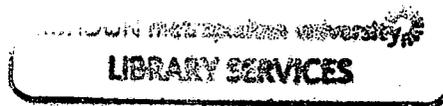


REFERENCE ONLY

Regulation Theory/Global Fordism and Peripheral Fordism: The Case of Ireland

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A thesis in partial fulfilment of the
requirements of the London Guildhall University
(now The London Metropolitan University)
for the degree of Doctor of Philosophy

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Abstract

The general aim of the thesis is concerned with the development of industrialisation in the Irish Republic from the opening up of the economy in the late-1950s to the present. 1982 has been chosen as a watershed as it was then that the Irish government commissioned the Telesis Consultancy Group to do an in-depth analysis of Irish industrial policy. Using Telesis' findings as a reference point, subsequent policy measures have been examined to ascertain whether the Irish state has been successful in creating an industrial base capable of sustained indigenous industrial growth. The focus of the study therefore, will be on the development of indigenous industry but will also have to include an analysis of the continuing role of direct foreign investment in the Irish economy.

The specific aim of the thesis is to ascertain the degree to which the theories of Global Fordism/Regulation in general and Peripheral Fordism in particular provide an adequate framework for an evaluation of the development of industrialisation in Ireland in that period. If they do provide an adequate framework, then to what extent do they do so? Do they provide an all-embracing or a partial explanation of it? These questions will be considered in the light of different views of industrialisation in the periphery particularly Amsden's model of late-industrialisation. An examination of the historical background to some of the theories that have inspired Amsden's model will also be presented. But to begin to answer these questions it will be necessary to look at the relative development of Irish Industrialisation.

Therefore, after the theoretical areas have been addressed the study will continue with an analysis of the manufacturing sector and as to how it relates to the trajectory of policy measures subsequent to Telesis. This research of secondary material will be used in conjunction with the empirical research in an attempt to validate the survey findings on which the empirical research is based.

Ultimately, the objective will be to produce an evaluation of the state of manufacturing in Ireland and which will provide a constructive evaluation of the relevance of the two main contrasting theories.

Acknowledgments

I owe a great debt of gratitude to my former supervisor, the late Dr Michael Cowen. I also wish to thank Dr Diane Perrons for agreeing to remain my supervisor after leaving the Guildhall University (now the Metropolitan University) for the LSE. Their sound advice was gratefully received. I would also like to thank Dr William Dixon for stepping in as a supervisor as a replacement for Dr Cowen.

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INTRODUCTION

The general aim of this thesis is to critically examine the Republic of Ireland's most recent attempts (1982 – 2000) at developing an industrial base similar to that of the supposed advanced capitalist nations. Has the Irish state managed to create an industrial base capable of developing an enhanced capacity for sustained indigenous industrial growth as the advanced capitalist nations have done? This question needs to be answered in order to assess the true level of industrial development in Ireland. The reason for this is that all modern industrialised nations have managed to develop, at some point in their histories - recent or otherwise, an indigenous industrial sector, from which it can be said their relative high income levels and modernisation derive.

“Successful indigenously-owned industry is, in the long-run, essential for a high-income country. No country has successfully achieved high-incomes without a strong base of indigenously owned resource or manufacturing companies in traded businesses ...”¹

The main focus of this study of Irish Industrialisation therefore, will be on the development of the indigenous manufacturing sector. The study however, will also have to encompass the foreign manufacturing sector, as in Ireland, it has continued to occupy a position of importance in the economy that is disproportionate to the one it occupies in most other nations, not only as a concern for policy-makers but also as a share of industrial output.

1982 has been chosen as a supposed significant watershed year as it was then that The Telesis Report was published. The Report was a study undertaken by Telesis (a firm of management consultants) on behalf of the National Economic and Social Council and was hailed as a landmark in the economic self-analysis of Ireland. Telesis made many criticisms and recommendations about the policies that had led to what some were calling the ‘transformation’ of Irish industry. A major objective of the study is to look at the policy recommendations in detail and to ascertain not only the extent to which the Report represented a change of direction in governmental industrialisation policy, but also to what extent this policy change has contributed towards industrial development in the country.

¹ Telesis, N. E. S. C., Dublin, 1982; p. 185

Telesis regarded the grants that were paid to foreign firms as excessively generous and stated that the funds used could produce better returns if directed towards indigenous firms.

The particular aim of the thesis is to provide an answer to this question: Do the theories of Global Fordism and Regulation in general and Peripheral Fordism in particular provide a useful framework for an adequate understanding of Ireland's latest phase of industrialisation? If they do so, do they provide a comprehensive or partial explanation of it?

Therefore, as an essential part of the study, the theories of Global Fordism and Regulation will be examined with a view to establishing whether they offer some practical use by way of an analysis of the role played by the State in Ireland in stimulating industrial development in the latest phase of industrialisation. The apparent effectiveness of State policy in Ireland from the late 1960s, will be examined, starting from Alain Lipietz's view that the crisis of Fordism at the core benefited 'Peripheral Fordist' countries such as Ireland. What are the criteria for establishing whether Ireland is to be considered a case of Peripheral Fordism? This question will entail considering different views about industrialisation in the periphery. Foremost amongst them is Amsden's alternative model of industrialisation i.e., 'late-industrialisation' which contrasts with Lipietz's. Central to Amsden's model of late-industrialisation is the crucial role that the state plays in stimulating the economic growth and development. Amsden showed how a highly interventionist state used its 'lateness' in terms of industrialising to its advantage. Learning, was the main characteristic of the late – industrialisation model. It was the subsidy which was the mechanism through which late – industrialisers achieved their success. The government used its subsidy, guided policy and was responsible for every new initiative and every major shift in industrial diversification. The subsidy for Amsden is the combined efforts that individual states, through their resources, attempt to bring about industrialisation.

At this point, there will be an outline the historical tradition that has inspired the views of writers such as Amsden. Starting with the writings of Frederick List and their relationship with the works of the Dependency School, thereafter continuing with a look at the Gerschenkron's theories of industrialisation in an endeavour to link all of these with the analysis of Eoin O'Malley's work on Ireland and on the barriers to entry Ireland faces as a

late-industrialising nation. O'Malley's arguments not only support Amsden's contention, but also support the Telesis findings. More importantly, O'Malley's work puts Amsden's work into a framework that might be applicable to Ireland's attempts to industrialise. Principally, O'Malley looked at the competitive disadvantages that late-industrialising countries are faced with. He argued that long-established industries in the advanced capitalist countries have built up competitive advantages that act as barriers to entry that are all but insurmountable for would-be competitors trying to enter a new market. These include such factors as economies of scale in production, marketing, technological advantages and the ability to raise capital. O'Malley insists that these alone would act as a deterrent to most indigenous firms against trading internationally.

