Import substitution and the growth of manufacturing in Iran, 1955-72

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'Import Substitution and the Growth of Manufacturing in Iran, 1955-72.'

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by

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Introduction and Summary

This thesis is concerned with the growth of Iranian manufacturing industry over the 1955-1972 period. It depicts its fast growth and gives an account of the major characteristics of the growth process, as well as examining the role of government policies in stimulating this growth.

In Iran, as in many other developing countries, industrialisation has been a central objective of economic policy. As such, its progress has been consciously and vigorously assisted by the Iranian government. This assistance has mainly taken the form of a variety of incentives for private investors. In addition, the government itself has invested directly in manufacturing, particularly in such 'heavy' industries as iron and steel. In this thesis we concentrate on government assistance to the private sector.

Government incentives to the private sector have predominantly aimed at import-substituting growth. Thus, particularly during the 1960's, almost every new venture was undertaken in response to existing and anticipated demand on the Iranian market heretofore satisfied by imports. This pattern of investment was encouraged by awarding protection, by far the most important part of which was a differentiated tariff structure. In addition to protection, the government has provided other, 'promotional', incentives. Chief among these has been the provision of long and medium term credit for private industrialists.

There are five chapters in the thesis, excluding this introduction and a final conclusion. Chapter 1 is of the nature of a 'literature survey' and presents a discussion on the major aspects of import substitution. It contains three sections. The first section

deals with the concept and measures of import substitution. It points out that import substitution can be conceived of both as an occurance and also as a conscious development policy. For the rest, this section introduces the Chenery method of measuring import substitution and discusses two proposed alternative methods for measuring import substitution giving reasons why Chenery's method is preferable.

The second section of chapter 1 discusses the various theoretical arguments that have been used in favour of the policy of import-substituting industrialisation. The purpose of this discussion is to provide a general theoretical background for the description of various government policies in chapter 3. Finally, the third section considers, in general terms and rather briefly, some consequences of import substitution as it has actually been practised in developing countries.

Chapter 2 deals with the growth and structure of Iranian manufacturing sector over the 1955-1972 period. It shows, using published data, that manufacturing has grown very rapidly over this period and that this growth has been predominantly import-substituting and oriented towards the home market rather than based on export expansion. This chapter also shows that over the period consumer goods industries had the largest share of manufacturing output. At the same time other categories of manufacturing, particularly those producing mainly intermediate products increased their relative share in manufacturing output significanly. Chapter 3 as has already been indicated, is concerned with the policy of the government towards the manufacturing sector. It provides a fairly detailed account of the most important measures that the government has used to provide incentive for private investors. These include protective instruments such as tariffs, administrative import controls

and import registration deposits. In addition, as we have noted already, the government has also used 'promotional' measures to help private investment. These include long and medium term credit, free or subsidised provision of technical and managerial assistance as well as generous tax allowances.

Chapter 4 deals with the growth of the private sector. This, in many ways is one of the most important developments in the manufacturing sector over the period of this study. The chapter shows that the policy framework described in chapter 3 has been effective in providing a powerful stimulus for private investors and that both domestic and foreign private investors have participated in the expansion of manufacturing.

Chapter 5 is concerned with some problems of import substitution in Iran. Firstly, it examines the effect of government policy on factor intensities. This is done following the methodology suggested by Corden whereby the scale of effective tariffs for different activities indicates the direction of resource pull and push between them. The result shows that government policy has favoured the growth of capital intensive industries. Consequently the available evidence suggest that, even though manufacturing employment has increased very rapidly, the growth has not been sufficient to prevent the persistence of urban unemployment over the period of our study. Another result of favouring capital intensive industries (and technologies) has been that the large number of smaller manufacturing businesses have not benefited from government policy.

Secondly, chapter 5 also considers the problems of import substitution in a somewhat broader context. It shows that, in spite of their very rapid growth, by 1972 manufacturing activities were still

rather isolated from the rest of the economy. This applies particularly to the more advanced sections of Iranian industry. The situation was further aggravated by the highly unequal distribution of income and the disappointing performance of agriculture.

Finally, this is an appropriate juncture at which to add a note about the quantitative materials that we have used in this thesis.* As will be seen we have relied almost exclusively on the information published by various ministries and public agencies. Most writers and research workers concerned with Iranian conditions have questioned the reliability of Iranian statistics. While the criticism of Iranian statistics is in all probability fair, we have had to accept all the available information at face value, except where the information obviously did not make sense or contradicted other information which was regarded as more reliable. In such cases we have refrained from using the data in question.

(*) - For value figures we have used both the Iranian currency and the U.S. dollar. The relevant conversion rate is:

75 rials = 1 US dollar

In 1972 the rial was revalued (68.8 rials = 1 US dollar) but for comparability we have ignored this and used the previous exchange rate for 1972.

Chapter 1

A Discussion of Some Aspects of Import Substitution

In the post-war years most developing countries, particularly those in Asia and Latin America, have experienced a considerable degree of industrial growth. W ith few exceptions, the common pattern of industrialisation in developing countries has been one based on the replacement of imports of, initially, consumer goods followed by attempts at 'deepening' the process into the manufacture of intermediate and capital goods for the domestic market. This pattern of industrialisation has in turn been actively stimulated by economic policies, chiefly protective, which encourage and increase the flow of resources into the manufacturing sector.

The volume of literature and debate on the various aspects of import substitution is now considerable. In this chapter we concentrate on a number of issues that can be regarded as amongst the more important issues arising out of import substitution. In section I we deal with the concept and measurement of import substitution.

Section II is concerned with the various economic arguments which have been put forward in favour of an import substitution strategy. Generally speaking these arguments take the form of various objections to free trade and in favour of protectionist industrialisation, on grounds that one or other of the assumptions that underlie the case for free trade break down in the circumstances of developing countries. The opposing group of economists, while not objecting to import substitution or industrialisation as such, argue that protection is usually the most inefficient means of achieving these objectives. In this connection the recent developments in trade theory concerning the optimality of various interventions in foreign trade in the presence of 'domestic distortions' are of immediate

relevance.

In section III some of the consequences of import substitution policies in developing countries will be considered. Generally speaking the results of import substitution policies appear to have been such as to produce a sense of disenchantment even among some of the proponents of these policies. This disillusionment is usually expressed in terms of the failure of import substitution to gain a degree of self-sustained growth. Thus it is pointed out that import substitution has frequently shown a strong tendency to 'get stuck' at the 'easy' stage of consumer goods industries. Such industries have usually been very inefficient and high cost and can only be viable with very high (and in some cases extremely high) levels of protection. What is more, tariffs levied on competing imports usually underestimate the protection enjoyed. A more appropriate measure is effective protection which measures the protection of value added and takes account of tariffs levied on tradable inputs used by the industry.

As a result of the high level of protection enjoyed by existing consumer goods industries it has become very difficult to expand the manufacturing sector in the direction of intermediate and capital goods industries. More generally, it is often complained that the policies adopted have meant that industrialisation has been achieved at the expense of agriculture, provided little extra employment and has resulted in a very unequal distribution of income. This in turn has limited the growth in the domestic market thus inhibiting the prospects for the growth of manufacturing industries even more.

On the other hand, some economists, while accepting that in many cases protection has been too high and too indiscriminate, argue that criticisms of import substitution have been exaggerated. Thus in a number of developing countries, particularly the larger and medium-sized ones, problems of extending industrialisation backward into intermediate and capital goods have

not proved too great.

I - Import Substitution: Concepts and Measures

Import substitution can be conceived of both as on occurrence and as a part of a deliberate strategy to promote economic development.[1] As an occurrence, in turn, import substitution can take place in response to several distinct motive forces. First of all, import substitution can take place 'naturally', that is in response to the gradual growth of income.

The major empirical study which showed that import substitution takes place in response to the gradual growth in income is Chenery's 1960 paper. In this paper Chenery set out to challange the then prevalent explanation of industrial growth which was primarily in terms of changes in the composition and income elasticities of demand. His aim was to "incorporate changes in both demand and supply conditions into a more general explanation of the growth of individual sectors of production which can then be used to explain the observed pattern of industrial growth".[2]

Broadly speaking therefore, Chenery's procedure involved two steps. First he established a 'normal' pattern of sectoral growth by estimating a cross-section regression equation in which per capita value added in each sector depended on per capita income and upon population. The results indicated that the manufacturing sector has a much higher growth elasticity with respect to income than the other economic sectors. Broadly, this means that manufacturing grows at higher rate of growth than that of income per capita.

The second step, and this relates to the more original aspect of Chenery's work, is to explain this observed non-proportional growth of manufacturing in terms of "three causes of industrialisation": (1) substitution of domestic output for imports; (2) growth in the final use of

industrial products; and (3) growth in intermediate use stemming from (1) and (2). Significantly, his calculations showed that over the 100 to 600 dollars income range, changes in supply conditions, that is the growth of import substitution, was a much more significant explanation of manufacturing growth than changes in the demand for the final and intermediate uses of manufactured products.[3]

Thus, as we have emphasised, Chenery's concept of import substitution clearly represents changes in supply conditions resulting from changes in comparative advantage over time.[4]

Another set of motive forces that give rise to import substitution are such things as war, serious depressions and other circumstances that drastically disrupt the flow of international trade. The Great Depression of the 1930's and the Second World War greatly influenced industrial development in a number of developing countries, particularly those in Latin America. Faced with a sudden collapse of their exports and the consequent inability to obtain their import requirements, domestic production of some previously imported items was the only solution. During the War, although export earnings recovered, imports from the developed countries were unobtainable. The effect was again to give a boost to the development of domestic manufacturing in a large number of developing countries.

Yet another explanation of the autonomous growth of import substitution in developing countries in more recent years has been the operations of multinational corporations. These function in oligopolistic markets and are mainly concerned to preserve their market share or to increase it rather than to maximise profits. This motivation in turn implies that multinational firms are likely to set up manufacturing capacity in developing countries they already supply in order to pre-empt future competition. One of the results of this pattern of behaviour has been that "the nature

of direct foreign investment has changed from that of raw material extraction projects to assembly and production for the domestic market".[5] This change has meant that "foreign investment has played a significant role in expanding domestic value added and thus in promoting import substituting industrialisation in underdeveloped countries"[6].

The final motive force behind the growth of import substitution as an occurrence is the frequent balance of payment crises that most developing countries have had to face. Import controls which are initially viewed as a curb on the consumption of less essential items and are meant to save foreign exchange for more essential requirements often become a permanent feature and have the unwanted effect of encouraging domestic production of luxuries.

Import substitution as a conscious part of a development strategy is basically a post-war phenomenon. At this juncture it is useful to outline some aspects of the general background to the adoption of import substitution as a matter of policy. First of all, their experience in the inter-war period and during the war itself was an important factor in influencing policy in the developing countries and in giving it an import substituting emphasis in the post-war years. Little, Scitovsky and Scott have expressed this point in the following terms:

> "It is true that the developed countries suffered as much or more from the great depression; but, unlike them, the developing countries could blame the outside world for their troubles. The developed countries emerged with the resolve never again to let depression and unemployment to reach such depths; the developing countries seem to have made up their mind to reduce their dependence on the world economy" [7]

In addition, an 'inward-looking' development strategy was advisable, not only because it would reduce vulnerability to sudden and drastic disruption of international trade, but also because there was widespread pessimism regarding the alternative 'out-ward' or 'export-oriented' policies,

even under normal conditions. This in turn was greatly influenced by what has become known as the 'Prebish-Singer-Myrdal' thesis. Very briefly expressed, this thesis held that unlike the experience of primary producers in the 19th century, exports prospects of many developing countries were now limited. This was so because primary exports faced a low income elasticity of demand, because of the development of man-made substitutes, and also because technological growth tended to reduce the raw material input into many manufactured products.

Economic structure in developed countries, too, it was argued, had adverse implications for the trade prospects of developing nations. 'Monopolistic' structure of industry and the labour market meant that productivity growth, instead of resulting in cheaper exports of industrial products to developing countries, was almost exclusively reflected in higher profits and wages in the developed countries. The combination of this and the demand problems noted above implied a deterioration of the terms of trade and a consequent transfer of income. Whether or not this line of reasoning was valid - and from the beginning there were many who questioned both its theoretical and empirical validity[8] - is not really the issue. What matters is that it seems to have met with widespread acceptance among policy makers in the developing countries. In this context, import substitution, viewed as an "inward-looking development process"[9], or more specifically, as "an attempt by economically less-developed countries to break out of the world division of labour which had emerged in the nineteenth century and the early part of the twentieth century"[10], was naturally regarded as the most effective path to economic development: 'Development through import substitution', that is development based on a 'dynamic' manufacturing sector would have to replace 'development through trade'.

Not only did developing countries want to reduce their dependence on

the world economy, but there was also greater acceptance of the need for intervention in the domestic economy itself, and this in turn became an additional factor working in favour of the policies of import substitution. Thus there was generally more support for planning and regulation of economic life. In some countries, as for example in India, this was justified on ideological grounds and as a part of 'socialist' economic policies. In others, the notion of a coordinated development 'strategy' was regarded as useful, because it implied an approach that seeks to modify the nature of the economy in quite fundamental ways. To some extent therefore, import substitution was regarded as a part of a strategy for structural change. How exactly import substitution was able to achieve this was spelled out in terms of a number of arguments for protectionist industrialisation that are the subject of section II of the present chapter.

Measures of Import Substitution

Most discussions of import substitution, whether they treat it as on historical process or a development strategy, have used Chenery's measure of import substitution or other measures that are very closely based on his. Chenery defined import substitution as the "difference between growth in output with no change in the import-ratio and the actual growth".[11] To express his definition algebraically, consider the following identity:

$$Q + M = R + D + E$$

Where Q = domestic production,

M = imports,

R = intermediate demand,

D = final domestic demand,

E = exports

Expressing the above identity in incremental values we get:

$$\Delta Q + \Delta M = \Delta R + \Delta D + \Delta E$$

Defining total supply, $S \equiv Q + M$, we can write:

$$\Delta S = \Delta R + \Delta D + \Delta E$$

Let $u_1 = Q_1/S_1$ in the base year.

If u_1 remains fixed then the change in domestic output, ΔQ, is given by $u_1 \cdot \Delta S$, or $u_1 \cdot (\Delta R + \Delta D + \Delta E)$.

If however over the period u_1 changes to $u_2 = Q_2/S_2$, then the change in output is given by:

$$\Delta Q = u_1 (\Delta R + \Delta D) + u_1 (\Delta E) + (u_1 - u_2) \cdot S_2 \qquad (I)$$

Relationship (I) divides the growth in domestic output between a) $u_1(\Delta R + \Delta D)$, that is the expansion in intermediate and domestic final demand on the assumption that the ratio of domestic output to total supply (u_1) remains fixed;

b) $u_1(\Delta E)$, expansion of exports again on the assumption of a fixed u_1; and c) $(u_1 - u_2) \cdot S_2$, which is the change in domestic output implied by the actual change in the ratio of domestic output to total supply. This is Chenery's measure of import substitution.

In the next chapter we have used this measure to quantify the extent of import substitution in 15 manufacturing industry groups in Iran over the 1960-1972 period.[12] This measure has been subjected to several criticisms, the most important of which we will consider. Basically the criticisms fall into two categories. Thus a number of writers, while accepting his underlying methodology show that Chenery's measure of import substitution involves inconsistencies when aggregation over time periods or over industry groups is involved.[13]

Other writers however have rejected Chenery's basic methodology, at least implicitly, and it is only this latter group of criticisms that we consider in this chapter. These writers either question Chenery's concept

of imports and argue that his particular definition is too narrow and to that extent his measure of import substitution is inadequate; or they question his valuation of domestic output.

The last mentioned criticism, relating to the valuation of output, is in a sense the most fundamental of all. It can be argued that,in computing import substitution, it is illegitimate to evaluate domestic output at the actual prices observed in the domestic economy. Measuring manufacturing output in this way implies that the share of manufacturing in national income, that is its claim on total national product, is equal to its contribution to output. This, it has been argued, is a very unrealistic assumption in the context of most developing countries. The most important reason for this is that in most developing countries manufacturing is heavily protected or otherwise subsidised and that these subsidies "add up to the subsidised sectors's share in national product without necessarily adding to its measurable contribution to output".[14]

Domestic prices, therefore, over-estimate the 'true' value of manufacturing output.[23] It is easy to see that a measure of import substitution which uses the observed value of domestic output is consequently likely to be an over-estimate.

The obvious solution to this problem is to value domestic output at world prices, using the c.i.f. prices of comparable imports. While this in principle is an acceptable and desirable procedure, there are a number of practical difficulties which often preclude its application. First of all, to be meaningful, the comparison between domestic output and imports has to be at a very disaggregated and in fact individual commodity level. Often data of the required level of disaggregation are not available. This is certainly the case for Iran. In addition, even for a single commodity, there are often differences in quality which again make comparison difficult.

Another, more fundamental, difficulty is that it is, in many cases, difficult to ascertain what the long-term world price for a commodity is. Thus import prices from different origins often conflict and it is not easy to see whether differences in price reflect genuine differences in long term costs or merely short term fluctuations in demand. Because of these difficulties we have not attempted to measure import substitution in this modified manner for Iran.

Another criticism which implies a rejection of Chenery's methodology has been advanced by S.A. Morley and G. Smith.[15] Basically their objection is that Chenery's concept of imports is too narrow. To see why Chenery's concept of imports is said to be narrow consider the following identity:

$$Q_i + M_i = F_i + \sum a_{ij} \cdot Q_j$$

Where Q_i = domestic production of sector i

M_i = imports of i

F_i = final demand (domestic and exports) for the products of sector i

a_{ij} = observed input-output ratios

Expressing the above identity verbally, we can write that domestic output of sector i plus import of i, are identically equal to the final demand for i plus the total amount of intermediate use of sector i's products by other sectors. In this framework, imports, M_is supplement domestic production, Q_i, in satisfying gross (final plus intermediate) demand only for the products of one sector (i).

Morley and Smith argue, however, that this is unnecessarily restrictive. They point out that "an import ultimately substitutes for or supplements the output of many domestic sectors. If an import is to be replaced without induced rises in imported inputs....production must be increased not only in the industry finally processing the good, but also in its supplier industry and in their supplier industries and so forth".[16]

Suppose, for example, that oil is discovered in a country and as a result of the subsequent setting up of refining capacity, all imports of refined oil terminate. Chenery's measure would show import substitution for refined oil equal to its domestic production, but none for crude oil. But import substitution for the refined product has only been possible because the discovery of crude oil in effect substituted for the 'implicit' imports of crude oil.

Another example may perhaps clarify this point further. In 1949, the Brazilian production of metals satisfied 80 percent of the direct use of metals. But most of supply needed by such heavy metal using sectors as transport equipments, machinery and electrical equipment was still imported. When import substitution progressed in these latter industries most of the increased requirement of metals was satisfied domestically. Now, Chenery's measure would identify this latter increase in the output of the Brazilian metals sector as an increase in the intermediate use of metals. Morley and Smith argue however that it should be regarded as import substitution in metals. Generally, Morley and Smith point out that Chenery's measure underestimates import substitution in industry groups producing mainly intermediate goods.[17]

Morley and Smith suggest an alternative procedure which accommodates implicit or indirect imports. They assume that the economy can be described by an open input-output matrix. Assuming that A is such a matrix whose typical element, a_{ij}, "remains constant over the relevant range", we can write:

$$\left[I - A\right] \quad q + m = f \qquad \text{(I)}$$

Where I = the identity matrix

q = the vector of domestic output

m = the vector of imports

f = the vector of final demand

Dividing (II) through by $\left[I - A\right]$ we get:

$$q + \left[I - A\right]^{-1} . m = \left[I - A\right]^{-1} . f \qquad \text{(II)}$$

The second expression on the left hand side of (II), $\left[I - A\right]^{-1} . m = m^*$, is thus the redefined vector of imports which should be used in the calculation of import substitution. As Morley and Smith point out "m^* converts imports to a gross production basis and allocates them to their proper domestic sectors. It can be viewed as the domestic production neeessary to substitute completely for imports, holding all final demand constant"[18]

It is clear that Morley and Smith's method of measuring import substitution requires data of a greater degree of sophistication and accuracy. One needs a "sufficiently detailed and accurate input-output table"[19] the existence of which cannot be assumed for a significant number of developing countries. Furthermore, input-output ratios are likely to change quite substantially in developing countries over relatively short periods[20], and cannot be assumed constant.

Not only is the application of their measure often hindered by lack of the necessary data, but, it has been argued, Morley and Smith's method is not necessarily superior to Chenery's. This has been argued by George Fane.[21] His point can be illustrated by the following examples which he provides.

Consider a hypothetical case where all final demands remain constant and where the domestic gross output rises by one unit in industry 1 and remains constant in all other industries:

$$\Delta Q_1 = 1$$

$$\Delta Q_j = 0 \quad (j = 2,3,....)$$

Imports must adjust to balance supply and demand for each industry:

$$\Delta M_1 = 1 + a_{11}$$

$$\Delta M_j = a_{j1} \quad (j = 2,3,.....)$$

As Fane points out Morley and Smith would record no import substitution or demand expansion for industries 2, 3,....,etc. This is because the output of these industries has not increased and the increases in imports (a_{j1}) is in response to the increase in the requirements of industry 1 whose output has increased. Chenery, on the other hand would record increase in the intermediate demand for industries 2.3,..,etc., but that this source of growth was exactly offset by negative import substitution: imports rose by the full amount of the extra intermediate demand (a_{j1}) and domestic gross output failed to capture any of the potential growth.[22]

Thus as this example illustrates, "Chenery's description is at least as informative as Morley and Smith's description"[23]. For all these reasons we have not attempted to use their measure of import substitution in chapter 2.

II - Theoretical Arguments for Import Substituting Industrialisation

The arguments that have been advanced in favour of the policies of import substitution in developing countries are in some respects similar to the older arguments for the restriction of free trade. In this connection, in fact, it has been argued that import substitution is "more of a new label than a new concept" and that "providing protection against imports has long been a foundation stone of the 'infant industry' approach to industrialisation".[24] However in the post-war years these arguments have gained a sharper focus and a more immediate relevance as a result of the greater interest in the problems of developing countries. Furthermore, as Professor Johnson has pointed out "not only the traditional arguments for protection have been reformulated and sharpened, but the emphasis has shifted to new arguments and new versions of old arguments."[25]

Generally, the various arguments for protection attempt to show that the existing structure of the economy is 'biased' against the growth of manufacturing industries and that, without intervention, the working of price and market mechanisms will not channel enough resources into manufacturing and thus inhibits its progress. It follows therefore that as a corrective, protection can legitimately be used to provide an added incentive for the growth of manufacturing. Although in substance many of the arguments for protection do overlap, it is convenient to present four fairly distinct sets of arguments:

a) - Infant industry arguments;

b) - External economies arguments;

c) - Arguments arising from labour market distortions, and;

d) - Arguments relating to savings and the rate of growth.

After considering each of the above arguments we then consider the objection that, although the above arguments are probably acceptable rationale for

giving special favour to industry, it does not follow that protection is the best way of doing so. In fact, it can, almost invariably be shown that protection is a 'second best' policy (or even worse). The 'first best' policy in relation to the objectives is often some 'promotional' measure which, depending on the circumstances, is likely to be a combination of appropriate tax and subsidy devices. Finally, we will examine the argument that this latter analysis has little relevance for the developing countries because of lack of finance for 'promotional' measures.

II - A - Arguments for Protection

(a) - Infant industry arguments

This is the oldest argument for protection. It was accepted, along with the 'optimal tariff' case, as the only instances where the classical case for free trade did not hold. The classical economists recognised two versions of the infant industry case. They interpreted the term 'infant industry' both in the broad sense so that it became synonymous with 'industrialisation' and also more narrowly in the relation to the establishment of one specific industry.[26]

Later writers in the classical and neo-classical tradition, however, generally recognised only the narrow version of the argument and then as a case which was theoretically valid and interesting but had relatively little practical significance.[27] The narrow infant industry case states that it may be difficult to establish a new industry given that competitors have been established abroad. Thus, even though the industry may potentially possess long run comparative advantage, without protection it will be undersold by imports and cannot gain a foothold. This is b ecause its costs will be initially high and it will take some time before, as a result of the experience and increasing familiarity with the industry, it can reduce its costs and successfully compete with imports. There is a case, therefore,

for giving temporary protection to the industry.

As we have already noted, many economists point out that, in practice, this argument does not amount to a valid case for protection. In particular, before the infant industry can qualify for protection at least two other conditions need to be fulfilled. Firstly, it has been argued that the industry should meet what has been called the 'Bastable test'.[28] That is, not only should the industry have a potential comparative advantage - which is the 'Mill test' - but the potential comparative advantage be such that the eventual gain from lower prices (than imports), properly discounted, should be greater than the initial costs of protecting the industry. In other words there should be a net gain to society from the establishment of the industry.[29]

Secondly, even if both the above tests are in fact met, there may still be no grounds for protecting the industry if private entrepreneurs perceive the situation and are prepared to accept the initial losses in expectation of future profits. This, it is presumed, will be the case if the gains involved in the learning process are appropriable by the firm itself, that is if they are internal economics.

