

INDUSTRIAL POLICY AND DEVELOPMENT IN  
LATE INDUSTRIALIZING COUNTRIES  
A Case Study of the Motor Industry

by

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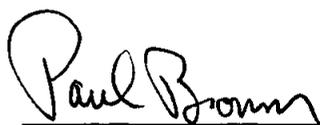
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DECLARATION

This thesis has not been submitted as an exercise for a degree at this or any other Academic Institution and is entirely my own work.

Signed:

  
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Paul G. Brown.

May 1988.

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**ABSTRACT** Industrial Policy and Development in Late Industrializing Countries - by Paul Brown

In recent times, literature - favouring a neo-classical perspective - on industrialization in developing nations has been the subject of increasing criticism. The opponents of the neo-classical approach argue that outward-looking free market policies do not offer the best prospects for self-sustaining growth. In a straight forward manner, Chapter 1 airs the views of economists of both perspectives. Subsequently, a framework for a general discussion is provided.

Outward-looking industrial policies in Ireland, have led to the emergence of a vibrant foreign-owned manufacturing sector. As Chapter 2 points out, there is considerable evidence that outward-looking industrialization has thus far been unsuccessful in developing strong native companies capable of entering export markets. Chapter 3 suggests that this may be a common experience among late industrializing countries (LICs). In fact, the creation of a competitive indigenous manufacturing base may be contingent upon a departure from strict neo-classical guidelines.

Chapter 4 shows that the development of the motor industry in LICs has usually taken place under the auspices of large transnational corporations (TNCs) from developed countries. Only with active state intervention have domestic firms - with the assistance of foreign capital and technology - shown an ability to compete on the world market. As Chapter 5 indicates, assembly of motor vehicles in Ireland was dominated by the subsidiaries of foreign companies. This is also true of the Irish automotive components sector, which has evolved in recent years. The analysis of this sector, contained in Chapter 5, is based largely on unpublished material. It is clear that this industry suffers from many of the short-comings often associated with foreign dominated sectors of Irish manufacturing.

By way of a conclusion, Chapter 6 argues that a role exists for more state intervention. However, it warns that government intervention in the system is not without risk. The task facing policy makers is to design a constructive role for the state. With respect to the Irish manufacturing industry, in the absence of more state intervention, the development of export markets will remain beyond the reach of most indigenous producers.

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**CHAPTER 1**

## 1.1 INTRODUCTION

Most societies, particularly during the formative stages of economic development, look upon "industrialization" as the primary means of improving living standards. National governments have demonstrated a keen interest in overseeing the process of industrial development. In fact, many economists would agree with Howard Pack and Larry Westphall, who consider the states development role to be the "principal element of industrial strategy".(1)

What constitutes an appropriate role for government in the process of industrialization is a question to which there is no universally accepted answer. In market-oriented economies this issue has for many years generated much controversy in academic and political circles alike. A broad consensus has emerged which perceives the government as having an important role in laying the infrastructural foundations required for stimulating industrial growth. However, opinions have been sharply divided over whether governments ought to intervene with the objective of influencing the apparent shortcomings associated with many markets.

In the past, the industrial development strategy adopted by numerous countries, including Ireland, has been characterized by extensive state intervention designed to compensate for the limitations of the free market. Various instruments have been employed, often simultaneously, including tariff and non-tariff protection in addition to controls on direct foreign investment (DFI). In developing countries, the main intellectual buttress underlying state intervention was the presumed efficacy of the infant industry argument. Policies, with the original intention of nurturing fledgling domestic sectors until they were strong enough to withstand international competition, became so all pervasive that virtually all of manufacturing industry operated in an environment which was heavily protectionist. In hindsight, it is clear that the broad scope and non discriminate nature

of the import substitution approach was not conducive to long run industrial growth in developing countries. As the 1987, World Bank, World Development Report comments:

"What ever the merits of this approach in specific cases, many developing countries have offered widespread import protection in the name of support for infant industry in ways likely to frustrate the objectives of the policy".(2)

Indeed, in many developing countries the experiment with import substitution has, since the 1950s, been discarded in favour of a strategy which appears to have been strongly influenced by conventional neo-classical thinking.(3) This promoted the widespread adoption of what have been termed "outward-looking" policies, which tended to stress the importance of market forces in preference to state intervention. A central feature of this strategy was the encouragement of free international trade; in addition to the easing or elimination of restrictions on direct foreign investment.(4)

## 1.2 NEO-CLASSICAL ECONOMICS AND INDUSTRIAL DEVELOPMENT STRATEGY

Conventional neo-classical economics assumes that the operation of free market forces will result in the most efficient use of the resources available to any economy.(5) This acceptance of the primacy of the market has the effect of precluding the state from pursuing an active interventionist role in the process of industrialization.(6) Therefore, reliance on the free play of market forces limits the state to a more neutral, or what Evans and Alizadeh call a "parametric" role designed to create conditions congenial to private investment.(7) It is important to emphasize that such a "parametric" approach to industrial development does not by definition discount the possibility of large scale government expenditure on, and involvement in, the promotion

of industry. It is the nature of intervention which is the crucial factor.

Parametric involvement implies significant autonomy for private economic agents, with state intervention concentrating on the provision of a regulative framework and infrastructural capacity. Such an approach involves the maintenance of incentives to private sector firms, both domestic and foreign. As Dicken points out, there are few if any market economy states which have not attempted to stimulate industrial investment by such means in recent years.(8) The objective is to establish a favourable environment for private enterprise with any investment incentives tending to be generalised to all firms and fairly automatically available. Paradoxically, the state provides the climate which enables the "invisible hand" to guide the process of industrial growth.

It is possible to identify two common forms of investment incentives, those which are capital related and those which are tax related. Capital related incentives include items such as non-repayable cash grants or loans for investment in plant. Rhys Jenkins is of the opinion that the willingness and the ability of states to give large grants to transnational corporations (TNCs) has become a crucial factor in determining the location of new foreign investment projects (9) Tax incentives usually take the form of relief from taxation of corporate profits and accelerated depreciation allowances. It will be shown later that both these forms of incentives were important components of a policy aimed at promoting Ireland as a favourable location for DFI.

It has been recognized by some neo-classical economists, for example: Little, Scitovsky and Scott,(10) that the state may have to resort to the introduction of certain promotional subsidies to encourage industrial activity. Unemployment will be a problem in many countries and, in an attempt to increase employment, firms may be given inducements to hire additional labour. Also both Balassa(11) and Williamson(12)

indicate that in special circumstances modest amounts of "generalized" infant industry support may be permissible. However, in essence, these policies must be non-selective and non-discretionary and, most importantly any direct or pervasive role for the state should be avoided.

This belief in the power of free market forces tends to result in a natural proclivity among neo-classical economists to advocate free international trade. It is argued that because free trade involves opening up the economy to competitive pressures from abroad, it creates efficiency in the allocation of resources and investment, which protection for a small protected home market denies. Nevertheless, it is recognized that if the operation of free market forces and free trade are to produce the same results as claimed for advanced countries, certain barriers or constraints blocking industrialization in developing countries have to be surmounted.(13)

Neo-classical economists have argued that the process of industrial growth in the periphery will most likely require some outside stimulus from the developed core. They see the trickle down of modernizing attributes imparted through the medium of direct foreign investment as the best catalyst for growth. The active encouragement of DFI, it is argued, helps developing countries by-pass constraints such as capital shortage, skill and technology deficiencies, while helping to alleviate the problem of surplus labour.(14) This has cultivated the view among economists such as Kindleberger of TNCs as the engines of economic growth.(15)

Mainstream neo-classical economists would argue that a combination of convincing theoretical reasons and successful practice leads one to expect superior performance from outward looking policies. They are not at all surprised that so many countries have changed strategies in recent decades, indeed Williamson points out that in the early 1980s only in Africa was the old objective of reducing the degree of integration with the world economy still dominant.(16)

### 1.3 OUTWARD-LOOKING INDUSTRIAL POLICIES: SOME EMPIRICAL EVIDENCE

In recent years a number of studies have emerged in literature which appear to give credence to the arguments of those who believe in the efficacy of the neo-classical stance. The findings of these studies indicate that countries which have experienced greater outward orientation in recent decades have performed exceptionally well with respect to a wide range of macro-economic indicators.

Williamson compares the growth rates of certain countries which he identifies as pursuing particularly "outward-looking" or particularly "inward-looking" policies between 1960 and 1980. He concludes that the adoption of the former set of policies offers the best prospect of increasing growth rates.(17) In the same vein, a recent study by Balassa of 43 countries in the 1973-78 period of external shocks shows that an outward oriented policy stance at the beginning of the period, and reliance on export promotion in response to these shocks appears to have resulted in a favourable impact on growth performance.(18)

A study appearing in the 1987 World Development Report covers data on 41 countries over the period between 1963 and 1984. The information was used to classify each economy into one of four groups: "strongly outward-oriented", "moderately outward-oriented", "strongly inward-oriented", and "moderately inward-oriented". Each group was examined for two periods, 1963-73 and 1973-85. As a result of policy switches between the two time periods, certain countries changed groups (see Appendix 1a).

The results of the study suggest that in almost all respects the economic performance in the "outward oriented" economies was broadly superior to that of the inward oriented economies. For example, the average growth rate in real per-capita income between 1963 and 1973 was highest in the

"strongly outward-oriented" economies (6.9%) and lowest in the "strongly inward-oriented" economies (1.6%). Despite the economic slow-down during 1973-85 per-capita income in the "strongly outward-oriented" economies grew by an annual average of 5.9% while in the "strongly inward-oriented" economies it fell on average by 0.1% a year.(19) Reference to Table 1.1 indicates that with respect to growth of manufactured exports, outward-oriented economies once again returned the best performance. The study concluded that: "This growth of manufactured exports was probably an important factor in producing rapid overall economic growth."(20)

TABLE 1.1

Growth Rate of Manufactured Exports of 41 Developing Economies Grouped on the Basis of Trade Orientation

	<u>SOO</u>	<u>MOO</u>	<u>MIO</u>	<u>SIO</u>
	%	%	%	%
1965-73	14.8	16.1	10.3	5.7
1973-85	14.2	14.5	8.5	3.7

SOO = strongly outward oriented

MOO = moderately outward oriented

MIO = moderately inward oriented

SIO = strongly inward oriented

Source: Constructed from data contained in the 1987 World Development Report, p.p83-85.

By contrasting the evident success of economies that exemplify an outward looking approach with the poor performance of ostensibly more interventionist inward looking economies, academics such as Balassa and Little, and institutions like the World Bank have enabled the neo-classical view to assume the dominant establishment

position. According to Pack and Westphall the neo-classicals have managed to gain ascendance by: "diligently marshalling the presumed facts on their side of the debate." (21)

#### 1.4 THE NEO-CLASSICAL PERSPECTIVE UNDER ATTACK

Recently, thinking which bears a resemblance to the unfashionable infant industry contention, has begun to surface in the literature. The focal tenet of this new methodology is that industry specific "selective" intervention can promote successful industrialization. (22) Contributors to this school of thought readily admit - that state intervention as it was practised during much of the import substitution era - can result in inefficiencies and rent-seeking activities which distort the process of industrial growth in developing countries. However, they would argue that the neo-classicals have failed to provide conclusive proof that selective intervention is at all times, regardless of the circumstances; an inferior strategy.

They dispute the claims in the neo-classical literature that the successful industrialization experienced by countries like South Korea and Japan, is attributable to the pursuit of laissez faire outward looking policies. For example, the neo-classical perspective on the policy reforms of the early 1960s responsible for transforming the Korean economy are called to account. It is believed that the neo-classicals have failed to fully comprehend the exact nature of these reforms. Accordingly, Pack and Westphall argue that the process of industrialization in South Korea has been strongly interventionalist.

"Incentive policies having a strong industry bias together with credit rationing, import quotas, licensing controls and many other of the overt instruments of selective intervention that have been widely castigated by the neo-

classicals have been used with apparently very successful results".(23)

In particular, validation of the neo-classical position is found in relation to small peripheral economies like Ireland, Singapore and Puerto Rico. The only viable option open to these countries, it is argued, is the introduction of outward looking policies which promote greater integration with the world economy that leads to the possibility of rapid industrialization. In the case of Ireland, the transition to outward looking industrialization was initially acclaimed almost universally as an unqualified success.(24) However, as the 1970s progressed and serious flaws in the Irish economy became visible, the efficacy of (what will be argued in Chapter 2 - was an extremely neo-classical inspired approach to industrial development) came to be questioned. At the end of the 1970s the National Economic and Social Council (NESC) sponsored an on-going study of Irish industrial development policy. An integral part of this work was an in depth examination of Irish industry as it existed in 1980/81. The research was conducted by a team of analysts from the international consultancy group Telesis, led by Mr. Ira Magaziner. The objective of this policy review was to ensure that Irish industrial policy would be appropriate to the creation of an internationally competitive industrial base capable of supporting increased employment and higher living standards.

Without questioning the Irish state's policy of attracting foreign owned firms to accelerate the development process, or Ireland's attempts to industrialize as an open economy within the European Economic Community (EEC), the Telesis report made a number of recommendations with respect to the role of the state in industrial development. In particular, the report argued for a new departure with respect to the development of indigenous industry. Attention was drawn to the existence of obstacles or barriers which have denied Irish exporters competitive success in the international market place. Once a firm had been created, it was argued that a more selective approach was required. The goal

should be the building up of fewer larger companies with strong internal capabilities.(25)

The findings of the Telesis report are in broad agreement with the views expressed by economists like O'Malley. While being what they call a late industrializing country (LIC)(26) which confers certain advantages- these are small when compared with the shadows cast by the fundamental rules of the game prevailing in the contemporary international economic system. To quote one United Nations Source:

"Economy wide restructuring requires a combination of state and private initiative and co-ordinated responses, a mix of openness to the international economy and purposeful protection or control of domestic activities and markets, a match of plan and market which goes against some sacrosanct principles of international economic wisdom as seen from the advanced countries vantage point".(27)

#### 1.5 RECONCILING DIVERGENT VIEWPOINTS; TOWARDS AN IMPROVED METHODOLOGY

It is apparent that a pronounced dichotomy exists between economists advocating neo-classical policies and the contrasting views of those advancing the cause of selective state intervention or what has been termed "industrial targeting" (28) Empirical research concerned with the elucidation of this controversy is immediately confronted with a dilemma. The problem is to find a suitable framework for examining the claims of opposing factions in what has developed into an extremely complex debate. The emergent analysis must be capable of contributing to the resolution of a wide range of difficult questions some of which are listed here:

1. Is selective intervention (aimed at alleviating market imperfections) by LIC governments, in the

form of (industry) specific protectionist measures, ever warranted? Alternatively, must intervention be limited and strictly generalized across all sectors, as suggested by neo-classical theory?

2. Should the state become directly involved in the promotion of specific sectors or groups of companies within the economy, or does the government's only concern rest with improving the quality of the infrastructure and the provision of an environment conducive to private investment?
3. In general, will selective intervention most likely lead to the successful development of industries within LICs, and if so what general characteristics determine the likelihood of such success? Alternatively, is selective intervention intrinsically inefficient and likely to lead to costly mistakes, and have the purported successes of selective intervention materialized despite, rather than because of such intervention?
4. Does selective intervention by governments require a specific type of administrative structure, characteristic of countries such as Japan and South Korea, which can not be easily replicated by very poor nations or by peripheral western European democracies?
5. What have been the implications for domestic enterprise of the transition towards more outward-oriented industrial policies? To what extent have indigenous exporters in LICs proved they have the resources to establish footholds in the international markets which have opened up as a consequence of freer trade?
6. Has the impressive growth of exports in recent years experienced by LICs adopting a more outward looking approach, been dependent on foreign capital?

These are the types of pertinent questions which test the validity of the outward looking approach or the worthiness of taking up an interventionist position. It is difficult to see how the comparative studies supporting a neo-classical stance can yield more than a superficial understanding of these issues. The persuasive power of these studies is further reduced by a number of inherent weaknesses.

Firstly, the links between trade strategy and macro-economic performance may not be as clearcut as many neo-classicals seem to think. For example, it is recognized by the 1987 World Development Report that the direction of causality need not be one of greater outward-orientation leading to enhanced economic performance.(29) On the contrary, it is conceivable that superior economic performance may in fact pave the way for outward-orientation. Therefore, the decisive classification in these studies may not be whether an economy tends towards a more outward or inward looking approach, but rather the relative strength or weakness of the economy under consideration. In this situation, what can emerge is a contrast between the growth indicators of relatively more advanced countries and/or rich oil exporting economies, and some of the world's most impoverished nations.

Secondly, since these studies use a very narrow basis of categorization (see Appendix 1A) and can include in excess of 40 countries, arbitrary decisions may have to be made concerning which group classification any given economy should be assigned to. Hence, demarcations can be made without due consideration being given to important factors such as historical background. For example, in the study appearing in the World Development Report, Argentina is placed in the "strongly inward-oriented" group for the entire period covered. As will be shown in Chapter 3, this ignores the fact that between 1976 and 1983 the industrial development approach adopted by the military government was

Extremely outward-looking. Indeed, for these years a sound case could be made for the inclusion of Argentina in the most "strongly outward-oriented" category. Given the poor performance of the Argentinian economy, this would serve to reduce the average growth rates in this group over the second time period.

Thirdly, these studies do succeed in fatally damaging the already tarnished reputation of the traditional method of import substitution. Such policies have become synonymous with the administrations headed by controversial political figures like Franco, Peron, deValera, and Salazar, who have been portrayed as recalcitrant traditionalists in much of the modern literature. However, neo-classical critiques of import substitution cannot automatically be applied to modern strategic selective intervention.

The historically based cross-country approach adopted in this study is a worthwhile alternative to the neo-classical approach of measuring the effectiveness of policies. It yields the opportunity for a detailed examination of the process of industrial restructuring across a variety of different economies. Such analysis provides a meaningful insight into many of the contentious issues mentioned above. Moreover, focusing on a particular industry should make the task easier and more rewarding.

## CHAPTER 2

## 2.1 INTRODUCTION

In the years following 1958, the character of the policies which guided Irish manufacturing industry were strongly outward-looking in content. Gradual trade liberalization culminating in EEC membership and generous state aid to private enterprise within a parametric context, were key elements which formed the edifice of Irish industrial development during the 1960s and 1970s. Against this background, in conjunction with the repeal of the Control of Manufacturers Acts, the Republic of Ireland was transformed into an attractive location for direct foreign investment. Indeed, few would disagree with the assertion that private direct foreign investment has been the cornerstone of growth in Irish manufacturing industry over the last 25 years.

In the case of Ireland, the neo-classical perspective views foreign enterprise as having an indispensable role - with respect to the successful execution of outward-looking policies - within the context of a small open economy. Accordingly, the influx of capital and technology acted as a catalyst which sparked the process of industrialization that engineered the profound changes in economic and social life experienced in the 1960s and 1970s.

An alternative scenario sees the TNCs - whose subsidiaries commenced production in Ireland - as the main beneficiaries of the overtly parametric philosophy regarding the role of the state, and an increasingly pervasive free trade ideology. This environment favoured "branch plant" type operations whose commitment and overall contribution to the Irish economy is believed to be lacking in substance. In addition, notwithstanding the work of the Committee on Industrial Organization (CIO), the state did not fully appreciate the problems that greater integration into the world economy posed for both established and new indigenous manufacturing.

## 2.2 THE TRANSITION TO OUTWARD-LOOKING INDUSTRIALIZATION

In the post independence era, William T. Cosgrave's Cumann na nGaedheal government followed a policy of free trade which was based on export led agricultural growth. The Fianna Fail administration which came to power in 1932 altered course and moved quickly in the direction of import substitution. Widespread tariffs were imposed and this was backed up by legislative measures that enhanced the protection of domestic manufacturers against foreign competition. These measures included the introduction of import quotas and the Control of Manufacturers Acts.

In a manner consistent with both theory and empirical experience, the initial results of import substitution were encouraging. Up to 1950 real industrial output rose 2.5 times and employment doubled. During these years it has been estimated that 75,000 new jobs were created in industry.(1) However, post war performance was nowhere near as impressive. While the 1950s was a decade of fast and relatively sustained growth throughout western Europe, in Ireland, stagnation gave way to an actual decline in output and employment in the years leading up to 1960.(2)

According to the literature, one of the long term dangers of import substitution is that it tends to promote inefficient industries dependent on heavy protection that have no comparative advantage. Irish manufacturing during the period of import substitution was characterized by both low productivity and weak export growth.(3) Both O'Malley(4) and Fitzgerald(5) agree that the inability of exports to rise commensurately with the import of capital goods and raw materials precipitated the balance of payments crises of the 1950s. These crises, together with the writings of T.K. Whitaker, traditionally denote the commencement of outward-looking industrialization in Ireland.

As far as O'Hearne is concerned this policy change did not originate with the balance of payments crises.(6) While 1958 may be the benchmark year in which one can locate an

official change in attitudes, many of the structures of the outward looking approach were in place long before the publication of Whitaker's "Economic Development".(7) It is the opinion of Fitzgerald, that the climate of the post-war years was not conducive to any radical re-orientation of policies.(8) Nevertheless, while officially no change in policy occurred, forces both internal and external were engaged in attempts to open up the Irish economy soon after the end of the Second World War.

For example, evidence exists which points to the existence of an outward-looking cadre within the Department of Industry and Commerce in the early post war period. In 1946, a bill to create a foreign trade corporation was blocked by more conservative elements as was a proposal one year later to establish an efficiency bureau.(9) In addition, Ireland's share of Marshall aid seems to have been contingent upon trade liberalization.(10) Irish membership of the Organization for European Economic Co-Operation (OEEC), represented a significant movement away from the traditional import substitution stance. In compliance with OEEC directives, quota liberalization had reached a level of 90% by 1955.(11) The creation of the Industrial Development Authority (IDA) in 1951, and the introduction of tax relief on profits earned from exports, is further proof that a solid foundation for outward-looking industrialization was laid down prior to 1958.

In the post 1958 period, moves to open up the economy intensified. The 1960 Finance Act extended the period of eligibility for export profits tax relief, from ten to fifteen years, with decreasing concessions for a further five years. Unilateral tariff cuts began in 1963, and the Control of Manufacturers Acts were finally repealed in 1964. The Anglo Irish Free Trade Agreement (AIFTA) negotiated in 1965, provided for free trade in nearly all manufactured products (motor car assembly was the important exception) with the United Kingdom by 1975. The transition neared completion when Ireland acceded to EEC membership in 1973. It was agreed that free trade in almost every manufactured

product (again motor car assembly was excluded by special agreement) with member countries would be phased in over a five year period.

### 2 3 OUTWARD-LOOKING INDUSTRIALIZATION AND THE ROLE OF THE IRISH STATE

As Ireland's integration into the world economy progressed, the role of the state in the development of industry had much in common with the parametric or neutral approach favoured by neo-classical economists. It should not be inferred that such a role is incompatible with active government involvement in the promotion of industry. On the contrary, the state for the most part, via the efforts of the highly organized and well financed Industrial Development Authority endeavoured to insure prime conditions for the growth of private investment. Nevertheless, although certain aspects of Industrial Policy may have deviated somewhat from the strict neo-classical perspective, the state assiduously avoided any direct interference with the autonomy of private economic agents. In essence, the philosophy guiding government involvement was decidedly free market oriented.(12)

The IDA, particularly since the end of the 1960s, has been the principal tool employed by the state to implement industrial policy. At the time of its foundation, the government apparently intended that the IDA should be guided by a free market philosophy. A Department of Finance memorandum concerning the creation of the organization included the following passage.

"One must be free from jealousy and envy ... one is only free from these when one has reached a reasonable success in life and members should only be selected from the latter class".(13)

In more recent times, the IDA has voiced opposition to many of the findings of the Telesis and NESC reports which in

essence are at variance with many basic presumptions of free market ideology. While the IDA was never intended to be a policy formulator, in the past the government has tended to pay close attention to any advice it received from the Authority.

The approach adopted by the IDA has been labelled a "carrot" approach in so far as it has concentrated on the provision of incentives to foreign and native industrialists in the form of non-repayable cash grants, factory space, capital depreciation allowances and generous tax incentives. That state policies have contributed to the creation of a fertile seed-bed for private investment, particularly foreign investment, is supported by the following assessment of incentives by O'Malley:-

"The package of incentives for investment in industry, and exports in particular, and the scale and efficiency of the effort to attract foreign investment now amount to an industrial promotion effort that is one of the most highly intensive and organized of its type among competing countries".(14)

This professional excellence associated with IDA activities is echoed by Telesis which believed that the Authority had developed, "a marketing organization which is unquestionably the most dynamic, most active, most efficient and most effective of its kind in the world."(15)

Although much has been written about the contribution of planning to industrial development, it will be argued here that economic planning Irish style was intended to be, and in effect was, a rather mild form of indicative planning. As such, this failed to constitute any significant departure from a strictly parametric role. While planning does not relate solely to the industrial sector, it should be of some relevance to industry, and some indication of the state's attitude to intervening in the economy.

The first examples of Irish economic planning are to be found in the programmes for economic expansion. In retrospect, they appear as vague lists of objectives or as Norton describes them "a statement of mere aspirations".(16) Further evidence in support of this view is to be found in the National Industrial and Economic Council reports commenting on the first economic programme, "Economic planning is a method which ... consists essentially in defining objectives indicating the means which must be used to achieve them and providing for the systematic study of economic problems and prospects".(17)

As Susan Baker notes, Sean Lemass engaged in a process of legitimization with respect to the introduction of planning, which was aimed at countering socialist scares.(18) Lemass argued that planning was a programme designed for democracy and did not involve "coercive measures to force development in predetermined directions."(19) He pointed out that given Ireland's historical and economic circumstances, the voluntary private effort that was needed to generate sustained economic growth needed government support.(20)

The various economic programmes, in particular the first, had an important psychological role in so far as they served notice of the state's commitment to certain fundamental policy changes considered necessary for the expansion of private industry. The intangible benefits imparted by economic planning, give some credence to Whitaker's claim that it enjoyed an "undeniable measure of success".(21) Thus, planning was complementary with the supportive role Lemass spoke of, most certainly in no way contradicting the state's parametric approach to industrial development.

#### 2.4 PERFORMANCE OF THE IRISH ECONOMY UNDER OLI

It is generally accepted by both conventional and more radical commentators, that the Irish economy experienced a significant transformation in the years following the policy

switch. Raymond Crotty, writing about one of the strongest advocates of the new policies - Garrett Fitzgerald, notes that he spoke quite frequently in the late 1960s and early 1970s in lavish terms about the growth experienced by the Irish economy. This he considered to be "Ireland's economic miracle."(22)

Nolan points to the doubling of the rate of GNP, reversal of employment and emigration trends and the development of a strong industrial export base as indications of the successful performance of the Irish economy during this period.(23) In addition, Wickham, a critic of Irish industrial policy, notes that, in contrast with the 1950s when GNP remained almost stagnant, during most of the 1970s Ireland had one of the highest growth rates in Europe.(24) Finally, Jacobson, commenting on what he considers the overall success of the Irish economy during the 1960s has said, "It was certainly an improvement on any other decade since independence."(25)

A survey of OECD data on Ireland, offers further proof of this success story. For example, as illustrated in Table 2.1, the annual growth rate of output was raised substantially in the years following 1958 to a level of 4.1%, with the result that the gap between the Irish and overall OECD growth rates had almost disappeared. In addition, fixed investment by business increased sharply. The ratio of total fixed investment to GNP rose from 13% in 1958 to 20% in 1968.(26) Also, between 1973 and 1982 the average annual rate of growth of output was 4% which was above the average for OECD Europe during this period.(27)

TABLE 2.1

Growth Of The Irish Economy

Annual Averages	1951-1958	1958-1961
Growth of Output		
OECD Europe	4.4	4.8
Ireland	0.7	4.1

Source: OECD Economic Survey of Ireland 1970 p.27

The increase in the volume, and the change in the structure of Irish exports are further indications of the apparent success of the new policies. Exports of goods and services as a percentage of GNP which averaged 35% p.a. over the period 1954-1958 had reached 54% by 1982. The proportion of manufacturing gross output increased from 34% in 1973 to over 45% in 1982.(28) The change in the structure of exports is indicated by Table 2.2 which shows the transformation in the composition of Irish exports. Between 1959 and 1982 the overwhelming dominance of the export of live cattle has been replaced in importance by machinery and electrical goods.

TABLE 2.2

Main Irish Exports As A Percentage Of  
Total Exports

<u>1959</u>		<u>1982</u>	
Live Cattle	31	Machinery & Electrical	22
Beef & Veal	10	Meat & Meat Preps	9
Textiles & Clothing	6	Dairy Products	7
Beer	5	Textiles	5
Bacon	4	Live Animals	3
Wool	4	Organic Chemicals	7

Source: Economic Conditions in Member and Associated Countries of the Organization for European Economic Co-Operation and Development  
Economic Survey of Ireland 1983-1984.

This transformation away from the export of primary commodities towards relatively sophisticated manufactured products, is highlighted in the Review of Industrial Performance 1986, which notes that Ireland now has the largest share of electronics in non-food manufactured exports of all OECD countries.(29) On the basis of these findings, it is difficult to refute the arguments of conventional analysts in support of the benefits which accrued to the Irish economy as a result of the change to outward-looking policies. The neo-classically inspired policy menu is therefore viewed in a highly favourable light, especially when comparisons are made with the stagnation and decline of the 1950s so inexorably linked to the limitations of the inward-looking regime.

However, a more discerning examination of the available facts reveals some disturbing trends. The poor performance of indigenous tradable manufacturing, the continual drop in employment, and problems arising from excessive dependence on direct foreign investment are manifestations which cast doubt on the assumed efficacy of the Irish experiment with outward looking industrial policies.

In line with conventional thinking, critics of protectionism talked about the loss of efficiency emanating from the production of a wide range of goods for the small Irish domestic market.(30) The dominant argument prevailing at the time was one which linked free trade with efficiency.(31) It was anticipated that competition would improve the performance of much of existing industry and new indigenous industries would emerge and gradually replace uncompetitive traditional sectors.

It was believed that any adverse effects associated with free trade would be curtailed by astute application of adaptation grants to established industry. To this end the Commission on Industrial Organization was appointed by the government in June 1961 with the brief of examining the likely impact of competition on domestic Irish industry. It

was concluded that with the exception of industries like cotton, linen, footwear, and motor vehicle assembly, adaptation measures would prevent job losses.(32). In O'Malley's words:

"It was apparently expected that most of the existing industry would be able to survive in freer trade conditions and in many cases with the help of some initial adaptation measures, would be able to re-orient itself towards more efficient production for export and thereby benefit considerably."(33)

However, this belief that Irish manufacturers could prosper in a free trade environment did not, as Denis O'Hearn correctly points out, "recognize unequal power in free economic relations among countries."(34)

The empirical evidence suggests that Irish manufacturers over the last 25 years in the traded sector have been unable to counter import penetration, or to forge new openings in overseas markets. Paradoxically, the best performance has been registered by firms in the non-traded sector. Sheltered from the effects of foreign competition in a free trade environment, many of these companies have prospered, including numerous new firms who were beneficiaries of government incentives. In fact, it is firms from the sheltered sector that form the core of Ireland's indigenous industry.(35)

O'Malley unearthed some interesting facts concerning the difficulties faced by indigenous manufacturers in the traded sector. He discovered that in relation to industries other than new foreign industry, employment grew by almost 20,000 in the period 1960-66, when a certain amount of protection still existed. However, under conditions of more liberal trade since the mid 1960s, employment in domestic industry has declined.(36) He argues that the industries which fared best in the period since 1973 belong to the non-traded sector. In contrast, there has been a pronounced decline in

those areas with little or no natural protection that have been exposed to the full force of international competition intensified by EEC membership. Examples include sectors like chemicals, textiles, clothing and footwear.(37)

TABLE 2.3

Structural Change in Irish Manufacturing Industry

	Output		Foreign		Domestic	
	Employment	Employment	Employment	Employment	Employ.	Employ.
	'73-'82	'73-'82	'73 - '82	'73 - '82	Change	Change
	Change	Change	Share	Share	Change	Change
	%	%	%	%	%	%
Total Manufacturing	35	2.7	27	37	39	7.3
Chemicals	121	23.8	52	65	54.8	-10.4
Metals & Engineering	60	56.4	47	58	96.7	21.4
Food	36	- 4.5	15	14	6.6	- 6.1
Drink & Tobacco	24	2.5	39	37	-3.4	6.3
Textiles	- 9.0	-43.7	23	39	-6.1	-55.2
Clothing & Footwear	-24	-18.6	21	28	7.0	-25.6
Timber/Wood/Furn.	-12	9.5	7	5	-24.8	12.1
Paper & Printing	- 8.0	2.3	12	10	-18.9	5.3

Source: Economic Survey of Ireland OECD, 1983-84, p.38.

Further evidence in support of O'Malley's argument is found in Table 2.3 which compares the growth of domestic and foreign manufacturers between 1973 and 1982. During this period, although total employment increased by 2.7%, the number of people working in domestic manufacturing fell by 7.3%. This erosion of employment was most apparent in chemicals, clothing and footwear and, in particular, textiles which recorded a massive drop of over 55%. The major domestic success story over these years was metals and engineering which witnessed an increase in employment of over 21%. Between 1973 and 1980, 7,300 jobs were created in this sector. This represented approximately 34% of all jobs created in Irish indigenous manufacturing during this

period.(38) Most of these jobs have come from general metal fabrication operations, metal bending and pressing, and welding and repair shops which typically are oriented towards the supply of local markets, and from structural steel, where the economics also favours local suppliers. This is not a suitable area for export development and some of these companies have diversified into the U.K. market without providing additional employment opportunities for Ireland.(39)

The inability of indigenous manufacturers to make significant breakthroughs in overseas markets has been a cause of much concern in recent times. A survey conducted by Foley(40) indicates that despite the growing intensity of state grant assistance and advisory services, native Irish exporters remain relatively weak. 78% of the firms in his survey exported at least some of their output, and export propensity increased over time from 18% in 1960 to 31% in 1984.(41) However, he concludes that "Everything else points to the weakness of indigenous exports. Given that we have had a decade of EEC membership, the absence of a substantial rise in the export propensity is surprising".(42)

How does one account for this poor performance by the traded sector under outward looking industrial policies? The validity of the neo-classical argument rests on the assumption that conditions approaching perfect competition will tend to prevail in international markets. Many economists are of the opinion that the perfectly competitive industry characterized by free entry is an extreme case rather than the norm. The Telesis report recognized the existence of barriers or obstacles which prevented Irish manufacturers penetrating export markets, particularly those outside of the U.K. Factors like inadequate skill levels and resources to sustain long term investments in product design, together with weaknesses in marketing, distribution and business organization combine to limit access to overseas markets.(43)

O'Malley, on the basis of work by Bain(44) and Porter(45), expands the point raised by Telesis, and concludes that native firms in a late industrializing country with outward-looking market policies will be deterred from trying to enter any internationally traded industry in which one or more barriers to entry are in operation. He argues that newcomers suffer from disadvantages associated with scale, product differentiation, capital shortages, distribution and marketing problems, in addition to external economies.(46). Thus, only sectors with low barriers to entry can be easily entered and this presents limited opportunities for industrial development. Because of intense competition between numerous LICs in a relatively limited range of industries, latecomers have considerable difficulties in increasing industrial employment or shares of world output, if they rely solely on neo-classical policies.(47)

## 2.5 DFI - ITS ROLE IN IRISH INDUSTRIALIZATION

The failure of Irish manufacturers to develop comparative advantages in tradables has meant that the growth of exports and the transformation of the structure of industry is attributable to the activities of subsidiaries of TNCs. The attractive nature of Ireland as a location for DFI, a factor readily utilised by the IDA, enabled a disproportionate amount of the available pool of transnational capital to be sucked into the economy. Ireland offered TNCs the opportunity to penetrate EEC markets from a lucrative tax shelter, and, in the process, they provided employment and expanded exports which, for a number of years compensated for the poor performance of native enterprise.

