish; the worst days of the Cold War were over and the spirit of detente had led to superpower agreements regarding a limited nuclear test ban and a process of disarmament. Writing in 1970, Richard Cottam believed that
this signified a change in American-Iranian relations to the effect that the client-state relationship between the two was over:

. . . the intensity and direction of American policy in Iran has reflected the perception of threat to the United States implicit in Soviet ambitions in Iran. What basically is behind the transformation of such formerly hardliners as President Nixon to negotiators is the steady decline since 1962 and the Cuban missile crises of perceptions of that threat. . . Consequently the intensity of American-Iranian relations should decline to the point that interference beyond that of normal diplomatic relations will cease. . . the United States appears likely now to move back toward the role of benevolent observer.8 5

The Vietnam War had taken its toll on American energies and provoked a shift in foreign policy. Hence, in July 1969, President Nixon outlined America’s response to a non-nuclear threat to a friendly country, in what became known as the Nixon Doctrine:

. . we shall furnish military and economic assistance when requested according to our treaty commitments. But we shall look to the nation directly threatened to assume the primary responsibility of providing the manpower for its defense . . 86

The implication was that the US would not only avoid direct military involvement in regional issues, but would expect the burden of defence to be borne by individual nations. This suited the Shah’s plans. In an interview with The Times in 1969, he said:

We are prepared, along with Saudi Arabia, to protect the countries of the Persian Gulf. Our airborne and armoured units stationed at Shiraz
can be as much of a help to the sheikhdoms as the British troops and it is not clear that the British forces, in a case of crisis, would fight. We want a common defensive policy for this region. We may propose that the Gulf becomes a closed sea and the port of Bahrain be used as a joint naval base. 

The response to this idea from other nations in the region was lukewarm. Iraq was openly hostile and proposed an Arab regional security arrangement that would exclude Iran. But Oman, battling against the Dhofar rebellion, welcomed the proposals. In fact, Sultan Qaboos was to acknowledge Iran's regional role three years later by requesting help to suppress the rebellion. The Shah sent over 2,000-3,000 troops and the rebellion was finally put down with the further assistance of Britain and Jordan.

It is unsurprising that the response from the Arab states should have been less than welcoming. Iran had long claimed sovereignty over Bahrain and, in 1971, invaded and occupied three small islands (Abu Musa, Greater Tunbs and Lesser Tunbs) in the Persian Gulf, which belonged to the sheikhdoms of Sharjah and Ras al-Khaimah, on the eve of the creation of the United Arab Emirates. Iraq broke off diplomatic relations with Iran a day after the seizure. Iran's military build-up had alarmed Gulf states, including Saudi Arabia itself. In the background too, was Iran's tacit support for Israel during the 1967 war. However, the Shah combined intimidation with accommodation. The Bahrain dispute was settled through the auspices of the United Nations, with Lord Caradon, the British representative praising: 'Iran's magnanimity in waiving its historic claim'. An accommodation was reached with Sharjah in November 1971, whereby Iran would give financial assistance to the sheikhdom. But Iran
held on to the three islands and relations with Iraq deteriorated to the point of spasmodic fighting along the Iran/Iraq border throughout the following year. The Shah continued to be worried about Iraq's Soviet-backed government, which was reinforced by the Iraqi-Soviet friendship treaty signed in 1972.

The developments in the region enabled the Shah and President Nixon to concur that the danger from small radical states was even greater to regional security than the Soviet threat. The US needed another strong ally in the region in addition to Israel. Moreover, the Indo-Pakistan War of 1971 also meant, from the Shah's point of view, that he had to be concerned about stability on his eastern flank as well as the west. It was under these conditions that President Nixon paid a visit to Iran with Henry Kissinger in May 1972, during which he told the Shah that the US would be willing to sell Iran any conventional weapons it wanted - the famous blank cheque which was delivered against the advice of the US Department of Defense. A blank cheque to Iran had the added advantage, from the American point of view, of being filled in with dollars for, unlike the US's other major allies - Pakistan, South Korea and the Philippines - the Shah could afford to buy in cash through the sale of dollar-denominated oil. Moreover, argued the Americans, if the US was not prepared to sell arms to Iran, plenty of other people were. Kissinger also denied that arms sales diverted resources from the Shah's industrialisation programme:

Nor can it be said that the Shah's arms purchases diverted resources from economic development, the conventional criticism of arms sales to developing countries. The Shah did both. Iran's economic growth was not slowed nor was its political cohesion affected by its defense
spending. Cut off from military supplies - an impossibility anyway, in light of the ready availability of British and French arms - Iran might have grown more vulnerable to outside pressures without gaining in domestic stability.90

Kissinger acknowledged the criticisms, made with hindsight, that US support for the Shah contributed to his overconfidence but in 1972 emphasised Iran’s strategic importance:

It is not obvious, of course, that self-assurance in an ally is a bad thing. Nor was this how the problem appeared in 1972. The real issue was that the required balance within an area, essential for the security, and even more the prosperity, of all industrial democracies appeared in grave jeopardy. More than 15,000 Soviet troops were still in Egypt, with which we had as yet no diplomatic relations and which was tied to the Soviet Union by a Friendship Treaty signed a year earlier. Just seven weeks before, on April 9, the Soviet Union had concluded a similar Friendship Treaty with Iraq, followed by massive deliveries of the most advanced weapons. Syria had long since been a major recipient of Soviet arms - and had invaded Jordan twenty months earlier. Britain at the end of 1971 had just completed the historic withdrawal of its forces . . . Our friends - Saudi Arabia, Jordan, the Emirates - were being encircled.

It was imperative for our interests and those of the Western world that the regional balance of power be maintained so that moderate forces would not be engulfed nor Europe’s and Japan’s (and as it later turned out, our) economic lifeline fall into hostile hands. We could either provide the balancing force ourselves or enable a regional power to do so. There was no possibility of assigning any American military forces to the Indian Ocean in the midst of the Vietnam war and its attendant trauma. . . Fortunately, Iran was willing to play this role. The vacuum left by British withdrawal, now menaced by Soviet intrusion and radical momentum, would be filled by a local power friendly to us. Iraq would be discouraged from adventures against the Emirates in the lower Gulf, and against Jordan and Saudi Arabia. A strong Iran could help damp India’s temptations to conclude its conquest of Pakistan. And all of this was achievable without any American resources, since the Shah was willing to pay for the equipment out of his oil revenues.91
5.12 The emergence of the 'twin pillar' policy

It can be seen from the foregoing that a combination of factors propelled the Shah into the position that he had always sought. International strategic developments, a series of economic changes at home, increased oil revenues and a friendly US administration had resulted in Iran, not only finally becoming an independent sovereign nation, but a regional power too. Twenty years of warning the US about the Soviet threat and the need for a strong Iranian military had paid off - the US had come round to his point of view.

This was not, of course, how it was seen in Iran itself. The restoration of Mohammad Reza Shah to the throne in 1953 signified to many Iranians that he was a lackey of the Americans; therefore, the closer strategic alliance between the two countries was not for them, as the Shah saw it, the practice of an independent foreign policy, but the deepening of client-state relations. Nixon's endorsement and the blank cheque gave the Shah a renewed confidence which was reflected at home in the 2,500th anniversary of the monarchy held at Persepolis. Many writers trace the origins of the Shah's 'megalomania' resulting in increased political suppression at home and an ambitious foreign policy to this period, as Kissinger also tacitly acknowledged above. For example, Ionnides writes that Nixon's endorsement of Iranian arms purchases made the Shah:

'feel like a partner rather than a subordinate to the United States, as he perceived himself until then. In fact, the Shah felt more than a partner. He thought of himself as defender of the West from then on. He gained more self-confidence and his ego was greatly uplifted. It'
was the ego of a man who was humiliated in 1953 and felt insecure throughout his rule.²

Stability in the Middle East was to be dependent on the US ‘twin pillar’ policy, which balanced Iran with Saudi Arabia, lest the Arab world felt excluded by American reliance on two non-Arab countries - Israel and Iran - for its security. But Iran, with its much greater population, was seen as the main pillar so that the strategy was closer to one pillar and a half than anything else.³ However, the danger of the ‘twin pillar’ policy was that the two pillars, instead of co-operating with one another, would become competitors. This was reflected particularly in the field of armaments, as Saudi Arabia showed increased anxiety about the scale and quality of Iran’s weapons purchases. Sirriyeh argues that the consequence of a policy aimed at stabilising the region in fact led to an arms race with all its destabilising potential.⁴ Saudi Arabia and Iran became increasingly competitive in a different sphere - that of OPEC - and the early 1970s saw the two countries jostling for leadership of the organisation.

The effect of the Nixon doctrine can be seen clearly from Table 5.1. Iran’s purchase of US arms rose six-fold between 1971 and 1973 with a slight increase in 1975 before the whole amount was doubled in 1977. For Saudi Arabia, the jump is both less consistent and less dramatic; it also begins after the Iranian build-up, an indication that it was, in part, a response to Iran’s move.
Nevertheless, Saudi expenditure went up five-fold between 1973 and 1975 before dropping to a third of Iran’s military expenditure in 1977.

Table 5.1: US foreign military sales agreements with Iran and Saudi Arabia for selected years 1968-1977 (fiscal years, millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>505.4</td>
<td>235.8</td>
<td>363.9</td>
<td>2,171.4</td>
<td>2,446.1</td>
<td>5,713.8</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>5.857.8</td>
<td>4.2</td>
<td>15.9</td>
<td>709.3</td>
<td>3,614.8</td>
<td>1,898.0</td>
</tr>
</tbody>
</table>


Between 1972 and 1977, the value of US arms sales to Iran was $16.2 billion, according to James Bill who comments that between 1972 and 1978, ‘the transfer of arms from America to Iran took place at levels never before known in international political history.’ And, despite Iran’s friendship with the US, which prevented the Shah from joining the oil boycott in the aftermath of the 1973 Arab-Israeli war, many American politicians began to worry about the utility of such large transfers of arms. For example, Edward Kennedy warned of the dangers of a regional arms race at a time when the Soviet threat appeared to have diminished:

it is hard to foresee the Gulf states becoming heavily armed without this leading to new definitions of relations among them, new ambitions, new points of friction - and an escalating arms race. The
more heavily armed the various states become, the more likely it is that small disputes will be exacerbated by the presence and possible use of modern weapons.  

Under such conditions, Kennedy asked:

do American and Western arms sales promote our national interest in true political and military security or do they work against that security - by increasing the risks of rivalry, instability (within or among states), conflict, and hence stoppages in the flow of oil?  

Apart from questioning what Iran was defending itself against, some observers wondered whether Iran had, by 1975 reached the limit of its ability to absorb the number and quality of military equipment it was receiving. For example, Richard Burt wrote at the time:

... it is natural to ask whether Iran's military ambitions have outrun her technical competence. As with Iranian society in general, it is tempting to argue that the massive influx of technology threatens to exceed the country's ability, now and in the future, to absorb it. On the most simple level, there seems to be a degree of truth in the argument of some military observers that Iran is a 'paper tiger' owing to its almost complete lack of real combat experience. The average Iranian fighter pilot flies more hours than his Israeli counterpart, but can Iranian readiness be compared to battle-tested air forces elsewhere?

Kissinger, who is credited with being the main architect of the 'twin pillars' policy, is fiercely defensive in his memoirs about the strategy, and points to its continuation by subsequent administrations as evidence that it was sound:

Our choice in 1972 was to help Iran arm itself or to permit a perilous vacuum. ... Presidents Ford and Carter encouraged the Shah's military strength for the same reason that Nixon approved the first increment:
It was considered in the overwhelming strategic interest of the United States, of Iran and of the stability of the region. 

If anything, the opponents of arms sales to Iran demonstrated to the Shah the high level of commitment shown by the US administration to his government. Yet, it carried with it the danger of a change in American support and therefore, the need for an independent foreign policy was as acute as ever. For the Shah, military strength and a strong economy were the means towards the creation not only of an independent nation but of a powerful nation.

5.13 The surge in oil wealth

By the early 1970s, the Shah, confident of his monopoly on power at home, believed that Iran was an independent nation that could no longer be pushed around by outside powers. The next task was to create the 'great civilisation' whereby Iran would become the world's fifth power. The engine propelling many of these developments was oil. OPEC's creation in 1960 marked the beginning of a change in the relationship between producer countries and the oil companies. The Shah realised that the importance of oil could be exploited as a means of attaining his goals.

In 1969, when Iran was producing 3.3 million barrels a day, the Shah suggested to Nixon that Iran pay for its arms in oil but this idea was turned down. The consortium still had the power to set the level of oil production from Iran. However, in December 1970 Iran participated in an OPEC threat to halt production unless host countries enjoyed a greater production share. Two
months later an agreement was reached in Tehran between the international oil companies and the producer countries to the effect that higher oil prices would be granted as long as the producer countries agreed to keep oil prices stable. The 1971 Tehran Agreement was a turning point in the history of the international oil industry:

The world perceived it as a triumph for Opec and more particularly for the Shah. The world press had covered the month of negotiation with dramatic headlines ... Opec and the Gulf states were, of course, delighted, but no one more than the Shah. In his eyes it was his, and Iran’s, triumph. He invested Amuzegar [Oil Minister] with the Order of the Taj, First Class. Psychologically it did him no good. Already he had taken on, in his own mind, the mantle of the British in the Gulf; now he could add to this triumph; and in October he would solemnise his apotheosis with the Persepolis coronation, the celebration of 2500 years of the Iranian kingdom.100

Iran’s oil revenues had increased from $290 million to $550 million between 1961 and 1965. Oil production rose from 3.8 million b/d in 1970 to 5.2 million b/d in 1972. Revenues from oil nearly doubled over the two years from $1.3 billion to $2.5 billion.101 In May 1973, Iran finally took full control of the Iranian oil industry out of the hands of the Consortium into its own nationalised company, the National Iranian Oil Company (NIOC), despite this being in contravention of the Tehran Agreement. In 1970, the United States had become a net importer of oil and the developments between the producer countries and the oil companies, as well as political developments in the region, had become of paramount importance. Moreover, a fear that oil demand would outstrip its supply combined with a $2 per barrel OPEC rise in price in October, pushed prices up during 1973, to $5.2 a barrel compared with $2.5 for 1972.
These changes led to a statement in 1973 by Joseph Sisco, then assistant secretary for Near Eastern and South Asian Affairs, to the effect that the policy objectives of the United States included: ‘continued access to Gulf oil supplies at reasonable prices and in sufficient quantities to meet our growing needs and those of our European and Asian friends and allies.’\textsuperscript{102} Iran was regarded as the lynchpin in this security arrangement, but though Iran would ensure security of supplies through OPEC, it argued in favour of raising the price of oil four-fold in December 1973; it seemed, therefore, that the two objectives – that of security of supply and ‘reasonable’ prices – could not be reconciled in one political actor and that a choice had to be made. Henry Kissinger was clear that if the price the US had to pay for security in the Gulf was more expensive oil, then so it had to be:

We owed the Shah a great deal for his unflagging loyalty during the October war. NATO allies had permitted overflights of their territory by the Soviet airlift to the Middle East: the Shah had adamantly refused. . . He kept us informed of what he understood to be Arab purposes. He was available as an intermediary . . . Above all, he refused to join the pressures organized by other oil producers in the Persian Gulf. Iran did not participate in the Arab oil embargo nor did it curtail its oil production. . . He continued to supply oil to Israel. When we moved a carrier task force into the Indian Ocean, it was fueled from Iran without argument about compensation.\textsuperscript{103}

Indeed, Kissinger argued that the Shah had been unfairly labelled by historians as the main impetus behind the December price rises ‘for which others shared equal if not greater blame’.\textsuperscript{104} The degree to which it was Iran rather than Algeria or Iraq (these two countries wanted an oil price higher than that eventually agreed upon) which were to blame for the 1973 increases is debatable. Perhaps the question of who actually forced the price rises is less
important than the fact that the Shah was more than happy to take the
credit/blame for the move. Saudi Arabia had argued for a lower increase but
was overruled by Iran. Ian Skeet believes that:

The Shah must be held primarily responsible for what was a
disastrous decision not only for the rest of the world but also for Iran.
Some of those who were able warned him but he did not listen. He
was not a man to listen, and he was beguiled by a vision of dollars
that would create his Great Civilisation, an Iran reformed and reborn
to greatness. . . In the euphoria of 1973 the Shah could not follow a
Saudi, he must lead.\textsuperscript{105}

The Shah was also mindful of Iran’s unfavourable balance of payments
position which had come under severe strain from 1970 onwards. For the first
time, the country’s level of net foreign exchange reserves had become negative
by roughly $170 million. Not only would the increase in oil prices wipe out this
problem which threatened another economic disaster on the scale of 1960-63, it
would also allow him to capitalise on the long fought-for arms sales that the
United States was now willing to make and which were essential if Iran was to
play a major role not only in the Persian Gulf but further afield.

Increased oil revenues gave the Shah the belief that he could finally
transform Iran’s economy into a major industrial power in the space of a decade
or so. Last, but not least, the Shah saw the move as the ultimate in showing the
world how powerful Iran was, and, he enjoyed flaunting this, in particular to the
West. Interviews given to Western networks after this period show a man who,
though closely allied with the United States, bore an almost vengeful hatred of
the West and of Britain, in particular. In an interview with the BBC, he
predicted that the West would return to the caves, while Iran flourished. A Bureau of Intelligence and Research of the Department of State report of May 1976 read:

In recent months the Shah has permitted unusually severe criticisms of the United States in the Iranian media. He has lent his own name to sweeping charges against the US, raising public questions about the bases and alliance and US reliability.\(^{106}\)

When asked in 1976 whether the price of oil might be pushed up again, he said:

Of course it's going to rise. Certainly. And how... There's no other solution. However, it's a solution you of the West have wished on yourselves. Or, if you prefer, a solution wished on you by your ultra-civilized industrial society. You've increased the price of wheat you sell us by 300 percent, and the same for sugar and cement. You've sent petrochemical prices rocketing. ... You make us pay more, scandalously more, for everything, and it's only fair that, from now on, you should pay more for oil. Let's say ... 10 times more.\(^{107}\)

Perhaps too, in his relations with the West, the Shah was practising a psychological lesson he appeared to have learnt:

I have several criticisms to offer in regard of Western policies. But my main grudge is this: the west treats those who are their friends as negligible quantity. As to others who bully them, they lick their boots. There is a kind of masochistic complex in the West.\(^{108}\)

In the event the rise in price per barrel from $5.2 to $11.5 meant that Iran's foreign exchange receipts from oil increased from $5 billion in 1973 to $19 billion in 1974. Over a two-year period (1972-74), Iran's foreign exchange income had risen almost eight-fold. In previous chapters we have discussed
how this additional income was distributed within the economy. It also led to a sudden increase in military expenditure. Table 5.2 shows US military aid and sales to Iran from 1972-78:

Table 5.2: US Military Aid and Sales to Iran, 1972-78
(millions of dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Grant</th>
<th>Cash/Credit Sales</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>0.2</td>
<td>214.0</td>
<td>215.0</td>
</tr>
<tr>
<td>1973</td>
<td>0.2</td>
<td>245.0</td>
<td>245.4</td>
</tr>
<tr>
<td>1974</td>
<td>0.2</td>
<td>648.6</td>
<td>648.8</td>
</tr>
<tr>
<td>1975</td>
<td>0.1</td>
<td>1,006.1</td>
<td>1,006.2</td>
</tr>
<tr>
<td>1976</td>
<td>0.05</td>
<td>1,924.9</td>
<td>1,924.9</td>
</tr>
<tr>
<td>1977</td>
<td>-</td>
<td>2,424.7</td>
<td>2,424.7</td>
</tr>
<tr>
<td>1978</td>
<td>-</td>
<td>1,907.3</td>
<td>1,907.3</td>
</tr>
</tbody>
</table>


According to the table, Iran bought some $8.4 billion worth of arms from the US during 1972-78. Statistics vary greatly, however, regarding the true level. For example, James Bill quotes a figure of $16.2 billion in US military sales to Iran for the same period taken from the Senate Committee on Foreign Relations, US Military Sales. Such a figure is very high indeed since it would amount to four-fifths of all foreign exchange for the first year of high oil
earnings - 1974. He also finds that by 1977, ‘the military and security establishments in Iran were absorbing over 40 percent of the Iranian budget’. However, even if the size of the figures is disregarded, it can clearly be seen from the table that Iran almost tripled its purchases of arms from the US in 1974 compared to 1973 and that this figure itself increased by over 55 per cent the following year.

The powerful effect of the increase in oil prices is, therefore, clear. Apart from solving the balance of payments problem and injecting large amounts of capital into the economic system, it also enabled high levels of arms purchases. While it would be going too far to say, as some have, that the US agreed to oil price rises, or indeed encouraged them so that it could sell weapons to Iran and the Middle East (Saudi expenditure also increased dramatically), it is certainly the case that the US, seeing the substantially greater numbers of dollars going to the Middle East almost overnight, was not then likely to discourage a circular flow through increased levels of arms and other exports. For example, a secret policy document shows that policy since the oil price rises had been to ensure these petrodollars were recycled. The policy framework had been:

To assist oil exporters to employ their rapidly growing incomes in a constructive way, supportive of the international system.110

Arms and technology, as the most expensive items, were the most efficient in helping this recycling process to succeed.
By July 1976, some 25,000 Americans (and their dependents) were working in military-related jobs in Iran, only 6,000 men fewer than in the professional Iranian military. An estimated 60,000 Iranian students lived in the US by the end of 1977. Indeed the relationship between oil, arms, the US and Iran, according to some authors, fits almost exactly the pattern of militarised sub-imperialism, whereby Iran was armed by the US in order to guarantee the security of increasingly important oil supplies to the US and the West.\textsuperscript{1} Though the argument is persuasive and though security of oil supplies was certainly a major policy objective of the US, it ignores almost completely Iran's own inclination in the matter and the genuine conflict with the US over pricing policy. Certainly, in its confidential documents, the US saw a conflict of interests over petroleum pricing but one that was rectified in other ways:

On the petroleum price issue, the perceived interests of Iran and the US are opposed. Iran wants a relatively high price, to bring maximum returns to Iran over the relatively brief period (estimated at about ten years) before its exports of petroleum fall sharply. . . It is not likely that the US could persuade Iran to underbid OPEC prices. . . Furthermore, Iran’s willingness to act as a dependable source of supply (albeit at OPEC prices) should be recognized and encouraged. Iran did not participate in the Arab oil embargo, and the US should (as advocated by the Administration) extend to Iran and other petroleum suppliers which did not join in that embargo the tariff preferences extended by the US to all LDCs in general.\textsuperscript{12}

After the oil price rises, the Shah thought of himself as far less dependent on the US. He did not regard Iran as part of the twin-pillar policy \textit{per se}. For example, in response to a question about Iran's being a Western enclave in the Middle East, the Shah had the following to say:
If in the past we walked along the same path as the west, it was not because we were their camp followers. No, of course not. We believed in the philosophy of human freedom and liberal values, as the west does, and so we worked in co-operation with them. Now let me return to this canard of Iran being ‘a western enclave’ in the Middle East. The answer is a categorical NO! I would say NEVER! You must know my father was exiled by a western power. When I succeeded him they did not give me an easy time. They made innumerable mistakes in Iran, as indeed in this entire region: and I have had to face them and put up with them. They created many problems for me and this is putting it mildly.\textsuperscript{13}

It is, of course, ironic, that the Shah’s perception of the situation was so different from that of most of his subjects. The drive towards making Iran strong militarily and economically (two sides of the same coin) was precipitated by this desire to make Iran an independent and powerful nation. Nevertheless, the process entailed Iran becoming increasingly dependent on the US, not only because of its needs for arms but also in the business field. The Shah believed, however, that the country was becoming strong enough to stand apart from the US and, after 1973, many of his actions were aimed at distancing himself from the US. According to a confidential document to the US Department of State from the American embassy in Tehran in 1975:

The Shah appreciates past US assistance and the fact that we have never exploited Iran. He considers us a necessary ally. Nevertheless, as he has grown in confidence and as Iran began to approach its present regional power status, the freedom of access to many areas of civilian society which we formerly enjoyed has been somewhat constricted…
In the military sphere, too, the Shah is attempting to reduce his dependence on the US by diversifying his arms sources where he can without affecting the efficiency of the armed forces which are his ultimate power base. But he realizes that many of the sophisticated weapons he wants and the advisory capacity to train his troops to use them are available nowhere but from the US. In addition, at the present time, US influence permeates virtually all levels of the Iranian military structure so that a withdrawal or even a sharp reduction of that presence would adversely affect Iranian combat readiness.
Consequently, the character of the US-military relationship is not likely to change dramatically in the foreseeable future.  

5.14 The quest to become a regional power

In the 1970s, the US was the major arms supplier to the Persian Gulf states and 82 per cent of these transfers were made to Iran, as can be seen in Table 5.3 below.

Table 5.3: Values of Arms Transfers to the Persian Gulf by Major Supplier and Recipient Country, cumulative 1973-77

(current million dollars)

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Total</th>
<th>US</th>
<th>USSR</th>
<th>France</th>
<th>UK</th>
<th>W.Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>7,005</td>
<td>5,425</td>
<td>390</td>
<td>100</td>
<td>350</td>
<td>400</td>
</tr>
<tr>
<td>Iraq</td>
<td>3,740</td>
<td>-</td>
<td>2,600</td>
<td>240</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Saudi A.</td>
<td>2,068</td>
<td>968</td>
<td>-</td>
<td>230</td>
<td>525</td>
<td>5</td>
</tr>
<tr>
<td>Kuwait</td>
<td>455</td>
<td>165</td>
<td>30</td>
<td>150</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Oman</td>
<td>114</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>Bahrain</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Qatar</td>
<td>41</td>
<td>1</td>
<td>-</td>
<td>30</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>UAE</td>
<td>284</td>
<td>4</td>
<td>-</td>
<td>220</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13,708</td>
<td>6,568</td>
<td>3,020</td>
<td>970</td>
<td>1,055</td>
<td>485</td>
</tr>
</tbody>
</table>


In fact, over one-third of all US military purchases between 1970-76 were made by Iran.  