If however the costs of each firm are lowered because of factors that are common to the industry as a whole and the benefits created cannot be confined to any one firm then intervention is called for because no firm is prepared to take the risks. A well known example of this is the economies which arise as a result of the training of labour. The pioneering firm may have to bear the cost of training of its labour force who may subsequently move on to other firms. Even for this, however the case for protection is not easily conceded. It is pointed out the labour force of the pioneering firm may well be willing to 'internalise' the external economics arising from the learning process. The workers may thus be willing to pay for their training by accepting lower wages during a period of apprenticeship.[30]

It may well be argued that the above objections do not seriously weaken the case for infant industry protection in the developing countries. Thus, for example, the mere fact that the economies created may be appropriable by the firm itself, will not mean that the investment will take place. In developing countries businessmen have a very high discount rate of the future and the private rate of return may be insufficient to induce them to invest.[31] Similarly for the labour training case, it is sometimes assumed that the workers can maintain their standard of living during the apprenticeship by borrowing on the strength of their future earnings. It can be seen that this requires a fairly sophisticated capital market which is again lacking in most developing countries.

Another fact which is important and should be taken into account is the often persistent preference of consumers for imported products even in cases where no obvious differences in quality exist. Here again temporary protection can help an infant industry in gradually gaining acceptance from domestic consumers.[32]

In general however, the narrow infant industry case does not seem to provide a very strong basis for the policies of import substitution. In fact, of course, those writers who have advocated the use of protection for the industrialisation of developing countries have had a conception of the infant industry case that is akin to the broad version of the classical case but also goes beyond it.

The broad classical infant industry argument emphasised the 'developmental' aspects of protection.[33] Thus such writers as List, Hamilton, and also John Stewart Mill approached the infant industry case in this 'developmental' spirit. According to Mill, for example, the most important element in the productivity and prosperity of a nation, which will take a long time to develop, is "a population trained in the general atmosphere of industrial pursuits".[34] Similarly List advocated protection of the 'main branches' of manufacturing industry so as to promote "the increase

in the mental and material capital and the spirit of enterprise in the nation"[35]. The general presumption, it seems, is that industrialisation, in changing the economic and social structure of the country, creates benefits that will not be taken into account in the working of the market mechanism. Hence the case for protection. The nature of such external economies has been most elequently expressed by Hans Singer:

> "The most important contribution of an industry is not its immediate products (as is perforce assumed by economists and statisticians) and not even in its effects on other industries and immediate social benefits (thus far economists have been led by Marshal and Pigot) but perhaps beyond this in its effect on the general level of education, skills, way of life, inventiveness, habits, store of technology, creation of new demands, etc.....
>
> This is precisely the reason why manufacturing industries are so universally desired by underdeveloped countries: they provide growing points for increased technical knowledge, urban education and the dynamism and resilience that goes with urban civilisation, as well as the direct external economics of Marshall" [36]

The point that should be noted is that these 'sociological' and 'educative' benefits are regarded as a product of an <u>irreversible</u> learning process. As such their realisation demands temporary rather than permanent protection. This is why they can legitimately be regarded as an argument for <u>infant</u> industry protection.

Professor Myint has questioned the relevance of the broad infant industry argument for protection in the context of import substituting industrialisation. He points out that:

> "Import substitution amounts to selecting the industries according to their capacity to satisfy the existing pattern of domestic demand for manufactured consumer goods. On the other hand, the infant industry argument, however broadly interpreted, is concerned with an industry's capacity to lower its costs in the future through the process of learning by doing. Prima facie, we would not, therefore, expect a group of industries selected for their capacity to match the pattern of domestic demand to be the same as a group of genuine infant industries selected on their prospects of lowering costs in the future" [37]

Thus, according to Myint, <u>import substitution</u> amounts to a policy of 'balanced growth' whereby the emphasis is on the expansion of the market for manufactured goods through the more or less simultaneous setting up

of consumer industries. As such however, the costs of each industry decrease primarily as a result of the economics of scale, implicit in the increase in the total size of the market.[38] This however is different from the infant industry process of learning: "an industry's capacity to lower its costs by moving towards its optimum scale of output does not depend on its special capacity to improve efficiency, but is assumed to follow automatically from the enlargement of the overall size of the protected market".[39]

In this connection, two points should be noted. First of all, the infant industry argument, at least in its broad version, does not emphasise improvements in efficiency due to factors which may be specific to individual industries. What is emphasised is the kind of external economies which are not specific and can be generated by almost any combination of light industries. Examples are a growing pool of skilled labour and a gradual penetration of an industrial way of life. So even if import substitution is based on 'balanced growth', there is no reason why the economies should be of a purely scale character and without any learning or inherent improvements in efficiency.

The second point that may be noted is that Professor Myint conceives of import substitution as based on the existing pattern of demand.[40] While import substitution naturally starts with final consumer goods, these being the products for which a market already exists, an important characteristic of the process is the creation of new demand. In fact much of the dynamism attributed to an import substitution strategy arises, at least in theory, from the creation of new investment opportunities consequent on setting up of 'finishing touches' industries. Viewed in this way then, import substitution is not based on 'balanced growth' as Professor Myint suggests. Rather the emphasis is on 'imbalanced growth'. 'Finishing touches' industries create investment opportunities at stages further back

along the industrial spectrum. Hence external economies are transmitted vertically along different stages of production rather than horizontally at the consumer goods stage.

(b) - External economies arguments

The external economies that arise in connection with the infant industry case are all related to the process of learning and accumulation of know-how arising from industrialisation, hence their irreversibility. In other words the external economies in this case are basically a function of time; that through time involvement in industry gives rise to experience and knowledge and these are not reflected in market prices. In addition, however, industrialisation gives rise to another set of external economies that are somewhat different and of a more technical nature. Here we consider external economies that arise as a result of the interdependence of investment decisions, induced linkages, and economies of scale.

The interdependence of investment decisions gives rise to external economies that can be regarded as an extension of the Marshalian concept of external economies. The latter was concerned with economies external to the firm but internal to the industry itself, here we are concerned with the economies that expansion of one industry bestows on another. The following example helps illustrate the point. Consider a case where investment in extracting coal reserves may be unprofitable if, in the absence of a steel industry, there is not a sufficiently large domestic market and transport costs rule out exporting. In such conditions the creation of a steel industry will create external economies for coal extraction. On the other hand the steel industry itself will be difficult to establish without domestic supply of coal; steel production with imported supplies will not be able to compete with imports. Vertical integration whereby one firm owns the whole complex, thus 'internalising' the economies

is unlikely because of the sheer amount of 'lumpy' investment which such an undertaking necessitates. In the circumstances of developing countries where the availibility of finance is always an important constraint, the possibility of vertical integration is even less likely.[41]

In theoretical terms the above kind of external economy may be considered as 'dynamic' in the sense that it involves a divergence between the social and private return on investment. This type of divergence arises because market prices, even in a competitive market, do not transmit sufficient information regarding the future. Thus as Scitovsky has pointed out:

> "Market prices...reflect the situation as it is and not as it will be. For this reason, they are more useful for coordinating current production decisions, which are immediately effective and guided by short-run considerations, than they are for coordinating investment decisions which have delayed effects and - looking ahead for a long future period - should be guided not by what the present economic situation is, but by what the future economic situation is expected to be".[42]

In addition to interdependence between investment decisions, another cause of the dynamic divergence between social and private return is stressed by Hirschman. According to Hirschman, an important difference between various investment projects is that they are likely to differ in the extent of opportunities they provide for latent entrepreneurial forces. An industry like oil-refining may attract investment because it is privately more profitable than the manufacture of, say, shoes. Yet the shoe industry will provide much more inducement for backward linkages.[43] Entrepreneurs will be mobilized to supply leather, laces, glue and other inputs into the shoe industry. It should be pointed out, that the existence of induced linkages provides a general argument for protecting the manufacturing sector relative to agriculture. This is because as Professor Hirschman has argued, manufacturing activities create a greater scope for induced investment decisions in terms of backward and forward linkage effects, than agriculture.[44]

Finally, we may consider the external economies that are a function of the scale of production. The interest in economies of scale in relation to industrialisation has been revived mainly in connection with the attempts to overcome the small size of national markets and the formation of common markets or custom unions between developing countries. This was a major policy proposal of the 1964 Conference on Trade and Development. The proposal was largely based on the postulate that economies of scale "are a logical extension of the infant industry argument" and that cost reductions resulting from learning of skills and know-how is not merely a function of time but also depends on the size of the market.[45] However as was indicated earlier many economists would object to this extension of the infant industry concept.[46]

Apart from its relevance to economic integration between developing countries the existence of the economies of scale can also be used as an argument for protection in the context of national commercial policy.

The existence of scale economies have been firmly established for public utilities such as electricity, inland transport, telephones and so on. It can be argued that the existence of such economies provides a case for the protection of manufacturing industries, since they increase the demand for the services of 'public utilities' thereby making the realisation of economies of scale and reduction in costs possible.[47] More generally, the creation of industries using inputs whose production are subject to economies of scale, bestow an external economy by expanding the market for the inputs. This can be seen in an industry like motor cars whose various components enjoy economies of scale.

Some external economies also arise if the industry uses inputs that have to be made to special design (rather than being standard, as in the case of motor cars). In such cases no one firm will need enough of the input to justify integrating the production process and it is expensive and

inconvenient to import the input. If the industry expands, however, there will be a large enough market and therefore a specialist firm may profitably provide the input.[48]

(c) - Arguments arising from labour market distortions

As we have already indicated, economic arguments for protection constitute a set of objections to the welfare (or 'normative') propositions of trade theory. They all point out that some or all of the assumptions which support the case for free trade break down in the conditions of developing countries. Thus we have seen that the existence of external economies makes for a divergence between private and social costs.

It is also often argued that, contrary to the assumption of trade theory, the labour market is characterized with 'distortions' which overstate the real cost of labour in manufacturing. Under free trade, therefore, the output of manufacturing would be below its optimum.

There are two versions of the above case. Firstly, wages in manufacturing may be above the real opportunity cost of labour in agriculture, where, it is claimed there is 'surplus' labour. The second version of the case argues from an observed wage differential between agriculture and manufacturing, without necessarily attributing the existence of the differential to the existence of surplus labour.

Strictly speaking, the existence of surplus labour in agriculture implies that actual wages are positive in circumstances where the 'shadow' wage is zero. More generally, it is sufficient that the actual wage be more than the 'shadow' wage while both are positive. The divergence between the actual and the 'shadow' wage is caused by the inertia and the immobility of the rural surplus labour force. Hence protection is necessary to compensate manufacturing sector for the payment of relatively high wages.

The validity of the above argument naturally depends on whether there

is in fact, a surplus labour in agriculture. About all that can be said here is that this cannot be assumed even for apparently overpopulated countries such as India or Egypt, and that the situation is often complicated by seasonal employment and the particular farming practice and institutions of the country in question.[49]

The second version, whereby no assumption about surplus labour is necessary, is more interesting since it has a more general application. There are numerous developing countries, such as those in West Africa, which by no means are overpopulated, but still the manufacturing sector may have to bear higher wages. In fact Professor Hagen has pointed out that wage differentials between agriculture and manufacturing are a necessary concomitant to economic growth.[50] Economic growth implies a more than proportional growth in manufacturing, hence demand for labour from manufacturing grows faster than that of the other sectors. In order to attract and keep its required labour force, manufacturing has to pay higher wages than the rest of the economy. This, in the absence of protection, will depress the output of the manufacturing sector below its optimum.[51]

(d) - Arguments relating to savings and the rate of growth

Finally, it can be argued that protection of manufacturing is desirable because it increases saving in the economy. This can be achieved in two ways. Firstly, protection is likely to increase the share of profits in income. Hence protection redistributes income in favour of groups with a higher propensity to save. This, it is assumed, will be re-invested and will lead to a higher rate of growth. This argument is particularly attractive, since the alternative of mobilising smaller household savings is usually difficult and requires an efficient capital market.

The second way that protection may lead to an increase in saving is through its influence on the inflow of foreign capital. Thus it is possible

that protection will induce foreign firms to set up manufacturing or assembly capacity in the country and this could lead to higher overall savings being mobilized in the economy. There are however many aspects to foreign investment, including transfer of technology, the discussion of costs and benefits of which is beyond the scope of this study.

II - B - 'Promotion' Versus Protection

It should be clear that all the above arguments for protection are in fact largely inseperable from the rationale for industrialisation. Each of the above arguments that we have considered are somehow reducable to one or other desired characteristic of industry. And while most economists have been prepared, in varying degrees, to accept the case for industrialisation, they have been much more reluctant to accept that protection is the best way of achieving it.

Thus Little, Scitovsky and Scott have argued that:

> "Almost every reason that has ever been advanced for making industry more profitable by protecting it from the competition of imports really turns out to be a reason for providing it with better services, or for subsidising its employment of some factor of production, or for compensating it directly for some 'external benefit' which it produces. These are all 'promotional' policies rather than purely protective".[52]

Until recently, the dislike for protective as distinct from 'promotional' measures such as taxes and subsidies was based on political and psychological factors. It was thought that protection gives rise to vested interests which might make its subsequent reduction or removal politically difficult.[53] Similarly, subsidies were considered superior because, among other advantages, "the payment of a subsidy is a constant reminder to society that nursing the infant (industry) is costing it resources, leading to more frequent and incisive reviews of the social value of the project".[54]

In addition to the above kind of considerations, recent developments in trade theory have provided firm theoretical reasons for prefering taxes, subsidies and other promotional measures to protection. These developments can best be described in terms of two relatively simple propositions.[55]

The first proposition is that the correction of 'domestic' distortions does not require intervention in foreign trade. Thus if free trade does not produce an optimal allocation of resources because of an imperfection in the capital market (infant industry cum external economies arguments), or an imperfection in the labour market ('shadow' wage and wage differentials), or a divergence between private and social discount rates (leading to inadequate savings), then in each case a domestic distortion is involved. An optimal policy is therefore one which attempts to remove these distortions directly rather than by interfering in foreign trade.[56]

Such a policy would include, as already indicated, subsidising the employment of labour and where necessary of other inputs,and reducing consumption by an appropriate taxation policy. This kind of policy also embraces attempts to improve the capital market which may take the form of establishing development banks or other financial media.

More generally, promotional policies also include the provision of all those services which industry cannot efficiently provide for itself. Examples are general education, roads, electricity, telephones, water and so on. They should also include "management and accounting schools, technical training institutions, and sometimes research institutes. Something like an industrial extension service-analogous to its counterpart in agriculture - which can teach small-scale businessmen elementary technical accounting, management and sales techniques"[57]

Such direct assistance to industry is 'first best' policy and superior to protection. The reason for this is that all protective measures, tariffs, or quantitative restrictions raise the price of the product above the free trade level, both to the producers and to the consumers, whereas promotional measures leave consumers free to buy at world prices.[58]

The second proposition is that 'second best' policies are not necessarily superior to no intervention at all. This is because protection,

while indirectly helping to remove one set of - domestic - distortions, introduces a new set of distortions resulting from the interference in free trade and consumer's choice. Whether the overall impact of protection improves or reduces welfare depends on the relative weights of the domestic and foreign distortions involved. Thus a prioi and without "comprehensive empirical information on the taste and technology of the economy", it is impossible to predict that protection leads to an improvement in welfare. This in turn strengthens the case for following promotional policies.[59]

Implicit in the above analysis is that tax and subsidy measures are costless operations. In fact there are costs arising both from collection of taxes and also the adminstration and distribution of subsidies. The collection of taxes necessitates an efficient and honest adminstration, which cannot always be assumed in developing countries. Collection difficulties are further aggravated by the fact that the majority of population are poor farmers and live in isolated villages. It should also be remembered that taxes also 'distort' consumption choices and this may be an important consideration.

For all these reasons governments in developing countries have traditionally relied on tariffs and trade taxes for a major part of their revenue. Trade taxes are a far more convenient source of revenue than domestic taxes, since they can be collected on a few ports or custom offices and thus require much less in terms of personnel and other adminstrative resources.

The implication is that although promotional policies may be theoretically 'first best' in the real world 'second best' protective measures may in fact be preferable since they may be cheaper to implement. It may well be that an excessively protectionist policy may in fact reduce imports so much that the revenue derived from them becomes very small, and

to that extent the practical advantage of protection may be reduced. Nevertheless once it is recognised that a policy of promotion, if not impossible is certainly not costless, it becomes less easy to generalize about the optimality of various measures. Whether promotional measures are feasible can only be decided in the context of an actual situation where it is possible to determine empirically what the costs and benefits of each alternative are. Thus instead of general policy prescription, what is needed is a 'case by case' approach and "tailoring of policies to individual country situations".[60]

III - Import Substitution in Practice

As we noted in the introduction to the present chapter, there has been a considerable amount of disenchantment with import substitution in practice. In fact it is very largely the experience of developing countries rather than theoretical arguments that has turned opinion against import substitution. Many countries now seem to have changed their policies and appear to be more anxious to take advantage of their exporting opportunities.[61]

Generally speaking, the most important criticism of import substitution as it has actually been practicised is that it has encouraged the growth of manufacturing at the expense of other sectors to an excessive and harmful degree, that it has had an inbuilt and unnecessary bias against exports of all kinds, and that, within the manufacturing sector itself, it has provided too much incentive for the growth of consumer goods at the expense of capital and intermediate goods.

Furthermore the indiscriminate use of protection has led to a complete disregard for comparative advantage; protection has greatly overstated the social cost of labour and understated the social cost of capital and consequently neither factor has been used economically. Import substitution has often provided too few jobs while many of the factories it has helped to establish operate well below their capacity.

In addition to the above 'allocative' inefficiencies the use of protection has also caused what has variously been called 'X', 'technical' or'mundane' inefficiencies. Sheltered from the competition of imports, import substitute industries have had no incentive to reduce costs through possible improvements and innovations.[62]

The combination of all these shortcomings has resulted in a situation in which the prospects for the growth of manufacturing are not very promising. Expansion of manufacturing necessitates either the development of industries

producing intermediate and capital goods, or entry into export markets, or both. But for several reasons neither alternative is easy. In this chapter we will concentrate on some of the obstacles facing the first alternative.

However, before considering these problems it is useful to point out that what underlies all the various problems that import substitution has faced, is the very heavy amount of protection that existing industries have enjoyed. This becomes clear when effective rates of protection are considered. Since the concept of effective protection has a direct relevance for the problems arising out of import substitution, it is useful to consider some central aspects of it.

The Relevance of Effective Protection

The effective rate of protection, in contrast to the nominal rate of protection, measures the percentage increase in value added per unit of economic activity which results from the existence of protection at different levels of production.[63] Thus if free trade value added by an activity, V_j, is, as a result of protection, increased to V_j', then the effective rate of protection, g_j, is:

$$g_j \equiv \frac{V_j' - V_j}{V_j} \qquad \text{(I)}$$

Value added in the free trade and post-protection situations can in turn be expressed as follows:

$$V_j = P_j \left(1 - \sum a_{ij}\right) \qquad \text{(II)}$$

$$V_j' = P_j \left[(1 + t_j) - \sum a_{ij}(1 + t_i)\right] \qquad \text{(III)}$$

Where P_j is the price of a unit of j in the absence of tariffs, a_{ij}, is the share of an input, i, in the cost of j in the absence of protection,

t_i and t_j are the tariff rates on i and j respectively. Substituting II and III into I and simplifying, we get the effective rate of protection in terms of tariff rates and input shares:

$$g_j = \frac{t_j - \sum a_{ij} t_i}{1 - \sum a_{ij}} \qquad \text{(IV)}$$

It should be clear from IV that if the tariff rate on the product, t_j, is greater than the tariff on the inputs, t_i's then the effective rate of protection, g_jl is greater than the nominal tariff, t_j. It should also be apparent that the magnitude of effective protection will depend on the share of the imported inputs into the product. For example if the nominal tariff on a product is 30 percent and an input which accounts for 50 percent of its costs is imported duty free then the effective rate of protection afforded to the industry is 60 percent.

It can be seen that the concept of effective protection rather ideally describes the structure of protection that usually results from the policies of import substitution. Import substitution is induced by high tariffs on the products of the protected activity while their capital and intermediate inputs can be imported free of restrictions. Consequently the nominal rates of protection will be less than the effective protection. This has in fact been confirmed by studies concerned with industrialisation in the developing countries.[64]

In addition to reflecting the absolute magnitude of protection better than nominal rates, effective rates of protection can also be used, given certain assumptions,[65] to indicate the incentives that the structure of protection provides for the movement of resources between different industries. If different activities are ranked according to their respective effective rate of protection, the resulting scale will tell us the direction in which resources have moved between them. Domestic production will shift

from industries with the lowest rates of protection to those with the highest. Given that production and consumption elasticities of substitution between different industries are known or can be calculated, then the scale of effective protection can be used to indicate not only the direction but also the magnitude of resource pull and push between different industries.[66]

This resource allocation aspect of effective rates is naturally very useful in studying the impact of import substitution on the economics of developing countries. Relative rates of effective protection can be used to show how much incentive there has been against the expansion of export industries, and against investment in agriculture and other sectors. Studies of industrialisation in developing countries undertaken by the OECD and the World Bank have used such a methodology in evaluating the policies of import substitution.

Difficulties of Backward Linkage Import Substitution

What we have already said regarding the concept of effective protection is immediately relevant to the difficulties that backward linkage import substitution faces. Thus the most obvious is that the structure of protection is biased against it. Not only imported inputs pay little tariff, but they come in at an exchange rate that substantially understates their costs to society. Gordon Wilson has demonstrated how the existence of an over valued currency can create a systematic incentive in favour of importing even in conditions where suitable domestic substitutes may be available.[67] This in turn leads to an unnecessary capital intensive method of production and under-utilisation of capacity.

The structure of protection also encourages what has been called the 'premature widening' of the structure of production.[68] This means that the structure of protection encourages expansion into a large number of consumer goods industries each operating on a relatively small scale rather

than concentrating on a few large scale operations which could benefit from economies of scale. This is likely to occur because industries initially established have been themselves relatively small and have not been able to grow because their uneconomic structures (too capital intensive) and high cost have made it difficult to break into a wider market. This in turn means that their demand for inputs is not sufficient to make their domestic production feasible. Therefore the easiest policy seems to be setting up other consumer goods industries which in turn operate on a small scale. This gradually leads to the 'premature widening' of the industrial structures.[69]

The motor car industry in developing countries provide a good example of some of the inefficiencies of import substitution in developing countries. One study concerned with the industry in Chile, for example showed that the 1963 output of cars was only 8,180 units.[70] Furthermore, this small volume was divided between twenty different models. For Latin America as a whole, the output of cars in the late 1960's was around 600,000 units, this was produced by around ninety different firms. On average, therefore the output of each firm was 6,700 units.[71] Calculations have shown that the optimum output for a single model is at least 20,000 units.[72] In such circumstances the difficulties of backward linkages and the domestic production of components and parts is even more difficult since for the latter economies of scale is even more pronounced and requires a big market for standard inputs.

Many countries have however attempted to force backward linkages through what is known as 'content protection'. This policy, which is particularly popular where domestic manufacture or assembly is carried out by foreign owned firms, stipulates that protection of the activity will only be maintained if the percentage of value added by domestic factors is

increased regularly. It can be seen, however, that in a situation where the initial industry operates on small scale, a policy of 'content protection' can lead to a waste of resources. Here again the car industry in developing countries provides a good example.[73]

Although it is true that in some industries, as for example in the car industry, that the production of industrial inputs requires a large scale to be viable, it is by no means true of all. The minimum economic scale of production does not always increase as one proceeds along backward linkage import substitution. Many capital goods industries can operate at a relatively small or medium scale of production as for example in the machine tool industry.[74]

Furthermore, as Professor Hirshman has argued, the criticism regarding the 'premature widening' of industrial structure and subsequent exhaustion of import substitution possibilities has been exaggerated. Thus, even if there may be an unduly large number of consumer goods industries most of which operate on a small scale, they would still need a number of identical inputs such as steel, paper and glass.[75] As a result of this 'product divergence' there is likely to be a fairly large market for such inputs. In a large number of developing countries, excluding perhaps the very small ones, there is thus room for at least one steel mill.

Another, though related, difficulty that backward linkage import substitution may face is the likelyhood of a vested interest against them on the part of using industrialists. It is easy to see why this should be so in circumstances where inputs can be imported cheaply and where domestic substitutes, at least initially, will be of an inferior quality and irregular in delivery. With regard to the latter point however, it may be noted that, in countries which often face balance of payment crises the importation of inputs may be curtailed at regular intervals, the resistence to backward linkage import substitution is likely to disappear.[76] The

problems may also be reduced to the extent that the government may undertake the development of the heavier industries such as iron and steel.

Notes and References

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2. Holis Chenery, 'Patterns of Industrial Growth', American Economic Review, (September, 1960), p.625.
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6. Ibid., also see, Walter Elkan, An Introduction to Development Economics, Penguin, (1973), pp.93-94.
7. I. Little, T. Scitovsky and M. Scott, Industry and Trade in Some Developing Countries: A Comparative Study, Oxford University press, (1970), p.32.
8. See, for example, G.M. Meier, The International Economics of Development, Harper and Row, (1968), pp.57-65.
9. United Nations, Economic Commision for Latin America (ECLA), 'The Growth and Decline of Import Substitution in Brazil', Economic Bulletin for Latin America, (March 1964). p.5.
10. Werner Baer, 'Import Substitution and Industrialisation in Latin America: Experiences and Interpretations', Latin American Research Review, (Spring 1972), p.95.

11. Holis Chenery, op. cit. p.640.

12. As will be seen in the next chapter, we have aggregated changes in output resulting from changes in domestic and export demand and distinguished only between 'import substitute' and 'demand expansion' components of growth.

13. See, Padma Desai, 'Alternative Measures of Import Substitution', Oxford Economic Papers, (November, 1969). pp.312-324, George Fane, 'Consistent Measures of Import Substitution', Oxford Economic Papers, (July, 1973), pp.251-261, for studies showing inconsistencies relating to aggregation over industries. Also see, George Fane, 'Import Substitution and Export Expansion: Their Measurement and Example of their Application', Pakistan Development Review, (Spring,1971) pp.1-17. This shows inconsistencies arising from aggregation over different periods.