After these theoretical areas have been addressed the study will continue with separate analyses of both the foreign and indigenous manufacturing sectors as to how they relate to the trajectory of policy measures subsequent to Telesis. Each of these two research strands will be supplemented by empirical research.

An outstanding characteristic of the Irish economy has been the development of the inward investment made by foreign firms and the extent to which successive governments and policy-makers have focused on this sector. The Telesis critique of government industrialisation policy up to 1982 was that there had been an over reliance on overseas industry in the state's attempts at enhancing the industrial base of the country. The report concluded that there was only a limited scope for the development of industrialisation along such a path as the very nature of the multinational enterprise (henceforth MNE) militated against any of its key business functions being located in Ireland. As a result of such conclusions, Telesis foresaw a need for a definite shift in policy away from capital grants and tax incentives to entice MNEs to Ireland and towards a policy that favoured indigenous export-oriented firms. Therefore it will be necessary to explore some aspects of the orthodox theory of the multinational firm in order to ascertain whether the multinational enterprise possesses the characteristics that could be beneficial in terms of helping to stimulate industrial development in a country like Ireland in the long-term. An important aspect of this examination will be to ascertain whether the theories of Neo-Fordism offer any insights into Ireland's relationship with the MNE and in particular whether Ireland's fragmented units of multinational production should be considered typical of those in the Peripheral Fordism model. Ultimately there will be an attempt to establish whether the

Global Fordist model in general provides an adequate analytical framework for an understanding of the development of this aspect of the Irish economy.

Despite advocating the better exploitation of the potential market provided by foreign enterprises already operating in the country, Telesis suggested that the indigenous firms that were currently trading only within Ireland and the UK should be encouraged to expand into trade with the whole of the EU. The analysis of the period since the publication of Telesis in 1982 through to the year 2000 will be concerned with not only as to how the recommendations of the Telesis organisation were adhered to and acted upon, but also to ascertain if and how, subsequent policy recommendations were carried out by Ireland's industrial development agencies. Policy measures, therefore, will be considered as to whether they have contributed towards creating a solid base from which the indigenous sector can contribute to long-term economic growth in general and industrial development, in particular.

The empirical part of the thesis, therefore, consists of a survey carried out on multinational enterprises (henceforth MNEs) that have established themselves in Ireland. This is an attempt to ascertain the degree to which these firms have become integrated into the economy and try to understand the reasons why these firms established themselves in Ireland. This is to be carried out with a view to understanding the long-term consequences of pursuing a strategy that hopes that by attracting direct foreign investment (henceforth DFI), the Irish state can stimulate overall industrial development. Secondary sources will also be used to support any findings. This is followed by a second survey (also carried out in Ireland) of indigenous manufacturing firms, which should provide a better picture of how state development agencies and organisations attempt to assist indigenous firms in overcoming barriers such as scale economies, technological disadvantage and financial funding. Ultimately, it is hoped that the combination of both surveys will contribute to producing a clearer picture of the state of manufacturing industry in Ireland. As a consequence of this it is hoped that a constructive evaluation may be formed of the relevance, if any, of the two main contrasting theories that were outlined above.

The thesis commences with an historical overview of industrialisation in Ireland up to the publication of Telesis. In this concise periodisation of industrialisation, some aspects of Irish economic history, prior to 1801 (Act of Union) that are relevant to a study such as this one have been outlined briefly. Thereafter the periodisation of industrialisation has been divided into four periods from the Act of Union in 1801: 1801 to 1922 and the foundation of the Free State; 1922 to 1939; 1940 to 1958 and from 1958 to 1982. In each period, the successive policy measures will be examined and primary and secondary statistical tabulated material will be provided as well as graphs to supplement the research.

Chapter 1 Historical Background to the Development of the Irish Economy

Introduction

The concern of this thesis is to ascertain whether the theories of Global Fordism and Regulation Theory contribute to an analysis of the role of the state in the Republic of Ireland's most recent attempts to industrialise. This phase of industrialisation (from 1958 onwards) must be examined within the broader context of Irish economic and political history in order for a more complete and comprehensive understanding of this subject to be grasped. Apart from dealing with the more general aspects of its economic development, Ireland's overall industrialisation will be looked at in relation to its different phases of industrialisation.

In this overview I have chosen to break up the development of Irish industrialisation into separate phases. These are as follows: the first phase from 1801 to 1922; phase two which is from 1922 to 1939; phase three from 1939 to 1958 and finally for this particular chapter, phase four, which looks at period of major policy change in 1958 to 1982 which saw the publication of the Telesis Report. In later chapters it will be necessary to look at how policy, subsequent to Telesis has operated in relation to promoting industrialisation in relation to overseas industry and indigenous industry respectively. A brief outline of the historical conditions that prevailed in Ireland prior to these phases, is necessary.

Historical background

The Cromwellian conquest of Ireland by 1652 is perceived as being the real beginning of the development of Ireland as a colony. It was from that time that Ireland became an important producer of agricultural commodities for British markets. When these commodities came into direct competition with similar, but British produced commodities, legislation was passed which imposed punitive import duties on Irish produce coming into England. In 1666 Irish cattle and dairy produce were prohibited after organised outrage from the landed classes claimed that Irish imports were greatly contributing to plummeting agricultural prices in England. The net effect of this was a change in agricultural production with a swing towards sheep production, and the development of a shipping industry. England hoped that highly competitive wool could be exported to third countries rather than England which had prohibited its import in order to

protect its own cloth producers. Even this was curtailed.

The Navigation Acts which followed were designed to damage the monopoly held by the Dutch merchant Navy. Imports could not enter England unless they had been cargoed in English ships or in ships from the country from which the produce came. Exports were to be managed in a similar fashion. This meant effectively that colonies could not trade directly with each other unless English ships were involved. If Irish manufacturers of wool wanted to trade with New England for example they would first have to send their products to England. Irish woollen producers had already had to contend with a prohibitive import-tax and could only sell raw wool to English manufacturers.¹ Cotton, sugar production, glass making, brewing and fish curing all had to face similar types of prohibitive legislation.² By the end of the seventeenth century Ireland the colony, was being restricted to producing raw materials in return for English manufactures. It was a country with a very frustrated bourgeoisie and an even more frustrated peasantry.