And, as we have seen, though sceptics could not understand why Iran
needed such armaments when it could never be in a position to take on the Soviet Union alone, the Shah himself regarded them as essential both for Iran’s security needs (because of the threat from the Soviet Union’s allies) and for Iran’s status as a regional power. A secret working paper from the American embassy in Tehran outlines the regional threats as perceived by the Shah. While the Shah expected the US to assist him were the Soviet Union to invade:

What concerns him far more is the indirect threat which the Soviets pose through their assistance, both overt and covert, to those governments - particularly Iraq’s - and dissident elements in the region which appear intent on undermining Iran’s security. The strategic implications of close political ties among India, Iraq, Afghanistan and the USSR worries the Shah. . . With signs of declining Soviet influence in the Eastern Mediterranean, the Shah fears that the USSR will now turn with increased vigor to expanding its influence in the Gulf, cementing ties with Afghanistan and Iraq in the north and supporting insurgent attempts to topple conservative governments in the littoral states to the south. This is the primary reason that the Shah has committed Iranian forces in Oman to combat the rebellion backed by the PDRY, a Soviet client.116

The Dhofari rebellion, the increased role of the Soviet Union in the Indian Ocean and the 1971 Indian invasion of Pakistan, all contributed to the Shah’s decision, in the light of the Nixon doctrine and the blank cheque, to expand Iran’s strategic interests outside the Persian Gulf and into the Indian Ocean. The Shah had been particularly disgusted that no one had been able to prevent Pakistan’s division into two nations by India, despite the existence of CENTO. An article in the daily paper, Kayhan, echoed the official view:

Pakistan, an ally of the United States through two multilateral and one bilateral treaty, has been attacked and dismembered without a
ripple of serious protest. There is no reason why Pakistan’s plight should be treated as an isolated case that could not be repeated anywhere else in the region.\footnote{117}

The \textit{New York Times} quoted the Iranian prime minister, Amir Abbas Hoveida, as saying that alliances such as CENTO were no more effective than a nice ‘club’ and that: ‘It is apparent now that one has to rely on one’s own strength for defence’.\footnote{118} These events reinforced the Shah’s belief that he could not rely on others in the defence of the country. A military buildup was the only solution, not only to filling the vacuum left by the British, but also to ensuring Iran’s defence should Iraq or another hostile power invade.\footnote{119} He hoped a strong army and navy, would act as a deterrent to such aggression. He also hoped to assist other friendly countries threatened by hostile powers. For example, in 1972 he committed himself to the territorial integrity of Pakistan by saying that any attack on Pakistan would be regarded as an attack on Iran itself ‘Iran’s growing self-confidence in foreign affairs’, was noted by the US along with a concern that these were not being conducted within ‘a well-designed multilateral framework’.\footnote{120}

In November 1972, the Shah announced for the first time that he intended to expand Iran’s ‘security perimeter’ beyond the Persian Gulf and the Gulf of Oman into the Indian Ocean. In a speech on the fortieth anniversary of the Iranian navy, he told the navy that its ‘striking power’ would increase ‘several times over’ within the next two years. While until three or four years previously he had only had the defence of the Persian Gulf in mind, ‘then came events that
forced us to think of the Gulf of Oman and Iran’s coast there. Then other events in the world taught us that the sea contiguous to the Gulf of Oman, and I mean the Indian Ocean, recognizes no frontiers.¹²¹ The move outside the Middle East was the logical extension of the Shah’s increasing ambition to turn Iran into a world power. One of the American documents from the embassy in Tehran notes that:

> It appears that the Shah’s intent in expressing greater interest in South and East Asia is to project an image of greater strategic scope. He may feel that the rest of the world tends to think of Iran as a country on the fringe of the Middle East rather than as a country which has other broad strategic interests as well.¹²²

Soviet activity in the Indian Ocean had increased since 1968 and the Soviet navy had made six appearances in the Persian Gulf, fuelling Iranian fears that it was shipping arms to Iraq.¹²³ For this reason the Shah couched his policy towards the Indian Ocean in the same terms as that for the Persian Gulf, namely that it should be an area free from superpower intervention and one in which the security of the region should depend on the states of the region:

> First of all we would like to see an Indian Ocean free of all world rivalries and conflicts. Its security and defence should be left to the countries of the region. Second, we would like to see cooperation among all its countries take shape and reality.¹²⁴

Needless to say, this policy did not meet with the approval of anti-American states in the region. For example Iraq’s information minister pointed out that:
Some [littoral states] said we should not have American and Soviet navies here, and we were against this because it was a way to keep out only American influence and exclude the Soviets. The Americans are already here... Who is endangering the security of the Gulf? We don't see any present danger, more important is free passage in the Gulf.\textsuperscript{125}

But, according to Burrell and Cottrell, Iran’s attempt to extend security into the Indian Ocean was also aimed at protecting her oil tanker lanes:

This wider concern with security is a reflection of the Shah’s view that the area over which he seeks paramountcy is of global importance, because of both its strategic position and its enormous oil reserves. The need to protect the oil routes beyond the Straits of Hormuz and across the waters of the Indian Ocean lies at the heart of much of Iran’s current military planning. Tehran is now aiming at building up a defense capability that will allow it to protect tankers bound for Europe as far as the tenth parallel (i.e. just north of Malagasy), and negotiations are believed to be underway with interested parties concerning the defense of the eastbound tanker route to Japan.\textsuperscript{126}

Iran used its oil wealth to further this policy. For example, economic assistance was given to Mauritius in return for port facilities. Diplomatic relations with South Africa were established in 1971 but suggestions of a trilateral defence arrangement with Australia were not met warmly by the Canberra government. However, the Indian Ocean policy pushed Iran further afield in cultivating relations with other powers. Though China was communist, it was anti-Soviet. Iran announced it would establish diplomatic relations with China in August 1971 and the two countries began economic and commercial ties soon after. The Chinese Foreign Minister, Peng Fei, visited Tehran in June
1973 and expressed support for Iran’s military buildup as a natural response to the threats it faced.

Iran tried to back up its armaments policy with that of rapprochement with many countries in the region. While originally extremely alarmed at the 1973 overthrow of Afghanistan’s king, Zahir Shah, by 1975 the pro-Soviet President, Daoud Khan, was a visitor to Tehran and was given $2 billion in economic aid. The restoration of relations between Iran and Afghanistan also led to improved relations between Afghanistan and Iran’s ally, Pakistan.127 Iran’s self-appointed role as regional defender entailed the settlement of regional disputes and the Shah was happy to take the credit for negotiating the recognition of Bangladesh by Pakistan128 and the gradual improvement in ties between India and Pakistan.129 He invited India, Afghanistan and Iraq to join the Regional Cooperation for Development (RCD) which was founded by Iran, Pakistan and Turkey in 1964, but Pakistan was not wholehearted about this forced alliance with India.130 However, the Shah saw the Indo-Pakistani dispute as one of the most destabilising conflicts in the region:

An Indo-Pakistani settlement is the first imperative for the safety, security and development, not only of the subcontinent, but of the neighbouring region, including my country.131

An improvement in Iran’s own relations with India was essential if the Indian Ocean policy was to work. Relations had been strained because of India’s non-alignment and what was regarded as its Soviet-leaning government in contrast to Pakistan’s pro-American one. However, India was the largest regional power
and one in possession of a nuclear capability so the Shah regarded an improvement in relations as a necessity. Though India was a rival to Iran, it was badly hit by the oil price rises and after 1973, had to seek outside assistance. Iran began friendly overtures in 1973 and Prime Minister Indira Gandhi visited Tehran in 1974 when a package involving Iranian oil for iron ore was agreed upon. The nuclear disparities between the two countries remained a potential source of friction but Iran hoped, nevertheless, that India would support its plans for an Indian Ocean community. In 1974 the Shah embarked on a major tour of Singapore, Australia, New Zealand, Indonesia and India to ‘sell’ his idea of an Indian Ocean community.

The Shah’s Indian Ocean plans never materialised but the vision was grand. It involved the formation of an economic community, which some authors believe was driven by Iran’s need for raw materials for its industrialisation drive. According to the Shah:

It is neither utopian nor a dream. In the signing of the Economic Protocol between Iran and India, two ancient neighbours, followed by increased trade, investment and industrial cooperation and a joint Indo-Iranian Shipping Corporation, I see a working model for my plan of an Indian Ocean Economic Community. We can then cover the entire Indian Ocean complex from the north to the south, the Middle East, the Persian Gulf countries and the African states west of the Ocean. And we may even extend the hand of cooperation right up to Bangladesh and, maybe, Burma, Thailand and Singapore as well, right down to Australia.

Q: Can one go further and presume that your plan might be expanded into an even grander design, to cover the entire world?
Shah: Why not? All our past proclaims our future. What has been done so far points to the possibility of what more we can do.
Within the Middle East itself, the most important development was the settlement of tensions with Iraq in March 1975. Iraq recognised the border demarcation between the two countries as being down the deepest channel \((thalweg)\) of the Shatt-al Arab waterway and promised no longer to harbour anti-Pahlavi dissidents. In exchange, Iran gave up its support for the Iraqi Kurds which had been intensified after Iraq’s 1972 treaty of friendship and cooperation with the Soviet Union. There was also a change in relations with Egypt facilitated by the death of Nasser in 1970. President Sadat had moved to end the dispute between South Yemen and Oman, which found favour with the Shah. In May 1974, Iran and Egypt signed a $1 billion trade agreement and, even more importantly for Egypt’s shattered economy in the aftermath of the October 1973 war, Iran agreed to participate in a plan to deepen and widen the Suez canal.

It was not enough for the Shah that Iran was becoming a world power, it had to be seen to be one. Thus, from being a recipient of foreign aid, Iran turned into a major aid donor in the space of a few years. And, as with a major power, the Shah decided to disburse aid to friendly countries. In 1975 this commitment included a $120 million low interest loan to Egypt as part of the economic agreement; a $200 million loan to Indonesia for a chemical fertilizer plant; a $150 million long-term loan to Syria, in an attempt to woo her away from the Soviet Union; a $4 million housing loan to Jordan; $12.5 million in loans to Bangladesh and the financing of port and communications facilities in Turkey.\(^{135}\) The Shah also proposed a $2-3 billion fund with the joint
participation of the oil-exporting countries but this had to be abandoned. An OPEC fund announced in April 1974 also foundered until, in November 1974, Iran initiated the creation of an OPEC fund to disburse aid to developing countries worst hit by the price rises but it was not fully established until May 1976. Iran provided the largest share, 26 per cent, of its $800 million capital.\footnote{136}

A confidential 1975 US document was sceptical both of Iran's commitment to aid and ability to disburse funds:

> In Iran, where words are often more important than reality, a statement of intentions can serve the same purpose as an actual program, at least in the short run, regardless of one's capacity to realize the intentions. It is in this spirit that Iran has announced enormous aid and trade deals, many of which, on closer inspection, turn out to be little more than agreements in principle with only an embryonic organization to administer a foreign aid program which is expected to disburse by March 21, 1975, an estimated $2.6 billion of the $9 billion of Iranian aid funds pledged in 1974.\footnote{137}

Aid was not confined to the developing world. More than a third of the $7.2 billion disbursed out of an estimated total pledge of $12 billion by 1977, went to industrialised Western countries, notably France and the UK.\footnote{138} This was the first time an oil-producing nation had loaned money to an industrialised country. But, as Robert Graham describes:

> some of these commitments, so eagerly undertaken, were to prove an embarrassment in less than eighteen months. The case of a $1.2 billion loan to Britain symbolised this turn-round. The loan was negotiated in July 1974 on the basis of three tranches being paid at market rates to a British local authority over a three-year period. The first $400 million tranche was paid on time to the National Water Council. However, the second tranche had to be split into two separate payments of $200 million each by special arrangement in June and September 1976. This was because Iran could not afford to
release so much foreign exchange at one time. By the time the final tranche was due, Iran did not want to pay. \textsuperscript{139}

The impact on the international economy of the 1973 price rises appeared at the time to pin oil to the centre of the international economic system. The Shah, not only concerned himself with restoring the Iranian economy and giving out loans to the developing and developed countries, he also saw himself as a sort of world statesman. This was most clearly illustrated by his description of the plan he had submitted to the United Nations to solve the world’s economic problems:

Inspired by my country’s humanistic trend, from Cyrus the Great to my own father Reza Shah and the 2,500 years of our glorious history, I have presented to the United Nations the outline of a plan for a World Co-operative Directorate, with a Neutral International Development Bank to feed and speed the economic rehabilitation of all three worlds, the developing, the developed and the oil-producing countries. What we propose is a 36-member joint Directorate, formed of a dozen representatives each of the oil-producing, industrialized and developing countries, which will work in triangular co-operation to the mutual benefit of all. \textsuperscript{140}

The purpose of such a quotation is not ridicule but to underline the argument put forward here, namely that the drive behind the domestic economic policy followed by the Shah after oil price rises cannot be fully understood if isolated from the Shah’s vision of Iran in the international context. The Shah was determined that Iran should become a major international power, as illustrated in this chapter, but he knew that oil reserves would only last a further ten years or so. Iran would provide the West with an example of what hard work and the
Shah’s leadership could do. In interview with the *Washington Post*, he said, ‘In ten years time, we shall be what you are today’. 141

5.15 The quest for nuclear power

Soon after the 1973 oil price rises, the Shah embarked on an ambitious nuclear power programme so that Iran could continue exporting oil for as long as possible. He planned to spend an estimated $33 billion on the construction of 20 nuclear reactors by the 1994, which would have made Iran the largest producer of nuclear energy in the Indian Ocean region.142 According to Fereidun Fesharaki, there were other reasons behind the programme:

First, the Shah was under international pressure to recycle the petrodollars. The nuclear power programme was expensive, modern and ensured a continuous dependence on Western technology. Second, the Shah’s own image of modern Iran, under his leadership, was well suited to prestigious projects, such as nuclear power. Third, the Shah’s leadership role in Opec (at the time) and his argument that oil should not be used for burning as a fuel, made the nuclear option attractive for demonstrating his own lead within the organisation in moving towards non-petroleum energy options. Fourth, though military use was not a direct goal, the Shah expected that over time his options for building nuclear bombs would be open.143

This was one of the Shah’s most conspicuous ‘white elephant’ projects since, by October 1978, it was decided to axe 16 of the plants and a further two were also dropped from the programme by the end of that year. But in 1974, the Atomic Energy Organisation of Iran (AEOI) was established to begin negotiations for the nuclear reactors. Despite the worry about the Shah’s nuclear ambitions, the US was anxious to participate as fully as possible in the economic benefits of the programme:
The US and Iran are currently negotiating an agreement on atomic energy, as Iran is planning to install nuclear power plants. It is important, if the US is not to be cut out of this near ten billion dollar business by foreign competitors, for the US to continue to give very high priority to these negotiations and to ensure that the Embassy in Tehran is adequately staffed to back them. 144

However, many observers feared the Shah’s nuclear power programme was aimed at developing nuclear weapons. The 20 nuclear reactors would produce plutonium in quantities large enough to construct hundreds of nuclear weapons. Since Iran was rich in mineral reserves, these observers tended to disregard the Shah’s stated reasons for wanting nuclear energy, and therefore, the need for 20 reactors seemed more than excessive for the purposes of civilian needs. Moreover, soon after India detonated a nuclear device in the Indian Ocean in May 1974, the Shah gave an interview in which he apparently answered the question, will Iran acquire nuclear weapons with the reply, ‘Without a doubt, and sooner than one would think.’ 145 The Shah later denied the statement. Alternatively, by having nuclear reactors installed, the Shah would retain the ability to produce nuclear weapons if they were ever to be needed. George Quester writes:

The Shah’s long-run strategy might be neither to make the bomb, nor to reassure the outside world by staying as far away as possible from it. Rather it might be providing a meaningful warning to Israel, Egypt, Saudi Arabia, Libya and Pakistan: “If you go nuclear, we will too.” 146
The nuclear power programme contributed to deepening economic ties with the US. In November 1973, Iran and the US had established a joint economic commission to facilitate trade between the two countries. According to James Bill: "Between January 1973 and September 1974, United States companies signed contracts and joint ventures with Iran that totaled $11.9 billion".\(^{147}\) In March 1975, Iran and the US signed what was then the biggest such economic package ever concluded between two countries. Spread over a five-year period and excluding oil, the deal provided for $5 billion in military purchases, $5 billion in ordinary trade items and $5 billion in additional goods and services. It included the construction of eight nuclear reactors.

By the end of 1975, Iranian non-military imports from the US for that year were $2 billion out of a total import bill of $10.3 billion, with the balance of trade $1.1 billion in favour of the United States.\(^{148}\) Without doubt the trade relationship was of great importance to the US, especially since it was conducted in terms particularly favourable to the US and exceptional in the context of trade relations between a developed and underdeveloped nation. This was recognised by the US government:

\[\text{The flow to Iran of US goods and technicians, military and civilian, is financed almost entirely by the Government of Iran. The latter contributes far more, in financial terms, to the US-Iranian bilateral relationship than does the US government. He who plays the piper calls the tune. Happily the tune is generally pleasing to the United States.}^{149}\]
In 1976, the US supplied Iran with $2.15 billion of its total non-military import bill of $12 billion, or just under 17 per cent of the total market share. Military imports for the year were estimated at $5 billion, of which the US was again the major supplier. Iran's other major non-military trade partners were the former West Germany with 18.1 per cent, Japan with 16.3 per cent the UK with 7.7 per cent and the former Soviet Union with 1 per cent. The US government estimated that by 1980, the Iranian civilian market would be worth some $21 billion to the US. Therefore, by the mid-70s, ties to the US through the military relationship, trade and business and oil all contributed to the deepening of the alliance. Some of these transactions were tainted with corruption, particularly in commissions and brokerage fees. But the sheer amount of money involved meant that Iran continued to be a vital business interest to many American companies. As James Bill writes:

The Nixon-Kissinger-Ford policy toward Iran had powerful support from the major US arms, electronic and telecommunication industries. By the fall of 1975, thirty-nine such companies had contracts and representation in Iran... The Iranian market was a bonanza for these industries, and the competition for contracts was sordid, involving bribery, huge commissions and pay-offs of all kinds. The situation brought out the worst in both countries. In a June 20, 1972, US Embassy report on corruption in Iran, a section entitled “American companies and Influence Peddlers” listed seven US companies that were “to the Embassy’s knowledge, buying the influence of the persons listed with them”. The companies listed included General Electric (Allison Engine), Northrop, Boeing Aircraft, Cities Service, McDonnell-Douglas, Radio Corporation of America, and Neill-Price. These allegations, which represented the US diplomatic assessment of the situation, reflected the business climate of the time.
5.16 Turning the tables on the US

Security of oil supplies was a continuing concern for the US. In 1973, 23 per cent of US imports were from the Persian Gulf region, increasing to 38 per cent by 1976 but by 1978, this had decreased to 17 per cent. A US policy document reiterated the Administration’s policy towards Iran in 1976:

Iran’s oil is important to the US and essential to its allies. This will remain true in the coming decade. US interests also require that Iran continue to play constructive regional role, and that Soviet influence in the region remain limited.

In many ways, this preoccupation with trade and business as well as the importance of Iran as a regional ally appears to have blinded the US to some of the very real difficulties that the Iranian economy began facing as early as 1974, when, by the Shah’s own admission, the country already had a deficit of $5 billion. Yet, it is also clear that sections of the US government understood the implications of what was increasingly seen as a military alliance between the US and Iran. According to the same 1976 document:

If US policies may be judged to have been successful in securing key US interests, they have also produced some paradoxical results. One of these, already mentioned, is that Iran is becoming a power - thanks in part to US arms sales policy - capable of playing a regional role opposing, as well as furthering, US interests. Another is that the Iranian desire to purchase US arms and US willingness to go far in permitting these purchases has had the practical and distorting effect of making the military element the key factor in the bilateral relationship. In the longer run this may not be the best basis for a constructive relationship.
The same document draws attention to the need for a more consistent
government sales policy:

a deficiency which reduces the effectiveness of and public support for
our arms sales policy is the absence of agreed and reasonably
comprehensive criteria to define its limits. All US officials appear to
agree there must be limits, but where they are or should be remains a
gray area which needs clarification.158

The US's increasing dependence on imported oil, and the sudden oil
wealth of the producer countries interacted with one another to produce an
unusual outcome. The Shah, who had resented dependence on outside powers,
suddenly saw himself in a position where the US was dependent on him. Gone
were the days of such humiliating episodes as the Kennedy era; instead Iran was
now a country at whose feet powers such as the US, Germany, France and the
UK were falling in their eagerness to do business. The Shah could indeed feel
not only satisfaction and importance but also that anything was possible -
nothing was out of Iran's reach and this translated itself most dramatically into
the ambitions he harboured for transforming Iran into a fully-fledged industrial
power, illustrated by his doubling the allocations made in the fifth plan.

Despite Jimmy Carter's human rights campaign and the deficiencies in
arms sales policy, there is nothing to suggest that in terms of military
commitment, the US lessened its support for Iran during his administration.
Zbigniew Brzezinski, National Security Advisor from 1977, writes of the twin-
pillar policy in his memoirs:
The high point of that policy was the decision made by President Nixon and Henry Kissinger to gratify the Shah’s desire for a rapid military buildup through massive US arms transfers to Iran. Recognizing Iran’s strategic centrality, we chose to continue that policy, approving major sales of arms to Iran in the course of 1978, but we also encouraged the Shah to couple his extraordinarily ambitious efforts to modernize the country with more rapid progress toward constitutional rule. . . It is hard to tell in retrospect whether the Shah simply paid lip service to the goal of democratization when speaking to us or whether he himself recognized the need for some change. 159

Despite continuing criticism regarding the levels of Iranian arms purchases, and a pledge by President Carter that under his Administration, the US would no longer act as the world’s leading arms salesman, the sale of arms to Iran continued unabated. Indeed, no objections were raised to any of the items on the Shah’s 1977 ‘shopping list’. 160 This included a request for seven of the highly advanced air defence system, known as AWACs, at a total cost of $1.2 billion. The Administration’s approval of the sale caused an uproar in Congress and the Senate, leading to a series of hearings in the Senate Committee on Foreign Relations in July 1977. In the same month, the House International Relations Committee opposed the sale by 19 votes to 17. President Carter decided to withdraw the request and to resubmit it once the summer adjournment was over, in September. This time, an amended proposal was pushed through Congress with Secretary of State, Cyrus Vance, arguing strenuously that the Shah was a force for regional stability and a major oil supplier for the US and its allies: ‘To preserve our mutual confidence Iran must
know that the United States will help it to meet its legitimate defense requirements.\textsuperscript{161}

In fact, Carter had decided that Iran was an exception to his new rulings on arms transfers, as was clearly illustrated by an exchange between Senator Frank Church and Assistant Secretary Leslie Gelb at the Senate hearings:

Senator Church: On May 19th, the President sent us a new policy with regard to conventional arms transfers. One of the major principles of that new arms transfers policy was that the United States would not be the first supplier to introduce into the region newly developed and advanced weapons which could create a newer significant combat capability. Can you reconcile the proposed sale of the AWACs system with this principle? . . .
Mr Gelb: Senator, it is not reconciled.
Senator Church: It is irreconcilable with the principle?
Mr Gelb: That's right. The President made an exception to the guideline.\textsuperscript{162}

The Carter Administration also approved the sale of $1.8 billion worth of an additional 160 F-16 fighters to Iran and began considering a request for another 140 of the same aircraft.\textsuperscript{163} The Shah visited Washington in November 1977 amidst prominent anti-Shah demonstrations. The Shah told Carter that he would press for an oil price freeze at the December OPEC meeting. Though the human rights issue was raised, it was not pressed and indeed, turned into another opportunity for the Shah to lecture to the West, as Carter himself described:

because of reports of increasing violence in Iran, when the Shah made his first visit to Washington in November 1977, I spoke to him about the need to address the revolutionary forces against him, among both Iranian students in the United States and the demonstrators on the
streets of Iran. The Shah discounted these activities as “a few communists and their sympathizers”, who had no legitimate complaints and no popular support. He insisted that the imprisonment of his vocal critics and gunfire from the police into demonstrating crowds were the best ways to stamp out the dissension. Indeed, the Shah went so far as to suggest that the Western leaders might well emulate his toughness, lest our permissive democratic principles open floodgates of public protests that could not be controlled.\textsuperscript{164}

Carter repaid the visit by spending New Year’s Eve in Tehran, a particularly high honour accorded only to the US’s closest friends. In addition, Carter had said that he intended to consult the Shah on aspects of the Arab-Israeli conflict. It was during this visit that he made the toast that became famous in retrospect for its ill-timing on the eve of the revolution.

\begin{quote}
Iran under the great leadership of the Shah is an island of stability in one of the more troubled areas of the world. This is a great tribute to you, your majesty, and to your leadership, and to the respect, admiration and love which your people give you.\textsuperscript{165}
\end{quote}

Yet it was Jimmy Carter who, in his inaugural address on 20 January 1977, had pledged that: ‘Our moral sense dictates a clear preference for those societies which share with us an abiding respect for individual human rights’. This was only four years after Amnesty International’s 1974-75 report on Iran which stated that, ‘The Shah of Iran retains his benevolent image despite the highest rate of death penalties in the world, no valid system of civilian courts and a history of torture which is beyond belief’. But Iran had become a special case to the US and the arms sales had acquired such a momentum of their own,
providing an important source of financial support to the US economy, that the anticipated criteria no longer applied. Gary Sick writes too that:

President Carter was an activist president with a deep commitment to specific goals. But he was remarkably free of ideological preconceptions in his approach to a problem. His commitment to the promotion of human rights and the reduction of world-wide arms sales was beyond question; yet he was prepared to give the Shah the benefit of the doubt in his efforts to introduce reforms, and he was prepared to engage the prestige of his office in a difficult legislative fight for an arms sale to Iran that he believed was consonant with US security interests, to the discomfort of many of his more ideological subordinates. 166

5.17 Summary
The main slogan of the 1979 revolution was ‘Independence, Freedom, an Islamic Republic.’ It was the outcry of a nation’s resentment that its leader had effectively sacrificed the country’s independence to keep himself in power as an autocratic and dictatorial monarch. That the Shah was perceived as firmly in the pocket of the West was hardly surprising, given the country’s history and its people’s long memory. The British brought in Reza Shah and later dispensed with him. The United States, with British connivance, organised the coup d’etat against the populist and nationalist Prime Minister Mohammad Mossadeq to restore the Shah to the throne in 1953.