14. I. Little, T. Scitovsky and M. Scott, op. cit. p.72.

15. S. Morley and G. Smith, 'On the Measurement of Import Substitution', American Economic Review, (September 1970) pp.728-735.

16. Ibid., p.729. Emphasis in the original.

17. Ibid, p.732. Also see, S. Morley and G. Smith, 'Import Substitution and Foreign Investment in Brazil', Oxford Economic Papers, (March,1971), pp.120-135.

18. S. Morley and G. Smith, 'On the Measurement of Import Substitution', op. cit. p.729.

19. Ibid.

20. Thus if any development is taking place, then one should expect input-output ratios to change significantly over relatively short periods -- over the kind of period that one would wish to measure import substitution (say, five to ten years).

21. George Fane, 'Consistent Measures of Import Substitution' op. cit., pp. 254-255.

22. Ibid.

23. Ibid, p.255

24. Stephan Robock, ' Industrialisation through Import-Substitution or Export Industries: A false Dichotomy', in J.W. Markham and G.V. Papanek, (eds.) Industrial Organisation and Economic Development, Houghton Mifflin, (Boston 1970), p.352.

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37. H. Myint, 'International Trade and Developing Countries', op. cit. p.27.

38. Ibid. p.28.

39. Ibid.

40. Victor L. Urquidi, 'Comments on Professor Myint's Paper', in P. Samuelson, (ed).,op. cit., p.44.

41. Pranab Bradhan, 'External Economies, Economic Development and the Theory of Protection', Oxford Economic Papers, (March, 1964), pp.46-47.

42. T. Scitovsky, 'Two Concepts of External Economies', Journal of Political Economy, (April, 1954), p.151.

43. H.G. Grubel, op. cit., pp.334-335.

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45. H.G. Grubel, op. cit. p.336.

46. W.M. Corden refers to external economies based on economies of scale as the 'pseudo-infant industry argument', see W.M. Corden, op. cit., pp.272-274.

47. I. Little, T. Scitovsky and M. Scott, op. cit., p.150.

48. Ibid., p.124.

49. Jagdish Bagwati, 'The theory of Comparative Advantage in the Context of Underdeveloped Countries' Pakistan Development Review, (Autumn, 1962), pp.339-353. Also see H. Myint, 'Infant Industry Arguments for Assistance to Industries in Setting of Dynamic Trade

Theory', op. cit., pp.175-180.

50. Everett E. Hagen, 'An Economic Justification of Protectionism', Quarterly Journal of Economics, (November, 1958), pp.496-514.

51. Ibid., p.498.

52. I. Little, T. Scitovsky and M. Scott, op. cit., p.132.

53. V.K. Ramaswami and J. Bhagwati, 'Domestic Distortions, Tariffs and the Theory of Optimum Subsidy' reprinted in J. Bhagwati, H.G. Johnson and T.N. Srinivansan (eds), Trade and Development, Essays in Economics by V.K. Ramaswami, George Allen & Uniwin (1971), p.13.

54. H.G. Grubel, op. cit. p.339.

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56. Ibid.

57. I. Little, T. Scitovsky and M. Scott, op. cit. pp.133-134.

58. H.G. Johnson, 'Optimum Trade Intervention in the Presence of Domestic Distortions', op. cit., p.302.

59. Ibid., p.192.

60. M.G. De Vries, 'Trade and Exchange Policy and Economic Development: Two Decades of Evolving Views', Oxford Economic Papers, (March, 1966), p.193. Iran, in this context presents an interesting case, since, due to the existence of oil revenues, the practical advantages of protection are reduced in her case. In fact, as we shall see in chapter 3, she has used a variety of 'promotional' measures and these have been effective in stimulating industrial growth. An interesting question is which set of policies, protective or promotional, has been more effective in Iran. However we have not been able to study this question since the required amount of information is not available.

61. See, for example, R.C. Porter and C.P. Stealin, 'The Rediscovery of Exports by the Third World' Foreign Trade Review, (January, 1972) pp.1-17.

62. See, John H. Power, 'Import Substitution as an Industrialisation Strategy', Phillipine Economic Journal, (Second Semester 1966), p.191. I. Little, T. Scitovsky and M. Scott, op cit., pp.342-345. W. M. Corden, 'The Efficiency Effects of Trade and Protection', in I. McDougall and R. Snape, op. cit., pp.1-18.

63. W.M. Corden, 'The Structure of Tariff System and the Effective Protective Rate', Journal of Political Economy (1966), reprinted in J. Bhagwati, International Trade, op. cit. pp.284-307.

64. I. Little, T. Scitovsky and M. Scott, op. cit., B. Balassa and Associates, The Structure of Protection in Developing Countries, The John Hopkins Press, (1971).

65. For a concise discussion of the assumptions see, H.G. Grubel, 'Effective Protection: A Non-Specialist Introduction to the Theory, Policy Implications and the Controversies', in H.G. Grubel and H.G. Johnson (eds). Effective Protection, Graduate Institute of International Studies, (Geneva 1971), pp.1-15. Also see, B. Balassa, 'Effective Protection: A Summary Appraisal', in the same volumes, pp.247-260. At this juncture, it should be pointed out that in measuring effective protection it is necessary to take account of non-traded inputs into the activity concerned. One procedure, suggested by Corden is to treat non-traded inputs (such as water, electricity, transport, etc.) as primary factors and thus include the value of their services in value added. This is the most common method and is the one that has been used in estimating effective rates of protection for Iranian manufacturing which appear in table 3-3 of chapter 3. An alternative procedure is to treat non-traded

inputs like traded inputs but assigning a zero tariff rate to them.

66. W.M. Corden, 'The Structure of Tariff System and the Effective Protective Rate', op. cit. pp.288-289.

67. G.C. Winston,'Overinvoicing, Underutilisation, and distorted Industrial Growth', Pakistan Development Review, (Autumn, 1970), pp.352-401.

68. David Flix, 'Monetarists, Structuralists, and Import-Substituting Industrialisation: A Critical Appraisal', in W. Baer and I. Kerstenetzky (eds), Inflation and Growth in Latin America, Yale University Press, (1964), pp.352-401.

69. Ibid.

70. L.J. Johnson, 'Problems of Import Substitution: The Chilean Automobile Industry', Economic Development and Cultural Change, (January, 1967), pp.2-17.

71. W. Baer, 'Import Substitution and Industrialisation in Latin America: Experiences and Intrepretations', op. cit. p.102.

72. I. Little, T. Scitovsky and M. Scott, op. cit. p.426.

73. L.J. Johnson, op. cit., Bernard Monk, 'The Welfare Cost of Content Protection: The Automobile Industry in Latin America', Journal of Political Economy,(March, 1969), pp. 85-98.

74. A.O. Hirschman, 'The Political Economy of Industrialisation in Latin America', op. cit., p.15.

75. Ibid.

76. Ibid., pp.17-24.

Chapter 2

Growth and Structure of Iranian Manufacturing Industry: 1955-1972

Since the middle of the 1950's manufacturing industry in Iran has experienced a very rapid growth. This can be seen in Table 2-1 below which presents the available data on output, value added, investment and employment in Iranian manufacturing for 1955 through to 1972. Considering the period as a whole[1], all these variables show very high rates of growth. Output and value added have grown at annual average compound rates of 15.6 and 14 per cent respectively, both in constant 1955 prices. Investment data on a consistent basis have been obtained only from 1962 onwards[2]. All observers agree however that between 1955 and 1960 manufacturing investment did increase very rapidly, particularly by the private sector[3]. The available data from 1962 onwards show that between 1962 and 1972 fixed investment, that is investment in equipment and structures, increased at an average annual compound rate of 24.1 percent in real terms. As a further indication of the enormity of the growth magnitude involved, it is instructive to point out that, according to official statistics the net addition to manufacturing capital stock in 1972 was greater than the total manufacturing capital stock existing at the end of 1963[4]. The growth of employment in the manufacturing sector has been somewhat less rapid though still very substantial. The number of people employed in manufacturing increased from about 781,000 in 1955 to about 1820,000 in 1972, implying an annual average compound rate of growth of 5.2 percent over the period.

This chapter has two aims. Firstly it sets out to depict and analyse the outstanding feature of the growth of Iranian manufacturing over the 1955-1972 period. It will be shown that throughout the period manufacturing

TABLE 2-1: Basic data on Iranian manufacturing industry, 1955-1972. Value figures in billion (1000 million) rials. Employment in 1000 persons.

Year	Output*	Value added*	Investment**	Employment
1955	29.5	13.4		781
1956	31.7	14.4		816
1957	37.0	16.7		851
1958	43.1	19.5		881
1959	48.7	22.2		927
1960	58.1	25.9		968
1961	61.6	27.3		1,010
1962	77.6	33.2	6.6	1,083
1963	89.7	38.5	5.1	1,070
1964	105.6	42.2	6.8	1,103
1965	153.3	48.4	10.5	1,170
1966	177.5	56.0	16.0	1,252
1967	226.6	68.0	19.3	1,335
1968	252.9	77.1	30.0	1,402
1969	276.2	86.6	39.3	1,468
1970	304.2	95.0	45.1	1,543
1971	343.3	107.1	49.4	1,625
1972	379.7	122.1	52.4	1,820

*) Deflated by the General Index of Wholesale Prices 1955 = 100

**) Deflated by the General Index of Wholesale Prices 1962 = 100

Sources: Ministry of Economy, Statistics on Large Industrial Establishments of Iran in 1969, p. viii, Ministry of Economy, Iranian Industrial Statistics for 1350 (1971-1972), pp. 'kh' - 'd' (in Persian), Ministry of Economy, Iranian Industrial Statistics for 1351(1972-1973), pp. 21-22 and p.26 (in Persian), International Labour Office, Employment and Income Policies for Iran, p.31. Wholesale price series constructed from data in, Farhad Daftary, 'The Balance of Payment Deficit and the Problem of Inflation in Iran, 1955-1962', Iranian Studies (Winter 1972), p.13, Bank Markazi Iran, Annual Report and Balance Sheet 1349(1970-1971), p.150, Bank Markazi Iran, Annual Report and Balance Sheet 1351 (1972-1973), p.180.

growth has been through the process of import substitution and orientation towards the home market. In the second half of the 1950's the main mechanism of growth was the replacement of imports in a small number of consumer good industries. During the 1960's and the early 1970's the process of import substitution became more widespread, extending to a wider range of consumer goods, notably household appliances and other consumer durables as well as to a significant number of intermediate products. Estimates of import substitution in 15 sectors comprising the Iranian manufacturing industry over the 1960-1972 period, for which relatively detailed information and data have been gathered, are presented.

The second aim of this chapter, which is closely related to the first, is to analyse the structure of manufacturing industry with respect to the use distribution of output. Distribution of output between the use categories of consumption, intermediate and investment in two years, 1960 and 1972, shows that in both years consumer goods, which have been the main beneficiaries of import substitution, had the largest share in manufacturing output and that the dominance of consumer goods was more pronounced in 1960 than in 1972. In the latter year the structure of manufacturing output was more diversified mainly due to the appearance of a number of consumer durables and intermediate goods which were not produced in Iran before the 1960's.

I - Import Substitution and Growth of Manufacturing

Table 2-2 shows the distribution of Iran's imports between consumption, intermediate and investment goods for the period 1954-1972. The figures show that the share of consumer goods, which dominated Iran's import structure in the mid-fifties, has steadily declined from about 57.4 percent of total imports in 1954 to about 12.9 percent in 1972. The share of consumer good imports would have been even smaller were it not for the increase in the imports of food items towards the end of the period under study; the

TABLE 2-2: Structure of Iran's imports, 1954-1972. Percentage distribution between consumer, intermediate and investment good imports.

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
Consumer Goods	57.4	50.2	52.2	46.0		30.2	28.5	25.5	21.7	24.2	23.1	17.4	15.0	12.6	11.3	10.9	12.9	13.7	12.9
Intermediate Goods	9.3	14.7	11.5	11.5		49.1	47.1	53.5	57.1	55.5	55.0	57.7	57.9	59.7	61.1	64.0	63.7	64.8	62.1
Investment Goods	33.3	35.1	36.3	42.5		20.7	24.4	21.0	21.2	20.1	21.9	24.9	27.1	27.7	27.1	25.1	23.4	23.5	25.0
Percentage of Intermediate imports gone to Manufacturing						x 81.4	x 80.7	x 79.1	62.0	77.0	68.0	59.4	66.2	60.4	60.7	62.5	68.6	x 83.1	x 79.3
Percentage of investment imports gone to Manufacturing						x 53.6	x 50.3	x 57.6	54.3	55.7	49.5	50.3	67.5	65.0	67.9	63.6	64.1	x 65.5	x 64.1

x Imports delivered to "industries and mines" which include manufacturing, mining, water and electricity.

Sources: Nasrollah Vaqar, 'The Positive Aspects of the International Demonstration Effect and the trends of Imports in Iran', Middle East Economic Papers, (1961) P.119, Bank Markazi Iran, Annual Report and Balance Sheet 1349 (1970-1971), P.140, Bank Markazi Iran, Annual Report and Balance Sheet 1351 (1972-1973), P.165. Ministry of Economy, Input-Output of Iranian Import and Export 1962-1970, PP. 8-20.

proportion of manufactured consumer goods has fallen even more rapidly through the period and by 1972 probably accounted for no more than 8.7 percent of total imports[5].

Parallel to the decline in consumer good imports, domestic production of such goods has been on the increase all through the period. This increase in domestic productive activity is directly reflected in the fact that imports of investment and particularly intermediate products have been growing and have increased their shares in total imports. Furthermore, available data regarding the distribution of imports among different economic sectors indicate that a major portion of intermediate and investment imports have been used by manufacturing. All these facts point to import substitution as a major mechanism for the growth of Iran's manufacturing industries. To provide further demonstration that this has in fact been the case, further analysis of import and output data are necessary.

Mainly due to the lack of continuity in the data, it is best to consider the 1955-1960 and 1960-1972 period separately. This can also help to highlight some of the major distinguishing elements, from both periods.

1955-1960

For this period, it has not been possible to measure import substitution in various industries by the use of the Chenery method. Although data pertaining to imports of different manufactured products do exist, data on domestic production prior to 1960 are very scanty. Nevertheless it is still possible to give an adequate picture of import substitution by using data on the volume (rather than the value) of output as well as isolated figures for public and private investment in the major industries of the period. The use of volume rather than value figures does not produce a great problem since the industries considered did not produce a very heterogeneous output.

The division of consumer goods imports between durable and non-durable

categories shows that in 1954 the overwhelming share of consumer good imports, 80.3 percent, consisted of non-durable items[6]. Furthermore the bulk of such imports consisted of a small number of non-durable items. In 1956, for example, two items of mass consumption, textiles and sugar, accounted for 62 percent of the value of all non-durable consumer good imports[7]. What is more, imports of textiles and sugar were by far the largest source of domestic consumption of these goods. In 1956 the share of imports in the total volume of sugar consumed approached 80 percent[8]. Similarly imports were the dominant source of supply for textiles. In 1955 imports accounted for 53.8 and 65.8 percent of the total volume of cotton and woollen cloth consumption, respectively[9].

It is therefore not surprising that in subsequent years these two industries, textiles and sugar, attracted much of the investment funds channelled into the manufacturing sector. During the Second Development Plan (1955-1972), the Plan Organisation invested 61.5 percent of its eventual allocation to the manufacturing sector for the modernisation and expansion of sugar and textile industries[10]. Outside the Plan Organisation, the Ministry of Industry and Mines instituted a major loan programme for private investors in manufacturing industry[11]. Between 1957 and 1960, 53.4 percent of the total value of these loans, amounting to 3,337 million rials were advanced to private investors in sugar and textiles[12]. Such loans helped to mobilize a substantial amount of private capital to these industries because each loan only financed up to a third of the cost of investment[13].

As a result of the increased investment activity by the public and the private sectors, domestic production of sugar and textiles increased very rapidly. Sugar production increased from 75,000 tons in 1955 to 110,000 tons in 1959[14]. Consequently the share of domestic output in total supply (domestic output plus imports) rose from 20 to 37 percent over the period[15]. Likewise, the textile industry grew very rapidly.

Between 1959 and 1960 the output of the two major products of this industry, cotton and woollen cloth, increased at an average annual compound rate of 30 and 18.5 percent respectively[16]. The share of imports in the total volume of cotton and woollen cloth had by 1960 declined to 33 and 62 percent respectively[17].

Thus by 1960 significant import substitution had taken place in two of Iran's most important industries, although possibilities for further import substitution still existed, since, as the above figures show, imports were still a very important source of supply for the products of these industries.

Over the 1955-1960 period import substitution was not totally confined to the textile and sugar industries. It was characteristic of the growth process in almost all of Iran's manufacturing industries. However import substitution in textiles and sugar alone would go a long way in explaining the growth of manufacturing as a whole. This is because these two industries weighed so heavily in the sector. One indication of the dominant role of these industries is the fact that in 1955 they employed 40.8 percent of the total labour force working in Iranian factories[18].

In addition import substitution was important in consumer goods like tea, vegetable oil and some simple, metal fabricated consumer durables[19]. More interestingly even such industries as cement and glass, whose products may be described as 'non-tradable' (because they are heavy or fragile and therefore their domestic production would enjoy a natural protection and locational advantage), in fact grew against the background of substantial quantities of imports. Imports of cement and sheet glass were over 50 percent of total supply of these products in 1955. Furthermore 1955 can in no way be regarded an unrepresentative year so far as these two industries are concerned. In fact available data on the volume of output of these industries show that imports of cement and sheet glass were roughly

50 percent of total supply of these items all through the first half of the 1950's[20]. The subsequent growth of these two industries resulted in very rapid decline in import shares. By 1960 in fact imports had fallen to 4 and 40 percent of the volume of total supply of cement and sheet glass respectively[21].

1960-1972

During the 1960's and the early 1970's the growth of the manufacturing sector continued to be based on import substitution. A general picture of import substitution emerges from an analysis of the 'sources' of growth in manufacturing output between 1960 and 1972. Using the Chenery method it has been possible to divide the growth in the output of 15 manufacturing industries between 'import substitute' and 'demand expansion' components. The 'demand expansion' component describes that portion of growth which is 'due' to the increase in the demand for the products of the industry. This increase may emanate from a rise in the use of the products by other industries as intermediate inputs, or from an increase in the final demand for the products of the industry both at home and also as exports. The 'import substitute' component, on the other hand, describes that part of the growth in output which is 'due' to a decline in the share of imports in the total supply of the industry. Accordingly, as was also noted in the last chapter, import substitution is measured as the difference between the growth that has actually taken place and the growth that would have taken place had the ratio of imports to total supply remained unchanged over the period under consideration. In table 2-3 below the results of the computations for 15 industries which comprise the manufacturing sector in Iran are presented. 'Import substitute' and 'demand expansion' components in the growth of the output of each industry are divided by the total growth of the output in the same industry and are presented as percentages:

Table 2-3: Percentage Distribution of the Growth of Manufacturing Output between 'Import Substitute' (IS) and 'Demand Expansion (DE) Components: 1960-1972.

Industry	IS	DE
Food, beverages and tobacco	21.3	78.7
Textiles	21.0	79.0
Clothing and footwear	5.9	94.1
Wood and furniture	51.9	48.1
Leather	10.5	89.5
Paper and printing	63.0	37.0
Rubber	84.0	16.0
Chemicals and petrochemicals	74.0	26.0
Non-metallic minerals	25.0	75.0
Basic metals	72.4	27.6
Metal products	13.3	86.7
Machinery, non-electric	92.9	7.1
Machiner, electric	89.5	10.5
Transport equipment	53.6	46.4
Other industries	55.6	44.4

Sources: Output data from, Ministry of Economy, Iranian Industrial Statistics for 1349 (1970-1971), pp.53-90; Ministry of Economy, Iranian Industrial Statistics for 1531 (1972-1973), pp. 52-71. Import data from, United Nations, International Trade Statistics, 1960, pp.291 ; Ministry of Economy, Input-Output of Iranian Import and Export (1962-1970), pp.8-31; Plan Organisation, Fifth National Development Plan: 1351-1357 (1973-1978), pp. 886-900.

Before interpreting the results of the computations shown above, it should be emphasised that they are only rough indicators of an order of magnitude. One important limitation that should be mentioned is that we could not ascertain whether import data for 1972 were 'cif' figures or whether they

included tariffs[22]. Similarly, as we noted in the last chapter, it would be desirable to evaluate the output of domestic industries at world prices. However this required a comparison between domestic and world prices of a detailed list of commodities, which is not possible with published Iranian statistics. In the absence of the possibility of more refined calculations, the results presented in the above table do give a rough picture of the growth pattern of Iran's manufacturing industry over the period.

Table 2-3 shows that between 1960 and 1972 all manufacturing industries have experienced some import substitution and that in 8 out of the 15 industry groups listed import substitution accounts for more than 50 percent of the increase in output. These latter were in fact Iran's most 'dynamic' industries of the period, enjoying exceptionally high growth rates between 1960 and 1972. The average compound rate of growth for the 8 industries combined was 24.9 percent over the period. This rate compares with an average annual compound rate of growth of 16.4 percent for the manufacturing sector as a whole. As a result of the above average rates of growth, the combined share of the 8 industry groups in total manufacturing output increased from under 17 percent in 1960 to nearly 34 percent in 1972[23].

In the remaining industry groups 'demand expansion' has been a more important source of growth than import substitution, although import substitution is still quite significant in foods, textiles and non-metallic minerals. In addition, of course it should be remembered that 'demand expansion', refers, almost exclusively, to the expansion of domestic demand; export expansion has not played a very significant role in the growth of Iranian manufacturing. This is particularly true of the growth of the more recently established industries. The bulk of Iran's manufactured exports consist of carpets (which alone accounts for 30 percent of the total) and items such as dried fruit and leather products which have undergone little processing even though they are classified as 'manufactured' exports[24].

There are a number of reasons why (domestic) demand expansion has been more important than import substitution in some of Iran's manufacturing industries. One reason is that some of these industries had already achieved a measure of import substitution in the 1950's. We have already seen that woollen and cotton cloth, sugar, cement and glass, among others, experienced significant import substitution between 1955 and 1960. This to some extent explains the low degree of import substitution in 'food, beverages and tobacco', 'textiles' and'non-metallic mineral' industry groups between 1960 and 1972.

However a more important reason which helps to explain the low share of import substitution in the growth of some industries relates to the nature of the demand for their products. A closer examination of the industries with low import substitution shows that they produce output, a major part of which does not compete with imports. The output of 'textiles', for example, includes carpets which as we have already noted is a major (non-oil) export. The same is true of 'leather'.

The industry with the lowest (5.3 percent) share of import substitution in output growth, 'clothing and footwear', is a major rural industry and the bulk of its output satisfies rural requirements. Between 1967 and 1972, for which an industry breakdown of output between rural and urban components of output has been obtained, an average of 58 percent of the output of 'clothing and footwear' was produced in rural areas[25]. To a lesser extent the same factor operates in the case of 'foods' and 'textiles' industry groups. During the 1967-1972 period the rural component in the output of these two industries averaged 32 and 29.6 percent respectively[26].

'Metal products', another industry with a low share of import substitution in the growth of output also produces goods which for the most part do not compete with imports, satisfying what may, for want of a better word, be termed as 'traditional' requirements in rural and urban areas, although in this case the industry is actually urban based and only a mere 4 percent

of its output is produced in rural areas[27]. Much of the produce of this industry is composed of 'traditional' items like samavars, copper and enamel wear and various cooking utensils[28]. This industry also supplies simple equipment for agricultural and construction use such as spades, shovels and metal doors and window frames. Such items are typically produced in a large number of very small workshops. Between 1969 and 1971 an average of 70 percent of the output of 'metal products' was produced in manufacturing establishments employing less than 10 workers[29].

Generally speaking, import substitution has been the growth mechanism mainly for the modern factory based sector of Iran's manufacturing industries[30]. Throughout most of the 1955-1972 period and particularly since 1960 large scale urban manufacturing establishments have been responsible for the greatest part of the growth of Iranian manufacturing, serving to emphasise the important role that import substitution has played in the overall growth of Iranian manufacturing. Rural and small scale urban manufacturing have not grown as fast. It seems safe to say that in their case the growth that has taken place has been in response to rising population and also the steady growth in per capita incomes. Table 2-4 below presents a breakdown of manufacturing value added between large and small units for the 1955-1972 period:

The table shows that in most years the increase in value added attributable to large scale units is much greater than that by small units. As a result of this the share of large scale units in total value added has increased over the period covered by the table. If we ignore 1964 and 1965 (when the share of large units shows an abnormal growth) large scale units have steadily increased their share in total value added from 47 to 67 percent.

Table 2-4: Distribution of Manufacturing Value Added (VA) in Urban areas between Large and Small Units: 1955-1972. (Billion Rials, Current Prices).

Year	VA by Large Units[a]	VA by Small Units[b]	% Share of Large Units in Total VA
1955	6.0	6.7	47
1956	7.1	7.9	47
1957	8.0	8.7	48
1958	9.2	10.0	48
1959	12.2	10.0	55
1960	14.0	12.3	53
1961	15.0	12.7	54
1962	19.0	15.1	55
1963	23.0	16.9	57
1964	28.0	17.4	61
1965	39.0	13.0	75
1966	43.0	18.5	70
1967	47.0	22.7	67
1968	52.0	23.8	68
1969	58.0	29.3	66
1970	63.6	34.9	65
1971	73.7	40.0	65
1972	89.2	44.2	67

(a) - Employing ten or more workers

(b) - Employing less than ten workers.