With Grattan's parliament in 1782 Ireland achieved some measure of legislative independence which coincided with increased prosperity brought about by both protection and demand for Irish agricultural products during Napoleonic Wars. The new found prosperity however, had little positive effect on the peasantry whose situation had worsened if anything during the eighteenth century. After an expansion of tillage in response to British demand during the Napoleonic Wars arable land prices began to fall in its aftermath and the demand shifted again towards live agricultural produce.³

Marx referred to the development of the new mode of production or new international division of labour as:

‘...one suited to the requirements of the main industrialised countries (and which)

¹ Jackson, T.A. (1991), **Ireland Her Own**, Lawrence and Wishart, London, pp.93-95.

² Burns, E. and Hill, C. (1971), **Reformation to Industrial Revolution**, Penguin, chapter 4.

³ Crotty, R. (1987), **Ireland in Crisis: A Study in Capitalist Colonial Underdevelopment**, Brandon, p.43.

converts one part of the globe into a chiefly agricultural field of production for supplying the other part which remains pre-eminently an industrial field'.⁴

The more powerful manufacturing nations, wishing to prevent competition, introduced various systems of tariffs and legislative restrictions on imported goods. Likewise, they established their own monopolies overseas in order to obtain raw materials more cheaply. The result caused greater hardship for the peasantry as they were now being replaced by more profitable livestock. Peasant families were forced to eke out even more meagre livings on land that was being subdivided into smaller holdings while at the same time rents were increasing. Evictions were followed by emigration and the rate of population growth began to decline.

Phase One: 1801-1922

With the Act of Union of 1801 Ireland lost its parliament and legislative decision-making went back to Westminster. In the middle of the century however an event took place that was to have a profound effect on the country. The Great Famine of 1845-1849 was caused by the failure of the Irish peasantry's staple food, the potato, through a fungal causing blight, called *Phytophthora Infestans*. It is estimated that at least one-third of the population were totally dependent on the potato as their only food source. According to the census of 1851 the population had fallen from 8,177,744 to 6,554,074 in ten years. It was also estimated that at a normal rate of increase the population would have reached 9,018,799.⁵ One million are said to have died of starvation while famine related diseases and emigration accounted for the others. Indeed emigration totalled over 2 million persons between 1845 and 1855.⁶

⁴ Marx, K. (1976), **Capital Vol. 1**, Penguin, pp.579/80.

⁵ Hickey, D.J. and Doherty, J.E. (1987), **A Dictionary of Irish History 1800-1980**, Gill and Macmillan, p.164.

⁶ MacDonagh, O. (1956), "Emigration During the Famine" in **The Great Famine**, edited by T. Williams, R. Dudley Edwards, Dublin, pp.324-329.

Table 1.1

Source: Burns, E. (1931 - Reprinted 1976), *British Imperialism In Ireland: A Marxist Historical Analysis*, **Cork Workers' Club**, p.33.

If one considers Table 1.1 above it can clearly be seen how the effect of the Famine and the phenomenal emigration that took place as a consequence decimated the populace. This is reflected in the decline of persons employed in the larger employment categories above, such as agriculture, manufacturing, textiles and building. The population of Ireland had more than trebled in the century prior to the Irish Famine. The century which directly followed the Famine saw the population decline by 50%. The great loss of people through starvation and emigration was due to many contributing factors that have generated contentious debate even to the present day but without doubt, one of the most important ones was the lack of land reform that the peasantry of other European nations had already achieved by the mid nineteenth century. If the political situation had been different i.e., that it had not been a colony, land reform would undoubtedly have been achieved earlier and the mass of the Irish peasantry would have hardly found themselves in the situation whereby the majority were dependent on the potato for survival. It is equally unlikely that an Irish state, even if it had been relatively backward would have overseen and protected the export of surplus agricultural produce from its own shores. Furthermore, if land reform had been established earlier, the agricultural surplus deriving therefrom would have been more likely to have remained in Ireland thus furthering greater economic development along the lines of the development trajectories of Ireland's European

neighbours.

It was not until the Land Purchase Act of 1886 was introduced that the first sign of an improvement in the lot of the Irish peasantry took place. However, this resulted in only 73,868 holdings being bought up by peasant farmers out of a possible 500,000. There were two further acts in 1903 and 1909 respectively with only the latter being comprehensive enough to allow for large-scale peasant land purchase. This was rather belated by comparison to Ireland's neighbours whose peasantry had already reached that point many years prior to that. This must be seen as a progressive development along capitalist lines of development but the resulting social relations however mitigated against the introduction of new production methods. Whereas the tendency has been towards the centralisation of agricultural units in more advanced nations the process has been much slower in Ireland. If the process had taken place much earlier the development of agriculture might have been such that its beneficial effects could have enabled Ireland to have developed contemporaneously with nations on the European continent. Politically the period was dominated by what has been termed as the New Departure. This was an amalgam of activists from the Fenian Rising of 1867, The Land League and the political agitation organised by The Irish Parliamentary Party in Westminster.

The Land league was a tenant farmers' based organisation which advocated the protection of tenant farmers rights and the abolition of the landlord system in Ireland. A particular objective of the Land League was the establishment of what was known as the Ulster Custom or the Three Fs in the rest of Ireland. This was whereby the tenant in the North Eastern part of the island, mainly in the province of Ulster, had a saleable interest in his holdings. This saleable interest, 'Free Sale' with the other two 'F's, 'Fair rent' and 'Fixity of Tenure' were collectively known as the Three Fs. Apart from its dominance of the political spectrum in Ireland the New Departure did bring about the Land Act of 1881 which established the three basic demands of the Land League but never really fulfilled the demands of those republicans and nationalists who aspired to other more political goals.

Because of the relative lateness of land reform and the economic consequences that resulted therefrom, Ireland at the turn of the century, was displaying the characteristics of uneven capitalist development. In relation to its neighbour and master it was very much the peripheral

region on the edge of a much more developed area. As the British Empire's economic and military might was approaching its height so Ireland's relative position as a peripheral colonial region of that Empire, worsened. As discontent continued due to an adverse economic situation the nationalist movement became increasingly perceived as being the vehicle through which all the ills of Ireland, political social and otherwise, could be righted.