Wickham is in little doubt as to the pivotal role played by new foreign direct investment in the transformation of Irish industry. He notes that Ireland was one of the first countries to base its industrialization on DFI and, on the basis of the number of firms attracted, has been the most successful. During the 1960s he notes Ireland was gaining as many new firms as the U K (48) In spite of this trend it

seems unlikely that the administration of the day envisaged that foreign enterprise would spear-head the process of industrial development.

While Sean Lemass became increasingly vociferous in supporting a change towards more outward-looking policies, he perceived this change to be based on existing foundations which would enlarge "the fruits of past efforts and not destroy them".(49) Bew and Patterson argue that claims made frequently by Lemass in favour of a dominant role for native producers, did not merely amount to empty rhetoric.(50) In the light of O'Malley's data regarding the good performance of native industry in the early 1960s, Lemass may have been justified in his beliefs. In reality it was not until the post 1968 era, in conjunction with a redefinition of the IDA's role that industrial expansion started to focus on the attraction of new foreign investment.(51)

TNCs have assumed an important position in Irish manufacturing employment. In addition, they now account for the lions share of manufactured exports. New foreign industry which accounted for only 1% of manufacturing employment in 1961(52), by 1980 employed 61,000 out of a total workforce of 243,000(53). Crotty observes that as total manufacturing employment has contracted in the 1980s, foreign industry's share has continued to grow.(54) From having only a minor share of exports in 1961, new foreign firms exported 56% of all non-food products in 1973.(55) Foley recently estimated foreign firms accounted for about 70% of total exports and at least 80% of non-food manufactured exports.(56)

## 2.6 DFI - THE CONTROVERSY IN AN IRISH CONTEXT

While direct foreign investment has deep historical roots, it was not until the 1970s that the Transnational Corporation, to use Joseph S. Nye Jnr.'s words, "came of age politically".(57) There commenced a period of insistent debate between opposing groups who held fundamentally different perspectives on the role played by TNCs in the development process. The argument in Ireland has also been contentious, with advocates of DFI praising its virtues while many of the opposing forces seem to believe that the pervasive nature of foreign capital in the Irish economy is tantamount to a parasitic form of development which has been called "Dependent Industrialization".(58)

Before attempting to evaluate the claims on either side of the debate, it is worth reflecting on the Telesis report. It isolates a number of factors which are thought to influence the ability of foreign owned firms to help Ireland's industrial structure support higher income levels. These include whether the operation is dependent upon low wage levels, the presence within Ireland of business functions which are crucial to the competitive success of the business as a whole, and opportunities for linkages with high skilled indigenous sub-suppliers.(59)

The work of Kindleberger typifies the views of those economists who believe DFI to be a vital ingredient in any attempt to engender industrialization. According to him, the availability of foreign capital embodied in the Transnational Corporation, offers the chance of narrowing the income gap between rich and poor countries.(60) While the conventional view acknowledges that potentially negative effects of TNCs exist, there is no reason to doubt the net benefits to LICs adopting a liberal attitude to foreign capital. With effective controls, the interests of the nations development objectives and the TNCs business strategy need not be in conflict.(61)

Since the basic aim of Irish industrial development has been the perceived need to expand manufactured exports and this is the primary reason TNCs have located their production in Ireland, it would appear that no grounds for any conflict of interest exists. Mainstream economists in Ireland have welcomed subsidiaries of foreign companies because they have provided badly needed employment and new investment capital. They would argue that these companies have provided the embryo of an advanced industrial infrastructure that has enabled Ireland to secure a sound footing amongst the world's industrial nations.

Dermot McAleese has provided substantial empirical evidence stressing the benign impact of DFI on the Irish economy. For example, he has argued that American corporations have played a vital role in Ireland's transition from a largely agricultural economy in the 1950s to a fully fledged industrial status in the 1980s. Strong export orientation eased the foreign exchange constraint and accommodated growth in other sectors of the economy. In addition, the spread of manufacturing industry through the underdeveloped western counties brought new life to many Irish towns.(62)

McAleese argues that TNCs setting up in Ireland have in general tended to offer employment prospects that are relatively secure and therefore should not be viewed as an unstable element within the economy. He has found that the propensity of TNCs to close down their plants is similar to that of domestic counterparts, and that employment recovery after the 1973-1977 recession was best among foreign firms.(63) He also quotes a study by O'Farrell and Crochly, which shows that the closure rate of American firms is marginally higher than the closure rate of domestic enterprises.(64) Parent companies, he believes, put a great deal of effort into choosing a production site, and on the evidence available to date are not likely to move from one location to another in the "capricious manner prophesized by their critics".(65)

In addition, he has found that the linkage performance of TNCs tends to improve over time as familiarity with the

local business environment grows.(66) In relation to American firms he notes that there has been a strong positive inflow of capital and that initial profits have not been repatriated but rather have been used to finance expansion and to pay off debt (67) Furthermore, he feels that American TNCs have brought to Ireland a marketing network and technical and managerial expertise in key sectors of economic activity These are factors which he argues the Irish do not possess in sufficient quantity themselves.(68)

The evidence presented above suggests that the picture of foreign enterprises as constituting a distinct enclave differentiated from domestic industry is seriously flawed. The overall thrust of McAleese's argument is that the implementation of a prudent industrialization strategy has helped maximise the benefits of DFI. In general, this view has been supported by the dominant neo-classical tradition in Ireland as well as successive governments. Although the IDA's policies towards foreign enterprise have received heavy criticism from conventional sources, its assertion of the need to maintain consistent and pragmatic policies favouring DFI has prevailed. Recent policy is best described as one which attempts to maximise the inflow of capital, while tailoring incentives to ensure the secondary impact of this investment is enhanced.

An increasingly vociferous group of economists and commentators have emerged who are not sympathetic to the arguments expressed above. They believe that Ireland has been forced to depend to an inordinate degree on DFI for industrial growth. The majority of the firms which have located in Ireland are considered to be of the "branch-plant" variety, operations which contribute little to the creation of a vibrant self-sustaining industrial base Attempts by the state to maximise the benefits of DFI to the Irish economy will not be successful because of conflict with the global profit-making objectives of the Transnational Corporation. They argue that a proper

understanding of the way in which TNCs conduct their business across national boundaries, renders many of the neo-classical development arguments along with much of IDA policy redundant.(69)

Substantial and varying contributions offering empirical support for this position have accumulated over the years. Contributions range from vitriolic attacks on transnational capital, characteristic of passages in Raymond Crotty's book Ireland in Crisis, to the more measured criticisms contained in the writings of Eoin O'Malley. With respect to the primary impact of DFI, while accepting that foreign enterprises have provided significant employment, the stability and nature of these jobs are called to task. O'Malley feels that an ever increasing inflow of new foreign firms is required to maintain the same rate of employment growth, and that the chances of attracting as many new firms as in the 1960s and 1970s seems remote.(70) A recent study on the electronics sector, which is dominated by foreign firms, has shown that there is a tendency in these companies for employment to grow rapidly in relatively new firms, more slowly in older firms and to decline in the oldest ones. As more of the earlier investments mature and decline a great deal depends on achieving a large inflow of new first time investors if employment increases are to be sustained.(71)

The quality of this employment is often considered inferior in light of the large sums invested by the Irish state in educating and training the workforce. Evidence presented by the Telesis report,(72) Wickham,(73) and Wickham and Murray(74) seems to indicate that the majority of people employed by TNCs in the past cannot be classed as highly skilled. Questions have also been raised regarding the practice of profit switching transfer pricing. It can be argued that this type of transfer pricing in the Irish context is desirable since it results in an improvement in the balance of payments. However, in the long run, this presents a false picture of reality as many of the anticipated spin-off and multiplier effects associated with export growth fail to materialise. Two additional factors tend to reduce the value to the Irish economy of foreign led export growth. Eventually, the profits earned on exports

will filter back to the parent country and the high import content of Irish manufactured exports means the net value of exports must be adjusted downwards.

Critics of DFI believe that the secondary impact on the Irish economy has been limited as a result of the branch plant nature of many of the firms which have located in Ireland. Much of the direct foreign investment that has occurred since the 1950s can be characterized as off-shore assembly. This is where the decision to locate an investment project is heavily influenced by locational factors which facilitate cost effective production for export. The existence of such factors is entirely consistent with the most comprehensive conventional model of direct foreign investment, Dunning's eclectic theory.(75)

In the eclectic theory the propensity to invest abroad is determined by a set of three inter-related factors. These are ownership specific advantages, internationalization incentive advantages, and location specific advantages. As Jan Monkiewicz has remarked, the theory is structured in such a way as to provide the room for any relevant variable, while at the same time it does not assign any given weight for any specific factor.(78) Therefore, one can argue that foreign investment in Germany or the U.S. is more likely to be governed by ownership and internationalization advantages than foreign investment in Puerto Rico, which will be influenced more by locational factors.

Export oriented DFI, in which location specific advantages have played an important role, has tended to be heavily concentrated in production with low technology content, labour intensive, and of low skill input. It was these characteristics which enabled TNCs to locate the production process in relatively undeveloped, low wage areas, while retaining crucial decision making activities in the core. Since the range of such activities is limited and because they are sufficiently footloose to choose from a large number of sites, the ability of any country to attract them depends upon the maintenance of a favourable mix of incentives for TNCs to locate locally.

A number of writers are convinced that it is this type of enterprise that settled in Ireland throughout the 1960s and 1970s. According to Nolan, Ireland has followed a pattern of "off-shore" development, which he argues has much in common with the experiences of Singapore, Puerto Rico and Taiwan.(77) Wickham is of the opinion that most of the new industry was branch-plant in character and attracted by the low level of wages in comparison with the rest of Europe.(78) This view which is partially shared by O'Malley(79) is consistent with the eclectic approach which caters for the interaction of a number of locational advantages and does not depend on low wages per se.

The findings of the surveys investigating the reasons why foreign firms locate in Ireland all point in the direction of the importance of EEC membership. Over 80% of the companies in the Telesis study said they came to Ireland primarily because it provided a tax shelter for penetrating EEC markets.(80) The results of a survey relating to Japanese firms involving capital investments of over 30M Irish Punts, and the creation of 1,000 jobs is found in Appendix 2. It shows that the expansion of sales into local and third markets and not the availability of inexpensive labour, was the primary reason for choosing Ireland as a location.

If the main intention of Japanese and American firms locating in Ireland was to establish a bridgehead into the EEC, factors like relative wages and the availability of government incentives were still extremely important. As Jacobson notes, the concern of an increasingly pervasive free trade ideology was that, "In order to compete on world markets Irish wage rates would have to be kept low".(81) Also, in the face of stiff competition from other regions of the EEC anxious to attract foreign investment, Ireland was forced to introduce a battery of incentives aimed at ensuring a good share of a limited pool of projects.

IDA policy was strongly grounded in the belief that companies more advanced than the off-shore type operations could be enticed to set up production in Ireland. It is possible to isolate two key elements of this policy; firstly, the firms attracted should be high technology firms which would locate their key business competitive activities in Ireland. Secondly, these companies would act as a catalyst for the development of indigenous industry by extending and deepening their operations through more local sourcing.

These objectives have not proved easy to achieve. For example, with respect to the electronics sector it was believed that the influx of foreign companies heralded the commencement of an Irish "Silicon Valley", with all the associated high technology and research and development activities. However, as the empirical evidence indicates, while the foreign sector in the Irish electronics industry may be more advanced than the typical Asian off-shore industry, there is no sign of any significant moves by the TNCs to locate their competitive business activities in Ireland.(82)

With respect to the issue of linkages both Walsh(83) and more recently Crotty(84) emphasize what they term the "enclave" nature of foreign manufacturers. The implication of this is that attempts at integrating foreign companies into the Irish economy will be frustrated. In their defence, foreign enterprise often cites the unavailability of high quality local suppliers as the reason for the relatively low level of indigenous sourcing. In the past, attempts by the IDA to improve matters in this area have not met with much success. However, the initial results of the National Linkage Programme commenced in 1985, offer encouragement. For example, in the electronics sector, by December 1986 over 70 foreign companies were participating in the NLP, and over 40M Punts worth of extra business was placed with Irish suppliers during the year as a result.(85)

## 2.7 INDUSTRIAL DEVELOPMENT POLICY IN IRELAND: AN EVALUATION

It has been shown that the industrial development strategy adopted by Ireland in the late 1950s had three basic ideological tenets: reliance on the power of the market, trade liberalization, and free movement of capital. It was argued above that DFI played a vital role in the development of Irish manufacturing industry. The IDA's strategy was dominated by attempts to attract so called quality foreign industry which was expected to integrate into the Irish economy. While the IDA intensified its efforts to develop indigenous industry, improved performance was generally confined to firms in the non-traded sector. The promotion of domestic manufacturers in the traded sectors was not elevated to a very important position. In particular, little attention was focused on the special difficulties faced by Irish firms attempting to break into international markets.

As the 1970s progressed, voices which were critical of this policy approach began to be heard. The NESC commissioned a series of industrial policy studies which, as Wickham notes, for the first time were not written by expert management consultants whose support of the IDA's private enterprise strategy could not be safely assumed in advance.(86) These surveys reached the conclusion that future policy must focus more sharply on the development of indigenous firms capable of reaching levels of international competitiveness. On this issue there was fairly widespread consensus but the manner in which the task should be accomplished has proved to be much more contentious.

By way of outlining an alternative blue-print, it was argued somewhat cautiously by Telesis and the NESC, and more vociferously by Eoin O'Malley, that a more active interventionist or pervasive approach by the state was what the circumstances demanded. According to Telesis, the development effort aimed towards indigenous industry had to be re-organized to emphasize the building of structurally

strong Irish companies, rather than strong agencies to assist weak firms.(87) Such a "hands-on" approach gives priority to the building up of fewer larger companies and greater selectivity of businesses which receive backing.(88) Rather than simply making grants and tax concessions available to private enterprises and waiting for them to respond with proposals for investment, the state should take the initiative more by directing investment into target industries.(89)

Ireland's choice of target industries would generally be limited to the selection of specialized or niche industries, thus avoiding direct competition with very large firms. These target industries then require selective state intervention in order to build up the necessary characteristics for competitive success, such as scale, skills, technology and marketing.(90) It has been argued that this could be achieved through state enterprise, joint ventures between the state and private firms, building up selected private firms under state guidance, or by assembling new consortia of firms and backing them until they get off the ground.(91) Recent developments in policy towards the software industry appear to move in the direction of this last option, by concentrating money and effort in a few successful indigenous firms. It is clear that these arguments amount to an explicit rejection of the neo-classical position.

Although as McAleese correctly points out, the state may be "fighting shy" of a more pervasive role(92), it does appear that government policy, however ponderously, is inching its way towards a position which shows greater awareness of the barriers to entry and development faced by indigenous manufacturers. For example, the Review of Industrial Performance 1986 notes that a positive environment is a necessary but not a sufficient condition for the optimum development of industry.(93) It also speaks of the need to develop guidelines to insure "increased selectivity in the allocation of state funds in favour of firms with viable long term growth potential in international markets".(94)

Finally, the 1987 Programme for National Recovery states that priority will be given to the "expansion and growth of selected Irish companies firmly rooted in the economy." (95)

The reorganization of the IDA into completely separate divisions is indicative of the new approach. A new Irish industry division has been set up to support medium to large Irish companies of sufficient scale to be internationally competitive. It is intended that another part of the new structure, the small industries division, will help small firms with potential to reach a size where they could be handed over to the Irish industry division. (96) Nevertheless, it remains to be seen if this will represent a major departure from the Company Development Programme (CDP), which, since 1985 has been an integral part of IDA policy aimed at creating strong indigenous internationally competitive companies.

In the past the CDP has involved the IDA, in conjunction with CTT and the IIRS, in a close co-operation with "selected" companies to help them identify and implement strategic initiatives and programmes. (97) Speaking in 1987, Padraic White said that the IDA are actively seeking out companies to support if they are "prepared to invest the money to make a significant breakthrough in overseas markets". (98) By the end of 1987 it was anticipated that 200 firms will have been helped in this fashion. (99) Clearly this thinking is permeated by a carrot rather than a stick mentality. The IDA still perceives its role as one of responding to the efforts of indigenous exporters rather than directing resources at predetermined targets. It is unlikely that the radical change in the Authority's structure will be matched by an equally pronounced alteration in its philosophy.

For the first time, the framers of Irish industrial policy seem to be showing signs of adopting a more cautious approach to foreign investment. For example, the following passage in the Review of Industrial Performance 1986, points out some of the potential side effects of the operation of TNCs in the Irish economy:-

"The "roots" of the firms in Ireland may be quite weak, thus making the decision to close easier ... actual output, and the contribution to the economy is exaggerated due to the extent that transfer pricing is used (for tax purposes) to exaggerate Irish economy value added and the high levels of profit repatriation".(100)

However, a potentially dangerous supposition is embodied in current policy towards foreign investment. It is still widely believed that policies properly tailored can attract the so called "better quality" projects which are capable of yielding a good return and more security. To this end, the promotion of overseas investment in Ireland will be "intensified on a specialised basis".(101) Since the pool of suitable foreign projects is a factor outside Irish control, and because of aggressive competition from other countries, the achievement of this goal must be in some doubt.

**CHAPTER 3**

### 3.1 INTRODUCTION

By the end of the 1950s the process of industrialization based on import substitution - which had been adopted by Ireland and numerous other LICs - began to encounter serious difficulties. According to Nicos Mouzelis "Reliance on the internal market resulted in bottlenecks which, in order to be ameliorated required a deepening of the industrial process".(1) During this crucial period a number of significant developments in the world economy can be pin-pointed. The rapid growth of TNCs which became increasingly willing to engage in direct foreign investment in LICs is perhaps the most relevant. Against this background, in conjunction with the difficulties associated with import substitution, one can detect a shift of emphasis to more complex and difficult forms of investment capable of leading to production of exportable manufactured goods.

It can be demonstrated that during this period a general movement in the direction of export oriented "outward looking" industrial strategies was taking place in LICs. The content of, and the manner in which this policy switch was implemented varied somewhat in the face of the prevailing circumstances particular to each country. In Section 2 we examine the manner in which this transition was undertaken in a selected group of LICs.

Section 3 investigates the restructuring of industry in the wake of more outward looking policies. Have the new policies engendered growth in the domestic sector and promoted the development of industries in which a lasting comparative advantage can be expected? Or has the restructuring process resulted in a weak indigenous manufacturing base vulnerable to competition in international markets from both more advanced and less developed nations? To what extent has the expansion of manufactured exports depended upon direct foreign investment?

The countries selected for analysis are taken from a generally accepted list of LICs.(2) Ireland's fellow peripheral EEC members, Greece, Portugal and Spain, along with South Korea and Singapore from S.E Asia and the Latin American economy of Argentina will each be analysed.

### 3.2 THE TRANSITION AWAY FROM INWARD-LOOKING POLICIES:

#### 3.2.1 Argentina

Reflecting upon Juan Peron's decade of rule between 1945-55, Gary Wynia remarked, "Peron had tried to build a new Argentina but had only created a more desperate and discouraged one".(3) The import substitution policies which initially promised success had by 1955 brought stagnation and a chronic balance of payments crisis. Unable to withstand the pressures arising from the emerging crisis, Peron was removed from power by interests who were opposed to national capital and the working classes, groups which had formed the backbone of Peron's support. After a short spell in power, the Lonardi government was replaced by the less moderate regime of General Aramburu. Aramburu outlawed the two Peronist parties, persecuted trade unionists, and purged Peronists from the armed forces, the civil service and the judiciary.(4)

The Aramburu administration reversed Peron's policy of opposition to the United States by promoting close co-operation with the Americans in both the political and military fields.(5) To quote Mouzelis, "By the end of Aramburu's provisional administration the guided-democracy model, complete with its strong American connections, was in full operation in the Argentine Republic".(6) Since the mid-1950s the Argentinian experience has largely been one of confrontation which has periodically precipitated violent repression.

Conflicts have arisen as a result of mutual antagonism between finance capital in alliance with TNCs, opposed by certain domestic industrialists and the working classes who traditionally have held considerable power in Argentina (7) The military advocates of U.S. "national security doctrines" (8) have tended to be staunch supporters of the need to open up the Argentine economy. At various different times - beginning with Aramburu and again in the 60s and 70s - they became directly involved in attempts to bring about closer integration between Argentina and the world economy. But the various juntas, which in many respects have echoed the interests of finance capital and the TNCs, have encountered stiff resistance from those groups who have had to bear the brunt of liberalization.

The philosophy underpinning the various post war military interventions in Argentina was a belief in the efficacy of free market policies. Aramburu's economic policies, which represented an initial move in this direction, included the removal of exchange controls, public expenditure cuts, affiliation to the World Bank and the International Monetary Fund and the encouragement of foreign investment and wage restraints.(9) This approach which was largely continued by the military sponsored Frondizi government, was stalled somewhat by Dr. Illia. Illia implemented a mildly nationalist approach when he came to power in 1963,(10) but this only represented a slowing down in the pace of change, not a reversal.

The armed forces intervened again in 1966 to subordinate fractional differences within the dominant class, favouring the interests of the financial bourgeoisie in association with foreign capital. Albert Krieger Vasena, the Minister of Economy, in General Onganía's dictatorship, believed in strong government dedicated to the implementation of a coherent set of efficiency promoting policies.(12) Working class intransigence was largely responsible for the return to power to civilian government in 1973. However, when the Peronista administration fell into disarray three years later, the military found themselves presented with the opportunity of a more determined effort at implementing their liberal ideology.

General George Videla, whose military junta assumed power after the collapse of the Peronist coalition in March 1976, pursued an aggressive policy of economic liberalization in the years that followed.(13) Under the leadership of Economy Minister Martinez de Hoz, the government embarked on the establishment of a free market economy (14) The aim of this determined policy switch was to improve the allocation of resources and remove price distortions.(15) The regime attempted to reduce government to minimal activities, sell off public enterprises, cut budgets and reduce wages, remove all remaining restrictions of foreign investment and end the protection of Argentine industry from foreign competition by drastically reducing tariffs.(16) To this end the junta announced in 1978 a six year schedule outlining substantial tariff reductions.(17)

### 3.2.2 Spain

From the end of the civil war until the late 1950s Spain adopted an "inward looking" approach to industrial development. National enterprise was developed behind a prohibitive system of tariffs in addition to the law for protection of national industry which prevented foreign investment. This industrial policy according to Baklanoff had two salient features; extensive state control and predominantly private ownership of the means of production.(18) That this import substitution based strategy had its limitations is highlighted by Anderson, who wrote that by the mid-1950s Franco's industrial policies had "neither filled domestic demand nor enhanced exports".(19)

A number of external and internal forces combined to propel Spain in the direction of an outward looking approach to industrialization. Following the signing of the 1953 treaty with the United States, U.S. ambassadors urged liberalization programmes and encouraged Spain to lift prohibitions on foreign investment. Such representations

were fairly constant, and they increased in intensity and publicity after 1955.(20) Internally, J. Prados Arratte points to the fundamental role banking interests played in transforming industrial policy (21)

During the first decades of Franco rule, Spanish industrialization was characterized by what has been called "assisted capitalism". This was prompted under state patronage through protectionism, transfers and subsidies; in addition to state control in the basic industrial sector complementing rather than competing with private industry.(22) The new policies represented a shift towards competitive capitalism. This move was supported by some forces of the centre right, multinational interests and by the emerging business elite anxious to exploit its comparative advantage over traditional manufacturers.(23)

The publication of La Economica Espanola in 1956, is considered by Anderson to be a crucial landmark in tracing the move away from the import substitution policies, so much cherished by Spanish policy makers.(24) In essence, La Economica Espanola espoused the ideology which was to be contained in Whitaker's Economic Development and which closely followed the neo-classical free market philosophy. The Spanish publication preached the gospel of efficiency and economic rationality and emphasized that integration into the international economic system was the only viable means of inducing sustained economic growth.(25)

The radical changes made by Franco to his cabinet in February 1957 clearly signified his intention to alter Spain's industrialization policy. Franco appointed a number of members from the Catholic Opus Dei movement, who were advocates of outward looking policies, to key economic ministries.(26) The balance of payments crisis of 1959 strengthened the hand of the neo-liberal cadre and led directly to the implementation of a stabilization programme which was drawn up in conjunction with the OEEC and the IMF (27)

The transformation of the Spanish economy into a free market system and the repeal of the many economic controls was advocated in a report by a group of experts from the World Bank in 1962.(28) During the 1960s, both the nominal and effective rates of protection declined, the average effective rate of protection on imported manufactured goods declined from 68% in 1962 to 31% in 1968 and various export incentives were also introduced during this period.(29)

The pace and extent of policy changes may have been moderated as a result of stern opposition from certain elements of the traditional bourgeoisie. For example, the representatives of big business in the Spanish confederation of business organizations GEOE demonstrated their resistance to modest liberalization measures in the early 1970s.(30) But as Graham points out, such resistance in no way threatened the evolution of the new policy regime:-

"Those reactionary to change, the imovilistas, failed to hold their ground. Their unity was based entirely on a common agreement about what they did not want. They had no formula to offer a fast evolving society, and could mobilise no wide popular support because they were swimming against the tide."(31)

### 3 2.3 Portugal

Self-styled dictator Antonio de O'Liveira Salazar was premier of Portugal from 1932 to 1968. For most of this period Portugal's industrialization policy was, as in the Spanish case, characterized by tough state regulation of private industry in addition to deterrence of foreign investment (32) However, by the start of the 1960s there were indications that Portugal was beginning to adopt a more outward looking approach. The outbreak of guerrilla warfare in Angola in 1961, Portuguese Guinea in 1963 and Mozambique in 1964 forced Salazar to modify his nation's introverted economic posture (33) Quoting Xavier Pintado, Eric

Baklanoff writes, "Behind the facade of social and political immobilism under the loosening grip of an aged Salazar, Portugal knew deep and lasting changes during the 1960s" (34)

In 1963 a 36 year old liberal, Luis Teixeira Pinto was appointed Minister of Economy, and despite considerable opposition to change from protectionist interests, he succeeded in obtaining a significant amount of liberalization.(35) The foreign investment law of 1965, allowed wholly owned foreign subsidiaries to transfer profits and to repatriate capital, and also provided for exemptions or reductions in taxes and import duties for specific industrial sectors.(36)

In 1970 Secretary of State for Industry, Dr. Rogerio Martens, spoke of the need to sweep away anachronistic monopolies supported by state licensing and other protectionist devices in order to make Portuguese goods competitive on the world market.(37) Nevertheless, it would appear that in the case of Portugal movements towards an outward looking policy stance were not as deep seated as in Spain.

A small "European oriented cadre" did emerge within the Caetano government, but the tenuous nature of their position must be clarified.(38) For example, it is significant that none of the Portuguese technocrats, like their Spanish counterparts, enjoyed full cabinet rank (39) Also it has been argued, that notwithstanding tentative moves in the direction of liberalization, by 1973 Caetano was showing signs of resorting to a traditional stance (40)

On the 15th of May 1974, the new government which took power following the revolution outlined the broad contours of its economic policy. Decree law 203/74, envisaged that changes would have to take place in order to stimulate internal and external investment, and the need for total liberalisation of foreign trade is reaffirmed several times.(41) Nevertheless, while the opening up of the economy was to

continue, the role of the state was broadened and the years that followed witnessed a wave of nationalization and worker take-overs.

This process occurred in a haphazard manner and, taken together with decolonization and the international recession, the Portuguese economy was plunged into the depths of despair. The loss of her colonies resulted in a huge influx of Portuguese nationals returning from Mozambique and Angola which created problems in the labour market.(42) The main medium term goal of the government returned by the elections of 1980 was sustained investment led growth. It was intended that this would take place within a more market orientated economy.(43)

#### 3 2.4 Greece

In Greece, the occupation by Germany and the subsequent civil war had resulted in unprecedented destruction of the economy by the end of the 1940s.(44) The Communist Party was banned in 1947 and a bitter struggle ensued. With British and American assistance the Communist insurgents were finally defeated in 1949.(45) The right wing forces which emerged victorious, excluded all left wing sympathizers from the state apparatus and forged strong links with the USA (46) As Mouzelis notes:-

"Given the large amount of economic and military aid which in the context of the Truman doctrine they poured into the country both during and after the civil war, their influence on forming the Greek polity in the late 1940s and 1950s was considerable".(47)

In addition, the army was purged of all republican and/or left wing officers and was organized by the Americans into an apparatus which exercised enormous power in post-war Greece.(48)

During the 1950s industrial policy focussed primarily on the encouragement of import substituting policies and most industries were heavily protected from foreign competition. According to Costis Hadjimichalis, the dominant features during the 1950s were the impact of American aid and greater privileges for the private sector, in particular foreign capital.(49) U.S aid stimulated the modernization of plant and machinery and enhanced productivity.(50) Beginning with Law 2687/53 which was passed in 1953, foreign investment and capital received constitutional rights protecting repatriation of capital, interests and profits, which could not be amended by ordinary legislation.(51)

During the 1960s, influenced by prospective entry into the EEC and because the domestic market was too small to provide the basis for continued industrial growth,(52) the authorities began to put greater emphasis on the encouragement of export oriented industries. Mouzelis speaks of what he terms a Greek brand of "neo-evolutionist ideology", which engendered an obsession with closing the gap between Greece and her future Common Market partners.(53) This liberal philosophy he argues, has sustained an industrialization strategy which was careful to provide the most favourable conditions for private investment.(54)

### 3.2.5 Singapore

The Peoples Action Party (PAP) which came to power in Singapore in 1965, emerged under the approving eye of the British colonial authorities.(55) It is significant that more radical elements both within the PAP and society in general were marginalized before the colonial masters gave an independent state their blessing. Some of the more militant leaders of PAP were arrested by the British in 1957 and other radicals split off in 1961 to form the Socialist Front. According to Banks, what was left behind was the more "moderate anti-communist wing of the original

party".(56) As Tony Smith argues, the U.K., because of its alignment with the U.S., had in its best interests the installation of a regime which would not prove hostile to the western restructuring programme.(57)

Outside the context of close economic integration with Malaysia, the official import substitution policies of the late 1950s and early 1960s had little chance of success. The strategy since independence has been to rely heavily on DFI to promote industrialization.

The Pioneer Industries Ordinance (PIO) of 1959 which tentatively embraced foreign capital was replaced by less tentative legislation shortly after independence in 1967. Also, labour legislation enacted in 1968 reduced industrial unrest and gave employers more flexibility in hiring and firing.(59)

Singapore has been ruled consistently since independence by the Peoples Action Party with premier Lee Kuan Yew at the helm. Doubting the value of opposition parties, Lee has tried to run the country through an efficient managerial style apparatus. Ensuring that Singapore continues to be an attractive location for DFI is still a priority with PAP. This was made clear by Goh Clok Tong when in 1984 he warned university students "that foreign firms did indeed look at the political stability of a country before other factors like the cost of doing business there".(60)

### 3.2.6 South Korea

It is not widely appreciated that modern industrialization began in Korea during the colonial period 1910-1945, when the Japanese government managed the peninsula's economy as an integral part of its empire. Manufacturing growth was rapid and extensive, though heavily dependent on Japan.(61) During the late 1940s and 1950s, the industrial base grew at a respectable rate owing to import substitution investments in light manufacturing and non-durable consumer goods.(62)

Therefore it would appear that Pack and Westphal are correct in arguing that South Korea, despite its relatively poor economic position, had a comparatively strong industrial base of physical and human capital at the outset of the 1960s.(63)

During the years of the first Republic between 1948 and 1960, one of the main leaders of the struggle for independence, Syngman Rhee, was in power. Rhee's extreme anti-communist views found favour with the Americans who pumped substantial economic and military aid into South Korea during this period. George Delury has remarked that the Rhee administration was "marked by pervasive corruption and favouritism".(64) Against the background of deteriorating economic conditions, student riots during the 1960 General Election forced Rhee to quit. Subsequently, a constitutional amendment was adopted which provided for a cabinet system of government.(65)

But the experimentation with democracy was to be brief. In 1961 a military coup was carried out by a small group of officers headed by Major General Park Chung Hee. The military leaders retired from active service and were subsequently elected to important government positions. In conjunction with a new breed of mainly western educated technocrats, they constituted the core of leadership in the government. The end product was a fused military and civilian leadership structure which paved the way for export-oriented industrialization in South Korea.(66)

It has been argued that the distinguishing feature of the Park regime was its unrestrained commitment to economic growth. Unlike Syngman Rhee, Park believed that in human life "economics preceeds politics".(67) To this end intensive liberalizations were introduced. Exchange rate policy was simplified and efforts were made to ensure that the currency was not over valued.(68) The importation of capital goods and intermediate products were exempt from tariffs and exporters were given access to capital and a 50% reduction in taxes on income earned through exporting.(69)

However, evidence exists which disputes the claim that the radical change in policies embodied a neo-classical, outward looking approach to industrialization.

During the early years of export-led growth in South Korea, import restrictions were reduced gradually in a very selective manner, suggesting an awareness on the part of the state that liberalization must reflect the competitive strength of the evolving local producers. Restrictions on DFI were extensive and industrial policy has been strongly reminiscent of Japanese policy, with many decisions taken on the basis of long term objectives and in disregard of short term efficiency as indicated by existing prices. In general, the state has played an active and central role in the allocation of resources.(70)

A study by Luedde-Neurath,(71) suggests that Korea's export orientated development success was neither preceded nor accompanied by significant across-the-board liberalization, and that market forces were not given a free reign to allocate resources. In reality, there was a twin import policy, liberal towards inputs for exports and highly protective towards the domestic market. In addition, there was a tendency to cross tie the domestic and export market by making access to the protected domestic market conditional upon satisfactory export performance.(72)

O'Malley concurs with these views and notes that South Korean indigenous manufacturing industry has made considerable progress in overcoming barriers to entry in international markets. He feels that this success has not been obtained by relying on the pure outward-looking, free market strategy, but rather may be attributable to significant departures from this strategy.(73) Quoting Allen,(74) he identifies three stages common to the industrial development strategy of South Korea, which involved departures from free market policies. Firstly, careful selection of an industry, followed by prevention of competition at the infancy stage and finally, careful nursing to competitive stature.(75)

By the end of the 1970s it began to be voiced among certain elements that the economy was failing to respond in the desired manner to the efforts of the planners. In particular, it was felt that the investments made in heavy industry had been less than successful.(76) Government intervention, it was argued in the time honoured neo-classical fashion, undermined the efficiency of resource allocation and impeded private initiative; thereby impairing economic flexibility.(77)

Park Chung Hee was assassinated in October 1979, most likely by right wing elements who viewed his continued leadership as an obstacle to liberal reforms. The subsequent military coup headed by Major General Chun Doo Hwan was directed against senior generals who were suspected of involvement in the assassination of Park.