Sources: Ministry of Economy, Statistics on Large Industrial Establishments of Iran in 1969, pp. vii-viii; Ministry of Economy, Iranian Industrial Statistics for 1351 (1972-1973), pp. 38-41.

II - Structure of Manufacturing Output: 1960-1972

In 1960, as table 2-5 shows, the bulk of manufacturing output consisted of non-durable consumer goods[31]. Foods, textiles and clothing, together accounted for nearly 60.2 percent of all manufactured products[32]. Durable consumer goods had a very small share of output. Two products, carpets and wooden furniture accounted for more than 79.5 percent of the value of all durable consumer goods.[33] Significantly, in 1960 domestic production or assembly of automative and electrical household appliances was almost totally non-existent. Consumption of such items, which was confined to the highest income groups in the urban areas, was more or less totally satisfied by imports.

Table 2-5: Structure of Manufacturing Output in 1960. Values in Million Rials.

		Percentage in total
Consumer Goods	56,418	87.0
(a) - Non-durable	53,389	(94.6)
(b) - Durable	3,024	(5.4)
Intermediate Goods	7,797	12.0
(a) - Construction Materials	5,337	(68.4)
(b) - Others	2,460	(31.6)
Investment Goods	585	1.0
Total	64,800	100.0

Source: Ministry of Economy, Iranian Industrial Statistics for 1348 (1969-1970), pp.57-94.

Intermediate manufactured products in 1960 amounted to some 12 percent of total output. As the table shows the greater part of intermediate output was composed of construction materials. In fact only three basic materials used by construction-bricks, cement and glass-accounted for 34.7 percent of the total of domestically manufactured intermediate products in 1960[34].

Production of investment goods was relatively insignificant in 1960. The output of 'modern' investment goods-capital machinery and equipment - was negligible. According to official statistics the value of such goods was about 77 million rials (about 13.1 percent of the total) . The remainder of the investment goods was composed of very simple equipment and hand-tools used by the construction industry as well as agriculture.

From the above account of the structure of Iranian manufacturing in 1960, it can be seen that in that year the structure of output reflected an economy at the very early stages of industrial growth. All manufacturing activity heavily depended on the domestic economy for its raw materials. These were supplied by agriculture and livestock sectors (cotton and woollen textiles, carpets and leather goods), or by domestically available minerals (cement, bricks and other construction materials).

The structure of manufacturing output in 1972 was broadly similar to that in 1960 in the sense that in both years consumer goods had the largest share in total output. However, as table 2-6 shows, the structure of output was more diversified in the latter year to the extent that the other two categories, intermediate and investment goods had increased their relative shares:

Table 2-6: The Structure of Manufacturing Output in 1972. Values in Million Rials.

		Percentage in total
Consumer Goods	357,820	70.3
(a) - Non-durable	307,370	(85.9)
(b) - Durable	50,450	(14.1)
Intermediate Goods	113,592	22.3
(a) - Construction Materials	32,143	(28.3)
(b) - Others	81,449	(71.7)
Investment Goods	37,488	7.4
Total	508,900	100.0

Source: Ministry of Economy, Iranian Industrial Statistics for 1351 (1972-1973), pp. 52-70.

Considering the relative shares of each category in 1972, we can say that, generally speaking by that year Iranian manufacturing industry had completed the 'consumer' or 'easy' stage of import substitution and had made a significant start on the next stage of expansion along the lines of intermediate, and to a lesser extent, investment goods.

Not only there were changes in the relative shares of each major category, but within each of them there was a much greater diversification of the product mix in 1972 than in 1960. For example, whereas in 1960 consumer goods produced by the chemical industries accounted for only 1.5 percent of the value of non-durable consumer goods, by 1972 the ratio had increased to 5.6 percent[35]. Similarly, the share of intermediate products other than construction materials went up from 31.6 percent in 1960 to 71.1 percent in 1972. Intermediate goods produced by the chemical industries had the highest rates of growth in this category and by 1972 accounted

for 14.8 percent of its total output[36].

Another major difference between the structure of output in the two years is the much greater importance of durable consumer goods in 1972 than 1960. According to published official data in 1960 Iran did not produce cars, motor cycles, refrigerators, radio or television. By 1972 however these commodities together with scores of other household items were being produced or assembled in increasing quantities in Iran.

The growth of assembly operations has in some ways been very characteristic of the growth of manufacturing industries. Almost every new industry set up has been engaged in assembly for further processing of imported parts and components. As we have just noted, this is largely reflected by the growth of consumer durables, but is by no means confined to them. The pharmeceutical industry, for example, basically performs mixing and packaging operations on imported ingredients[37]. In the capital goods industries too, a predominant part of the output is assembled from imported components. This applies to the assembly of transport equipment such as lorries, tractors, buses and commercial vehicles. Another example is the assembly of stationary diesel engines, ball-bearings and machine-tools.

Thus whereas in 1960 the output of manufacturing industry heavily depended on domestic material inputs, by 1972 a significant and growing part of the manufacturing industry depended on imported parts and components and in some cases raw materials for its operations. This, in turn reflected the greater technological complexity of the fastest growing sectors of the Iranian manufacturing industry.

Notes and References

1 - In the early 1960's the country suffered a depression which affected the growth of manufacturing adversely. This is indicated by a decline in investment and employment between 1962 and 1963. Output and value added do not show a decline, however. This, presumably must have led to an increase in inventories. For a discussion of the background to the depression of the early 1960's see, Farhad Daftary, 'The Problem of Inflation and Balance of Payment Deficit in Iran, 1955-1962', Iranian Studies, (Winter 1972), pp.2-23.

2 - One source (Ministry of Economy, Statistics on Large Industrial Establishments of Iran in 1969) does include figures for manufacturing investment covering the 1955-1969 period (in page viii). However these are manifestly wrong and in fact make no sense whatever. To illustrate, figures for total investment (public and private) relating to the 1955-1960 period in the above publication are significantly below figures for private investment alone which have been independently estimated and are reasonably reliable.

3 - See, for example, Sharif Adib-Soltani, Domestic Capital Formation in Private Manufacturing Industry in Iran for the Period 1327-1336 (1948-1957), (Unpublished Plan Organisation Document, September 1959), pp. 15-20. Also see, Plan Organisation, Review of the Second Seven Year Plan Program of Iran, (Tehran, March 1960), p.56.

4 - Ministry of Economy, Iranian Industrial Statistics for 1350 (1971-1972), (Tehran, June 1974), p. 'kh' (In Persian), Ministry of Economy, Iranian Industrial Statistics for 1351 (1971-1973), (Tehran, 1974), p.26 (in Persian).

5 - This percentage relates to consumer good imports minus imports of live animals and animal products as well as wheat and wheat flour. See, Bank Markazi Iran, Annual Report and Balance Sheet 1351 (1972-1973), (Tehran, September 1973), p.164.

6 - Nasrollah Vaqar, 'The Positive Aspects of the International Demonstration Effect and the Trends of Imports in Iran', Middle East Economic Papers, (Beirut, 1961), p.119.

7 - Calculated from, ibid., p.119 and p.125. Value of imported sugar for 1956 obtained from, Plan Organisation, The Sugar Industry in Iran, (Tehran, February 1968) Table.4.

8 - Ibid., table 2.

9 - Plan Organisation, The Textile Industry in Iran, (Tehran, April,1968) pp.38-39.

10 - Plan Organisation, Report on the Execution of the Second Seven Year Plan, (Tehran, 1964), table 16. (In Persian).

11 - See Ibid., p.4.

12 - R.E. Benedick, Industrial Finance in Iran, Harvard University Press, (Boston, 1964), p.255

13 - Ibid., pp.104-105. Here it is pointed out that such loans were mainly construction expenses. These in turn amount to about a third of the total investment cost. See further, Sharif Adib-Soltani, op.cit.

14 - George B. Baldwin, Planning and Development in Iran, The Johns Hopkins Press, (Baltimore, 1967), p. 104.

15 - Plan Organisation, The Sugar Industry in Iran, op.cit., table 4.

16 - Plan Organisation, The Textile Industry in Iran, op. cit., pp.36-39.

17 - Ibid.

18 - R.E. Benedick, op. cit., p.239. Note that this excludes the large numbers employed in handicraft and other small manufacturing.

19 - United Nations, Economic Commission for Asia and the Far East (ECAFE), 'A Country Study on Iran', Industrial Developments: Asia and the Far East, Vol. II, (New York, 1966) pp. 338-344.

20 - Ministry of Industry and Mines, Industry and Mines Statistical Yearbook 1960-1961, (Tehran, no date), p.48.

21 - Ibid.

22 - This is because the source used for imports in 1972 is the text of the Fifth Plan. Because the Plan organisation is mainly interested in estimating demand for various commodities, it is therefore likely that the import component would include indirect taxes (and so are valued at market prices). Whether this was the case or not could not be ascertained, It should be noted that if import values for 1972 include indirect taxes then 'import substitute' components in table 2-3 are under-estimates.

23 - Ministry of Economy, Iranian Industrial Statistics for 1350, op. cit., p.1. Ministry of Economy, Iranian Industrial Statistics for 1351, op.cit., p.33.

24 - See, for example, Nasrollah Vaqar, 'An Analysis of Iran's Foreign Trade and the Causes of the Stagnation of its Exports', Middle East Economic Papers, (Beirut, 1969), pp. 90-95.

25 - Ministry of Economy, Iranian Industrial Statistics for 1351, op. cit., pp.33-34.

26 - Ibid.

27 - Ibid.

28 - For a detailed list of commodities produced by this (and other) industry group, see, Ministry of Economy, Iranian Industrial Statistics for 1350, op. cit., pp.18-54.

29 - Calculated from, Ministry of Economy, Iranian Industrial Statistics for 1348 (1969-1970), (Tehran, no data), p.1 Ministry of Economy, Iranian Industrial Statistics for 1350, op. cit., p.1.

30 - See, for example, International Labour Office, Employment and Income Policies for Iran, (Geneva, 1973) pp. 49-61.

31 - We have assumed that the outputs of 'food, beverages and tobacco', 'textiles' and 'clothing and footwear' wholly consist of consumer goods. The output of 'non-metallic minerals' has been assumed as being totally for intermediate purposes (construction). For other sectors we have used detailed commodity lists for different industry groups published in the Ministry of Economy's annual industrial statistics, in order to divide the output of each industry group between the uses of consumption, intermediate and investment.

32 - Ministry of Economy, Iranian Industrial Statistics for 1348, op. cit., pp.57-90.

33 - Ibid.

34 - Ibid.

35 - Ministry of Economy, Iranian Industrial Statistics for 1351, op. cit., p.62.

36 - Ibid.

37 - Vahid F. Nowshirvani and Robert Bildner, 'Direct Foreign Investment in the Non-Oil Sectors of the Iranian Economy', Iranian Studies (Spring-Summer 1973), p.90.

Chapter 3

Government Policy and the Growth of the Manufacturing Sector: 1955-1972

From the last chapter it emerged that the manufacturing sector in Iran has had a very rapid growth since the middle of the 1950's and that nearly all of this growth has been import replacing and oriented towards the home market. The present chapter examines the role of government policy in this growth process.

Throughout the period encouraging the growth of manufacturing industries has been an integral and increasingly important part of development objectives in Iran. During the Second Development Plan (1955-1962) industrial growth was encouraged as a means of increasing income and employment opportunities in the country and also as a means of "increasing national self sufficiency in a few strategic consumer goods " - mainly textiles and sugar[1]. During the subsequent period the aims of industrial policy became more ambitious. The Third Plan (1962-1967) and more emphatically the Fourth Plan (1968-1972) regarded industrialisation as a basic policy for effecting structural change and significant diversification in economic activity. More specifically, industrialisation was justified in the following terms:

"1 - Industry has a higher rate of growth as compared to other sectors.

2 - Industrial growth will result in the extension of advanced production techniques and better management in other fields of economic activity.

3 - Unlike the agricultural sector, (industry) is less affected by natural and climatic conditions.

4 - Industry is more capable of adapting the nature of its products to the requirements of the economy." [2]

Apart from these general advantages, industrialisation was also necessary

for reasons more specific to the circumstances of the Iranian economy, thus:

> "Industrial diversification and increased exports to reduce the country's dependence on oil is one of the lynch-pins of the Iranian plans for the future; the rapid expansion of industry is the natural corollary to this trend".[3]

In practice the above objectives have implied a policy of import substitution in stages, beginning with investment in a limited number of "strategic" consumer goods in the 1950's, extending to a much wider range of consumer durables and non-durables during the 1960's while the Fourth Plan envisaged the extension of the manufacturing sector into intermediate and capital goods industries.

This increasing emphasis on import substitution can be seen most clearly through the government's commercial policies through the period. While these policies have always aimed at protecting domestic industries, the protection awarded was much greater during the 1960's and early 1970's than in the previous sub-period.

In addition to direct protection from imports, the government has also used other, 'promotional', measures to encourage the growth of import substitute industries. Most important among these has been the provision of long and medium term credit for private industry through industrial development banks. Other promotional measures include favourable tax and subsidy policies.

In the rest of this chapter both sets of policies will be considered in detail.

I - Protective Policies

The use of trade restrictions as a device for stimulating the growth of manufacturing industries became widespread during the 1960's. Before that, between 1955 and 1960, there was much less use of protection; the government followed a relatively "open door" trade policy. The major aid

to private industry took the form of liberal monetary and credit measures.

For this earlier sub-period, very little information on the actual level of protection is available. What quantitative information exists, is highly aggregated and refers to the whole of the economy rather than the manufacturing sector. According to one source, over the 1955-1961 period the ratio of custom revenues to total imports by value actually fell from about 22 percent to about 16 percent[4]. This implies a rather low, and declining magnitude for the average tariff levied on different items. However, because no information on the structure of protection differences between tariff rates on major consumption, intermediate and capital goods is available for this period, it is not possible to obtain any estimates of the level of effective protection. Nevertheless there is general agreement that the net effect of tariffs and other trade taxes were only mildly protectionist[5].

By contrast, during the subsequent period protection became a very powerful stimulus for industrial growth; protection and expansion of domestic industries became the main aim of foreign trade policies. These policies were deployed to protect and expand already existing industries and also to encourage assembly and progressive manufacture in major new manufacturing industries. Thus:

> "...efforts will be made to prevent, to the extent that the economic and financial well-being of the country requires, the import of foreign manufactured goods the production of which within the country is technically feasible and economically and financially profitable. Such goods should be imported in the form of parts or semi-manufactured components and gradually the various stages of the production of the finished product should take place in Iran. But, the issuance of license for establishing such factories shall depend, from the very beginning on the fixation of the percentage of the parts which will be gradually manufactured in Iran; and the degree of the exemption from the payment of import duties and commercial benefit tax granted to assembly plants shall be based on the type of product as well as the percentage of the parts manufactured within Iran".[6]

To give effect to these objectives the government uses three protective

devices:

(a) - tariffs, (b) - an adminstrative system of import control which is tantamount to import licensing and (c) - a system of import registration deposits.

(a) - Tariffs

Tariffs are by far the most important protective device in Iran. They are made up of two parts, custom duties and 'commercial benefit taxes' (CBT)[7]. Changes in custom duties require legislative authority whereas the CBT is an adminstrative tariff and can be changed at any time and to any required extent by the Ministry of Economy. This flexibility has made the CBT the major instrument of tariff protection. Custom duties, on the other hand, have tended to act as a revenue raiser for the government. Since the government has not attempted to maximise its revenues from them, the level of custom duties have tended to be rather stable through the period, much more so than that of the CBT[8]. Economically, however, both the CBT and custom duties have the same character and combine to protect Iran's manufacturing industries.

As has already been mentioned during the 1960's and the early 1970's tariff levels were much higher than previously. In 1970 for example, the average level of tariffs was 4.8 times higher than that in 1960[9]. In table 3-1 below average tariff rates for sixteen industry groups which comprise the manufacuring sector in Iran are presented. They refer to 1965, the only year for which sufficient quantitative data are available.

There are some indications that in subsequent years the structure of nominal tariffs has changed somewhat. In particular during 1971 and 1972 some reductions in tariff rates for a number of consumer goods took place. Thus it is likely that since 1965 some gradual shifting of the structure of nominal tariffs in favour of intermediate and investment goods has been effected. This, at any rate, would be consistent with government

Table 3-1: Structure of Nominal Tariff (Ad Valorem) Rates in 1965*

Industry Group	Average Tariff Rate(Percent)	Rank
Food Processing	121.0	6
Beverages	351.8	1
Tobacco	239.0	2
Chemicals	58.1	11
Leather & Footwear	179.3	3
Furniture	126.5	5
Paper & Printing	11.7	16
Rubber products	55.4	12
Textiles	90.1	7
Wearing Apparel	144.1	4
Non-Metallic Minerals	81.8	8
Basic Metals	18.7	15
Metal Products	42.6	13
Machinery**	30.4	14
Transport Equipment	70.7	9
Other Manufacturing	69.8	10

* Custom duties and CBT combined,

** Includes electric as well as non-electric machinery.

Source: United Nations, Economic Commission for Asia and the Far East, Effective Protection and Interregional Trade, Vol.II, p.70.

pronouncements in the early 1970's[10]. However, in the absence of any information as to the extent of these tariff changes we have assumed the structure of nominal tariffs in 1965 is broadly representative of later years.

The table shows that, in general, average tariff rates in Iran conform to the "cascaded" structure which is observed in most countries. Industry groups ranking highly in the table produce mainly consumer goods. Thus, beverages, tobacco, leather and footwear, wearing apparel and furniture occupy the first five highest ranks in the table. On the other hand, industry groups producing predominantly intermediate or investment items have low ranks. Thus, as the table shows, basic metals, metal products, machinery and paper and printing are amongst the sectors with lowest levels of average tariff.

However, as may be expected, the average tariff rate for each industry group hides considerable variations that exist among individual tariff rates levied on the different products within the same industry group. For example, in the transport equipment sector individual tariffs vary from zero on boats to 300 percent on luxury cars[11]. Similarly in the chemicals sector there is a range of zero (on DDT and fertilizers) to 300 percent on cosmetics and related products[12]. This kind of variation exists for all industry groups and has a similar character: zero or very low rates on those commodities which are essential from the point of view of consumption as well as investment; and very high rates on luxury and non-essential items. This intra-sectoral variation in individual tariff rates reinforces the "cascaded" structure which exists at the more aggregate level.

Another,more important, shortcoming of the average tariff rates presented in table 3-1 should be noted. The averages are calculated by reference to all the commodities which are classified under the various sectoral groupings in the tariff schedule. However a significant number

of the commodities with assigned tariff rates are not produced in Iran (or at any rate were not produced in 1965)[13]. Therefore it should be clear that the average tariff rates in table 3-1 are not necessarily an adequate indicator of nominal tariff protection. This is for the rather obvious reason that unless a commodity is produced domestically it cannot be said to be protected even though its imports are subject to tariffs or other restrictions.

To overcome this difficulty, table 3-2 presents the nominal rates of tariff protection for thirteen industry groups. This is done by comparing the gross value of the output of each industry group at domestic prices with that of the output at 'world prices':

$$\text{Nominal Tariff Protection} = \frac{OD_i - OW_i}{OW_i}$$

where:

OD_i = The value of output of industry group i at domestic prices

OW_i = The value of output of industry group i at 'world prices'

$i = 1,.....,13$

The value of the output of each industry group at 'world prices' is calculated by deflating the domestic value of the output of each individual commodity in the group by the appropriate tariff rate and summing the result[14].

Table 3-2 is less comprehensive than table 3-1 since the former only covers 13 industry groups and accounts for 85 percent of manufacturing output in 1965. Nevertheless some comparisons between the two tables is still possible. It can be seen that in most cases average ad valorem tariff rates underestimate the nominal tariff protection that the industry groups enjoy. This is because in general most of Iran's manufacturing

Table 3-2: The Structure of Nominal Tariff protection in 1965

Industry group	Average of protection (Percent)	Rank
Food Processing	16.0	12
Beverages	157.0	2
Tobacco	249.0	1
Textiles	57.0	6
Paper & Printing	11.0	13
Leather Products	62.0	5
Rubber Products	53.0	7
Chemicals	95.0	4
Basic Metals	31.0	10
Non-Metallic Minerals	30.0	11
Machinery*	46.5	9
Metal Products	46.6	8
Transport Equipments	105.5	3

* Includes electric as well as non-electric machinery

Source: United Nations, Economic Commission for Asia and the Far East, Effective Protection and Interregional Trade, op. cit., p.71.

output is composed of final consumer goods which have high tariffs, whereas sectoral classifications in tariff schedules include all goods which enter international trade, many of which are intermediate or investment goods which bear low tariffs and are not produced in Iran. This can be illustrated most easily by comparing the average ad valorem with the nominal tariff protection of the transport equipments industry group. In this case nominal tariff protection is nearly 50 percent higher than the average tariff. The reason for this is the fact that nearly all of the output of this industry group is composed of assembled cars from imported parts and components.

We have so far been concerned with nominal tariffs and the nominal protection resulting from such tariffs - we have considered how tariffs affect the valuation of domestic output . As we noted in the first chapter, a more appropriate measure is effective protection or the protection of value added.

In table 3-3 below estimates of effective rates of (tariff) protection for fourteen industry groups are presented. These effective rates have been calculated on the basis of the 1965 input-output ratios for the Iranian economy. Input-output ratios for later years do not exist. In calculating the effective rates in the table the 'Corden' method of treating non-traded inputs is adopted. As we noted in the first chapter this method treats non-traded inputs (water, electricity, transport etc.) as a part of value added itself, so that value added would then consist of wages, salaries and profits plus the contribution of non-traded inputs.

Comparing table 3-3 with table 3-2 it can be seen that in most cases effective protection is greater than nominal protection. This is to be expected in view of the cascaded structure of nominal tariffs. The Transport equipment industry group has the highest level of effective protection which is about 8 times as high as the nominal protection

Table 3-3: Effective Protection - Iranian Manufacturing Industry 1965

Industry Group	Averate Rate or Protection (Percent)	Rank
Food Manufacturing	22.4	12
Beverages	114.6	4
Tobacco	274.1	3
Textiles	74.4	7
Paper and Printing	- 2.1	13
Leather Products	434.1	2
Rubber Products	82.2	6
Chemicals	111.0	5
Basic Metals	23.6	11
Non Metallic Minerals	28.4	10
Metal Products	50.5	9
Machinery*	60.8	8
Transport Equipment	866.0	1

* Includes electric as well as non-electric machinery.

United Nations, Economic Commission for Asia and the Far East, Effective Protection and Interregional Trade op. cit., p.71.

that it enjoys. This is because the industry mainly performsassembly operations and its value added, evaluated at free trade prices, is rather low. The same is also true of such industries as rubber and chemicals which also perform basically processing or packaging operations on imported raw materials and components. Another industry group with a high rate of effective protection is leather. This is rather surprising in view of the fact that a large part of the output of this industry is 'traditional' it is a predominantly small scale industry and exports a significant part of its output. The high effective rate of protection is even more difficult to explain since the nominal rate is relatively low at 62 percent. The only explanation is that in 1965 the industry must have imported a rather large proportion of its intermediate requirements. There are indications that this must have been due to exceptional circumstances affecting the industry in that year. In later years the proportion of imported inputs used by the industry seem to have been lower[15].

At the other end of the dispersion of effective protection is paper and printing which has a negative rate of protection. This means that the industry pays more in tariffs and other trade taxes on its imported inputs than imports competing with its products have to pay. In this way the industry is discriminated against. The next lowest rate of effective protection in 1965 is in the basic metal industries. Another industry with a low rate of effective protection is non-metallic minerals. All these are predominantly producers of intermediate or investment items.

It is interesting that Iran's biggest industries, food and textiles appear to be not very heavily protected, although the effective rates they enjoy are still higher than the nominal rates. As it was noted in the last chapter, these are Iran's oldest manufacturing industries. It may thus be tempting to conclude that the relatively low rate of protection for these industries indicates that they have succeeded in increasing

their efficiency through time; that they were initially "infant" industries and have now grown up. Unfortunately however, not nearly enough information is available to support a definitive statement in this regard.

(b) - Adminstrative Import Controls.

Another instrument that the government uses to protect Iran's industries is an administrative system of import control. This involves the classification of all imports into 'authorized', 'unauthorized' and 'prohibited' categories[16]. The first category, "authorized", encompasses all those items imports of which do not require prior authorization from any government body. Included under this category are the bulk of Iran's imports of intermediate and investment goods. Items covered by the "authorized" category accounted for the largest share of the country's imports over the 1960-1972 period. Recently however, its share in total imports appears to have been gradually declining, mainly because towards the end of the 1960's a number of new industries producing intermediate and investment goods (steel, machine tools, petrochemicals, etc.) were established and imports competing with their products have been excluded from the "authorized" category[17]. Even so by 1972 nearly 75 percent of Iran's imports did not require any prior authorization from the government[18].

The second category, 'unauthorized', includes those goods for which importers need prior authority from the government. As can be expected, this category covers nearly all of the goods that are produced by Iran's own manufacturing industries. Most imports subject to prior approval are licensed by the Ministry of Economy but an important portion depend on the Ministry of Health. Other government agencies control only a small fraction of imports. The Ministry of Economy controls imports of such

things as tyres and tubes, telephones, iron and steel products, sheet glass, textile fibres, plastic material and plastic products and cement among many other goods. The Ministry of Health on the other hand controls mainly imports of various pharmaceutical and medical products, the basic constituent of cosmetics, various essences and dried milk[19].