During the early part of the twentieth century the Irish representatives at Westminster, the Irish Parliamentary Party, looked increasingly likely to fail in their bid to secure Home Rule through parliamentary methods. This party, who had never enjoyed popular support in Ireland, and sided with the interests of the businessmen and factory owners during the 'Dublin Lockout'. The Lockout was the culmination of a protracted struggle between organised labour in Dublin and the employers federation where the latter locked out workers from their work-places if they had signed up to the Irish Transport and General Workers Union in 1913.⁷

Sinn Fein, were the political party which moved in to fill the political vacuum. This was a party which was founded in 1905 and grew under the guidance of Arthur Griffith. Griffith who was the very first leader of the Free State served only briefly. Unfortunately however, he died of a cerebral haemorrhage on the 12th August 1922 amidst the throes of the Civil War which followed the signing of the treaty with the British. Griffith had seen in the treaty an opportunity for economic independence on which Ireland could build an economic self-sufficiency in an independent nation.⁸

Griffith was an ardent nationalist, following the course of policy which had been set up by Frederich List, the main source of his economic beliefs. His main cultural aims for his country were the promotion of every facet of its history, language, theatre, art and sport, as well as guarding against the Anglicisation of Irish life. Politically he had advocated a dual monarchy

⁷ Kee, R. (1976), **The Bold Fenian Men**, Volume Two of The Green Flag, Quartet Books, pp.198-200.

⁸ Lynch, P. (1984), "The Irish Free State and The Republic of Ireland 1921-66" in **The Course of Irish Liberty**, edited by T.W. Moody and F.X. Martin, RTE/Mercier, pp.325-327.

for Ireland and the rest of the United Kingdom which was based on the 'Ausgleich' of 1867 between Austria and Hungary.⁹ Economically Griffith was very definitely a disciple of List. Protective tariffs would stimulate the growth of new industries. He also proposed a scheme for the re-forestation of the country and for the development of an indigenous mercantile marine.¹⁰ His idea of self-sufficiency in an independent Ireland was one of the major pillars of Sinn Fein's election platform in 1918. Griffith's proposals, which also included a proposal for the provision of some form of control of Irish banking capital as well as the encouragement of American, direct foreign investment in Ireland rather than the traditional British. But as a result of his untimely demise, it could hardly be said that his economic policies were adhered to by the Free State/Cumann na nGaedhael government that took power in 1922.¹¹ Sinn Fein rapidly became the focus for a national unified struggle on the same scale as the Land League had done in the 1880's. Protestants in the North East of Ireland were alarmed at the prospect of losing their historic privileged position in a potentially independent Irish state with an unavoidable catholic majority. This led to the formation of an armed group called the Ulster Volunteers. This was met by a republican force in the south which was called the Irish Volunteers. The majority of both sets of volunteers ended up in the trenches of France in World War 1 with each group being led to believe that their political aspirations would be dealt with after the conflict had finished. But many militant republicans in the Irish volunteers refused to join the British army and decided to apply an old Fenian adage of 'England's weakness being Ireland's opportunity'. This resulted in the Easter (Monday) Rising of 1916. The leaders of the rising were executed and this helped to turn the tide towards a desire for full independence rather than just home rule as a British dominion. The General Election of 1918 whereby Sinn Fein won 73 of 105 seats was evidence of this groundswell of public opinion.¹²

Sinn Fein refused to participate as members of the British Parliament and set up a Provisional

⁹ Lyons, F.S.L. (1987), *op. cit.*, p.251.

¹⁰ *Ibid.*, pp.252-255.

¹¹ Perrons, D. (1978), "The Dialectic of Region and Class in Ireland", Working Paper 8, University of Sussex, November, pp.17-18.

¹² Coogan, T.P. (1991), **Michael Collins: A Biography**, Arrow Books, p.92.

Government demanding the withdrawal of the British Army and immediately started substituting their own appointees in administrative, legal and policing activities. The Volunteers were renamed the Irish Republican Army and began offensive military campaigns against British forces. This became known as the War of Independence and did to a greater degree secure as much by 1921 but was forced to concede the loss of six of the most northerly counties of the island. Not all of the Republican side were happy to accept the partition and a very bloody civil war ensued with the pro-treaty forces backed by the British military machine eventually forcing a cease-fire and ultimately an acceptance.¹³ The Treaty posed little or no threat to British economic interests in Ireland and as a result with the advent of the first Free State Government very little had changed or was likely to change economically.¹⁴

At the time of independence therefore Ireland was profoundly influenced both politically and economically by her neighbour. The Industrial Revolution had extended to Ireland in the 1780's and 1790's as was evident from innovations in organisation and scale of operation and technology but hardly to the extent of that which took place in Britain.¹⁵ Because of this and the massive emigration from rural areas, Ireland at the time of independence remained essentially a rural agricultural society.¹⁶

20% of Ireland's labour force were employed in industrial activity as opposed to twice that amount in Britain. This compared favourably with industrialisation in countries such as Italy and Spain but when the loss through partition of the industrial North East is considered, where 35% of the labour force were engaged in Industrial activity then the figure for the new Free State fell to a mere 11% of the workforce.¹⁷

¹³ Murphy, J.A. (1989), **Ireland in the Twentieth Century**, Gill and Macmillan, pp.27-60.

¹⁴ Mjoset, L. (1992), **The Irish Economy In A Comparative Institutional Perspective**, National Economic and Social Council, Dublin, p.10.

¹⁵ Cullen, L.M. (1972), **An Economic History of Ireland Since 1660**, Balford, London, p.190.

¹⁶ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), **The Economic Development of Ireland in the Twentieth Century**, Routledge, p.7.

¹⁷ Ibid, p.8.

Indeed Ireland's relative position in 1913 can be observed from the figures in Table 1.2. It should be noted that Ireland experienced a comparatively low rate of increase in total product in the period 1830 - 1913 in comparison to its relatively high per capita figure. One can only assume that the high per capita figure is due to the massive loss of population subsequent to the outbreak of The Potato Famine in 1847 that continued up to the 1960s . Otherwise one might arrive at the conclusion that Ireland's relative position was quite favourable in relation to other European countries for example such as Norway or Russia.