Many of these senior generals and high ranking government officials were forced into retirement.(78) Nonetheless, the new administration pushed ahead with liberal reforms which included a softening of the attitude towards DFI. Although the Rangoon bombing of October 1983 wiped out five key members of the new cabinet, a replacement team was assembled which proved if anything even more dedicated to the liberal cause.(79)

### 3.3 MANUFACTURING AND THE TRANSITION TOWARDS OLI

Generally speaking, the expansion of exports over the last 25 years in the countries surveyed above has been impressive. In fact, although manufacturing output has slumped in recent years, exports have continued to grow albeit at a reduced rate. (See Table 3.1). As Appendix 3A indicates, the structure of these exports has undergone a profound transformation over the last two decades. In particular, primary commodities other than fuels, minerals and metals have contracted in importance. While the export of machinery and transport equipment has assumed a position of greater relevance most distinctly in South Korea, Singapore, Spain and Portugal.

TABLE 3.1

#### Growth Of Manufacturing And Exports In Selected LICs

	% An. Av. Gr. of Manufacturing		% An. Av. Gr. of Exports		Ex's. Goods & Svcs. As % of GDP	
	'65-'80	'80-'85	'65-'80	'80-'85	1965	1985
Argentina	2.7	1.6	4.7	3.2	8	15
Greece	8.4	0.9	12.0	2.5	9	22
S. Korea	18.8	9.0	27.3	13.0	9	36
Portugal	8.9	4.4	3.4	10.0	27	39
Singapore	13.3	2.1	12.0*	5.9	NA	NA
Spain	6.7	0.3	18.6	8.3	11	23

\* = 1970-1980

Source: World Development Indicators, World Bank

Is this manifest deepening of the industrial process a harbinger of the successful development of a vibrant manufacturing base, complete with comparative advantages in many fairly advanced traded sectors? Or does the data

presented above tend to gloss over deep seated problems encountered during the restructuring process? Has foreign capital been involved to any great extent in the development of new export markets?

### 3.3.1 Spain

According to Lobo the Spanish economy which between 1961-1974 was "placed on the road to prosperity"(80) transformed into a "nightmare" for policy makers as the 1970s progressed.(81)

TABLE 3.2

Growth Of Spanish Industrial Production  
By Sector 1960 - 1973 (Base 1970 = 100)

Sector	1960	1973
Food, Beverages & Tobacco	50	168
Textiles	59	101
Chemical & Petroleum Products	26	124
Basic Metals	25	165
Metal Products	20	152

Source: United Nations Statistical Year Book  
1974, p.48.

As shown in Table 3.2, manufacturing experienced significant growth during the 1960s and early '70s. In fact, in 1971 the growth of Spain's industrial production was at 20.4% greater than that of Japan's 16.4% and far ahead of the highest growth rate in the EEC of 12.6%.(82)

In contrast, during the period 1973-1981 manufacturing employment declined by 15.3% or a loss of 517,150 jobs.(83) From Table 3.3 it can be seen that the crisis was most intense in the basic industries It would seem that the main body of established Spanish manufacturing had great difficulty resisting import penetration as trade

liberalization became more pronounced. A feature which was not dissimilar to the experience of Irish manufacturing under much the same circumstances.

TABLE 3.3

Shifts In Production, Employment And  
Productivity, Spain 1973-1981

	Production	Employment	Productivity
Food, Beverages &			
Tobacco	5.03	-2.21	7.4
Textiles	-1.12	-4.18	3.2
Clothing & Leather	-0.88	-3.40	2.6
Wood & Furniture	-0.02	-2.29	2.3
Paper & Printing	3.82	-1.40	5.3
Chemicals	4.20	-0.69	4.9
New Metallic /			
Mineral Products	1 15	-0.76	1.9
Iron & Steel -			
Base Metals	0.76	-1.74	2.5
Machinery &			
Transport Equipment	1.67	-1.69	3.4

Source: Barquero in Hamilton (ed.)  
Industrialization in Developing and  
Peripheral Regions, p.121.

Lieberman has estimated that the total numbers employed in wholly owned foreign subsidiaries in Spain amounted to a modest 21,278 on Jan 1 1979.(84) In net terms DFI in Spain represented only 2.97% of gross fixed capital formation in the period 1965 to 1969, 2.23% for the period 1970-1974 and 1.8% for the period 1975 to 1979.(85) On the basis of this, Lieberman concludes that the extent to which DFI has stimulated the economy has not been spectacular. However, the role played by foreign capital assumes greater importance if one uses more liberal definitions of what constitutes DFI.

By Baklanoff's evaluation, from 1960 to 1974 Spain received over \$0.6 billion in net private long term capital from abroad of which direct investments comprised no less than \$106 million.(86) By 1973, 202 of the nation's largest 500 firms had some degree of foreign ownership and 117 were either majority owned or 50:50 joint ventures.(87) Besides, accumulated DFI from 1960 to 1975 tended to be attracted primarily to those industries which have shown the greatest growth in productivity and exports.

It was also found that in 1973 foreign capitals share in what is termed the net-worth of certain sections of Spanish industry reached the following levels: Equipment 42%; Non-Ferrous Metals 21.5%; Chemicals 36.8% and Motor Vehicles 56.7% (89) In addition, a survey of Japanese DFI in Spain between 1971 and 1984 indicates that substantial investments have taken place in transport, equipment, chemicals and allied products, electrical equipment and non-electrical machinery. (See Appendix 3B). Also it has been estimated that by the 1980s, of the 30 largest Spanish industrial firms no fewer than 17 had either majority or minority foreign interests.(90) This clearly demonstrates that in recent years a pivotal role existed for foreign capital in many of the key growth areas of Spanish industry.

### 3 3.2 Greece

The statistics outlined above (see also Appendix 3A) with respect to Greek industry fail to uncover a number of interesting facts regarding the structure of Greek manufacturing. For example, one characteristic of Greek industrial development has been the persistence of a plethora of small family units. The census of industrial establishments of 1958 found that only 0.7% of the establishments in the manufacturing sector (749 out of 109,793) employed 50 employees or more.(91) As Table 3.4 indicates this figure had risen to only 2.2% by 1979.

TABLE 3.4

Persons Employed Per Size Of Establishment  
Greece, Spain & Portugal (Percentages)

	Firms Employing			Over 100	Average Plant Size
	1-9	10-49	50-99		
Greece ('79)	91.3	6.5	1.6	0.6	5.2
Portugal('71)	78.9	15.9	2.6	2.7	15.6
Spain ('70)	76.6	18.5	2.5	2.4	15.0

Source: Hadjimichalis, Uneven Development and Regionalism, p.162

Table 3 4 shows the contrast which exists between Greece and both Spain and Portugal. The Portuguese figures for 1971 show that 5.3% of establishments employed more than 50 employees. The corresponding figure for Spain in 1970 was 4.9%. In addition, the average plant size in Greece is significantly lower than the averages prevailing in Spain and Portugal. Hadjimichalis notes that until the 1970s these small units were mainly concentrated in the more traditional sectors such as footwear and leather, and operated with low productivity. In contrast, recent trends indicate an improvement in productivity and specialization has increased to include modern sectors such as aluminium products, plastics.(92)

This offers support for arguments by Mouzelis regarding the weak nature of native Greek enterprise. He believes that since the 1950s, Greek indigenous capital, whether in its mercantile or finance form, proved unwilling or unable to orientate itself towards the manufacturing sector in what he terms the key branches, such as chemicals and metalurgy.(93) In the 1960s DFI was, he claims, directed mainly at these sectors, with the result that its impact was greater than its relatively small size would indicate.(94) This view is supported by Keefe who argues that foreign capital has been "highly visible in the small area of modern industry".(95)

He estimates, that between 1953 and 1977, nearly 54% of foreign investments in Greece were in the mechanical engineering sector and 15% in chemicals.(96)

The share of foreign capital in GNP increased from 2.15% in 1962 to 11.6% in 1978.(97) However, Keefe is of the opinion that no significant amounts of foreign investment capital entered the country during the 1974-1984 period.(98) This position is contradicted by Evangelica Dokopoulou who argues that in both current and real terms the stock of FDI has expanded more sharply during 1975-1980 than in the period 1961-1975.(99) Dokopoulou thinks that foreign operations in Greece have been shifting away from investment to serve the local market towards the establishment of export platforms.

The number of foreign subsidiaries in the major 200 manufacturing and mining firms, rose from 45 in 1973 to 55 in 1979. This would tend to give credence to the view that the prospect of full EEC membership acted as a stimulus for TNCs to serve the Middle East market.(100) This analysis is supported by OECO data which shows a particularly rapid increase in exports to middle eastern countries between 1975 and 1980 when the proportion of total Greek exports to these countries increased from 10% to 23%.(101)

### 3.3.3 Portugal

During the period 1968-1973, the years of the Caetano administration, industrial production expanded by almost 9% p.a and in 1973 the level of gross investment reached 22% of GDP.(102) Political instability, a large influx of African migrants and the prevailing turbulence in the international market place precipitated a decline in Portugal's economic fortunes. Industrial production increased by only 2.4% in 1974 and fell by 5.4% in 1975.(103) Supporters of free market principles in Portugal, for example, economist and Prime Minister, Anibal Silva, believe that an austerity programme sponsored by the international monetary fund in the early 1980s has been

responsible for turning the economy around.(104) Opponents contend that recent growth (see Table 3.1) has a weak foundation because the economy had been in such bad condition the only way to go was up. They argue the improvement is based largely on external factors such as the large subsidies from the EEC, and ignores structural problems in the Portuguese economy.(105)

Murteria outlines a number of restrictions and difficulties faced by Portuguese industry. These constraints he argues have prevented the emergence of vibrant indigenous enterprises capable of creating and sustaining comparative advantages. They include the proliferation of inefficient and badly structured small productive units, relative technological backwardness and lack of entrepreneurial talents and managerial capacity in specific fields.(106)

The performance of Portuguese manufacturing industry in recent years has not been uniform across the various sectors. As Table 3.5 confirms in a number of industries such as metal products and transport equipment the production indices are well below their 1980 level. However, pulp, paper and paperboard have done well, while chemicals, textiles and non-metallic mineral products returned a steady performance. In light of the squeeze on consumer demand engendered by austerity measures, export growth seems to have been necessary for increased production and certain sectors fared better at breaking into overseas markets than others.

TABLE 3.5

Production In Portuguese Manufacturing  
1983 - 1985 (Base 1980 = 100)

	1983	1984	1985
Food, Beverage & Tobacco	106	98	98
Textiles	102	106	119
Leather	124	119	113
Wood and Wood Products	106	102	106
Pulp, Paper & Paperboard	117	124	143
Chemical Products	105	112	121
Non-Metallic Mineral Products	115	115	119
Metal Products	92	87	78
Machinery	127	95	90
Electrical Machinery	119	108	112
Transport Equipment	79	63	63
Motor Vehicles	82	66	66

Source: Calculated from data in Indicateurs Des  
Activites Industrielles, Organisation De  
Co-Operation Et De Developpement Economiques.  
Paris, various years.

In the 1960s and 1970s Portugal was an attractive site for DFI for the following reasons: low wage levels, membership of EFTA, the transfer of profits and capital were assured by law and the Portuguese government provided political stability and outlawed labour disputes.(107) Large transnational companies like International Telephone and Telegraph, Timex, Ford, Firestone, Heinz, Renault, Grundig and British Leyland boosted foreign investment in Portuguese industry during the 1960s . Flows of foreign direct investment increased from £5m in 1971 to £7m in 1972 rising to £10m in 1973.(108) Eugene Keefe estimates that as of mid 1976 there were some 100 to 125 firms of American origin in Portugal, with a total investment somewhere between \$200m and \$250m.(109) He notes that in virtually all cases of nationalization - and other forms of intervention which commenced after the revolution - foreign firms were officially exempted.(110)

Foreign investors assumed a dominant position in electronics and electrical industries and also had significant participation in chemicals, transport equipment, pulp and paper, automobiles and ready made clothing.(111) While the actual inflow of capital may not have been large, as in Spain and Greece, this investment was directed at sectors which in recent years have become key growth areas in the Portuguese economy. It is likely that a large proportion of export growth in Portugal has resulted from the application of foreign capital and technology to a low wage structure. For example, in terms of labour costs in textiles, during the early 1980s Portugal was very competitively placed (see Table 3.6). The average manufacturing wage in recent years for Portugal is also below the level of Spain and Greece, on par with South Korea and only marginally above the level recorded in Singapore. (See Table 3.6).

TABLE 3.6

<u>International Wage Costs In</u>			
<u>Textiles And Manufacturing</u>			
Textiles	Avg. Wages in		Avg. Hourly Wage in
Ireland = 100	Manufacturing %		Manufacturing 1983
	Increase '78 - '83		Value in US\$
Netherlands 257	Portugal	3.74%	\$1.50
Italy 160	Greece	5.13%	\$2.33
Greece 70	Spain	3.74%	\$3.10
Hong Kong 39	Singapore	14.56%	\$1.29
Portugal 38	S. Korea	8.61%	\$1.53

Source: Telesis Report p 307, and Worldwide Economics Indicators, Business International Corporation, New York, 1984.

### 3.3.4 Argentina

In the face of the political ferment it has been forced to endure, it is hardly surprising that the Argentinian economy has performed indifferently in recent decades. Many

Argentine conservatives believed that protection of the manufacturing sector in conjunction with the expansion of the public sector and constraints on foreign investment were largely responsible for the low rates of growth experienced in the 1960s and 1970s. The military junta which came to power in 1976, in contrast to the failed attempts of its predecessors managed to implement wide ranging liberalization measures. However, manufacturing industry did not respond in the manner anticipated, to the free market shock treatment.

Data contained in the Latin American and Caribbean Review indicates that in the first years of the 1980s, manufacturing production slumped. According to Burns, traditional labour-intensive and natural-resource based industries suffered more than most under the Governments open economic policies of the late 1970s and early 1980s.(112) As Table 3.7 indicates manufacturing recovered in 1983. This improvement was directly related to a policy U-turn by the military administration. Faced with mounting unrest, the regime was forced to reintroduce import restrictions and these moves were subsequently strengthened by the civilian Alfonsín Administration.(113)

Table 3.7

Table Indices Of Manufacturing Output By  
Selected Industries Argentina 1982 - 1983

(Base 1970 = 100)

	1982	1983
Drinks	106.9	115.1
Textiles	79.2	92.7
Clothing	49.1	53.0
Paper	102.5	114.7
Industrial Chemicals	132.1	150.6
Rubber Products	107.8	142.6
Plastic Products	108.5	124.3
Electrical Machinery & Equip.	64.8	71.8
Transport Equipment	81.1	89.9

Source: Instituto Nacional de Estadística Y Lenson

Industries which had been most severely affected by the earlier liberalisation policies such as textiles and clothing, expanded quickly when import controls were restored. Modern sectors like chemicals, rubber and plastics also responded to the protectionist measures.

In Argentina, the modest inflow of direct foreign investments in industry during the 1930s and early 1940s was halted abruptly when Peron implemented his nationalistic policies.(114) While Peron was forced to become less hostile towards foreign capital in the early 1950s, it was not until the election of Frondizi in 1958(115) that one can identify a significant inflow of DFI. Law 14.780 of 1958 provided congenial conditions for foreign capital wishing to invest in Argentina.(116) This investment was mainly directed towards relatively technologically complex areas of manufacturing such as chemicals, automobiles and non-electrical machinery.(117)

Authorizations of foreign investments increased significantly towards the end of the 1950s.(118) Foreign firms share of industrial production, which fluctuated between 18% and 19% from 1955-1959, reached 24.7% by 1962,(119) and rose to 28.0% in 1964.(120) The Onganía regime, particularly from March 1967, applied an economic program that "represented the hegemonic domination of foreign monopoly capital".(121) It has been reported that the authorities were confident that foreign investments which during 1967 represented 10% of total new industry investment would increase rapidly.(122) At the end of the decade a more conciliatory policy towards national capital started to prevail,(123) and the new foreign investment law, No. 20557 of November 1973, brought forward by the Peronist coalition represented a certain tightening of the conditions for foreign investment.(124)

The law on foreign investments decreed by the junta in 1976, as well as the law on the transfer of foreign technology and the new industrial promotion law, underlined the regimes liberal attitude to foreign capital.(125) Table 3.8 clearly

demonstrates that between 1975 and 1982, Argentina attracted a significant amount of U.S. direct foreign investment.

TABLE 3.8

U.S. DFI In Argentina 1955 - 1985  
(US\$m in Book Value)

Year	Total	Manufacturing
1955	418m	218m
1960	473m	214m
1965	992m	618m
1970	1.022m	669m
1975	1,154m	764m
1980	2,494m	1,584m
1982	2,979m	1.718m
1985	2.785m	1,578m

Source: Constructed from tables in the Statistical Abstract of Latin America, Vol. 25. Editor James W. Wilkie UCLA, Latin America Center Publications, University of California, L.A. 1987, pp. 693-703.

These figures are somewhat in excess of estimates from other sources. For example, one source examining the figures for the years between March 1977 and March 1980, put total foreign investment at £58 million.(126) Regardless of the actual quantity, it is at least certain that foreign investments have tended to be directed towards the modern sectors of Argentine manufacturing.(127) In addition, it is likely that these investments concerned import substitution practices as much or more than export-oriented production.

### 3.3.5 Singapore

Outward-looking industrialization in Singapore like the Irish experience, has been characterized by high dependence on export based DFI. Since independence, Singapore has never favoured rules that limit foreign equity ownership, or

TABLE 3.9

DFI By Japanese Firms In Singapore By Sector

Minority		Majority + Wholly Owned	
Paper & Wood	3	Audio Equipment &	
Concrete	2	Consumer Durables	14
Paints	2	Electronics	8
Food & Beverages	2	Precision Equip	16
Textiles	1	Electrical Equip.	7
Plastics	2	Pharmaceuticals &	
Shipbuilding	1	Chemicals	4
Non-Electrical Goods	4	Cement	2
Others	5	Metal Materials	6
	—	Others	<u>28</u>
TOTALS:	22		85

Source: Constructed from data contained in - Japanese Overseas Investment, (Toyo Keizai Shinposha, Ltd., Tokyo 1986), pp. 85-103

We can infer that the main strength of indigenous based manufacturing in Singapore is located in the more traditional sectors. The production of the more advanced technical products is almost entirely the preserve of U.S. and Japanese companies with only a limited supporting role for native enterprise. This is unlikely to change without significant changes in policy.

The dependence on DFI for continued manufacturing and export growth and the weak position of domestic manufacturers was demonstrated by the events of the mid 1980s. In 1985 the inflow of new foreign investment rapidly slowed down as Singapore's operating costs were undercut by other countries in the region.(134) The economy shrank by almost 3% between mid 1985 and mid 1986, and there was negative growth in manufacturing for the first time in over 25 years.(135)

mandate technology transfer, and capital has always been able to move quickly in and out.(128) In 1970 wholly owned foreign companies accounted for 57% of exports and these together with joint ventures accounted for 83% of total exports. By 1978 wholly owned foreign firms accounted for 84% of all manufactured goods exported from Singapore.(129)

Annual foreign investment inflows averaged between \$775 million and \$1.1 billion between 1980 and 1984. 40% was channelled into new investments and 60% went to expansions.(130) The United States is the source of 50% of all foreign private investment in Singapore. Total U.S. investment by the end of 1984 had reached \$5 billion.(131) Sizeable portions of total foreign commitments are in petroleum, computer equipment, electronic components and metal engineering industries.(132) Small scale local enterprises have not been able to compete effectively in these more advanced sectors. Instead, indigenous capital has tended to enter less technological, labour intensive industries which involved only minor initial fixed capital outlays.(133)

The findings of a survey of Japanese investments in Singapore between the early 1960s and 1985 give a good indication of the nature of indigenous manufacturing in this country. Of 107 investments by Japanese companies, 85 involved the creation of either wholly owned or majority owned subsidiaries and 22 were minority Japanese interests. Table 3 9 shows the sectoral breakdown of these two groups.

### 3.3.6 South Korea

"Over the past 25 years the Republic of Korea's economic growth has been spectacular. The nation has advanced in a single generation from one of the world's poorest countries to the threshold of full industrialization, despite the need to maintain one of the world's largest military establishments".(136)

The driving force behind the outstanding growth performance of the South Korean economy has been an energetic indigenous manufacturing base. The domestic sector was diligently nurtured with the goal of creating strong competitive companies oriented towards the production of tradable commodities. An attestation to the efficacy of this approach, is the recent emergence of a number of South Korean transnational corporations.

Ironically, over much of the last 25 years government policy focused on restricting the operations of foreign enterprises. It was believed that limitations were necessary to prevent the emasculation of local capital. Indeed, a number of foreign investors including Gulf Oil and Dow Chemicals have pulled out of Korea in the past because they found it difficult to conduct business.(137) Foreign investment was allowed only in those areas of manufacturing included on a positive list and majority foreign participation in projects was normally discouraged.(138)

Until the early 1980s at least, inflows of foreign capital to the manufacturing sector have tended to be modest in comparison to countries like Singapore. Between 1962 and 1983 the total amount of accumulated new foreign investment has been estimated at only £408m.(139) As far as Japanese investment is concerned the bulk of participation was confined to joint or minority ventures. For example, in a survey of 140 investments by Japanese firms in Korea between the late 1960s and 1985, only 22 involved majority participation.(140)

Notwithstanding the relatively low volume of DFI, Joseph Chung is of the opinion that foreign capital has played a crucial role in the development of South Korean manufacturing (141). Some evidence exists showing that significant amounts of capital have been invested across a wide spectrum of South Korean industry by Japanese companies (see Appendix 3). In the light of this information, it seems possible that the success of a number of local manufacturers is attributable in part to capital and technology link-ups with foreign enterprise. Nonetheless, Nigel Harris shows that, in general, foreign investment in South Korea "followed accelerated growth rather than leading to it".(142)

#### 3.4 CONCLUSION

The international economy in the post WW2 era witnessed deep and lasting changes in the structure of manufacturing industry. This alteration was fueled by an explosion of new products, new technologies and the phenomenal growth of the transnational corporations. This process, which was in the main spearheaded by American enterprise, necessitated closer economic integration between nations. Against the background of an increasingly pervasive free market ideology, trade barriers began to be dismantled and laws restricting DFI were relaxed. The American government was to the forefront in attempts to encourage the introduction of policies it argued were essential to cure the ills of stagnation and BOP crises which plagued many LICs. The new outward-looking approach offered the prospect of banishing the negative symptoms that were the legacy of excessive inward-looking protectionism.

This new strategy of industrial development won enthusiastic support from key groups and individuals within the countries examined in this chapter. These modernizing elements were in general able to stifle opposition from recalcitrant sections of society who had been the principal beneficiaries of import substitution policies. The new regime, it was believed, would instil greater efficiency in traditional

manufacturing and facilitate the emergence of industries involved in the production of more technically complex tradable commodities. While it is generally true that the new policy successfully attained the goal of expanding the export of manufactured products, the belief that this advance would be synonymous with greater efficiency and growth within indigenous industry proved to be erroneous.

There is evidence, persuasive in the case of Argentina and Spain, that in the face of mounting liberalization, large sections of manufacturing industry struggled to exist. They suffered from a failure to resist import penetration and the inability to re-orient production in the direction of new overseas markets. In the case of Argentina this resulted in the hasty re-erection of protectionist barriers while in Spain it has led to a painful process of adaptation. Where successful comparative advantages have emerged, it has largely been as a result of the application of imported technology within the context of a low wage economy. With respect to the impressive performance of the textile industry in Greece and Portugal, it is far from certain that continued reliance on a free market strategy will create the most positive outcome. In textiles, rationalizations and technological advances are giving rise to increased competition from developed market economies, while at the other end of the spectrum, a threat has started to emanate from very low wage economies.

The evidence suggests that the decline in traditional sectors has - with the exception of South Korea - not been matched to any great degree by the growth of a crop of new technologically-inclined indigenous exporters. The ability to annex portions of the international trade in more complex areas of production has been heavily reliant on the ability to attract new foreign investment. Or to entice existing foreign firms serving the local market to expand into overseas markets. It was shown that while exposure to DFI in many cases was far below the Irish level, it was nonetheless of great importance. With respect to Spain, Greece, Portugal and Argentina it was demonstrated that,

although comparatively small in volume, foreign capital was concentrated in the key sectors in terms of output and export growth. With respect to Singapore it would be anachronistic to assume anything less than a pivotal role existed for foreign enterprise in the drive towards industrialization.

In the case of South Korea during the Park era, the role of the state veered fundamentally from what was considered the basic neo-classical approach to export-led growth. Park believed that to achieve the objective of sustained economic growth the economy must be subject to planning and adjustment by the state.(143) State intervention in industry was not without historical precedent in the Republic of South Korea. For example, in 1948 almost 70 large enterprises and public utilities were under government control, 52 were managed directly by the government and 17 by state appointed managers.(144) However, these were crude forms of intervention more concerned with the machinations of political patronage than moulding a dynamic manufacturing base for the future. The evidence of the Park era indicates that the state made a purposeful attempt at directing the economy in a manner thought most likely to yield tangible long term results. For industry this entailed selective intervention aimed at building up strong indigenous companies and maintaining some control over the inflow of foreign capital. According to Harris, "In the sixties and seventies the state (in S. Korea) dominated the entire process of rapid economic growth"(145) "and even in the early eighties, the government was still busy intervening to force mergers, specialization and monopolies" (146)

## CHAPTER 4

#### 4.1 INTRODUCTION

The emergence in recent times of a group of LICs has - as was seen in the previous chapter - posed a number of questions for the analysis of the world economy. In a recent article, Jenkins(1) examines the motor industry in a selected group of what he terms "semi-industrialized" countries in order to shed more light on some of the controversies which emerge from the more general discussion of economic development in what we have more appropriately termed LICs.

Jenkins warns of the dangers of generalizing from the experience of one industry.(2) But, in this instance, the argument runs from the general to the particular and it is hoped that a sectoral study of the motor industry can contribute to a better understanding of some of the issues and contradictions which the general analysis manifests.

Some of the questions which Jenkins concludes arise out of a study of the literature on the growth of the LICs include:

How significant is the growth of the LICs for the world economy?

Does their emergence signify a major change in the international division of labour?

What are the factors underlying industrial growth in the LICs?

Are these primarily external or internal?

How important have government subsidies and other forms of incentives been in export promotion?

To what extent has the growth of LICs been associated with the activities of TNCs?

Has industrialization been associated with a significant indigenous base of accumulation?(3)

To focus attention on some of the above questions within the context of the motor industry, it is necessary to gain some understanding of the way in which the motor industry has developed both internationally and within the LICs. The examination of the industry in the LICs will be centred on

case studies of the same countries as in the more general discussion in Chapter 3.

#### 4.2 THE DEVELOPMENT OF THE INTERNATIONAL MOTOR INDUSTRY: AN OVERVIEW

The basic concept of the automobile has hardly evolved at all during its first century. A hundred years after the first prototypes, the motor vehicle is still a four-wheeled, internally powered, transport apparatus for road use, designed to carry a driver and a few passengers. Technical advances have provided utility, performance, operating economy and personal comfort far beyond the dreams of the original automakers, but the concept of the motor vehicle remains much as it was in the early 1900s. In contrast to the product, the industry has evolved through a series of "dramatic transformations, from a small group of artisans and tinkerers concentrated in France and Germany to a vast worldwide enterprise organised on totally different principles."(4)

The first of these transformations was the breakthrough in the production process by American manufacturers [in the early years of the century which facilitated the creation of a mass-volume industry. The second occurred during the 1950s when European manufacturers combined mass production with an emphasis on product differentiation and successfully challenged the Americans for the first time. The third began in the 1960s when Japanese companies made breakthroughs in production organization which allowed the production of high quality products at competitive prices.(5)

According to an MIT report each breakthrough is characterized by three elements: firstly, an innovation with respect to some aspect of production systems or products, which facilitated the second element, an explosion of demand in the domestic market, which in turn gave rise to the third element, a sudden and powerful threat to producers in the rest of the world.(6)

In a manner which closely resembled the above sequence of events, U.S., European and Japanese manufacturers in that order all managed to become significant producers and exporters of motor vehicles. For a variety of reasons: for example, protectionist measures, government legislation and the threat of competition, the major companies if they were to retain markets or secure access to developing markets; had to invest in overseas assembly plants.

DFI was initially defensive in nature and was directed towards supplying heavily protected domestic markets which operated in isolation from each other. In LICs this promoted an excessive amount of "market fragmentation", a trend which Jenkins has explained on the basis of Knickerbocker's theory of "oligopolistic reaction".(7) During the post war era of economic development(via import substitution) host governments, intent on developing a local manufacturing industry, introduced "local content" legislation, which forced the TNCs to increase the amount of local components used.(8)

As was documented in the previous chapter, commencing in the late 1950s, and gathering momentum in the years that followed, the policies of many LICs began to be increasingly orientated towards the promotion of exports. A number of LICs turned their attention towards the motor industry and a variety of policies aimed at expanding exports were introduced. This period was one of immense change within the international industry. Jenkins argues that the seventies were characterized by what he terms the "increasing unification" of the 3 core blocks to create a single world industry.(9)

Increased competition stemming from the phenomenal success of Japanese companies built up pressures to reduce costs. As the 1970s progressed, it came to be widely believed that the motor industry was entering a "maturity phase" and in keeping with Vernon's "product life cycle" theory,(10)

future trends would be towards locating an increasing part of the manufacturing process in LICs. It was expected, therefore, that trends within the industry in conjunction with the change of policy by LIC governments, would shift the locus of production in the direction of peripheral locations, although still firmly under the control of TNCs.

The MIT report termed this a possible "fourth transformation". (11) Skilful positioning in the relatively small but fast growing LIC markets would enable producers to gain the advantages of local minimum production back to the industrialised countries. However, in recent years, the concept of a "dematurity scenario" has come to the fore. Such a view places a much higher priority on flexibility rather than efficiency in the production process.

#### 4.3 THE WORLD MOTOR INDUSTRY 1900-1970: THE EMERGENCE OF NATIONAL BLOCKS

##### 4.3.1 Early American Dominance:

The first autos were basically experimental prototypes designed mainly for the amusement of the wealthy. Production volumes gradually increased to batches of similar but rarely identical vehicles. This was largely a result of the tendency of production to concentrate on luxury designs, for which only a very small demand could exist and therefore no need for mass production techniques arose. This, according to James Flinck, was reinforced by the policy of a number of European governments offering bonuses to those who purchased large, heavy duty vehicles, suitable for military use in the event of war.(12) The situation at that time was shaping up somewhat differently in the U.S. While the pattern in Europe was one of hand building by individual designers, the building of cars in the USA had an industrial appearance about it right from the start.

One explanation of this given by Rhys,(13) was that the decline in the bicycle forced leading makers and their

component suppliers to concentrate on the production of automobiles and to make them in larger numbers and at lower prices. In the U.S., the railways preceded the roads, so no trunk roads existed and those that did were totally unsuited to motor cars. Consequently, the American pioneers were forced to concentrate on producing very light cars which would be able to use the poor quality roads. The production of light cars was suited to bicycle makers and the horse-drawn carriage business, which had the necessary machinery and technical knowledge.

In the USA the engineering industry as a whole had developed a system of standardised part interchangeability which was not apparent in Europe at the time. In 1906, Henry Leyland won the Dewar prize for engineering, when 3 Cadillacs were taken apart and assembled into 3 new vehicles which were then driven 500 miles without mechanical failure.(14) In Europe, at the time, manufacturers endeavoured to make all their own parts and components. The practice of subcontracting in the U.S. allowed the manufacturer to use his capital in establishing his vehicle assembly capacity, and at the same time to purchase low cost parts and components produced by outside specialists with relatively long production runs.

It was left to Henry Ford and his associates to combine these and other ideas into a new manufacturing system which was to lead the motor industry into the age of mass production.(15) This enabled Ford to tap the huge potential of a large and relatively well off middle class which inhabited an environment which was geographically and socially ideal for the expansion of privately owned transport. To quote Rhys: "In short per capita purchasing power allied to low cost parts and products and production methods meant the establishment of a large industry".(16)

Thus, the transformation sequence outlined above was precisely the American experience. The new production techniques gave rise to unheard of scale economies which

reduced costs and stimulated demand. The American manufacturers were well positioned to service the overseas markets, and very quickly were able to capture a significant market share. As Maxcy points out, it is not always realised that the American dominance of the world motor industry occurred prior to 1914. In the three years before that date, the U.S. average annual production was 3,581,000 vehicles or 78% of the world total. That superiority was maintained throughout the inter-war years, for although the American share fluctuated fairly widely, it never fell below 70%. Indeed in 1929, when U.S. output reached its peak for the period of 5.3 million vehicles, it represented a remarkable 84% of world production.(17)

Exports grew quickly, passenger car exports reaching about 7.5% of production in 1914.(18) The United States in the 1920s and 30s was by far the largest exporter of cars; however, the option of manufacturing in the U.S. and servicing world markets through exports was not to prove a long term proposition. First, Ford(19) and later General Motors(20) set up overseas assembly plants. The two main factors which favoured this trend, were differential tariff rates between fully built-up units and parts(21), and savings in transport costs.(22)

But as the tariff barriers imposed by European governments grew higher the American producers were faced with a major dilemma. They either attempted to manufacture locally or abandoned their assembly operations and with them their markets. In the markets outside of Europe at the time, rising tariffs, although unsavoury, did not give rise to the same concern because no local manufacturers seemed capable of posing a significant threat to market shares. Within European markets, national producers with good growth potential stood well poised to challenge and defeat the Americans if the latter tried to continue local assembly, which was fast becoming an uneconomic proposition. The American producers were left with no alternative but to engage in full local manufacture wherever possible.

The American movement into manufacturing in Europe would have been even greater in the inter-war period if the door to direct foreign investment had been as open in other countries as it was in Germany and Britain. For example, both General Motors and Ford were denied the opportunity to establish manufacturing operations in Italy.(23) It is a widely held belief that this drive towards overseas manufacturing by the American companies would not have been necessary in a situation of free-market competition. Indeed, Ford's manufacturing operations had higher delivered costs in Europe (excluding tariffs) than their counterparts in Detroit, even though the European facilities were thousands of miles closer to the market and paid lower wages.(24)

#### 4.3.2 The European Challenge:

Although a European producer, the German firm of Daimler became the first transnational in the motor industry, with the acquisition of a wholly owned subsidiary in Austria, in 1902. The drive towards overseas production by European producers did not begin until after World War 2. Rolls Royce attempted to set up production in the U.S. in 1919, in Springfield, Massachusetts, when they acquired an American subsidiary but this venture ended in failure when Rolls Royce of America was liquidated in 1931.(25) Morris made a disastrous attempt at manufacturing in France(26) and Citroen, Renault and Fiat all made excursions abroad but with limited success.(27)

These foreign investments were small scale, tentative attempts to secure a foothold in neighbouring and jealously guarded national markets. Ultimately, they were all abandoned except for those in Belgium, and the first successful foreign investments by European firms took place outside the EEC countries.(28)

In the early 1950s, the European motor industry consisted of a relatively large number of small manufacturers in isolated

markets producing a wide range of vehicles, which differed significantly in technical design. Because of a) their relatively small size and b) the protection afforded to national markets, European producers were denied the advantages associated with large scale production which their counterparts in the U.S. were advantageously exploiting. When the tariff walls in Europe began to crumble during the 1950s, the diversity of the European motor industry became its greatest strength. Now that each manufacturer could sell its specialised products in all the markets of Europe, an adequate scale to fully capture production economies was suddenly available.(29)

The growing strength of the European producers in the immediate post war period presented the American transnationals with stiff competition in the peripheral regions for the first time. As if anxious to make up for lost ground, the Europeans showed little hesitation in entering into full manufacture in Latin America at a time when the U.S. firms seemed to be content to rely on assembly operations. One company which took the plunge into manufacturing early, and subsequently enjoyed spectacular success, was Volkswagen of Germany.