However, in this chapter we have argued that a careful assessment of the period shows that the relationship was not as straightforward as the popular image. While there is no question that the Shah was a firm ally of the West, there is also a good deal of evidence to show that he also resented his own
dependence. This led him to decide to develop a foreign policy and a domestic economic policy which would make him independent of the powers that had forced his father into a humiliating exile and accorded him scant respect in the early years of his own rule. He sought to overcome this humiliation by aiming to propel Iran into the international arena as a major power in its own right. He believed he could achieve something not achieved previously – transforming a less developed country into a major military and industrialised power in a fraction of the time it had taken Japan to build up its economy. In foreign policy terms, this led to the decision to pursue a military build-up, through the strategic alliance with the US. In economic policy terms, it took the form of the Shah’s decision to adopt a big-push industrialisation strategy – an influence which we have argued has to date been underplayed when examining the reasons for the strategy’s failure. The drive towards industrialisation was flawed, as we have seen in previous chapters. The rush, with scant regard to economic feasibility and available resources, led to severe economic imbalances.

The key to the Shah’s ambition was Iran’s growing oil wealth. Rising oil revenues gave the Shah the opportunity to be master of his country’s destiny and to lecture Western governments on their shortcomings. Zbigniew Brzezinski’s own impression of the Shah in late 1977 is a good summary of the personal environment the Shah inhabited:

When discussing issues, he showed a keen analytical bent and he was particularly effective, I thought, in summarizing the geopolitical dilemmas of his region. At the same time, I felt that he displayed
megalomaniacal tendencies, that his entourage was excessively deferential to him, and I wondered on what basis he was making his various decisions. . . In general, the Pahlavis reminded me of Western-type nouveaux riches, obviously relishing the splendors of wealth and a Western life style, but at the same time the Shah clearly seemed to enjoy being a traditional Oriental despot, accustomed to instant and total obedience from his courtiers. He almost seemed suspended between the two worlds, and there was a strange sense of ambiguity about him. He simultaneously exuded intellectual strength and personal softness. I wondered how the Shah would be able to respond to the social dilemmas which his own program of modernization had produced, but I also felt that we had no alternative but to support him.\textsuperscript{167}

In the final analysis, the Shah showed himself to be a prisoner of his country's history. As his memoirs written after the revolution show, he was convinced that his overthrow had, at least in part, been in the hands of the US.\textsuperscript{168} But the roots of his failure lay in his own misguided economic and industrialisation strategy coupled with his refusal to allow dissenting views and political liberalisation.
Endnotes to Chapter 5


3 Ibid., p.203.


5 For a discussion of different forms of Iranian nationalism see Richard W. Cottam, Nationalism in Iran (Pittsburgh: Pittsburgh University Press, 1964).

6 Interview with Dr Robert Baran, royal dermatologist. For a description of these events and a passionate indictment of the monarchy in Iran, see Reza Baraheni, The Crowned Cannibals (New York: Vintage Books, 1977).


10 Ibid., pp. 284-5.


16 Ibid., pp. 184-5.


20 Ibid.

21 For an account of this and a detailed discussion of domestic developments in the first 12 years of the Shah’s regime, see Fakhreddin Azimi, Iran: The Crisis of Democracy 1941-1953 (London: I.B. Tauris, 1989).


23 Ibid. p.228.


See Nigel Hawkes, 'How MI6 and CIA joined forces to plot Iran coup', *The Observer*, 26 May 1985 and Edward Mortimer, 'When Britain brought off a coup', *The Times*, 25 May 1985, who report the new evidence of heavy British involvement in the coup and name the three Rashidian brothers as the Iranian conduit for the operation's finance and organisation. For the much earlier American version of these events, see Kermit Roosevelt, *Countercoup: The Struggle for the Control of Iran* (New York: McGraw-Hill, 1979). The author was head of the Middle East Department of the CIA. It is he who quotes the Shah as saying to him after his restoration, 'I owe my throne to God, my people, my army - and to you!'.


Ervand Abrahamian, *Iran Between Two Revolutions*, *op. cit.*, p.280.


Ibid., *op. cit.*, p. 143.


Quoted in Barry Rubin, *Paved with Good Intentions*, *op. cit.*, p.50.


327
Barry Rubin believes that Iran joined the Baghdad Pact against the wishes of the US. See Barry Rubin, *Paved with Good Intentions*, op. cit., p.97.


These figures are from Hossein Mahdavy, ‘The Coming Crisis in Iran’, *Foreign Affairs* (Volume 44, No 1, 1965), p.135.


The Iraqi threat was mentioned by Rasoul Bakhtiar, a former assistant managing-director of the Plan and Budget organization in an interview with the author.


*Pravda*, October 23, 1966 in *Current Digest of the Soviet Press* (Vol. 18, No. 43).

86 Quoted in [check].
87 *The Times*, 10 June, 1969.
91 Ibid., pp. 1263-4.
94 Ibid., pp. 62-3.
97 Ibid., p. 37.
100 Ian Skeet, *OPEC: Twenty-Five Years of Prices and Politics* (Cambridge: CUP, 1988). Skeet believes that Iran’s ambitions in the Persian Gulf, backed by the US, gave him ambitions in the oil sphere too - see p. 73.
104 Ibid.
105 Ian Skeet, *OPEC: Twenty-Five Years of Prices and Politics*, op. cit., p. 104.
123 Rouhollah K. Ramazani, Iran’s Foreign Policy 1941-73, op. cit., p.429.
125 Tariq Aziz, Iraq’s information minister, in The Middle East, Feb 1978.
130 Shirin Taher-Kheli, 'Iran and Pakistan: Co-operation in an Area of Conflict', op. cit., p.482.
131 R.K. Karanjia, The Mind of a Monarch, op. cit., p. 27.
132 Dieter Braun, 'Implications of India’s Nuclear Policy for the Region', in Abbas Amirie (ed.), The Persian Gulf and the Indian Ocean in International Politics, op. cit., p.211.
133 See Alvin J. Cottrell and James E. Dougherty, Iran’s Quest for Security: US Arms Transfers and the Nuclear Option, op. cit.
136 Ian Skeet, OPEC: Twenty-Five Years of Prices and Politics, op. cit., p.139.
149 Ibid., p. 9.

330


153 Barry Rubin, Paved with Good Intentions, op. cit., p.139.


158 Ibid., p. 21.


161 Secretary of State, Cyrus Vance, quoted in Barry Rubin, Paved with Good Intentions, op. cit., p.198.

162 Quoted in Christos P. Ioannides, America’s Iran, op. cit., p.20.


Chapter 6. Conclusion

Mancur Olson argues in his book, *Power and Prosperity*, that: ‘theories of markets that leave out government – or conceptions of politics in which the economy is exogenous – are inherently limited and unbalanced. They do not tell us much about the relationships between the form of government and the fortunes of the economy or adequately explain why some societies are rich and others are poor.’¹ In this thesis this view has been taken as a self-evident premise. In writing about Iran during this period, we argue that the failure of the industrialisation drive following the 1973 fourfold increase in oil prices cannot be blamed solely on economic factors. Politics played a crucial part in the way industrialisation was implemented and international politics played a decisive role in the Shah’s decision to push for rapid industrialisation after 1973 until his overthrow in the 1978-79 revolution. These years spanned the country’s Fifth Plan, the objectives and content of which were virtually dictated by the Shah. It has therefore been convenient to take the Fifth Plan period as the period of study.

It was argued in Chapter 1, which reviewed the existing literature, that the international dimension has largely been ignored in providing a comprehensive account of the political and economic failure of the country’s industrialisation process. Instead, we have argued that Iran’s subordination in the international political system provided an important motivation for the Shah in seeking to adopt a big push industrialisation policy. We saw that the existing literature could be divided broadly speaking into those works that provide a primarily
economics-based explanation for the deficiencies of the industrialisation policy and those which also consider the broader domestic political structure.

Robert Looney and Parvin Alizadeh provided a primarily economics-based explanation. Robert Looney believed that the pressure to increase output through runaway public spending without redistributing income, or implementing a coherent strategy for agriculture and in the absence of strong institutions, was mainly to blame for the economic crisis which precipitated the revolution. He was also critical of the way in which import-substitution industrialisation was implemented. Parvin Alizadeh’s case study of ISI and the automobile industry found that manufactured exports, instead of rising as a proportion of GDP, actually fell after 1973. Her study concluded that the content and design of ISI were to blame, including the lack of consistent policy regarding export promotion and a deterioration in the competitiveness of locally-produced products.

Massoud Karshenas and Kamran Mofid extended their analyses into a political economy approach to explain the reasons for the failure of industrialisation under the Shah. Karshenas adopted a political framework for the analysis of Iran’s economic problems, arguing that structural bottlenecks constrained growth and that these bottlenecks arose out of social pressures and the country’s historical development experience, including the special circumstances of an oil-producing nation. Mofid blamed the Shah’s big push strategy for causing rapid inflation, a decline in absorptive capacity and waste.
The strategy emerged out of a political desire to pave the way for the ‘Great Civilisation’ which held sway because of the nature of Iran’s government as a dictatorial monarchy. Homa Katouzian developed further the thesis that the state’s monopoly on power and oil revenues distorted the development process, which he argued had been superficial in character and indulgent. Razavi and Vakil delineated the day-to-day problems for technocrats and economists responsible for implementing Iran’s development plans. They concluded that the Shah’s growing interference with the planning process reduced it to a futile exercise and agreed with Mofid that excessive spending caused the rampant inflation of the mid-70s.

Hossein Bashiriyeh and Farrokh Moshiri sought primarily to explain the causes of the revolution rather than to provide an analysis of industrialisation in Iran. Both argued that an understanding of the nature of the state was essential to understanding the forces behind the revolution. Bashiriyeh saw the sharp decline in the economy as the catalyst to revolution while Moshiri saw inherent contradictions in the state between authoritarian political policies and a modernising economic system as the main cause of revolution. Finally, Theda Skocpol, in her theory of revolution, argued that the international context is important in understanding the causes of modern social revolutions.

We agree with Skocpol that the international context is important and have sought to add this dimension to the existing work on the subject of Iran’s industrialisation programme. In analyzing the role of political factors in Iran’s
industrialisation push, the central (domestic economy) argument argued here is that Iran’s experiment with industrialisation failed primarily because the economy was unable to absorb over-accumulated funds caused by the sudden increase in oil prices in late 1973. In addition, we argue that the drive to dispense these funds in the effort to industrialise, despite known constraints on the economy to absorb them, had its roots in the Shah’s experience of Iran’s place in the international system as a strategically important but weak country. The Shah was an ambitious man who sought to purge the country’s humiliations at the hands of the great powers – Britain, the former Soviet Union and the USA – by creating the ‘Great Civilisation’ in Iran. Economic power was a precondition for military and imperial power and he sought to transform the the economy through industrialisation. This took the form of a big push through import substitution in the hope of propelling Iran into the league of top five world powers. But it was in precisely this rush to industrialise, and the desire to impress the outside world, in which the roots of its failure lay.

Chapter 5 examined how the Shah’s decision came about, through an account of the history of Iran’s relations with the United States, the superpower under whose sphere of influence it fell for most of the last century, to elucidate the main features and forces behind this strategic role. The conventional view of the Shah’s foreign policy is that it was an example of a classic client-state relationship. We have argued that paradoxically, the Shah appeared to believe that he exploited the relationship to Iran’s benefit with the aim of establishing a measure of independence in order to transform the country into a regional and
eventually, world power in its own right. Though he had been backed firmly by the US, the humiliating circumstances in which his father was unseated from the throne and periodic pressure on him to reform, for example, in the early 1960s, fuelled his desire for independence. In his attempts to do so, the Shah displayed many of the characteristics which have come to be associated with other ambitious authoritarian leaders – he hoped that by striving to create a successful economic system, to bask in the reflected glory. His vision was of an independent nation, eventually economically and militarily strong enough to join the handful of most powerful states in the international system. He sought a strong enough defence to deter perceived threats of aggression from neighbouring Iraq and competed militarily with regional neighbours, such as Saudi Arabia and other third world powers, such as India, through his Indian Ocean security plan.

Grandiose vision and vanity may sometimes be galvanising forces but in Iran’s case, far from propelling the country to greatness, they were instrumental in precipitating an economic crisis and the undoing of the political system. The nature of Iran’s political system, an authoritarian monarchical dictatorship, facilitated this process since the individual at its apex, the Shah, was able to execute his policies against the advice of those working for him. The country lacked a sizeable middle class tier that might have helped in the industrialisation process and its institutions, certainly as far as the economy were concerned, were weak.
The method by which the economy was to be transformed was through import-substitution industrialisation. This strategy has since become unfashionable, partly due to the early success of the export-oriented economies of Southeast Asia, but also because of the international economy's gravitation towards free trade and open competition. In the 1950s and 60s, however, ISI was the fashionable strategy for economic development, particularly since the prevailing view was that export-oriented industrialisation resulted in declining terms of trade for developing countries dependent on the export of commodities and the import of manufactured goods for their foreign exchange.

There is still no definitive conclusion to the debate on contending strategies of development. EOI has been a success story for the newly-industrialising countries but critics argue that much of its success is dependent on cheap labour and a buoyant world economy in which states are able to afford high levels of imports. The lengthy economic recession in Japan and the Asian crisis in the 1990s have also taken the gloss off the strategy as a panacea for growth. The terms of this development debate were discussed in Chapter 2 and it was concluded that a distinction has to be made between the successful implementation of an industrialisation strategy and a successful industrialisation strategy per se. We do not contend that ISI was necessarily the 'wrong' industrialisation strategy; after all, countries such as Brazil, Mexico, India, Korea and China have all relied on ISI and others, such as Japan and the Soviet Union, relied heavily on state intervention in their early days of industrialisation. In Iran's case what was at issue was the rationale and its
manner of implementation: big push industrialisation needed a strong infrastructure and human resources manifestly lacking at the time, but these constraints were ignored since the policy was pursued more for the Shah’s geo-strategic aims than economic feasibility.

Iran’s specific position as a ‘rentier’ economy, in which government income is derived from oil wealth, was also examined in Chapter 2. While this is an important notion in the debate on development, this thesis adopts the view shared by Roger Owen: ‘in almost every case, its influence is not self-evident and cannot properly be understood without the usual detailed and difficult analysis of the political economies of the states concerned.’ Successful implementation of economic plans is dependent on an efficient system geared towards the pursuit of sensible policies in the name of economic development.

To this extent, the following view expounded by Gilpin is endorsed:

What is important for economic development and escape from dependence is the capacity of the economy to transform itself. This task is ultimately the responsibility of its own economic and political leadership... too many of the less developed countries have suffered the consequences of poor leadership.

For many countries, this may be too harsh a position to adopt, ignoring as it does the very real problems caused by the client-state syndrome that dominated relations between the superpowers and the less-developed countries for much of the last century. However, Iran in the 1970s was not unduly constrained in its own relationship with the US. The Shah had the unqualified backing of
Washington and oil revenues removed capital constraints usually associated with other developing countries. The opportunity to lay firm foundations for successful economic development was there; it was the leadership's responsibility to lay them.

Yet there were considerable political obstacles to the implementation of the industrialisation programme. Chapter 4 examined the political obstacles in relation to the Plan and Budget Organisation, the main planning organisation. It also discussed the pattern of economic decision-making. According to the deputy head of the PBO: 'a major consideration in implementing many large projects and in deciding from which foreign suppliers to procure the necessary equipment and services, was not the economic feasibility of the project, or who offered the best or optimal technology on the most advantageous terms, but often political “horse trading” and/or corruption.'

Corruption and inefficiency exist everywhere but are not in themselves enough to prevent backward countries from industrializing, as acknowledged by Alice Amsden in her book, *The Rise of the Rest.* Yet in Iran's case, a combination of detracting factors helped to account for the paucity of results. The most harmful damage to the economy came with the Shah's decision to double expenditure provided for in the original Fifth Plan against the advice of economists from the PBO. The decision was made as a result of the coming together of two important aims. The Shah's military aims, which had taken place against a background of regional changes explained in Chapter 5,
coincided with the four-fold increase in oil revenues and suddenly appeared to make possible both his politico-military and economic aims. Thus, expenditure on the military spiralled as did expenditure within the economy. But the form and pace of the big push strategy led to over-accumulation and resultant failure.

Fred Halliday commented just before the revolution:

If Iran fails to benefit fully from its short-lived assets, if the economy is not developed by the time oil runs out, this will be in part because the regime has misspent the money it received, despite all its ‘plans’ and propaganda. And the cause of this misspending lies in its political character - in the expansion of arms purchases and services, in the incapacity to implement early enough unpopular economic measures needed to curb imports, consumption and capital flight.13

Some developing countries, such as Korea, spent as much as Iran on defence but much more on education. According to Reza Moghadam:

the pattern of expenditures reflected the wrong priorities. In 1977/78 defence expenditures were equal to 10.25 per cent of GNP, whereas the comparable figure for education was 4 per cent and for health 1.3 per cent. These figures help explain the serious shortage and overcrowding of schools and the appalling conditions in public hospitals.14

We agree that the big push strategy arose out of ‘wrong priorities’, namely the Shah’s desire to assert Iran’s position in the international system through a combination of economic strength and military might during a relatively short period to time span allotted to it by the Shah, roughly 10 years. The close relationship between industrialisation and military prowess has been argued by Gautam Sen in his book, The Military Origins of Industrialisation and
International Trade Rivalry: 'Most states institute industrialisation for political reasons, that is, because of international political rivalry'.\(^{15}\) Oil wealth enabled Shah to buy in military capability from abroad but he sought the prestige of a developed economy through industrialisation. Some people might question the portrayal of the Shah's industrialisation programme as a failure, despite the downturn in the economy from 1976 and the subsequent revolution. Chapter 3 took up the issue by examining the primary statistical information available. It concluded that, within given parameters, the big push strategy did not succeed. These parameters were set by government-stated goals and the degree of resources invested in the attempt compared to its results.

It was seen that manufacturing, which was to have become the powerhouse of the economy performed far more weakly than expected. Manufacturing's contribution to GDP never exceeded 8.3 per cent, far short of the 17 per cent minimum for an industrially-advanced country (non-LDC) as defined by the Centre for the Development Planning, Projections and Policies of the UN Secretariat. Non-oil exports did not begin to replace oil as a means of earning foreign exchange as had been the aim, and actually declined in absolute terms by the late 1970s. Exports of manufactured goods fell from 4.4 per cent of exports to 0.82 per cent in 1977. This thesis backs up and acknowledges similar findings regarding the failure to industrialise by the specialist authors referred to above.
One popular reason given for the shortfall in the socio-economic goals is that the Shah's attempts to modernize were resisted by his backward people and that the revolution represented the rejection of modernisation in favour of the establishment of an Islamic state more in tune with the identity of the population. If anything, it is the belief here that it was precisely the failure to modernise, combined with political restrictions and the Shah's unpopular strategic alliance with the US, that contributed to the impetus behind the revolution. It is hoped that Chapter 3 threw sufficient light on the unfavourable economic situation in terms of policies and results.

Once again, it should be emphasised that it was a coincidence of economic and political factors that enabled the Shah to embark on his task of turning Iran into the world's fifth power with single-mindedness in the early 1970s. This thesis has sought to isolate these political and economic factors and to highlight the development of their interplay. The task has not been easy because the 'Iranian experience' does not fit neatly into a standard economic or political theoretical framework. Finally, it should be noted that a theory of inevitability is not implied. There was nothing inevitable about the revolution or the conduct of policy under the Shah. Choices were available and choices were made. The particular combination of these choices has formed the raw material for this thesis.
Endnotes to Chapter 6

8 Theda Skocpol, *States and Social Revolutions* (Cambridge: CUP, 1980).
9 Roger Owen, Book review in *Middle East International*, 20 February 1988, p. 21.
14 G.R. Moghadam, *op. cit.*
Table 3:1

Growth of GNP and GNP per capita, 1959-77
(constant 1959 prices, billion rials)

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP at factor cost (billion rials)</th>
<th>Population (millions)</th>
<th>GNP per capita (US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>265.7</td>
<td>21.17</td>
<td>165.6</td>
</tr>
<tr>
<td>1960</td>
<td>278.3</td>
<td>21.77</td>
<td>168.7</td>
</tr>
<tr>
<td>1961</td>
<td>288.1</td>
<td>22.39</td>
<td>169.8</td>
</tr>
<tr>
<td>1962</td>
<td>303.4</td>
<td>23.03</td>
<td>173.9</td>
</tr>
<tr>
<td>1963</td>
<td>320.7</td>
<td>23.70</td>
<td>178.6</td>
</tr>
<tr>
<td>1964</td>
<td>351.2</td>
<td>24.37</td>
<td>190.2</td>
</tr>
<tr>
<td>1965</td>
<td>390.5</td>
<td>25.07</td>
<td>205.6</td>
</tr>
<tr>
<td>1966</td>
<td>431.0</td>
<td>25.78</td>
<td>220.7</td>
</tr>
<tr>
<td>1967</td>
<td>479.4</td>
<td>26.52</td>
<td>238.6</td>
</tr>
<tr>
<td>1968</td>
<td>531.9</td>
<td>27.30</td>
<td>257.2</td>
</tr>
<tr>
<td>1969</td>
<td>581.3</td>
<td>28.05</td>
<td>273.5</td>
</tr>
<tr>
<td>1970</td>
<td>646.3</td>
<td>29.25</td>
<td>291.6</td>
</tr>
<tr>
<td>1971</td>
<td>730.8</td>
<td>30.02</td>
<td>321.3</td>
</tr>
<tr>
<td>1972</td>
<td>857.4</td>
<td>30.90</td>
<td>366.3</td>
</tr>
<tr>
<td>1973</td>
<td>1208.4</td>
<td>31.80</td>
<td>552.3</td>
</tr>
<tr>
<td>1974</td>
<td>1700.3</td>
<td>32.79</td>
<td>767.0</td>
</tr>
<tr>
<td>1975</td>
<td>1718.5</td>
<td>33.20</td>
<td>765.7</td>
</tr>
<tr>
<td>1976</td>
<td>1966.9</td>
<td>33.66</td>
<td>832.2</td>
</tr>
<tr>
<td>1977</td>
<td>1952.3</td>
<td>34.63</td>
<td>798.5</td>
</tr>
</tbody>
</table>

Average annual compound growth rate of GNP between 1960 and 1977: 12.1%

Exchange rate: Rials equivalent to 1 US$

<table>
<thead>
<tr>
<th>Year</th>
<th>Exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-72</td>
<td>75.75</td>
</tr>
<tr>
<td>1973</td>
<td>68.8</td>
</tr>
<tr>
<td>1974</td>
<td>67.6</td>
</tr>
</tbody>
</table>

### Table 3:2

**Industrial Contribution to GNP 1973-78**  
(current prices, billion rials)

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP</th>
<th>Industrial Group</th>
<th>(Manufacturing)</th>
<th>(Water &amp; Power)</th>
<th>(Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(current prices, billion rials)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1728.3</td>
<td>3079.4</td>
<td>3497.4</td>
<td>4691.7</td>
<td>5483.2</td>
</tr>
<tr>
<td></td>
<td>268.7</td>
<td>366.6</td>
<td>525.2</td>
<td>791.1</td>
<td>928.4</td>
</tr>
<tr>
<td></td>
<td>(167.6)</td>
<td>(223.2)</td>
<td>(278.7)</td>
<td>(331.9)</td>
<td>(415.8)</td>
</tr>
<tr>
<td></td>
<td>(26.0)</td>
<td>(32.8)</td>
<td>(39.2)</td>
<td>(42.0)</td>
<td>(58.8)</td>
</tr>
<tr>
<td></td>
<td>(75.1)</td>
<td>(110.6)</td>
<td>(207.3)</td>
<td>(417.2)</td>
<td>(453.8)</td>
</tr>
</tbody>
</table>

**Percentage share in GNP:**

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP</th>
<th>Industrial Group</th>
<th>(Manufacturing)</th>
<th>(Water &amp; Power)</th>
<th>(Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>1728.3</td>
<td>15.5</td>
<td>10.7</td>
<td>1.5</td>
<td>4.3</td>
</tr>
<tr>
<td>1974</td>
<td>3079.4</td>
<td>11.9</td>
<td>7.2</td>
<td>1.1</td>
<td>3.6</td>
</tr>
<tr>
<td>1975</td>
<td>3497.4</td>
<td>15.0</td>
<td>8.0</td>
<td>1.1</td>
<td>5.9</td>
</tr>
<tr>
<td>1976</td>
<td>4691.7</td>
<td>16.9</td>
<td>7.1</td>
<td>0.9</td>
<td>8.9</td>
</tr>
<tr>
<td>1977</td>
<td>5483.2</td>
<td>16.9</td>
<td>7.6</td>
<td>1.1</td>
<td>8.3</td>
</tr>
<tr>
<td>1978</td>
<td>4917.6</td>
<td>17.8</td>
<td>7.5</td>
<td>1.1</td>
<td>9.1</td>
</tr>
</tbody>
</table>

**Percentage growth over previous year:**

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP</th>
<th>Industrial Group</th>
<th>(Manufacturing)</th>
<th>(Water &amp; Power)</th>
<th>(Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78.2</td>
<td>36.4</td>
<td>33.2</td>
<td>26.2</td>
<td>47.3</td>
</tr>
<tr>
<td></td>
<td>13.6</td>
<td>43.3</td>
<td>24.9</td>
<td>19.6</td>
<td>87.4</td>
</tr>
<tr>
<td></td>
<td>34.1</td>
<td>50.6</td>
<td>19.1</td>
<td>7.1</td>
<td>101.3</td>
</tr>
<tr>
<td></td>
<td>16.9</td>
<td>17.4</td>
<td>25.3</td>
<td>40.0</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>-10.3</td>
<td>-4.0</td>
<td>-11.0</td>
<td>-8.2</td>
<td>-1.0</td>
</tr>
</tbody>
</table>

**Annual average growth rate - industrial group:**

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP</th>
<th>Manufacturing</th>
<th>Water &amp; Power</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28.0 per cent</td>
<td>18.3 per cent</td>
<td>16.9 per cent</td>
<td>48.8 per cent</td>
</tr>
</tbody>
</table>