Why was there such a lack of industrial development in Ireland? (By Ireland, it is meant as the Free State and later as the Republic of Ireland. Henceforth 'Ireland' shall be referred to in this context). Kennedy, Giblin and McHugh (1988) attempt to answer this question. One aspect of this phenomenon is the perspective from which it is viewed. Indeed the same could probably be said of any aspect of Anglo-Irish relations over the last 800 years. If the problem of Irish underdevelopment at the time of independence is viewed from a British viewpoint then Ireland can be seen as an almost remote and economically peripheral region within the sphere of the United Kingdom.¹⁸ But from the perspective of an Irish person the historical under-development of the country may appear to have had more to do with the colonisation by a foreign power rather than the vagaries of the free-market mechanism.

¹⁸ Ibid., p.7.

Table 1.2

Source: Kennedy, A., Giblin, T. And McHugh, D. (1988), **The Economic Development Of Ireland In The Twentieth Century**, Routledge Press, London, p. 18.

Ireland, according to the authors, exhibited all the elements necessary for development in that she had a plentiful supply of labour, free access to an all too close rich market, without any significant lack of capital and a reasonably well-educated workforce. This set of conditions however led to industrialisation in the North of the country in the six counties which is today part of the United Kingdom but to no significant extent in the remaining twenty-six counties that constituted the Irish Free State. The success of the northern region is attributed to the development of the linen industry as a direct result of the improvements in the technology of power spinning for flax and to the development of shipbuilding. The industries developed had other industries that developed around them. Overall Northern Ireland had entered upon a virtuous cycle of growth that was self-perpetuating.¹⁹ Crotty (1987) accounts for Northern Ireland's greater economic achievements as the advantages of a 'garrison class (Northern Irish Protestants) over the garrisoned Catholic majority of the island'. That is to say they were given a favoured position by the British over their catholic neighbours.²⁰ Also Northern Ireland had had the benefit of the 'Ulster Custom' which was the unwritten recognition of the tenant's saleable interest in his or her holding. This had been one of the three F's and as it had existed in Ulster for a long time there was much more stability in the region which would have engendered faster growth than in the land agitated twenty-six counties. GNP per capita ranked Ireland tenth of twenty three nations at the outset of World War I with most estimates maintaining an average per capita income that was 60% of the British level. This gives a picture

¹⁹ Ibid., pp.8-10.

²⁰ Crotty, R. (1987), **Ireland in Crisis: A Study in Capitalist Colonial Undevelopment**, Brandon, p.15 and p.51.

of a much less well-endowed country, but it must be argued that the comparison compares Ireland to the then richest nation on the planet at that time.²¹ But despite this there still remained the very harsh reality of what the vast majority of Irish people were faced with. This was mass poverty which led to over five million people emigrating during the period from 1841 to 1921 which also saw the population of the island decline from 6.5 million to 3.1 million.²²

Crotty puts forward an interesting case for the state of the Irish economy at the time of independence. His analysis of the Irish economy to the present day leads him to conclude that what has taken place is not development but 'undevelopment'. This is defined as 'when there are (a) fewer people who are as well off as formerly; or (b) more people who are as badly off as formerly.' Ireland would have satisfied the first condition in 1922, at the time of independence and right up to recently but hardly to the present day.²³ He goes on further to add that no former capitalist colony has managed to develop and the chances of any of them doing so are very remote.²⁴ Ireland's colonisation stemmed from her 'proximity, and strategic importance to land-hungry, powerful, colonizing England'.²⁵

T.A. Jackson's (1991) views on the effects of British colonisation on Ireland also shed some light on the scale of the problems to be faced by the new government of Ireland in 1922. It is his contention that the emergent Irish nation had had to contend with the consequences of British rule. He points to the Navigation Acts as having restricted Irish trade and consequently its industrial development.²⁶ Ireland's development was further hampered by the loss of its own parliament with the Act of Union in 1801, which would have enabled it to protect its own

²¹ Ibid., pp.12-13.

²² Wiles, J.L. and Finnegan, R.B. (1993), **Aspirations and Realities: A Documentary History of Economic Development Policy in Ireland Since 1922**, Greenwood Press, p.3.

²³ Crotty, R. (1987), op. cit., p.11.

²⁴ Ibid., p.17.

²⁵ Ibid., p.63.

²⁶ Jackson, T.A. (1991), op. cit., pp.93-95.

nascent industry, as well as being hampered by a lack of capital for investment due to supposed excessive removal of funds to Britain.²⁷ The latter certainly was the case for most of the Nineteenth Century if not at the time of independence.²⁸ According to Jackson these obstacles conspired against the type of development which was contemporaneous in industrialising Britain, happening in Ireland. Legislative obstacles in the form of the Navigation Acts had impeded Ireland's development in the Seventeenth Century and had led to her falling behind Britain and from this less developed state could not overcome the great obstacle of the Eighteenth Century, which was the competitive advantage enjoyed by Britain which had been brought about by its previous anti-freemarket discrimination towards other countries. Ireland therefore assumed the role of provider of cheap foodstuffs, raw materials and labour for both economic and military purposes.²⁹ Because of the lack of industrial development there was very little alternative employment to agricultural employment which led to a greater demand for land which in turn led to greater and greater subdivision of what land there was available. The transformation of the land tenure system to peasant ownership was not finally settled until the passing of the Wyndham Act of 1903. By the time independence came therefore, it could be said that 'the Free State' had many economic obstacles facing it.³⁰

Phase Two: 1922-1939

When the Treaty was agreed with the British, Cumann Na nGaedhael, under the pro-treaty W.T. Cosgrave, formed a government. Republicans, who were opposed to the treaty refused to enter the Dail (Parliament). A civil war ensued which culminated in the defeat of the Republican forces and resulted in the division of the country between the six counties, in what is now termed as Northern Ireland, and the twenty-six counties which became the Irish Free State.

Despite the fact that Arthur Griffith was hailed as hero by the pro-treaty side in the Civil War and its subsequent victory which was aided by the British Armed Forces in 1922, his ideas on

²⁷ Jackson, T.A. (1991), op. cit., pp.205-206.

²⁸ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), op. cit., p.9.

²⁹ Jackson, T.A. (1991), op. cit., p.205.