In many cases 'unauthorized' imports can only be imported by industrial establishments for their own use, rather than by commercial traders. For example, unrefined vegetable oils, components of transport vehicles, television and radio sets and certain other consumer durables can only be imported by the respective firms who use these items for further processing and manufacture[20].

So far as finished consumer goods are concerned, the main guideline in awarding import licences appears to be the achievement of balance between supply and demand of the commodities in question[21]. Hence if domestic production is considered to be less than the demand then the Ministry of Economy would authorize specified quantities of imports. In some cases import licenses are granted to merchants on the undertaking that they also market the domestic product. For example for each ton of nylon that the merchants buy from domestic producers they automatically get a license to import two tons (domestic production of nylon satisfies a third of Iran's needs)[22]. A similar procedure applies to many commodities that are domestically produced but not in sufficient quantities.

Judging by the government's pronouncements and observations of some writers, it appears that a major consideration that has affected the operation of licensing policies is the desire to combat inflationary pressures and to force an improvement in the quality of domestically made goods. Thus the government sometimes allows imports of certain consumer goods even though domestic production appears to be sufficient to meet domestic demand[23].

These two categories account for nearly all of Iran's imports; the 'prohibited' category seems to be relatively insignificant. The only items that appear to be permanently in the prohibited list are reported to be "arms, ammunition, photographic apparatus for air planes (without special permission from the government); transmitters, telegraph, telephone and wireless apparatus and accessories (except for government); records, tapes and publications contrary to public order, religion and morality; commodities with misleading markings"[24]

So far as consumer goods are concerned, certain items are occasionally put on the prohibited list, but only for relatively short periods, covering the initial stages of the domestic production of the goods in question. The government's pronouncements indicate a reluctance to cut off imports of consumer goods completely. Instead the government attempts to curtail imports by imposing strict regulations regarding the distribution and servicing of imported consumer durables. For example, imports of passenger vehicles, probably the single most highly protected commodity in Iran, are not prohibited. However regulations which require importers to maintain an adequate level of spare parts (which in turn bear a very heavy tariff) as well as providing for repair and service facilities have kept imports of cars to a very low level.[25]

The above description of adminstrative controls shows that like tariffs they have a 'cascade' structure in as much as licencing restrictions mainly apply to consumer goods while intermediate and investment goods can enter the country free from such restrictions. Therefore these adminstrative controls bestow a structure of protection on Iran's manufacturing industries, which is similar to tariff protection and in fact reinforces it.

(c) - Import registration Deposits

Finally, so far as protective measures are concerned, there is the system of import registration deposits. As its name implies this system involves the freezing of a certain part of the importer's funds and thus restricts import finance. Those importers affected have to deposit specified amounts with the Central Bank and can recover them once the goods are released from the Customs Office. The cost to the importer is therefore the equivalent of the interest earnings forgone. From the point of view of the government the advantage of this system is that the level of imports can be manipulated by monetary policy. For example by reducing the supply of money or restricting the availability of credit the authorities can make it difficult for importers to meet deposit requirements[26].

As can be expected however the system is not used indiscriminately and is structured in such a way as to protect import substitute industries. In 1971 about 210 items including most machinery and industrial raw material as well as parts and components could be imported with no advanced deposits. In the same year, 100 items including such things as oil,seeds, paper, certain iron and steel products some types of machinery and parts and certain scientific instruments were subject to advanced deposits equivalent to 40 percent of the value of the imported products. All other goods were, in 1971,,subject to a 100 percent deposit requirement[27].

It has been estimated that, on the basis of a commercial rate of interest of 15 percent per annum and an average deposit time of nine months, the interest cost amounts to a 3 percent tariff equivalent on those commodities subject to a deposit rate of 40 percent and a 7 percent tariff equivalent on imports subject to a 100 percent deposit[28].

In order to obtain an estimate of the overall magnitude of effective protection, one needs to adjust the effective tariff rates in table 3-3

for the interest costs mentioned above and also for the implicit costs resulting from administrative controls. This could not be attempted since data in the required detail and for all individual industry groups are not available. However we have seen that both adminstrative controls and the deposit requirements have a structure similar to that of tariffs. However, quantitatively, tariffs are far more important than the other two. Thus as we have seen deposit requirements amount to a nominal tariff equivalent of between 3 to 7 percent which in comparison with tariffs are very low. In addition adminstrative controls apply only to about 25 percent of all of Iran's imports and in most cases exclude outright prohibition.

Therefore it seems safe to conclude that tariffs by themselves give us a fairly accurate indication of the direction as well as the magnitude of protection in the manufacturing sector.[29]

II - Promotional Policies

As was mentioned in the beginning of this chapter government policy has attempted to provide incentives for industrialisation both by protective and also what are called 'promotional' measures. In this section we deal with the various forms that the latter set of measures have taken.

As was explained in some detail in chapter one, even though in theoretical terms promotional measures may constitute a more optimal set of policies, in practice they are often less attractive than protective measures. This is because the financing of promotional measures presents many difficulties in developing countries. They often lack an efficient taxation system and tend to rely on trade taxes for a major part of their revenues.

In Iran however the situation has, in this respect, been quite different from most other developing countries because of the existence of oil revenues. Oil has provided Iran with a relatively large and easily mobilized revenue throughout most of the period under study. Therefore

financing of promotional policies has not been a major problem. In what follows we will consider these policies under two headings: (a) - Long and medium term credit for industry; and (b) - Other promotional measures.

(a) - Long and Medium Term Credit for Industry

This has undoubtedly been the most effective promotional measure and has, equally undoubtedly, had a powerful stimulating effect on Iranian manufacturing industry. Since the middle of the 1950's the government has set up a number of financial institutions as a means of diverting public money to private industry for long and medium term purposes. To appreciate the importance of this for Iranian manufacturing it must be realized that before the middle of the 1950's no domestic institution providing such a service existed and that its lack was in many ways the most inhibiting factor for the progress of Iranian manufacturing[30].

In fact financial markets in Iran were dominated by bazaar merchants cum money-lenders and a few commercial banks. The latter however were practically identical to the bazaar operators and as Benedick has aptly remarked the main distinction between them was the impressively modern buildings which housed the commercial banks[31].

The result of this situation was that all credit to industry was of a very short duration and often at exhorbitant rates of interest. The short duration meant that the credit could only be used for working capital purposes. Even for such purposes the bargaining position of industrialists vis a vis the bazaar money-lenders was very weak - hence the high rates of interest. In most cases bazaar money-lenders were prominent wholesale dealers of important domestic and imported raw material and consumer goods.

Therefore industrialists had to depend on them both for obtaining inputs and also for marketing outlets:

Such circumstances were an important obstacle to industrial development in Iran and accentuated the already existing preference for alternative investment outlets such as rural and urban land and real-estate, carpets, jewelry and indeed money-lending.

Since about 1955 however the government has played an increasingly active part in matters of industrial finance and assisted in chanelling substantial funds to private industrialists through public and semi-public lending institutions. Between 1956 and 1961 two government controlled bodies, the Industrial Credit Bank (ICB) and the so-called Rial Revaluation Fund (RRF)[33], together extended 7,461 million rials to private industrialists. This was probably the single most important factor in the unprecedented upsurge in private manufacturing investment during these years. Each loan financed between a third to a half of the cost of approved projects and hence the total private capital mobilized into manufacturing by the above loans was quite substantial. As we noted in the last chapter the greatest part of this investment was directed towards a small number of industries mainly textiles and sugar in an attempt to reduce the importance of imports in the total supply of their products.

Since 1959 with the establishment of the Industrial and Mining Development Bank of Iran (IMDBI) the operations of the other bodies has been overshadowed. The RRF has ceased operation while the ICB has tended to supplement the lending activities of the IMDBI, providing smaller, working capital, loans to firms already assisted by the IMDBI[34]. Because of the very important position that the IMDBI has occupied in the development of Iranian manufacturing industry it is worthwhile to consider its nature and major functions briefly.

The IMDBI was established in 1959 as a privately owned joint-stock

company. It was to function as a development finance company. As such the primary objective of the Bank was to assist in the creation, expansion and modernisation of industrial establishments "which are essentially private in character[35]. To achieve these objectives the IMDBI was empowered to engage in medium and long term lending, convertable loans, equity participation, guarantees and underwriting. The Bank can also assist in the transfer of state factories to private hands, undertake research and technical studies of industrial possibilities and initiate pilot plants[36].

Although the IMDBI is a private company in reality it functions as a semi-public institution. The share capital of the Bank is 100 percent owned by Iranian and foreign private individuals and concerns, however, at the time of foundation nearly 63 percent of the total resources that the Bank had at its disposal were supplied by the government[37]. These were mainly in the form of so-called 'managed loans' (that is, funds adminstered by the IMDBI on behalf of the government for which the Bank was to receive an agreed agency fee) and also an interest free loan from the National Bank. In addition the government has guaranteed the IMDBI's borrowing[38].

Yet, in spite of the predominance of public funds in the resources of the Bank there was considerable emphasis on the private status of the IMDBI both in law and in fact[39]. As we shall see the Bank still remains a very important instrument of government policy towards the private sector and its lending and other policies are very closely coordinated with government policy. Nevertheless the actual lending and financial operations of the Bank - evaluation of loan applications, approval and disembursment of loans - were to be free from government influence[40]. In fact, as has been observed, the IMDBI represents a pragmatic mixture of government

money and private management. The private status of the bank has facilitated the participation of major foreign banks and international development agencies in its operations. The IMDBI has attracted substantial foreign exchange loans from the World Bank and from the Euro-dollar market[41].

Its private status notwithstanding, the IMDBI since its foundation has quickly developed as a major link between the government and the private sector in manufacturing[42]. In particular the government has relied mainly on the IMDBI to achieve Plan targets in the private sector. Plan procedure in the manufacturing sector, as practised during the Third and Fourth Development Plans involves projecting 'physical' as well as 'financial' targets[43]. 'Physical' targets, in general refer to public investment in individually specified projects. 'Financial' targets on the other hand, refer mainly (though not exclusively) to the desired level of private investment in broadly defined categories of manufacturing industry. However detail selection and financing of such projects is left to the IMDBI and to a smaller extent to the ICB[44]. During the Third Plan long and medium term lending by the IMDBI directly accounted for 17 percent of total private investment in manufacturing[45]. But because each loan agreement required that the industrialist should commit something like two-thirds of the cost of the project himself, it can be estimated that IMDBI's operations mobilized more than 50 percent of total private investment. Similarly, during the Fourth Plan IMDBI helped mobilize 57 percent of total private investment in manufacturing[46]. Considering that the IMDBI only deals with large investors, its lower limit for assistance being 5 million rials, its predominant influence on the development of manufacturing industry in Iran becomes even more apparent. It has participated in the promotion, financing and direction of almost every major private venture in the manufacturing sector[47].

It should also be added that the IMDBI (as well as the ICB) has been a rather cheap source of development finance for private industrialists. The interest rate charged by the IMDBI has over the period ranged between 6 to 9 percent while the 'market' rate of interest has been much higher often fluctuating around 30 percent[48].

Considering the pattern of IMDBI financial assistance, it can be said that import substitute industries have been the main beneficiary. To some extent this can be seen from table 3-4 below which shows a breakdown of IMDBI financial assistance by manufacturing industry over the 1959-1972 period:

Table 3-4: Classification of IMDBI financial Assistance* by Manufacturing Industry: 1959-1972, million rials, current prices.

Industry Group	Amount
Food Processing	3,713.1
Textiles	4,935.0
Footwear	407.0
Wood and Furniture	124.4
Paper and Printing	2,305.0
Leather and Leather Products	220.1
Rubber Products	871.5
Chemicals and Chemical Products	1,597.8
Petroleum Products	450.9
Non-Metallic Mineral Products	4,440.4
Basic Metal Products	2,636.6
Light Metal Products	1,495.8
Industry Machinery	541.9
Electrical Machinery	2,942.2
Transport Equipment	4,619.1
Miscellaneous	259.6

* Include loans as well as equity investment committed by the IMDBI.

Source: Industrial and Mining Development Bank of Iran, Thirteenth Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1351 (1972-1973, p.51.

A comparison between the above table and table 2-3 in the previous chapter is instructive. This will show that the group of industries with more than 50 percent import-substituting growth in output have absorbed more than 51 percent of total IMDBI financial assistance. However this does not reveal the full extend of IMDBI's contribution to import substitution in Iranian manufacturing industry. In fact a closer examination of investment promotions by the Bank shows that the large majority of them have been import replacing. This does not fully emerge from a comparison of the two tables because of the highly aggregated nature of the classification used. For example many of the IMDBI financed projects covered by 'textiles' have been either for the more expensive type of textile fabric previously imported or for synthetic yarns and other intermediate products also previously imported. Similarly, although 'metal products' as a whole have a relatively small import substitute component (see table 2-3), IMDBI financed projects under 'light metal products' have almost all been import replacing. This is to be expected since, as has been noted already, the IMDBI is only concerned with the large scale and modern sections of Iranian manufacturing industry.

The figures in table 3-4 refer to the absolute amount of IMDBI financial assistance in various manufacturing industry. It would obviously be desirable to show the share of IMDBI financial assistance and the capital mobilized by these in total private investment in each manufacturing industry group. It has not been possible to obtain enough information for this purpose over the 1959-1972 period.

Some data, refering to the 1968-1972 (the Fourth Plan) and concerning the combined activities of the IMDBI and ICB, however exist which are useful for our purposes. Accordingly table 3-5 shows the share of

financial assistance by the two development banks and the private capital mobilized by these in total private investment over the 1968-1972 period:

Table 3-5: Sources of Private Investment in Manufacturing: 1968-1972, million rials, current prices.

Industry Group	1 - IMDBI & ICB Credits*	2 - Private Capital Mobilized by IMDBI & ICB Credits.*	3 - Sum of 1 & 2 as a Percentage of Total Private Investment.
Food, beverages and tobacco	7,281	12,639	79
Textiles and clothing	6,042	10,639	68
Paper & printing	3,439	11,561	90
Leather	295	481	11
Chemicals and petrochemicals	3,200	4,930	50
Non-metallic minerals	6,100	7,950	94
Metal products and Basic metals	8,755	17,075	49
Machinery, non-electric	700	1,300	77
Machiner, electric	1,581	3,259	93
Transport equipment	3,500	11,900	98

* Includes loans and equity investment

Source: Plan Organisation, Fifth National Development Plan 1973-1978 (Tehran, 1973), p.879 (in Persian).

This table shows the importance of development banks as a source of finance for Iranian manufacturing industry. The only industries that have a relatively small share in the above table are either those

with substantial government investment or those with a large 'traditional' component which in effect means that they are comprised of a large collection of small businesses most of which cannot obtain finance from the development banks. Thus public investment in petrochemicals and iron and steel explains the relatively small shares of 'chemicals and petrochemicals' as well as 'metal products and basic metals'. The small share for 'leather' on the other hand is explained by the traditional character of the industry.

(b) - Other Promotional Measures

In addition to making long and medium term credit available, the government has helped private industrialists in a variety of other ways. All industrial establishments enjoy very generous depreciation tax allowances. In addition all income reserved for the expansion of plant capacity are exempted from taxation. All new factories, excluding those within 120 kilometers radius of Tehran and 50 kilometers radius of Isfhan, are exempted for the first five years and in some cases for the first ten years of operations. Those establishments within a 50 kilometers radius of Isfhan enjoy a 50 percent reduction, while those inside 120 kilometer radius of Tehran are not entitled to any tax reduction[49].

Another area of help to industry is the free or subsidized provision of technical and managerial assistance. The development banks (the IMDBI and the ICB) supplement their financial assistance by help in technical and managerial matters. In fact technical and marketing feasibility studies are always an essential preliminary to approval of loan applications. The cost of such studies are either completely or partially borne by the development banks. To a large extent, it is this aspect of the activities of the development banks which lends significance to the "mobilization" of private capital. By identifying possible projects and

carefully evaluating their profitibility, development banks in effect provide 'blue prints' for private investors[50]. Their financial assistance provides added incentive.

Since 1956 another body, the Industrial Management Institute, has also been increasingly active in this field. For example during the Third Plan this Institute organised training courses for 5,000 management personel. Although no detailed information on the activities of the Institute are available, the general impression given is that its operations have been of a reasonable quality and improving[51]. During the Fourth Development Plan a sum of 2,875 million rials of Plan Funds allocated to the manufacturing sector were spent through the Industrial Management Institute and other bodies, for the improvement of marketing, accounting and other management techniques and also for subsidising the cost of technical and feasibility studies[52].

Apart from these various measures all of which have been directly aimed at the manufacturing sector, we should also remember that manufacturing has benefited greatly from the improvement in infra-structural services.

In the mid-fifties such services in Iran were very inadequate. For example, so far as transport and communications were concerned a study by the Plan Organisation pointed out that the "obvious and severe bottlenecks in Iran's transport and communications (are) limiting the level of trade and commerce, causing distortions in marketing and prices, increasing costs and the price level and restricting economic opportunities and growth"[53]. Similarly the electricity supply industry in Iran was very underdeveloped. Most industrial establishments of any size had to install their own generating capacity because of the unreliability and frequent breakdown of what public facilities which existed. It is easy to see however that this was very uneconomic and greatly added to the

costs of the enterprise[54].

In the context of three Development Plans covering the period under study, the government has invested vast sums for the improvement of infra-structures. The Second Plan allocated nearly 58 percent of its funds to road and rail construction and the building of a few large dams (which were mainly used for electric power provision)[55]. During the Third and Fourth Plans, although the emphasis on infra-structure relatively declined, nevertheless upwards of 41.3 and 29.2 percent of (much larger) Plan funds were allocated for such purposes[56].

As a result of such investment significant improvements in major economic infra-structures have taken place. Although exact figures for the early years of the period under consideration are not available, there is no doubt that the road network has expanded substantially. The length of all weather roads, in particular, has at least doubled, reaching 12,000 kilometers in 1972. As a result there has been a vast expansion of motor transport over the period. This is indicated by the fact that the use of gasolene expanded by 300 percent between 1955 and 1969[57]. Similar improvements have taken place in rail and air transport. These improvements gain an added significance in Iran because the country is vast, its terrain rugged and hostile and its population relatively scattered. It is inconceivable that without such improvements the development of large scale manufacturing would have progressed as much as it has.

Notes and References

1. See, Henry J. Bruton, 'Notes on Development in Iran', Economic Development and Cultural Change, (July, 1961) p.638
2. Plan Organisation, Fourth National Development Plan 1968-1972, (Tehran, 1968), p.41.
3. Ibid. p.117.
4. See, Ministry of Finance, Iranian Revenue From Customs: 1956-1966 (Tehran, Sept. 1967), p.7 (In Persian).
5. See, for example, Plan Organisation, Review of the Second Seven Year Plan Program of Iran, op. cit. p.68. Farhad Daftary, 'The Balance of Payment Deficit and the Problem of Inflation in Iran, 1955-1962' Iranian Studies, op. cit. p.11.
6. Ministry of Economy, General Import-Export Regulations for the Iranian Year 1344 (March 21, 1965 - March 20, 1966), (Tehran, March 1965), p.20.
7. See, Kathleen Keim, Forein Trade Regulations of Iran, United States Department of Commerce, Overseas Business Report 71-052, (Washington, December 1971) p.1.
8. G.R. Kianpour, 'Customs Administration in Iran', CENTO Symposium on Tax Administration, (Ankara, 1965), p.201.
9. See, Vahid F. Nowshiravani and Robert Bildner, 'Direct Foreign Investment in the Non-Oil Sectors of the Iranian Economy', Iranian Studies, op. cit. p.81.
10. The Bank of Iran and the Middle East, Economic Review of the Year 1350 (1971-1972), (Tehran, no date), p.21.
11. United Nations, Economic Commission for Asia and the Far East,(ECAFE) Effective Protection and Interregional Trade, Vo. II (1972), p.71.
12. Ibid.

13. In the post 1965 period the relevance of this point may be reduced to the extent that an increasing number of commodities were being domestically produced.

14. Note that, defined in this way, 'world prices' do not necessarily equate prices of tradable commodities as they may be observed in international markets. In other words, on the basis of the calculations reproduced in table 3-2, no direct price comparison between domestically produced commodities and their competing imports is possible. See, further, United Nations, ESCAFE, Effective Protection and Interregional Trade, op. cit. pp.67-68.

15. Ministry of Economy, Iranian Industrial Statistics for 1351 op. cit., p.43.

16. Kathleen Keim, op. cit., pp.5-6.

17. United Nations, ESCAFE, Effective Protection and Interregional Trade, op. cit., p.64.

18. Ibid.

19. Ibid.

20. Ibid.

21. Harvey H. Smith, et al., U.S. Army Area Handbook for Iran, Special Operations Research Office, Foreign Areas Studies Division. (Washington, 1971), pp.499-506.

22. United Nations, ESCAFE, Effective Protection and Interregional Trade, op. cit., p.64.

23. Ministry of Economy, General Import-Export Regulations for the Iranian year 1344, op. cit., pp. 20-21; Robert Mabro, 'Industry' International Labour Organisation Mission to Iran on 'Employment and Income Policies for Iran', Mission Working Paper No.V (Unpublished Mimeograph, Feb. 1973), p.10. Also see, The Bank of Iran and the Middle East, op. cit., p.21.

24. Kathleen Keim, op. cit., p.6.

25. Harvey H. Smith, et al. op. cit., pp.501-502.

26. See the Bank of Iran and the Middle East, Annual Report and Balance Sheet for the Year Ended 20th March, 1967,(Tehran, no date), pp.25-26.

27. See, Ahmad Memarzadeh, 'Monetary Policy and Foreign Exchange Control', CENTO Symposium on Central Banking, Monetary Policy and Economic Development, (Ankara, Feb. 1972), p.153. It is important to note, as Memarzadeh points out, that the system of Import Registration Deposits in effect amounts to indirect exchange control. Direct exchange controls have not been used over the period under study. This is, of course, due to the relative abundance of foreign exchange in Iran resulting from the exportation of oil. It is interesting to note that although there is an (illegal) 'free' foreign exchange market, the exchange rate in this market hardly differs from the official one. See, further, Ahmad Memarzadeh, op. cit., p.154-155.

28. United Nations, ESCAFE, Effective Protection and Interregional Trade, op. cit., p.63.

29. Ibid., p.68.

30. R.E. Benedick, Industrial Finance in Iran, op. cit., p.78.

31. Ibid., p.65.

32. Ibid. p.47. Also see R.E. Benedick, 'The Money Market in Iran', Pakistan Development Review, (1962), pp.406-421.

33. The Rial Revaluation Fund, it should be pointed out, was not a financial 'institution' like the ICB or the IMDBI. Rather, it represented an ad hoc means of providing credit for the private sector. The Fund adminstered money that became available as a result of the devaluation of the Rial in 1956, from 32.2 rials to the dollar down to 75.5 rials to the dollar. At this new rate, the value of the gold backing of the currency was more than sufficient

to meet the legal requirement. The government chose to print money to the tune of five billion Rials to re-establish the old parity between the gold and the Rial. This measure did not affect the external value of the currency, it merely augmented the money supply in the country. The revaluation "profits" were then distributed to a large number of private industrialists through the loan department of the National Bank. For more details, see R.E. Benedick, Industrial Finance in Iran, op. cit., pp.102-118.

34. Robert Mabro, op. cit. p.26.

35. Industrial and Mining Development Bank of Iran, Function and Policies, (Tehran, Sep. 69). p.11.

36. R.E. Benedick. op. cit. p.120.

37. Industrial and Mining Development Bank of Iran, op. cit. p.8.

38. Industrial and Mining Development Bank of Iran, Eleventh Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1349 (1970-1971), (Tehran, no date) p.12.

39. See, George B. Baldwin, Planning and Development in Iran, op. cit., p.118.

40. See, Gasem Kheradjou, 'The Function of Specialized Banks in Capital Markets' CENTO Symposium on the Development of Capital Markets, (Ankara, 1966), p.174.

41. Industrial and Mining Development of Iran, Thirteenth Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1351 (1972-1973), (Tehran, no date) p.15.

42. Industrial and Mining Development Bank of Iran, Eigth Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1346 (1967-1968), (Tehran, no date), p.12.

43. Plan Organisation, Industry and Mining, Third Plan Frame,(Unpublished Monograph, 1961), pp.25-27 and pp.70-81.

44. Ibid. Also see, George B. Baldwin, op. cit. pp.121-138.

45. Industrial and Mining Development Bank of Iran, Eigth Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1346, op. cit., p.12

46. Plan Organisation, Fifth National Development Plan 1351-1356, (Tehran, 1973), p.308. (In Persian).

47. See, Dragoslav Avramovic, 'Industrialisation of Iran: The Records, The Problems and the Prospects', Tahqiqate-e-Eqtesadi, Faculty of Economics, University of Tehran, (Spring 1970), p.17.

48. R.E. Benedick, op. cit., pp.65-71 and pp.74-75.

49. For more information regarding tax exemptions see, United Nations, ESCAFE, 'A Country Study on Iran', Industrial Development-Asia and the Far East, op. cit., pp. 318-322. Also see, D. Klein, 'Fiscal and Credit Policies', International Labour Organisation Mission to Iran on 'Employment and Income Policies for Iran', Mission Working Paper No. X, (Unpublished Mimeograph, Feb. 1973) pp.19-23.

50. "IMDBI should identify a number of high priority industrial projects and make every effort to study the economic, technica l and financial feasibilities by its own staff or with the help of experienced and reputable consultants or manufacturers in industrialized countries, in other words prepare the project for implementation".