* author's calculation

**Source:** UN, *National Accounts Statistics, 1982*
**Table 3:3**

**Industrial Contribution to GNP 1973-78**
(constant 1974 prices, billion rials)

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP</th>
<th>Industrial Group</th>
<th>(Manufacturing group)*</th>
<th>(Water &amp; Power)</th>
<th>(Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>2940.0</td>
<td>387.7</td>
<td>(264.4)</td>
<td>(21.6)</td>
<td>(101.7)</td>
</tr>
<tr>
<td>1974</td>
<td>3124.0</td>
<td>436.8</td>
<td>(312.9)</td>
<td>(25.7)</td>
<td>(98.2)</td>
</tr>
<tr>
<td>1975</td>
<td>3185.1</td>
<td>532.5</td>
<td>(360.9)</td>
<td>(33.0)</td>
<td>(141.6)</td>
</tr>
<tr>
<td>1976</td>
<td>3602.3</td>
<td>630.4</td>
<td>(423.0)</td>
<td>(33.4)</td>
<td>(174.0)</td>
</tr>
<tr>
<td>1977</td>
<td>3825.9</td>
<td>591.6</td>
<td>(359.4)</td>
<td>(36.6)</td>
<td>(179.3)</td>
</tr>
<tr>
<td>1978</td>
<td>3237.8</td>
<td>501.8</td>
<td>(312.3)</td>
<td>(47.9)</td>
<td>(141.6)</td>
</tr>
</tbody>
</table>

**Percentage share in GNP:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Industrial Group</th>
<th>(Manufacturing group)*</th>
<th>(Water &amp; Power)</th>
<th>(Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>13.2</td>
<td>(9.0)</td>
<td>(0.7)</td>
<td>(3.5)</td>
</tr>
<tr>
<td>1974</td>
<td>14.0</td>
<td>(10.0)</td>
<td>(0.8)</td>
<td>(3.1)</td>
</tr>
<tr>
<td>1975</td>
<td>16.7</td>
<td>(11.3)</td>
<td>(1.0)</td>
<td>(4.4)</td>
</tr>
<tr>
<td>1976</td>
<td>17.5</td>
<td>(11.7)</td>
<td>(0.9)</td>
<td>(4.8)</td>
</tr>
<tr>
<td>1977</td>
<td>15.5</td>
<td>(9.4)</td>
<td>(1.0)</td>
<td>(4.7)</td>
</tr>
<tr>
<td>1978</td>
<td>15.5</td>
<td>(9.6)</td>
<td>(1.5)</td>
<td>(4.4)</td>
</tr>
</tbody>
</table>

**Percentage growth over previous year:**

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP</th>
<th>Industrial Group</th>
<th>(Manufacturing group)*</th>
<th>(Water &amp; Power)</th>
<th>(Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>6.3</td>
<td>12.7</td>
<td>(18.3)</td>
<td>(19.0)</td>
<td>(-3.5)</td>
</tr>
<tr>
<td>1974</td>
<td>2.0</td>
<td>22.0</td>
<td>(15.3)</td>
<td>(28.4)</td>
<td>(44.2)</td>
</tr>
<tr>
<td>1975</td>
<td>13.1</td>
<td>18.4</td>
<td>(17.2)</td>
<td>(1.2)</td>
<td>(22.9)</td>
</tr>
<tr>
<td>1976</td>
<td>6.2</td>
<td>-6.2</td>
<td>(-15.0)</td>
<td>(9.6)</td>
<td>(3.0)</td>
</tr>
<tr>
<td>1977</td>
<td>-15.4</td>
<td>-15.2</td>
<td>(-13.1)</td>
<td>(30.9)</td>
<td>(-21.0)</td>
</tr>
</tbody>
</table>

**Annual average growth rate - industrial group: 6.3 per cent**

- of which
**manufacturing: 4.5 per cent**
**water & power: 17.8 per cent**
**construction: 9.1 per cent**

* includes mining
** author's calculation

*Source: Bank Markazi, Annual Report and Balance Sheet, 1356, 1359*
Table 3:4a

Iran's GNP, 1972-78
(constant 1974 prices, billion rials)

<table>
<thead>
<tr>
<th>Year</th>
<th>GNP constant 1974 prices</th>
<th>Percentage increase on previous year*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>2635.7</td>
<td>11.5</td>
</tr>
<tr>
<td>1973</td>
<td>2940.0</td>
<td>6.3</td>
</tr>
<tr>
<td>1974</td>
<td>3124.0</td>
<td>2.0</td>
</tr>
<tr>
<td>1975</td>
<td>3185.1</td>
<td>13.1</td>
</tr>
<tr>
<td>1976</td>
<td>3602.3</td>
<td>6.2</td>
</tr>
<tr>
<td>1977</td>
<td>3825.9</td>
<td>-15.4</td>
</tr>
<tr>
<td>1978</td>
<td>3237.8</td>
<td></td>
</tr>
</tbody>
</table>

Average annual increase:
- 1973 - 78 : 2.4 percent
- 1973 - 77 : 6.9 percent

* author's calculation

Source: as Table 3:3
Table 3:4b

Annual Average of the Wholesale Price Index
(1974=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Index</td>
<td>75.4</td>
<td>85.5</td>
<td>100</td>
<td>105.3</td>
<td>119.5</td>
<td>136.9</td>
<td>149.9</td>
</tr>
</tbody>
</table>

Source: as Table 3:3
### Table 3:5

**Gross Domestic Product by Kind of Activity**
(billion rials, constant 1974 prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td>233.9</td>
<td>264.1</td>
<td>279.9</td>
<td>289.8</td>
<td>303.9</td>
<td>326.1</td>
<td>327.3</td>
<td>332.4</td>
</tr>
<tr>
<td><strong>Oil &amp; Mining</strong></td>
<td>1037.1</td>
<td>1340.3</td>
<td>1465.3</td>
<td>1452.6</td>
<td>1286.2</td>
<td>1420.6</td>
<td>1398.2</td>
<td>1020.5</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>183.2</td>
<td>255.8</td>
<td>313.5</td>
<td>366.6</td>
<td>448.3</td>
<td>555.2</td>
<td>556.1</td>
<td>471.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>(114.5)</td>
<td>(159.1)</td>
<td>(190.0)</td>
<td>(223.2)</td>
<td>(258.9)</td>
<td>(296.3)</td>
<td>(323.9)</td>
<td>(281.6)</td>
</tr>
<tr>
<td>Water &amp; Power</td>
<td>(11.8)</td>
<td>(20.3)</td>
<td>(26.8)</td>
<td>(32.8)</td>
<td>(38.9)</td>
<td>(40.0)</td>
<td>(52.9)</td>
<td>(47.9)</td>
</tr>
<tr>
<td>Construction</td>
<td>(56.9)</td>
<td>(76.4)</td>
<td>(96.7)</td>
<td>(110.6)</td>
<td>(150.5)</td>
<td>(228.9)</td>
<td>(179.3)</td>
<td>(141.6)</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>486.6</td>
<td>699.1</td>
<td>743.5</td>
<td>1026.0</td>
<td>1205.7</td>
<td>1517.1</td>
<td>1642.4</td>
<td>1558.6</td>
</tr>
<tr>
<td><strong>GDP</strong></td>
<td>1943.8</td>
<td>2559.3</td>
<td>2802.2</td>
<td>3135.0</td>
<td>3244.1</td>
<td>3829.0</td>
<td>3924.0</td>
<td>3382.6</td>
</tr>
<tr>
<td>(at factor cost)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: UN, National Accounts Statistics, 1982*
Table 3:6
Sectoral Contributions to the Gross Domestic Product
1970, 1972-8 (per cent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>12.0</td>
<td>10.3</td>
<td>10.0</td>
<td>9.2</td>
<td>9.4</td>
<td>8.5</td>
<td>8.3</td>
<td>9.8</td>
</tr>
<tr>
<td>Oil &amp; Mining</td>
<td>53.3</td>
<td>52.4</td>
<td>52.3</td>
<td>46.3</td>
<td>39.6</td>
<td>37.0</td>
<td>35.6</td>
<td>30.7</td>
</tr>
<tr>
<td>Industry</td>
<td>9.4</td>
<td>10.0</td>
<td>11.2</td>
<td>11.7</td>
<td>13.9</td>
<td>14.8</td>
<td>14.2</td>
<td>13.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>(5.9)</td>
<td>(6.2)</td>
<td>(6.8)</td>
<td>(7.1)</td>
<td>(8.0)</td>
<td>(7.7)</td>
<td>(8.3)</td>
<td>(8.3)</td>
</tr>
<tr>
<td>Services</td>
<td>25.2</td>
<td>27.3</td>
<td>26.5</td>
<td>32.8</td>
<td>37.2</td>
<td>39.6</td>
<td>41.9</td>
<td>46.1</td>
</tr>
</tbody>
</table>

*Source: Table 5*
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>10.5</td>
<td>19.4</td>
<td>17.5</td>
<td>15.6</td>
<td>14.5</td>
<td>9.3</td>
</tr>
<tr>
<td>Water &amp; Power</td>
<td>16.4</td>
<td>32.0</td>
<td>22.4</td>
<td>18.6</td>
<td>2.8</td>
<td>32.2</td>
</tr>
<tr>
<td>Construction</td>
<td>14.4</td>
<td>26.6</td>
<td>14.4</td>
<td>36.1</td>
<td>52.1</td>
<td>-22.0</td>
</tr>
<tr>
<td>Industry (Total)</td>
<td>11.8</td>
<td>22.6</td>
<td>16.9</td>
<td>22.3</td>
<td>26.1</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Source: Based on Table 5
**Table 3:8**

Normal Variation in the Economic Structure with Level of Development

<table>
<thead>
<tr>
<th>Per Capita Income (US$ 1964)</th>
<th>$200</th>
<th>$300</th>
<th>$500</th>
<th>$800</th>
<th>$1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure of Production:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Production ²</td>
<td>32.0</td>
<td>25.4</td>
<td>18.5</td>
<td>13.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Industry Production ³</td>
<td>25.3</td>
<td>29.2</td>
<td>33.4</td>
<td>36.4</td>
<td>37.5</td>
</tr>
<tr>
<td>Structure of Trade:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Exports</td>
<td>6.2</td>
<td>4.9</td>
<td>3.8</td>
<td>2.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Manufactured Exports</td>
<td>2.9</td>
<td>3.8</td>
<td>5.1</td>
<td>6.4</td>
<td>7.1</td>
</tr>
<tr>
<td>Imports</td>
<td>14.3</td>
<td>14.2</td>
<td>14.5</td>
<td>15.1</td>
<td>15.5</td>
</tr>
<tr>
<td>Investment</td>
<td>19.9</td>
<td>21.6</td>
<td>23.0</td>
<td>23.6</td>
<td>23.6</td>
</tr>
<tr>
<td>Government Consumption</td>
<td>10.9</td>
<td>11.6</td>
<td>12.5</td>
<td>13.6</td>
<td>14.1</td>
</tr>
</tbody>
</table>

**Notes:**
1. All the aggregates are taken as a percentage of GNP in current prices
2. Agriculture and Mining
3. Manufacturing and Construction

Table 3:9  
Structural Changes in the Iranian Economy (1967-77)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Per capita income at constant 1959 prices</th>
<th>Structure of Production:</th>
<th>Structure of Trade:</th>
<th>Investment</th>
<th>Government Consumption:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>238.6</td>
<td>273.5</td>
<td>321.3</td>
<td>552.3</td>
<td>765.7</td>
</tr>
<tr>
<td>1967</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>42.70</td>
<td>41.40</td>
<td>43.60</td>
<td>46.10</td>
<td>49.20</td>
</tr>
<tr>
<td></td>
<td>(22.7)</td>
<td>(20.4)</td>
<td>(16.7)</td>
<td>(13.2)</td>
<td>(9.6)</td>
</tr>
<tr>
<td></td>
<td>(20.0)</td>
<td>(21.0)</td>
<td>(26.9)</td>
<td>(32.9)</td>
<td>(39.6)</td>
</tr>
<tr>
<td>1971</td>
<td>18.5</td>
<td>19.2</td>
<td>18.3</td>
<td>17.4</td>
<td>17.0</td>
</tr>
<tr>
<td></td>
<td>(13.5)</td>
<td>(13.9)</td>
<td>(13.4)</td>
<td>(13.0)</td>
<td>(11.0)</td>
</tr>
<tr>
<td></td>
<td>(5.0)</td>
<td>(5.3)</td>
<td>(4.9)</td>
<td>(4.4)</td>
<td>(6.0)</td>
</tr>
<tr>
<td>1973</td>
<td>13.1</td>
<td>13.1</td>
<td>17.3</td>
<td>20.9</td>
<td>37.7</td>
</tr>
<tr>
<td></td>
<td>(11.5)</td>
<td>(11.5)</td>
<td>(15.8)</td>
<td>(19.0)</td>
<td>(37.1)</td>
</tr>
<tr>
<td>1975</td>
<td>0.8</td>
<td>0.9</td>
<td>1.0</td>
<td>0.8</td>
<td>0.5</td>
</tr>
<tr>
<td>1977</td>
<td>15.9</td>
<td>16.2</td>
<td>15.1</td>
<td>14.4</td>
<td>22.7</td>
</tr>
<tr>
<td>1979</td>
<td>19.7</td>
<td>20.2</td>
<td>19.8</td>
<td>19.3</td>
<td>29.7</td>
</tr>
<tr>
<td>1980</td>
<td>14.2</td>
<td>15.6</td>
<td>17.2</td>
<td>19.8</td>
<td>22.6</td>
</tr>
</tbody>
</table>

* All the aggregates are taken as a percentage of GNP in current prices

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufacturing Value Added (billion rials)</th>
<th>Annual Growth Rate of Manufacturing (constant prices)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant Prices (1974)</td>
<td>Current Prices</td>
</tr>
<tr>
<td>1968</td>
<td>133.7</td>
<td>88.2</td>
</tr>
<tr>
<td>1969</td>
<td>147.0</td>
<td>100.5</td>
</tr>
<tr>
<td>1970</td>
<td>163.1</td>
<td>113.7</td>
</tr>
<tr>
<td>1971</td>
<td>190.5</td>
<td>138.1</td>
</tr>
<tr>
<td>1972</td>
<td>224.8</td>
<td>171.5</td>
</tr>
<tr>
<td>1973</td>
<td>264.4</td>
<td>231.9</td>
</tr>
<tr>
<td>1974</td>
<td>312.9</td>
<td>312.9</td>
</tr>
<tr>
<td>1975</td>
<td>360.9</td>
<td>380.0</td>
</tr>
<tr>
<td>1976</td>
<td>423.0</td>
<td>496.0</td>
</tr>
<tr>
<td>1977</td>
<td>359.4</td>
<td>493.0</td>
</tr>
<tr>
<td>1978</td>
<td>312.3</td>
<td>437.0</td>
</tr>
</tbody>
</table>

* Mining is included in manufacturing

Table 3:11

Value Added of Large Industrial Establishments*
(billion rials; current prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Products</td>
<td>10.53</td>
<td>13.26</td>
<td>15.45</td>
<td>20.58</td>
<td>27.07</td>
</tr>
<tr>
<td>Beverages</td>
<td>1.29</td>
<td>1.37</td>
<td>1.11</td>
<td>1.47</td>
<td>1.85</td>
</tr>
<tr>
<td>Tobacco</td>
<td>7.54</td>
<td>7.93</td>
<td>8.06</td>
<td>8.50</td>
<td>9.32</td>
</tr>
<tr>
<td>Textiles</td>
<td>10.11</td>
<td>10.78</td>
<td>12.69</td>
<td>18.00</td>
<td>25.17</td>
</tr>
<tr>
<td>Wearing Apparel</td>
<td>2.44</td>
<td>2.49</td>
<td>1.79</td>
<td>2.17</td>
<td>2.60</td>
</tr>
<tr>
<td>Leather &amp; Products</td>
<td>0.31</td>
<td>0.52</td>
<td>0.64</td>
<td>0.89</td>
<td>1.27</td>
</tr>
<tr>
<td>Wood Products &amp; Furniture &amp; Fixtures</td>
<td>0.77</td>
<td>0.96</td>
<td>0.89</td>
<td>1.41</td>
<td>2.25</td>
</tr>
<tr>
<td>Paper &amp; Products</td>
<td>0.74</td>
<td>1.46</td>
<td>1.42</td>
<td>2.09</td>
<td>3.00</td>
</tr>
<tr>
<td>Industrial Chemicals</td>
<td>4.20</td>
<td>6.16</td>
<td>8.72</td>
<td>11.87</td>
<td>15.94</td>
</tr>
<tr>
<td>Petroleum Refineries, Petroleum &amp; Coal Products</td>
<td>0.50</td>
<td>0.78</td>
<td>0.83</td>
<td>2.25</td>
<td>3.05</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>0.60</td>
<td>0.60</td>
<td>1.33</td>
<td>1.84</td>
<td>2.57</td>
</tr>
<tr>
<td>Pottery, Glass &amp; Non-metal Products</td>
<td>6.75</td>
<td>6.84</td>
<td>8.73</td>
<td>14.28</td>
<td>23.21</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>2.17</td>
<td>2.73</td>
<td>7.70</td>
<td>8.77</td>
<td>16.59</td>
</tr>
<tr>
<td>Metal Products</td>
<td>3.44</td>
<td>3.55</td>
<td>2.96</td>
<td>5.29</td>
<td>10.58</td>
</tr>
<tr>
<td>Machinery (non-electrical)</td>
<td>0.53</td>
<td>0.80</td>
<td>1.97</td>
<td>2.90</td>
<td>4.24</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>4.07</td>
<td>4.48</td>
<td>6.24</td>
<td>9.06</td>
<td>13.06</td>
</tr>
<tr>
<td>Transport Equipment</td>
<td>6.57</td>
<td>6.74</td>
<td>5.92</td>
<td>7.83</td>
<td>10.10</td>
</tr>
<tr>
<td>Other Manufacturing Industries</td>
<td>0.16</td>
<td>0.29</td>
<td>0.26</td>
<td>0.21</td>
<td>0.31</td>
</tr>
<tr>
<td>Total Manufacturing</td>
<td>63.63</td>
<td>72.70</td>
<td>88.00</td>
<td>121.65</td>
<td>175.71</td>
</tr>
</tbody>
</table>

* Factor Values

Source: UN, Yearbook of Industrial Statistics, 1975 and 1977
Table 3:12

Manufacturing Value Added
(billion rials, current prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Establishments</td>
<td>113.7</td>
<td>138.1</td>
<td>171.5</td>
<td>231.9</td>
<td>312.9</td>
</tr>
<tr>
<td>Large Establishments</td>
<td>63.6</td>
<td>72.7</td>
<td>88.0</td>
<td>121.7</td>
<td>171.7</td>
</tr>
<tr>
<td>Large Establishments as percentage of all</td>
<td>56.0</td>
<td>52.6</td>
<td>51.3</td>
<td>52.55</td>
<td>56.2</td>
</tr>
</tbody>
</table>

Source: Tables 10 and 11
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Establishments</th>
<th>Persons Engaged</th>
<th>Wages Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
<td>Small</td>
<td>Large</td>
</tr>
<tr>
<td>1969</td>
<td>5,066</td>
<td>172,588</td>
<td>256,755</td>
</tr>
<tr>
<td>1970</td>
<td>5,239</td>
<td>178,366</td>
<td>261,206</td>
</tr>
<tr>
<td>1971</td>
<td>5,487</td>
<td>-</td>
<td>278,770*</td>
</tr>
<tr>
<td>1972</td>
<td>5,651</td>
<td>191,070</td>
<td>303,626</td>
</tr>
<tr>
<td>1973</td>
<td>6,056</td>
<td>-</td>
<td>362,170*</td>
</tr>
<tr>
<td>1974</td>
<td>6,191</td>
<td>245,077</td>
<td>396,280*</td>
</tr>
<tr>
<td>1977</td>
<td>8,200</td>
<td>-</td>
<td>470,000*</td>
</tr>
<tr>
<td>1979</td>
<td>4,502</td>
<td>-</td>
<td>414,550*</td>
</tr>
</tbody>
</table>

* Rounded figures

Table 3:14

Annual Wage of Industrial Workers
(thousand rials, current price)

<table>
<thead>
<tr>
<th>Year</th>
<th>Large Establishments</th>
<th>% Increase</th>
<th>Small Establishments</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>57.65</td>
<td>-</td>
<td>17.93</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>60.14</td>
<td>4.3</td>
<td>18.20</td>
<td>1.5</td>
</tr>
<tr>
<td>1971</td>
<td>64.54</td>
<td>7.3</td>
<td>-</td>
<td>1.1*</td>
</tr>
<tr>
<td>1972</td>
<td>69.32</td>
<td>7.4</td>
<td>18.60</td>
<td>1.1*</td>
</tr>
<tr>
<td>1973</td>
<td>86.54</td>
<td>24.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1974</td>
<td>100.68</td>
<td>16.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1979</td>
<td>601.47</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Assuming a wage of 18.400 thousand rials in 1971.

Source: Based on Table 13
Table 3:15

Compensation of Workers Index of Large Manufacturing Establishments
(1974=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Beverages &amp; Tobacco</td>
<td>14.0</td>
<td>144.9</td>
<td>187.6</td>
<td>232.9</td>
<td>311.5</td>
</tr>
<tr>
<td>Textiles, Clothing &amp; Leather</td>
<td>25.5</td>
<td>135.0</td>
<td>170.4</td>
<td>200.9</td>
<td>257.6</td>
</tr>
<tr>
<td>Wood &amp; Wooden Products</td>
<td>0.9</td>
<td>143.1</td>
<td>202.0</td>
<td>230.6</td>
<td>347.7</td>
</tr>
<tr>
<td>Paper, Cardboard &amp; their Products</td>
<td>2.0</td>
<td>165.8</td>
<td>216.8</td>
<td>279.2</td>
<td>373.9</td>
</tr>
<tr>
<td>Chemicals</td>
<td>13.8</td>
<td>146.4</td>
<td>202.2</td>
<td>265.3</td>
<td>309.7</td>
</tr>
<tr>
<td>Non-Metal Mining Products*</td>
<td>9.1</td>
<td>152.2</td>
<td>215.8</td>
<td>303.8</td>
<td>385.6</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>11.6</td>
<td>120.3</td>
<td>162.8</td>
<td>209.3</td>
<td>260.8</td>
</tr>
<tr>
<td>Metal Machinery &amp; Equipment</td>
<td>22.7</td>
<td>158.0</td>
<td>235.6</td>
<td>311.8</td>
<td>401.5</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>0.4</td>
<td>103.3</td>
<td>146.1</td>
<td>169.6</td>
<td>187.9</td>
</tr>
<tr>
<td>General Index</td>
<td>100.0</td>
<td>143.6</td>
<td>196.3</td>
<td>251.4</td>
<td>319.8</td>
</tr>
</tbody>
</table>

* Except oil and coal

Source: Bank Markazi, Annual Report and Balance Sheet, 1358 (1979)
Table 3:16
Total Wages, Salaries and Fringe Benefits of Employees in the Selected Industries
(million rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Products</td>
<td>130</td>
<td>152</td>
<td>172</td>
<td>226</td>
<td>279</td>
<td>414</td>
<td>590</td>
</tr>
<tr>
<td>Vegetable Shortening</td>
<td>404</td>
<td>467</td>
<td>547</td>
<td>672</td>
<td>941</td>
<td>1,343</td>
<td>1,717</td>
</tr>
<tr>
<td>Alcoholic Beverages</td>
<td>109</td>
<td>128</td>
<td>144</td>
<td>171</td>
<td>230</td>
<td>347</td>
<td>420</td>
</tr>
<tr>
<td>Non-alcoholic Beverages</td>
<td>174</td>
<td>197</td>
<td>248</td>
<td>341</td>
<td>453</td>
<td>693</td>
<td>1,200</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1,070</td>
<td>1,244</td>
<td>1,433</td>
<td>1,744</td>
<td>2,142</td>
<td>3,136</td>
<td>3,633</td>
</tr>
<tr>
<td>Spinning &amp; Weaving</td>
<td>3,226</td>
<td>3,792</td>
<td>4,694</td>
<td>6,060</td>
<td>7,708</td>
<td>10,027</td>
<td>12,105</td>
</tr>
<tr>
<td>Leather</td>
<td>82</td>
<td>97</td>
<td>125</td>
<td>144</td>
<td>184</td>
<td>248</td>
<td>310</td>
</tr>
<tr>
<td>Machine-made Shoes</td>
<td>238</td>
<td>262</td>
<td>415</td>
<td>563</td>
<td>599</td>
<td>982</td>
<td>1,365</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>776</td>
<td>810</td>
<td>913</td>
<td>1,138</td>
<td>1,403</td>
<td>2,376</td>
<td>2,841</td>
</tr>
<tr>
<td>Paints</td>
<td>66</td>
<td>87</td>
<td>110</td>
<td>131</td>
<td>178</td>
<td>271</td>
<td>418</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>225</td>
<td>255</td>
<td>295</td>
<td>358</td>
<td>484</td>
<td>618</td>
<td>984</td>
</tr>
<tr>
<td>Cosmetics &amp; Soaps</td>
<td>218</td>
<td>227</td>
<td>299</td>
<td>371</td>
<td>539</td>
<td>828</td>
<td>1,112</td>
</tr>
<tr>
<td>Automobile Tyres</td>
<td>244</td>
<td>259</td>
<td>358</td>
<td>378</td>
<td>512</td>
<td>808</td>
<td>1,458</td>
</tr>
<tr>
<td>Glass sheets</td>
<td>74</td>
<td>113</td>
<td>214</td>
<td>269</td>
<td>347</td>
<td>439</td>
<td>498</td>
</tr>
<tr>
<td>Cement</td>
<td>485</td>
<td>550</td>
<td>710</td>
<td>819</td>
<td>1,229</td>
<td>1,758</td>
<td>2,320</td>
</tr>
<tr>
<td>Basic Metals</td>
<td>319</td>
<td>449</td>
<td>607</td>
<td>775</td>
<td>1,031</td>
<td>1,438</td>
<td>2,155</td>
</tr>
<tr>
<td>Household Appliances*</td>
<td>646</td>
<td>694</td>
<td>818</td>
<td>1,183</td>
<td>1,583</td>
<td>2,355</td>
<td>3,435</td>
</tr>
<tr>
<td>Radio, TV &amp; Telephone</td>
<td>319</td>
<td>381</td>
<td>486</td>
<td>631</td>
<td>838</td>
<td>1,305</td>
<td>1,653</td>
</tr>
<tr>
<td>Electrical Tools</td>
<td>156</td>
<td>183</td>
<td>225</td>
<td>307</td>
<td>445</td>
<td>707</td>
<td>1,014</td>
</tr>
<tr>
<td>Automobiles</td>
<td>872</td>
<td>1,024</td>
<td>1,233</td>
<td>1,733</td>
<td>2,331</td>
<td>4,082</td>
<td>6,449</td>
</tr>
</tbody>
</table>