³⁰ Lyons, F.S.L. (1987), op. cit., pp.218-219.

protection for indigenous manufacturing industry were never adhered to. The subsequent coming to power of the Cumann na nGaedhael government's economic policies were according to Daniel a 'triumph of pragmatism over dogma'.³¹

The government pursued economic policies that allowed market forces 'to operate virtually unchecked'.³² The reason, Daniel cites, for this direction of policy was that the country was heavily reliant on agriculture; agricultural exports to the UK represented 98% of Ireland's total export market. Furthermore the new government were fearful that there would be capital flight from Ireland if it did not encourage an image of political stability and maintain a friendly attitude towards business. The government pursued a very conservative monetary policy - raising Irish interest rates by 1% above that of British banks.³³ It was agriculture and not industry that took precedence in order of importance in terms of economic policy. As Daniel states 'agriculture was equated with economic prosperity'. The overriding belief was that if this sector prospered, the incomes derived therefrom would increase demand which would supposedly in turn create demand for indigenous manufactures in time.³⁴

Cumann na nGaedhael was essentially the party of the business and properties classes as well as the more affluent farmers. The new government had the support of the large farmers whereas the majority of people who worked the land were small farmers who felt alienated from Cumann na nGaedhael. This was evident from their mass support for subsequent Fianna Fail governments. This amalgamation of conservative interests very much favoured orthodox approach to the organisation of the economy. Cumann na nGaedhael had accepted the Treaty and the subsequent partition of the country, the use by British of certain Irish ports, the oath of allegiance to the British monarchy and the land annuities (payments of money to the British Exchequer by Irish tenant farmers who had bought their land under 'The Land Acts') to London. They were therefore not adverse to strong links to Britain and would certainly not incur the wrath of their former

³¹ Daniel, T.K., (1987), **Griffith on His Noble Head: The Determinants of Cumann na nGaedhael Economic Policy 1922-1932**, Ulster College: The Northern Ireland Polytechnic.

³² Ibid, p.56.

³³ Ibid, pp.58/59.

³⁴ Ibid, p.61.-

master.³⁵ As Kennedy, Giblin and McHugh concur there was 'little demand for protection' from the conservative and middle-class elements that had control of political power in the new state.³⁶ Cumann na nGaedhael maintained their rule for a decade up till 1932. The economic orthodoxy that prevailed was one that was ardently anti-trade unionist and pursued a massive programme of reducing state expenditure. There was a cabinet consensus that the main stimulus to economic growth would be through the promotion of agriculture. This belief and the policy of fiscal rectitude led to a decade of economic stagnation.³⁷ This strategy must also be considered in the light of the subsequent international economic depression and it was not unique to Ireland. There were however some efforts to develop the physical infrastructure of the nation with expenditure on roads, electricity, drainage and sugar processing but these in themselves were hardly adequate to generate much further growth for the economy.³⁸ Emigration continued but at an even faster average rate than in the two previous decades with almost 33,000 people leaving the country each year.³⁹

A Different Approach

Griffith's protectionist strategy (See Chapter 3) which had remained dormant throughout the first decade of the new state was once again on the political agenda with the election victory of the Fianna Fail Party under the leadership of De Valera in 1932. The attendant aspirations after independence had not materialised under Cosgrave's government. The new government however, promised to build a self-sufficient economy: 'to free the countryside from the dominance of cattlemen, to extend the area of tillage, to develop home industries and to provide employment for those who might otherwise be forced to emigrate'.⁴⁰

³⁵ Wiles, J.L. and Finnegan, R.B. (1993), op. cit., p.16.

³⁶ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), op. cit., p.36.

³⁷ Wiles, J.L. and Finnegan, R.B., (1993), op. cit., pp.16-17.

³⁸ Mitchell, A. (1974), **Labour in Irish Politics 1890-1930**, Irish University Press, pp. 195-196.

³⁹ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), op. cit., pp.38-39.

⁴⁰ Lyons, F.S.L. (1987), op. cit., p.614.

The new government introduced legislation designed to protect indigenous manufacturing firms from foreign competition. According to McAlesse (1971), it was a far more comprehensive and long-lasting industrial protection policy than most other countries.⁴¹ The aim of the policy was to ensure Irish ownership of production and to raise employment and thus reduce emigration. The policy had parallels with similar attempts by the Latin-American countries to introduce import-substitution policies. Even though there was manufacturing growth in Ireland directly due to these policies, the growth was not enough to compensate for a decline in agricultural employment. Productivity growth was low in the indigenous manufacturing sector and was retarded by the small domestic market. Sundrum's general comment on the strategy has relevance for Ireland, "After a short initial phase of rapid expansion, the industrial sector came up against the limits of the home market and went into severe recession in many countries."⁴² Firms therefore remained small in size and were hardly in a position to aspire towards substantial export growth. For firms to have achieved success in export markets they would have to have been able to produce relatively complex consumer goods or to produce production goods that would in turn produce consumer goods. With the absence of economies of scale in the protected domestic market producing such goods would have been prohibitively expensive and certainly not be offset by the export of basic agricultural products or raw materials. Therefore the dual objectives of maximising self-sufficiency and keeping production in Irish ownership would have been, according to Daly (1984), difficult to integrate.⁴³

De Valera's government abolished the Oath of Allegiance and declared its intention of arresting the contentious 'Land Annuity' payments to the British. The British government reacted to this by imposing taxes on the importation of Irish cattle in order that the revenues lost to the

⁴¹ McAleese, D., (1971), **Effective Tariffs and the Structure of Industrial Protection in Ireland**, ESRI, Dublin, p.45.

⁴² Sundrum, R.M., (1983), **Development Economics: A Framework for Analysis and Policy**, Wiley, p.235.

⁴³ Daly, M., (1984), An Irish-Ireland for business? The control of Manufactures Acts 1932 & 1934, **Irish Historical Studies**, xxiv, No.94, p.270.

Exchequer might be recovered.⁴⁴ The Irish government then imposed various tariffs on British goods entering the Free State. This is part of what became termed as the 'Economic War' and was not finally resolved until an Anglo-Irish agreement in 1938. Kennedy, Giblin and McHugh believe that the initial response by the Irish government to the British tariffs was not retaliatory action but was in fact an essential part of the drive towards self-sufficiency and the weakening of economic dependence on Britain.⁴⁵ This attempt at Import-Substitution therefore led to tariffs being introduced in an attempt to stimulate the industrial sector through an emphasis on indigenous raw materials and internal demand. See Table 1.3.