Gasem Kheradjou, op. cit., p.178. Also see, Industrial Credit Bank of Iran, Facts about Industrial Credit Bank (Tehran, 1969) pp.6-7.

51. See, B.R. Goodfellow, 'United Nations Technical Assistance in the Industrialisation of Iran', Bank Markazi of Iran Bulletin,(May-June 1964), p.5.

52. Plan Organisation, 3rd Development Plan, Final Report, (Tehran, December, 1970), p.58.

53. Plan Organisation, Review of the Second Seven Year Development Program of Iran, op. cit., p.34.

54. See, Julian Bharier, Economic Development in Iran 1900-1970, Oxford University Press, (1971), pp.221-223.

55. Plan Organisation, op. cit., pp.28-29 and pp.34-36.

56. Farhad Daftary, 'Development Planning in Iran: A Historical Survey', Iranian Studies (Autumn 1973), tables 2 and 7. The percentages refer to public development outlays on 'electricity and fuel' and 'transport and communication'only and exclude all other expenditure on social and economic infra-structures.

57. Julian Bharier, op. cit. pp. 200-201.

CHAPTER 4

Domestic and Foreign Private Investment in Manufacturing: 1955-1972

One of the results of the policies of import substitution and industrialisation that were described in the last chapter has been the emergence of a relatively large and dynamic private sector in manufacturind industry. Both domestic and foreign private capital have participated in the growth of Iranian manufacturing industry. In the following two sections their respective roles in the growth of manufacturing industry will be considered separately:

I - Domestic Private Investment in Manufacturing

Before the middle of the 1950's private participation in manufacturing industry was rather limited. The government had a dominant position, owning and controlling most of the larger and more modern manufacturing plants. This situation was largely explained by the fact that the previous phase of the country's industrialisation, back in the 1930's, had been almost exclusively a state run affair. Many of the state owned plants were ostensibly established to "demonstrate" that such investment could be profitable[1]. In practice however the very scope of government investment in industry left very little room for the development of an active private sector. Most of the state owned manufacturing plants existing in the 1950's were inherited from the government's earlier direct involvement in industry.

In addition to this historical fact, there were strong doubts, widely expressed in the 1950's, as to the willingness and more importantly the capability of private owners of capital for participation in industry. It was argued that most businessmen came from old merchant and landowning

families and tended to regard their investment in plant and machinery in the same light as their previous involvement in land or commercial capital[2]. Most businessmen were also inclined to distrust partners and kept away from cooperative ventures. An eminent Iranian economist described their behaviour in the following terms:

> "Conservatism, drive for quick profits and a high discount rate of the future are their common characteristics. Although no greedier or less God-fearing than businessmen eleswhere, they are unduly individualistic: a well-known Persian proverb - if partners were a good thing to have God would have gotten himself one-characterises their mentality" [3].

Another Iranian economist, a future Director of the Plan Organisation described the attitude and behaviour of the typical Iranian businessmen in almost identical terms:

> "This individual has a strong preference for small chances of large gains over large chances of small gains. He searches steadily for investment opportunities with quick turnover. He rarely seriously considers business opportunities which require heavy initial investment and pay a small but steady return over a long period....Profits are not usually reinvested in the same business, because of the strong tendency of the individual to spread his investment thinly in different activities. In short, the "Golden Rule" that guides investment...is: get in quickly and get out quickly".[4]

It is thus against such a background that the subsequent development of a private sector in manufacturing is really significant, this development signalled a "notable break with tradition"[5].

The second half of the 1950's for the first time witnessed the growth of private investment in manufacturing on a really significant scale. In the four years between 1956 and 1960 private investment in manufacturing doubled, rising from 60 to 120 million dollars per year[6]. In the subsequent period, 1960-1972 private investment has consistently accounted for upwards of 60 percent of total fixed investment in manufacturing[7]. Even during the Fourth Plan when, because of the emphasis on heavy industry, the level of government investment in manufacturing increased substantially, the

private sector still accounted for more than 60 percent of total investment[8].

According to information published by the Ministry of Economy, in 1972 twenty-six out of the thirty-four largest manufacturing establishments in Iran, each employing more than a thousand persons were owned by private industrialists[9]. Using fixed investment and turnover as a criterion of size, sixty-four out of the seventy factories that had a fixed investment of more than 100 million rials and a yearly turnover of more than 250 million rials were owned by private investors[10]. Thus by the end of the period under our consideration, private industrialists were firmly established in the large scale and modern sections of Iranian manufacturing industry. Added to these were the far larger multiplicity of medium and small scale plants and workshops throughout the country, all of which were naturally in private hands.

Over the period, private investment, along with the changing structure of Iranian industry, has become increasingly diversified. In the 1950's private investment in manufacturing was concentrated on a few consumer goods such as textiles and some processed foods as well as basic construction materials[11]. During the 1960's, by contrast, a much wider range of industries, including many producing intermediate goods benefited from private investment. The Fourth Plan envisaged that the private sector would develop industries producing paper, rolling mills, artificial fibres, chemicals, electronics, filters, motor vehicles, motor cycles, bicycles, compressors, cables, weighing equipment, pipes and so on. Many of these industries were to be developed with the cooperation of foreign investors[12].

There is not enough information on a detailed breakdown of industrial development by the private sector during the Fourth Plan and therefore it is not possible to confirm that the above named industries did actually

benefit from private investment. Nevertheless it is known that total private investment in manufacturing exceeded the projected level significantly[13]. Hence it is probable that these industries did attract substantial investment from the private sector.

At a more aggregate level, some information on private investment in various manufacturing industries is available which tends to support the above conclusion. This information is presented in table 4-1 below which shows both the level and the share of private in total investment for the duration of the Fourth Plan.

Table 4-1 Private Investment in Manufacturing during the Fourth Plan in Million Rials.

Industry	Private Investment	Share of Private in total investment.
Food, Beverages & Tobacco	25,331	72 Percent
Textiles, Clothing & Footwear *	23,822	77 "
Paper & Pringing	16,700	100 "
Leather & Fur	7,100	100 "
Rubber,Chemicals & Pharmeçuticals	18,388	43 "
Non-Metallic Minerals	15,000	100 "
Basic Metals & Metal Products	27,000	38 "
Machinery & Transport Equipments **	23,000	60 *

* includes carpets and handicraft industries

** includes electrical and non-electrical machinery.

Source: Plan Organisation, Fifth National Development Plan, 1973-1978 p,879.
Ministry of Economy, Industrial Statistics for 1972-1973, p.26

Another fact that is perhaps indicative of the dynamism of Iran's private manufacturing sector is the increasingly wider social base of private industrialists. Whereas during the 1950's individuals of "traditional" backgrounds - former bazaar merchants or big landlords - were dominant among Iran's industrialists, by the end of the 1960's the situation had changed appreciably.

Ranking highly among Iran's industrialists are western trained young Iranians from the old wealthy families who have diverted their families' fortunes to industrial persuits[14]. In many of the existing factories which were "previously directed by 'bazaar' mentality owner-managers" responsibility has been "devolving to young men (often their sons) formally educated in industrial management principles"[15].

Added to these are many other social groups who in earlier times would not have shown much interest in industrial investment. Among these are many successful professionals (doctors, lawyers, engineers), retired high-ranking civil servants and former military officers using their adminstrative or technical skills, as well as savings, in private ventures[16]. Even more significant is the fact that "a number of Iran's successful entrepreneurs have arisen from the lowly civil servant familes (office boys, messenger or clerks) that never enjoyed the status, prestige or the power of the Iranian elite"[17]. The emergence of a large and expanding middle and entreprenerial class is in many ways one of the most important developments in the economy and society of Iran in the post-war years.

This upsurge in private manufacturing industry has taken place in an economy that has itself been growing very fast, largely under the influence of government development and other expenditure financed by expanding oil revenues.[18] Between 1959 and 1972, for which relatively reliable national income data are available, per capita Gross National Products (GNP)

increased at an average annual compound rate of growth of 7.7 percent reaching 494 dollars in 1972[19].

Manufacturing industry has thus enjoyed a fast growing market for its products; it has been a relatively easy matter for private industrialists to take advantage of the investment opportunities that such a growing economy offers. In addition to contributing to high level of demand, public investment has also helped to stimulate private investment in manufacturing in a more direct way. For example, public investments in roads, have given rise to large investment expenditure in automobile assembly, tyre manufacturing and other car accessories[20].

However, expanding markets and investment opportunities are the necessary but not always also the sufficient condition for the actual materialisation of the investment; they are "an invitation rather than a determinant" of private investment[21]. It is protection and other policies that secure the domestic market and increase the rewards from manufacturing relative to other types of investment that provide the ultimate stimulus for the private sector. It is in this sense that the policies of import substitution that we considered in the last chapter have been the main determinant of the rapid expansion of private manufacturing industry in Iran[22].

The government has also influenced private manufacturing investment through its licencing policy. We have not been able to gather enough detail on this aspect of policy. What information there is fails to convey a reliable picture of the overall importance of investment licencing as a part of the policy package. This is the reason why licencing and other control mechanisms were not treated in the last chapter which dealt with government policy[23].

In general, however, it seems that the main aim of licencing policies

has been to encourage relatively large scale production and in particular to prevent the emergence of a large number of small plants all attempting to take advantage of protection-induced high profits. This is important in view of the 'imitative' character of much of the private investment that occurred in the late 1950's[24]. The evidence that we have been able to piece together from several sources suggests that the government has been fairly successful in this respect. This can be seen from table 4-2 below which lists the number of plants producing or assembling a number of manufactured products. The table also shows the total volume of each commodity. In the selection of the products more weight has been given to those industries that were established in the 1960's.

Table 4-2 Number of private sector factories producing selected manufactured products in 1972.

Product	Number of Factories	Unit	Volume of total output
Passenger vehicles	4	"	50,528
Buses, trucks and vans	8	"	20,404
Motor cycles	2	"	31,720
Automobile tyres	2	tons	31,425
Batteries	4	units	95,700
Nylon fibres	4		n.a.
Washing powders	5	tons	351
Glass	2	tons	48,000
Paper	1	000 tons	756
Wallpaper	2	tons	380
Light bulbs	2	000 units	11,000
Television bulbs	3		n.a.
Television	19	000 units	170
Radio, radiogrammes and gramaphones	6	000 units	185
Light steel products	2		n.a.
Water heaters	10	units	65,000
Coolers	12	000 units	175
Refrigerators	22	000 units	187
Refractory bricks	2		n.a.
Gas coolers	23	000 units	223
Space heaters	11	000 units	563

Sources: Ministry of Economy, Iranian Industrial Statistics for 1351 op. cit., pp. 18-20; Industrial and Mining Development Bank of Iran, Thirteenth Annual Report of the Board of Directors to the General Assembly of Shareholders for the Year 1351, op. cit., pp.27-39; Behrouz, J. (ed.), Iran Almanac and Book of Facts, (Tehran, 1973) pp. 238-247.

Based on this evidence alone we cannot say whether or not potential economies of scale have been achieved in those industries where such economies can be realized. More specifically, it would appear that for certain consumer durables, such as television sets the number of producing units may be too large. Nevertheless taking account of the relatively large volume of production as well as the prospects for the growth in demand, it may be reasonable to suggest that Iran has managed to escape the worst of the waste and inefficencies arising out of domestic "competition" in protected industries.

In view of the strong monopolistic tendencies indicated by the above table it is interesting to note that, while most manufactured products were obviously more expensive than c.i.f. imports, the domestic price which the consumer faced changed very little during the 1960's. A study by Dragoslav Avramovic in 1970 provided data that showed only a modest rise in the price of a large number of manufactured goods between 1959 and 1968; while for many other manufactured products prices actually fell over the same period.[25] As Avramovic suggests, the likely explanation for this is that prior to domestic production, import merchants and distributors must have enjoyed very large profit margins, and that protection in effect transferred these profits to domestic producers without having much impact on prices.[26]

What has been said so far indicates that the package of policies adopted have been successful in stimulating and directing the private manufacturing sector in Iran. It is, however, by no means suggested that these policies put an end to the earlier speculative practices or unproductive investments. Such practices continued in force, largely in the form of speculation in urban land and real-estate. The resulting inflation in land values, particularly in Tehran, had, by the end of the period under consideration, become an acute problem. Furthermore, efforts in setting

up a stock exchange in Tehran as a means of attracting smaller savings into industry have not really been very successful and a number of serious problems remain. A large number of potential investors "simply have not considered pieces of paper representing company stock as an attractive repository of wealth and are unwilling to trust their savings in minority shares"[27]

At a somewhat more fundamental level some observers of the Iranian economy have expressed the fear that, with the relative abundance of oil revenues, there may be little incentive for productive enterprise. It is pointed out that in the circumstances of an oil rich economy, where "it is found easier to make rather than earn money", there may be little incentive to produce real output and "there may develop a tendency among potential entrepreneurs to become actual rentiers"[28]. Hence the temptation for a large number of talented people (as well as other resources) to be diverted to an unduly large "service economy", swelling the ranks of the government bureaucracy and the trading-commercial community.

While this notion of a 'rentier' economy is interesting and has important implications for the development of oil exporting countries, its impact is obviously difficult to assess empirically for an individual economy. In particular for a country like Iran which, unlike many other oil exporters, has a large population and a diversified economy, the difficulties would be even greater. It should also be remembered that during the period that we are concerned with the magnitude of oil revenues was not that great. In 1972 Iran's per capita income from oil was around 62 dollars[29]. Considering the period as a whole, Iran's per capita revenue from oil averaged at only 49 dollars per year between 1955 and 1972.[30]

On one aspect of the 'rentier' nature of oil exporting countries -

the role of the government bureaucracy - it is possible to be somewhat more specific. It can be argued that because oil revenues directly accrue only to the government, it is in a position to offer "the prospect of highly paid jobs and prestigious positions and may thus attract management personnel and skilled labour away from private manufacturing industry where they are most needed"[31]. As a matter of fact the government bureaucracy in Iran - the Ministries, the Plan Organisation, the Central Bank and many other public agencies - pay remarkably high salaries, by Iranian standards, for their qualified manpower requirements.[32]

Although adequate data on the relative salary structures as between private industry and the bureaucracy do not exist, what information there is seems to confirm the expectation that private industrialists have had to pay comparable salaries for their qualified employees. Consequently it does not appear that the private sector has actually suffered from a shortage of qualified manpower, in fact it has even been suggested that it is now the government that faces recruitment problems so far as high level manpower is concerned:

> "The problem in an economy doubling inside a decade is that there are not enough men of talent to go around. Moreover, the government has to compete on unequal terms. For every young technocrat that joins government several now join business...The Foreign Ministry's recruiting problems, once the easiest are now enormous. In the economic ministries and in the Prime Minister's Office a host of young people go when their bosses go, not out of political pique, but because most of them, having done their stint in government, now understandably covet the rewards of the private sector"[33].

However, even though the private sector has been able to compete with the bureaucracy in attracting qualified manpower, this has been achieved at the cost of an unduly differentiated remuneration structure within the private sector. One researcher has pointed out that as a consequence of the high salary level for qualified manpower, "there is a

tremendous gap within any Iranian company between the wages of the lowest and the highest paid employees"[34]. The same researcher has observed ratios of highest to lowest salary levels ranging between 7.5:1 and 17:1. He has also pointed out that these ratios probably underestimate the true difference.[35]

II - Direct Private Foreign Investment in Manufacturing

One of the most notable features of the growth of the Iranian manufacturing sector during the 1960's and early 1970's is the increasingly active participation of private foreign investors. For various reasons there was very little foreign investment in Iran outside the oil industry before the 1950's[36]. Private foreign investment in manufacturing industry was totally non-existent.

In 1955 the government passed the 'Law for the Attraction and Protection of Foreign Investment' (henceforth referred to as the Law). Basically the Law offered foreign private capital the same legal status as local capital and enabled foreign investors to enjoy the various incentives and privileges - tax holidays, easy credit and protection from imports- that Iranian investors could enjoy. In additions, the Law stipulated that investors could repatriate profits as well as the original capital out of Iran. Finally the law also provided for full compensation to foreign investors in the event of nationalisation.[37]

It is interesting that in spite of such liberal incentives and guarantees there was no immediate rush of foreign investment into Iran. There was probably some apprehension on the part of foreign investors: the oil industry had been nationalized only a few years before the passage of the Law and there probably existed a strong suspicion of foreign investment even though the government had succeeded in imposing a pro-western

package of policies.[38] In addition to political uncertainties, economically Iran did not present very attractive opportunities for foreign investment either, apart from the oil industry. The country was very poor - although no adequate national income data for the years before 1959 exist - per capita GNP was probably less than 125 dollars in the mid-fifties. More than 75 percent of the population lived and worked in small and isolated vilages, while the programme for major investments in infrastructure was at its very beginning.

However a more important reason for the relatively low level of private foreign investment during the second half of the 1950's is the fact that in that period Iran was still at an early stage of its import substitution. All manufacturing activity was concentrated in the production of a small number of non-durable consumer goods and a few construction materials. None of these industries were new in Iran - they were all first established in the 1930's. Consequently Iranian private industrialists were firmly established in these lines and had no incentive for seeking foreign partners for their know-how or organisational ability.[39] What help they needed in the early stages of the enterprise was often forthcoming from equipment suppliers[40].

Government policy at the time in fact was a reflection of this situation; it was relatively liberal with respect to foreign trade and much less protectionist than in the 1960's and early 1970's. As was noted in the last chapter the main stimulus to private investment in manufacturing was a very liberal credit policy rather than a high tariff wall or other restrictions on imports. Therefore foreign firms did not face any major problems in selling in the Iranian market and thus had little incentive for committing fixed capital in the country. Between 1956 and 1963 the total value of private investment to the manufacturing

sector was only 841 million rials[41].

Since about 1964 however, there has been an upsurge in the inflow of private foreign investment into the Iranian economy, the bulk of which has gone to the manufacturing sector. Between 1964 and 1972 the total gross inflow of private foreign investment to Iran amounted to 12,771 million rials. More than 80 percent of this total was invested in manufacturing industry[42].

The main reason for this upsurge is to be sought in government policy, although other factors such as the underlying political stability and rising oil revenues were also important.[43] As we have already seen, during the 1960's there was a much greater emphasis on industrialisation of the country. This in turn implied a relatively greater emphasis on new industries producing durable consumer goods, chemical and pharmeceutical products and a number of other industries producing intermediate or capital goods. But such industries were beyond the capability of Iranian investors and hence foreign help and technology had to be brought in.

While it is well-known that such help can be sought in forms other than direct private investment, there is reason to believe that the government did not evaluate the various costs and benefits of alternatives to direct foreign investment such as licencing and other agreements.[44] It seems that the government assumed that foreign investment is superior because direct equity participation would give investors a stake in running the industry efficiently and profitably[45]. The only requirement was that foreign investors should share their profits, which because of the protection awarded often amounted to monopoly profits, with local interests. Hence the insistence on the joint venture form of private foreign investment.

The role of the IMDBI in attracting foreign investment into the manu-

facturing sector has been very important and merits some consideration. When the IMDBI was first established in 1959, 40 percent of its share capital was owned by a large number of American and European financial and manufacturing companies.[46] These foreign shareholders had a majority vote in the board of directors of the IMDBI and appointed its chairman during the first five years of operation[47]. As table 4-3 below shows foreign investors in the IMDBI included some of the largest financial and manufacturing corporations in Europe and America. The table also shows the amount invested by each of these:

Table 4-3 IMDBI'S Foreign shareholders (1959) - Amounts in Dollars

Name	Amount Invested
Lazard Freres & Co.	241,667
Chase International Investment Corporation	241,667
International Basic Corporation	150,000
The First Boston Corporation	100,000
Lazard Brothers & Company Ltd.	50,000
Lloyds Bank Ltd.	50,000
Midlands Bank Ltd.	50,000
English Electric Company Ltd.	50,000
Simon Carves Ltd.	50,000
Lazard Freres & Cie	125,000
Banque de Paris et des Pays Bas	125,000
Societe Financier de Transport et d'Enterprise Industrielles	200,000
Sal Oppenheim Jr. & Cie	125,000
Deutsch Bank A.G.	125,000
Amsterdamsche Bank N.V.	100,000
Netherlandsche Handel-Masstachappi, N.V.	50,000
Hollandsche Bank-Unie N.V.	150,000
Mediobanca	50,000
Montecatina	50,000
Fiat	50,000
Total	2,133,334

Source: R.E. Benedick, Industrial Finance in Iran, Harvard University Press (1964) p.251.

The important thing that should be noted in the above table is that each participant committed a very small sum (9 of them only invested 50,000 dollars each) considering that they are all large companies.[48] It has been suggested that each investor committed small sums because they were not primarily interested in direct monetary rewards from their investments. Rather, it would seem that they were mainly interested in "feeling the country out"[49]: committing meagre sums was probably regarded as "the cheapest way to obtain, on a continuing basis, information on investment opportunities and possible local partners for their clients"[50]. In fact the IMDBI was founded with future foreign investment very much in mind. From the beginning it was agreed that it should "have access to banking and investment institution in the industrialized countries which could contribute valuable experience and useful contacts for attracting foreign investment and skills to Iranian industry".[51]

The IMDBI has, subsequent to its foundation, played a very important part in attracting foreign investment to Iran's manufacturing industries. Many of the industries that the IMDBI has helped to establish in Iran have been new to the country and have involved complicated technologies and know-how. In all such cases the IMDBI has helped to find a suitable foreign investor and has brought them and local investors together. Between 1959 and 1972 a quarter of all IMDBI loans had been advanced to companies with substantial foreign participation. Considering the period from the middle of the 1960's to 1972 the proportion of joint ventures in the total number of firms assisted by the IMDBI is even greater.[52]

Similarly, many of the companies in which the IMDBI itself holds equity investment also have foreign participation. Over the 1959-1972 period half of the companies in which the IMDBI invested had foreign partners.[53] Again the proportion of joint ventures is greater if only the period from

the middle of the 1960's is considered. It appears that in a number of cases IMBDI's own investment in joint ventures has been necessary for the success of negotiation between foreign and domestic investors - foreigners have not been prepared to accept minority shares unless the IMDBI also participates in the project. "When IMDBI holds the voting balance of a company, both foreign and Iranian shareholders can hold minority shares without feeling that they have ceded control to each other. As IMDBI vets the management too the system seems to work".[54]

IMDBI has been concerned with foreign investment involving ventures between foreign and Iranian private investors. But there have also been a number of joint ventures between foreign investors and the public sector.

Towards the end of the Third and during the Fourth Plan the government undertook direct investment in a number of industries which it believed the private sector was not interested in developing and in those which, because of strategic considerations such as defence, should be in public hands. These industries included iron and steel, machine tools, tractors, petrochemicals and a number of others. Some of these industries - such as iron and steel - were to be developed with technical and financial assistance from the Soviet Union and other Eastern European countries and therefore no private foreign investment was involved. In others, however, the government relied on joint ventures between private foreign investors and public companies that it would establish for the purpose.

The National Petrochemical Company of Iran, for example, has been involved in a number of joint ventures for the production of various petrochemical products. Similarly the Ministry of Water and Power has set up joint ventures with foreign investors for the manufacture of water and electric meters, transformers and water pumps. The Ministry of Post, Telegraphs and Telephones has also been involved in joint ventures making

telephones, micro-wave and other telecommunication instruments.[55]

So far as the pattern of foreign investment in manufacturing - its distribution in different activities - is concerned, it has already been indicated that in general industries that have been new and involved complex technologies have been the main beneficiaries. This can be confirmed in table 4-4 below which presents a breakdown of foreign investment in the manufacturing sector between the years 1964 and 1972. The figures relate to foreign investments which have been registered with the Center for the Attraction and Protection of Foreign investment in Iran. It has been suggested there may be some foreign investment which is not registered with this Center even though all foreign investors are legally required to do so.[56] However this cannot be of a large magnitude since there is no advantage in not being registered with the Center.

In any case it is agreed that the figures in table 4 reflect the distribution between different industries correctly, even though they may underestimate the absolute magnitude of such investment:[57]

Table 4-4 Gross Inflow of Foreign Capital and Loans to Iranian Manufacturing Industry Through the Center for the Attraction and Protection of Foreign Investment; total for 1964-1972, million rials.

Industry	Amount Invested
Rubber	1,275
Pharmeceuticals & Chemicals	1,966
Electricals	1,316
Metallurgicals	1,275
Building Materials	760
Petrochemicals	2,317
Automobile Industry	785
Food	319
Motor Oil	263
Glass & China Wear	318
Total	10,857

Source: Bank Marbazi Iran, Annual Reports and Balance Sheet, 1970, 1971 and 1972.

It can be seen that petrochemicals, chemicals, electricals, metallurgicals and rubber have had the highest amount of foreign investment. Significantly there does not appear to have been any investment in textiles, while foods and building materials have attracted only small amounts. The reason for the relatively low level of foreign investment in automobile industry is that the largest car firm in Iran was established by local interests and assembles passenger vehicles under a licensing agreement with a British Company.[56] The figure in the table refers to foreign investment

in a number of much smaller vehicles assembly firms. The largest among these - a joint venture with a French car producer - assembled only 7,500 units in 1972 compared to 42,000 units assembled under licence, by the largest firm.[59]

Because of the particular classification used it is very difficult to compare the value of foreign investment in each industry with that of total investment in the same industry. It has thus not been possible to provide detailed information on the quantitative importance of foreign private investment in different industries. However, it is fairly clear that foreign private capital has not been an important source of investment finance for Iran's manufacturing industries. Taking the period 1964-1971 and considering the manufacturing sector as a whole, foreign investment amounts to no more than 5 percent of total fixed investment.[60] It is also doubtful that in any single manufacturing industry foreign capital has been the dominant or even the major source of investment.[61]

In spite of this however joint venture firms do seem to occupy an important position in many of Iran's fastest growing industries. These firms control a large share of the market for chemicals, pharmeceuticals, petrochemicals and electrical appliances and have a dominant position in rubber and glass industries[62]. There are also a number of industrial products in which joint venture firms control the entire market. Thus in the case of such products as electrical batteries, ball bearings, synthetic yarns, compressors, light bulbs and diesel engines "no purely domestic producers exist"[63].