Volkswagen do Brasil, a company set up in 1953, was producing 365,472 units in 1973, nearly half the total output of the country that year. Indeed by the mid 1970s Volkswagen's Brazilian subsidiary had produced no fewer than 1.5 million beetles.(30) Volkswagen de Mexico founded in 1964 in similar fashion quickly established itself as the largest producer in Mexico. Other European producers such as Renault, Fiat, Daimler-Benz, Citroen and Peugeot also set up production facilities in Latin America. The arrival of the Japanese companies on the scene as the 70s approached was to give the region a very crowded appearance.

#### 4.3.3 The Emergence of Japan

Although the origins of the Japanese motor industry can be traced back to the first years of the twentieth century,(31)

Duncan estimates the industry's total output up to 1925 at only 922 vehicles.(32) This period was characterized by relative disinterest by the Japanese government(33) and by the Zaibatsu, the leading industrial and financial families. During this period in Japan, the car was viewed more with curiosity than as a practical mode of transportation.(34) Nonetheless, the sudden increase in demand following the destruction of much of the tramway system by the 1923 Tokyo earthquake, prompted Ford and General Motors to establish local assembly plants.(35)

In the face of weak local competition Ford and General Motors came to dominate the Japanese market.(36) However, the Japanese government was determined to confront the difficult task of building a national motor industry. The Americans were gradually forced out of assembly as production ceilings were imposed, tariffs on parts raised significantly, and import and exchange permits were gradually phased out. Ford and General Motors tried hard to establish some form of manufacturing presence in Japan.(37) But a variety of proposals were turned down by the authorities. Japanese firms such as Nissan and Toyota showed considerable interest in joint ventures with the American companies as a means of gaining access to advanced technology. The official view, however, was that such knowledge could be obtained without granting ownership rights to foreign transnationals.(38)

TABLE 4.1

Japanese Production Of Cars And Commercial Vehicles  
1950 - 1984

	<u>Cars</u>	<u>C.V.s</u>
1950	1,594	30,003
1955	20,268	48,664
1960	165,094	316,457
1965	696,176	1,179,438
1970	3,178,708	2,110,449
1975	4,568,120	2,373,471
1980	7,073,108	4,004,776
1984	7,073,173	4,391,747

Source: Constructed from data in the Society of Motor Manufacturers and Traders (SMMT) World Automotive Statistics 1985, pp 41-46.

As Table 4 1 above indicates, the initial results of the Japanese nationalist experiment were not that encouraging. In 1955, 20 years after the Americans were forced out, local production of cars stood at little more than 20,000. Despite this slow beginning, by 1970 this figure had soared to over 3 million. In the same way, exports of cars rocketed from 7,013 in 1960 to 1,407,340 by 1972.(39) This was largely a result of the growth in importance of the U.S. market from the late 1960s onwards, and by 1973 Toyota and Datsun between them sold 530,000 units annually.(40) Similarly, the Japanese share of the European market grew from 0.6 per cent in 1970 to 7.3 per cent by 1979.(41)

It is important to emphasise that the successful breakthrough by Japanese producers was not solely based on mass production of low cost vehicles. The initial Japanese efforts around 1960 to export at a very low price, failed to get off the ground. These cars were not exactly what consumers wanted and would not sell merely on the basis of price.(42) Instead Japan's entry into the international market arose through fine tuning of manufacturing systems to combine high volume output with quality and low labour content.

The United States Department of Transportation estimated that in 1983 the Japanese held a \$1,000 to \$1,500 per car cost advantage over American producers.(43) Writing in the same year, motor correspondent John Holusha believed that there were few analysts who would disagree that the Japanese have: "taught the world a lesson on how to produce reliable, efficient automobiles at less cost than had been thought possible.(44)

The intervention of the Japanese government had profound effects on the development of the Japanese motor industry. Without the guidance given to the industry by the Ministry of International Trade and Investment MITI, and the protection afforded to local producers by the exclusion of DFI, it is unlikely that firms such as Toyota and Nissan could have grown so quickly. In the absence of such intervention, Japan may have become a significant producer of motor vehicles, but almost certainly a large proportion of that output would have been controlled by the American and European producers. The total shut-out of direct foreign investment was eased slightly in the early 1970s when after sustained pressure by America, some limited joint ventures were allowed.(45)

By the beginning of the 1970s Japan had firmly established itself as an important part of the core, in contrast to the fragile part of the periphery it had been in the 1930s. It was together with North America and Europe, part of what Jenkins has termed: "the 3 major blocks of the motor industry".(46)

#### 4.4 RECENT DEVELOPMENTS: THE MOVE TOWARDS A WORLD INDUSTRY

The trend in recent times has been towards a continuation of the internationalization of capital within the industry, with the formation of what Jenkins has called a "world motor industry".(47) According to Jenkins, one of the main characteristics of this phase has been the process of standardization which has taken place within the international industry. It is now no longer the case that the industries in the three major producing areas, North America, Europe and Japan, have distinct regional characteristics. The "downsizing" of passenger cars in the United States, the "dieselization" of commercial vehicles and the "radialization" of all the major tire markets all point in the same direction of greater homogeneity within the international motor market. The culmination of this

process are the "world cars" developed by General Motors and Ford.(48)

As the seventies progressed there was an emerging view about the future of the car industry which became virtually the new orthodoxy. This argued that growing competitive pressures required a far greater use of economies of scale.(49) The prediction was that the 1980s would witness a great shake out of firms, with only the largest managing to survive. In the words of Lee Iococca the industry would witness a: "third Industrial Revolution".(50)

It was anticipated that once set up, these giants would proceed to integrate their assembly and manufacturing networks so as to minimize costs and maximize revenue, while offering an essentially similar range of products. Standardization was to be the order of the day. As Sinclair points out it was envisaged that: "Brazilian workers would build engines for American consumers' small cars, Spanish consumers would buy cars designed for Germans in Detroit and assembled by Portuguese from components manufactured over three continents".(51)

The strategy of setting out to design a car with the express intention of using the same basic model to serve several markets, surfaced during the 1960s. Indicative of this new approach was the decision by Ford to integrate its European operation so that the same models could be made and sold in the U.K. and on the continent. General Motors after some initial hesitation followed suit.(52)

With the launch of the new Escort in 1980, Ford created an ideal structure as far as scale economies are concerned. Final assembly was located in Saarlouis in Germany, where capacity was 300,000 units a year and the Halewood plant in Britain which had an annual capacity of 250,000.(53) Both these plants were supplied with engines by the Bridgend plant which was scaled to produce 500,000 engines a year.(54)

This trend continued, with Ford starting Escort production in South Africa while General Motors extended its Chevette and Kadett range from Europe to Brazil and even, through the Isuzu company, in which it had obtained a 34% share, into the Japanese market. As Peter Waymark notes, potentially most significant of all, versions of both the Escort and Chevette were manufactured in the U.S.(55) This was a move which until the advent of the oil crisis would have been inconceivable. The U.S. car industry was coming under increasing pressure to design more compact "European cars". The possibility arose that the same basic model could be as relevant in the U.S. as in any other market, hence the "World Car" concept gained credence.

General Motors showed most faith in the "World Car" concept. While the Chevette represented a partial move in this direction, it was in essence a European car which was adapted for use in other markets. The J-car project on the other hand was intended from the beginning to have world wide application. The initial research and development was carried out at G.M.'s international project centre in Warren, Michigan. The U.S. divisions and two foreign divisions were incorporated to work on the design features, with particular emphasis being placed on evolving body structures capable of accepting common components.

Two basic J-cars emerged from this process, one for the U.S. and the other for the non-American markets. The five U.S. versions corresponded to the existing General Motors car divisions. While looking different on the exterior they had the same basic body structure in addition to sharing many common components.(56) The non-U.S. J-car was made in Europe as the Vauxhall Cavalier and the Opel Ascona. Apart from the badges and minor variations the models were identical.

Largely as a result of the failure of the "world car" to capture the imagination of consumers world wide, evidence

has begun to accumulate, which while still accepting the importance of international sourcing together with scale economies and standardization, places greater emphasis on what have been termed dematurity factors. The rapid and diverse changes which have been impinging upon the motor industry question the validity of the world car concept.

A more correct view may be one which foresees a growing spectrum of technological alternatives becoming available to meet a greater diversity of user needs, leading to a much higher priority being placed on flexibility rather than efficiency in the configuration of the production process. Speaking in 1982, Elerhard Von Keunheim of BMW, stated that "the microprocessor has ended the days when it was necessary to be a mass producer of cars".(57)

This alternative scenario would predict that the motor industry has entered a dematurity phase in which medium sized and small producers stand a much greater chance of survival, through skilful exploitation of particular technologies and market niches. For example, Ray Horrocks addressing the Fourth World Motor Vehicle Conference in Geneva, in 1982 believed that "we will see automated "batch" production proving to be as cost effective as out and out volume manufacture, but with the added advantage of manufacture being able to respond much faster to shifts in demand".(58)

#### 4.5 THE MOTOR INDUSTRY IN THE LICs

The first cars to appear in LICs were direct exports from the mature producers, who set up their own networks of dealers, both to sell the cars and to provide service and repair facilities.(59) In many countries assembly operations were established in the inter-war period. This involved the export of kits usually known as CKD (completely knocked down) units. This had the advantage of lower transport costs and enabled modifications to be made to suit the conditions of particular markets. Examples of this type

of operation were the assembly plants set up in various locations throughout the world by Ford and General Motors during the 1920s and 1930s.

In the period from 1955 to 1965, the transition from assembly operations to full local manufacture took place in a number of LICs. This move towards local manufacturing resulted from the interaction between government promotional activities and the growing rivalry between U.S. and European TNCs for new markets. High tariff protection in addition to import restrictions and local content legislation meant that in many cases the only alternative to local manufacture was to abandon the market.

Initially the giant American TNCs were hesitant to undertake manufacturing in LIC markets and as Jenkins notes, went as far as closing down a number of assembly plants.(60) Nevertheless, as the 1950s progressed it quickly became apparent to Ford and General Motors that failure to undertake manufacture in markets with future potential, would lead to the government carrying out its plans with the aid of the European transnationals.

Therefore, the development of national automotive industries in these LICs was marked by strong participation by the large U.S. and European TNCs who tended to fragment the highly protected domestic markets which resulted in low efficiency and high costs. As Jenkins notes: "Production was almost exclusively intended for the domestic market and the integration of the local subsidiaries into the international operations of the parent companies, was purely as a market for imported parts and components".(61) In short, the motor industries in LICs (with the exception of S. Korea and possibly India) were developed in relative isolation under the guidance of transnational capital.

In the 1970s the situation was modified substantially when motor vehicle manufacturing, developed on the basis of import substitution, began to orientate itself towards the export of automotive parts and vehicles. Indeed as Jenkins

notes the 70s witnessed a move in the direction of new plants being built expressly for production for export to world markets. For example, the Ford Fiesta plant set up in Spain in 1976 together with the more recent General Motors plant set up there and recent Brazilian and Mexican plants all were designed to export a significant proportion of their output. These plants were designed to produce at efficient levels of output incorporating the most up to-date technology. (62)

This would indicate that production was becoming increasingly concentrated in the LICs, because these low factor cost locations offered the most efficient means of manufacturing a product which was becoming more and more standardized. However, in most instances, the TNCs have sought reductions in local content requirements as a "quid pro quo" for the expansion of exports. While a significant amount of growth of the industry in the LICs has taken place it is not at all clear that this represents any significant alteration in the international division of labour.

The growth of the motor industry in LICs in recent decades is illustrated by reference to Table 4.2 below. Vehicle production in LICs increased dramatically from practically nothing in 1950 to over 3.5 million in 1980. Their share of total world wide vehicle production increased from 2.4% in 1960 to 9.5% in 1980. However, the share of total world vehicle production for this group of LICs in 1985 had dropped to 8.6%. This was largely associated with the stagnation and decline experienced by various nations in Latin America.

TABLE 4.2

Share Of LICs In The World Vehicle Production  
1950 - 1985 (000 Units)

	1950	1960	1970	1980	1985
Spain	----	58	536	1,182	1,417
Brazil	----	133	416	1,165	966
Argentina	----	89	220	282	137
Mexico	22*	50	193	490	398
India	15*	51	63	114	230
Yougoslavia	----	16	131	284	258
South Korea	----	----	----	123	378
TOTAL·	37*	397	1,579	3,640	3,787
World Production·	10,578	15,661	29,667	38,495	43,660
LICs As % Of World Production:	0	2.4	5.3	9.5	8.6

\* Assembly

Sources: 1950, 1960, 1970 and 1980 Figures from Rhys Jenkins, "Internationalization of Capital and the Semi-Industrialized Countries: The Case of The Motor Industry. Review of Radical Political Economies, Vol 17, 1985, p. Calculated from Production Figures in SMMT Annual Report 1986.

On the basis of data up to 1980, Jenkins examines how far changes in the distribution of manufacturing capacity have been accompanied by changes in world exports. He concludes that LICs only accounted for 3.1% of the value of international exports in 1980 and that their share of exports of finished vehicles was only 5% for this year.(63) In 1979 he notes that LICs accounted for only 3.7% of car imports and 3.4% of parts and accessory imports into OECD countries.(64)

This leads Jenkins to conclude: "It appears that the semi-industrialised countries have, as yet, not made a major

impact on the international division of labour in the motor industry. Despite their growing share of world output, their importance in terms of world trade in vehicles and parts is limited and their significance as exporters to the major developed country markets is negligible. The major changes in the international division of labour in the world motor industry in recent years have taken place within the advanced capitalist countries and have involved the semi-industrialized countries only peripherally".(65)

#### 4.6 CASE STUDIES OF THE MOTOR INDUSTRY IN SELECTED LICs

For comparative purposes the national industries we examine here correspond to the general economic analysis in Chapter 3. While this overlooks countries such as Brazil and Mexico it includes the largest exporter Spain and the country which is often viewed as having the best chance of emulating the Japanese experience, South Korea. The motor industry in two of the countries i.e. Greece and Singapore, would not appear significant and in any event detailed references to them in the literature are rare and so they will be omitted from the analysis below.(66) It is intended that this analysis will help us towards a better understanding of the issues raised by the questions posed at the start of this Chapter.

##### 4.6.1 Argentina:

After a failed local attempt at assembly in the early part of the century, Ford set up an assembly plant in Buenos Aires in 1916, General Motors and Chrysler followed suit in the 1920s.(67) In the early 1950s, the Peron government attempted to promote the development of a vehicle manufacturing industry. In 1951, decree 25.056/51 declared the motor industry of national interest and granted exchange and import privileges for a period of 5 years.(68) Although

a more liberal attitude towards DFI began to emerge in the mid 1950s, until 1959 no Argentinian government managed to persuade a major manufacturing company to set up a manufacturing plant in the country.

Changes in the laws and attitude towards DFI in 1958, together with specific legislation to promote the development of the motor industry, contained in decree 3693 of 1959, stimulated a move in the direction of local manufacturing.(69) The immediate response to the decree was no fewer than 23 proposals to manufacture vehicles in Argentina.(70) The official rationale appears to have been that free competition would yield the best results. Jenkins quotes a senior government official as saying, "From the struggle for a hungry but restricted market, the most competent and efficient firms should emerge, without any prior exclusions and without any discretionary powers on the part of government officials which would permit erroneous interpretations".(71)

In 1960, majority foreign owned firms accounted for only one third of Argentine vehicle output, but by 1965 this share of output had been increased to about 60%.(72) There was also a tendency for TNCs with minority holdings to increase their share over time. In a situation of excess capacity it was not long before foreign competition forced weaker national producers out of the market. By 1968 foreign ownership of the Argentine motor industry was almost complete.(73) This period also saw an increase of foreign control in the parts industry, where foreign firms by the early 1970s had doubled their share of a decade earlier.(74)

While production of vehicles reached a peak of 293,742 units in 1973, labour productivity was low and prices way above the prevailing international average.(75) Market fragmentation, intensified by frequent model changes, resulted in in-efficiencies. In the early 70s the government introduced legislation aimed at curbing the proliferation of model changes and introduced measures aimed

at increasing exports. The introduction of export subsidies, when taken in conjunction with substantial devaluations in 1971 and 1972 led to an increase in exports from \$17 million in 1971 to \$94 million in 1973.(76)

Decree 680/73 required car manufacturers to increase their exports by relating expansion of the domestic market to the achievement of certain export targets. Initially at least, as much because of subsidies and a favourable exchange rate as of the decree, exports increased to \$132 million in 1974. Nonetheless, despite the continued existence of the decree, exports fell in the following years.(77) One explanation for this downturn in exports is that because access to the domestic market was linked to the volume of exports, when domestic demand fell during these years, the incentive to export to maintain market shares diminished.(78)

The aggressive liberalization policies adopted by the Junta in the post 1976 period filtered through into the motor industry. Tariffs were lowered to 55% for trucks and to 45% for cars. In addition, the restrictions introduced on the production of new models, parts, and foreign ownership were all removed.(74) In general, Jenkins concludes that the new policy was "designed to make the Argentine industry more responsive to foreign competition".(80)

TABLE 4.3

Production Of Passenger Cars & Commercial Vehicles

Argentina 1977, 1981, 1984 & '86

	CARS	CVs	TOTAL
1977	168,000	51,014	218,014
1981	138,000	23,140	161,140
1984	141,000	25,451	166,451
1986	143,094	27,404	170,498

Source: SMMT, World Automotive Statistics 1986 & 1987.

The information contained in Table 4.3 above indicates the difficulties that the Argentine motor industry has faced since the mid 1970s. While there has been a slight improvement since 1981, output has come nowhere near the peak level of 293,000 reached in 1973. Exports in 1983 which totalled 5,202 represented only 3.2% of production, a figure which compares very unfavourably with the 18.8% of Brazilian output which was exported in this year.(81) There would appear to be little evidence to suggest that recent liberalization measures have benefited the industry to any appreciable extent. The poor performance of recent years has hit parts and components producers most severely as Jenkins notes:

"Transnational terminal firms will be able to continue making profits either by exporting to Argentina or assembling vehicles using imported parts. The parts producer, however, is often largely dependent on the terminal firm for the greater part of its market and will suffer".(82)

Spain:

According to George Maxcy, the Spanish government was determined to create a national motor industry in the post war period. Since it was felt the country lacked the technical and financial resources to develop the industry on its own, the government set about creating the conditions needed to induce DFI. Low wages, anti-strike legislation, tariffs and local content requirements ensured a steady inflow of investment.(83)

TABLE 4.4

Vehicle Production In Spain 1960-1986				
1960	1970	1980	1983	1986
58,000	536,000	1,182,000	1,288,721	1,532,623

Source: SMMT, World Automotive Statistics, various years.

This strategy met with considerable success. By 1973 eight TNCs had invested in the Spanish motor industry, (84) and, in 1974, production of cars stood at 722,000 and CV's 111,023. (85) The government played an active role in the negotiations with the TNCs via the Instituto de Industria (INI) and held a majority interest in what was the second largest producer SEAT. In general, the evolution of foreign producers usually followed the path outlined by Maxcy "One of joint ventures to start, with the local partner producing foreign models under licence, and then the MNE increasing its share in the partnership over time as the local content and output increased". (86) Fiat, Chrysler, Renault and Citroen all increased their control over local partners during this period. (87)

TNCs and their local partners accounted for 96% of Spain's output of 819,000 vehicles in 1973. (88) As Maxcy notes, within the space of twenty years Spain had become the world's ninth largest producer, and exports had expanded rapidly in the early 70s to reach almost 20% of the total vehicle output in 1973. (89) But the domestic market was still heavily protected and fragmented, and the likelihood was that Spanish producers would be unable to withstand more open competition.

With future EEC membership in mind, in December 1972 the Spanish government began liberalizations of the motor industry aimed at increasing the attractiveness of exporting. Local content rules were reduced from 70% to 50% if exports increased, and export-orientated concerns were given tax concessions and access to official sources of credit. (90) According to Maxcy, these policies contributed to the decision made later by Ford to establish a major subsidiary in Spain. (91)

Maxcy's argument is supported by Jenkin's findings concerning Ford's decision to locate a new car plant in Valencia.(92) Jenkins concluded that low wages and low labour costs were relatively unimportant factors in determining investment decisions. He quotes a study by Ford in the early 70s where the cost of producing the 4 door Escort at four different European locations was compared. Although wages were lower in Spain, efficiency was less and material cost higher than the other locations which meant there was only a negligible advantage in terms of direct costs associated with a Spanish site. The main reason why production costs were lower in Spain was an export subsidy - amounting to 13% of the value of exports - paid by the Spanish government.(93)

Total vehicle production in Spain which reached 1.2 million by 1980 had risen to approximately 1,290,000 by 1983. As can be seen from Table 4.5, General Motors, who set up a plant in Zaragosa, were producing almost 250,000 cars a year many of which were for export. Indeed, of total car production for 1983, exports amounted to 674,000 or approximately 55%.(94)

TABLE 4.5

The Production Of Passenger Cars And Cvs  
In Spain By Manufacturer 1983 (000)

Cars		CVs	
Fasa-Renault	313.7	Motor Iberica	20.3
Ford Espana	227.8	Metalurgica S.A	17.8
Seat	250.0	Mevosa	9.2
Citroen Hispana	132.7	Esana-Sava	13.9

Source: European Marketing Data and Statistics 1985.  
(Euromonitor Publications Ltd , London, 1985),  
p.124.

## Portugal:

In Portugal, assembly began in 1963. FBU imports were restricted and duties on ckd imports decreased the greater the local content of the final product (95) By 1974 annual production had reached 69,000 cars and 18,314 CVs.(96) Among the 18 firms assembling vehicles were a number of European concerns with minority shares in local enterprises and wholly owned Ford and General Motors subsidiaries. In addition, Toyota's 27% share in a joint venture with a local company represented the first DFI by a Japanese company in motor production facilities within Europe.(97)

The Portuguese assembly industry was similar to Ireland in that, weak and uncompetitive, it depended heavily on protection for its survival. Free trade agreements with the EEC which provided for the extension of import quotas, offered little prospect for the survival of the industry with the inevitable freeing of trade when moratoriums ceased. With this in mind at the end of the 70s the Portuguese authorities envisaged a significant amount of rationalization and a move towards output that would be "concentrated in technologically advanced assembly and component units firmly integrated into the European production structure".(98)

To this end the Portuguese government entered into an agreement with Renault in 1980 which tied the French company to a 70% stake in an extensive expansion programme.(99) Assembly of cars was to be stepped up from 10,000 to 80,000 units per year and, in addition, an engine plant with an annual capacity of 220,000 units, many for export, was set up in Oporto. Local content in the assembly plant was scheduled to increase from 20% to 60% and to 80% in engine production (100)

TABLE 4.6

Assembly Of Cars And CVs In Portugal  
1980 - 1985

	Cars	CVs	Total
1980	45,457	----	----
1981	60,910	57,910	118,820
1982	64,841	54,100	118,941
1983	65,903	29,128	95,031
1984	61,151	23,107	84,258
1985	60,979	26,548	87,527

Source: Associacao Dos Industriais De Montegem De Automoveis Lisboa.

As shown in Table 4.6 above, car assembly has remained fairly stable since 1981 but assembly of CVs has fallen, and thus overall, output dropped from 118,820 in 1981 to 85,527 in 1985. With respect to cars, exports reached 9,844 or 16.1% of output in 1985.(101) We can see from Table 4.7 below that, although Renault increased its share of the market from 56.4% in 1983 to 57.8% in 1985, it has come nowhere near its target level of 80,000 units per year. On the basis of this evidence, the future viability of assembly in Portugal must be in doubt. The best approach as in the case of Ireland, may be the development of components exports.

TABLE 4.7

Assembly Of Cars By Manufacturer;  
Portugal 1983-1984-1985

	1983	1984	1985
Renalut	37,200	36,901	35,251
Citroen	11,300	9,057	8,685
Fiat	9,900	10,207	9,473
Ford	3,400	3,345	4,321
GM	3,600	1,223	2,883
Mini-Moke	400	360	327
Sado	100	60	35
TOTAL	65,900	61,153	60,979

Source: Associacao Dos Industriais De Montagem De Automoveis Lisboa.

Certain elements in the Portuguese government have started to question the wisdom of the large scale intervention involved in the Renault deal. The relatively poor increases in assembly and engine production reflect an unsatisfactory return on investment. A recent boom in consumer spending has boosted output in the assembly industry.(102) But in future it is likely that more attention will be devoted to the promotion of automotive components. Portuguese component manufacturers, it appears, can compete successfully with their Spanish counterparts and have begun to make inroads into the expanding Spanish market.

#### South Korea:

Until the 1970s, the South Korean motor industry consisted of the assembly in modest amounts of cars such as the Ford Cortina. Car output in 1970 was a mere 14,500,(104) and in 1974 output of CVs was approximately 19,180.(105) In line with its ambitious plans for industry in general, the Korean government decided that the country should have its own motor industry independent of the TNCs. Plans for an independent motor industry in Korea revolved around the Hyundai motor company which was established in 1967 by the Hyundai group which had wide interests in engineering, shipbuilding, construction and international trading.(106)

At first Hyundai assembled ckd kits from Ford U.K. operating at 50% of capacity. The company produced about 7,000 cars in 1973 which represented approximately half of all cars assembled in South Korea that year.(107) As a result of government encouragement, the company decided to develop and manufacture its own car called the "Pony". The technology and design incorporated in the vehicle came from overseas with 95% local sourcing all under licence.(108)

The Pony was produced in a new plant which in essence was a scaled down version of western plants. According to Maxcy output rose from 30,000 in 1976 to 110,000 in 1979, of which an excess of 20,000 was exported to over 40 countries.(109) The government had ambitious plans for the expansion of the industry in the early 1980s. The goal was to produce 2 million vehicles by 1986 made up of 1.4 million cars, 0.4 million commercial vehicles and 0.2 million buses of which it was hoped 1.4m would be exported.(110)

TABLE 4.8

Passenger Car Production South Korea  
1980 - 1985 (Units)

1980	1981	1982	1983	1984	1985
57,200	68,800	94,500	128,500	158,503	264,458

Source: World Marketing Data and Statistics, (Euromonitor Publications Ltd, London) various years.

Against the background of instability in the international industry South Korea returned a poor performance during the first years of the 1980s. Passenger car production was below its 1979 level until 1983. In this year, production of all motor vehicles reached 221,000 units, 10% was exported including 20,400 cars.(111) These figures were far below the projected targets and cautious voices began to be raised. The Asian and Pacific Review commented at the time

that the industry was stuck with considerable excess capacity which would only "Balloon as new or expanded plants were opened".(112) Nonetheless, the South Korean industry has performed well since 1983 As Table 4.8 shows, car production doubled between 1983 and 1985. Total vehicle production was expected to reach 685,000 during 1987,(113) moving quickly towards the revised government target of 1.5 million by 1989.(114)

Hyundai (Mitsubishi have held a 15% equity share since 1982) astounded observers in 1985 when it emerged as the number one importer to Canada, pushing aside Toyota and Honda with its Pony sub-compact. Also, within 7 months of entering the U.S. market, Hyundai had once more confounded the critics by clocking up sales of the Pony Excel - a front wheel drive sub-compact - in excess of 75,000 units. Indeed, the company is talking about introducing larger models.(115) Apart from Hyundai, the South Korean motor industry consists of two other main assembler/manufacturers. Daewoo Motors a 50-50 joint venture with General Motors, and Kia Motors who in the past have forged strong technical links with Honda, and in 1987 sold a 10% equity share to Ford.(116) Daewoo recently began sales in the U.S.A. of a sub-compact car marketed as the Pontiac Lemans. Daewoo have been followed by Kia Motors who are selling a mini car called the Ford Festiva in the American market.(117)

## CONCLUSIONS

MITS possible fourth transformation characterized by an industry reaching maturity with a standardized product, has shown few signs of unfolding. Domestic investment by the major TNCs is still well above spending on foreign productive capacity. In addition, recent trends have been towards increased DFI by European and Japanese companies in the United States and by Japanese companies in Europe. While it is true that a certain amount of growth has come to pass in LICs in recent years, it is difficult to find compelling evidence that DFI was primarily motivated by

perceived cost of production advantages. That is not to suggest that cost pressures have not impinged on the decision making process of the large TNCs. Cost considerations have forced these companies to rationalize production in optimum sized plants

As Maxcy argues, international sourcing of parts is not to be confused with the wholesale shifting of production to low wage countries. Huge worldwide sales cannot be sustained without production in widely dispersed optimum sized units.(118) How else, he asks, can one explain why General Motors has produced an engine in Australia, Brazil, Austria and Japan and supplied its European subsidiaries from the first three countries?(119)

The implication of this argument is that the cost of production does not vary greatly from one location to another. While labour costs may be significantly less in LICs, recent trends within the industry have been in the direction of increased capital intensity. A study of the Japanese industry in the 1980s revealed that the labour costs associated with engine production amounted to less than 5% of total costs.(120) If, as was the case with Spain, we assume labour efficiency and productivity to be lower generally in LICs, then the benefits of lower labour costs will be largely cancelled out. Empirical backing for this position is found in the results of a survey of overseas investment by Japanese automotive manufacturers contained in Appendix 4.

With respect to the assembly/manufacture of cars and commercial vehicles, Japanese overseas investment decisions have not been influenced by the availability of cheap labour. The survey (see Appendix 4) refers to 33 separate investment decisions by 10 Japanese companies in 16 locations, between the late 1950s and 1985. In only one case was the utilization of inexpensive labour cited as a reason for investment. This concerned a decision by Isuzu to become involved in truck production in China during 1985.

This questions the extent to which past and contemporaneous DFI by terminal producers in the motor industry has been influenced by wage costs. Initially, DFI was prompted by tariffs and local content rules that rendered LIC market shares contingent upon local production. Lately, consistent with industrialization policies in general, there has been a predilection on the part of LIC governments to attach greater weight to the expansion of automotive exports. This policy has met with a moderate amount of success for two reasons.

Firstly, there has been a distinct overlapping of interests between host nations and TNCs. Governments have proved willing to lower tariffs and relax local content rules in return for commitments to establish plants of optimum size oriented to a greater extent towards exports. This is a proposition which TNCs, because they have developed a preference for allocating overseas investment in a complementary and balanced manner, have demonstrated a willingness to accept. Secondly, state grants, export subsidies, and other incentives aimed at making exports more profitable have emerged as strong bargaining chips in negotiation between governments and TNCs regarding investment decisions.

Therefore, it could be argued that, though not for price based reasons, but rather as a result of government incentives, the investment by TNCs in LICs still constitutes a move towards a new international division of labour.

Of the countries we looked at, only in South Korea has the motor industry evolved outside the control of the TNCs from advanced nations. In Argentina, Spain and Portugal, the dominant factor in the development of the industry has been foreign capital. In general, with the exception of some specialist producers, local firms have either vanished or surrendered control to subsidiaries of TNCs. Even those indigenous manufacturers who have enjoyed success, such as Seat and Hyundai, have relied to some extent on assistance from major TNCs. Such a view concurs with Bloomfield's assessment of the development of the industry in LICs:

"While the world production pattern has become more dispersed, the control of the industry remains firmly in the hands of large multinational companies. In this way, unlike the textile industry, the original motor manufacturers, if not the original countries, have not been undercut by products made elsewhere".(121)

It is revealing that one country in the survey of LICs above which has experienced a significant amount of indigenous based development, South Korea, is the country in which government intervention was the most pervasive.(122) Here, the authorities were explicit in their intention to limit the scope of the TNCs, an approach which closely resembled that of Japan outlined above, although in the case of South Korea it has yet to be demonstrated that the assistance of transnationals can be entirely dispensed with.

Hyundai has made impressive inroads into the export markets of the world and will soon commence overseas assembly.(123) However, if it is to become a major power in the industry it must prove it is capable of designing and engineering a range of new cars and components. Whether Hyundai as Maxcy put it "can jump the major international hurdles", (124) remains to be seen; however, the company has managed to establish a niche from which it appears determined to expand. For example, in contrast to Honda - who took more than a decade to achieve a market share of 5.4% by the mid 1980s - Hyundai quickly established a strong presence in Canada's automotive market. In 1985 Hyundai's share of the local Canadian market stood at 9.1%.(125) This was a remarkable success for a manufacturer with less than 20 years in the business and no marketing experience in the competitive North American sales environment.(126)

**CHAPTER 5**

## 5.1 INTRODUCTION

Until the early 1980s, as Jacobson notes, the motor industry in Ireland was remarkable for the fact that there had been no in depth analysis on any aspect of its history, development and structure.(1) Reviewing long awaited contributions by John Moore, Motor Makers in Ireland(2) and John O'Donovan, Wheels and Deals(3), he concludes that while to some extent filling the gap, both books nevertheless leave much ground uncovered.(4)

Moore argues that while economic and social points of view may be of some relevance, the history of the Irish motor industry should be looked upon as the story of engineering innovation.(5) But as Jacobson strenuously retorts, the development of the Irish motor industry does in fact raise a whole range of wider issues. While many of these issues, though important, are of interest mainly to the economic historian, for example the impact of Ford's decision to cease manufacturing at Cork during the early 1930s, more recent developments are of concern to the economist studying contemporary industrial development in Ireland.(6)

The central topic this chapter will focus attention on is the transformation that the Irish motor industry has experienced since the advent of export oriented industrialization. It was widely recognized, for example by the Committee on Industrial Organisation,(7) that the freeing of trade would undermine the viability of local assembly. Although various schemes were constructed, the ultimate demise of the industry was almost universally accepted. According to Jacobson, the state and the TNCs, who controlled local production, appear to have "acted together to eliminate assembly. But few other than the militant workers of the industry opposed this."(8) More hope was held out for the traditional component manufacturers who supplied the assemblers with items such as springs, glass, batteries, etc. However, despite generous state aid(9) these companies proved unable to develop alternative overseas markets.

Internationally, the motor industry was also undergoing transition. Within Europe, the formation of the EEC had accentuated the move towards greater integration of the industry which facilitated the sourcing of parts in different locations. EEC membership and locational factors favourable for foreign investment led to the attraction of a number of firms involved in the manufacture of automotive components for export. In recognition of the potential for expansion, the IDA and CTT have set about actively promoting the automotive components sector since the late 1970s. For example, in 1979 the IDA attended the Frankfurt motor show and CTT took a stand at the Geneva vehicle equipment exhibition. The objective was to promote Ireland as a suitable location for the manufacture and export of automotive components.(10)

The IDA, as evidenced by the following extract from one of its promotion brochures, is not slow to point out what it views as the recent success of, and potential in the future for the Irish industry:-

"Over the past number of years Ireland has seen the emergence of an important and growing automotive components industry which is supplying products to many of the leading original equipment manufacturers of the world ... The industry worldwide is being asked to make rapid changes. While this changing picture will pose new challenges for the industry it will also provide lucrative opportunities for the companies in specialist product areas which can provide working solutions to the problems of the 1980s. Ireland is well placed to attract a share of the new investments made for this purpose".(11)

IDA statistics indicate that significant growth in terms of employment and export has taken place in this sector in

recent years. As Jacobson points out, IDA figures show that current numbers employed in the industry constitute almost 4% of the total manufacturing workforce and that exports have grown in domestic currency terms by over 40% in 1984 and by another 14% in 1985.(12) In addition, the Programme for National Recovery 1987 estimates that up to 3,000 additional jobs could be created in this industry based on achieving increased shares of the automotive components market for Japanese European car manufacturing.(13) Before analysing in detail these important trends, the historical background to the motor industry in Ireland shall be briefly examined.