⁴⁴ Daly, M. (1981), **Social and Economic History of Ireland Since 1800**, The Educational Company, Dublin, p.148.

⁴⁵ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, p.43.

Table 1.3

Source: Flynn, F. (1972), 'The Development of Home Industry',
Administration, Vol. 20, No. 1, Table 2

Apart from the drink industry there was an employment increase in every major industry in that period as can be seen from Table 1.4. Manufacturing employment did increase to nearly 50,000 for the first time since the famine.⁴⁶ See Table 1.4

Table 1.4

Source: O'Hagan, J.W. and McStay, K.P. (1980), *The Evolution Of Manufacturing Industry In Ireland: A Report Commissioned By The Confederation Of Irish Industry*. Helicon: Confederation Of Irish Industry.

Phase Three: 1939-1958

The economic war had no sooner ended when the Second World War broke out. Economic survival became the *raison d'être* of De Valera's government. Protective duties were gradually curtailed as the importation of fuel, raw materials, machinery and many types of food became exceedingly difficult. Attempts to expand agriculture were also severely affected by the lack of fertiliser, animal feeds, and other agricultural supplies that had usually been bought from Britain. Exports continued, though not to pre-war levels and this resulted in Ireland building up

⁴⁶ Daly, M. (1981), *op. cit.*, p.150.

a substantial current balance of payments surplus and sizeable external reserves. During the war even more people, however, continued to leave the country to either join the British forces or to the military equipment producing factories of Britain.⁴⁷

But the post-war world economy into which Ireland was entering was characterised by rapid economic expansion. Ireland, which was predominantly an agricultural country with over fifty percent of the workforce involved in agriculture,⁴⁸ and with small-scale technologically backward industry lacking in export marketing expertise, was not in a position to exploit and benefit from the post-war boom. The movement therefore, towards industrialisation and the generation of employment through industrial production was slow as can be seen in Table 1.5.

Table 1.5 Source: O'Hagan, J.W. and McStay, K.P. (1980), *op. cit.*,

⁴⁷ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, p.49-52.

⁴⁸ *Ibid.*, p.56

A new coalition government in 1948 and the appointment of Séan MacBride as Minister for External Affairs saw an attempt at a coherent plan for the Irish Economy. It represented hopes for the development of the agricultural, tourist and manufacturing industries. It was called The European Recovery Programme: Ireland's Long Term Programme (1949-1953). The programme was instituted with aid from the USA through the Marshall Plan and designed to strengthen the Irish economy through improvements in infrastructure. Though the Recovery Programme's aspirations were somewhat unrealistic as phenomenal growth levels were hoped for, one major development did stem from it. The most significant aspect of this period was the foundation of the Industrial Development Authority (IDA) which was set up by the state in 1949 as an agency of the Department of Industry and Commerce to help plan and aid industrial growth and also to examine how protectionism had affected Irish industry.⁴⁹

In 1956 the Industrial Grant Act resulted in the IDA sponsoring up to two-thirds of the cost of land and buildings for industrial development in rural areas. The 1956 Finance Act used a 50% tax relief on profits for companies on their export sales. In another attempt to encourage manufacturing production the Finance Acts of 1957 and 1958 went as far as ten year tax-free profits on new manufacturing exports.⁵⁰

The protectionist era in Ireland ended therefore in the 1950s. Protection failed to develop an export marketing capability and with the relatively small size of the domestic market the new infant industries would never be in a position to develop an export capability and compete successfully on an international basis. O'Malley (1989) argued however, that if the period of protection which happened directly afterwards, had not taken place then the period of industrial stagnation would probably have been worse.⁵¹

⁴⁹ Wiles, J.L. and Finnegan, R.B. (1993), *op. cit.*, p48-55.

⁵⁰ *Ibid.*, p.69.

⁵¹ O'Malley, E. (1989) **Industry and Economic Development, The Challenge for the Latecomer**, Gill & Macmillan, PP70/71.

Phase Four: 1958-1982

1958 was the year that has always been heralded as the major turning point for the Irish economy. It is generally perceived as being the point from when the opening up of the economy took place.⁵² The date is hailed as significant as it was in November of that year that T.K. Whitaker, the then Secretary of the Department of Finance, published a report entitled 'Economic Development' which proved to be the thrust behind the 'First Programme for Economic Expansion'.⁵³ The fact however, that there appeared to be growth after the introduction of the Programme probably has more to do with 'a set of fortuitous circumstances' than anything else.⁵⁴

Indigenous capital was not considered capable of attaining the higher levels of growth that were aspired to, and therefore the focus moved towards attracting foreign capital to boost the industrial sector. The grants that would be used to attract such investment were to be financed from the encouragement of savings, the reduction on 'unproductive' expenditures on housing and health. In an effort to create a greater regional balance there would be 'Designated Areas' with higher grants or special grants for industry that would either establish industries in these regions from scratch or from industries already established in these designated areas that would be prepared to increase their operations. A policy of fiscal expansion was pursued but the proposed cuts in public expenditure relating to health, housing and other social areas, which were meant to release the necessary funds to finance the programme, never actually materialised.⁵⁵

The First Programme 1958-1963 saw National Income rise with real incomes per capita rising by 4%. This was mainly due to an increase in agricultural output of 9% in the 1960's and an 83% increase in the value of manufacturing output between 1959 and 1968.⁵⁶ In the Second

⁵² Fanning, R. (1990), "The Genesis of Economic Development", from **Planning Ireland's Future - The Legacy of T.K. Whitaker**, edited by McCarthy, F., Glendale Press, Dublin, pp.74-77.

⁵³ Lyons, F.S.L. (1987), *op. cit.*, pp.628-629.

⁵⁴ Wiles, J.L. and Finnegan, R.B. (1993), *op. cit.*, p.88.

⁵⁵ Kennedy, K.A., Giblin, T. and McHugh, D., *op. cit.*, p.66.

⁵⁶ Hickey, D.J. and Doherty, J.E. (1987), *op. cit.*, p.491.