Total Selected Industries   9,833 11,371 14,049 18,014 23,456 34,175 45,677

*Electrical and non-electrical

Table 3:17
Percentage Share of Wages of Employees in the Selected Industries

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy Products</td>
<td>1.3</td>
<td>1.2</td>
<td>1.2</td>
<td>1.3</td>
<td>48.9</td>
<td>42.5</td>
</tr>
<tr>
<td>Vegetable Shortening</td>
<td>4.1</td>
<td>3.9</td>
<td>4.0</td>
<td>3.8</td>
<td>39.8</td>
<td>27.8</td>
</tr>
<tr>
<td>Alcoholic Beverages</td>
<td>1.1</td>
<td>1.0</td>
<td>1.0</td>
<td>0.9</td>
<td>44.6</td>
<td>21.0</td>
</tr>
<tr>
<td>Non-alcoholic Beverages</td>
<td>1.8</td>
<td>1.8</td>
<td>1.9</td>
<td>2.6</td>
<td>53.0</td>
<td>73.2</td>
</tr>
<tr>
<td>Tobacco</td>
<td>10.9</td>
<td>10.2</td>
<td>8.9</td>
<td>8.0</td>
<td>46.4</td>
<td>15.8</td>
</tr>
<tr>
<td>Spinning &amp; Weaving</td>
<td>32.8</td>
<td>33.3</td>
<td>32.6</td>
<td>26.5</td>
<td>28.3</td>
<td>20.7</td>
</tr>
<tr>
<td>Leather</td>
<td>0.8</td>
<td>0.9</td>
<td>0.8</td>
<td>0.7</td>
<td>31.9</td>
<td>25.0</td>
</tr>
<tr>
<td>Machine-made Shoes</td>
<td>2.4</td>
<td>2.9</td>
<td>2.5</td>
<td>3.0</td>
<td>63.9</td>
<td>39.0</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>7.9</td>
<td>6.7</td>
<td>7.0</td>
<td>6.2</td>
<td>41.7</td>
<td>19.6</td>
</tr>
<tr>
<td>Paints</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>0.9</td>
<td>50.6</td>
<td>54.2</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>2.3</td>
<td>2.1</td>
<td>2.0</td>
<td>2.2</td>
<td>31.8</td>
<td>59.2</td>
</tr>
<tr>
<td>Cosmetics &amp; Soaps</td>
<td>2.2</td>
<td>2.1</td>
<td>2.3</td>
<td>2.4</td>
<td>53.3</td>
<td>34.3</td>
</tr>
<tr>
<td>Automobile Tyres</td>
<td>2.5</td>
<td>2.6</td>
<td>2.1</td>
<td>3.2</td>
<td>57.8</td>
<td>80.4</td>
</tr>
<tr>
<td>Glass sheets</td>
<td>0.8</td>
<td>1.5</td>
<td>1.4</td>
<td>1.1</td>
<td>27.2</td>
<td>13.4</td>
</tr>
<tr>
<td>Cement</td>
<td>4.9</td>
<td>5.0</td>
<td>5.1</td>
<td>5.1</td>
<td>43.0</td>
<td>32.0</td>
</tr>
<tr>
<td>Basic Metals</td>
<td>3.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.7</td>
<td>39.6</td>
<td>49.9</td>
</tr>
<tr>
<td>Household Appliances*</td>
<td>6.6</td>
<td>5.8</td>
<td>6.6</td>
<td>7.5</td>
<td>49.3</td>
<td>45.9</td>
</tr>
<tr>
<td>Radio, TV &amp; Telephone</td>
<td>3.2</td>
<td>3.5</td>
<td>3.8</td>
<td>3.6</td>
<td>43.6</td>
<td>26.7</td>
</tr>
<tr>
<td>Electrical Tools</td>
<td>1.6</td>
<td>1.6</td>
<td>1.9</td>
<td>2.2</td>
<td>52.7</td>
<td>43.4</td>
</tr>
<tr>
<td>Automobiles</td>
<td>8.9</td>
<td>8.8</td>
<td>9.8</td>
<td>14.1</td>
<td>73.8</td>
<td>58.0</td>
</tr>
</tbody>
</table>

Total Selected Industries | 100.0| 100.0| 100.0| 100.0| 42.7 | 33.7 |

*Electrical and non-electrical

Table 3:18
Employment Index of Large Manufacturing Establishments
(1974 = 100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Beverages &amp; Tobacco</td>
<td>11.2</td>
<td>110.5</td>
<td>123.2</td>
<td>134.2</td>
<td>140.4</td>
</tr>
<tr>
<td>Textiles, Clothing &amp; Leather</td>
<td>36.0</td>
<td>104.0</td>
<td>104.2</td>
<td>100.0</td>
<td>100.7</td>
</tr>
<tr>
<td>Wood &amp; Wooden Products</td>
<td>1.4</td>
<td>111.0</td>
<td>116.3</td>
<td>112.2</td>
<td>122.3</td>
</tr>
<tr>
<td>Paper, Cardboard &amp; their Products</td>
<td>1.6</td>
<td>127.3</td>
<td>134.4</td>
<td>129.7</td>
<td>134.2</td>
</tr>
<tr>
<td>Chemicals</td>
<td>9.9</td>
<td>110.6</td>
<td>122.4</td>
<td>128.8</td>
<td>129.6</td>
</tr>
<tr>
<td>Non-Metal Mining Products*</td>
<td>9.1</td>
<td>114.6</td>
<td>134.7</td>
<td>148.8</td>
<td>156.3</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>7.4</td>
<td>113.5</td>
<td>112.1</td>
<td>117.4</td>
<td>119.1</td>
</tr>
<tr>
<td>Metal Machinery &amp; Equipment</td>
<td>22.6</td>
<td>117.4</td>
<td>128.0</td>
<td>133.5</td>
<td>140.2</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>0.8</td>
<td>78.6</td>
<td>78.5</td>
<td>78.2</td>
<td>69.8</td>
</tr>
<tr>
<td>General Index</td>
<td>100.0</td>
<td>110.0</td>
<td>117.3</td>
<td>120.4</td>
<td>124.0</td>
</tr>
</tbody>
</table>

* Except oil and coal

Source: Bank Markazi, Annual Report and Balance Sheet, 1358 (1979)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Products</td>
<td>1,191</td>
<td>1,275</td>
<td>1,331</td>
<td>1,428</td>
<td>1,581</td>
<td>1,898</td>
<td>2,205</td>
</tr>
<tr>
<td>Vegetable Shortening</td>
<td>4,176</td>
<td>4,417</td>
<td>4,492</td>
<td>4,818</td>
<td>5,230</td>
<td>5,520</td>
<td>5,993</td>
</tr>
<tr>
<td>Alcoholic Beverages</td>
<td>1,445</td>
<td>1,537</td>
<td>1,639</td>
<td>1,824</td>
<td>1,935</td>
<td>1,912</td>
<td>1,858</td>
</tr>
<tr>
<td>Non-alcoholic Beverages</td>
<td>2,345</td>
<td>2,514</td>
<td>2,590</td>
<td>2,854</td>
<td>3,142</td>
<td>3,929</td>
<td>5,137</td>
</tr>
<tr>
<td>Tobacco</td>
<td>6,882</td>
<td>7,413</td>
<td>7,191</td>
<td>7,142</td>
<td>7,652</td>
<td>8,137</td>
<td>9,024</td>
</tr>
<tr>
<td>Spinning &amp; Weaving</td>
<td>60,122</td>
<td>61,722</td>
<td>64,804</td>
<td>67,970</td>
<td>70,277</td>
<td>70,471</td>
<td>68,413</td>
</tr>
<tr>
<td>Leather</td>
<td>1,426</td>
<td>1,418</td>
<td>1,739</td>
<td>1,655</td>
<td>1,611</td>
<td>1,574</td>
<td>1,611</td>
</tr>
<tr>
<td>Machine-made Shoes</td>
<td>4,419</td>
<td>5,124</td>
<td>6,332</td>
<td>7,426</td>
<td>6,983</td>
<td>7,664</td>
<td>8,062</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>3,018</td>
<td>3,036</td>
<td>3,248</td>
<td>3,676</td>
<td>3,843</td>
<td>4,127</td>
<td>4,318</td>
</tr>
<tr>
<td>Paints</td>
<td>758</td>
<td>904</td>
<td>993</td>
<td>1,020</td>
<td>1,114</td>
<td>1,282</td>
<td>1,479</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>1,957</td>
<td>2,085</td>
<td>2,239</td>
<td>2,572</td>
<td>2,765</td>
<td>2,884</td>
<td>3,170</td>
</tr>
<tr>
<td>Cosmetics &amp; Soaps</td>
<td>2,014</td>
<td>2,054</td>
<td>2,162</td>
<td>2,367</td>
<td>2,911</td>
<td>3,176</td>
<td>3,449</td>
</tr>
<tr>
<td>Automobile Tyres</td>
<td>1,305</td>
<td>1,450</td>
<td>1,635</td>
<td>1,754</td>
<td>1,943</td>
<td>2,076</td>
<td>3,001</td>
</tr>
<tr>
<td>Glass sheets</td>
<td>773</td>
<td>915</td>
<td>1,505</td>
<td>1,854</td>
<td>2,023</td>
<td>1,823</td>
<td>1,597</td>
</tr>
<tr>
<td>Cement</td>
<td>4,360</td>
<td>4,512</td>
<td>4,615</td>
<td>4,870</td>
<td>6,115</td>
<td>6,394</td>
<td>7,227</td>
</tr>
<tr>
<td>Basic Metals</td>
<td>3,312</td>
<td>4,105</td>
<td>4,901</td>
<td>5,738</td>
<td>6,256</td>
<td>6,380</td>
<td>6,616</td>
</tr>
<tr>
<td>Household Appliances*</td>
<td>8,586</td>
<td>8,562</td>
<td>9,270</td>
<td>10,655</td>
<td>11,825</td>
<td>13,069</td>
<td>13,585</td>
</tr>
<tr>
<td>Radio, TV &amp; Telephone</td>
<td>3,810</td>
<td>4,282</td>
<td>4,633</td>
<td>5,124</td>
<td>6,245</td>
<td>6,576</td>
<td>6,294</td>
</tr>
<tr>
<td>Electrical Tools</td>
<td>1,777</td>
<td>2,070</td>
<td>2,519</td>
<td>2,898</td>
<td>3,356</td>
<td>3,879</td>
<td>4,532</td>
</tr>
<tr>
<td>Automobiles</td>
<td>9,125</td>
<td>8,970</td>
<td>10,117</td>
<td>12,188</td>
<td>14,307</td>
<td>18,228</td>
<td>20,270</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>122,800</td>
<td>128,365</td>
<td>137,955</td>
<td>149,833</td>
<td>161,114</td>
<td>170,999</td>
<td>177,841</td>
</tr>
</tbody>
</table>

* Electrical and non-electrical

### Table 3:20

Percentage Share of Workers in the Selected Industries

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Products</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.2</td>
<td>20.1</td>
<td>16.2</td>
<td></td>
</tr>
<tr>
<td>Vegetable Shortening</td>
<td>3.4</td>
<td>3.3</td>
<td>3.2</td>
<td>3.4</td>
<td>5.5</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>Alcoholic Beverages</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.1</td>
<td>-1.2</td>
<td>-2.8</td>
<td></td>
</tr>
<tr>
<td>Non-alcoholic Beverages</td>
<td>1.9</td>
<td>1.9</td>
<td>2.0</td>
<td>2.9</td>
<td>25.0</td>
<td>30.7</td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>5.6</td>
<td>5.2</td>
<td>4.7</td>
<td>5.1</td>
<td>6.3</td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Spinning &amp; Weaving</td>
<td>49.0</td>
<td>47.0</td>
<td>43.6</td>
<td>38.5</td>
<td>0.3</td>
<td>-2.9</td>
<td></td>
</tr>
<tr>
<td>Leather</td>
<td>1.2</td>
<td>1.3</td>
<td>1.0</td>
<td>0.9</td>
<td>-2.3</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Machine-made Shoes</td>
<td>3.6</td>
<td>4.6</td>
<td>4.3</td>
<td>4.5</td>
<td>9.8</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>2.5</td>
<td>2.3</td>
<td>2.4</td>
<td>2.4</td>
<td>7.4</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>Paints</td>
<td>0.6</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>15.1</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
<td>1.8</td>
<td>4.3</td>
<td>9.9</td>
<td></td>
</tr>
<tr>
<td>Cosmetics &amp; Soaps</td>
<td>1.6</td>
<td>1.6</td>
<td>1.8</td>
<td>1.9</td>
<td>9.1</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>Automobile Tyres</td>
<td>1.1</td>
<td>1.2</td>
<td>1.2</td>
<td>1.7</td>
<td>6.8</td>
<td>44.6</td>
<td></td>
</tr>
<tr>
<td>Glass sheets</td>
<td>0.6</td>
<td>1.1</td>
<td>1.3</td>
<td>0.9</td>
<td>-9.9</td>
<td>-12.4</td>
<td></td>
</tr>
<tr>
<td>Cement</td>
<td>3.5</td>
<td>3.3</td>
<td>3.8</td>
<td>4.1</td>
<td>4.6</td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td>Basic Metals</td>
<td>2.7</td>
<td>3.5</td>
<td>3.9</td>
<td>3.7</td>
<td>2.0</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Household Appliances*</td>
<td>7.0</td>
<td>6.7</td>
<td>7.3</td>
<td>7.6</td>
<td>10.5</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Radio, TV &amp; Telephone</td>
<td>3.1</td>
<td>3.4</td>
<td>3.9</td>
<td>3.5</td>
<td>5.3</td>
<td>-4.3</td>
<td></td>
</tr>
<tr>
<td>Electrical Tools</td>
<td>1.4</td>
<td>1.8</td>
<td>2.1</td>
<td>2.6</td>
<td>15.6</td>
<td>16.8</td>
<td></td>
</tr>
<tr>
<td>Automobiles</td>
<td>7.4</td>
<td>7.3</td>
<td>8.9</td>
<td>11.4</td>
<td>27.4</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td><strong>Total Selected Industries</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>6.1</strong></td>
<td><strong>4.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Electrical and non-electrical

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
<th>% Share</th>
<th>No. of Establishments</th>
<th>Employment (persons)</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Goods</td>
<td>218,111</td>
<td>34.5</td>
<td>427</td>
<td>120,273</td>
<td>43.7</td>
</tr>
<tr>
<td>Food, Beverages</td>
<td>118,581</td>
<td>18.7</td>
<td>208</td>
<td>24,970</td>
<td>9.1</td>
</tr>
<tr>
<td>Tobacco</td>
<td>12,976</td>
<td>2.1</td>
<td>3</td>
<td>9,860</td>
<td>3.5</td>
</tr>
<tr>
<td>Textiles &amp; Clothing</td>
<td>71,131</td>
<td>11.2</td>
<td>160</td>
<td>75,063</td>
<td>27.3</td>
</tr>
<tr>
<td>Leather Hide</td>
<td>12,040</td>
<td>1.9</td>
<td>43</td>
<td>6,897</td>
<td>2.5</td>
</tr>
<tr>
<td>Wood &amp; Products</td>
<td>3,383</td>
<td>0.6</td>
<td>13</td>
<td>3,503</td>
<td>1.3</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td>222,283</td>
<td>35.4</td>
<td>359</td>
<td>90,568</td>
<td>32.9</td>
</tr>
<tr>
<td>Paper &amp; Printing</td>
<td>12,772</td>
<td>2.0</td>
<td>15</td>
<td>4,996</td>
<td>1.8</td>
</tr>
<tr>
<td>Rubber &amp; Tyres</td>
<td>11,876</td>
<td>2.2</td>
<td>7</td>
<td>3,743</td>
<td>1.4</td>
</tr>
<tr>
<td>Chemicals</td>
<td>63,305</td>
<td>9.9</td>
<td>113</td>
<td>25,233</td>
<td>9.2</td>
</tr>
<tr>
<td>Non-Metal Products</td>
<td>42,218</td>
<td>6.7</td>
<td>164</td>
<td>30,010</td>
<td>10.9</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>80,254</td>
<td>12.7</td>
<td>22</td>
<td>19,486</td>
<td>7.1</td>
</tr>
<tr>
<td>Metal Products</td>
<td>11,858</td>
<td>1.9</td>
<td>38</td>
<td>7,100</td>
<td>2.5</td>
</tr>
<tr>
<td>Capital Goods &amp; Durables</td>
<td>180,749</td>
<td>28.3</td>
<td>105</td>
<td>62,700</td>
<td>22.8</td>
</tr>
<tr>
<td>Machinery</td>
<td>78,657</td>
<td>12.3</td>
<td>84</td>
<td>38,472</td>
<td>14.0</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>102,092</td>
<td>16.0</td>
<td>21</td>
<td>24,228</td>
<td>8.8</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>11,495</td>
<td>1.8</td>
<td>35</td>
<td>1,372</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>632,638</td>
<td>100.0</td>
<td>926</td>
<td>274,913</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3:22
Consumption of Gross Manufacturing Output, 1963, 1968-74
(current prices, billion rials)

<table>
<thead>
<tr>
<th></th>
<th>All Establishments</th>
<th>Large Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>63.90</td>
<td>135.00</td>
</tr>
<tr>
<td>Food, Beverages</td>
<td>27.00</td>
<td>69.62</td>
</tr>
<tr>
<td>Tobacco</td>
<td>5.00</td>
<td>7.69</td>
</tr>
<tr>
<td>Textiles &amp; Clothing</td>
<td>25.33</td>
<td>50.75</td>
</tr>
<tr>
<td>Leather Hide</td>
<td>2.33</td>
<td>1.77</td>
</tr>
<tr>
<td>Wood &amp; Products</td>
<td>4.24</td>
<td>5.17</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td>18.79</td>
<td>46.06</td>
</tr>
<tr>
<td>Paper &amp; Printing</td>
<td>2.05</td>
<td>3.69</td>
</tr>
<tr>
<td>Rubber &amp; Tyres</td>
<td>0.89</td>
<td>3.82</td>
</tr>
<tr>
<td>Chemicals</td>
<td>3.85</td>
<td>9.24</td>
</tr>
<tr>
<td>Non-Metal Products</td>
<td>5.32</td>
<td>10.88</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>1.10</td>
<td>5.65</td>
</tr>
<tr>
<td>Metal Products</td>
<td>5.58</td>
<td>12.78</td>
</tr>
<tr>
<td>Capital Goods &amp; Durables</td>
<td>5.53</td>
<td>21.21</td>
</tr>
<tr>
<td>Machinery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1.11</td>
<td>2.87</td>
</tr>
<tr>
<td>Total</td>
<td>89.36</td>
<td>205.14</td>
</tr>
</tbody>
</table>

Source: UN, Yearbook of Industrial Statistics, 1972, 1975, 1977
### Table 3:23

Composition of Manufacturing Value Added, 1963, 1968-74  
(percentage)

<table>
<thead>
<tr>
<th></th>
<th>All Establishments</th>
<th>Large Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer Goods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food, Beverages</td>
<td>20.8</td>
<td>21.7</td>
</tr>
<tr>
<td>Tobacco</td>
<td>10.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Textiles &amp; Clothing</td>
<td>31.5</td>
<td>28.0</td>
</tr>
<tr>
<td>Leather Hide</td>
<td>2.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Wood &amp; Products</td>
<td>5.7</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Intermediate Goods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper &amp; Printing</td>
<td>3.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Rubber &amp; Tyres</td>
<td>0.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Chemicals</td>
<td>2.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Non-Metal Products</td>
<td>7.6</td>
<td>10.2</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>0.7</td>
<td>2</td>
</tr>
<tr>
<td>Metal Products</td>
<td>7.9</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Capital Goods &amp; Durables</strong></td>
<td>6.7</td>
<td>9.6</td>
</tr>
<tr>
<td>Machinery</td>
<td>}</td>
<td>3.9</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>}</td>
<td>6.7</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1.1</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Total (billion rials)**  
40.21  75.88  87.33  63.63  72.70  88.00  121.65  175.71

*Source: Derived from UN, Yearbook of Industrial Statistics, 1972, 1975, 1977*
Table 3:24

Share of Capital Goods in Total Manufacturing Value Added
For Various Countries

<table>
<thead>
<tr>
<th></th>
<th>Non-Electrical</th>
<th>Electrical Machinery</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>382(a) MVA</td>
<td>383(b) MVA</td>
<td>3832 MVA</td>
<td>3832 as % of 383</td>
<td>3832+ / 383 / MVA</td>
</tr>
<tr>
<td>Iran (1974)</td>
<td>2.4</td>
<td>7.4</td>
<td>3.2</td>
<td>44.0(a)</td>
<td>3.0</td>
</tr>
<tr>
<td>India (1976)</td>
<td>8.6</td>
<td>7.1</td>
<td>1.2</td>
<td>17.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Brazil (1973)</td>
<td>8.7</td>
<td>5.8</td>
<td>1.0</td>
<td>18.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Mexico (1975)</td>
<td>4.5</td>
<td>6.4</td>
<td>2.7</td>
<td>41.8</td>
<td>1.4</td>
</tr>
<tr>
<td>S.Korea (1973)</td>
<td>2.3</td>
<td>6.6</td>
<td>4.7</td>
<td>71.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Turkey (1973)</td>
<td>3.1*</td>
<td>3.5*</td>
<td>-</td>
<td>-</td>
<td>1.1</td>
</tr>
<tr>
<td>Colombia (1973)</td>
<td>2.2*</td>
<td>2.8*</td>
<td>-</td>
<td>-</td>
<td>1.2</td>
</tr>
<tr>
<td>USA (1972)</td>
<td>11.1</td>
<td>8.9</td>
<td>4.6</td>
<td>52.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Japan (1973)</td>
<td>11.4</td>
<td>10.9</td>
<td>5.1</td>
<td>47.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Hungary (1973)</td>
<td>9.8</td>
<td>8.8</td>
<td>3.4</td>
<td>39.1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

* percentage of output rather than value added

MVA = manufacturing value added

Notes: (a) Subsector 382 in Iran consists of:
  3821 Motor and generator
  3822 Agriculture machinery
  3823 Metal works and woodcutting machinery
  3824 Industrial machinery - food-making machinery, textile machinery, cement manufacturing machinery, etc.
  3829 Compressor, lift, industrial furnace, steam press, etc.

(b) Subsector 383 consists of:
  3831 Electrical industrial machinery and apparatus
  3832 Radio, television, telephone
  3833 Domestic electrical appliances, electrical heater, fan, air conditioner, etc.
  3839 Wire, cable, dry-battery, lamp, switch, etc.