## 5.2 THE DEVELOPMENT OF THE MOTOR INDUSTRY IN IRELAND:

The origins of the motor industry in Ireland can be traced to the coach building industry and certain elements of the engineering industry which became interested in the manufacture of automobiles around the beginning of the 20th Century. In these early years the advent of the motor vehicle had an expansionary effect on coach building in Ireland. This was largely due to the fact that many coach builders were compensated for the loss of their horse drawn carriage trade by the emerging demand for motor car bodies. However, the introduction of mass production techniques had an adverse effect on coach building which precipitated the decline of the trade.(14)

All attempts at locally designed motor car manufacture met with little if any success. This cannot be attributed to any lack of engineering expertise on behalf of these early pioneers. Jacobson suggests that locational disadvantages, allied to a shortage of capital, prevented the necessary improvements in production techniques and efficiency even where the local market justified such improvement.(15) In many respects this resembles the failure of local producers in peripheral regions to grow in the early decades of the 20th Century.

It is the opinion of Jacobson that even an extremely active Irish government of Ireland could not have altered the pattern of development experienced by the industry in the early decades of the century. Any viable project demanded a company with the requisite capital and expertise, in conjunction with an established international distribution network.(16) As was noted in Chapter 4 the Ford motor company displayed an ability to expand production overseas almost from its inception and had a number of plants set up abroad before World War 1.

As early as 1913 Ford displayed an interest in a potential factory site on the River Lee near Cork, though it appears no attempts were made to purchase any land.(17) Eventually a site was secured in 1917 with the intention of building a plant to produce tractors. Jacobson has questioned the traditional view that Ford's decision to locate in Cork was largely a result of Henry Ford's sentimental attachment to the area. In his opinion, the decision to continue to develop in Cork despite the end of World War 1 was connected to the aftermath of the First World War and the impact this had on capital flows between the United States and the U.K.(18) It was also an important part of the location decision that tractors, and not cars were to be produced and exported from Ireland.

The Ford plant commenced production of tractors in July 1919. After reaching modest levels of production the manufacture of tractors was halted in 1923 and instead production on Model T. Ford cars and parts was initiated. In late 1928 the tractor manufacturing equipment which had been shipped across the Atlantic to Dearborn was sent back to Cork and tractor production recommenced with 15,000 units rolling off the assembly lines in 1930. But the great depression and the advent of protectionism heralded the demise of tractor manufacturing in Cork and the last Irish tractor was produced in 1932.(19)

The manufacturing equipment was soon on its way again, this time across the Irish sea accompanied by a relatively large

number of workers formerly employed in the Cork plant, 6,000 of whom had been made redundant after the cessation of tractor production.(20) After 1932, only assembly of commercial vehicles and cars was located at Ford's Cork plant.

While Ford was the only manufacturer or assembler in the Irish Free State until 1932, after this date a number of other firms set up assembly plants. Within a short space of time there were 20 such operations.(21) They owed their existence almost entirely to government tariffs and especially quotas which necessitated local assembly if a market presence was to be maintained. Since minimum economies of scale were never even remotely attainable given the small size of the local market and the state of the prevailing technology, and since manufacturers insisted that only enough ckd units be supplied to satisfy the home market, export prospects were limited with the result that efficient levels of production could never be reached.(22)

The continuation of protectionist measures kept the assembly industry alive until the policy changes of the post 1958 period began to take effect. It was accepted that trade liberalization would destroy what was in essence an artificial entity. In particular, since in the mid-1960s 80% of the vehicles assembled in Ireland were of British origin, it is clear that if the 1965 Anglo-Irish Free Trade Area (AIFTA) agreement had been fully implemented in relation to motor vehicle assembly the industry would have ceased to exist within about 3 to 4 years.(23) In the mid-1960s the Irish assembly industry was as dependent as ever on quota restrictions and high rates of import duty on fbu vehicles vis a vis ckd parts.

The unions were very much aware of this fact and lobbied the government to take action aimed at protecting the industry.(24) Accordingly the government in consultation with the unions, assembly companies, British manufacturers and the British Board of Trade introduced during 1967 a

scheme to control the importation of FBU vehicles. This scheme effectively replaced the system of quotas which ceased to operate on the 1st of July 1966, with the commencement of the AIFTA. This scheme received legal backing under the Motor Vehicle Registration of Importers Act 1968.(25)

Prior to EEC membership, the scheme came under close scrutiny by the Commission who were of the opinion that it did not conform with the principles of free trade operating within the Community. Agreement was reached allowing a modified form of the scheme to remain in operation until the 31st of December 1984, but from that date all quota restrictions would have to be removed. Also, the special provisions which existed for British manufacturers were to be extended to all EEC producers. This moratorium called Protocol 7, came into effect on the 1st of January 1973.(26)

Not surprisingly the Irish assembly industry was characterized by limited exports during these years. At the start of the 1970s, exports stood at approximately 3,000 units per annum. Up to 1978 this figure varied between 3,000 and 7,000 units per year. At the end of the 1970s there were 3 companies assembling cars for export mainly to the U.K. and 1 company began exporting commercial vehicles to that market. The bulk of this trade represented a servicing of the parent firm's requirements to fill a small amount of local U.K. demands for a particular model.(27) A substantial growth in exports occurred in 1979 when the export figure was approximately 19,000, compared with 4,443 in 1978. This represented an export value in currency terms of £45 million.(28) Nevertheless, this must be compared with the Gross value of imports for 1979 which stood at £500 million.(29)

It seems likely that this spurt in export growth in 1979 was only of a temporary nature and did not in any way signify any emergent comparative advantage on behalf of the Irish industry. As Jacobson points out, these exports corresponded with the "tail-end of a model's life-cycle,

where such small numbers were being sold that it did not justify allocation of resources in the larger plants."(30) Indeed, by 1976, 13 of the 16 firms still involved in assembly intended to stop as soon as it was possible and any superficial interest the others had was soon to evaporate. For much of the 1970s assembly existed in Ireland only because it was subsidised by FBU trading which was permitted when local assembly accounted for over 5% of the market.(31)

The position of the Irish motor vehicle assembly industry in the mid 1970s was aptly described by the Management Consultant Partners and Associates report to the Secretary of the National Prices Commission in November 1976:

"The general picture, therefore, is of an industry lacking severely in financial autonomy, highly dependent on its foreign trade connections for the necessary resources to carry on and making a very poor return on the assets employed .... There has been no real reinvestment in recent years, and there is clearly no confidence in making any long term commitments at the present time."(32)

### 5.3 THE TRADITIONAL COMPONENTS INDUSTRY

A number of firms manufacturing components were set up behind the tariff barriers of the 1930s. They supplied local assemblers and owed their existence to quota restrictions on the importation of their products, or on regulations governing local assembly. Irish Dunlop Ltd., tyres, J. Brockhouse Ltd., springs, Battery Makers of Ireland Ltd., and Lancegaye Ltd., windscreen glass, appear to have been the largest enterprises. All these firms had close connections with U.K. companies and were probably controlled by same despite restrictions imposed by the Control of Manufacturers Acts.(33)

All these companies were subsequently taken over by U.K. firms, in what may be considered to be a direct result of the new free-trade policies which forced these firms to attempt to reduce their dependence on the local assembly industry which clearly had no long term future. This was a task which proved beyond the capability of most firms, even though the application of state aid eased the process of adjustment. In line with most of established industry, traditional component manufacturers struggled in the harsh competitive environment engendered by free trade. Among the companies that have closed in recent years are Crossland Filteers, British Leyland, Daly's and Chloride. In addition, Triplex closed their Waterford factory and the prospects for the Templemore plant are not encouraging.(34)

#### 5.4 RECENT TRENDS

##### 5.4.1 AN INDUSTRY IN TRANSITION

Over the last decade it is possible to divide the Irish automotive industry into 5 segments:

1. The declining assembly sector and the manufacturers of components associated with the supply of assembly operations.
2. The specialist vehicle sector, together with the manufacture of trailers and bodies.
3. The manufacture of auto related products and accessories primarily geared for the domestic market.
4. The manufacture of components for export to the leading original equipment manufacturers OEMs or "terminal" car producers. This group corresponds to the CTT definition of the automotive components sector. (See Appendix 5A)
5. The manufacture of products and components (mainly for export) for what may be termed the Trans-  
portation industry in general.

The official government statistics issued by the Central Statistics Office (CSO) relating to NACE category 35 "the manufacture and assembly of motor vehicles (incl. parts and accessories)", clearly indicate the dramatic decline of the assemblers and traditional component manufacturers in the final years of the moratorium. From Table 5.1 it can be seen that with 1980 as the base, industrial production fell from 102.0 in January 1981, to 34.8 in April 1986.

TABLE 5.1

Nace Category 35, Industrial Production;

Base 1980 = 100

Jan '81	June '81	June '82
102.0	93.6	84.1
June '83	Jan '84	Dec '84
77.3	66.2	48.1
June '85	Dec '85	Apr '86
43.1	42.1	34.8

Source: Census of Industrial Production

The close-down of the assembly operations and the drop in the numbers working in the related sectors supplying parts is reflected in the employment data contained in Table 5.2. This shows that total employment in this NACE category is estimated to have fallen from a level of 6,400 in March 1981 to 2,800 in December 1985.

TABLE 5.2

Nace Category 35, Employment 1981-1985

Mar '81	Mar '83	Dec '84	Dec '85
6,400	5,200	4,600	2,800

Source: Industrial Employment Earnings and Hours Worked.

#### 5.4.2 SPECIALIST VEHICLE MANUFACTURING:

While it is true that Ireland without extensive protection could never hope to sustain a motor vehicle assembly or manufacturing industry, there is no overbearing economic reason why the manufacture of specialist vehicles should not be suited to an Irish location. In recent years buses, ambulances and armoured cars have all been manufactured successfully in Ireland. For example, Hanlons has employed up to 300 people at its plant in Longford town producing ambulances for export mainly to the U.K. In addition, the company has started to penetrate the middle east market.(35) Also, companies such as Mangan James & Son Ltd., Edenderry and CRV Engineering Ltd., Dundalk have for some time now been involved in the production of vehicle bodies.

Although the specialist vehicle is a niche market with potential, recent experience leads one to question the wisdom of channeling investment into projects of this kind. The Delorean and Auto Montan-werke fiascos stand out as chastening reminders of the inherent difficulties associated with building a vehicle from scratch and then marketing it successfully in an increasingly competitive business environment. The IDA engaged in protracted negotiations which were concerned with locating the production of the exotic Delorean sports car in the 26 counties. But the Irish authorities proved reluctant to match the huge grants offered by a British administration anxious to attract new industry to employment blackspots in Northern Ireland. This led eventually to the construction of a plant to manufacture the vehicle in West Belfast. After overcoming initial technical problems, a number of cars finally rolled off the assembly line. However, the vehicle encountered numerous problems in the American market. Weak selling techniques and poor marketing were unable to resolve these difficulties.(36)

The circumstances surrounding the setting up and subsequent demise of John Delorean's Belfast plant have been well chronicled. However, the failure of Auto Montan Werkes "Buncrana Beetle" has received much less scrutiny. In 1981, the IDA announced that it had concluded discussions with Messerschmitt Bolkow Blohm (MBB). A new Irish subsidiary Auto Montan-Werke (ATW Ltd.) was to be formed with the intention of manufacturing a two wheel drive amphibious vehicle in Buncrana, Co. Donegal.(37) In the early stages 250 were to be employed with hopes for significant expansion in the future. The project involved a capital investment of 6 million Punts, and the first models were expected off the production line at the end of the year.(38) Mr. John Kerrigan, the IDA Engineering and Automotives Manager at the time was quoted as saying, "Buncrana is about to become the centre of the company's operations and a new Irish motor industry comes into existence".(39)

The project never lived up to expectations. While it was hoped that in the region of 1,000 would be employed, the numbers at work never went above the 100 mark.(40) The company closed down late in 1984 without attaining anything like the annual production targets of 15,000 to 18,000 units which had been set for the third phase of the project.(41) Why did this project which began with a wave of publicity peter out when so much had been anticipated?

There were some problems with the earliest vehicles, but these difficulties were sorted out and production, which included all research and development and modifications being carried out locally, commenced successfully.(42) The vehicle which was named the "Chico" was priced competitively in relation to other one-ton trucks or jeeps,(43) and successfully survived a stringent German road worthiness test. The vehicle's adaptability is vividly portrayed by the following description of some of its multiple uses which it was felt would make it attractive to the small Irish farmer:

"He could plough or spray with it, later bring his mild churns to the creamery, fodder cattle in remote outlying areas, and later bring the family to town, and with slight modifications he could even go out poaching on the lake that night".(44)

However, despite the fact that market research indicated a potential niche in the market for the "Buncrana Beetle", sales at the required level never materialized. This was not a result of any deficiencies in product quality. It came out just at a down-swing in the market when the intended customers, public utilities, local authorities and the farming sector were suffering from declining budgets.(45) But it is not certain that had the product entered the market during an upturn that sales would have taken off. It is possible that the "Chico" project-in a similar manner to the Delorean sports car-was stymied by marketing deficiencies. The establishment of an R & D and the production system capable of creating a viable commodity which can excite consumer interest is only a prerequisite for success. The ultimate test is the ability to penetrate markets often under conditions which are not the most congenial.

#### 5.4.3 AUTO RELATED PRODUCTS:

This group consists of a number of small, mainly Irish companies manufacturing products complementary to the use of motor vehicles. Sales orientation is predominantly in the direction of the domestic market. Companies in this group include, Anti Skid Controls (vehicle safety systems), Casey Michael Ltd, Phoenix Enterprises Ltd. (upholstery, sun-roofs and roof-racks), Tool and Gauge Ltd. (car alarms), and Moremiles Tyre Services Ltd. (remoulds). It may be possible to develop the export potential of some of these companies. Nevertheless, most future prospects seem to depend on the demand for auto related products in the local market.

#### 5.4.4 EXPORTERS OF AUTOMOTIVE COMPONENTS:

These firms can be broken down into two distinct groups. Firstly, companies (in category 4 above) manufacturing original equipment for European motor manufacturers whose products include mirror glass, acoustic trim, turbo-charge impellers and wiring harnesses. Secondly, companies (in category 5 above) who are involved in the manufacture of products for the mobile transportation industry, for example, tipping gear, hydraulic motors and pumps, truck and refrigeration units. It is worth noting at this point that CTT include only firms from category 4 in their export and employment statistics. But the IDA includes both categories 4 and 5 in addition to the auto related products and specialist vehicle sectors in their figures for the automotive industry.

These companies are mainly subsidiaries of German and U.S. TNCs which have set up production in Ireland since the middle of the 1960s. The IDA and CTT have claimed that these new foreign firms have transformed the declining Irish motor industry into a vibrant and growing sector. However, the analysis of this transformation is confronted with problems relating to the availability of statistical data of a uniform nature. It is not a problem unique to this particular industrial study. As Joe Cogan notes, attempts to survey the Irish electronics industry are severely hampered by a "very confused statistical situation."(46)

#### 5.5 STATISTICAL ANALYSIS OF THE INDUSTRY:

The CSO data, as published in the Census of Industrial Production, is deficient as it reflects only the decline of assembly and traditional component manufacture in the last decade. Even if the IDA and CTT figures were grossly exaggerated, the growth generated by the new firms should have boosted CSO output and employment figures somewhat. In order to get a better understanding of this process of

transformation it is necessary to investigate further the nature of the CSO data and then to examine additional sources of information.

The most detailed breakdown of the relevant NACE category, 35, is contained in the table outlining goods manufactured in each industrial sector. This is Table 8 in the Census of Industrial Production 1983 which was published in May 1987.(47) Given below in Table 5.3 is a breakdown by product for the years 1979, 1980, 1982, and 1983.

It is difficult to see how the output associated with transnational component manufacturers (which we know were starting or increasing production during this period) could be contained to any significant extent in the breakdown of NACE category 35 shown in Table 5.3. One possibility is that some firms could be represented under the headings "other parts" and "all other products". However, the combined total of this group for 1983 was approximately £15.5m which when one includes items like replacement parts and accessories manufactured by small local firms, leaves a very small amount to be accounted for.

TABLE 5.3

<u>Net Selling Value In Irish Pounds</u>				
<u>Nace Code 35 Extended Coverage</u>				
	(£000)			
	1979	1980	1982	1983
Motor Vehicles Complete				
Cars/Station Wagons/Estates	94,115	101,000	83,329	80,807
Commercial Vehicles (Incl. buses, lorries, etc.)	20,555	21,583	53,259	41,884
Trailers & Caravans	11,356	7,348	5,889	4,848
Motor Bodies	5,044	4,457	6,043	7,271
Other Parts	3,016	4,224	4,494	5,289
All Other Products	1,973	4,224	9,398	10,386
Repair Work, General Jobbing & Commission Work	24,469	30,696	36,102	34,284
Work in Progress	4,199	6,046	4,579	4,011
Non-Respondents Est				
Gross Output	752	953	1,115	465
Total Gross Output	165,429	181,522	204,637	189,309

\*Gross Output is stated exclusive of excise duty.  
Source: Constructed from information contained in the  
Census of Industrial Production for the years  
above.

Also, Table 6 of the Census of Industrial Production 1983, gives some interesting data on the grants received from the IDA by firms in this NACE category. Of 105 firms listed, 61 are IDA grant aided. Of these 61, only 6 have received new industry grants, whereas 47 received small industry grants and 8 other forms of IDA assistance.(48) We know from information included in various IDA Annual Reports (see Appendix 5B), that most of the new foreign component exporters obtained significant new industry grants. Therefore, it is unlikely that many of these TNCs are included in the relevant CSO NACE category.

In recognition of the limitations associated with the published data, the CSO, IDA and CTT were approached and asked if they would be willing to make available more detailed information. While the need to retain confidentiality prevented direct responses to many of the more pertinent questions, 3 additional sources of information on the Irish automotive sector have been compiled for this dissertation.

1. A special study undertaken by the Engineering Department of the IDA in response to a questionnaire which was forwarded to them. This involved a study of 119 companies from all segments of the industry covering the years 1977 to 1986
2. Research conducted by the CSO on a specially constructed group of firms designed to bypass the problems associated with locating firms in numerous separate NACE categories.

3. Data provided by CTT on a defined group of exporting automotive component manufacturers, the overwhelming majority of whom are subsidiaries of TNCs.

The findings of the IDA survey with respect to recent trends in employment and output are presented in Table 5.4 below. These statistics, when viewed in conjunction with the published CSO data, indicate quite clearly that there are two trends working in opposite directions. The decline in assembly and traditional component employment over the period has been counterbalanced by increased employment and output in other areas of the industry. For example, according to Census of Production data outlined in Table 5.2, employment fell by 3,600 between 1981 and 1985. But the IDA statistics show that total employment dropped by only 1,200 over this period and indeed started to increase again during 1986. In addition, despite a substantial drop in employment between 1984 and 1985, there was a large increase in output, a sign of increasing investment and productivity growth.

TABLE 5.4

Employment And Output In The Irish Automotive Sector  
1978 - 1986

Year	Employment	Output (Sales £000)
1978	7,800	33,000
1979	8,200	85,000
1980	8,700	102,000
1981	8,600	128,000
1982	8,800	129,000
1983	9,000	186,000
1984	8,300	184,000
1985	7,400	260,000
1986*	7,550	270,000

\* Estimated figure to November 30th 1986.

Source: Engineering Division IDA in response to questionnaire designed for this project.

If one assumes, firstly, that employment in assembly has all but ceased to exist (only a small number of Japanese trucks were assembled locally in 1986), and, secondly, that employment in the traditional component sector associated with this assembly has also largely dissipated, then the growth in employment and output which has been experienced in recent years must be accounted for by the other sections of the industry listed above. The IDA data and CTT statistics (see below) show that output and employment in this sector has risen in recent years. It is thus clear that a significant proportion of this increase must be attributed to companies which have been placed in various different NACE categories other than 35.

In an attempt to find out more about the nature of this transformation it is useful to examine information provided by CTT. The automotive components section of CTT utilised a very precise definition of the automotive components industry which corresponds to group 4 listed above (see appendix 5B). This group of firms account for the employment and export figures found in Table 5.5.

TABLE 5.5

Employment And Exports Of Automotive Components Industry

Year	Employment	Exports (£000)
1981	3,141	65,628
1982	3,190	71,005
1983	3,404	90,999
1984	3,489	119,000
1985	4,124	136,200

Source: Automotive Components Section CTT

The growth in exports and employment outlined in Table 5.5, is consistent with trends in the direction of greater sourcing in the international automotive industry. The manufacturers which had set up in the late 1960s and during the 1970s had by the beginning of the 1980s started to expand production in response to increased demand by the terminal European producers. In addition, a new wave of companies, many of which were German, began entering the industry. According to the IDA, exports of automotive components increased from £80m in 1978 to over £260m in 1985 (49). The discrepancy between these and CTT figures results from the inclusion of companies from group 5 in the IDA estimates. Firms like Tilitsons, Thermo King, Highlife/SPS and Unilok, which, like the firms in the CTT list, export most of their output, but which produce for specialized sectors of the industry, or for other industries in addition to the automotive industry, are the main reason why the IDA figure for 1985 is £124m in excess of the CTT estimate.

The CSO provided data for two periods 1965-67 and 1977-83 for a distinct category of products. This category includes both car assembly and what might be considered traditional component manufacturers, i.e. group 1 above, together with group 3, the after-market services and group 4, i.e. CTT exporters, but excluding group 2, i.e. specialist vehicles etc. and group 5, i.e. transportation equipment. This is what may be defined as the core of the car and car components industry as opposed to the broader definition of the automotive industry. (See Appendix C)

TABLE 5.6

Gross Output And Persons Engaged·  
Special CSO Group 1965-1967

Year	Persons Engaged	Gross Output (£000)
1965	4,503	26,894
1966	4,606	26,510
1967	3,970	27,279

Gross output was used to estimate the persons engaged  
Source: Special survey conducted by the CSO May 1987

The output and employment estimates for the above period outlined in Table 5.6 were almost exclusively attributable to the following product categories: Car tyres, car assembly (passenger and station wagons, etc.), batteries and accumulators, spark plugs, springs and vehicle safety systems. Therefore, we can conclude that car assembly and related component manufacture taken together employed between 4,000 and 4,500 during this period with an average output of approximately £26m.

TABLE 5.7

Gross Output And Persons Engaged:  
Special CSO Group 1977-83

Year	Persons Engaged	Gross Output (£000)
1977	6,433	134,600
1978	6,379	152,300
1979	6,354	156,900
1980	5,995	170,400
1981	5,573	174,700
1982	5,370	172,800
1983	4,820	170,200

Persons engaged estimated on the basis of gross output.

Source: Special survey conducted by CSO May 1987.

Table 5.7 covers the period when the traditional sector began its decline while concurrently the export of components to OEMs started to expand. In 1976 at the peak of assembly 2,229 people were employed in the assembly of cars and vans.(50) If we assume that a further 2,000 people were involved in the manufacture of traditional components for use largely by the assembly firms, then in 1977

approximately 2,200 were employed in the new components sector. It is likely that by 1983 a significant proportion of the traditional employment had been lost, perhaps in excess of the 1,600 drop in the number of persons engaged recorded in Table 5.7. If this assumption is correct, the numbers employed in the new exporting firms would be fairly close to the level stated for that year by CTT, namely 3,404.

It is of course true that the total number of persons engaged in the special CSO group is somewhat below the numbers employed in NACE category 35, for 1983, which stood at approximately 5,200.(51) However, it should be recognized that for 1983, between 50% and 60% of the output of this NACE category, for example, commercial vehicles, caravans, repair work and general jobbing, etc. would be excluded from the specially constructed group. When full account is taken of this fact it is apparent that a certain amount of growth must have taken place amongst firms exporting components to OEMs.

Also, since employment fell in this NACE category by 2,000 from 1983 up to the time that assembly ceased at the end of 1984, if this is taken to represent the numbers employed in assembly and traditional component manufacture for 1983, we are left with a bedrock figure of 2,800 employed in the manufacture of components for export. Although this is about 600 below the employment level indicated by the CTT figures for this year, it is still a significant total and one which most likely has expanded since then.

To conclude, in 1985 the industry in broad terms was constructed along the following lines. Employment in group 1 was near to zero. At least 3,500 to 4,000 were engaged in group 4. About 1,700 appear to have been employed in group 5, and groups 2 and 3 accounted for at least 1,500. This yields a minimum of 6,700 employed in all areas of the industry in that year

5.6 A PROFILE OF THE IRISH AUTOMOTIVE COMPONENTS SECTOR IN THE MID-1980s

According to the IDA the automotive components sector consisted of approximately 100 firms employing about 7,400 people in 1985. Virtually half (49%) of the companies in the sector were foreign owned. The breakdown by country of origin, as of January 1984, is given in Table 5.8. The foreign sector is dominated by German and American companies. The presence of U.S. subsidiaries can be largely explained on the basis that these TNCs viewed Ireland as a convenient location within the EEC which provided access to the integrated European motor industry. The prevalence of German firms is more difficult to comprehend. What factors attracted significant numbers of German automotive component companies to set up production in Ireland during the 1970s and early 1980s?

TABLE 5.8

Nationality Of Foreign Automotive Component Companies In Ireland

1984	
Germany 18	Australia 1
U.S. 15	Austria 1
U.K.	New Zealand 1
Belgium 1	France 1

Source: Automotive components Ireland.  
(IDA, Dublin, 1984)

These German firms have tended to be family-owned companies which have traditionally occupied a dominant position in small German towns. The decline in the available workforce in these towns, which started to manifest itself towards the end of the 1960s when migration to the larger cities was rampant, presented these companies with a dilemma if they wished to expand. A move to the urban centres entailed not only increased labour costs, but also costs associated with operating in a form of environment quite different from that to which they had become accustomed.

At this time the IDA was deeply interested in attracting new industrial investment to small Irish towns where a surplus of well educated workers sought employment. Such locations proved eminently suitable for the small German entrepreneur. With the added bonus of a matrix of IDA inducements these companies had the opportunity to replicate their German experiences in rural Ireland. Here they found an environment supportive of private investment which offered future political and economic stability in conjunction with a quality labour force which had little history of trade union involvement.

In particular, the west and north-west of the country appear to have been favoured locations. There are notable exceptions one of which is Kromberg Ireland which has its wiring harness plant in the Waterford industrial estate. When an urban location is picked by these German firms it has tended to be in what may be considered the smaller cities or large towns like Waterford, Galway and Carlow. It is clear that the metropolitan Dublin area has not been a favoured location for these companies. With this in mind, it is worth noting that while industrial relations have been a major problem for one of Kromberg's main rivals, Packard in Dublin, Kromberg has not experienced anything like the same difficulties at its Waterford plant.(52)

In recent times, foreign enterprise has been the dominant growth factor in much of Irish industry. For example, in

the electronics sector, some 85% of employment and an even larger proportion of output (nearly all of which is exported) is provided by foreign companies.(53) A glance at Table 5.9 is enough to confirm that the automotive sector adhered to this general pattern of Irish industrialization. In fact the picture closely resembles the extreme dependence on foreign enterprise characteristic of the electronics sector.

TABLE 5.9

Structure Of Output And Employment In Automotive Sector

	Output	Employment
Foreign Firms	£239.4m (92%)	6,200 (84%)
Domestic Firms	£20.6m (8%)	1,200 (16%)

Based on 1985 figures

Source: Engineering Division IDA in response to questionnaire designed for this project.

The data contained in Table 5.9 refers to the global IDA definition of the industry. It shows that employment and output is heavily concentrated in the hands of foreign firms which account for no less than 92% of output and 84% of employment respectively as of 1985. In common with the electronics sector, the bulk of this output is exported. While it has not proved possible to obtain information on output or exports of individual firms, Table 5.10 lists those companies whose exports exceeded £10m each during 1985.

TABLE 5.10

Automotive Component Manufacturers With Exports  
Exceeding £10M

Packard	Tilitson	CSP
Kromberg	Schlegel	Semperit
Thermo King	Highlife/SPS	

Source: Automotive Components Section CTT.

Since the combined output of the 8 companies in Table 5.10 is at least £80m, these firms must account for a minimum 31% of the sectors total output for 1985. This means that these firms from groups 4 and 5 are responsible for a share of output almost 4 times that of the entire domestic sector for the year 1985. This clearly demonstrates the small size of the 50 or so indigenous firms.

Table 5.11 gives the destination by country of the CTT group of exporters for the years 1983 to 1985. The major export market is Germany, a result which is not surprising when one considers that over 50% of the firms in the group are German owned. But the overall impression is one of a significant amount of diversification with opportunities for increasing exports in the future to France, Spain and Sweden. However, considering the recent growth of the Spanish motor industry, the relatively small volume of exports to Spain is somewhat disappointing.

A large increase in exports to the United States took place between 1984 and 1985. This is an encouraging trend, but it remains to be seen whether scope for future growth in the American market is heavily dependent on a favourable exchange rate. No figure appears for Japan, because only one company, Donnelly Mirrors, exports to this location. Future growth of the components sector in Ireland depends on improving competitiveness and quality enabling companies to carve out openings in the Japanese market and particularly the newly arrived European subsidiaries of Japanese TNCs.

TABLE 5.11

Breakdown Of Exports To OEMS By Country

1983-1985 (£000)

	1983	1984	1985
U.K.	21,509	31,134	31,500
Germany	38,431	42,159	50,700
France	5,814	9,299	11,000
Spain	640	875	1,300
Sweden	2,736	3,471	4,400
USA	1,403	1,857	7,800
Others	20,473	30,400	28,000

Source: Constructed from data supplied by CTT.

Extensive evidence exists which supports the claims of growth in the automotive components industry made by sources like the Society of the Irish Motor Industry. If one concentrates on employment creation and export growth, then the performance on the surface at least looks very impressive. But this assessment leaves a number of important questions unanswered which are pertinent to policy appraisals of individual sectors and industry in general. For example, in the Irish automotive industry the role of indigenous enterprises has been extremely limited. Irish firms are small and have made practically no contribution to the growth of exports. As the Telesis and more recent government reports have strongly argued, sustained high levels of income require the development of a vibrant indigenous base.

In the case of the automotive industry the IDA and CTT are committed to future growth based on the performance of existing and new foreign enterprises, with a low-key role envisaged for indigenous manufacturers. The majority of these foreign companies have received substantial aid from the IDA and have of course benefitted from the favourable tax environment prevailing in the Irish economy. It should be pointed out that many of these companies commenced production after the abandonment of the tax free exports

policy. What needs to be addressed is the question of whether some form of comparative advantage is resulting in the emergence of an industry which is viable in the long run, or whether the presence of these companies is a reflection of government-sponsored economic policies and locational factors dependent on the maintenance of policies amiable to transnational capital.

It is thus essential that a more detailed overview of the foreign sector is undertaken. This will enable us to assess the long run implications for the sector and will yield some pointers for industry in general. On the basis of the available data the performance of these companies will be examined with respect to the following 5 factors:

1. The degree of marketing control enjoyed by foreign companies in the Irish automotive industry.
2. Linkages with the local economy, i.e. break-down between inputs bought locally and inputs imported.
3. Extent and nature of research and development activities performed in Ireland.
4. Profile of the nature of the employment which has been created.
5. Cost associated with the active promotion of the automotive industry in Ireland.

## 5 7 ANALYSIS OF THE FOREIGN SECTOR OF THE INDUSTRY:

### 5 7.1 Degree Of Marketing Control

As was noted previously, the local assemblers in Ireland were constrained by agreements they had with the manufacturers which prevented the possibility of exports as

they received only enough ckd units to supply the local market.(54) It is necessary to investigate the extent to which the present subsidiaries are limited to certain markets as a result of decisions made by their parent companies. A lack of export diversity is sometimes viewed as an indication of the dependent nature of foreign controlled industrialization, whereby the autonomy of the local "branch plant" is severely curtailed by policy decisions made at company headquarters. The greater the number of locations to which a subsidiary exports, the greater is the likelihood that the local company has a more independent role within the corporation's structure.

TABLE 5.12

Foreign Firms Exporting To 1,2, 3  
And 3+ Locations 1985

Export Locations	Value Of Exports £	No. Of Companies	% Of Firms
1 Location	33.36m	31	34%
2 Locations	4.39m	4	4%
3 Locations	21.20m	25	27%
3+ Locations	189.70m	32	35%

Source: Engineering Division IDA in response to questionnaire designed for this project.

Table 5.12 which refers to the IDA sample, indicates that although 65% of firms export to 3 locations or less, including 34% to only 1 location, the 35% of firms which export to more than 3 locations account for about 75% of the total value of exports. The implication of this finding is that foreign subsidiaries in the Irish industry have a significant amount of scope with respect to where they are allowed to export their output. Therefore one might expect to find a substantial amount of marketing activity in these firms.

TABLE 5.13

Degree Of Marketing Control Of Firms In The CTT Group

	No of Firms
No Marketing Control	9
Limited Marketing Control	5
Extensive Marketing Control	12

Source: Automotive Components Section CTT.

In Table 5.13 the CTT list of component exporters are grouped in accordance with the degree of marketing control (i.e. the extent to which they have sole responsibility for export locations) experienced by these firms. While 40% of firms had no marketing control, 16 companies or 60% of the group enjoyed some form of marketing control. Of the 11 firms listed as having extensive marketing control, 3 held control for the U.K. and Scandinavia, 2 held marketing control for Europe, 2 held control for the world except Germany, 1 held control for the world except the USA and 3 held what was termed full marketing control. CTT believe that the degree of marketing control will generally be extended over time if the performance of the Irish subsidiary is judged to be satisfactory by the parent company. (55)

5 7.2 Linkages With The Local Economy:

Irish industrial policy has tried to develop business relationships between the TNCs which have been established in Ireland and domestic firms which could act as suppliers to them. In view of the extensive attention which the IDA and CTT have devoted to the development of the automotive

sector, based largely on the encouragement of overseas investment, it is worthwhile to examine the extent of integration with respect to backward linkages exhibited by these overseas companies.

TABLE 5.14

Sourcing Of Inputs In Automotive Sector 1985

	Inputs Sourced Locally	Inputs Sourced Abroad
Indigenous Firms	73.9%	26.1%
Foreign Firms	3.35%	96.65%

Source: Engineering Division IDA in response to questionnaire designed for this project.

Table 5.14 which refers to the IDA group of companies, shows the sharp contrast between the foreign and domestic sectors in relation to the local sourcing of inputs. Notwithstanding the difficulty faced by foreign firms of obtaining quality local inputs, the figure for this sector is extremely low. For example, as far back as 1974, foreign owned companies in the non-food sector sourced on average 11.2% of all inputs locally.(56) Also, in Metals and Engineering in the late 1970s, foreign firms purchased over 8% of their inputs in Ireland.(57) The low propensity to source locally recorded in Table 5 14 should be a major cause for concern.

5.7.3 R & D And Marketing Facilities:

The Review of Industrial Performance 1986 recommends that in future, priority must be given to encouraging foreign projects which locate key competitive factors in Ireland.(58) In many cases significant marketing and R & D capabilities will be crucial to long term success although

in certain instances the key function may be optimal scale, and technology manufacturing. The motor industry at present is characterised by a keen interest in initiatives that either reduce cost or add value.