The importance of foreign private investment in Iranian industry is enhanced by the fact that foreign partners in practice dominate joint ventures in which they invest, even though in most cases foreign investors are allowed only minority ownership. The dominance of foreign investors

in joint ventures arises from their superior position with regard to advanced technology and management. What research there has been suggests that many, or perhaps the majority of joint ventures are managed by expatriates and that foreign partners excercise control in matters of feasibility and technical studies, choice and design of products, accounting, inventory control, personel and other organisational matters.[64]

Notes and References

1. R.E. Benedick, op. cit., p.18. It is interesting to point out that the "demonstration effect" argument in favour of state ownership was not really taken very seriously since most state-run plants were making rather large losses and could hardly encourage private investors. The same comment applies to the state of government plants in the early 1950's. See, further, Plan Organisation, Review of the Second Seven Year Plan Program of Iran, op.cit., p.74.
2. R.E. Benedick, op. cit., pp.45-33.
3. Jahangir Amouzegar, 'Iran's Economic Planning Once Again', Middle East Economic Papers, (Beirut, 1958), P.S.
4. Khodadad Farmanfarmaian, 'Social Change and Economic Behaviour in Iran', Explorations in Entrepreneurial History, (Feb. 1957), p.182.
5. Jahangir Amouzegar and M. Ali Fekrat, Iran: Economic Development Under Dualistic Conditions, The University of Chicago Press, (1971) p.129.
6. George B. Baldwin, op. cit., p.103.
7. Plan Organisation, Fifth National Development Plan, op. cit., p.301
8. Ibid., table 3-2, p.876.
9. Ministry of Economy, Iranian Industrial Statistics for 1351, op. cit., pp. 2-4.
10. Ibid., pp.5-8.
11. "The Ministry of Economy, in cooperation with the IMDBI, is shifting industrial investment into the manufacture of a large number of components used in the durable consumer goods industry". See, IMDBI, Tenth Annual Report of the Board to the General Assembly of Shareholders for the Year 1348 (1969-1970), op.cit. p.21.
12. Plan Organisation, Fourth National Development Plan, op. cit. p.128.
13. Plan Organisation, Fifth National Development Plan, op.cit., p.307.
14. Jahangir Amouzegar and M. Ali Fekrat, op. cit. p.130.

15. William H. Bartsch, 'The Industrial Labour Force of Iran: Problems of Recruitment, Training and Productivity', The Middle East Journal, (Winter 1971) p.19. Also see, United Nations, ECAFE, 'A Country Study on Iran', Industrial Development - Asia and the Far East, op. cit., p.340.

16. Jahangir Amouzegar and M. Ali Fekrat, op. cit., p.130.

17. Ibid.

18. See, ibid., for a detailed discussion regarding the 'direct' and 'indirect' impact of the oil industry on the rest of the Iranian economy. The importance of the oil industry for the Iranian economy also emerges from, Firouz Vakil, 'An Econometric Model for Iran: Estimated Structural Equations', Bank Markazi Iran Bulletin, (March-April, 1973) pp.633-655.

19. Plan Organisation, Fourth National Development Plan, op. cit., p.4 Bank Markazi Iran, Annual Report and Balance Sheet 1351(1972-1973), (Tehran, Sep. 1973), p.142. We have assumed a population of 32 million for 1972.

20. Jahangir Amouzegar and M. Ali Fekrat, op. cit., pp.128-129.

21. Robert Mabro, op. cit., p.9.

22. Ibid.

23. For a description of licensing procedures see, United Nations, ECAFE, 'A Country Study on Iran', Industrial Development - Asia and the Far East, op. cit., pp. 313-321; for additional material see, D. Klein, op. cit., pp.1-8. It is however difficult to know how effectively control policies, specially licensing measures, were implemented. Thus according to one author the government seems to believe that".. investment could be better controlled through the credit institution rather than through a licensing authority", George B. Baldwin, op.cit., p.127.

24. Henry J. Bruton, op. cit., p.638.

25. Dragoslav Avramovic, op. cit., p.47. Although no data for years after 1968 are available it is probable that the pressure on the prices of domestically manufactured products must have increased. It is significant that such products as passenger cars and a number of consumer durables which were being assembled in the late 1960's are not in Avramovic's table.

26. Ibid., p.17. As a reflection of this change in the economic position of industrialists vis a vis the merchants, it is important to note that the latter were being castigated as "the promoters of foreign goods", see, The Bank of Iran and the Middle East, Annual Report and Balance Sheet for the Year Ended 20th March, 1967, op. cit., p.28

27. See Homa Rouhi, 'Attracting Investment in Iran', CENTO Conference on Broadening Public Participation in Equity Investment, (Ankara, 1971) pp.31.

28. M.A. Katouzian, 'Some Observations on the Iranian Economy and its Recent Growth', Tahqiqate-e-Egtesadi, Faculty of Economics, University of Tehran, (Summer-Autumn 1972), p.65. Also see, H. Mahdavi, The Patterns and the Problems of Economic Development in Rentier States: The Case of Iran, Paper presented to the Conference on the Economic History of the Middle East, School of Oriental and African Studies, 4-7 July, 1967, specially pp.9-10.

29. Iran's total oil revenue in 1972 was around 2 billion Dollars.

30. The average calculated from figures in Jahangir Ambuzegar and M. Ali Fekrat, op. cit., p.34; Julian Baharier, op. cit., p.27 and Bank Markazi Iran, op. cit., p.142.

31. M.A. Katouzian, op. cit. For a more elaborate treatment see, M.A. Katouzian, The Political Economy of Development in Oil-Exporting Countries: An Analytical Framework, Studies in Economics, University of Kent at Canterbury (April, 1975), specially pp.11-13.

32. See Robert Bildner, Strategies and Effects of Multinational Corporations in Iran and Yugoslavia, Yale Scholar of the House Essay in Economics, (Unpublished Monograph, 1973), p.22.

33. Andrew Knight, 'Another Persia - A survey of Iran', The Economist October 31, 1970) p.xiii.

34. Robert Bildner, op. cit., p.22

35. Ibid.

36. See, ibid., pp.10-11 for a brief history.

37. For a legal analysis of the various provisions of the Law see, John Webster, 'Foreign Investment in Iran', Business Lawyer, (1969), pp. 1263-1273.

38. See, for example, R.E. Benedick, op. cit., pp.57-58. Thus even though high ranking officials or minister may have expressed support for foreign investment, at lower levels of the bureaucracy foreign investors faced many obstances in the form of deliberate delays and red tape. See Vahid F. Nowshravani and Robert Bildner, op. cit. Also see, George B. Baldwin., op. cit., p.124.

39. Vahid F. Nowshiravani and Robert Bildner, op. cit., p.77

40. Ibid.

41. Ibid., p.75. Thus, for the 1956-63 period, it can be stated with confidence that foreign investment was rather an insignificant, almost negligible, source of capital for Iran's Manufacturing industries. Total fixed investment for 1963 alone is reported to be 5,215 million rials or nearly 6 times the total of foreign investment for the preceeding 6 years. See, Ministry of Economy, Iranian Industrial Statistics for 1349, op. cit. p. 'ch'.

42. Vahid F. Nowshiravani and Robert Bildner, op. cit., p.75 and Bank Markazi Iran Annual Report and Balance Sheet for 1351, op. cit., p.202.

43. Thus Robert Bildner writes that "in the absence of Iran's import-substitution policy, it appears that (the) foreign companies would not have made direct investment in Iran", op. cit., p.19. Similarly, Julian Bharier points out that foreign investors have been concerned mainly "with the overcoming of tariff barriers rather than with any particular advantages of raw material supply or productive efficiency in Iran", op. cit., p.192.

44. Vahid F. Nowshiravani and Robert Bildner, op. cit., p.93.

45. Ibid., p.89.

46. R.E. Benedick, op. cit., p.121.

47. George B. Baldwin, op. cit., p.119.

48. Thus R.E. Benedick, referring to the industrial participants in the IMDBI, writes that:

> "...In a real sense, their investments serve as a form of advertisement. Indeed, even for publicity alone the amounts in question are relatively small....in comparison with potential future benefits", op. cit., p.123.

49. Robert Bildner, op. cit. pp.13-14.

50. Vahid F. Nowshiravani and Robert Bildner, op. cit. p.80.

51. Industrial and Mining Development Bank of Iran, Functions and Policies, op. cit., p.7 Emphasis added.

52. Vahid F., Nowshiravani and Robert Bildner, op. cit., p.87.

53. Ibid.

54. Andrew Knight, op. cit., p. xxxii.

55. Jahangir Amouzegar and M. Ali Fekrat, op. cit., pp.48-49. Also, see, Industrial and Mining Development Bank of Iran, Eleventh Annual Report of the Board of Directors to the General Assembly of Shareholders for 1349, op. cit., pp.44-47.

56. Vahid F. Nowshiravani and Robert Bildner, op. cit. 74.

57. Ibid.

58. Robert Bildner, op cit., p.65. Also see Behrouz J. (ed.) Iran Almanac and Book Facts 1973, (Tehran 1974), p.241.

59. Ibid.

60. Ministry of Economy, Iranian Industrial Statistics for 1349, op. cit., p. 'ch', and, Ministry of Economy, Iranian Industrial statistics for 1351, op. cit. p.26.

61. Vahid F. Nowshiravani and Robert Bildner, op. cit. p.87.

62. Ibid.

63. Ibid.

64. Robert Bildner, op. cit., pp.49-57 and Table 4-5.

Chapter 5

Some Problems of Import Substitution in Iran

We noted in chapter one that generally speaking the progress of import substitution in developing countries has faced a number of obstacles and that as a result a sense of disillusionment with this particular path to economic development has set in. To reiterate briefly, most economists have argued that the package of policies used to encourage industrialisation have involved an excessive and harmful disregard for comparative advantage, and that these policies have greatly overstated the social cost of labour and understated the social cost of capital with the result that neither factor has been used economically. Thus import substitution has often favoured capital intensive process and industries which provide little employment and in most cases operate well below their capacity.

The same disregard for comparative advantage has resulted in the neglect of agriculture and exports of all kinds. Low income in agriculture and lack of exports have meant that import substitute industries, confined to relatively small urban markets, have been unable to take advantage of scale economies and hence have remained high cost and inefficient. All these problems have meant that prospects for the continued growth of manufacturing industries are not good.

In this chapter we examine the experience of Iran with regard to this sort of problem. It is obvious that to make any kind of definitive statement or judgement on such fundamental issues as those listed above requires the kind of in-depth research which has been beyond the scope of this study. The discussion that will follow will perforce be in rather general terms, it is nevertheless hoped that it will present a balanced assessment of Iran's experience over the period of this study.

The chapter is divided into two sections. In section I the question of factor intensity in the manufacturing sector will be examined. It will be shown that government policies have favoured the use of capital relative to labour. Two implications of this within the limits permitted by the availability of data, are then considered. These are: (a) employment in manufacturing and (b) the position of small scale establishments.

In section II we consider the position of the manufacturing sector in the wider context of the Iranian economy. In particular, it will be shown that by 1972 the manufacturing sector was highly dependent on imports and relatively little integrated with the rest of the Iranian economy. This was particularly true of the more recently established industries. The situation was further aggravated by the highly unequal distribution of income and the disappointing performance of agriculature.

I - Effect of Government Policy on Factor Intensity in Manufacturing and its Implications.

In broad terms the main economic effect of government policy has been to encourage the use of capital in relation to labour. This is true both of government measures to encourage and protect the private sector and also of its own direct investment in manufacturing.

For protection alone, the bias towards capital intensity can be easily demonstrated. Assuming that the ranking of different industries according to effective protection indicates the direction of the resource pull within the manufacturing sector, we are in a position to examine whether these resource pulls have been in favour of capital intensive industries. For this purpose we also need to rank industries according to an order of capital intensity. In the absence of capital-labour ratios for various industries we have used Lary's method for ranking industries according to capital intensity. This method involves ranking industries according to

non-wage value added per employee, on the assumption that the latter is an index of the return on physical capital.[1]

Table 5-1 below presents a ranking of Iranian industries according to effective protection and also non-wage value added per-employee in 1965.

Table 5-1 Effective Protection and non-wage value added per employee for Iranian Manufacturing Industry in 1965. Ranks indicated in brackets.

Industry	Effective Protection	Non-wage Value Added Per-employee *
Food	0.224 (11)	83 (8)
Beverages	1.146 (3)	97 (5)
Tobacco	2.471 (2)	1,367 (1)
Textiles	0.744 (6)	85 (7)
Paper & Printing	-0.021 (12)	93 (6)
Rubber	0.822 (5)	107 (4)
Chemicals	1.110 (4)	171 (2)
Non-metallic minerals	0.284 (9)	122 (3)
Basic metals	0.236 (10)	56 (10)
Metal Products	0.608 (7)	73 (9)
Machinery	0.505 (8)	39 (11)
Transport Equipment	8.666 (1)	107 (4)

* In thousand rials, 1965 current prices

Source: Table 3-3 in chapter 3 for effective protection; Ministry of Economy, Iranian Industrial Statistics for 1969-1970, table j.

The table shows a fairly close association between the rankings. This is confirmed by a positive rank correlation coefficient of 0.601. In other words in 1965 the structure of protection was in favour of capital intensive industries. Although it has not been possible to provide more up-to-date data for effective protection, there is reason to believe that for later years the association between protection and capital intensity was at least as strong - if not stronger - as it was in 1965; tariff levels on a number of consumer goods were reduced in the early 1970's: new capital intensive industries such as iron and steel and machine tools were awarded protection as they started production.

The structure of protection apart, the other major incentive for manufacturing, long and medium term credit by the development banks, has had a similar effect. This is particularly true of the IMDBI. An analysis of the relevant data contained in the annual reports of the IMDBI shows that through the 1960's the composition of financial assistance by the Bank has shifted away from food processing, textile and other light industries to such industries as paper and printing, special steel, engineering and sheet glass.

Both these sets of policy incentives as well as the government's own investment during the 1960's have brought about a major shift in the structure of manufacturing industry. This can be seen in table 5-2 which shows value added in individual industry groups as a percentage of value added by the whole sector in two years - 1962 and 1972 (value added data for individual industries before 1962 are not available). There is no reason to believe that the two years selected are unrepresentative; the trend indicated is reasonably accurate. There was an economic recession in 1962 so that the value added for the manufacturing sector as a whole was depressed, however it is unlikely that the relative position of each industry

was changed to an extent that would effect our analysis:

Table 5-2: Changing structure of value added in urban manufacturing (Value added by each industry group as a percentage of all manufacturing).

Industry	1962	1972
Food, beverages and tobacco	36.3	23.4
Textiles	24.5	12.8
Clothing	3.3	9.8
Furniture	2.3	1.6
Paper and Printing	1.3	2.6
Leather	1.5	0.4
Rubber	0.8	2.1
Chemicals	4.1	8.2
Non-metallic minerals	8.2	10.1
Basic metals	0.3	6.4
Metal products	7.3	6.0
Machinery	0.9	6.0
Transport equipments	7.9	9.2

Note: Columns do not add up to 100 due to exclusion of 'other industries' & rounding.

Source: Ministry of Economy, Iranian Industrial Statistics for 1970-1971 op. cit. p.1

Ministry of Economy, Iranian Industrial Statistics for 1972-1973 op. cit. p.41.

The table shows a rather dramatic decline in the share of foods, textiles, furniture and leather. On the other hand, the shares of chemicals, rubber, basic metals, transport equipments as well as paper and printing have risen significantly over the period. In other words the structure of Iranian industry has shifted away from those industries which, broadly speaking, are labour intensive to those that are capital intensive.

We have so far been concerned with the effect of government policy on factor intensity through changes in the overall structure of the manufacture sector. In addition however it is almost certain that the system of incentives has influenced the choice of techniques, at the individual industry level, in favour of a more capital intensive technology.[2] It is of course difficult to establish a link between policy and choice of techniques empirically since we do not have enough information of a sufficiently disaggregated or 'micro' nature for this purpose. Nevertheless, given that a major effect of the policy framework, be it in the form of duty-free imports of capital equipment, low-interest long term credit or a generous depreciation tax allowance, is to lower the cost of capital, it is reasonable to suggest that the policy framework has had a significant impact on the choice of techniques.

In any case; it is possible to observe a strong tendency towards a capital intensive technology in almost all industries over the period. This is most obvious when we consider the replacement of traditional handicraft producers with modern and factory based establishments. A study in 1970 concluded that over the 1956-1966 decade "factory production (had) practically eliminated traditional producers of soap, candles, pottery, wooden combs, locks, scissors, milled flour and rice and reduced greatly that of artisan producers of shoes, hand-loom textiles, leathers and many other goods"[3]. It is very likely that this process has continued

over the rest of the period.[4]

In the already existing factory industries, too, there has occurred widespread modernisation and replacement of old equipment. During the second plan for example the government's investment in industry in fact largely consisted of modernisation of a number of large factories producing cotton textiles, sugar and cement. Considering the reasons for the observed improvement in productivity in Iranian manufacturing as a whole, one researcher has pointed out that the gain in output per worker was "to a great extent....the result of the installation of much greater (and more automatic) machinery" and not to any improvement attributable to the workforce itself.[5]

The cotton textile industry which by 1972 was still Iran's most important factory industry provides a good example of the tendency towards a more capital intensive technology. Between 1956 and 1964 average per worker output of cloth increased at a rate of 12 percent per year. This can be seen in table 5-3 below which shows some characteristics of the cotton-synthetic textile industry between 1956-1964.

Table 5-3: Some Characteristics of the Cotton-Synthetic Textile Industry 1956-1964

	1956	1964	% rate of change
No. of factories	32	44	+ 38
No. of spinning spindles	277,040	622,462	+ 125
No. of weaving looms	4,797	14,275	+ 198
No. of employees	19,697	40,356	+ 105
Production of cloth (1,000 metres)	61,892	330,594	+ 434
Average production of cloth per employee (1,000 metres).	3,142	8,192	+ 161

Source: William H. Bartsch, 'The Industrial Labour Force of Iran: Problems of Recruitment, Training and Productivity', The Middle East Journal, Winter 1971, p.25

Not only was there an increase in the amount of equipment, but there was also a considerable replacement of old equipment with fully automatic spindles and looms which the above figures cannot show.[6] In one modernised government factory for example the installed equipments were described as amongst "the most advanced and up-to-date" found any where in the world.[7]

Having considered the shift towards more capital intensive industries as well as the more capital intensive nature of the technology in various industries, we now examine the implications of these in two related areas:[8]

(a) - employment in manufacturing; and (b) - the position of small scale manufacturing establishments.

(a) - Employment in Manufacturing

Before dealing with employment in manufacturing specifically, it is necessary to describe briefly the major features of the general employment conditions in the country over the period.

The most important feature was the much faster growth of population and labour force in urban centers compared with the rest of the country. Census data indicate that between 1956 and 1966 the average annual growth rate of population in towns and cities (defined as centers with 5,000 or more inhabitants) was 4.52 percent, while that of the villages was only 1.92.[9] These figures indicate substantial net rural-urban migration. One estimate is that more than 70 percent of the growth of urban labour force over the 1956-1966 decade was comprised of migrants from villages.[10] As may be expected, the larger cities have been the main recipient of rural migrants. Tehran and suburbs, for example, received about 50 percent of total migrants between 1956 and 1966.[11]

Between 1966 and 1972 the above trend continued. In fact there is some evidence suggesting that the pace of rural-urban migration must have accelerated. For example while between 1956 and 1966 agricultural employment increased about 1 percent annually, there are indications of complete stagnation between 1966 and 1972.[12] Another piece of evidence is the decline in the hourly wage rates for unskilled construction labourers between 1969 and 1971, which is probably due to a faster influx of rural migrants seeking employment in the construction industry.[13]

A variety of factors - both 'push' and 'pull' - help to explain the above phenomenon. But, while the growth of industries and superior urban amenities are an important factor, the available evidence suggest that on

the whole the 'push' factors have been the more important reason for rural migration.[14]

Among the various 'push' factors one can mention a series of bad harvests as well as increasing mechanisation of agriculture during the 1960's. The Plan Organisation has estimated that during the Third Plan alone 340,000 agricultural workers were made redundant by the introduction of tractors and other farm machinery.[15] This process probably accelerated during the Fourth Plan due to the emphasis on 'agro-industry' and large 'farm corporations' as areas for investment.[16]

But probably the single most important 'push' factor has been the displacing effects of the land reform programme instituted in 1962. The reform entitled only a relatively small segment of the rural population to the ownership of distributed lands.[17] The reform law specifically excluded the so-called Khusneshin population. The Khusneshins however, the vast majority of whom are landless labourers, comprised up to 50 percent of the rural population. After the reform employment opportunities for the Khusneshins were drastically reduced, mainly due to the small size of peasant holdings. It has been estimated that 70 percent of peasants receiving land obtained less than five hectars, although seven hectars is considered "the minimum amount of land a peasant family must farm in order to maintain an adequate living standard".[18] As a result not only were most peasants unable to employ landless labourers but in fact competed with them for additional work. The majority of Khusneshins were also unable to find employment on the larger farms due to the already mentioned mechanisation on these farms. As one author has pointed out, in the aftermath of the land reform something like "one million households of Khusneshins.... must still be wandering between villages and towns".[19]

In such circumstances, the burden of employment creation to a very large

extent falls on the manufacturing sector. The importance of manufacturing in this respect comes into sharper focus when we consider that many of Iran's service industries were probably already over staffed. This is largely true of commerce and probably also of government services.[20]

In fact, as we have already noted (see chapter two) the increase in employment in manufacturing industries over the period has been quite rapid. Between 1956 and 1966 the increase in manufacturing employment was greater than the increase in employment in all the different service activities combined.[21] More than twice as many jobs were created in manufacturing than in construction, water and power combined.[22]

Between 1966 and 1972, too, the pace of employment creation in manufacturing was rapid, both absolutely and also in relation to other sectors. Thus almost as many jobs were created in manufacturing as in the whole of the service sector, while the increase in manufacturing employment was more than twice as many as in construction, water and power combined.[23] Altogether, between 1956 and 1972, well over a million new jobs were created in the manufacturing sector.[24]

This rapid growth rate notwithstanding, the question still remains as to whether the increase in manufacturing employment was sufficient to prevent urban "unemployment" from becoming a serious problem in Iran. We are not in a position to provide anything like a definite answer to this question. However, based on the observations of a number of authors as well as some research work, it seems that by the end of 1972 the problems of "unemployment" among unskilled workers existed and that on the whole (and especially in the larger cities) it was serious. One author, on the basis of field research (in 1971-1972) among rural migrants points out that:

> "A majority of former agricultural workers not only fail to find adequate employment in Tehran, but they often live in worse conditions than those prevailing in the villages. Thousands of rural migrants are crowded into squatter settlements in the southern and eastern sections of the city. Living quarters frequently consist

> of small one-room mud huts which may be shared by more than one family. Sanitary conditions are far below even the most minimal standards....Khusneshin labourers encounter similar problems in Isfahan, Mashed, Tabriz, and smaller cities, although perhaps on a smaller scale".[25]

Earlier work by William Bartsch, concerned with the employment situation in the 1956-1966 decade, too, pointed to the existence of "unemployment" and various degrees of "under-employment"/"disguised unemployment" in the urban areas.

Apart from the probable inadequacy of the number of jobs available in manufacturing, the quality of the employment created also deserves comment since this will enable us to gain some insight into the effects of government policy.

From the available data is is easily apparent that the largest addition to manufacturing employment over the 1956-1972 period was provided by small units in rural and urban areas. Over this period, small units, defined as employing less than ten workers, created nearly four times as many jobs as large units, defined as employing ten or more workers.[26] Moreover, within the small sub-sector, most jobs were created by what might be described as 'cottage' or 'household' industries where the self-employed, part-time, or seasonal labour dominated. For example , it has been estimated that between 1956 and 1966 more than twice as many jobs were created in carpet-weaving than in the whole of the large scale urban manufacturing.[27]

We are not seeking to emphasise the low productivity or perhaps the 'backward' nature of employment in such occupations, rather we wish to point out that modern and large scale industries which have had all the incentives and privileges and nearly all the attention of the planners and policy makers in Iran, have not contributed a great deal to employment creation. For example, between 1969 and 1971 large manufacturing establishments absorbed an average of 82 percent of all the funds invested in urban manufacturing, during the same period only an average of 33 percent of the

ubran manufacturing labour force were working in large establishments.[28]

(b) - The Position of Small Scale Manufacturing

As has already been mentioned the main recipient of government incentives have been the large scale and modern manufacturing units. This is most clear when we consider the allocation of long or medium term credit. The IMDBI which is the most important source of such funds refuses all applications for less than five million rials. This in effect deprives the vast majority of the smaller businesses. The ICB was originally supposed to fill the gap and provide long or medium term credit for small firms. In practice however, as we have seen, the ICB to a very large extent acts as an ancillary to the IMDBI, providing working capital loans for those firms already assisted or directly set up by the IMDBI. The commercial banks, which have had a very rapid growth over the period, have not assisted the smaller businesses very much either. In fact their main area of interest continued to be domestic and import trade. It appears however that towards the end of the period under study the commercial banks began to take an interest in industrial finance. But small industrial businesses still face many problems in obtaining loans for anything more than one year. The main difficulty is their lack of ability to provide sufficient collateral covering the loan.[29] Generally speaking, personal savings as well as loans from close friends and relatives have continued to be by far the most important and frequent source of finance for small manufacturing businesses.[30]

So far as protective policies are concerned, it is almost certain that, again, the main beneficiaries have been the larger firms. This is so because, partly due to their financial weakness and partly because of the kind of market that they cater for, smaller businesses handle a much smaller amount of tradable inputs. This is true both so far as their use

of imported capital equipment is concerned and, more importantly, their use of imported intermediate inputs such as spare parts and components.[31]

In short therefore, the policy framework has descriminated against small manufacturing units. The wisdom of this policy may be questioned on two related grounds, the first criticism concerns the important, indeed predominant role of small units in employment creation, which we have already briefly considered.