Source: P. Alizadeh, op. cit., p.226
<table>
<thead>
<tr>
<th><strong>Composition of Manufacturing Value Added, 1970 &amp; 1978</strong></th>
<th><strong>Percentage</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1970</strong></td>
<td><strong>1978</strong></td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>30.2</td>
</tr>
<tr>
<td>Food Products</td>
<td>12.2</td>
</tr>
<tr>
<td>Beverages</td>
<td>0.6</td>
</tr>
<tr>
<td>Tobacco</td>
<td>4.9</td>
</tr>
<tr>
<td>Textiles</td>
<td>9.4</td>
</tr>
<tr>
<td>Wearing Apparel</td>
<td>1.6</td>
</tr>
<tr>
<td>Leather &amp; Fur Products</td>
<td>0.3</td>
</tr>
<tr>
<td>Footwear</td>
<td>0.3</td>
</tr>
<tr>
<td>Wood &amp; Cork Products</td>
<td>0.9</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>0.3</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td>65.8</td>
</tr>
<tr>
<td>Paper</td>
<td>0.9</td>
</tr>
<tr>
<td>Printing &amp; Publishing</td>
<td>1.0</td>
</tr>
<tr>
<td>Industrial Chemicals</td>
<td>1.9</td>
</tr>
<tr>
<td>Other Chemicals</td>
<td>1.9</td>
</tr>
<tr>
<td>Petroleum Refineries</td>
<td>45.6</td>
</tr>
<tr>
<td>Miscellaneous Products of Petroleum &amp; Coal</td>
<td>0.2</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>0.9</td>
</tr>
<tr>
<td>Pottery, China &amp; Earthenware</td>
<td>-</td>
</tr>
<tr>
<td>Glass</td>
<td>1.0</td>
</tr>
<tr>
<td>Other Non-Metallic Mineral Products</td>
<td>4.1</td>
</tr>
<tr>
<td>Iron &amp; Steel</td>
<td>2.0</td>
</tr>
<tr>
<td>Non-Ferrous Metals</td>
<td>3.7</td>
</tr>
<tr>
<td>Metal Products (excl. machinery)</td>
<td>2.6</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>3.4</td>
</tr>
<tr>
<td>Non-Electrical Machinery</td>
<td>0.1</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>1.7</td>
</tr>
<tr>
<td>Transport Equipment</td>
<td>1.6</td>
</tr>
</tbody>
</table>

### Table 3:26

**Manufacturing Production Index 1962-72**

(1967=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Combined Index of Selected Goods</strong></td>
<td>60</td>
<td>65</td>
<td>69</td>
<td>76</td>
<td>87</td>
<td>100</td>
<td>114</td>
<td>127</td>
<td>143</td>
<td>170</td>
<td>198</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>72</td>
<td>71</td>
<td>74</td>
<td>73</td>
<td>80</td>
<td>100</td>
<td>107</td>
<td>116</td>
<td>128</td>
<td>131</td>
<td>146</td>
</tr>
<tr>
<td><strong>Beverages</strong></td>
<td>81</td>
<td>91</td>
<td>102</td>
<td>88</td>
<td>90</td>
<td>100</td>
<td>161</td>
<td>179</td>
<td>144</td>
<td>153</td>
<td>183</td>
</tr>
<tr>
<td><strong>Textiles</strong></td>
<td>73</td>
<td>61</td>
<td>57</td>
<td>80</td>
<td>84</td>
<td>100</td>
<td>97</td>
<td>107</td>
<td>126</td>
<td>148</td>
<td>164</td>
</tr>
<tr>
<td><strong>Wearing Apparel</strong></td>
<td>36</td>
<td>73</td>
<td>81</td>
<td>84</td>
<td>90</td>
<td>100</td>
<td>114</td>
<td>114</td>
<td>117</td>
<td>132</td>
<td>165</td>
</tr>
<tr>
<td><strong>Wood &amp; Furniture</strong></td>
<td>44</td>
<td>107</td>
<td>80</td>
<td>83</td>
<td>89</td>
<td>100</td>
<td>115</td>
<td>107</td>
<td>116</td>
<td>142</td>
<td>134</td>
</tr>
<tr>
<td><strong>Paper &amp; Cardboard</strong></td>
<td>93</td>
<td>50</td>
<td>48</td>
<td>75</td>
<td>91</td>
<td>100</td>
<td>81</td>
<td>97</td>
<td>112</td>
<td>160</td>
<td>175</td>
</tr>
<tr>
<td><strong>Leather &amp; Hide</strong></td>
<td>75</td>
<td>82</td>
<td>62</td>
<td>77</td>
<td>89</td>
<td>100</td>
<td>141</td>
<td>147</td>
<td>133</td>
<td>96</td>
<td>101</td>
</tr>
<tr>
<td><strong>Rubber Industries</strong></td>
<td>57</td>
<td>70</td>
<td>150</td>
<td>90</td>
<td>86</td>
<td>100</td>
<td>114</td>
<td>144</td>
<td>156</td>
<td>165</td>
<td>198</td>
</tr>
<tr>
<td><strong>Chemicals</strong></td>
<td>72</td>
<td>48</td>
<td>48</td>
<td>73</td>
<td>89</td>
<td>100</td>
<td>159</td>
<td>188</td>
<td>243</td>
<td>403</td>
<td>506</td>
</tr>
<tr>
<td><strong>Non-Metal Mining Products</strong></td>
<td>50</td>
<td>52</td>
<td>61</td>
<td>75</td>
<td>81</td>
<td>100</td>
<td>122</td>
<td>134</td>
<td>139</td>
<td>157</td>
<td>179</td>
</tr>
<tr>
<td><strong>Basic Metal</strong></td>
<td>59</td>
<td>70</td>
<td>70</td>
<td>65</td>
<td>80</td>
<td>100</td>
<td>118</td>
<td>146</td>
<td>172</td>
<td>202</td>
<td>278</td>
</tr>
<tr>
<td><strong>Metal Products</strong></td>
<td>59</td>
<td>70</td>
<td>70</td>
<td>65</td>
<td>80</td>
<td>100</td>
<td>113</td>
<td>123</td>
<td>134</td>
<td>182</td>
<td>189</td>
</tr>
<tr>
<td><strong>Non-Electrical Machinery</strong></td>
<td>74</td>
<td>77</td>
<td>79</td>
<td>84</td>
<td>94</td>
<td>100</td>
<td>99</td>
<td>112</td>
<td>113</td>
<td>126</td>
<td>195</td>
</tr>
<tr>
<td><strong>Electrical Machinery</strong></td>
<td>23</td>
<td>27</td>
<td>30</td>
<td>51</td>
<td>73</td>
<td>100</td>
<td>127</td>
<td>148</td>
<td>181</td>
<td>233</td>
<td>274</td>
</tr>
<tr>
<td><strong>Transport Equipment</strong></td>
<td>19</td>
<td>22</td>
<td>36</td>
<td>42</td>
<td>45</td>
<td>100</td>
<td>200</td>
<td>188</td>
<td>251</td>
<td>299</td>
<td>389</td>
</tr>
<tr>
<td><strong>Other Manufacturing Industries</strong></td>
<td>29</td>
<td>34</td>
<td>53</td>
<td>62</td>
<td>91</td>
<td>100</td>
<td>116</td>
<td>99</td>
<td>121</td>
<td>233</td>
<td>214</td>
</tr>
</tbody>
</table>

*including construction*

**Source:** Ministry of Economy (Bureau of Statistics),

*Trends in Industrial & Commercial Statistics* (First Quarter, 1974)

370
Table 3:27

Production Index of Large Manufacturing Establishments
(1974=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Index</td>
<td>100.0</td>
<td>100.0</td>
<td>114.7</td>
<td>134.6</td>
<td>150.6</td>
</tr>
<tr>
<td>Food, Beverages &amp; Tobacco</td>
<td>21.6</td>
<td>100.0</td>
<td>108.4</td>
<td>122.8</td>
<td>123.4</td>
</tr>
<tr>
<td>Textiles, Clothing &amp; Leather</td>
<td>15.8</td>
<td>100.0</td>
<td>116.8</td>
<td>130.6</td>
<td>149.8</td>
</tr>
<tr>
<td>Wood &amp; Wood Products</td>
<td>0.5</td>
<td>100.0</td>
<td>119.5</td>
<td>143.2</td>
<td>191.5</td>
</tr>
<tr>
<td>Paper, Cardboard &amp; Products</td>
<td>1.7</td>
<td>100.0</td>
<td>105.2</td>
<td>125.0</td>
<td>148.9</td>
</tr>
<tr>
<td>Chemicals</td>
<td>15.3</td>
<td>100.0</td>
<td>108.2</td>
<td>127.4</td>
<td>148.1</td>
</tr>
<tr>
<td>Non-Metal Mining* Products</td>
<td>9.1</td>
<td>100.0</td>
<td>119.7</td>
<td>147.8</td>
<td>162.8</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>10.5</td>
<td>100.0</td>
<td>108.0</td>
<td>112.5</td>
<td>143.1</td>
</tr>
<tr>
<td>Metal Machinery &amp; Equipment</td>
<td>24.8</td>
<td>100.0</td>
<td>125.2</td>
<td>158.0</td>
<td>175.6</td>
</tr>
<tr>
<td>Other Manufacturing Industries</td>
<td>0.7</td>
<td>100.0</td>
<td>82.2</td>
<td>92.0</td>
<td>98.5</td>
</tr>
</tbody>
</table>

* excluding oil and coal

Table 3:28
Index Numbers of Industrial Production  
(1975=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Index*</td>
<td>86</td>
<td>96</td>
<td>100</td>
<td>111</td>
<td>111</td>
<td>103</td>
</tr>
<tr>
<td>Mining Index**</td>
<td>109</td>
<td>112</td>
<td>100</td>
<td>110</td>
<td>109</td>
<td>97</td>
</tr>
<tr>
<td>Manufacturing Index*</td>
<td>73</td>
<td>88</td>
<td>100</td>
<td>121</td>
<td>120</td>
<td>132</td>
</tr>
<tr>
<td>Food</td>
<td>95</td>
<td>98</td>
<td>100</td>
<td>109</td>
<td>112</td>
<td>110</td>
</tr>
<tr>
<td>Beverages</td>
<td>66</td>
<td>86</td>
<td>100</td>
<td>136</td>
<td>169</td>
<td>196</td>
</tr>
<tr>
<td>Textiles</td>
<td>89</td>
<td>96</td>
<td>100</td>
<td>117</td>
<td>125</td>
<td>141</td>
</tr>
<tr>
<td>Wearing Apparel &amp; Footwear</td>
<td>57</td>
<td>85</td>
<td>100</td>
<td>122</td>
<td>110</td>
<td>123</td>
</tr>
<tr>
<td>Leather &amp; Leather Products</td>
<td>70</td>
<td>91</td>
<td>100</td>
<td>142</td>
<td>152</td>
<td>170</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>70</td>
<td>89</td>
<td>100</td>
<td>105</td>
<td>116</td>
<td>142</td>
</tr>
<tr>
<td>Industrial Chemicals &amp; Products</td>
<td>84</td>
<td>94</td>
<td>100</td>
<td>74</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>Pottery, China, Glass &amp; Non-Metal Products</td>
<td>56</td>
<td>78</td>
<td>100</td>
<td>116</td>
<td>120</td>
<td>137</td>
</tr>
<tr>
<td>Metal Products</td>
<td>64</td>
<td>75</td>
<td>100</td>
<td>115</td>
<td>113</td>
<td>130</td>
</tr>
<tr>
<td>Machinery (non-electrical)</td>
<td>18</td>
<td>67</td>
<td>100</td>
<td>121</td>
<td>127</td>
<td>126</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>40</td>
<td>72</td>
<td>100</td>
<td>116</td>
<td>106</td>
<td>137</td>
</tr>
<tr>
<td>Transport Equipment</td>
<td>53</td>
<td>76</td>
<td>100</td>
<td>124</td>
<td>115</td>
<td>121</td>
</tr>
</tbody>
</table>

* Excluding tobacco
** Including petroleum refineries

Source: UN, Statistical Yearbook for Asia and the Pacific, 1983.
Table 3:29

Fixed Capital Formation for Industry during the Fifth Plan
(billion rials)

<table>
<thead>
<tr>
<th>Industry Description</th>
<th>Public Sector</th>
<th>Private Sector</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Development</td>
<td>Private</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Credits of</td>
<td>Savings</td>
<td>Credits</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td></td>
<td>(4+5)</td>
</tr>
<tr>
<td></td>
<td>Development</td>
<td></td>
<td>(3+6)</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>of Public</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enterprises</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Industries</td>
<td>8.94</td>
<td>15.00</td>
<td>23.94</td>
</tr>
<tr>
<td>Textiles, Handicrafts, Rural and Leather &amp; Industries</td>
<td>5.18</td>
<td>0.50</td>
<td>5.68</td>
</tr>
<tr>
<td>Cellulose &amp; Printing</td>
<td>17.49</td>
<td>0.30</td>
<td>17.79</td>
</tr>
<tr>
<td>Chemicals &amp; Petrochemicals</td>
<td>75.14</td>
<td>4.00</td>
<td>79.14</td>
</tr>
<tr>
<td>Non-metallic Minerals</td>
<td>5.78</td>
<td>1.70</td>
<td>7.48</td>
</tr>
<tr>
<td>Metallurgical Industries</td>
<td>82.57</td>
<td>-</td>
<td>82.57</td>
</tr>
<tr>
<td>Mechanical Industries</td>
<td>27.04</td>
<td>3.50</td>
<td>30.54</td>
</tr>
<tr>
<td>Electrical &amp; Electronic Industries</td>
<td>13.55</td>
<td>-</td>
<td>13.55</td>
</tr>
<tr>
<td>Automotive Industries</td>
<td>12.13</td>
<td>-</td>
<td>12.13</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>-</td>
<td>-</td>
<td>3.00</td>
</tr>
<tr>
<td>Technical Assistance</td>
<td>4.32</td>
<td>-</td>
<td>4.32</td>
</tr>
<tr>
<td>Total</td>
<td>252.14</td>
<td>25.00</td>
<td>277.14</td>
</tr>
</tbody>
</table>

Source: PBO, Iran's Fifth Development Plan, Revised, A Summary (PBO, May 1975)
### Table 3:30

Total Credits for Industry During the Fifth Plan  
(billion rials)

<table>
<thead>
<tr>
<th>Current Credits for Maintenance of Operational Status Quo</th>
<th>Development Credits</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Fixed</td>
<td>Non-Fixed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2 + 3)</td>
</tr>
<tr>
<td><strong>Food Industries</strong></td>
<td>1.53</td>
<td>8.94</td>
</tr>
<tr>
<td><strong>Textiles, Handicrafts, Rural &amp; Leather Industries</strong></td>
<td>1.68</td>
<td>5.18</td>
</tr>
<tr>
<td><strong>Cellulose &amp; Printing</strong></td>
<td>-</td>
<td>17.49</td>
</tr>
<tr>
<td><strong>Chemicals &amp; Petrochemicals</strong></td>
<td>-</td>
<td>75.14</td>
</tr>
<tr>
<td><strong>Non-metallic Minerals</strong></td>
<td>-</td>
<td>5.78</td>
</tr>
<tr>
<td><strong>Metallurgical Industries</strong></td>
<td>2.50</td>
<td>82.57</td>
</tr>
<tr>
<td><strong>Mechanical Industries</strong></td>
<td>-</td>
<td>27.04</td>
</tr>
<tr>
<td><strong>Automotive Industries</strong></td>
<td>-</td>
<td>12.13</td>
</tr>
<tr>
<td><strong>Industrial Credits</strong></td>
<td>-</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Technical Assistance</strong></td>
<td>-</td>
<td>4.32</td>
</tr>
<tr>
<td><strong>Supervision of Industrial Affairs</strong></td>
<td>3.30</td>
<td>-</td>
</tr>
<tr>
<td><strong>Studies &amp; Research</strong></td>
<td>0.94</td>
<td>-</td>
</tr>
<tr>
<td><strong>Administrative Services</strong></td>
<td>1.05</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11.00</td>
<td>352.14</td>
</tr>
</tbody>
</table>

*Source: PBO, Iran’s Fifth Development Plan, Revised, A Summary (PBO, May 1975)*
Table 3:31
Characteristics of Operation and Commencement Permits
Issued for Manufacturing Establishments
(million rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number Issued</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Permits</td>
<td>69</td>
<td>295</td>
<td>299</td>
<td>179</td>
<td>146</td>
<td>97</td>
<td>114</td>
<td>123</td>
<td>142120</td>
<td></td>
</tr>
<tr>
<td>Commencement Permits</td>
<td>302</td>
<td>596</td>
<td>743</td>
<td>527</td>
<td>541</td>
<td>689</td>
<td>386</td>
<td>325</td>
<td>413483</td>
<td></td>
</tr>
<tr>
<td><strong>Total Capital</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Permits</td>
<td>1361</td>
<td>3473</td>
<td>4020</td>
<td>4355</td>
<td>12935</td>
<td>6130</td>
<td>4592</td>
<td>115907532</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commencement Permits</td>
<td>6699</td>
<td>7687</td>
<td>28317</td>
<td>12917</td>
<td>16738</td>
<td>22373</td>
<td>15812</td>
<td>12572</td>
<td>1075135703*</td>
<td></td>
</tr>
<tr>
<td><strong>Value of Machinery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction &amp; Land</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Permits</td>
<td>929</td>
<td>2404</td>
<td>2750</td>
<td>3011</td>
<td>2585</td>
<td>8650</td>
<td>4140</td>
<td>3293</td>
<td>53534306</td>
<td></td>
</tr>
<tr>
<td>Commencement Permits</td>
<td>3181</td>
<td>4915</td>
<td>17529</td>
<td>6725</td>
<td>9848</td>
<td>16385</td>
<td>12246</td>
<td>11146</td>
<td>755432357</td>
<td></td>
</tr>
<tr>
<td><strong>Total Employees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Permits</td>
<td>3410</td>
<td>7633</td>
<td>6806</td>
<td>5348</td>
<td>3949</td>
<td>5062</td>
<td>6470</td>
<td>5231</td>
<td>79916583</td>
<td></td>
</tr>
<tr>
<td>Commencement Permits</td>
<td>9542</td>
<td>15561</td>
<td>26691</td>
<td>11272</td>
<td>19729</td>
<td>22705</td>
<td>12218</td>
<td>6283</td>
<td>915510715</td>
<td></td>
</tr>
</tbody>
</table>

* Increase in the investment proposed in 1973 mainly due to the Petrochemical Complex to have been established in collaboration with Japan, with a capital of 28 billion rials.

Source: Ministry of Economy, (Bureau of Statistics)
*Trends in Industrial and Commercial Statistics* (First Quarter, 1974)
Table 3:32  
Loans of the Specialised Banks*  
(million rials)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Application for Loans</th>
<th>Amount Demanded</th>
<th>Amount Approved</th>
<th>Amount Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>618</td>
<td>60,212</td>
<td>58,956</td>
<td>50,809</td>
</tr>
<tr>
<td>1976</td>
<td>582</td>
<td>83,198</td>
<td>65,324</td>
<td>54,932</td>
</tr>
<tr>
<td>1977</td>
<td>582</td>
<td>87,143</td>
<td>60,903</td>
<td>61,982</td>
</tr>
<tr>
<td>1978</td>
<td>329</td>
<td>51,577</td>
<td>47,724</td>
<td>37,487</td>
</tr>
</tbody>
</table>

* Includes specialised loans  

Source: Bank Markazi, *Annual Report and Balance Sheet, 1358 (1979)*
Table 3:33
Loan Operations of the Industrial and Mining Development Bank of Iran 1970-78
(billion rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Applications</td>
<td>111.0</td>
<td>77.0</td>
<td>164.0</td>
<td>167.0</td>
<td>186.0</td>
<td>221.0</td>
<td>582.0</td>
<td>582.0</td>
<td>329.0</td>
</tr>
<tr>
<td>Amount Demanded</td>
<td>83.2</td>
<td>87.1</td>
<td>51.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount Approved</td>
<td>4.5</td>
<td>6.8</td>
<td>8.1</td>
<td>17.4</td>
<td>24.2</td>
<td>37.2</td>
<td>65.8</td>
<td>60.9</td>
<td>47.7</td>
</tr>
<tr>
<td>Amount Signed</td>
<td>4.5</td>
<td>5.3</td>
<td>6.4</td>
<td>11.1</td>
<td>19.6</td>
<td>34.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount Paid</td>
<td>3.3</td>
<td>4.6</td>
<td>4.8</td>
<td>7.5</td>
<td>12.7</td>
<td>33.6</td>
<td>54.9</td>
<td>62.0</td>
<td>7.4</td>
</tr>
</tbody>
</table>

From 1972 approximately one quarter of the total of loans paid by the IMDBI related to working capital.

### Table 3:34

**Loan Operations of the Industrial Credit Bank**
(billion rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Applications</td>
<td>141</td>
<td>120</td>
<td>208</td>
<td>222</td>
<td>232</td>
<td>295</td>
</tr>
<tr>
<td>Amount Requested</td>
<td>2.82</td>
<td>3.85</td>
<td>5.78</td>
<td>11.42</td>
<td>23.49</td>
<td>31.82</td>
</tr>
<tr>
<td>Amount Approved</td>
<td>1.32</td>
<td>2.86</td>
<td>3.55</td>
<td>8.23</td>
<td>18.95</td>
<td>19.49</td>
</tr>
<tr>
<td>Industrial Loans</td>
<td>(1.05)</td>
<td>(2.20)</td>
<td>(2.45)</td>
<td>(6.94)</td>
<td>(18.35)</td>
<td>(19.12)</td>
</tr>
<tr>
<td>Working Capital</td>
<td>(0.26)</td>
<td>0.66</td>
<td>(1.09)</td>
<td>(1.29)</td>
<td>(0.61)</td>
<td>(0.37)</td>
</tr>
<tr>
<td>Amount Granted</td>
<td>1.29</td>
<td>0.85</td>
<td>2.57</td>
<td>4.19</td>
<td>7.84</td>
<td>13.75</td>
</tr>
<tr>
<td>Industrial Loans</td>
<td>(0.90)</td>
<td>(0.77)</td>
<td>(1.74)</td>
<td>(2.77)</td>
<td>(7.28)</td>
<td>(12.91)</td>
</tr>
<tr>
<td>Working Capital</td>
<td>(0.39)</td>
<td>(0.07)</td>
<td>(0.83)</td>
<td>(1.42)</td>
<td>(0.56)</td>
<td>(0.84)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>As at 20 March 1978</th>
<th>Oct.59 - March 78</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total No.</td>
<td>No. of Borrowers</td>
</tr>
<tr>
<td></td>
<td>of Borrowers</td>
<td>w Foreign</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Consumer Goods</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textiles</td>
<td>169</td>
<td>13</td>
</tr>
<tr>
<td>Food</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper &amp; Printing</td>
<td>181</td>
<td>75</td>
</tr>
<tr>
<td>Chemicals &amp; Pharmaceuticals</td>
<td>38</td>
<td>30</td>
</tr>
<tr>
<td>Rubber &amp; Tyres</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Non-Metal Minerals</td>
<td>61</td>
<td>13</td>
</tr>
<tr>
<td>Metallurgy</td>
<td>58</td>
<td>25</td>
</tr>
<tr>
<td>Capital Goods &amp; Consumer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery (non-electrical)</td>
<td>54</td>
<td>36</td>
</tr>
<tr>
<td>Machinery (electrical)</td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>Automotive</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>23</td>
<td>17</td>
</tr>
<tr>
<td>Total (excl. miscellaneous)</td>
<td>427</td>
<td>141</td>
</tr>
<tr>
<td>Total (incl. miscellaneous)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total No. of Borrowers from October 1959 - March 1978: 650

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Industries</td>
<td>317</td>
<td>1,059</td>
<td>1,520</td>
<td>3,792</td>
<td>2,034</td>
<td>4,034</td>
<td>1.9</td>
<td>4.5</td>
</tr>
<tr>
<td>Handicrafts</td>
<td>30</td>
<td>246</td>
<td>1,006</td>
<td>3,707</td>
<td>2,215</td>
<td>1,909</td>
<td>0.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Cellulose &amp; Printing</td>
<td>899</td>
<td>3,763</td>
<td>4,752</td>
<td>6,175</td>
<td>9,290</td>
<td>7,384</td>
<td>5.3</td>
<td>8.2</td>
</tr>
<tr>
<td>Chemicals &amp; Petrochemicals</td>
<td>2,419</td>
<td>6,119</td>
<td>18,347</td>
<td>8,333</td>
<td>15,357</td>
<td>10,693</td>
<td>14.2</td>
<td>11.9</td>
</tr>
<tr>
<td>Non-Metal Minerals</td>
<td>510</td>
<td>2,000</td>
<td>3,504</td>
<td>4,702</td>
<td>6,939</td>
<td>4,127</td>
<td>3.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Metallurgical &amp; Metal Industries</td>
<td>10,404</td>
<td>14,718</td>
<td>22,696</td>
<td>28,689</td>
<td>48,742</td>
<td>48,903</td>
<td>61.2</td>
<td>54.5</td>
</tr>
<tr>
<td>Mechanical Industry</td>
<td>1,558</td>
<td>2,552</td>
<td>6,155</td>
<td>5,711</td>
<td>5,949</td>
<td>3,250</td>
<td>9.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Transportation Vehicles</td>
<td>424</td>
<td>3,154</td>
<td>4,248</td>
<td>5,716</td>
<td>9,393</td>
<td>7,178</td>
<td>2.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Electric &amp; Electronic Industries</td>
<td>271</td>
<td>1,000</td>
<td>2,410</td>
<td>1,650</td>
<td>1,599</td>
<td>1,500</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Technical Aid</td>
<td>165</td>
<td>420</td>
<td>404</td>
<td>512</td>
<td>838</td>
<td>483</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Programme of Industrial Supervision &amp; Research</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>387</td>
<td>183</td>
<td>125</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Total Industry</td>
<td>17,010</td>
<td>35,031</td>
<td>65,042</td>
<td>69,374</td>
<td>102,539</td>
<td>89,723</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Mines</td>
<td>6,500</td>
<td>15,201</td>
<td>18,353</td>
<td>11,820</td>
<td>14,953</td>
<td>20,810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Credits Projects</td>
<td>1,750</td>
<td>28,770</td>
<td>20,000</td>
<td>10,750</td>
<td>14,050</td>
<td>4,250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>25,260</td>
<td>79,002</td>
<td>103,395</td>
<td>81,944</td>
<td>131,542</td>
<td>114,843</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3:37

Gross Domestic Fixed Capital Formation and Consumption Expenditure
(billion rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Private Sector</td>
<td>31.9</td>
<td>31.1</td>
<td>144.0</td>
<td>160.4</td>
<td>225.2</td>
<td>521.6</td>
<td>663.0</td>
<td>776.8</td>
</tr>
<tr>
<td>Machinery</td>
<td>(77.7)</td>
<td>(83.1)</td>
<td>(112.1)</td>
<td>(331.5)</td>
<td>(355.2)</td>
<td>(353.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>(66.3)</td>
<td>(77.3)</td>
<td>(113.1)</td>
<td>(190.1)</td>
<td>(307.8)</td>
<td>(423.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Public Sector</td>
<td>20.8</td>
<td>20.4</td>
<td>143.4</td>
<td>202.9</td>
<td>336.8</td>
<td>544.0</td>
<td>814.9</td>
<td>1055.1</td>
</tr>
<tr>
<td>Machinery</td>
<td>(35.2)</td>
<td>(57.0)</td>
<td>(108.7)</td>
<td>(133.1)</td>
<td>(219.1)</td>
<td>(286.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>(108.2)</td>
<td>(145.9)</td>
<td>(228.1)</td>
<td>(410.9)</td>
<td>(595.8)</td>
<td>(768.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Domestic Fixed Capital Formation</td>
<td>49.8</td>
<td>51.5</td>
<td>287.4</td>
<td>363.3</td>
<td>562.0</td>
<td>1,065.6</td>
<td>1,477.9</td>
<td>1,831.9</td>
</tr>
<tr>
<td>Machinery</td>
<td>(21.3)</td>
<td>(13.8)</td>
<td>(112.9)</td>
<td>(140.1)</td>
<td>(220.8)</td>
<td>(464.6)</td>
<td>(574.3)</td>
<td>(639.7)</td>
</tr>
<tr>
<td>Construction</td>
<td>(31.4)</td>
<td>(37.7)</td>
<td>(174.5)</td>
<td>(223.2)</td>
<td>(341.2)</td>
<td>(601.0)</td>
<td>(903.6)</td>
<td>(1,192.2)</td>
</tr>
<tr>
<td>Ratio of Private to Government Investment</td>
<td>1.53</td>
<td>1.52</td>
<td>1.00</td>
<td>0.79</td>
<td>0.67</td>
<td>0.96</td>
<td>0.81</td>
<td>0.74</td>
</tr>
<tr>
<td>Annual Average Growth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Private Sector</td>
<td>-0.6</td>
<td>18.6</td>
<td>48.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Public Sector</td>
<td>-0.5</td>
<td>24.2</td>
<td>51.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total GDFCF</td>
<td>0.8</td>
<td>21.0</td>
<td>49.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery</td>
<td>-10.3</td>
<td>26.3</td>
<td>46.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>-4.7</td>
<td>18.6</td>
<td>52.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Consumption</td>
<td>209.4</td>
<td>262.1</td>
<td>686.6</td>
<td>879.7</td>
<td>1,127.8</td>
<td>1,316.0</td>
<td>1,532.5</td>
<td>2,160.8</td>
</tr>
<tr>
<td>Public Consumption</td>
<td>30.5</td>
<td>40.3</td>
<td>252.6</td>
<td>325.4</td>
<td>628.3</td>
<td>807.4</td>
<td>1,003.6</td>
<td>1,073.8</td>
</tr>
</tbody>
</table>