This trend has given rise to an opening for the application of new technologies in areas such as new materials, electronics, turbo charging and high speed tyres. In particular, the move to control emissions in Europe will create a demand for improved carburettors and fuel injectors, better ignition systems, sensors to monitor oxygen levels in the exhaust gasses and better exhaust systems. In addition, the use of plastics and ceramics is set to grow substantially in the coming years. Under these conditions R & D is crucial to the continued expansion of automotive component manufacturers. The presence of R & D and marketing functions is considered important as this will deepen the roots of these companies in the Irish economy as well as providing highly skilled employment.

TABLE 5.15

R & D And Marketing Facilities In Irish  
Automotive Sector 1985

	No. of Firms
Marketing and R & D	17
Marketing (Only)	48
R & D (Only)	3
No Marketing and no R & D	29
TOTAL:	97

Source: IDA Engineering Division in response to questionnaire designed for this project.

Table 5.15 reports the findings of a survey done for this dissertation of 97 firms in the IDA group and shows that some form of marketing is practised by approximately 65% of

companies in the study. However, in 1985 only 21% of the firms were found to be engaged in any form of research and development. Furthermore 29 of the firms surveyed have neither R & D or marketing facilities of any kind. Since it is possible that this group might be composed of those firms accounting for the bulk of output and employment, i.e. the foreign firms, we need to relate the findings in Table 5.15 to output and employment.

TABLE 5.16

Proportion Of Output And Employment Related To Marketing  
And Research And Development Automotive Sector 1985

Proportion of Firms Involved In	Value & Proportion Of Output	No. & Proportion Of Employment
Marketing & R&D (17%)	£126m (48%)	2,800 (37%)
Marketing Only (49%)	£ 69m (27%)	2,200 (31%)
R&D Only (4%)	£ 13m (5%)	400 (5%)
No Marketing/ No R&D (30%)	£ 52m (20%)	2,000 (27%)
TOTAL OUTPUT	£260m	TOTAL EMPL. 7,400

Source: Engineering Division IDA in response to questionnaire designed for this project.

Table 5.16 shows that the 68 firms which all have some form of R & D or marketing functions account for 80% of output and 73% or 5,400 of those employed in the sector. In fact the 17 firms which have both marketing and R & D control almost half the sector's output and 37% of the employment. It is fair to conclude that production is not concentrated in the hands of those companies who are devoid of R & D and marketing capabilities. But it should be kept in mind that the mere presence of activities classified as research and development or marketing gives no guarantee that the facility is of any great importance. As noted in Telesis, company research and development can cover "engineering work

on a new design for the switch which turns the machine on or off for the European markets, or it can involve systems architecture".(59)

#### 5.7 4 Profile Of The Nature Of Employment Created:

The view has been expressed that those employed in the traditional assembly industry were considered a relatively highly skilled and well paid section of the Irish working class.(60) In contrast, much of the new industry would appear to provide job opportunities requiring, on average, less skill; tending to be oriented in the direction of less expensive female labour.(61)

An estimate of the numbers employed during the middle of the 1970s, for various job classifications in the assembly industry is shown in Table 5.17. Apart from maintenance craftsmen who accounted for approximately 5% of those employed, operatives in the car assembly industry did not serve an official trade apprenticeship. However, unskilled operatives were trained in plants to undertake one or more tasks.

TABLE 5.17

#### Profile Of Employment In Car Assembly Industry 1976

Skill	No. Employed	%
Spot Welder	195	9
Metal Finisher	195	9
Spray Painter	216	10
Assembler	1,081	50
Storeman	259	12
Unskilled Labourer	108	5
Maintenance	108	5
TOTAL	2,162	100

Source: Report to Secretary of the Prices Commission 1976.

Operatives were not considered fully skilled until they had worked in the plant for one year. Although the assembly operatives generally worked in one area of the plant, there was a high degree of flexibility and operatives could be shifted from one task to another without difficulty. Therefore, it can be concluded that the assembly industry provided employment which was constituted predominately of skilled and semi-skilled labour.

Table 1 of the 1983 Census of Industrial Production indicates that for a total of 5,132 persons employed in NACE category 35, only 298 were female, most of whom were clerical staff.(62) Therefore, the areas of production covered by this category have been almost exclusively the preserve of male employment.

It has not proved possible to obtain figures covering the breakdown of employment by skill and sex for the new automotive component manufacturers. But, arising out of numerous interviews with people involved in the sector, some inferences about the likely structure of the workforce can be made. Although it is impossible to state categorically that the work performed in the new plants has a distinctly lower skill content, it is most certainly true that current skills are less recognized than those prevailing under assembly. It was a common belief that the nature of employment in much of the new industry, as in the burgeoning electronics sector, was congenial to a female workforce. For example, Kromberg in Waterford have a high proportion of females in their workforce. It was also argued that many of the redundant assembly workers who subsequently obtained replacement employment in component manufacturing, had difficulty adapting to the new work environment.(63)

The assembly industry was characterized by a long tradition of high wage levels under conditions of protection. The new component manufacturers, on the other hand, exist in a free

trade environment in the midst of increasingly intense worldwide competition. It was noted in Chapter 4 that while wage levels in the terminal industry seem to be relatively unimportant, it is far more likely that labour costs are of significance in relation to component manufacture. It is interesting to examine the trends in average wages between assembly and component production.

Because the component manufacturers do not form a distinct NACE category it is not possible to obtain an official estimate of the average level of wages in this sector. However, expenditure surveys on a number of product categories are conducted by the IDA. This analysis of manufacturing industry contains information on "wage cost per employee" for the product sectors investigated (see Appendix V of the 1983 survey). The IDA agreed to provide information which was based on a survey of two separate groups of companies in the automotive industry (see Appendix D). Group A covered a survey of 16 firms, the majority of which were subsidiaries of TNCs, although the list may have included some bodybuilders/car assemblers. Group B was composed of 5 firms from the specialist vehicle sector and the manufacture of components for the transportation industry.

The average wage cost per employee in the 21 product sectors contained in Appendix V of the 1983 expenditure survey was calculated at £10,064. On the basis of the information provided by the IDA, the average wage costs per employee were estimated to be £8,155 and £7,399 for groups A and B respectively in 1983.

### 5.7.5 Cost Associated With Promotion Of The Sector:

Jacobson has stressed the importance of grant and taxation incentives to the development of the components industry in Ireland.(65) Information collected from various IDA Annual Reports contained in Appendix 5 relates to 32 firms from the foreign sector who received new industry grants up to and including 1983. As of 1983, total payments allocated to firms in designated and non-designated areas (66) stood at £18,759,818 and £20,206,000, respectively. By 1983 the total amounts of allocated funds actually paid out, was £10,659,199 in designated areas and £10,972,079 to firms in non-designated areas. This group accounted for 9.7% of all new industry grant payments to firms in designated areas; and 2.8% of all payments in non-designated regions for 1983. In addition, a number of firms such as Siseir, Eurosil, Rubber Mountings Ltd. and Eline Ltd., have received payments from the Small Industries Programme. Also, relatively small amounts have been paid out to a number of component manufacturers under various other IDA schemes such as Enterprise Development Programmes, Product and Process Development grant payments and interest subsidies.

CTT have provided information relating to 13 firms (in Appendix 5E) showing the number of jobs that have been created in these companies as of 1985. By combining this information with the data on IDA grant payments it is possible to construct rough estimates of cost per job in this sector. Two methods are used. The first approach calculates the cost per job on the basis of total grants approved in relation to the firms in the sample. The second method uses total grants paid out by 1983 to calculate a cost per job figure.

On the basis of total grants allocated the cost per job works out as £6,581 and on the basis of grants paid by 1983 it is £4,024. This compares favourably with estimates for other sectors. For example, Mechanical Engineering £6,283, Plastic Products £8,969 and Chemicals £9,341,(67) are

estimates of grant costs per job which are all greater than the sample of CTT automotive component exporters. It must be pointed out that the exclusion of one firm, i.e. Packard, from the sample entails an upward revision of the cost per job estimate.

## 5.8 CONCLUSIONS

The structure of the Irish motor industry in a period of 10 to 15 years has undergone a remarkable change. From an operation designed to maximise the local input of assembly of ckd units, it has become an industry based primarily on the manufacture of automotive components for export. The numbers employed and the output of this industry varies depending on the definition one uses. Sources such as the Society of Irish Motor Industry, would argue that by 1987 the numbers employed had reached nearly 4% of the total manufacturing workforce with output approaching £300m.(68)

These figures, which concur with IDA statistics, utilise a very liberal definition of what constitutes the automotive components industry. From the perspective of attempting to identify a distinct sector for the purpose of meaningful analysis more precise definitions need to be used. One needs to look at the individual sub-sectors because each will have different potential for future development. In this respect the CTT approach which clearly identifies a group of companies exporting components to terminal producers is to be preferred. It is difficult if not impossible to analyse and design policy if the area of study is not free from ambiguity.

Disaggregation in this study took place along two dimensions. Firstly, an attempt was made to sub-divide the industry to give a clearer picture of what was going on and what actions may be needed to remedy potential or existing faults. The most urgent requirement with respect to the industry is to achieve closer links between Irish industrial development agencies. This will help eliminate wasteful

overlap and hopefully lead to a consensus of what should constitute a distinct sub-sector. Secondly, a differentiation was made between the foreign and domestic sectors which indicated an alarming discrepancy in terms of output, employment and export orientation between indigenous and overseas enterprises.

It was demonstrated that the core of this industry were groups 4 and 5 whose firms were almost exclusively highly export oriented subsidiaries of American and European TNCs. There is little evidence to suggest that these firms are from the "cutting edge" category supposedly favoured by the IDA in recent times. In particular, the low level of linkages with the domestic economy is somewhat alarming. In 1985 inputs sourced locally by foreign firms were just above 3%. This is significantly below levels of sourcing associated with the assembly industry in the 1970s.(69) The relative importance to Irish manufacturing that this group represent, warrants a determined effort to maximise the potential benefits to the Irish economy. Perhaps what is required is the extension to the National Linkage Programme to these firms in conjunction with the parallel development of a native sub-supply industry.

In keeping with the findings for the electronics industry, the foreign firms in this sector appear to have made only limited moves towards locating in Ireland the key central business activities. The encouraging features reported above in relation to marketing and marketing control need to be treated with caution. When one considers that there is a relatively small number of potential customers for firms in the CTT group in particular i.e. the main terminal producers, then it is likely that the marketing function will tend to be centralized involving a small number of people who are close to the core of the parent company.

Because of the relatively small size of some of these companies this function may be performed by one individual. If this person takes control of the Irish subsidiary the marketing function may be listed as being located in

Ireland. In reality, however, this function rests not with the location but with the individual and as such is dependent on their domicile in the country. It is unlikely that most firms are following the path of Donnelly Mirrors (a wholly owned subsidiary of Donnelly Mirrors Incorporated, Holland, Michigan), which enjoys extensive autonomy for the entire world outside of the U.S.A., and has successfully penetrated the Japanese and Eastern European markets.

The findings relating to the incidence of R & D activities are somewhat disappointing. In recent times, the manufacture of car components has been characterized by increased spending on research and development and setting up or expanding research facilities. According to a survey by the Japanese Auto Parts Industry Association of 112 companies between 1977 and 1981 R & D spending grew by 78% and the ratio of research and development spending to sales was up from 1.9% to 2.1%.<sup>(70)</sup> As with foreign industry in general the incentive for component manufacturers in Ireland to conduct extensive R & D is extremely limited. Most firms have based their investment decision on anticipated locational advantages. In the modern component industry the important variables are quality, cost, speed of delivery and reliability.

The various incentives and the well educated workforce have made many of the Irish component manufacturers competitive by international standards. For example, in 1986 Kostal's Abbeyfeale plant, producing electrical relay and circuit systems mainly for Mercedes and BMW was operating at an efficiency level 15-16% above that of its German parent plant.<sup>(71)</sup> However, there is little indication that more firm roots are being laid down for the future which may not be bright when grant and tax concessions expire.

The Irish industry may lose out in the future if these TNCs, (when present products become obsolete) decide to switch the **production of new components to more favourable locations**. A good example of this is the manufacture of wiring harnesses. Many experts believe that advances in technology will lead

to a drop in the demand for this product which in many respects forms the backbone of the entire Irish automotive industry. For example, in 1985 in the CTT group of exporters, the manufacture of wiring harnesses in two main locations accounted for almost 50% of employment in this group. It may transpire that firms such as Packard, who have experienced industrial relations problems in recent times may decide against making substitute products in Ireland in the future.

Since 92 of the 97 firms in the industry in 1985 were involved to varying degrees with exports (see Table 5.12), support is found for Foley's claim that the majority of domestic enterprises sell at least part of their output in overseas markets. The Irish firms are concentrated in groups 2 and 3, and notwithstanding a few exceptions, they are weak enterprises oriented towards the domestic market. Participation by native firms in groups 4 and 5 has been negligible and it is doubtful whether the continuation of past policies will yield more than a token contribution to output and exports in this area. The necessary original R & D for entry into the international automotive components industry has not (and most likely will not) occur within the present structure. Technological innovation must be an important part of attempts by Irish manufacturers to establish footholds in the components industry and, sadly there does not seem to be evidence of potential for this type of breakthrough. The development of native component manufacturers, capable of competition on the international market, is an onerous task. Perhaps it is not a realistic objective, for if it were to be attempted, as is the case with many other sectors of Irish industry, it could not be achieved without considerable state backing

## **CHAPTER 6**

## CONCLUDING ARGUMENTS

### 6.1 Introduction:

In recent decades, an ostensibly neo-classical view has emerged as the dominant establishment position in development economics. Concepts immersed in the tradition of international economics have tended to supplant the opinions of earlier economists nurtured in an environment more conducive to state involvement. This has found widespread receptiveness among policy makers in late industrializing nations and this has been expressed in such trends as that towards greater privatization.

Neo-classical practitioners contend that the most appropriate role for the state is to create the proper medium in which market forces can realize the optimal allocation of resources. It was decreed that the adoption of outward-looking policies, uniformly across all industries, represented the most effective approach to industrial development for LICs. Taken together, the evidence of the preceding chapters calls into question key elements of the neo-classical argument.

For example, most neo-classicals seem to believe that market failure exists only in isolated and rather inconsequential cases or does not exist at all.(1) They consider that by responding to market signals, industry will turn in the direction of efficient production capable of quickly reaching international levels of competitiveness. But as Pack and Westphal have demonstrated, reliance on neo-classical policies can often lead to market failures retarding investment and causing growth in manufacturing to be both slower and less efficient.(2) Imperfections in the market also lead to constraints on the private sector's ability to acquire the technical and marketing wherewithall necessary to achieve and sustain international competitiveness. The evidence surveyed in the earlier chapters suggests that infant industries in LICs encounter

special problems when attempting to enter markets dominated by companies from advanced nations.

To compensate for the perceived failure of outward looking policies, certain economists have advocated a more pervasive interventionist role for government. They believe the state should identify strategically important sectors, and promote them through selectively targeted price denominated policies and/or more direct forms of intervention.

## 6.2 INDIRECT (PRICE-DENOMINATED) SELECTIVE INTERVENTION:

This form of selective intervention covers mechanisms that operate indirectly by influencing market allocations. Such an approach is indicative of discrimination by the state in favour of industries deemed worthy of protection. This might include the introduction of selective tariffs and/or import quotas aimed at fostering the growth of indigenous producers. For example, in South Korea during the Park era, initial rates of effective protection for specially selected sectors were frequently in excess of 100%.<sup>(3)</sup> Another variation on this theme is the application of what have been referred to as selective 'market reserve' policies where discriminatory policies defend domestic producers' market shares.

Since the late 1970s market reserve policies have been an important contributory factor in the growth of Brazil's informatics industry. Between 1979 and 1985 some 200 domestic companies employing 18,000 people increased their share of an expanding market from 22% to 51%. This growth was achieved at the expense of such American giants as International Business Machines and the Burroughs Corporation.<sup>(4)</sup> Discriminatory policies were instrumental in holding the market shares of these TNCs in check. Proponents of market reserve strategy argue that it is essential to Brazil's "scientific and technological development".<sup>(5)</sup>

Nonetheless, these methods of selective intervention find little favour with free marketeers. They believe that the presence of a captive market only serves to accentuate the standard import substitution inefficiencies. But advocates of this form of intervention are convinced that any anti-export bias inherent in these policies can be counterbalanced by persuasive inducement. Thus, producers are left in no doubt, that the ultimate objective is the attainment of international competitiveness. In the case of South Korea export performance has been the principle yardstick for measuring progress towards this goal. Infant industries have been expected to begin exporting very soon if not immediately after they commenced production.(6) This is in stark contrast to the classic import substitution stance adopted in the past by Argentina, Ireland, Spain, etc.(7)

The successful development of a motor vehicle assembly / manufacturing industry, capable of reaching levels of international competitiveness is not unrelated to protection of the local market.(8) In both Japan and South Korea, local producers during the formative stages were jealously guarded from the effects of foreign competition. This enabled producers to secure an adequate market for their output, and a satisfactory rate of return on investment which provided a foundation from which to launch incursions into overseas markets. It has been argued that in the case of Hyundai, exports of the Pony were effectively subsidised by lucrative sales in the domestic market.(9)

### 6.3 DIRECT METHODS OF SELECTIVE INTERVENTION:

Direct methods of selective intervention may be used to supplement or reinforce indirect measures, or independently when it is not feasible or permissible to implement indirect methods. The ways that the state can engage in direct selective intervention include the following: firstly, the government may become directly involved in the allocation of working capital and investment finance to specified parts of

the private sector. This may involve the allocation of grants or the provision of low interest loans to selected industries. This will facilitate a greater flow of investment into these areas than is likely to occur under free market conditions. In addition the state can ensure that institutions specializing in international marketing and the promotion of technical innovation are closely attuned to the particular requirements of selected sectors.(10)

Secondly, by pressing for the formation of groups or consortiums of firms the government can mould strong market agents. Incentives, or perhaps when required legislation, will help to encourage the consolidation of a number of smaller enterprises into larger conglomerates.(11) Thirdly, where inducements or coercion fail to elicit the desired response from the private sector, the state may decide to set up a public enterprise in the form of a joint venture with a private firm or a fully owned state company. It is imperative that any such enterprises be established as profit seeking concerns that operate independently of the state bureaucracy.

Many LICs have experienced significant amounts of direct government intervention in manufacturing industry. In general, such encroachments by the state do not inspire confidence in the ability of the government, acting as an economic agent, to furnish a positive contribution to the cause of industrialization. Free marketers are quick to argue that various economic woes afflicting LICs are attributable to a preponderance of state activity. It was not state intervention per se that caused problems, but the fact that it was haphazard and unplanned

A case in point is the Instituto Nacional de Industria (INI) in Spain. This institution was formed by the Franco regime in 1941 to promote industrial development, and to ensure a state role in strategic sectors. It has been pointed out that the pattern of its company ownership and sector control defied economic logic:(12)

"The intention of being a catalyst for industrial development was consistently tempered by the fear of alienating the main private companies. There was never a guideline for minimum or maximum involvement in any one sector. It was rare that INI owned companies completely unless it had been obliged to buy loss making companies from the private sector".(13)

Over the decades INI has emerged as a dominant feature on the Spanish economic landscape. Yet for all its weight it has been unco-ordinated and unwilling to use its authority. In essence, INI was used as a golden dustbin by the private sector.(14) During the Franco regime, INI was neither poorly staffed nor badly managed but it was constantly deflected from its objectives.(15) The private sector has cynically cultivated an image of INI as a deficit-ridden swallower of tax payers' money. In reality much of this deficit arose out of INI's obligation to assume responsibility for operations private enterprise had placed on its doorstep. This image persisted into the 1980s, even though the organization was radically altered.(16)

Finally, the state may intervene selectively with respect to policies governing the inflow of foreign capital and technology. Regulations restricting the activities of foreign enterprise were common in LICs during the import substitution era. However, the neo-classical blueprint decreed that the free flow of capital and technology was a necessary prerequisite for self sustained economic growth. In particular this strategy is assumed to offer the best means of transfer of badly needed technical knowhow from more advanced countries to the periphery. In this respect, neo-classicals perceived the activity of TNCs to be a vital factor in the breakthrough of LICs into more complex areas of production. The bulk of the evidence presented in the above chapters tends to point in the direction of extensive technological dependence with respect to most LICs. It

appears that the elements of technology are not perfectly tradable.(17) Therefore, since the pursuit of technological autarky is not advisable in all cases, selective intervention can offer the best chance of exploiting the gains available from international trade in technology.

For instance, the approach adopted by South Korea involved a significant departure from the neo-classical paradigm. During the Park era DFI inflows as well as transfers of proprietary technology, were subject to licensing control.(18) Therefore, in much the same manner as Japan the Korean government were involved closely in a screening process which facilitated a more optimal allocation of foreign capital and diffusion of technology than would have transpired under the aegis of neutral policies. Richard Luedde-Neurath concludes his study on DFI in South Korea as follows:-

"The view is taken that Korea was essentially on the right track when it screened, restricted and controlled FDI, thereby integrating it into its wider development strategy, and that the development of Korean firms may owe much to precisely such directive state interventions".(19)

In the absence of state guidance long term benefits may have been ignored because local investments in technological effort would have been viewed as sub-optimal by private agents. In the case of Hyundai, for example, the least cost short term decision by the company would have been to concentrate exclusively on producing licensed designs. It is quite likely the company would have followed this approach rather than develop its own technology had it not been for the keen interest shown by the state.

In general, the evolution of motor industries in LICs is not marked by abundant indigenous technological growth. Local innovations have largely been limited to minor modifications that cater for domestic tastes. But as Jenkins correctly

points out, this process occurs within subsidiaries of TNCs and is therefore appropriated within the global network as distinct from the local economy.(20) Even locally owned or controlled enterprises are likely to continue to be heavily dependent upon outside assistance:

"The small size of such producers by the standards of the worldwide operations of the TNCs, means that their R & D expenditures are on much too small a scale to keep pace with developments at the international level.(21)

#### 6.4 CAN SELECTIVE INTERVENTION BE PRACTICED EFFECTIVELY?

It could be argued that governments should depart from standard neo-classical practice. But the perennial question asked by critics is: Is the state invested with the necessary wherewithall and expertise to handle the tools of selective intervention successfully? It is fair to conclude that a great deal of uncertainty surrounds the process of selective intervention. Indeed, the ability of the state to intervene selectively cannot be automatically assumed, and as Pack and Westphal point out, most governments appear to lack the required capabilities.(22) Moving this difficulty to one side for a moment, it can be demonstrated that 3 essential prerequisites underlie effective intervention.

Firstly, the over-riding objective behind selective intervention should be the attainment of international competitiveness within a specified time period. Pertaining to this, in South Korea during the Park era the state left the affected parties in no doubt that subversion of policy instruments into rent seeking activities would not be tolerated:

"You who are engaged in exports will have to cease relying too much on government support. Instead you are urged to increase your self help effort in full cognizance of the fact that export promotion after all depends on your own initiative."(23)

This is indicative of a view which sees markets and governments as having complementary roles in industrialization. Markets are adept at dealing with the economic complexity one associates with industrialization, but markets suffer from imperfections. Therefore, governments may have to intervene to achieve an efficient outcome.(24)

Secondly, selective intervention must be just that, "selective". Scarce resources must not be spread thinly across a wide area, but rather should be concentrated in key strategic sectors. For example, the costly mistakes made by the South Korean authorities are at least partly the result of the decision to promote too many industries at once. Because selectivity was limited, scarce technical and entrepreneurial capability was spread thinly over too many infants.(25) With respect to protection it has been pointed out that the less widespread the support, the less the exchange rate becomes overvalued and discrimination against exports is kept to a minimum.(26)

Thirdly, optimal efficiency is contingent upon the government's capacity to fine tune what has been termed its "collective" or "integrated" decision making capabilities.(27) The introduction and monitoring of overtly selective instruments is a necessary but not a sufficient condition for effective intervention. An integral part of the process is the government's adeptness at performing the role of a central agent facilitating the exchange of information between firms. The threat of coercion should be kept in the background and used only as a last resort. The goal of policy is the building of a working consensus between the various agents likely to be affected by intervention. To this end integrated decision making ought to be imbued with flexibility. Decisions must

be closely monitored and initial strategies altered on the basis of market and technical data being obtained as the procedure unfolds.(28)

Failure to mould policies in accordance with the above guidelines is certain to affect the overall potency of intervention. In light of the difficulty most countries are likely to face fulfilling these conditions, even proponents caution that extreme care must be exercised before an aggressive policy of selective intervention is embarked upon.(29) Sceptics believe that more pervasive state action runs the high risk of inducing industrialization only at the cost of creating a 'bastion of economic irrationality and political authoritarianism'.(30)

While there may be some truth in this argument the evidence suggests that strictly outward-looking policies have failed to accelerate the accumulation of domestic skill and capital. The LICs are therefore faced with the task of devising policies that incorporate elements of both market and intervention. As Luedde-Neurath so correctly points out, governments of developing countries are faced with a difficult decision, they are "damned if they intervene but also if they do not intervene".(31)

#### 6.5 IRISH INDUSTRIAL STRATEGY AND SELECTIVE INTERVENTION:

Chapters 2 and 5 elucidate two inherent shortcomings associated with Irish industrialization: firstly, failure to occasion the development of strong indigenous exporters, and secondly, inability to maximize economy wide diffusion of the benefits from the influx of TNCs. Against this background, pockets of support emerged in favour of a more pervasive role for the government in developing industry. In particular, a minority view among Irish economists has taken root which believes Ireland can learn from the South East Asian experience of selective intervention. However, the formulation and implementation of a coherent set of policies concerned with selective intervention in Irish industry still faces stiff opposition.

Firstly, the prevailing socio-political ethos in Ireland is infused with a distaste for any form of direct state involvement in industry. Mainstream politicians and economists have expended considerable energy assiduously cultivating an image which links state intervention with gross inefficiency. They argue that the inescapable consequence of government involvement is the flowering of "revenue guzzling white elephants". These ideological perspectives are so deeply entrenched, that many forms of potentially effective selective intervention are likely to be dismissed or placed to one side to gather dust. Illustrative of this problem was the successful attempts by conservative forces to neutralize the powers of the National Development Corporation. When NAD Corp was eventually established in June 1986 the original intentions of its proponents were largely over-ruled. Instead of a potent state vehicle for direct investment in industry what emerged was a poorly funded provider of equity capital without any explicitly defined function.

Secondly, even if the political will was to manifest itself, the state development apparatus as presently constituted is likely to frustrate any co-ordinated attempt at selective intervention. For instance, the capacity for integrated decision making central to the process of selective intervention is absent from development institutions.(32) Corresponding to the policy change of the late 1950s was a transfer of power away from the state departments to newly formed bodies. It is argued that these "quasi-independent" state institutions comprise part of a comprador elite to transnational capital.(33)

For many years the state was content to control the purse strings and to observe from a distance, as institutions such as the IDA devised a stream of incentives aimed at encouraging foreign and domestic private enterprise. The main objective appears to have been the stimulation of as many new start-ups as possible with scant regard for the medium and long term consequences. Furthermore, at no stage

did the state or state development bodies display any overt interest in attempting to direct investment in the direction of pre-determined targets. Notwithstanding current attempts at re-organization and greater selectivity, in the absence of a concerted attempt to enhance the state's powers of 'integrated decision making', effective selective intervention will not be achieved.

Thirdly, Ireland's continued membership of the EEC solidified since ratification of the 1987 Single European Act limits the options of the state in relation to selective intervention. Many of the instruments discussed above are broadly incompatible with community philosophy regarding free trade, competition policy and state aid to industry. For example, agents adversely affected by discriminatory government policies are likely to draw the Commission's attention and have the legality of the policy investigated. However, some room for manoeuvre exists both within the context of grey areas in current regulations and through attempts - perhaps in conjunction with fellow peripheral members - to influence the course of future EEC industrial policy.

Government agencies should co-ordinate co-operative research and development agreements between selected groups of companies.(34) Greater priority must be given to the promotion of technology transfers between transnational corporations and local manufacturers. Over the last 25 years the incidence of joint ventures and/or licensing agreements between domestic and foreign industry have been disappointing in the extreme. For this reason the technology and joint venture programme introduced by the IDA is a welcome development. So far a total of 62 technology transfer agreements were signed by Irish companies with overseas partners in 1986, including 32 joint ventures and 32 licensing arrangements.(35)

With respect to automotive components in particular it has been argued that parts producers should undertake joint R & D ventures with material manufacturers or electronics

companies.(36) In relation to the Irish situation that the government is afforded the opportunity to forge links between local firms and foreign subsidiaries. The state would have to be prepared to invest in research facilities, and use whatever incentives or interventions necessary to bring the parties involved together.

## 6.6 CONCLUSION

This dissertation looked at aspects of theory and policy concerning industrial development in Ireland and a selected group of LICs. Chapter 1 outlined the theoretical background to the debate on industrial development policy. It was shown that the dominant neo-classical position advocating outward-looking industrialization diverged sharply from those economists favouring greater state intervention.

Chapter 2 surveyed the literature on Irish industrial policy and development. Support was found for the argument which considers outward-looking policies to have failed in the task of developing a strong indigenous traded sector. Moreover in Chapter 3 it was concluded that the promotion of a vibrant domestic manufacturing base in LICs requires a departure from neo-classical thinking.

In LICs, the emerging motor industry's dependency on foreign capital and technology was described in Chapter 4. It was argued that the ability of domestic producers to compete in international markets was conditional upon active intervention by the state. In Ireland subsidiaries of TNCs have played an important role in the development of both motor vehicle assembly and automotive component production. Chapter 5 concluded that the automotive components industry suffers from a number of the shortcomings often associated with foreign dominated sectors of Irish manufacturing.

Notwithstanding the dangers linked with government involvement in the process of industrial development

selective state intervention can yield beneficial results. However, the successful management of selective intervention may not be easily attained. For example, many of the measures used with apparent success in South East Asia will not be appropriate in an Irish setting. Nonetheless future policy making must provide for positive government involvement. This is essential if domestic producers are to secure a share of now elusive foreign markets.

**NOTES**

## NOTES CHAPTER 1

1. Howard Pack and Larry Westphal, 'Industrial Strategy and Technological Change', Journal of Development Economics, Vol. 22, No. 1, 1986, p.88.
2. World Bank, World Development Report 1987, (Oxford University Press, 1987), p 69.
3. See Eoin O'Malley, 'The problem of Late Industrialization and the Experience of the Irish Republic', Cambridge Journal of Economics, Vol. 9, No. 2, 1985, pp.141-154.
4. Ibid., p.141. Also Eoin O'Malley, 'The Problem of Late Industrialization', unpublished typescript, 1986, pp. 9-11.
5. Ibid., p.9
6. Ibid.
7. David Evans and Parvin Alizadeh, 'Trade, Industrialization and the Invisible Hand', Journal of Development Studies, Vol. 21, No. 1, 1984, p.12.
8. Peter Dicken, Global Shift: Industrial Change in a Turbulent World, (Harper and Dow, London, 1986), p.139.
9. Rhys Jenkins, 'Internationalization of Capital within the Semi-Industrialized Countries: The Case of the Motor Industry', Review of Radical Political Economics, Vol. (1/2)· 59-81, 1985, p.71.
10. I. Little, T. Scitovsky and M. Scott, Industry and Trade in some Developing Countries: A Comparative Study, (Oxford University Press, London, 1970), p' 39.
11. Bela Balassa, 'Prices Incentives and Economic Growth', in B. Balassa and H Giersch (Eds.) Economic Incentives, (MacMillan, London, 1986), pp.17-18.
12. John Williamson, The Open Economy and the World Economy, (Basic Books, New York, 1983), p.264.

13. O'Malley, 1986, op. cit., p.10.
14. See for example Gerald M. Meir, Leading Issues in Economic Development, Third Edition, (Oxford University Press, York, 1976), pp.370-374.
15. See Charles Kindleberger, American Business Abroad: Six Lectures on Direct Investment, (Yale University Press, New Haven, Conn., 1969) and C. Kindleberger, The International Corporation (MIT Press, Cambridge, Mass., 1970).
16. Williamson, op.cit, p.166.
17. Ibid., pp.261-162.
18. Bela Balassa, 'Exports Policy Choices after the 1973 Oil Shock' Journal of Development Economics, Vol. 18, No. 1, pp.32-34.
19. World Development Report, op.cit, p.85.
20. Ibid.
21. Pack and Westphall, op.cit, p.90.
22. This is the conclusion of a number of economists such as O'Malley, Pack and Westphall and Evans and Alizadeh.
23. Pack and Westphall, op.cit, p.102.
24. See the preface of the Telesis Consultancy Group, A Review of Industrial Policy, (National Economic and Social Council, Dublin, 1982). Hereinafter, Telesis Report.
25. Ibid.
26. The concept of late industrialization as opposed to more common terms like semi-industrialized or newly industrialized, incorporates the notion of "uneven development of capital". It explicitly takes account of the difference it makes to be developing in an advanced capitalist world rather than any other system.

27. United Nations Industrial Development Organization,  
The International Reconstruction Process: The EEC,  
The European Periphery and Selected Developing  
Countries, (UNIDO, New York, 10 December, 1982),  
p 109.
28. World Development Report, op.cit., pp.69-83.
29. Ibid., p.83.

## NOTES ON CHAPTER 2

1. Denis O'Hearn, 'Free Trade Ideology, The Planning Myth and Export Led Industrialisation in Ireland', paper prepared for the Annual Conference of the Sociological Association of Ireland, Trinity College, Dublin, April 1986, p.1.
2. Eoin O'Malley, 'The Problem of Late Industrialization and the Experience of the Republic of Ireland', Cambridge Journal of Economics, Vol. 9, No. 2, 1985, p.144.
3. Garret Fitzgerald, 'Planning in Ireland', in J. W. O'Hagan (ed.), The Economy of Ireland, Third Edition, (Irish Management Institute, Dublin, 1984), p.14.
4. O'Malley, op.cit., p.144.
5. Fitzgerald, op.cit., pp.214-15.
6. O'Hearn, op.cit., p.14.
7. T.K. Whitaker, Economic Development, (Stationary Office, Dublin, 1958).
8. Fitzgerald, op.cit, p.15.
9. O'Hearn, op.cit., p.3.
10. Ibid., pp.3-4.
11. Ibid., p.5.
12. In certain respects special efforts by the IDA to encourage specific sectors is more interventionist than the neo-classicals would like. However, it is difficult to see any evidence of 'selective intervention' as outlined in Chapter 1.
13. O'Hearn, op.cit., p.13.
14. Eoin O'Malley, Industrial Policy and Development: A Survey of Literature from the early 1960s, (National Economic and Social Council, Dublin, 1980), p.13.

15. Telesis Report, p.172.
16. O'Malley, 1980, op.cit., p.28. This view sees Irish planning as a process which merely outlined objectives without describing how they were to be attained.
17. National Industrial and Economic Council, Report on Economic Planning, (Stationary Office, Dublin, nd), p.11.
18. Susan Baker, 'Ideology and the Industrial Policy of Fianna Fail: The Evidence of the Irish Press 1955-1972', Irish Political Studies, Vol. 1, 1986, p.58. X
19. Irish Press, 22 April, 1955.
20. Ibid.
21. O'Malley, 1980, op.cit., p.27.
22. Raymond Crotty, Irish in Crisis, (Brandon, Dublin, 1986) p.90.
23. S.P. Nolan, 'Economic Growth', in O'Hagan, op.cit., pp.184-185.
24. James Wickham, 'Dependence and State Structure: Foreign Firms and Industrial Policy in the Republic of Ireland', in Otomar Holl (ed.), Small States in Europe and Dependence, (Braumuller, Wien, 1983), p.166.
25. D.S. Jacobson, A Political Economy of the Motor Industry in Ireland, (unpublished Ph.D. thesis, University of Dublin, 1981), p.36.
26. Organisation for Economic Co-Operation and Development, Ireland: Economic Surveys 1970, (OECD, Paris, 1970), p.28.
27. Organisation for Economic Co-Operation and Development, Ireland: Economic Surveys 1983/84, (OECD, Paris, 1984), p.37.