The second criticism is, in a sense, more important. There is sufficient evidence, that contrary to what might at first be imagined the small scale sector is not dominated by handicraft and other traditional activities, although these provide most of the jobs. In terms of output and value added however, small units involved in activities defined as 'intermediate' and 'modern' are predominant.[32] This has been shown by an analysis of the structure of small urban manufacturing in 1968. The results of the analysis are reproduced in table 5-4 below:

Table 5-4: Gross Value Added (GVA) in Major Small Scale Manufacuring Activities: Level, Structure and Rank.

Activities	GVA in Million Rials	Percent of Group	Percent of Total	Rank in Total
Traditional*				
Carpets	1,469	35.1	6.28	3
Spinning	1,169	27.9	4.99	6
Metal Works	1,137	27.1	4.85	8
Other Traditional	419	9.9	(1.78)	
All Traditional	4,194	100.0	17.90	
Intermediate*				
Bread	5,211	52.5	22.47	1
Clothing	865	8.7	3.72	10
Sugar	678	6.8	2.98	11
Footwear	605	6.1	2.61	12
Bricks, Tiles etc.	506	5.1	2.18	14
Veg. Oil and Others	358	3.6	1.54	15
Cereals, Milling	303	3.1	1.33	17
Others	1,459	14.1	(6.04)	
All Intermediate	9,985	100.0	42.80	
Modern*				
Knitting Mills	1,842	21.6	8.01	2
Metal Products	1,348	15.7	5.82	4
Repair Motor Vehicles	1,186	13.8	5.12	5
Wood Works	1,115	13.1	4.86	7
Cement, Concrete Pro.	901	10.5	3.89	9
Spirits	540	6.3	2.34	13
Furniture	349	4.1	1.52	16
Repair Motorcycles	286	3.3	1.22	18
Others	1,092	11.6	(4.32)	
All Modern	8,659	100.0	37.10	

* See the source for the particular definition of 'traditional', 'intermediate' and 'modern' activities used.

Source: Robert Mabro, 'Industry', Employment and Income Policies for Iran, Mission Working Paper No. V., p.21 (unpublished Memeograph).

The table reveals some interesting features of small manufacturing in Iran. First of all, there is a significant degree of diversification. Thus apart from the production of bread, no other activity accounts for as much as 9 percent of the total of gross value added. As can be seen, small scale manufacturing provides a very wide range of products including a large number of mass consumption goods. Secondly, 'modern' activities are in turn more diversified than the other two categories. Furthermore a number of 'modern' activities rank highly in the table. The high ranks of knitting mills, metal products and motor vehicle repair is particularly significant, since, broadly speaking these types of activities can act "as a nursery for the training of mechanics and craftsmen" and help in "increasing the familiarity of semi-modern technology, in creating an environment where the tools, the mode of thinking and products of an industrial society slowly penetrate".[33]

In this context, the criticism of government policy is that the structure of incentives have not helped in the realisation of the potentialities of the small sector. No doubt the small sector has to some extent benefited indirectly from government action and policy. For example the strong government protection of the automobile industry has in turn helped the large number of car repair workshops. More generally, small businesses have benefited from the generally high level of demand which is again largely a consequence of substantial public expenditure, although small firms have had only a negligible share of the contracts handed out by the government.[34]

Indirect 'spin offs' of government policy notwithstanding, the above criticism still holds. More specifically, the structure of incentives have not encouraged the formation of organic links between large and small firms. This could have been a useful means for diffusing relatively advanced technology to all sectors of Iranian manufacturing. Instead the system of incentives has strongly favoured vertical integration.

In fact it is possible to observe a steady process of vertical integration among the larger firms all through the 1960's.[35] By 1972 the Ministry of Economy was pointing to vertical integration as a major characteristic of the evolution of the larger firms in Iran.[36]

II - Industrialisation and Economic Development in Iran.

In the present chapter we have so far been concerned with the effects of government policy on developments in the manufacturing sector itself. The remainder attempts to deal with somewhat broader issues that are nevertheless related to developments within the manufacturing sector. Specifically, we deal with two broad issues that seem relevant for the subsequent development of the manufacturing sector and the economy as a whole. The first issue concerns the place of manufacturing in the national economy in terms of its links with the other economic sectors. The second, and closely related issue, concerns the relative performances of the agricultural and manufacturing sectors. This is very important since by 1972 agriculture and related activities still provided employment for 40 percent of the labour force and a livelihood for over 60 percent of the total population of the country.

(a) - The Place of Manufacturing in the National Economy

By 1972 manufacturing activities were responsible for generating nearly 16.5 percent of GNP in Iran.[37] In 1959, the earliest year for which reliable national income data are available, manufacturing value added accounted for 9 percent of GNP.[38] Thus, over the 1955-1972 period, the share of manufacturing in the GNP must have nearly doubled. Over roughly the same period , the percentage share of manufacturing employment in total labour force increased from about 13.4 to nearly 19.8.[39]

Over this period manufacturing has been the fastest growing non-oil

sector.[40] In terms of its contribution to overall development, the rapid growth of manufacturing has undoubtedly had some positive impact to the extent that it has stimulated the growth of such activities as construction, transport and a number of other services. More generally, it is probably also reasonable to suggest that the expansion of manufacturing has produced certain external economies; it has facilitated the gradual training of skilled labour and management, influenced the rate of urbanisation and brough about 'a slow transformation of a traditional milieu into a technically orientated environment'.[41]

But in spite of this manufacturing activities were still rather isolated from the rest of the economy. This is particularly true of the more recently established industries. The older industries such as textiles and the smaller business generally were relatively more integrated into the domestic economy. In fact, as was briefly noted in chapter 2, most of the newly established manufacturing industries to a large extent were engaged in assembly operations using imported parts and components. Table 5-5 below shows the share of imported inputs in the sales value for a number of commodities in 1969. There is no reason to believe that between 1969 and 1972 the situation changed a great deal. A number of projects for the domestic production of imported inputs were undertaken in the late 1960's and early 1970's and by 1972 most of these were still either under construction or had just come on stream. Subsequent to 1972 an increasing number of these projects have started operation with various degrees of success. However no detailed information in this regard is yet available.

As they are, the figures in table 5-5 clearly indicate that Iranian manufacturing industry is split up between resource based industries and activities based on imported material. The former category include some

Table 5-5: Iranian Industry: Import Dependence (1969)

Light Consumer Goods	Share of Imported inputs in Sales Value[a]
Sugar	2 Percent
Meat Packing	10
Cotton Textiles	10-20
Footwear	10-20
Canned Fruit and Vegetable	40
Woollen Textiles	50
Vegetable Oils	60
Pharmaceuticals	
Durable Consumer Goods	
Electrical fans[b]	26
Radios	37-50
Space heaters	40
Refrigerators	40 (understated)
Air Coolers	60
TV Sets	60
Transport Equipments	
Diesel Engines	33-43
Trucks	48
Buses	n.a. (Probably as Trucks)
Passenger Cars	50
Tyres	50
Intermediate Products	
DDB (Dodecil Benzane)[b]	10
PVC[b]	10
Caustic Soda	10
Glass (Sheet)	10
Paper	25
Paints	45
Synthetic Fibres	n.a. (above 50?)
Rolled Steel	60
Capital Goods	
Cement	20
Carbon Steel	20
Telephones	20
Electric Meters	20
Telephone Exchanges	20
Steel Wires	30
Pumps	40
Transformers	45
Cables	65-90
Electric Switchgear	80

a) Imported components include material, semi-finished products and spare parts. Both direct and indirect imports are included. (the indirect content being defined as imported materials bought on the home market rather than directly imported by the user)

(b) Project under construction; planned values.

Source: Dragoslav Avramov, 'Industrialisation of Iran: The Records, The problems and the Prospects', Tahqiqate-e-Eqtesadi, Spring 1970, pp19-20.

of Iran's older industries such as textiles, food processing and construction materials. This category also includes more recently established industries producing intermediate chemical and petrochemical products. It should however be remembered that the figures in table 5-5 pertaining to this latter group of products are mostly project estimates referring to the planned rather than the actual ratio of imported inputs in total sales value. We have no information on the subsequent performance of the projects in question.

The import intensive category includes nearly all the more recently established import-substitute activities. These include all those industries producing domestic appliances, automobiles and other transport equipments, steel products and capital goods that are material intensive.[42]

The high import dependency of the fastest growing sections of manufacturing in turn implies that its linkages with the rest of the economy in terms of inter-sectoral purchases is rather limited. A study by the International Labour Organisation which developed a Social Accounting Matrix for 1972, showed that six industry groups which between them nearly exhaust the list of Iran's newly established manufacturing activities - transport equipments, chemicals, basic metals, metal products, machinery and non-metallic minerals - purchased only 4 percent of the total domestically produced intermediate goods.[43] The same group of industries provided only 4.6 percent of total sales of domestically produced intermediate goods to other sectors. These facts clearly indicate that the establishment of new activities had not yet transformed manufacturing into a 'leading' sector in the sense of it pulling the rest of the economy by imparting an impetus and widespread linkages.

(b) - Manufacturing, Agriculture and Economic Development

So far as the above situation is concerned, Iranian agriculture provides

a case in point. Newly established activities have virtually no contact with agriculture and live-stock sectors. The older industries producing light consumer goods such as cotton textiles and a number of processed foods obtain the bulk of their raw materials from agriculture and live-stock sectors. But with the development of manufacturing and the growth of new import-dependent activities, the importance of agricultural inputs in manufacturing activities as a whole has declined.

By 1972, all manufacturing activities were purchasing only about 16 percent of their intermediate requirements from the agricultural and live-stock sectors.[44] In the same year, agriculture and live-stock bought about 13 percent of their intermediate requirements from manufacturing.[45] Thus, it appears that manufacturing's forward linkage with agriculture is even weaker than its backward linkage: agriculture is not a significant market for the products of manufacturing.

These facts lend further support to earlier statements regarding the isolation of the manufacturing sector from the rest of the economy. At the same time these facts point to the rather primitive state of Iranian agriculture. Thus not only does agriculture use small amounts of domestically manufactured inputs, but its <u>imports</u> of such items are also small.[46] This is in sharp contrast with manufacturing which in 1972 absorbed about 75 percent of all intermediate imports.

Considering the period as a whole, the performance of agriculture and live-stock has been very disappointing. Available data show that over the 1959-1971 period value added by agriculture and live-stock grew at an average compound rate of 3.2 percent in real terms.[47] Over the same time period, Iran's population grew at an average annual rate of 2.9 percent.[48] Hence the growth in agricultural output has just about managed to keep up with the growth in population. But in the context of the Iranian economy, where <u>per capita</u> income has been rising very rapidly and

where the population's propensity to consume food is quite high, this is not a very satisfactory performance.[49] In fact in the late 1960's and early 1970's the government resorted to increasing food imports to meet domestic demand and dampen down inflation. This, in turn had been due to the fact that for a significant number of food items, particularly live-stock products such as red meat, imports have not been an adequate substitute for the domestic product and have encountered consumer resistance.[50]

Considering the reasons for the sluggish performance of agriculture, it should , from the outset be realized that rapid growth and development of agriculture in Iranian conditions is a very difficult task. The greater part of the country escapes being a desert very narrowly indeed. Outside the Caspian littoral, water shortage is a very serious problem all over the country. The rural population is very sparsely settled over a vast terrain. The last Population Census in 1966 revealed that about 84 percent of the rural population lived in villages with less than 500 inhabitants. Furthermore, 61 percent of rural population lived in villages with less than 250 inhabitants.[51] The implications of this in terms of infrastructural requirements of rural development are obvious. Providing every village with adequate feeder roads, irrigation networks, basic education and health facilities, and various extension services - all necessary ingredients for sustained rural development - is very expensive.

Inherent difficulties apart, government policy is nevertheless in large measure responsible for the relative stagnation of agriculture in Iran. To some extent, of course, this reflects a conscious choice. Thus, as we noted in chapter three, one of the major reasons for emphasising industrial development in the Fourth Plan was that "unlike the agricultural sector, it is less affected by natural and climatic conditions, (and that it) is more capable of adopting the nature of its products to the require-

ments of the economy".[52] Therefore the various protective and promotional incentives that manufacturing has enjoyed should be regarded as, in effect, a conscious discrimination against agriculture. The easiest way to demonstrate this point is to note that, in sharp contrast to the manufacturing sector, private enterprise has been a far less important factor in the development of agriculture. During the Fourth Development Plan for example only about 11.2 percent of all private investment was absorbed by agriculture and related activities.[53] This is very small considering that even by 1972-and after years of relative decline - the agricultural sector generated about 20 percent of GNP in Iran:

Public development expenditure, too, has not favoured the agricultural sector. Thus during the Third Plan, even though agriculture was designated as "the most important sector in the economy", only about 49 billion rials, representing 21.3 percent of total public development expenditure was actually spent on agriculture.[54] Moreover, the above figure covered expenditure on such diverse activities as irrigation, land reform, rural development and conservation of natural resources among others. Development expenditure was therefore rather thinly spread on a wide range of activities.[55]

During the Fourth Development Plan fixed investment expenditure by the public sector in agriculture and animal husbandry was projected at 24.0 billion rials. This represented only about 6.2 percent of total fixed investment by the public sector.[56] But it appears that the government has had difficulty in spending even this small allocation.[57]

We have already noted one important implication of the slow growth of agriculture: inflation and mounting food imports. Another implication, which is of a more fundamental and long term character, relates to the distribution of income.

Although no data directly relating to the distribution of income in Iran are available, there are sufficient indications that the distribution

of income in the country is highly unequal. One useful indicator, for example, is the distribution of family consumption expenditure. In table 5-6 below we present a decile distribution of family expenditure relating to 1969:

Household Deciles (Ascending order)	% Share of Total Consumption	Cumulative Percentages
Lowest Decile (D1)	1.5	1.5
(D2)	2.5	4.0
(D3)	4.0	8.0
(D4)	4.5	12.5
(D5)	5.0	17.5
(D6)	6.5	24.0
(D7)	8.5	32.5
(D8)	11.0	43.5
(D9)	16.5	60.0
Highest Decile(D10)	40.0	100.0

Source: H. Oshima, 'Income Distribution' Mission Working Paper No.II, International Labour Organisation Mission on Employment and Income Policies for Iran, (Unpublished Mimeograph, Feb. 1973), p.4.

The table shows that consumption expenditure in Iran is very unequally distributed. It should also be remembered that the distribution of income is more unequal than the distribution of consumption expenditure since the higher income groups obviously save a great deal more. For the lowest income groups, in fact, there are several pieces of evidence pointing to significant dis-savings. For example it is well known that a large segment of the rural population is almost perpetually in debt, either to rural money-lenders or to government banks.[58]

Another indication pointing to a very unequal distribution of income is the apparently high Engel coefficient (the fraction of national income spent on food) in Iran. It has been estimated that in 1966-67 the Engel coefficient for Iran was 41 percent. This fact is consistent with great income inequality because it implies that there are large numbers of families in the low income brackets who have very high Engel coefficients while the small number of high income families with low Engel coefficients do not offset the former.[59]

In short, so far as the distribution of income is concerned, "an extreme form of dualism (has) developed in Iran with very high incomes in the top deciles and very low incomes in the lower deciles and relatively low incomes in the middle deciles".[60]

Furthermore, the relevant point from our point of view is that probably the single most important source of this inequality is the large gap between family incomes in rural and urban areas. Estimates for the ratio of rural-urban family incomes vary from 1:6 to 1:4.[61] Moreover, it would seem reasonable to suggest that the relative position of rural families in the distribution of income has deteriorated. This view is supported by the widespread existence of a heavy debt burden already referred to and also by the fact that a large part of the rural population (including nomadic tribes) have benefited very little from the increase in national income:

> "Some 1.3 million (rural families) who have not joined (rural cooperatives) are very badly off: their land is located in remote dry areas and cannot be irrigated; often they have no access to transport and communications and are therefore isolated from the rest of the economy".[62]

Notes and References

1. Hal B. Lary, Imports of Manufactures from Less Developed Countries, National Bureau of Economic Research, (New York, 1968), pp.41-43.

2. Other factors, perhaps of a deeper socio-political significance, also work in favour of the adoption of more capital intensive technologies. One such factor, it has been suggested, may be the desire of industrialists for relative political independence vis a vis the government. Marvin Zonis reports a well-known industrialist as having pointed out to him that:

   "High-priced equipment...(are) necessary because they eliminate the need for workman. Eliminating the workers also (eliminates) the chief entree that the government (can) claim in order to control his factory.
   (He explained how) the Ministries of Labour (concerned with worker guilds and wages), Interior (worker political organisation), Information (worker propoganda) and Health (worker welfare) were now far less likely to intervene in the affairs of his company. In their absence, some hope existed that the owners could devote themselves to production rather than politics". See Marvin Zonis, The Political Elite of Iran, Princeton University Press, (1971), p.29.

3. William H. Bartsch, Labour Supply and Employment-Creation in the Urban Areas of Iran, University of London Ph.D. thesis, Unpublished, London (1970), pp. 81-82.

4. See, for example, Plan Organisation Fifth National Development Plan, op. cit., p.318.

5. William H. Bartsch, 'The Industrial Labour Force of Iran: Problems of Recruitment, Training and Productivity', op. cit. p.25.

6. Ibid.

7. Plan Organisation, Report on the Execution of the Second Seven Year Plan, op. cit., p.41.

8. It would also be desirable to consider the implications of these policies for capacity utilisation in Iranian manufacturing, but this has not been possible due to lack of sufficient information. However it may be instructive to remember that in most developing countries a prime source of excess capacity has been the shortage of foreign

exchange needed to maintain the supply of raw materials, fuel, parts and components. To the extent that Iran has been free from balance of payment difficulties, it may be safe to conclude that excess capacity has been a less serious problem in Iran.

9. William H. Bartsch, :Problems of Employment Creation in Iran, International Labour Office, (Geneva, 1970), p.4.

10. Ibid. p.8.

11. Julian Bharier, op. cit. p.30.

12. International Labour Office, Employment and Income Policies for Iran, op. cit., p.32.

13. Ibid., p.25.

14. See, for example, Jullian Bharier, . . ibid, p.31.

15. William M. Bartsch, Problems of Employment Creation in Iran, op.cit.p.38.

16. International Labour Office, Employment and Income Policies for Iran, op. cit., pp.40.

17. See, for example, Nikki R. Keddie, 'The Iranian Village Before and After Land Reform', Journal of Contemporary Histroy, (July,1968) pp.69-91.

18. Eric J. Hoogland, 'The Khwushnision Population of Iran', Iranian Studies (Autumn 1973), p.238.

19. M.A. Katouzian, 'Land Reform in Iran: A Case Study in the Political Economy of Social Engineering', Journal of Peasant Studies, Volume 1, (January 1974) p.231. Emphasis added.

20. International Labour Office, Employment and Income Policies for Iran, op. cit., p.33.

21. Willian H. Bartsch, Problems of Employment Creation in Iran, op. cit., p.10.

22. Ibid.

23. International Labour Office, Employment and Income Policies for Iran, op. cit. p.31.

24. See Table 2-1 in chapter 2.

25. Eric J. Hoogland, op. cit., p.240. For greater details see, Eric J. Hoogland, The Social and Economic Consequences of Land Reform in Iran, Unpublished Ph.D. Thesis, Johns Hopkins University, (Washington) 1974.

26. Willian H. Bartsch, op. cit. p.13.

27. Ibid. p.18.

28. Ministry of Economy, Iranian Industrial Statistics for 1348 op. cit. p.1. Ministry of Economy, Iranian Industrial Statistics for 1350 op. cit. p.1.

29. See, Zia Heda'i, The Role of Small Scale Industry in the Economic Development of Iran, Shams Publishers, (Tehran, 1971) pp.242-259. (In Persian).

30. Ibid.

31. Robert Mabro, op. cit. p.24.

32. Ibid. p.20.

33. Ibid.

34. Ibid. p.12.

35. Julian Bharier, op. cit., p.189.

36. Ministry of Economy, Iranian Industrial Statistics for 1351 op. cit. p.37.

37. Bank Markazi Iran, Annual Report and Balance Sheet 1351, op. cit. p.141. This consists of manufacturing as well as mining. The latter however is still very insignificant in Iran.

38. Julian Bharier, op. cit., p.60.

39. International Labour Office, Employment and Income Policies for Iran, op. cit. p.31.

40. Two industrial sectors, electricity and water, have had higher rates of growth. But they are still very small contributors to GNP.

41. Robert Mabro, op. cit. p.27.

42. Dragoslav Avramovic, op. cit., p.18.

43. Graham Pyatt, et al. 'Methodology for Macro-Economic Projections', International Labour Organisation mission on Employment and Income Policies for Iran, Mission Working Paper XII, (Unpublished Memeograph, 1973), table II.4.

44. Ibid.

45. Ibid.

46. Bank Markazi Iran, Annual Report and Balance Sheet for 1349, op. cit., p.140.

47. Bank Markazi Iran, National Income of Iran, 1959-1971, (Tehran,1973), p. 17, (in Persian).

48. M.A. Katouzian, 'The Agricultural Sector in the Iranian Economy' Tahiqaqate-e-Eqtesadi, Faculty of Economics, University of Tehran, (Tehran, 1971), p.221. (in Persian).

49. "The Combination of population increase and a rising income per head is leading to a steep rise in food requirements, at an estimated rate of 9 percent annually (7 percent for plant products and 12 percent for animal products)." International Labour Organisation, op. cit.p.37.

50. M.A. Katouzian, 'The Agricultural Sector in the Iranian Economy', op. cit., pp.231.

51. Julian Bharier, op. cit. p.32.

52. Plan Organisation, Fourth National Development Plan, op. cit. p.41.

53. Farhad Daftary, 'Development Planning in Iran: A Historical Survey' op. cit., p.210.

54. Ibid, p.197.

55. Plan Organisation, 3rd Development Plan, Final Report, op. cit., p.21.

56. Plan Organisation, Fourth National Development Plan, op. cit., p.63.

57. M. A. Katousian, 'Land Reform in Iran: A Case Study of the Political Economy of Social Engineering', op. cit. p.232.

58. See, for example, ibid.

59. H. Oshima, 'Income Distribution', International Labour Organisation Mission on Employment and Income Policies for Iran, Mission Working Paper No.II, (Unpublished Mimeograph, 1973). p.7.

60. Ibid. p.21

61. Ibid. p.6

62. International Labour Organisation, Employment and Income Policies for Iran, op. cit. p.43. Emphasis added.

Concluding Remarks

In this study we have shown that Iranian manufacturing industry, actively stimulated by various incentives, has grown very rapidly since the middle of the 1950's. We have also shown that, as in most other developing countries, this growth has been import-replacing and oriented towards the home market while export expansion was not a significant part of the policy package for most of the period under study. In the early 1970's the government has apparently paid more attention to exports, but this has not as yet seriously affected the character of manufacturing growth in Iran.

Chapter 5, dealing with the problems of import substitution in Iran, suggested that government policies may have been unduly in favour of capital intensive industries and processes and that over the period under study urban unemployment seems to have been a serious problem. There is also overwhelming evidence of a very unequal distribution of income and the slow growth of agriculture in Iran. As we noted in the first chapter this situation can have adverse implications for the future growth of manufacturing because it limits the size of the domestic market. In other developing countries, in fact, this seems to have been an important factor in explaining the slowing down of industrial growth after the initial rapid gains of import substitution.

We have found no evidence of this in the case of Iran, however. In the last few years of our period in fact there was a rapid acceleration of manufacturing growth. It can be stated with reasonable confidence that, even without the four-fold increase in oil prices that took place in 1973, the prospect for the continued growth of manufacturing in Iran would have remained satisfactory. The reason

for this of course is that even before 1973 Iran's oil revenue was considerable and was growing steadily.

In other developing countries problems such as excessive capital intensity, unemployment and backwardness of agriculture often set an immediate obstacle in the way of continued rapid manufacturing advance. This can be easily seen if manufacturing growth is based on import substitution, since once imports are substituted future growth has to be based on the growth of domestic incomes. But even if the strategy chosen is export orientated, problems could arise since it may well be that successful exports need a fairly large domestic base.

Iran is much more fortunate in this respect, because oil revenue provides for the possibility of expanding markets <u>independently</u> of what happens to the distribution of incomes or agriculture. Hence after the initial replacing of imports of consumer goods manufacturing can take advantage of the oil-based <u>exogenous</u> growth in incomes. Even though industries may be very inefficient and high cost, they could still hope to gain from the rise in incomes and expand their markets, much more easily than industries in other countries less fortunate than Iran. Generally speaking, it may well be justified to remark that, whereas in other developing countries one can distinguish between 'easy' and 'difficult' stages of import substitution, in Iran the whole process is relatively 'easy'.

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