Constant 1974 Prices

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Private Sector</td>
<td>198.9</td>
<td>200.3</td>
<td>225.2</td>
<td>451.4</td>
<td>509.8</td>
<td>505.4</td>
</tr>
<tr>
<td>Total Public Sector</td>
<td>211.6</td>
<td>256.3</td>
<td>336.8</td>
<td>472.2</td>
<td>604.6</td>
<td>647.2</td>
</tr>
<tr>
<td>Gross Domestic Fixed Capital Formation</td>
<td>410.5</td>
<td>456.6</td>
<td>562.0</td>
<td>923.6</td>
<td>1,114.4</td>
<td>1,152.6</td>
</tr>
<tr>
<td>Private Consumption</td>
<td>880.3</td>
<td>1,014.6</td>
<td>1,127.8</td>
<td>1,207.3</td>
<td>1,242.9</td>
<td>1,422.5</td>
</tr>
<tr>
<td>Public Consumption</td>
<td>354.2</td>
<td>427.9</td>
<td>628.3</td>
<td>722.5</td>
<td>796.0</td>
<td>786.0</td>
</tr>
</tbody>
</table>

(N.B. His figures for machinery and construction have been erroneously transposed.)
Bank Markazi, Annual Report & Balance Sheet, 1356 (1977)
OECD, Latest Information on National Accounts of Developing Countries, No. 11, 1979

381
Table 3:38
Projected Demand and Supply of Manpower
by Occupations During the Fifth Plan
(thousand persons)

<table>
<thead>
<tr>
<th>Category</th>
<th>Demand</th>
<th>Supply</th>
<th>Shortage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architects, Town Planners, Civil Servants</td>
<td>7.8</td>
<td>4.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Electrical and Electronic Engineers</td>
<td>5.5</td>
<td>2.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Mechanical Engineers</td>
<td>6.9</td>
<td>4.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Chemical, Mining &amp; Metallurgical Engineers</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Other Engineers</td>
<td>14.2</td>
<td>8.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Senior Medical Personnel</td>
<td>8.5</td>
<td>7.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Other Medical Personnel</td>
<td>35.6</td>
<td>14.3</td>
<td>21.3</td>
</tr>
<tr>
<td>Educational Personnel</td>
<td>287.4</td>
<td>230.0</td>
<td>57.4</td>
</tr>
<tr>
<td>Higher Educational Personnel</td>
<td>22.5</td>
<td>21.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Technicians</td>
<td>116.6</td>
<td>75.0</td>
<td>41.6</td>
</tr>
<tr>
<td>Other Technical and Vocational Personnel</td>
<td>8.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Managerial, Administrative &amp; Sales Personnel</td>
<td>185.0</td>
<td>185.0</td>
<td>-</td>
</tr>
<tr>
<td>Mining, Drilling and Extractive Workers</td>
<td>23.0</td>
<td>15.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Transport Workers</td>
<td>41.0</td>
<td>41.0</td>
<td>-</td>
</tr>
<tr>
<td>Skilled &amp; Semi-Skilled Industrial Workers</td>
<td>520.0</td>
<td>230.0</td>
<td>290.0</td>
</tr>
<tr>
<td>Skilled Construction Workers</td>
<td>290.0</td>
<td>20.0</td>
<td>270.0</td>
</tr>
<tr>
<td>Unskilled Workers</td>
<td>538.0</td>
<td>528.0</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,112.0</strong></td>
<td><strong>1,390.8</strong></td>
<td><strong>721.2</strong></td>
</tr>
</tbody>
</table>

*Source: Plan and Budget Organisation of Iran*
### Table 3:39

Inflow of Foreign Private Capital and Loans through the Center for Attraction and Protection of Foreign Investments (million rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agro-industry</td>
<td>83</td>
<td>122</td>
<td>458</td>
<td>33</td>
<td>263</td>
<td>1</td>
<td>-</td>
<td>5.6</td>
<td>-</td>
</tr>
<tr>
<td>Mining</td>
<td>140</td>
<td>146</td>
<td>274</td>
<td>109</td>
<td>12</td>
<td>-</td>
<td>230</td>
<td>9.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Food</td>
<td>24</td>
<td>119</td>
<td>114</td>
<td>9</td>
<td>10</td>
<td>86</td>
<td>242</td>
<td>1.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Rubber</td>
<td>155</td>
<td>118</td>
<td>233</td>
<td>1,209</td>
<td>654</td>
<td>244</td>
<td>277</td>
<td>10.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Pharmaceuticals &amp; Chemicals</td>
<td>351</td>
<td>114</td>
<td>79</td>
<td>140</td>
<td>253</td>
<td>172</td>
<td>321</td>
<td>23.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>64</td>
<td>-</td>
<td>1,121</td>
<td>1,336</td>
<td>911</td>
<td>2,309</td>
<td>2,524</td>
<td>4.3</td>
<td>39.8</td>
</tr>
<tr>
<td>Metallurgy</td>
<td>118</td>
<td>171</td>
<td>11</td>
<td>422</td>
<td>273</td>
<td>1,733</td>
<td>1,478</td>
<td>8.0</td>
<td>23.3</td>
</tr>
<tr>
<td>Electrical &amp; Electronic Industries</td>
<td>276</td>
<td>195</td>
<td>194</td>
<td>511</td>
<td>251</td>
<td>481</td>
<td>358</td>
<td>18.8</td>
<td>5.6</td>
</tr>
<tr>
<td>Automobile Industry &amp; Transportation</td>
<td>76</td>
<td>99</td>
<td>1,027</td>
<td>22</td>
<td>675</td>
<td>111</td>
<td>-</td>
<td>5.2</td>
<td>-</td>
</tr>
<tr>
<td>Building Materials &amp; Construction</td>
<td>74</td>
<td>23</td>
<td>64</td>
<td>201</td>
<td>169</td>
<td>-</td>
<td>205</td>
<td>5.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Hotels</td>
<td>55</td>
<td>63</td>
<td>24</td>
<td>52</td>
<td>14</td>
<td>152</td>
<td>53</td>
<td>3.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Other</td>
<td>56</td>
<td>166</td>
<td>415</td>
<td>456</td>
<td>491</td>
<td>1,248</td>
<td>660</td>
<td>3.8</td>
<td>10.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,472</strong></td>
<td><strong>1,336</strong></td>
<td><strong>4,044</strong></td>
<td><strong>4,500</strong></td>
<td><strong>3,976</strong></td>
<td><strong>6,537</strong></td>
<td><strong>6,348</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Source:** Bank Markazi, *Annual Report and Balance Sheet, 1356 (1977)*
### Table 3:40

Inflow of Foreign Private Loans and Capital by the CAPFI by Countries

(million rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>502</td>
<td>349</td>
<td>1,090</td>
<td>797</td>
<td>589</td>
<td>1,324</td>
<td>1,197</td>
<td>34.1</td>
<td>18.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>268</td>
<td>29</td>
<td>25</td>
<td>52</td>
<td>135</td>
<td>148</td>
<td>302</td>
<td>18.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Germany</td>
<td>295</td>
<td>131</td>
<td>662</td>
<td>130</td>
<td>238</td>
<td>1,730</td>
<td>238</td>
<td>20.0</td>
<td>3.7</td>
</tr>
<tr>
<td>France</td>
<td>127</td>
<td>102</td>
<td>23</td>
<td>61</td>
<td>629</td>
<td>214</td>
<td>566</td>
<td>8.6</td>
<td>8.9</td>
</tr>
<tr>
<td>Japan</td>
<td>55</td>
<td>221</td>
<td>1,659</td>
<td>2,867</td>
<td>1,707</td>
<td>2,728</td>
<td>2,524</td>
<td>3.7</td>
<td>39.8</td>
</tr>
<tr>
<td>Italy</td>
<td>225</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>78</td>
<td>39</td>
<td>1,001</td>
<td>15.3</td>
<td>15.8</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>499</td>
<td>585</td>
<td>593</td>
<td>600</td>
<td>354</td>
<td>520</td>
<td>-</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,472</td>
<td>1,336</td>
<td>4,044</td>
<td>4,500</td>
<td>3,976</td>
<td>6,537</td>
<td>6,348</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Bank Markazi, Annual Report and Balance Sheet, 1356 (1977)
<table>
<thead>
<tr>
<th></th>
<th>Foreign Shareholding (%)</th>
<th>Total No. of Foreign Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 - 35</td>
<td>36 - 50</td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Textiles</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Other Consumer Goods</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Paper &amp; Printing</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Chemicals</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Non-Metallic Minerals</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Metallurgy</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Electric &amp; Non-Electric Machinery, &amp; Automotive</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>26</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td><strong>108</strong></td>
<td><strong>89</strong></td>
</tr>
<tr>
<td>Total (%)</td>
<td>48.4</td>
<td>39.9</td>
</tr>
</tbody>
</table>

Source: Center for the Attraction and Protection of Foreign Investments, *List of Foreign Investors in Iran up to March, 1978* (Tehran: 1978)
### Table 3:42
Composition of Imports, 1971 - 78
(million dollars; current prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Goods</td>
<td>242</td>
<td>332</td>
<td>557</td>
<td>1,017</td>
<td>1,995</td>
<td>2,250</td>
<td>2,697</td>
<td>2,114</td>
<td>11.8</td>
<td>18.4</td>
</tr>
<tr>
<td>Intermediate Goods</td>
<td>1,336</td>
<td>1,596</td>
<td>2,274</td>
<td>4,266</td>
<td>6,212</td>
<td>6,713</td>
<td>7,910</td>
<td>5,350</td>
<td>64.8</td>
<td>54.1</td>
</tr>
<tr>
<td>Agriculture</td>
<td>29</td>
<td>29</td>
<td>48</td>
<td>122</td>
<td>240</td>
<td>148</td>
<td>257</td>
<td>164</td>
<td>1.4</td>
<td>1.8</td>
</tr>
<tr>
<td>Manufacturing*</td>
<td>1,111</td>
<td>1,266</td>
<td>1,912</td>
<td>3,324</td>
<td>4,337</td>
<td>4,773</td>
<td>5,679</td>
<td>3,919</td>
<td>53.9</td>
<td>38.8</td>
</tr>
<tr>
<td>Construction</td>
<td>139</td>
<td>204</td>
<td>238</td>
<td>376</td>
<td>917</td>
<td>987</td>
<td>1,186</td>
<td>650</td>
<td>6.7</td>
<td>8.1</td>
</tr>
<tr>
<td>Services</td>
<td>58</td>
<td>97</td>
<td>76</td>
<td>444</td>
<td>718</td>
<td>805</td>
<td>788</td>
<td>617</td>
<td>2.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>483</td>
<td>642</td>
<td>906</td>
<td>1,331</td>
<td>3,489</td>
<td>3,803</td>
<td>4,019</td>
<td>2,908</td>
<td>23.4</td>
<td>27.5</td>
</tr>
<tr>
<td>Agriculture</td>
<td>34</td>
<td>62</td>
<td>73</td>
<td>96</td>
<td>290</td>
<td>234</td>
<td>204</td>
<td>108</td>
<td>1.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Manufacturing*</td>
<td>317</td>
<td>412</td>
<td>560</td>
<td>770</td>
<td>1,760</td>
<td>2,244</td>
<td>2,588</td>
<td>1,858</td>
<td>15.4</td>
<td>17.7</td>
</tr>
<tr>
<td>Services</td>
<td>133</td>
<td>168</td>
<td>273</td>
<td>465</td>
<td>1,439</td>
<td>1,325</td>
<td>1,227</td>
<td>942</td>
<td>6.4</td>
<td>8.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,061</td>
<td>2,570</td>
<td>3,737</td>
<td>6,614</td>
<td>11,696</td>
<td>12,766</td>
<td>14,826</td>
<td>10,372</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Includes mining

Table 3:43

Value and Distribution of Imports by Main Countries 1973-78*
(million dollars; current prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>477</td>
<td>1,313</td>
<td>2,316</td>
<td>1,974</td>
<td>2,347</td>
<td>1,508</td>
<td>13.0</td>
</tr>
<tr>
<td>Canada</td>
<td>23</td>
<td>56</td>
<td>84</td>
<td>103</td>
<td>121</td>
<td>57</td>
<td>0.6</td>
</tr>
<tr>
<td>W. Germany</td>
<td>717</td>
<td>1,178</td>
<td>2,033</td>
<td>2,273</td>
<td>2,789</td>
<td>2,142</td>
<td>19.6</td>
</tr>
<tr>
<td>UK</td>
<td>342</td>
<td>508</td>
<td>989</td>
<td>890</td>
<td>1,028</td>
<td>843</td>
<td>9.4</td>
</tr>
<tr>
<td>Italy</td>
<td>137</td>
<td>197</td>
<td>418</td>
<td>735</td>
<td>810</td>
<td>596</td>
<td>3.8</td>
</tr>
<tr>
<td>France</td>
<td>176</td>
<td>241</td>
<td>519</td>
<td>715</td>
<td>661</td>
<td>508</td>
<td>4.8</td>
</tr>
<tr>
<td>Netherlands</td>
<td>88</td>
<td>152</td>
<td>332</td>
<td>443</td>
<td>489</td>
<td>215</td>
<td>2.4</td>
</tr>
<tr>
<td>Belgium</td>
<td>112</td>
<td>172</td>
<td>291</td>
<td>279</td>
<td>348</td>
<td>257</td>
<td>3.0</td>
</tr>
<tr>
<td>Switzerland</td>
<td>71</td>
<td>115</td>
<td>188</td>
<td>227</td>
<td>271</td>
<td>275</td>
<td>1.9</td>
</tr>
<tr>
<td>Sweden</td>
<td>52</td>
<td>79</td>
<td>151</td>
<td>140</td>
<td>192</td>
<td>145</td>
<td>1.4</td>
</tr>
<tr>
<td>Spain</td>
<td>28</td>
<td>35</td>
<td>126</td>
<td>109</td>
<td>140</td>
<td>259</td>
<td>0.8</td>
</tr>
<tr>
<td>Japan</td>
<td>537</td>
<td>993</td>
<td>1,853</td>
<td>2,200</td>
<td>2,321</td>
<td>1,757</td>
<td>14.7</td>
</tr>
<tr>
<td>Australia</td>
<td>51</td>
<td>67</td>
<td>191</td>
<td>172</td>
<td>228</td>
<td>151</td>
<td>1.4</td>
</tr>
<tr>
<td>Turkey</td>
<td>15</td>
<td>38</td>
<td>55</td>
<td>41</td>
<td>40</td>
<td>23</td>
<td>0.4</td>
</tr>
<tr>
<td>India</td>
<td>54</td>
<td>113</td>
<td>435</td>
<td>315</td>
<td>193</td>
<td>94</td>
<td>1.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>52</td>
<td>24</td>
<td>59</td>
<td>66</td>
<td>69</td>
<td>68</td>
<td>1.4</td>
</tr>
<tr>
<td>USSR</td>
<td>209</td>
<td>269</td>
<td>390</td>
<td>289</td>
<td>376</td>
<td>633</td>
<td>5.7</td>
</tr>
<tr>
<td>E. Europe</td>
<td>125</td>
<td>145</td>
<td>316</td>
<td>389</td>
<td>541</td>
<td>651</td>
<td>3.4</td>
</tr>
<tr>
<td>Others</td>
<td>393</td>
<td>848</td>
<td>840</td>
<td>1,146</td>
<td>1,483</td>
<td>190</td>
<td>10.7</td>
</tr>
<tr>
<td>Total Imports</td>
<td>3,659</td>
<td>6,543</td>
<td>11,586</td>
<td>12,506</td>
<td>14,447</td>
<td>10,372</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Excludes military-related imports

Source: Kamram Mofid, Iran: Oil Revenues, Development Planning and Industrialisation PhD. Thesis (University of Birmingham: 1985), pp. 330 & 333
### Table 3:44

Patterns of Imports and Exports  
(billions of rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(current prices)</td>
<td>50.8</td>
<td>39.7</td>
<td>266.7</td>
<td>354.7</td>
<td>1488.4</td>
<td>-6.0</td>
<td>23.6</td>
<td>43.1</td>
</tr>
<tr>
<td><strong>Consumer Good Imports/Total Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30.2</td>
<td>24.1</td>
<td>12.9</td>
<td>14.9</td>
<td>18.6</td>
<td>-5.5</td>
<td>-6.7</td>
<td>5.7</td>
</tr>
<tr>
<td><strong>Intermediate Good Imports/Total Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>49.2</td>
<td>55.5</td>
<td>62.1</td>
<td>60.8</td>
<td>54.2</td>
<td>3.1</td>
<td>1.3</td>
<td>-1.3</td>
</tr>
<tr>
<td><strong>Capital Good Imports/Total Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20.6</td>
<td>20.3</td>
<td>25.0</td>
<td>24.2</td>
<td>27.2</td>
<td>-0.4</td>
<td>2.3</td>
<td>-3.0</td>
</tr>
<tr>
<td><strong>Imports/GNP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(current prices)</td>
<td>18.0</td>
<td>11.0</td>
<td>21.7</td>
<td>19.4</td>
<td>27.8</td>
<td>-11.6</td>
<td>7.8</td>
<td>9.4</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(constant prices)</td>
<td>50.8</td>
<td>38.9</td>
<td>195.6</td>
<td>216.8</td>
<td>600.9</td>
<td>-6.5</td>
<td>19.7</td>
<td>29.0</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(current prices)</td>
<td>60.2</td>
<td>80.0</td>
<td>308.5</td>
<td>654.9</td>
<td>1815.2</td>
<td>7.4</td>
<td>16.2</td>
<td>12.0</td>
</tr>
<tr>
<td><strong>Exports/GNP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.3</td>
<td>22.2</td>
<td>25.1</td>
<td>35.7</td>
<td>33.9</td>
<td>1.0</td>
<td>1.4</td>
<td>-1.3</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(constant prices)</td>
<td>60.2</td>
<td>75.4</td>
<td>239.7</td>
<td>481.1</td>
<td>743.4</td>
<td>5.8</td>
<td>13.7</td>
<td>11.5</td>
</tr>
</tbody>
</table>

**Source:** Robert E. Looney, *Economic Origins of the Iranian Revolution*  
Table 3:45  
Value of Exports, 1971-78*  
(million dollars: current prices)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional and Agricultural Goods</td>
<td>256.4</td>
<td>318.0</td>
<td>505.1</td>
<td>385.6</td>
<td>413.7</td>
<td>377.1</td>
<td>443.0</td>
<td>368.9</td>
<td>76.6</td>
<td>70.9</td>
</tr>
<tr>
<td>Carpets</td>
<td>75.5</td>
<td>90.6</td>
<td>108.0</td>
<td>119.1</td>
<td>105.6</td>
<td>94.5</td>
<td>82.8</td>
<td>83.9</td>
<td>22.6</td>
<td>13.2</td>
</tr>
<tr>
<td>Cotton</td>
<td>67.4</td>
<td>78.9</td>
<td>150.1</td>
<td>85.3</td>
<td>136.2</td>
<td>122.3</td>
<td>96.2</td>
<td>103.0</td>
<td>20.1</td>
<td>15.4</td>
</tr>
<tr>
<td>Fresh &amp; Dried Fruit</td>
<td>35.5</td>
<td>57.4</td>
<td>94.6</td>
<td>71.8</td>
<td>74.7</td>
<td>70.3</td>
<td>119.2</td>
<td>74.9</td>
<td>10.6</td>
<td>19.1</td>
</tr>
<tr>
<td>Skin &amp; Leather</td>
<td>17.2</td>
<td>28.2</td>
<td>28.8</td>
<td>27.8</td>
<td>28.3</td>
<td>31.9</td>
<td>39.9</td>
<td>39.2</td>
<td>5.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Caviar</td>
<td>5.4</td>
<td>8.3</td>
<td>8.0</td>
<td>7.4</td>
<td>7.2</td>
<td>0.5</td>
<td>9.7</td>
<td>7.0</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Casings</td>
<td>5.6</td>
<td>6.2</td>
<td>8.9</td>
<td>8.8</td>
<td>11.5</td>
<td>10.5</td>
<td>10.6</td>
<td>11.1</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Gum Tragacanth</td>
<td>4.7</td>
<td>5.3</td>
<td>9.0</td>
<td>6.5</td>
<td>5.4</td>
<td>3.2</td>
<td>7.6</td>
<td>3.4</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Cumin Seed</td>
<td>2.6</td>
<td>4.0</td>
<td>4.1</td>
<td>6.2</td>
<td>4.4</td>
<td>5.7</td>
<td>6.7</td>
<td>7.6</td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Other</td>
<td>42.5</td>
<td>39.1</td>
<td>93.6</td>
<td>52.7</td>
<td>40.4</td>
<td>38.2</td>
<td>70.3</td>
<td>38.8</td>
<td>12.7</td>
<td>11.2</td>
</tr>
<tr>
<td>Minerals &amp; Metal Ores</td>
<td>16.5</td>
<td>19.2</td>
<td>23.9</td>
<td>32.8</td>
<td>32.8</td>
<td>10.2</td>
<td>46.6</td>
<td>10.9</td>
<td>4.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Industrial Products</td>
<td>61.7</td>
<td>102.6</td>
<td>105.7</td>
<td>163.1</td>
<td>145.7</td>
<td>152.6</td>
<td>135.6</td>
<td>163.0</td>
<td>18.4</td>
<td>21.7</td>
</tr>
<tr>
<td>Detergents &amp; Soap</td>
<td>7.9</td>
<td>15.6</td>
<td>5.8</td>
<td>12.1</td>
<td>22.1</td>
<td>19.3</td>
<td>16.1</td>
<td>9.1</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Glycerine &amp; Chemicals</td>
<td>4.1</td>
<td>14.8</td>
<td>16.0</td>
<td>22.0</td>
<td>18.5</td>
<td>31.6</td>
<td>17.7</td>
<td>44.5</td>
<td>1.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Shoes</td>
<td>8.4</td>
<td>13.0</td>
<td>11.0</td>
<td>7.4</td>
<td>9.6</td>
<td>5.7</td>
<td>8.1</td>
<td>3.8</td>
<td>2.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Sweets &amp; Biscuits</td>
<td>5.9</td>
<td>1.8</td>
<td>3.0</td>
<td>3.4</td>
<td>5.0</td>
<td>11.3</td>
<td>11.3</td>
<td>7.7</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Clothes, Knitwear &amp; Textiles</td>
<td>23.6</td>
<td>36.0</td>
<td>28.5</td>
<td>44.2</td>
<td>28.7</td>
<td>26.7</td>
<td>24.3</td>
<td>20.1</td>
<td>7.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Cement, Mosaics &amp; Building Stones</td>
<td>2.4</td>
<td>5.5</td>
<td>7.6</td>
<td>3.9</td>
<td>1.8</td>
<td>2.4</td>
<td>2.2</td>
<td>0.7</td>
<td>0.7</td>
<td>0.4</td>
</tr>
<tr>
<td>Road Motor Vehicles</td>
<td>4.5</td>
<td>2.0</td>
<td>11.7</td>
<td>21.2</td>
<td>28.3</td>
<td>24.2</td>
<td>13.1</td>
<td>9.5</td>
<td>1.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Other</td>
<td>4.9</td>
<td>13.9</td>
<td>22.1</td>
<td>48.9</td>
<td>31.7</td>
<td>31.4</td>
<td>42.8</td>
<td>67.6</td>
<td>1.5</td>
<td>6.8</td>
</tr>
<tr>
<td>Total</td>
<td>334.6</td>
<td>439.8</td>
<td>634.7</td>
<td>581.5</td>
<td>592.2</td>
<td>539.9</td>
<td>625.2</td>
<td>542.8</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Excluding oil and gas

## Table 3:46

Export Structure: Percentage Shares of Main Categories of Exports and Selected Commodity Groups, 1965, 1970, 1974-77

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Categories of Export</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Food Items</td>
<td>3.42</td>
<td>2.57</td>
<td>0.50</td>
<td>0.55</td>
<td>0.43</td>
<td>0.67</td>
</tr>
<tr>
<td>Agricultural Raw Materials</td>
<td>4.65</td>
<td>3.57</td>
<td>0.65</td>
<td>0.97</td>
<td>0.81</td>
<td>0.65</td>
</tr>
<tr>
<td>Fuels</td>
<td>88.72</td>
<td>88.62</td>
<td>97.33</td>
<td>97.04</td>
<td>97.61</td>
<td>97.60</td>
</tr>
<tr>
<td>Ores and Metals</td>
<td>0.79</td>
<td>1.20</td>
<td>0.31</td>
<td>0.25</td>
<td>0.07</td>
<td>0.27</td>
</tr>
<tr>
<td>Manufactured Goods</td>
<td>4.40</td>
<td>4.03</td>
<td>1.21</td>
<td>1.18</td>
<td>1.08</td>
<td>0.82</td>
</tr>
<tr>
<td>Chemicals</td>
<td>(0.57)</td>
<td>(0.56)</td>
<td>(0.18)</td>
<td>(0.18)</td>
<td>(0.21)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Machinery &amp; Equipment</td>
<td>(0.02)</td>
<td>(0.10)</td>
<td>(0.15)</td>
<td>(0.21)</td>
<td>(0.17)</td>
<td>(0.16)</td>
</tr>
<tr>
<td>Other Manufactured Goods</td>
<td>(3.81)</td>
<td>(3.37)</td>
<td>(0.88)</td>
<td>(0.80)</td>
<td>(0.69)</td>
<td>(0.53)</td>
</tr>
<tr>
<td><strong>Selected Commodity Groups</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereals</td>
<td>0.17</td>
<td>0.03</td>
<td>0.02</td>
<td>0.03</td>
<td>0.05</td>
<td>0.08</td>
</tr>
<tr>
<td>Crude &amp; Manufactured Fertiliser</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Crude Petroleum</td>
<td>68.09</td>
<td>74.85</td>
<td>90.41</td>
<td>91.54</td>
<td>92.64</td>
<td>91.10</td>
</tr>
<tr>
<td>Petroleum Products</td>
<td>18.64</td>
<td>13.20</td>
<td>6.34</td>
<td>4.81</td>
<td>4.51</td>
<td>5.47</td>
</tr>
<tr>
<td>Medical &amp; Pharmaceutical Products</td>
<td>0.03</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Textile Fibres, Yarn &amp; Clothing</td>
<td>6.78</td>
<td>5.22</td>
<td>1.17</td>
<td>1.39</td>
<td>1.11</td>
<td>0.79</td>
</tr>
<tr>
<td>Metal &amp; Metal Manufactures</td>
<td>0.02</td>
<td>0.06</td>
<td>0.18</td>
<td>0.09</td>
<td>0.08</td>
<td>0.05</td>
</tr>
<tr>
<td>Non-electrical Machinery</td>
<td>0.02</td>
<td>0.00</td>
<td>0.03</td>
<td>0.04</td>
<td>0.03</td>
<td>0.10</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>0.00</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Transport Equipment</td>
<td>0.00</td>
<td>0.08</td>
<td>0.10</td>
<td>0.15</td>
<td>0.13</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Total Value</strong></td>
<td><strong>1,303.0</strong></td>
<td><strong>2,445.3</strong></td>
<td><strong>21,574.9</strong></td>
<td><strong>20,114.4</strong></td>
<td><strong>22,579.6</strong></td>
<td><strong>25,943.0</strong></td>
</tr>
</tbody>
</table>
($ millions; current prices)