28. See Organisation for European Economic Co-Operation, Economic Conditions in Member and Associated Countries of the OEEC, Paris, 1961, p 1 and OECD Ireland. Economic Surveys 1983/84, op.cit., p.5.
29. Department of Industry and Commerce, Review of Industrial Performance 1986, (Stationary Office, Dublin, nd), p.28.
30. Denis O'Hearn, argues that there is no evidence that the local market was exhausted and that the country was importing a host of products that could have been made locally. Local industry seemed unwilling to expand their investments within the country. O'Hearn, op.cit., p.1.
31. Ibid., p.9. See also O'Malley, 1980, op.cit., pp.15-17.
32. Committee on Industrial Organization, Final Report, (Stationery Office, Dublin, nd), p.15.
33. O'Malley, 1980, op.cit., p.17.
34. O'Hearn, op.cit., p.8.
35. Telesis Report, pp.108-111. This contains an account of the reasons behind the relatively successful performance by local non-traded enterprise.
36. O'Malley, 1985, op.cit., p.145.
37. Ibid., p.146.
38. Telesis Report, Exhibit 3.37, p.330.
39. Ibid., p.113.
40. Anthony Foley, 'Indigenous Exports: Aspects of Firm and Sectoral Performance', paper presented to The Industrial Studies Association, Jun 1987.
41. Ibid., p 26.

42. Ibid. p.28.
- 43 Telesis Report, p.16.
44. Joe S Bain, Barriers to New Competition, (Harvard University Press, Cambridge, 1956).
45. Michael E. Porter, Competitive Advantage, (The Free Press, New York, 1985) and Michael E. Porter, Competitive Strategy: Techniques for Analysing Industries and Competitors, (The Free Press, London, 1980).
46. O'Malley, 1985, op.cit., p.142.
47. Ibid., p.143.
48. Wickham, op.cit., p.166.
49. The Irish Press, 18 January, 1955.
50. Paul Bew and Henry Patterson, Sean Lemass and the Making of Modern Ireland 1945-1966, (Gill and MacMillan, Dublin, 1982), p.101.
51. W. Black, 'Industrial Development and Regional Policy', in Norman Gibson and John Spencer (eds.), Economic Activity in Ireland, (Gill and MacMillan, Dublin, 1977), p.67.
52. O'Malley, 1985, op.cit.
- 53 Ibid., The Telesis Report estimated total employment in all foreign owned manufacturing industry at 80,200 in 1980 or about 34% of the total manufacturing workforce. This was 22,000 over the 1973 employment level of 58,000 which accounted for 27% of total manufacturing employment in that year. p 360.
54. Crotty, op cit., p.100. See also Department of Industry and Commerce, Review of Industrial Performance 1986, op.cit., p.75.
55. Nolan, op.cit., p.187.

56. Foley, op.cit., p.27.
57. Joseph S. Nye Jrn. 'The Multinational Corporation in the 1980s' in C. P. Kindleberger and Audretsch (eds.), The Multinational Corporation in the 1980s, (MIT Press, Cambridge, Mass., 1983), p.1.
58. See for example Wickham, op.cit., 1983 and James Wickham, 'The Politics of Dependent Capitalism: International Capital and the Nation State' in Morgan and Puride (eds.) Ireland: Divided Nation, Divided Class, (Ink Links, London, 1980), pp.53-73. It is worth pointing out, that there has been much more support, even on the left, for TNCs than opposition.
59. Telesis Report, p.136.
60. C. P. Kindleberger, Multinational Excursions, (MIT Press, Cambridge, Mass., 1984), p.78. Of interest in the Irish context is Chapter 8, 'Multinationals and the Small Open Economy', Kindleberger concludes that it is difficult to see that the MNC has slowed it (The Irish Economy) Down. p.115.
61. A concise statement of the current conventional view is to be found in Ken W. Sayers, 'Beyond the New Mythology: The Multinational Corporation in the mid-Seventies', in Thomas Swartz and Frank Bonello (eds.), Taking Sides, (The Duskin Publishing Company, Connecticut, 1986).
62. Dermot McAleese, 'American Investment in Ireland' in P. J. Drudy (ed.), Irish Studies 4: The Irish in America, (University Press Cambridge, 1985), p.347.
63. Dermot McAleese and Michael Counahan, 'Stickers or Snatchers? Employment in Transnational Corporations During the Recession', Oxford Bulletin of Economics and Statistics, Vol 41, No. 4, 1979, pp.345-359.
64. McAleese, op.cit., 1985, p.344.
65. Ibid.
66. See Dermot McAleese and Donagh McDonald, 'Employment Growth and the Development of Linkages in Foreign Owned and Domestic Manufacturing Enterprises', Oxford Bulletin of Economics and Statistics, Vol. 40, No. 4, 1978, pp.334-336.

67. McAleese, op.cit., 1985, p.340.
68. Ibid., pp 340-343
69. Most critiques of direct foreign investment in Irish industry prior to 1980 are noted in O'Malley, 1980, pp.34-52. Arguments of a more recent vintage are included in this analysis.
70. Eoin O'Malley, 'The Industrial Policy Debate', Resource, Vol. 5, No. 1, 1986, p.13.
71. Joe Cogan, 'New Directions for Irish Electronics', Technology Ireland, July/August, 1987, p.27.
72. Telesis, pp.136-142.
73. See for example, James Wickham, 1983, op.cit., pp.169-171
74. Peter Murray and James Wickham, 'Technocratic Ideology and the Reproduction of Inequality: The Case of the Electronics Industry in the Republic of Ireland', in G Day, (eds.), Diversity and Decomposition in the Labour Market, (Gower, Aldershot, 1982) See also, P. Murray and J. Wickham, 'Women Workers and Bureaucratic Control in Irish Electronics Factories', in H. Newby et al, (eds.), Restructuring Capital, (MacMillan, London, 1986).
75. J. H. Dunning, 'Explaining Changing Patterns of International Production: In Defence of the Eclectic Theory', Oxford Bulletin of Economics and Statistics, Vol 41, No 4, 1979, pp.269-296.
76. Jan Monkiewicz, Multinational Production Enterprises, The United Nations Industrial Development Organisation, (pc/12/), 10 September 1985, p 57
77. Nolan, op.cit., p.193.
78. Wickham, 1983, op.cit., pp.166-167.

79. O'Malley, 1985, op.cit., p.149.
80. Telesis Report, p.135.
81. David Jacobson, 'Theorizing Irish Industrialization: The Case of the Motor Industry', unpublished manuscript, p.15. As O'Malley notes, concern has been shown in relation to the political implications of new foreign investment. For example, Stanton pointed out the importance of relatively cheap basic labour costs and a relatively non-militant unorganised 'labour pool' for foreign investment. The state may be increasingly pressed by foreign enterprise to restrain wages and to control workers more overtly, O'Malley, op.cit., 1980, p.52.
82. See for example, Telesis Report, pp.136-142 and Joe Cogan, op.cit., pp.25-28.
83. Francis Walsh, 'The Structure of Neo-Colonialism: The Case of the Irish Republic', Antipode: A Radical Journal of Geography, Vol. 12, No. 1, 1980, pp.70-71.
84. Crotty, op.cit , pp 93-94.
85. Review of Industrial Performance 1986, op cit , p.18.
86. Wickham, 1983, op.cit , p.176.
87. Telesis Report, p.232.
88. See the preface to the Telesis Report agreed at a NESC meeting in December, 1981.
89. O'Malley, 1985, op.cit , p.153.
90. Ibid., p.153.
91. Ibid. The Telesis Report gives a brief description of how structurally strong Irish companies could be built up by development agencies, pp.232-234.
92. Dermot McAleese, 1985, op.cit., p.346

93. Review of Industrial Performance 1986, op.cit., p.10.
94. Ibid., p.14.
95. Irish Times, 10 October, 1987.
96. This is by no means a new idea, see for example, Telesis Report, p.234.
97. Review of Industrial Performance, 1986, op.cit., pp.17-18. It is not explained what criteria are necessary for 'selection'.
98. Sunday Tribune, 11 January, 1987. An interview with Padraic White about Irish Industrial Development Policy.
99. Review of Industrial Performance 1986, op.cit., p.18.
100. Ibid., p.42.
101. Irish Times, 10 October, 1987.

### NOTES ON CHAPTER 3

1. Nicos P. Mouzelis, Politics in the Semi-Periphery, (MacMillan, London, 1986), pp.114-115.
2. These countries belong to a group of which are often called semi-industrialized or newly industrializing countries. Moreover, as Jenkins points out, there is no generally accepted definition of what constitutes a semi-industrialized country. Most classification include a core of eight developing countries; Hong Kong, Singapore, Taiwan, South Korea, India, Argentina, Brazil and Mexico. Spain, Portugal and Greece are also included in many definitions. Rhys Jenkins, 'Internationalization of Capital and the Semi-Industrialized Countries: The Case of the Motor Industry', Review of Radical Political Economics, Vol. 17 (1/2): 59-81, 1985, p.59.
3. Gary W. Wynia, The Politics of Latin American Development, 2nd Edition, (University Press, Cambridge, 1984), p.156.
4. Mouzelis, op.cit., p.146.
5. Ibid., p.147.
6. Ibid., p.148.
7. Dale Johnson, Middle Classes in Dependent Countries, (Sage Publications, California, 1985), p.211.
8. Gary Wynia, op cit., pp.212-213. National Security Doctrine was a new ideology, invented originally by Brazilian officers in the Cold War atmosphere of the 1950s and was taught in military academies and war colleges throughout the region thereafter. The doctrine, which draws heavily on notions of 'geopolitics' popular among European nationalists during the 19th Century, places the interest of the nation above that of the individual. It argues that citizens are bound to do whatever is required of them, to protect the nation against other nations and against people within its borders intent on weakening it by undermining the existing social order.
9. Mouzelis, op.cit., p.147.

10. Ibid., p.152.
11. Johnson, op.cit., p.211.
12. Wynia, op.cit., p.229. Krieger Vasena was a director of 12 transnational corporations, Johnson, op.cit., p.213.
13. Rhys Jenkins, 'The Rise and Fall of the Argentine Motor Industry' in R. Kronish and K. Mericle (eds.), The Political Economy of the Latin American Motor Vehicle Industry, (The MIT Press, Cambridge, Mass., 1984), p.62.
14. Juanita Adams (ed.), Background Notes on Argentina, (Bureau of Public Affairs, Washington D.C., 1986), p.6.
15. South American Economic Handbook, (Euromonitor Publications Ltd., London, 1986), p.33.
16. Gary Wynia, op.cit., p.231.
17. Rich Kronish and Kenneth Mericle, 'The Development of the Latin American Motor Vehicle Industry, 1900-1980: A Class Analysis', in Kronish and K. Mericle (eds.), op.cit., p.295.
18. Eric N. Baklanoff, The Economic Transformation of Spain and Portugal, (Praeger, New York, 1978), p.21.
19. Charles W. Anderson, The Political Economy of Modern Spain, (University of Wisconsin Press, Wisconsin, 1970), p.87.
20. Ibid., pp.91-92.
21. Baklanoff, op.cit., p 19.
22. Antonio Vazquez Barquero and Michael Herbert, 'Spain: Economy and State in Transition', in R. Hudson and J. Lewis (eds.), Uneven Development in Southern Europe, (Methuen and Co. Ltd., London, 1985), p.291.
23. Ibid.

24. Anderson, op.cit., p.92. 'La Economia Espanola 1945-55', was a comprehensive research project on the state of the nations economy, published by Banco Urquijo.
25. Ibid., pp.92-95.
26. A new economic team was formed by Franco in February 1957. Key appointments included lawyer and economist, Alberto Ullastres, in the Commerce Ministry, Laureano Lopez Rodo, Chief Technocratic Co-Ordinator, and Mariano Rubio as Finance Minister. They believed in a less rigid system that limited state intervention, stimulated competition and opened up Spain to foreign investment. All 3 were members of Opus-Dei and there was more than a casual link between their membership and this more liberal market economy philosophy. Opus-Dei firmly believed in the morality of making money and the development of a middle class. This was a break with the Phalanges' Corporate Society in which the classes were vertically linked and the state was the prime mover of economic activity. Robert Graham, Spain: A Nation Comes of Age, (St. Martins Press, New York, 1984), p.67.
27. Baklanoff, op.cit., pp.25-26.
28. Sima Liebermann, The Contemporary Spanish Economy: A Hisotrical Perspective, (Allen and Unwin, London, 1982), p.217.
29. Baklanoff, op.cit., p.34.
30. Barquero and Herbert, op.cit., p.291.
31. Graham, op.cit., p.10
32. Baklanoff, op cit., pp.104-105.
33. Ibid., p.173.
34. Ibid., p.105.
35. Ibid., p.106.

36. Ibid., p.137.
37. Ibid., p.114.
38. Ibid., p.174.
39. Ibid.
40. Ibid.
41. Organisation for Economic Co-Operation and Development, OECD, Portugal: Economic Surveys 1974, (OECD, Paris, 1974), p.27.
42. OECD, Portugal: Economic Surveys 1981, (OECD, Paris, 1981), pp.24-25.
43. Ibid., p 18.
44. Mouzelis, op.cit., pp.134-135.
45. Vincent E. McHale and Sharon S. Kowranski (eds.), Political Parties of Europe, (Greenwood Press, Westport, Conn., 1983), p.253.
46. Mouzelis, op.cit., p.135.
47. Ibid.
48. Ibid.
49. Costis Hadjimichalis, Uneven Development and Regionalism, (Croom Helm, Kent, 1987), p 160.
50. OECD, Greece: Economic Surveys 1982, OECD, Paris, 1982), p.27.
51. Ibid., p.28
52. In Greece, where industrialization was less advanced than in Spain or Argentina for example, the import substitution difficulties did not appear in an acute form, although there were serious balance of payments difficulties and a drop in manufacturing investments at the end of the 1950s.

53. Nicos Mouzelis, Modern Greece: Facets of Underdevelopment, (MacMillan, London, 1978), p.149.
54. Ibid., p.41.
55. Clive Hamilton, 'Capitalist Industrialisation in the Four Little Tigers of East Asia' in P. Limqueco and B. McFarlane (eds.), Neo-Marxist Theories of Development, (Croom Helm, London, 1983), pp.147-149.
56. A. S. Banks, Political Handbook of the World, (CSA Publications, New York, 1987), p.512.
57. Tony Smith, Patterns of Imperialism, (University Press, Cambridge, 1981), p.187.
58. Lee Soo Ann, Industrialization in Singapore, (Longman, Australia, 1973), pp.125-126.
59. Juanita Adams (ed.), Background Notes Singapore, (Bureau of Public Affairs, Washington D.C., 1987), p.6.
60. Asia and Pacific Review 1986, (World of Information, Essex, 1985), p.242.
61. Howard Pack and Lary Westphal, 'Industrial Strategy and Technological Change' Journal of Development Economics, Vol. 22, No. 1, pp.91-93.
62. Ibid., p.92.
63. Ibid., p.93.
64. George E. Delury, World Encyclopaedia of Political Systems, (Longman, Essex, 1983), p.592.
65. Irish Times, 3 July, 1978.
66. Lawrence Ziring and Eugene Kim, The Asian Political Directory, (ABC Clio Inc , Santabarbara, California, 1985), p.277.

67. Financial Times, 12 November, 1980.
68. Pack and Westphal, op.cit., p.93.
69. Ibid.
70. Ibid., pp.97-100.
71. See Richard Luedde-Neurath, 'State Intervention and Foreign Direct Investment in South Korea', Institute of Development Studies Bulletin, Vol. 15, No. 2, 1984.
72. Ibid., p.22.
73. Eoin O'Malley, 'The Problem of Late Industrialization and the Experience of the Republic of Ireland', Cambridge Journal of Economics, Vol. 9, No. 2, 1985, p.152.
74. G. C. Allen, 'Industrial Policy and Innovation in Japan', in C. Carter (ed.), Industrial Policy and Innovation, (Heinemann, London, 1981)
75. O'Malley, op.cit., p.152.
76. Pack and Westphal, op.cit., p.101.
77. Ibid.
78. Ziring and Kim, op.cit., pp.277-278.
79. Asia and Pacific Review 1986, op.cit , p.140.
80. F. Lobo, 'Crisis and Industrial Reconstruction: Some Broad Issues about Spain', in The International Reconstruction Process. The E.E.C., The European Periphery and Selected Developing Countries, (UNIDO, New York, 1982), p.145.
81. Ibid
82. Antonio Vazquez Barquero, 'The Transformation of the Industrial System in Spain', in Ian Hamilton (ed.) Industrialization in Developing and Peripheral Regions, (Croom Helm, Kent, 1986), p.120.

83. Ibid., p.117.
84. Liebermann, op.cit., p.315. According to another source in 1977, employment in foreign affiliates stood at 1,244,724 of which 298,317 were employed in majority owned foreign companies. In addition, foreign affiliates in 1977 accounted for over 50% of employment in the following sectors; food and drink; chemicals and allied; electrical equipment; motor vehicles and rubber. See John Dunning and John Cantwell, Institute for Research and Information on Multinationals; Directory of Statistics of International Investment and Production, (MacMillan, London, 1987), pp.179-186.
85. Liebermann, op.cit., p.319.
86. Baklanoff, op.cit., p 43. This pattern has continued since the mid 1970s. The period 1980 to 1982 were peak years for the inflow of FDI, total foreign investment reached \$1,500 million from a level of \$200 million in 1974. Dunning and Cantwell, op.cit., p.178
87. Baklanoff, op.cit., p.43.
88. Ibid. Exports of foreign affiliates in 1977 as a percentage of all manufactured exports was 51.10. Dunning and Cantwell, op.cit., p.186.
89. Baklanoff, op.cit., p.45. In 1977 the assets, i.e. the book value of capital stock, accounted for by foreign enterprise in a number of sectors of manufacturing was estimated as follows: food products 12%; mechanical 23%; electrical equipment 55%; motor vehicles 59%; chemicals and allied 32%. Dunning and Cantwell, op.cit., p.186.
90. Liebermann, op.cit , pp.306-307.
91. Mouzelis, 1978, op.cit., p.39.
92. Hadjimichalis, op.cit., p.162.
93. Mouzelis, 1978, op.cit.

94. Ibid. Further evidence for this view is found in Dunning and Cantwell, op.cit., p.62. It is argued here that foreign investment has been concentrated in the more capital intensive and modern branches of the economy, largely because Greek manufacturing is deficient in such essential high technology industries. Most investment in the manufacturing sector falls within 5 spheres - basic metals; chemicals; transport equipment; electrical goods and petroleum products.
95. Eugene K. Keefe, Greece: A Country Study, (American University, Washington D.C., 1985), pp.216-217.
96. Ibid.
97. Ibid.
98. Ibid. This view is supported by Dunning and Cantwell, op.cit., p.26, who argue that the influx of DFI has fallen significantly in recent years. Nevertheless, DFI still remains an important part of Greek manufacturing in terms of assets, employment and capital.
99. Evangelica Dokopoulou 'Foreign Manufacturing Investment in Greece: Competition and Market Structure', in Hamilton (ed.), op.cit., 1986, p.189. While DFI did indeed increase in the late 1970s, it declined each year between 1980 and 1983, see Dunning and Cantwell, op.cit., p.64
100. Evangelica Dokopoulou, 'Multinationals and Manufactured Exports from the Enlarged E.E.C. Periphery: The Case of Greece', in Hamilton (ed.), op.cit., 1986, p 213.
101. OECD, Greece: Economic Surveys 1981/82, (OECD, Paris, 1982), p.26.
102. Baklanoff, op.cit., p.115.
103. Ibid., p.141.
104. New York Times, 12 September, 1987.
105. Ibid.

106. A. Mureira, 'The Need for a New Development Strategy: The Case of Portugal', in UNIDO, 1982, op.cit., p.123.
107. Baklanoff, op.cit., pp.136-137.
108. Eugene K. Keefe, Area Handbook for Portugal, (American University, Washington D.C., 1977), p.324.
109. Ibid.
110. Ibid.
111. Baklanoff, op.cit., pp.136-137.
112. Latin America and Caribbean Review 1986, (World of Information, Essex, 1985), p.36.
113. South American Economic Handbook, op.cit., p.35.
114. Mouzelis, 1986, op.cit., p.117.
115. Ibid , p.116.
116. Rhys Jenkins, 'The Rise and Fall of the Argentine Motor Vehicle Industry' in R. Kronish and K. Mericle (eds ), The Political Economy of the Latin American Motor Vehicle Industry, (MIT Press, Cambridge, Mass., 1984), p.45.
117. Mouzelis, op cit., 1986, p.117.
118. Ibid.
119. Ibid.
120. Ibid
121. Ibid
122. Grindlay's Bank, 'Report on Argentina', June, 1978.
123. Ibid.

124. Ibid.
125. See Barclays Bank, 'Report on Argentina', 31 May, 1978.
126. See Barclays Bank, 'Report on Argentina' 1982. An alternative estimate puts direct foreign investment over the period 1977-83 at \$1,399 million, Dunning and Cantwell, op.cit., p.643.
127. Barclays Bank, 'Report on Argentina' 1982. Chemicals, Motor Vehicles, Mechanical Machinery, were the major recipients of DFI between 1977-83. Dunning and Cantwell, op.cit., p.643.
128. Financial Times, 3 February, 1987.
129. Clive Hamilton, op.cit., pp.168-169. In 1975 foreign affiliates accounted for the following employment shares in the given sectors. Industrial chemicals 88.6%, electrical equipment 90.4%, food 48.9%, textiles 92.3% and rubber 71%. Dunning and Cantwell, op.cit., p.581.
130. International Trade Administration, 'Marketing in Singapore', (Department of Commerce, Washington D.C., 1986), pp.23-24. The direct capital stock of foreign affiliates at book value in 1983 as a proportion of GNP at factor cost was 65.29%. Dunning and Cantwell, op.cit., p.581.
131. Juanita Adams, 1987, op.cit., p.6. This is in line with an estimate contained in International Trade Administration, op.cit., p.24 of \$5.2 billion for total accumulated DFI by the end of 1984.
132. International Trade Administration, op.cit., p.24 and Clive Hamilton, op.cit., p.164.
133. Clive Hamilton, op.cit., p.170.
134. Asia and Pacific Review 1987, (World of Information, Essex, 1986), p.227.
135. New York Times, 8 December, 1986.

136. Juanita Adams (ed.), Background Notes on South Korea, (Bureau of Public Affairs, Washington D.C., 1987), p.5.
137. Asia and Pacific Review 1986, op.cit., p.143.
138. Joseph S. Chung, The Far East and Australia, (Europa Publications Ltd, London, 1986), p.559.
139. Asia and Pacific Review 1986, op.cit., p.143.
140. Japanese Overseas Investment, (Toyo Keizai, Shinposha Ltd., Tokyo 1986), pp.8-16.
141. Chung, op.cit., p.559.
142. Nigel Harris, The End of the Third World: Newly Industrializing Countries and the Decline of an Ideology, (Penguin, London, 1986), p.45.
143. Parks economic strategy has been described as a form of guided capitalism i.e, the main philosophy is free enterprise but guided by the government. See Bong-Youn Choy, Korea a History, (Charles E. Tuttle Inc., Rutland, Vermont, 1971), p.358.
144. Ibid., pp.344-345. Enterprises were placed under the jurisdiction of the executive branch; the President of the Republic exercised virtual dictatorial power in management, appointment of directors, policy making and disposition of property. The official policy of the US government at this time supported the expansion of free enterprise in South Korea. For example, 3 congressmen, headed by Charles B. Brownson, chairman of the international operations sub-committee, arrived in Seoul in October 1953. They blamed Korea's poor economic performance on government ownership of the basic industries. They recommended that the state increase efforts to stimulate private enterprise and private foreign investment. Bong-Youn Choy, op.cit., p.348.
145. Harris, op.cit., p.41.
146. Ibid., p.142. While moves towards greater liberalization can be detected in the post Park era, Harris is correct in arguing that intervention was still a priority for the state in the early 1980s. For example, in 1981 the government allocated \$180 million to be spent over 4 years for new machinery in the textile industry and large sums were invested by Posco (The state steel company) during the 1980s.

#### NOTES ON CHAPTER 4

1. Rhys Jenkins, 'Internationalization of Capital and the Semi-Industrialized Countries: The Case of the Motor Industry', Review of Radical Political Economics, Vol. 17, 1985, pp.59-81.
2. Ibid., p.60.
3. Ibid., pp.60-61.
4. Altshuler, Anderson, Jones, Roos, Womack, The Future of the Automobile: The Report of MITs International Automobile Programme, (Allen and Unwin, London, 1984), p.11.
5. Ibid.
6. Ibid.
7. F. Knickerbocker, Oligopolistic Reaction and Multinational Enterprise, (Harvard Graduate School of Business Administration, 1973). This theory predicts that the decision of one firm to invest in a particular country provokes a defensive reaction from it's competitors who will often follow suit. Such a defensive reaction lowers the risk that the first firms investment will disturb the balance within the international oligopoly.
8. See Peter Dicken, Global Shift: Industrial Change in a Turbulent World, (Harper and Row, London, 1986), p.293.
9. Rhys Jenkins, Transnational Corporations and the Latin American Automobile Industry, (Macmillan, London, 1987), p.163.
10. Raymond Vernon, 'International Investment and International Trade in the Product Cycle', Quarterly Journal of Economics, Vol. 80, 1966.
11. Altshuler (et al), op.cit., pp.34-35.
12. James Flink, America Adopts the Automobile 1895-1910, (MIT Press, Cambridge, 1970), pp.116-117.

13. D. G. Rhys, The Motor Industry: An Economic Survey, (Butterworth, London, 1972), p.10.
14. See Flink, op.cit., Chp.8 for a review of automotive technology up to the success of the Model T.
15. For a review of Henry Ford's technical innovations, see William J. Abernathy, The Productivity Dilemma, (John Hopkins University Press, Baltimore, 1978), Chp. 2. For a review of Ford's innovations in Production Organization see Allan Nevins, Ford, (Scribner, New York, 1953).
16. Rhys, op.cit., p.10.
17. George Maxcy, The Multinational Automobile Industry, (St. Martins Press, New York, 1981), p.69.
18. Mira Wilkins, 'Multinational Automobile Enterprises and Regulation An Historical Overview', pp. 221-253, in, H. Ginsberg and W. J. Abernathy, (eds.) Government Technology and the Future of the Automobile, (McGraw-Hill, New York, 1980), p.26.
19. Ford established a Canadian subsidiary in 1903 and began to assemble ckd units in England in 1911. They set up a plant in Argentina in 1916 and soon after others followed in Europe, Australia, Asia, South Africa, Japan, India and Latin America.
20. The assembly plant system pioneered by Ford was quickly adopted by General Motors, first in the United States and then overseas. Between 1923 and 1928 it established 19 assembly plants in 15 countries.
21. Maxcy, op.cit., p.70, notes that many host country's applied differential tariffs which favoured the importation of unassembled vehicles.
22. Maxcy, op.cit., p.71, notes that in 1928, General Motors was able to export nine ckd Chevrolets to Europe at about the same shipping cost as two fully assembled cars.
23. Maxcy, op.cit., p.86.

24. Maxcy, op.cit., p.76 and see Wilkins op.cit., pp.227-232.
25. Ian Lloyd, Rolls Royce - The Years of Endeavour, (MacMillan, London, 1978), pp.23-82.
26. P. Andrews and E. Brunner, The Life of Lord Nutfield, (Basil-Blackwell, Oxford, 1955), pp.158-160.
27. Maxcy, op.cit., p.84.
28. Ibid.
29. Altshuler (et. al), op.cit., p.21.
30. Gerald Bloomfield, The World Automotive Industry, (David and Charles, Newton Abbot, 1978), p.248.
31. For an account of the early years of the Japanese motor industry see Robert Sobel, Car Wars - The Untold Story, (McGraw-Hill, New York, 1984), pp.93-95.
32. William Chandler Duncan, US Japan Automobile Diplomacy, (Ballinger Publishing Co., Cambridge, Mass., 1973), p.56.
33. The government did pass a military vehicle subsidy law in 1919 but this had little influence on stimulating domestic demand.
34. Sobel, op.cit., p.95.
35. Maxcy, op.cit., pp.73-74
36. Ibid.
37. See Duncan, op.cit., p.65, and Maxcy, op.cit., p.75.
38. Jenkins, op.cit., 1987, p.38, notes that in 1952 and 1953 a number of Japanese firms signed technical contracts with foreign manufacturers. Nissan and Austin, Hino with Renault, Isuzu and Rootes and Mitsubishi with Willys overland There was, however, no DFI in Japanese automotive manufacturing.

39. Society of Motor Manufacturers and Traders, World Automotive Statistics 1985, pp.212-213.
40. Stuart Sinclair, The World Car: The Future of the Automobile Industry, (Euromonitor Publications, London, 1983), p.27.
41. Ibid
42. Sobel, op.cit., p.159.
43. New York Times, March 28th, 1983.
44. Ibid., April 1st, 1983.
45. For information about joint-ventures between American and Japanese companies see, Maxcy, op.cit., pp.111-112.
46. Jenkins, op.cit., 1987, p.163.
47. Ibid.
48. Jenkins, op.cit., 1985, p.63.
49. Jenkins, op.cit., 1987, p.164, notes that the main source of competitive pressure in the 1970s was the remarkable growth in Japanese productivity levels. By 1973, Japanese productivity levels were considerably higher than those of western Europe. One estimate made in 1974 suggested that Japanese costs were 17% lower than the United States and 24% less than West Germany. Hence the price advantages noted about.
50. Sinclair, op.cit., p.79.
51. Ibid.
52. Peter Waymark, The Car Industry - A Study in Economics and Geography, (Sewells, Bath, 1983), p.36

53. Ibid.
54. Ibid.
55. Ibid.
56. Ibid., pp.138-139.
57. Financial Times, October 19th, 1982.
58. Ray Horrocks, 'The Challenge of New Technology', paper presented to the Fourth World Motor Conference, Geneva, 1 & 2, March, 1982, p.9.
59. Waymark, op.cit., p.199.
60. Jenkins, op.cit., 1985, p.64.
61. Ibid., p.64.
62. Ibid.
63. Jenkins, op.cit., 1985, p.67.
64. Ibid. p.68.
65. Ibid.
66. In Greece in 1980 only about 16,000 vehicles were assembled and exports totalled 7.4m. The level of exports from Singapore for 1980 which stood at 09.3m appears impressive. However, it must be borne in mind that a significant proportion of exports from Singapore are made up of re-exports. In Singapore the automotive components industry was selected as a key industry for investment in the 1980s, The Hong Kong and Shanghai Banking Corporation Business Profile Series, May, 1982, p.12.
67. Rhys Jenkins, 'The Rise and Fall of the Argentine Motor Industry', in Rich Kronish and Kenneth S. Mericle (eds.), The Political Economy of the Latin American Motor Industry, (MIT, Mass, 1984), p.41.

68. Ibid., p.42.
69. Ibid., p.45.
70. Ibid., p.46.
71. Ibid., p.47.
72. Ibid., p.50.
73. Ibid., pp.50-51.
74. Ibid., p.53.
75. Ibid.
76. Ibid, p.60.
77. Ibid., p.61.
78. Ibid., p.62.
79. Ibid.
80. Ibid., p.63.
81. Jenkins, op.cit., 1987, p.211.
82. Jenkins, op.cit., 1984, p.63.
83. Maxcy, op.cit., p.126.
84. Ibid.
85. United Nations, Industrial Statistics Year Book 1983: Production Statistics,  
(United Nations, New York, 1985), pp.778-785.
86. Maxcy, op.cit., p.126.
87. Ibid.

88. Ibid., p.127.
89. Ibid.
90. Ibid.
91. Ibid.
92. Jenkins, op.cit., 1985, p.68.
93. Ibid., p.70.
94. Financial Times, 12 October, 1982.
95. Maxcy, op.cit., p.104.
96. United Nations, 1985, op.cit., pp.778-785.
97. Maxcy, op.cit., p.104.
98. Ibid., p.150.
99. Ibid.
100. Ibid., p.151.
101. Associacao Dos Industriais De Montagem De Automoveis Lisboa, Estatistica Veiculos Automoveis Montados Em Portugal Janeiro A Dezembro - Ano De 1985, A.A. - 31/11/86, p.2.
102. New York Times, 12 Sept., 1987.
103. This paragraph is constructed from information obtained during an interview with officials of the Associacao Dos Industriais De Montagem De Automoveis Lisboa, in June 1986.
104. Peter Waymark, op.cit , p.206.
105. United Nations, 1985, op.cit., p.783.

106. Maxcy, op.cit., p.208.
107. Ibid., pp.208-209.
108. Ibid.
109. Ibid.
110. Ibid., p.210.
111. Asia and Pacific Review, (Axon and Jamieson, World of Information, Essex, 1985), p.213.
112. Ibid.
113. New York Times, 17 Sept., 1987. Industrial disputes during 1987 threatened the attainment of this target.
114. Financial Times Supplement, 14 May, 1987.
115. Asia and Pacific Review 1987, (World of Information, Essex, 1986), p.135.
116. Ibid.
117. Ibid.
118. Maxcy, op.cit., pp.271-272.
119. Ibid.
120. Rhys Jenkins, Multinational Corporations and the Denationalization of Latin American Industry, (University of East Anglia, Norwich, 1976), p.6.
121. Bloomfield, op.cit., p.145.
122. The South Korean Government has made the most determined attempt at constraining the pattern of industrial organization in the motor industry. The government has forced several major restructurings among the assemblers and has sometimes intervened in their decisions whether to use sub-contractors to supply parts and components as well as in their choices of particular sub-contractors.

123. By February 1988 Hyundai had nearly completed it's \$255 million plant at Bremont, Quebec, South East of Montreal, set to produce 100,000 cars by 1991, New York Times, 29 February, 1988.
124. Maxcy, op.cit., p.211.
125. New York Times, 29 February, 1988.
126. Ibid. While Hyundai's sales in Canada dropped to 50,648 cars in 1987, the company's sales in the United States increased by 52% to 254,000 cars in 1987, from 167,000 in 1986. The company's internal projections envisaged a combined market in Canada and the United States of between 600,000 and 700,000 by 1990. This would represent from 50% to 60% of Hyundai's worldwide sales, the highest proportion for any major manufacturer importing into North America.

NOTES ON CHAPTER 5

1. D. S. Jacobson, 'The Motor Industry in Ireland', Economic and Social History of Ireland, Vol. 10, 1983, p 109.
2. John Moore, Motor Makers in Ireland, (Blackstaff Press, Belfast, 1982).
3. John O'Donovan, Wheels and Deals: People and Places in Irish Motoring, (Gill and MacMillan, 1983).
4. Jacobson, 1983, op cit., p.109.
5. Ibid., p.111.
6. Ibid.
7. See Committee on Industrial Organisation, Report on the Motor Vehicle Assembly Industry, (Stationary Office, Dublin, 1962). The Committee accepted the conclusion of the survey team that the "Motor vehical assembly industry would have no economic prospects of survival under free trade conditions". p.7.
8. D. S. Jacobson, 'Theorizing Irish Industrialization: The Case of the Motor Industry', unpublished manuscript, NIHE, Dublin, 1987, p.14.
9. D. S. Jacobson, A Political Economy of the Motor Industry in Ireland, (unpublished Phd. Thesis, Dublin University, 1981), pp.234-244.
10. Ibid , p.240.
11. Automotive Components Industry: Ireland, (IDA Dublin, 1984), p.6.
12. Jacobson, 1987, op.cit., pp.3-4.
13. Irish Times, 10 October, 1987.
14. Jacobson, 1981, op.cit., p.49.

15. Ibid., p.55.
16. Ibid., p.131.
17. Ibid., p.133-134.
18. Ibid , p.165.
19. Ibid p.212
20. Ibid., p.210.
21. Ibid.
22. Ibid., p.253. ,
23. National Prices Commission, Study of the Motor Vehicle Assembly Industry, Report No. 2, November 1976, p.4.
24. Ibid.
25. Ibid.
26. Ibid.
27. Louis Smith and Gerard Quinn, A Study of the Motor Car Industry in Ireland, Working Paper, Department of Political Economy, (University College, Dublin, 1981), p.9.
28. Ibid.
29. Ibid.
30. Jacobson, 1987, op.cit., pp.8-9.
31. National Prices Commission, Review of the Motor Vehicle Assembly Industry, Report No 4, March 1978, p.33.
32. National Prices Commission, 1976, op.cit., p.39.

33. Jacobson, 1981, op.cit., p.243.
34. Information received during the course of an interview with CTT executives.
35. The lucrative Middle East market opened up initially for Hanlon during the six day war in 1967, when he was approached by the Syrian government seeking ambulances. Subsequently, contracts from Egypt, Libya and Iraq all followed. Sunday Tribune, 31 January 1982.
36. See for example, William Haddad, Hard Driving: My Years with John DeLorean, (W.H. Allen, London, 1986).
37. Irish Times, 9 June, 1981.
38. Irish Times, 29 July, 1981.
39. Ibid.
40. Irish Times, 8 Sept., 1984.
41. Irish Times, 17 Sept., 1981.
42. Irish Times, 8 Sept., 1984.
43. Sunday Tribune, 10 January, 1982.
44. Irish Press, 2 June, 1983.
45. Irish Times, 8 Sept., 1984.
46. Joe Cogan, 'New Directions for Irish Electronics', Technology Ireland, July/August, 1987, p.25.
47. Central Statistics Office, Census of Industrial Production 1983, (Stationary Office, Dublin, 1987), p.85.
48. Ibid., p.67.

49. IDA presentation on Automotive Components, 1986.
50. National Prices Commission, Report No. 2, op.cit., p.18.
51. Census of Industrial Production 1983, op.cit., p.41.
52. This view was expressed independently by executives of CTT and ITGWU officials.
53. Cogan, 1987, op.cit., p.27.
54. Jacobson, 1981, op.cit., p.228.
55. Information received at an interview with CTT executives.
56. Eoin O'Malley, Industrial Policy and Development: A Survey of Literature from the Early 1960s, (National Economic and Social Council, Dublin, 1980), p.46.
57. Telesis Report, p.336.
58. Department of Industry and Commerce, Review of Industrial Performance 1986, (Stationary Office, Dublin), see pages 41-43.
59. Telesis Report, p.227.
60. Jacobson, 1987, op.cit., p.14. See also D. Jacobson and J. Wickham, 'The International Division of Labour and the Motor Industry in Ireland', Departmental Seminar, (1978), Department of Sociology, Trinity College, Dublin .
61. For example, Kostal's 1986 expansion plan envisaged that some 67% of new jobs created would be directed at unskilled workers drawn from within the existing labour pool around Abbeyfeale, Co. Limerick. Irish Times, 7 January 1986.
62. Census of Industrial Production 1983, op.cit., p.10.

63. This argument is based on information obtained from various interviews with CTT, IDA, ITGWU, etc.
64. See Appendix 4. New Japanese automotive component manufacturers setting up production in the United States tend to be located in low wage areas and generally start fresh with non union workers. Standard and Poors, Industry Surveys, Vol. No. 1, October 1987, New York, p.A64.
65. Jacobson, 1981, op.cit.
66. The Industrial Development Act 1969 assigned to the IDA the function of fostering regional industrial development. The IDA was committed to promoting a balanced industrial expansion which would suit the geographical spread of the Irish population. To this end designated or less developed areas of the country qualified for higher grants than non-designated areas in an attempt to stimulate investment in the former.
67. Telesis Report, p.391.
68. Jacobson, 1987, op.cit. pp.3-4.
69. Ibid., p.15.
70. Konomi Tomisawa, 'The Auto Parts Industry of Japan: Facing the Challenge of Internationalization and Technical Innovation', Monthly Economic Review: The Long Term Credit Bank of Japan, No. 74, July/August, 1984, p.13.
71. Irish Times, 7 January, 1986.

## NOTES ON CHAPTER 6

1. Howard Pack and Larry Westphal, 'Industrial Strategy and Technological Change' Journal of Development Economics, Vol. 22, No. 1, 1986, pp. 111-112. See also O'Malleys arguments regarding manufacturing industry in late developing countries. Eoin O'Malley, 'The Problem of Late Industrialization and the Experience of the Republic of Ireland', Cambridge Journal of Economics, Vol. 9, No. 2, 1985.
2. Pack and Westphal, op.cit., pp.114-115
3. Ibid., p.95.
4. New York Times, 16 September, 1985.
5. Ibid.
6. Pack and Westphal, op. cit., p.100.
7. In the inward looking or import substitution based approach, trade and industrial incentives are uniformly biased in favour of production for the domestic over the export market. It is obvious that such policies are in no way linked with export promotion. The export promotion strategy outlined here contrasts with the conventional outward looking approach in so far as market forces are relied on only in the case of established industries. Infant industries on the other hand are subject to selective targeting.
8. In fact, as Jacobson points out, the size of the national market appears to be the crucial factor in relation to whether or not local manufacture is viable. David Jacobson, 'Theorizing Irish Industrialization: The Case of the Motor Industry', unpublished manuscript, NIHE, Dublin, 1987.
9. George Maxcy, The Multinational Automobile Industry, (St. Martins Press, New York, 1981) p.209.
10. This apparently was the approach of the Park administration in South Korea. Many South Korean firms were given immediate and unrestricted access to working capital finance at highly preferential rates. Also a number of subsidies were instituted, the most important being a 50% reduction in taxes earned through exporting. See Frederica M. Bunge, South Korea: A Country Study. (The American University, Washington D.C., 1981), p.117.

11. The Korean government was instrumental in the formation of the 'Chaebol' very large conglomerate business groups whose activities are concentrated in manufacturing and construction. They evolved initially through responses to market opportunities, but government intervention has contributed greatly to their present structure.
12. Robert Graham, Spain: A Nation Comes of Age, (St. Martins Press, New York, 1984), p.82.
13. Ibid.
14. For example, in the late 1960s INI formed a company to take over the activities of seven leading mining companies who had been suffering chronic losses and had been gradually decapitalized. INI found itself in an identical position with Spain's two biggest private shipyards, who had invested over optimistically and had been hit by the decline of international shipping. Graham, op.cit. p.82.
15. Ibid., p.83.
16. Ibid.
17. Pack and Westphal, op.cit., p.95.
18. According to Luedde-Neurath, Korea has not followed a liberal policy towards DFI, but a highly selective one involving considerable levels of direct state intervention. Richard Luedde-Neurath, 'State Intervention and FDI in South Korea', Institute of Development Studies Bulletin, Vol. 15, No. 2, 1984, p.23.
19. Ibid
20. Rhys Jenkins, 'Internationalization of Capital and the Semi-Industrialized Countries: The Case of the Motor Industry', Review of Radical Political Economics, Vol. 17 (1/2): 59-81, 1985, p.72.
21. Ibid., pp.75-76.

22. Pack and Westphal, op.cit., p.104. Similar concern is expressed by O'Malley op.cit., pp.153-154.
23. Major Speeches by President Park Chung Hee, (The Samhwa Publishing Company, Seoul, S. Korea, 1977), p.133.
24. Somewhat surprisingly perhaps, this sentiment is expressed in the World Bank, World Development Report, 1987, p.7.
25. Pack and Westphal, op.cit., p.101.
26. World Development Report, op.cit., p.70.
27. Ibid., p.71. Also see Pack and Westphal, op.cit., pp.99-101.
28. Ibid., pp. 100-101.
29. For example, Pack and Westphal suggest that when this ability is not present the government is probably well advised to adhere rather closely to the strict neo-classical prescription for a neutral policy regime Ibid., p.104.
30. David Evans and Parvin Alizadeh, 'Trade, Industrialization and the Invisible Hand', Journal of Development Studies, Vol. 21, No. 1, p.16. Luedde-Neurath believes that while South Korean industrial policy was not perfect, the best course of action is not the elimination of selective intervention. Instead, the goal should be modification aimed at reducing inefficiencies and adaptation to suit the requirements of the Korean Economy into the 1990s. Luedde-Neurath, op.cit., p.25.
31. Ibid.
32. In the past the staff and information necessary for an effective primary role in steering the direction of industrial policy was lacking in the relevant government departments. See the preface of the Telesis Report.

33. See Jacobson op.cit., p.20 and Denis O'Hearn, 'Free Trade and Ideology, the Planning Myth, and Export Led Industrialization in Ireland', seminar paper presented to the annual conference of the Sociological Association of Ireland, Trinity College, Dublin, April 1986, p.8.
34. In the past, efforts at enhancing the introduction of new technology into indigenous industry has been dispersed over a wide area among a number of different agencies. The IDA through the research and development grants and the technology and joint venture programme. The National Board of Science and Technology has promoted business university links. The Institute of Industrial Research and Standards has employed personnel to support the technology transfer process and is actively engaging in using it's technical expertise to assist firms.
35. Department of Industry and Commerce, Review of Industrial Performance 1986, (Stationary Office, Dublin), p.19.
36. Konomi Tomisawa, 'The Auto Parts Industry of Japan: Facing the Challenge of Internationalization and Technical Innovation', Monthly Economic Review: The Long Term Credit Bank of Japan, No. 74, July/August 1984, p.13.

**APPENDICES**

APPENDIX 1 A

In the World Development Report study a country's trade orientation was classified by combining the following quantitative and qualitative indicators. The effective rate of protection, use of direct controls such as quotas and import licensing schemes, use of export incentives and degree of exchange rate over-valuation.

1963 - 1973

<u>Strictly Out- Ward Oriented</u>	<u>Moderately Out- Ward Oriented</u>	<u>Moderately In- Ward Oriented</u>	<u>Strongly In- Ward Oriented</u>
Hong Kong South Korea Singapore	Brazil Cameroon Columbia Cost Rica Indonesia Israel Malaysia Thailand Guatemala Cote D'Ivoire	Bolivia Elsalvador Honduras Kenya Madagascar Mexico Nicaragua Nigeria Philippines Senegal Tunisia Yougoslavia	Argentina Bangladesh Burundi Chile Ethiopia Dominican Rep. Ghana India Peru Sri Lanka Tanzania Turkey Zambia Uruguay

1973 - 1985

Hong Kong South Korea Singapore	Brazil Chile Israel Malaysia Thailand Tunisia Turkey Uruguay	Cameroon Columbia Costa Rica Cote D'Ivoire Elsalvador Guatemala Honduras Indonesia Kenya Mexico Nicaragua Pakistan Senegal Sri Lanka Yougoslavia	Argentina Bangladesh Bolivia Burundi Dominican Rep. Ethiopia Ghana India Madagascar Nigeria Peru Sudan Tanzania Zambia
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Source: World Development Report 1987, p. 83.

APPENDIX 1 A Contd.

It can be seen that over the period studied several countries changed groups. Accordingly Chile, Turkey, Uruguay, along with Pakistan, Sri-Lanka and Tunisia were judged to have moved in the direction of greater outward orientation. In contrast, Bolivia, Cameroon, Columbia, Costa Rica, Cote D'Ivoire, Guatemala, Indonesia, Madagascar and Nigeria were considered to have shifted in the opposite direction towards greater inward orientation.

## APPENDIX 2

### Japanese DFI in Ireland 1973-1981

<u>Year</u>	<u>Japanese Investor</u>	<u>No's. Empld.</u>	<u>Capt. IR£m</u>	<u>Business Line</u>	<u>Invest. Objectives</u>
1973	Mitsui	128	8.8	Electrolytic Manganese O <sub>2</sub>	d,e
1975	Asahi Chem. Indust.	250	7.5	Acrylic Cotton	e
1975	Asahi Chemical/ C. Itoh & Co.	110	3.0	Acrylic Spinning	e
1975	Noritake Co.	275	1.3	Chinaware	e,1,j.
1976	NEC Corp.	270	1.7	Electronic Pts.	e,1,j.
1981	Fujitsu	253	8.6	Semiconductors ICs	c,d,e,j.

#### Key to Investment Objectives:

c = utilization of inexpensive labour and reduction of cost.

d = more profitable local production due to industrial promotion and protection policies taken by host governments.

e = expansion of sales to local and third country markets.

#### Destination of Products:-

1 = local markets

j = third countries

Source: The above findings relate to a survey of Japanese firms taken in December 1985. Japanese Overseas Investment, Toyo Keizai Shinposha Ltd., Tokyo 1986, pp. 168-169.

APPENDIX 3 A

Structure of Exports in selected LICs

	Fuels/ Minerals Metals %		Other Primary Commods. %		Machinery Transport & Equip. %		Other Manufact. Goods %		Textiles & Clothing* %	
	1965-1985		1965-1985		1965-1985		1965-1985		1965-1985	
Portugal	4	5	34	17	3	16	58	62	24	29
Argentina	1	5	93	77	1	5	5	13	0	1
S. Korea	15	4	25	5	3	36	56	55	27	23
Greece	8	19	78	31	2	3	11	46	3	23
Singapore	21	29	44	12	10	32	24	26	6	4
Spain	9	12	51	17	10	27	29	44	6	4

\* Textiles & Clothing is a sub-group  
of 'Other Manufactured Goods'.

Source: Constructed from data contained in the  
World Development Indicators, 1987 World  
Development Report.

APPENDIX 3B

Japanese Direct Foreign Investment  
in Spain - 1970 - 1984

<u>Japanese Investors</u>	<u>Capital Ratio %</u>	<u>No's. Employed</u>	<u>Line of Business</u>	<u>Year Started</u>
Fujitsu Ltd.	7.1	1,020	Electronics	1975
Green Cross Corp.	50	284	Pharmaceuticals	- -
Ishi Kawa Jima	40	91	Storage Plants	1975
Kao Corp.	86.9	104	Surfactants	1979
Kao Corp.	75.2	140	Fatty Acids	1970
Kayaba Indus.	25	331	Shock Absorbers	1983
Matsushita Electric	86.7	-	Electric Equip.	1974
Mitsubishi Metal	100	60	Super-hard tools	1974
Nachi-Fuji Koshi	38	164	Ball & Roller Bearings	1976
Nissan Motor	86.78	7,085	Autos	1980
Sanyo Elect.	37	1,331	Audio Equip.	1978
Sony Corp.	80	150	Sound Equip.	1973
Suzuki Motor	7.98	4,216	Land Cruisers	1984
Suzuki Motor	36.6	293	Motor Cycles	1984
Yamaha Motor	50	208	Motor Cycles	1982
Yoshida Kogyo	99.7	230	Fasteners	1970

Source: Constructed from data contained in Japanese Overseas Investment 1986-1987, (Toyo Keizai Shinposha Ltd., Tokyo, 1986), pp.148-149.

APPENDIX 3C

Japanese Overseas Investment in Republic of Korea

<u>Japanese Investor</u>	<u>Year</u>	<u>Capital &amp; Ratio</u>	<u>No. of Employees</u>	<u>Major Business Line</u>
Alps Electric	1970	50	3,000	Electronic Parts (Gold Star)
Asahi Chemical Ind	1975	50	1,060	Polyester Filaments
Citizen Watch	1978	100	1,600	Time Pieces
Fuji Electric	1974	32	1,982	Switch Boards (Lucky Group)
Hitachi Cable	1971	33.3	2,502	Electric Wire & Cables (Hyundai)
Kawasaki Heavy Ind	1973	5	2,449	Ship Repairs
Mazda Motor	1983	10	5,000	Automobiles (Kia)
Mitsubishi Corp.	1979	20	1,733	Bottles Tableware
Mitsubishi Corp.	1982	15	11,400	Automobiles (Hyundai)
Mitsumi Electric	1973	100	1,632	Electric Machinery
NEC Corp.	1974	20	3,008	Communications Equip. (Lucky Grp.)
NEC Corp.	1970	20	2,800	TV Tubes (Samsung)
Nichicon Capacitator	1973	49	1,312	Capacitators
Nippon Chemi-Con	1972	33.3	2,000	Capacitators
Renown Inc.	1973	38	1,090	Mens Suits & Knit Shirts
Sumitomo Corp.	1977	33.3	1,200	Stereos, TVs
Teijin Ltd.	1969	11	2,969	Polyester Yarns
Taiyo Yaden	1973	100	1,250	Electronic Parts
Toko Inc.	1971	100	3,126	Electronic Parts
Tokyo Sanyo Elect.	1972	100	2,892	Tape Recorders
Tanyo Sanyo Elect.	1973	100	1,667	Silicon Transistors
Toray Industries	1970	20	3,500	Polyester Yarns
Toray Industries	1972	28	2,496	Spinning, Weaving Dyeing
Yakult Honsha	1971	38.3	1,573	Lactic Acids

Source: Constructed from data contained in,  
Japanese Overseas Investment 1986/1987,  
(Toyo Keizai Shinposha Ltd., Tokyo, 1986)  
pp. 8-16.

#### APPENDIX 4

### Investment Objectives Behind Japanese Overseas Investment in the Automotive Industry

<u>Japanese Investor</u>	<u>AS/M</u>	<u>Components</u>	<u>Nos. Employed</u>	<u>Investment Objectives</u>
<b>South Korea:</b>				
Diesel Kiki		x	337	d
Mazda	x		5,000	d, e
Nippon		x	350	d, 1, t
Nippondenso Co.		x	432	c, d, e, 1
<b>Taiwan:</b>				
Atsugi Motor Parts		x	260	c, d, 1
Bridgestone Corp.		x	551	e, 1
Diesel Kiki		x	10	e, 1
Hashimoto Kogyo		x	100	d
Hino Motors	x		163	d, e, 1
Kayaba Industry		x	270	c, 1
Kinugana Rubber		x	100	d, e, 1
NIFCO Inc.		x	15	c, 1, e
Stanley Electric		x	51	c, e, j
Tokico Ltd.		x	23	e, 1
Topy		x	40	c, e, 1
Toyoda		x	204	e, 1, j, t
<b>Philippines:</b>				
Hino Motors	x		110	e, 1
Isuzu	x		704	d, 1
Isuzu/C.Itol & Co.		x	30	d, e
Kayaba Industry		x	45	e, 1
Nichimen Corp.	x		27	d
Nissan	x		60	d, 1
Nippondenso Co.		x	342	d, e, 1, t
Nissan Motor	x		235	e
Nissho Iwai Corp.	x		347	d, e, 1
Mitsubishi Motors	x		349	d, e, h

<u>Japanese Investor</u>	<u>AS/M</u>	<u>Components</u>	<u>Nos. Employed</u>	<u>Investment Objectives</u>
Stanley Electric		x	75	c,d,e,1
Showa Mfg.		x	150	c,d,e,
Toyota Motor		x	38	d,1
Toyota Motor	x		1,283	d,e,1
<b>Thailand:</b>				
Bridgestone		x	703	c,d,e,1
Hino/Mitsui & Co.	x		787	e,1
Hino/Toyota		x	-	d,1
Isuzu Motors	x		633	d,1
Isuzu Motors		x	15	d
Japan Storage Battery		x	230	d,e,j
Kawasaki Kisen		x	214	d,1
Mazda	x		318	d,1
Mitsubishi Corp.		x	365	e
Diesel Kiki		x	160	e
Nippon Gasket		x	18	c,d,e,h
Nippondenso Co.		x	342	d,e,1,t
Nissan	x		250	d
Stanley Electric		x	75	d,e,1
Toyota Motor	x		1,283	d,e,1
<b>Malaysia:</b>				
Asahi Glass		x	145	e,1
Clarion		x	184	c,e,j
Hino Motors	x		181	d,1
Isuzu	x		300	d,e,1,t
Kayaba Industry		x	70	d,e,1
Mazda Motor	x		431	d
Honda Motor		x	90	d,1
NGK		x	-	d,e
Nippondenso		x	68	e
Nissan	x		3,300	d,e,1
Toyota	x		3,700	d,e

<u>Japanese Investor</u>	<u>AS/M</u>	<u>Components</u>	<u>Nos. Employed</u>	<u>Investment Objectives</u>
<b>Portugal:</b>				
Toyota	x		1,929	d,e,1
<b>Spain:</b>				
Nissan	x		7,085	e,1
<b>Italy:</b>				
Nissan	x		-	e,1,j
<b>Mexico:</b>				
Nissan	x		6,083	d,1
<b>Peru:</b>				
Nissan	x		400	d,e,1
Toyota	x		313	d,1
<b>Brazil:</b>				
Showa Manufacturing		x	180	c,d,1
Toyota	x		363	d,1
<b>Indonesia:</b>				
Asahi Glass		x	362	e,1
Bridgestone Corp.		x	849	c,d,e,1
Daihatsu Motor		x	17	g,1
Hino Motors		x	11	d,1
Honda Motor		x	158	d,e,1
Isuzu Motors		x	96	d,e,t
Kayaba Industry		x	330	d,e,1,t
Nikko Electric		x	6	d,1,j
Nippondenso Co.		x	441	d,e,1
Suzuki		x	574	d,1
Teijin Seiki		x	262	1,t
Toyota Motor		x	797	d,e,1
Toyota Motor		x	56	d,e,1
Yuasa Battery		x	430	c,d,e,1

<u>Japanese Investor</u>	<u>AS/M Components</u>	<u>Nos. Employed</u>	<u>Investment Objectives</u>
<b>India:</b>			
Mazda Motor	x	381	d,e
Suzuki	x	2,213	d,e,i
<b>Pakistan:</b>			
Suzuki Motor	x	1,046	e,i,t
<b>Ethiopia:</b>			
Yokohama Rubber		x	600
			c,i
<b>China:</b>			
Isuzu Motors	x	-	c,d,e,i,t

#### Key to Investment Reasons & Objectives

- c = utilization of inexpensive labour and reduction of cost.  
d = more profitable local production due to industrial promotion and protection policies taken by host governments.  
e = expansion of sales to local and third world country markets.  
Destination of products  
h = home, i.e. Japanese market.  
j = third countries  
i = local market  
f = data collection  
g = other purposes  
t = gaining of royalties

The above findings relate to a survey of Japanese firms taken in December 1985. The survey was based on questionnaires sent to and returned from leading Japanese Corporations, both listed and unlisted on the nations Stock Exchange, as well as telephone calls and other methods of enquiry. The results presented above represent a small section of this survey and refer to overseas investment decisions by Japanese Automotive Companies taken between the late 1950's and 1985.

Source: Constructed from data contained in, Japanese Overseas Investment, (Toyo Keizai Shinposha Ltd., Tokyo 1986).

APPENDIX 5ACTT Group of Producers Supplying Equipment and Components  
to Vehicle Manufacturers (OEMs)

<u>Company</u>	<u>Nationality</u>	<u>Products</u>	<u>Location</u>
Bruss KG(I) Ltd	German	Non Standard O Rings	Sligo, Co. Sligo.
Donelly Mirrors	U.S.	Prismatic Mirror Glass	Naas, Co. Kildare.
Donegal Rubber Ltd	German	Moulded Rubber Parts	Ballyshannon, Co. Donegal.
Filtertek BV	U.S.	Plastic Fuel Filters	Newcastle West Co. Limerick.
Frese(I) Ltd.	German	Car & Truck Mirrors	Manorhamilton, Co. Leitrim.
Garrett(I) Ltd.	U.S.	Turbo Chargers/ Impellers	Waterford, Co. Waterford.
Hendricksons	U.S.	Suspension Units	Cork, Co. Cork.
Iralco Ltd.	German	Decorative Trim	Collinstown, Co. Westmeath.
Kostal(I) Ltd.	German	Electric Compon- ents	Abbeyfeale, Co. Limerick
Krombert & Schubert	German	Wiring Harnesses	Waterford, Co. Waterford.
Lapple Ltd.	German	Pressings, dies, Fixtures	Carlow, Co. Carlow.
M & Q Plastics Ltd.	U.S.	Rubber & Plastic Components	Raheen, Co. Limerick.
Packard Ltd.	U.S.	Wiring Harnesses	Tallaght, Co. Dublin.
Schlegel(I) Ltd.	U.S.	Door Seal Wire Carrier	Loughrea, Co. Galway.
Semperit(I) Ltd.	German	Radial Car Tyres	Dublin, Co. Dublin.
Sileir Ltd.	G.B.	Rubber Parts,	Ballinrobe, Co. Mayo.
Siseir(I) Ltd.	German	Pneumatic Cylinders	Galway, Co. Galway.
Smiths Ltd.	Irish	Wiring Harnesses	Wexford, Co. Wexford

<u>Company</u>	<u>Nationality</u>	<u>Products</u>	<u>Location</u>
Turnex Ltd.	German	Turned Parts	Waterford, Co. Waterford.
Wexal Ltd.	Belgian	Aluminium Tubing	Enniscorthy, Co. Wexford.
Woco Ltd.	German	Plastic & Rubber Parts	Tullyleague, Co. Leitrim
CSP	U.S.	Spark Components	Naas, Co. Kildare.
Beru	German	Glow Plugs	Tralee, Co. Kerry.
Mohawk	U.S.	Cutting Tools	Shannon, Co. Clare.
H.P. CHEmie	German	Sound Proofing Material	Waterford, Co. Waterford.
RPL	German	Door Seals	Mohill, Co. Leitrim.
Tractech	U.S.	Traction Differentials	Galway Co. Galway.

The companies listed above constitute CTT figures for total exports and employment for 1985. IDA figures are higher as they also include firms like Tilitsons, Thermo King, Unilock, Triplex, Hanlons, Adtec, Bearcat, Highlife Tool, etc. in their statistics.

APPENDIX 5B

Costs Associated with the Promotion of the Sector

New Industry Grant Payments IDA-Designated Areas

	<u>Total Allocated</u>	<u>Paid 1983</u>	<u>Total Paid</u>
ATW Ltd.	1,997,000	398,327	491,394
Borg Warner	1,971,100	73,055	868,437
Bruss	858,820	146,523	404,217
Donegal Rubber	1,158,200	352,262	540,362
Fresse	429,290	5,686	239,673
RPL Plastics	713,020	10,043	66,279
Shaeff Karl AG	699,961	7,593	348,729
Schlegel	1,505,544	40,048	1,080,833
Shamrock F & T	1,209,550	35,000	668,371
Thermo King	3,877,233	221,236	2,396,377
Tool & Gauge	687,480	9,755	407,949
WOCO	1,779,970	63,547	1,529,864
Emerald Rubber	825,000	391,623	633,008
Crown Controls	1,047,650	308,790*	983,706*
	<hr/>	<hr/>	<hr/>
* = 1982	18,759,818	2,013,488	10,659,199

APPENDIX 5B (Contd.)

New Industry Grant Payments Non-Designated Areas

	<u>Total Allocated</u>	<u>Paid 1983</u>	<u>Total Paid</u>
Bearcat	1,496,860	427,500	864,784
Champion	1,453,500	878,312	878,312
Douglas	272,132	18,534	272,117
Garrett	1,546,400	221,185	853,652
H.P. Chemie	1,332,550	3,836	736,288
Hydro Hoist	459,880	77,572	239,090
Kostal	1,311,700	67,193	261,652
Lapple	4,025,467	75,658	3,260,390
M&Q	312,500	16,937	79,854
Packard	1,550,491	38,434	876,349
Poclain	3,985,470	137,820	1,038,377
Triplex	72,250	8,750	58,328
Turnex	809,200	7,755	522,911
Wexal	524,650	45,660	339,228
WVM	336,850	18,923	42,115
Donnelly Mirrors	574,100	45,660*	472,671
Iralco	172,000	17,000*	137,615
Prodieco	70,000	25,298*	38,346
	<u>20,306,000</u>	<u>2,132,027</u>	<u>10,972,079</u>

\* = 1982

Source: IDA Annual Reports

## APPENDIX 5C

The following is a copy of the request for information sent to the CSO. The data contained in Tables 5.6 and 5.7 is part of the response received from the CSO. The information for the relevant time periods refer to companies in Group A only. It did not prove possible to obtain any data from the CSO concerning firms in Group B.

### GROUP A PRODUCTS / COMPANIES

1. Wiring Harnesses	Kromberg & Schubert: Packard: Smiths.
2. Tyres for Passenger Cars	Dunlop: Semperit.
3. Decorative Trim	Iralco
4. Radiators	Wexal
5. Impellers	Garrett
6. Car Mirrors	Donnelly: Frese.
7. Seals	Schlegel
8. Pressings	Lapple
9. Spark Plugs	CSP
10. Rubber & Plastic Components for Cars	Bruss: Donegal Rubber: Filtertek: M&Q; PSK; Sileir (Eurosil): WOCO: RPL: Plastics.
11. Glow Plugs	Beru.
12. Suspensions	Hendricksons.
13. Sound Proofing	HP Chemie.
14. Traction, Differentials	Tractech.
15. Windscreens, Sun Roofs, Heated Rear View Windows.	Triplex
16. Electric Components	Kostal
17. Vehicle Safety Systems	Anti Skid Controls
18. Car Safety Alarms	
19. Number Plates	
20. Vehicle Seating	Daly Manufacturing
21. Roofracks	Phoenix (Also Upholstery)
22. Turned Parts	Turnex.
23. Anti-Vibration Devices	Rubber Mountings Ltd.
24. Vehicle Bodies	CRV.
25. Spring	C & C Ltd: Springs of Wexford.
26. Car Assembly	Various
27. Wet Cell (i.e. car & Truck Batteries)	
28. Cellulose (i.e. Car) Paints	

## GROUP B PRODUCTS / COMPANIES

1. Truck Refrigeration Units	Thermo King.
2. Industrial Vehicle Tyres	Bearcat
3. Carburettors	Borg Warner
4. Fork Lift Trucks	Crown Control Ltd.
5. Tipping Gears for Commercial Vehicles	Hydrohoist Ltd.
6. Shunting Equipment	Unilok.
7. Cutting Tools	Mohawk: Procut: High Life: Prodieco.
8. Welding	Siseir
9. Automotive Fasteners	SPS International
10. Excavator Components	Schaeff Karl AG
11. Steps and Walkways	Redman Fisher.
12. Armoured Cars	Adtec Teo.
13. Ambulances	Hanlons.
14. Rough Terrain Vehicles	ATW
15. Buses	Bombardier.
16. Aluminium Pulleys	Douglas Engineering Ltd.
17. Hydraulic Assembly	Poclain Hydraulics.

### Note:

We have included under each product heading companies we know to be involved - or to have been involved - in the manufacturing of those products. In some cases there are other companies that were/are involved but not known to us; in other cases we mention no companies at all as we know the product is/was produced but do not know the names of the companies doing the producing. Where such companies are missing from our list, we hope that you will be able to improve matters by including any of our obvious omissions. In general, where more than 50% of output goes to the motor industry, the firm should be included, and where less than 50%, then excluded.

APPENDIX 5D

Special IDA Expenditure Survey of  
Irish Automotive Sector

Group A - Survey of 16 Firms:

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
No. of Employees	1,803	2,221	2,388	1,821
Sales	44,777	79,765	105,595	80,205
Sales ex PG	43,829	72,047	94,961	75,658
Raw Materials	17,322	34,045	45,808	33,006
Irish Raw Materials	3,549	2,804	2,669	2,448
Sought in (Services?)	13,406	16,667	19,089	16,731
Electricity	0	385	2,487	2,259
Fuel, Energy, Other	2,172	2,575	1,219	1,107
Transport	0	591	3,219	2,409
Imported Services	279	2,625	5,503	5,357
Total Wages	14,703	20,672	25,367	21,604
Rents Paid	14	140	345	327
Lease Costs	138	406	247	232
Interest	1,278	1,218	1,609	1,236
Depreciation	1,377	2,049	2,540	2,307
	<hr/>	<hr/>	<hr/>	<hr/>
Average Wage:	8,155	9,308	10,623	11,908

The I.D.A. did not supply directly the names of the firms on which the above survey is based but it has been possible to find out that the 16 firms in Group A are from the following list:

CRV Engineering	CSP
Donelly Mirrors	Bruss KG
Frese	Garrett Ltd.
Haris J. Assemblers	Irish Commercial Vehicles
Iralco	Kostal Ltd.
Kromberg & Schubert	Packard Electric
Tiltsons	Triplex
RPL	Semperit
Tyresoles	Smiths
Schlegel	Donegal Rubber

and three other unidentified companies.

Source: Special survey conducted by IDA  
June/July 1987.

APPENDIX 5D (Contd.)

Group B - Survey of 5 Firms:

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
No. of Employees	930	912	421	98
Sales	33,146	28,717	16,525	5,927
Sales Ex-Pc	10,028	10,269	6,485	5,867
Raw Materials	20,877	16,963	7,751	3,040
Irish Raw Materials	6,498	3,946	1,472	152
Bought in (Services)	4,097	3,921	2,482	1,339
Electricity	0	68	93	0
Fuel, Energy, Other	375	719	689	607
Transport	0	65	273	169
Imported Services	969	995	200	250
Total Wages	6,881	7,077	4,764	1,293
Rents Paid	2	2	17	0
Lease Costs	0	57	77	75
Interest	144	177	82	29
Depreciation	189	406	190	20
Average Wage:	<u>7,399</u>	<u>7,760</u>	<u>11,316</u>	<u>13,194</u>

The information contained in the Group B survey refers to five of the following eight companies:-

Bombardier  
Hanlons  
Leyland Vehicles (Car Trailers)  
Bearcat  
Unilok

And three other unidentified companies.

Source: Special survey conducted by IDA  
June/July 1987.

APPENDIX 5E

Estimate of Cost Per Job Created in CTT Group  
of Automotive Component Manufacturers

<u>Company</u>	<u>Total Grant Allocated</u>	<u>Total Paid 1983</u>	<u>No. of Jobs Created 1985</u>
Bruss	858,820	404,217	76
Donegal Rubber	1,158,200	540,362	82
Frese	429,290	239,673	38
Garrett	1,546,400	853,652	110
Iralco	172,000	137,615	220
Kostal	1,311,700	261,652	165
Lapple	4,025,467	3,260,390	275
M&Q Plastics	312,500	79,854	85
Packard	1,550,491	876,349	1,000
Schlegel	1,505,544	1,080,833	135
Turnex	809,200	522,911	35
Wexal	524,650	339,228	85
WOCO	1,779,970	1,529,864	210
TOTAL:	<u>15,984,232</u>	<u>10,126,600</u>	<u>2,516</u>

The Table above contains data regarding a sample of 13 firms, from the CTT Group of Component Manufacturers.

Source: IDA Annual Reports and Employment  
Figures received from CTT.

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