*Source: UN, Handbook of International Trade and Development Statistics, 1984*)
Table 3:47

Iran's Production, Consumption and Exports of Crude Oil 1967 - 78

<table>
<thead>
<tr>
<th>Year</th>
<th>Production of Crude Oil (Net)</th>
<th>Exports of Oil</th>
<th>Domestic Consumption of Oil Products</th>
<th>Average Crude Oil Export Price</th>
<th>Foreign Exchange Receipts From Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(thousand barrels per day)</td>
<td></td>
<td></td>
<td>US$ per barrel</td>
<td>(million dollars)</td>
</tr>
<tr>
<td>1967</td>
<td>2,582</td>
<td>2,134</td>
<td>132</td>
<td></td>
<td>1,268</td>
</tr>
<tr>
<td>1968</td>
<td>2,840</td>
<td>2,342</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>3,356</td>
<td>2,832</td>
<td>167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>3,808</td>
<td>3,291</td>
<td>183</td>
<td></td>
<td>1,268</td>
</tr>
<tr>
<td>1971</td>
<td>4,591</td>
<td>4,052</td>
<td>207</td>
<td>2.47</td>
<td>2,161</td>
</tr>
<tr>
<td>1972</td>
<td>5,223</td>
<td>4,676</td>
<td>226</td>
<td>5.24</td>
<td>2,536</td>
</tr>
<tr>
<td>1973</td>
<td>5,882</td>
<td>5,270</td>
<td>276</td>
<td>11.46</td>
<td>5,067</td>
</tr>
<tr>
<td>1974</td>
<td>5,904</td>
<td>5,244</td>
<td>318</td>
<td>11.02</td>
<td>18,671</td>
</tr>
<tr>
<td>1975</td>
<td>5,263</td>
<td>4,607</td>
<td>378</td>
<td>11.02</td>
<td>18,871</td>
</tr>
<tr>
<td>1976</td>
<td>6,019</td>
<td>5,280</td>
<td>443</td>
<td>11.76</td>
<td>20,488</td>
</tr>
<tr>
<td>1977</td>
<td>5,586</td>
<td>4,816</td>
<td>509</td>
<td></td>
<td>20,735</td>
</tr>
<tr>
<td>1978</td>
<td>4,252</td>
<td>3,455</td>
<td>517</td>
<td></td>
<td>17,867</td>
</tr>
</tbody>
</table>

### Table 3:48

**Iranian Ex-Factory and International Prices Comparison, 1971**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unit</td>
<td>Ex-Factory Price</td>
<td>International Price</td>
<td>Ratio to (2)</td>
</tr>
</tbody>
</table>

#### Consumer Goods

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biscuit (ordinary)</td>
<td>kgs</td>
<td>40</td>
<td>76</td>
<td>53</td>
<td>52</td>
</tr>
<tr>
<td>Biscuit (special)</td>
<td>kgs</td>
<td>64</td>
<td>98.5</td>
<td>65</td>
<td>41</td>
</tr>
<tr>
<td>Sugar</td>
<td>kgs</td>
<td>15.5</td>
<td>8.0</td>
<td>194</td>
<td>152</td>
</tr>
<tr>
<td>Canned Fruit &amp; Veg.</td>
<td>kgs</td>
<td>38</td>
<td>39</td>
<td>97</td>
<td>300-400</td>
</tr>
<tr>
<td>Vegetable Oil</td>
<td>kgs</td>
<td>51.5</td>
<td>52.9</td>
<td>97</td>
<td>101</td>
</tr>
<tr>
<td>Cotton Textiles</td>
<td>m²</td>
<td>20</td>
<td>16</td>
<td>125</td>
<td>50-80</td>
</tr>
<tr>
<td>Woollen Textiles</td>
<td>m²</td>
<td>228.9</td>
<td>234.4</td>
<td>97</td>
<td>137-157</td>
</tr>
</tbody>
</table>

#### Intermediate Goods

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Car Tyres</td>
<td>m²</td>
<td>1,000</td>
<td>950</td>
<td>105</td>
<td>{13-33}</td>
</tr>
<tr>
<td>Truck Tyres</td>
<td>m²</td>
<td>5,278</td>
<td>5,862</td>
<td>90</td>
<td>{13-33}</td>
</tr>
<tr>
<td>Radiator (auto)</td>
<td>m²</td>
<td>1,600</td>
<td>1,472</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Cement</td>
<td>tons</td>
<td>1,400</td>
<td>3,206</td>
<td>44</td>
<td>13</td>
</tr>
<tr>
<td>Glass Sheet (2mm)</td>
<td>m²</td>
<td>60</td>
<td>83.3-90.9</td>
<td>72-66</td>
<td>{190}</td>
</tr>
<tr>
<td>Glass Sheet (4mm)</td>
<td>m²</td>
<td>120</td>
<td>113.6-117.4</td>
<td>106-102</td>
<td>{190}</td>
</tr>
</tbody>
</table>

#### Durable & Capital Goods

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator Type A</td>
<td>unit</td>
<td>11,550</td>
<td>14,600</td>
<td>79</td>
<td>{100}</td>
</tr>
<tr>
<td>Refrigerator Type B</td>
<td>unit</td>
<td>14,885</td>
<td>11,170</td>
<td>133</td>
<td>{60}</td>
</tr>
<tr>
<td>Refrigerator Type C</td>
<td>unit</td>
<td>7,875</td>
<td>5,175</td>
<td>152</td>
<td>{100}</td>
</tr>
<tr>
<td>Refrigerator Type D</td>
<td>unit</td>
<td>5,940</td>
<td>3,900</td>
<td>152</td>
<td>{100}</td>
</tr>
<tr>
<td>Radio</td>
<td>unit</td>
<td>4,320</td>
<td>3,604</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>Television</td>
<td>unit</td>
<td>14,250</td>
<td>13,186</td>
<td>108</td>
<td>100</td>
</tr>
<tr>
<td>Space Heater</td>
<td>unit</td>
<td>1,800</td>
<td>2,100</td>
<td>86</td>
<td>{100}</td>
</tr>
<tr>
<td>Bulb</td>
<td>unit</td>
<td>10.8</td>
<td>5.7</td>
<td>162</td>
<td>30</td>
</tr>
<tr>
<td>Transformer</td>
<td>unit</td>
<td>NA</td>
<td>NA</td>
<td>110</td>
<td>15</td>
</tr>
<tr>
<td>Telephone</td>
<td>unit</td>
<td>NA</td>
<td>NA</td>
<td>110</td>
<td>{100}</td>
</tr>
<tr>
<td>Car (Hillman)</td>
<td>unit</td>
<td>164,742</td>
<td>143,375</td>
<td>115</td>
<td>{225}</td>
</tr>
<tr>
<td>(Rambler; model 420)</td>
<td>unit</td>
<td>2,501,000</td>
<td>182,400</td>
<td>137</td>
<td>{300}</td>
</tr>
<tr>
<td>Bus</td>
<td>unit</td>
<td>1,290,000</td>
<td>1,218,225</td>
<td>106</td>
<td>20-40</td>
</tr>
</tbody>
</table>

**Source:** Columns (1), (2), & (3) from IBRD, International Development Association, *Industrial Policies and Priorities: Iran*, Report No. SA-27a, Annex A, Table 5 (South Asia Department, 1972); Column (4) from P. Sadigh, op. cit., pp. 64-5.

392
Table 3:49

Wholesale and Retail Price Increases, 1962-78

<table>
<thead>
<tr>
<th>Year</th>
<th>Wholesale Price Index</th>
<th>Wholesale Price Increase (%)</th>
<th>Retail Price Index</th>
<th>Retail Price Increase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>103.6</td>
<td>1.4</td>
<td>0</td>
<td>0.9</td>
</tr>
<tr>
<td>1963</td>
<td>104.0</td>
<td>0.4</td>
<td>88</td>
<td>1.0</td>
</tr>
<tr>
<td>1964</td>
<td>109.6</td>
<td>5.4</td>
<td>92</td>
<td>4.5</td>
</tr>
<tr>
<td>1965</td>
<td>110.6</td>
<td>0.9</td>
<td>92</td>
<td>0.0</td>
</tr>
<tr>
<td>1966</td>
<td>110.0</td>
<td>-0.5</td>
<td>93</td>
<td>1.1</td>
</tr>
<tr>
<td>1967</td>
<td>110.2</td>
<td>0.2</td>
<td>94</td>
<td>1.1</td>
</tr>
<tr>
<td>1970 = 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>94</td>
<td>0.6</td>
<td>95</td>
<td>1.1</td>
</tr>
<tr>
<td>1969</td>
<td>97</td>
<td>3.2</td>
<td>98</td>
<td>3.2</td>
</tr>
<tr>
<td>1970</td>
<td>100</td>
<td>3.1</td>
<td>100</td>
<td>2.0</td>
</tr>
<tr>
<td>1971</td>
<td>107</td>
<td>7.0</td>
<td>105</td>
<td>5.0</td>
</tr>
<tr>
<td>1972</td>
<td>113</td>
<td>5.6</td>
<td>112</td>
<td>6.7</td>
</tr>
<tr>
<td>1973</td>
<td>128</td>
<td>13.3</td>
<td>125</td>
<td>11.6</td>
</tr>
<tr>
<td>1974</td>
<td>150</td>
<td>17.2</td>
<td>144</td>
<td>15.2</td>
</tr>
<tr>
<td>1975</td>
<td>158</td>
<td>5.3</td>
<td>158</td>
<td>9.7</td>
</tr>
<tr>
<td>1976</td>
<td>179</td>
<td>13.3</td>
<td>184</td>
<td>16.5</td>
</tr>
<tr>
<td>1977</td>
<td>205</td>
<td>14.6</td>
<td>231</td>
<td>25.5</td>
</tr>
<tr>
<td>1978</td>
<td>224</td>
<td>9.3</td>
<td>254</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Average wholesale price increase

- 1962-67: 1.3 per cent
- 1968-72: 3.9 per cent
- 1973-78: 12.2 per cent

Average retail price increase

- 1962-67: 1.4 per cent
- 1968-72: 3.6 per cent
- 1973-78: 14.8 per cent

Table 3.50
Real Exchange Rates 1972 to 1978

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange rate</td>
<td>76</td>
<td>69</td>
<td>68</td>
<td>68</td>
<td>70</td>
<td>71</td>
<td>70</td>
</tr>
<tr>
<td>$1 = Rials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale price</td>
<td>0.66</td>
<td>0.92</td>
<td>1.0</td>
<td>1.03</td>
<td>1.25</td>
<td>1.40</td>
<td>1.45</td>
</tr>
<tr>
<td>Index for exported goods at 1974 prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real exchange rate</td>
<td>113</td>
<td>74</td>
<td>68</td>
<td>66</td>
<td>56</td>
<td>50.7</td>
<td>48.2</td>
</tr>
<tr>
<td>ie index of competitiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Kamran Mofid, *Iran: Oil Revenues, Development Planning and Industrialisation - From Monarchy to Islamic Republic* (PhD. Thesis, Department of Economics, University of Birmingham, 1985)
### Table 3:51

**Annual Average of the Wholesale Price Index by Major Groups, 1972 - 78**

*(1974 = 100)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods Domestically - Produced &amp; Consumed</td>
<td>67.91</td>
<td>75.4</td>
<td>84.3</td>
<td>105.9</td>
<td>123.0</td>
<td>142.1</td>
</tr>
<tr>
<td>Imported Goods</td>
<td>29.00</td>
<td>77.9</td>
<td>89.0</td>
<td>104.0</td>
<td>110.7</td>
<td>124.1</td>
</tr>
<tr>
<td>Exported Goods</td>
<td>3.09</td>
<td>66.7</td>
<td>92.4</td>
<td>103.5</td>
<td>125.2</td>
<td>140.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Index</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Live Animals</td>
<td>37.63</td>
<td>73.3</td>
<td>79.7</td>
<td>103.9</td>
<td>121.1</td>
<td>139.8</td>
</tr>
<tr>
<td>Industrial Raw Materials</td>
<td>3.69</td>
<td>78.3</td>
<td>90.4</td>
<td>96.8</td>
<td>123.6</td>
<td>136.5</td>
</tr>
<tr>
<td>Textiles &amp; Clothing</td>
<td>10.86</td>
<td>73.1</td>
<td>95.3</td>
<td>102.9</td>
<td>123.4</td>
<td>138.7</td>
</tr>
<tr>
<td>Building Materials</td>
<td>13.20</td>
<td>64.0</td>
<td>77.9</td>
<td>105.2</td>
<td>120.6</td>
<td>151.3</td>
</tr>
<tr>
<td>Metal</td>
<td>(6.93)</td>
<td>(26.2)</td>
<td>(77.5)</td>
<td>(97.9)</td>
<td>(100.5)</td>
<td>(117.0)</td>
</tr>
<tr>
<td>Non-metal*</td>
<td>(6.27)</td>
<td>(66.9)</td>
<td>(78.7)</td>
<td>(113.3)</td>
<td>(143.0)</td>
<td>(189.1)</td>
</tr>
<tr>
<td>Machinery &amp; Transport Vehicles</td>
<td>12.97</td>
<td>86.1</td>
<td>94.4</td>
<td>113.3</td>
<td>125.9</td>
<td>140.6</td>
</tr>
</tbody>
</table>

* These are substantial increases but may be an underestimate. For example, *The UN Statistics Yearbook for Asia and the Pacific*, 1983 which would otherwise produce very similar figures for index gives the following for mineral products:

<table>
<thead>
<tr>
<th></th>
<th>64.0</th>
<th>77.9</th>
<th>105.2</th>
<th>120.6</th>
<th>151.3</th>
<th>156.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>(26.2)</td>
<td>(77.5)</td>
<td>(97.9)</td>
<td>(100.5)</td>
<td>(117.0)</td>
<td>(129.3)</td>
</tr>
<tr>
<td>Metal</td>
<td>(66.9)</td>
<td>(78.7)</td>
<td>(113.3)</td>
<td>(143.0)</td>
<td>(189.1)</td>
<td>(185.7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy Products &amp; Eggs</td>
<td>35.48 (4.28)</td>
<td>77.5</td>
<td>83.9</td>
<td>105.6</td>
<td>119.2</td>
<td>143.7</td>
<td>169.7</td>
</tr>
<tr>
<td>Bread &amp; Rice</td>
<td></td>
<td>(7.75)</td>
<td>(76.7)</td>
<td>(80.6)</td>
<td>(101.9)</td>
<td>(116.4)</td>
<td>(142.0)</td>
</tr>
<tr>
<td>Meat, Poultry &amp; Fish</td>
<td></td>
<td>(8.13)</td>
<td>(65.0)</td>
<td>(79.5)</td>
<td>(106.2)</td>
<td>(121.4)</td>
<td>(147.6)</td>
</tr>
<tr>
<td>Fresh Fruit &amp; Veg</td>
<td></td>
<td>(7.00)</td>
<td>(76.7)</td>
<td>(79.4)</td>
<td>(110.4)</td>
<td>(132.4)</td>
<td>(165.4)</td>
</tr>
<tr>
<td>Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td>12.94</td>
<td>76.6</td>
<td>88.9</td>
<td>108.9</td>
<td>121.1</td>
<td>146.7</td>
<td>163.6</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td>21.14</td>
<td>71.2</td>
<td>83.7</td>
<td>120.2</td>
<td>163.4</td>
<td>225.2</td>
</tr>
<tr>
<td>Housing Rent</td>
<td></td>
<td>(3.66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners' Expenditure</td>
<td></td>
<td>(15.68)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House Furnishings</td>
<td>6.92</td>
<td>66.1</td>
<td>84.1</td>
<td>115.9</td>
<td>130.9</td>
<td>150.6</td>
<td>157.2</td>
</tr>
<tr>
<td>Transportation &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>7.78</td>
<td>91.8</td>
<td>95.1</td>
<td>108.3</td>
<td>123.0</td>
<td>162.2</td>
<td>176.6</td>
</tr>
<tr>
<td>Medical Care</td>
<td>3.56</td>
<td>84.5</td>
<td>90.4</td>
<td>113.6</td>
<td>122.4</td>
<td>147.0</td>
<td>170.0</td>
</tr>
<tr>
<td>Recreation &amp; Education</td>
<td>3.21</td>
<td>91.1</td>
<td>98.2</td>
<td>88.0</td>
<td>82.4</td>
<td>89.2</td>
<td>99.7</td>
</tr>
<tr>
<td>Other Goods &amp; Services</td>
<td>8.97</td>
<td>88.3</td>
<td>92.1</td>
<td>107.3</td>
<td>110.9</td>
<td>128.2</td>
<td></td>
</tr>
<tr>
<td>General Index</td>
<td>100.0</td>
<td>77.9</td>
<td>86.6</td>
<td>109.9</td>
<td>128.1</td>
<td>160.2</td>
<td>176.2</td>
</tr>
</tbody>
</table>

Table 3:53

Government Revenue and Expenditure, 1969 -77
(billions rials)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>163.2</td>
<td>184.8</td>
<td>260.8</td>
<td>308.4</td>
<td>484.4</td>
<td>1,418.5</td>
<td>1,817.0</td>
<td>1,832.7</td>
<td>2,001.2</td>
</tr>
<tr>
<td>Oil and Gas*</td>
<td>91.9</td>
<td>103.4</td>
<td>166.3</td>
<td>203.5</td>
<td>328.9</td>
<td>1,228.5</td>
<td>1,273.5</td>
<td>1,442.4</td>
<td>1,481.6</td>
</tr>
<tr>
<td>Tax on Income &amp; Wealth</td>
<td>22.1</td>
<td>26.8</td>
<td>31.0</td>
<td>36.8</td>
<td>53.7</td>
<td>72.8</td>
<td>153.1</td>
<td>162.2</td>
<td>197.9</td>
</tr>
<tr>
<td>Import Duties</td>
<td>24.2</td>
<td>27.1</td>
<td>31.7</td>
<td>35.6</td>
<td>61.4</td>
<td>64.0</td>
<td>94.0</td>
<td>118.5</td>
<td>177.7</td>
</tr>
<tr>
<td>Foreign Investment Returns</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.6</td>
<td>11.0</td>
<td>18.2</td>
<td>20.4</td>
<td></td>
</tr>
<tr>
<td>Other Receipts</td>
<td>25.1</td>
<td>27.4</td>
<td>32.2</td>
<td>32.5</td>
<td>40.4</td>
<td>50.5</td>
<td>85.4</td>
<td>91.5</td>
<td>123.5</td>
</tr>
<tr>
<td>Total Expenditure</td>
<td>199.9</td>
<td>238.9</td>
<td>315.8</td>
<td>386.9</td>
<td>498.4</td>
<td>1,250.1</td>
<td>1,761.4</td>
<td>2,002.4</td>
<td>2,316.0</td>
</tr>
<tr>
<td>Current Expenditure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defence</td>
<td>47.6</td>
<td>58.4</td>
<td>78.6</td>
<td>100.9</td>
<td>134.9</td>
<td>372.6</td>
<td>476.0</td>
<td>566.8</td>
<td>561.1</td>
</tr>
<tr>
<td>Economic Services</td>
<td>9.7</td>
<td>10.0</td>
<td>13.6</td>
<td>16.2</td>
<td>40.2</td>
<td>106.3</td>
<td>122.9</td>
<td>142.1</td>
<td>162.2</td>
</tr>
<tr>
<td>Social Services</td>
<td>28.9</td>
<td>32.0</td>
<td>38.7</td>
<td>46.2</td>
<td>69.2</td>
<td>151.8</td>
<td>200.0</td>
<td>271.9</td>
<td>349.9</td>
</tr>
<tr>
<td>Other</td>
<td>20.7</td>
<td>27.8</td>
<td>39.8</td>
<td>49.4</td>
<td>41.9</td>
<td>194.6</td>
<td>152.9</td>
<td>177.6</td>
<td>209.3</td>
</tr>
<tr>
<td>Investment &amp; Loans &amp; Advances</td>
<td>93.6</td>
<td>110.8</td>
<td>145.0</td>
<td>174.2</td>
<td>212.2</td>
<td>424.7</td>
<td>809.7</td>
<td>843.9</td>
<td>1,033.6</td>
</tr>
<tr>
<td>Balance</td>
<td>-36.7</td>
<td>-54.1</td>
<td>-55.0</td>
<td>-78.5</td>
<td>-14.0</td>
<td>-168.4</td>
<td>-144.4</td>
<td>-169.7</td>
<td>-314.8</td>
</tr>
</tbody>
</table>

* Including monopoly profits, etc.

Acronyms

AEOI: Atomic Energy Organisation of Iran
CAPFI: Center for the Attraction and Protection of Foreign Investments
CENTO: Central Treaty Organisation
CIF: cost, insurance and freight
GDP: gross domestic product
GNP: gross national product
GENMISH: Gendarmerie Military Mission
GNP: gross national product
IBRD: International Bank for Reconstruction and Development
ICB: Industrial Credit Bank
IISS: International Institute for Strategic Studies
IJPC: Iran Japan Petrochemical Company
IMDBI: Industrial and Mining Development Bank of Iran
IMF: International Monetary Fund
IS: import-substitution
ISI: import-substitution industrialisation
ISIC: International standard industrial classification
LDC: less developed country
MAAG: Military Assistance Advisory Group
MAP: Military Assistance Program
MBD: million barrels a day
MNCs: Multinational corporations
MVA: Manufacturing value added
NIOC: National Iranian Oil Company
OECD: Organisation for Economic Co-Operation and Development
OPEC: Organisation of Petroleum Exporting Countries
PBO: Plan and Budget Organisation
PO: Plan Organisation
RCD: Regional Cooperation for Development
UNCTAD: United Nations Conference on Trade and Development
UNIDO: United Nations Industrial Development Organization
Bibliography


Alexander, Yonah and Nanes, Allan (eds.). *The United States and Iran* (Frederick, MD: Aletheia Books, 1980).


Ashegian, Parviz. ‘Technology Transfer by Foreign Firms to Iran’, *Middle Eastern Studies* (Vol.21, No.1, Jan 1985), pp.72-79.

Askari, F. Sid. ‘Local Consultant Capability in Iran’, *Industrial Research and Development News*, (Vol.6, No.1, 1972), published by the UN for UNIDO.


Bank Markazi Iran. ‘Annual Report and Balance Sheet’, (Tehran: various years).

Bank Markazi Iran. ‘Bulletin’, (Tehran, quarterly, various years).


Bill, James, A. *The Politics of Iran: Groups, Classes, Modernization* (Columbus, Oh: Merrill, 1972).


Brun, Thierry and Dumont, Rene. ‘Iran: Imperial Pretensions and Agricultural Dependence’, *MERIP* (No.71, October 1978).


Chilcote, Ronald H. and Johnson, Dale L. (eds.) *Theories of Development, Mode of Production or Dependency?* (Beverly Hills, Ca: Sage, 1983).


Cody, John, Hughes, Helen, Wall, David (eds.) *Policies for Industrial Progress in Developing Countries* (New York: OUP for The World Bank, 1980).


Cottam, Richard W. ‘Goodbye to America's Shah’, *Foreign Policy* (No.34, Spring 1979).


Destler, I.M. ‘Can One Man Do?’, *Foreign Policy* (No.5, Winter 1971-2).


*Echo of Iran*, ‘Law Concerning Attraction and Protection of Foreign Investments in Iran’ (Tehran: Echo of Iran, 1976).


Eshag, Eprime. ‘Successful Manipulation of Market Forces: Case of South Korea, 1961-78’, *Economics and Political Weekly* (Vol. 26, Nos. 11-12, March 1991)

*Euromoney*. ‘The Day the Magic Carpet was Rolled Up and Packed Away’, December 1978.


Floor, Willem. *Industrialization in Iran 1900-1941* (University of Durham: Centre for Middle Eastern and Islamic Studies, 1984) Occasional Papers Series, No.23.


Gilbar, Gad G. *The Middle East Oil Decade and Beyond* (Portland: Frank Cass, 1997).


Goode, James F. *The United States and Iran: In the Shadow of Musaddiq* (New York: St. Martin’s Press, 1997).


Hamilton, C. ‘Capitalist Industrialisation in East Asia’s “Four Little Tigers”’, *Journal of Contemporary Asia* (Vol.21, No. 1, 1983).

Industrial and Mining Development Bank of Iran, *Annual Report*, various years.


Ioannides, Christos P. *America's Iran* (Lanham: University Press of America, 1984).


Nest of Spies. *Documents from the Nest of Spies* (Tehran: Moslem Students Following the Imam’s Line, undated).


Olson, Mancur. ‘Rapid Growth as a Destabilizing Force’, *Journal of Economic History* (Vol.23, No.4, December 1963), pp.529-552.


Rafii, F. Joint Ventures and Transfer of Technology to Iran: The Impact of Foreign Control, Ph.D. thesis (Harvard University, Graduate School of Business Administration: 1978).


Ramazani, Rouhollah K. ‘Iran: Burying the Hatchet’, Foreign Policy, No.60, Fall 1985.

Ranis, Gustav (ed.) Comparative Development Perspectives (Boulder, Co: Westview, 1984).


Skocpol, Theda. *States and Social Revolutions* (Cambridge: Cambridge University Press, 1980).

Skocpol, Theda. ‘Rentier State and Shi’a Islam in the Iranian Revolution’, *Theory and Society* (Vol.11, 1982).


UNIDO. *Handbook of Industrial Statistics* (New York: UN, 1982).


Woodhouse, C.M. *Something Ventured* (London: Granada, 1982).