Programme (1963-1968) there was a much greater focus on trying to prepare the industrial sector for the arrival of free-trade. Membership of the EEC (now the EU) loomed large on the horizon and there appeared to be good reason to attempt to restructure industry so that Ireland could avail itself of greater access to wider markets if it could achieve the requisite competitiveness that could help Ireland trade successfully internationally. The Programme fell apart when it was realised that Ireland would not be joining the EEC quite as soon as it had expected due to negotiating problems with the British government.⁵⁷ A balance of payments deficit which had been approved by the IMF was increasing very rapidly at this time in the belief that the deficit would be offset by foreign direct capital investment in the country.

The Third Programme was initiated in 1969 again with the assumption of the impending membership of the EEC. Like the Second Programme (when many of the growth targets were not achieved) the Third Programme relied heavily on foreign investment to try and stem the perennial unemployment problem.

Despite its shortcomings, the First Economic Programme had the important 'psychological effect by helping to establish a consensus of what to do'.⁵⁸ There was a belief that protection would have to be dismantled and free-trade embraced if Ireland were to keep up with the rest of Europe. With the signing in 1966 of the Anglo-Irish Free Trade Area Agreement (AIFTAA) Ireland gained greater access to the British Market for agricultural exports in return for phasing out tariffs on British manufactured products over a ten year period. Free trade was finally agreed to with the member countries of the EEC (EU) when Ireland along with Britain joined in 1973.⁵⁹

There had been an average growth of 18% each year from 1968 to 1973 in volume of manufacturing exports with a 23% average growth in the value of these over the same period. Not only was the objective of increasing exports achieved, but also the objective of moving the focus of manufacturing exports away from the UK to other markets. From a high of 80% of all

⁵⁷ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, p.66.

⁵⁸ Wiles, J.L. and Finnegan, R.B. (1993), *op. cit.*, p.89.

⁵⁹ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, pp.67-68.

manufacturing exports to the UK in 1958 the figure had dropped to 58% by 1972. Exports to EEC countries rose from 6% to 16% in the same period.⁶⁰ See Table 1.6.

Table 1.6

Source: McAleese, D. (January 1983), **Changing Patterns Of Trade in Community Report: Ten Years In Europe**, European Community (European Union) Publications, Volume 3, No.1.

By 1972, on the eve of entry into the EEC, Ireland had appeared to have moved during the previous 15 years from being an agricultural country to one that was beginning to resemble that of an industrial economy. Manufactured exports were now almost equal to agricultural exports

⁶⁰ Ibid., pp.68-69.

whereas in 1958 they were about one quarter the size of the latter. Industrial employment now accounted for one-third of the total workforce and exceeded agricultural employment by about one-fifth. The GDP arising in industry was nearly double that in agriculture.⁶¹

But at the time of joining the European Economic Community Ireland also faced many new economic challenges. Among them was greater exposure to a greater market for exports but also to the greater competition involved therein that could potentially emasculate the more underdeveloped indigenous manufacturing sector of the Irish economy. Table 1.7 shows how some

Table 1.7 Source: IDA. Employment Survey (1981)

⁶¹ Ibid., pp.70-71.

indigenous sectors suffered with the opening up of the economy but that most sectors apart from textiles and clothing & footwear were making a recovery by 1980.

The Common Agricultural Policy or CAP would subsidise the agricultural produce of poorer member states like Ireland which would, as a net exporter of farm produce, significantly benefit therefrom. The benefits deriving from CAP would supposedly compensate Ireland for the greater exposure to European competitors in the manufacturing sector. With the abandonment of protectionism and the advent of a more outward looking strategy, the state made a deliberate decision to improve the industrial infrastructure and proffer assistance to the indigenous industrial sector in order that it might be better placed to cope with the increased competition that was likely to take place. It was hoped that the new 'streamlined' industrial sector supported by an expanded agricultural sector would be the platform from which greater economic growth would be launched.

Originally 'adaptation councils' were established to facilitate the inevitable rationalisation that the greater competition from joining the EEC (EU) would bring about. But many companies did not use the service. The imperative of preparing for import penetration did not seem to become apparent to many traditional companies until the early 1970's when 'low wage competition', particularly in textiles and clothing, made inroads into Irish export markets by utilising new technology and low wages.

Contemporary with EEC membership in 1973 was the 'First Oil Shock' whereby the price of oil increased by 400%. The trade balance therefore swung heavily in favour of imports while aggregate demand for Irish products and services suffered as a result. This recession was a serious blow to the Irish economy. 'The effects of the restrictive monetary policies and the increase in the oil price together with a fall in farmers' incomes, were quite substantial for a poor country like Ireland'.⁶²

The government's response was to increase current spending with the effect that the current

⁶² Kirsten, J. A., (1990), **Policies for Rural Peripheral Regions in the European Community**, Nijmegen Studies in Development and Cultural Change, p162.

budget went from about 0.4 % of GDP in that year to 6.8% of GDP by 1975. The expenditure allowed for an average of real GDP growth in the first six years thereafter of 4.1% despite the international crisis. Irish policy makers shared the consensus that the worst excesses of cyclical or Keynesian unemployment could be tackled by active demand management policies. But could a small open economy like Ireland's manipulate the economy to solve its unemployment difficulties through demand management?

The economy had begun to pull out of recession in 1976/77. Export increases, particularly those of newly established foreign companies under the auspices of the IDA played a significant role in this. But despite the increased numbers of employed people, the gains were counteracted by huge growth in the size of the labour force. The Industrial Development Authority then increased their employment creation targets to 75,000 as a result of recommendation in The White Paper of 1978 in the period from 1978-82. It was hoped that this would be achieved by helping Irish companies into higher added value based products. This strategy would be assisted by good quality design and targeting specialist market areas using well-coordinated and professional marketing. The Strategy was to involve smaller indigenous firms as well as the continued efforts to attract DFI to the country. In 1979 however 'The Second Oil Shock' occurred and this had an adverse effect on employment which again was exacerbated by the continued high growth of the labour force.

One positive development continued to provide some relief as regards the crisis within the World economy which was hard felt in Ireland. The IDA had been highly successful in attracting direct foreign investment (DFI - henceforth) to Ireland. The vast majority of which is of US origin followed by the UK and Germany as well as from firms from Australia, Canada, France, Japan, The Netherlands, Switzerland, Sweden, Belgium, Italy and Finland. See Table 1.9.

Table 1.8

Source: Hood, N. and Young, S. (1983), *op. cit.*,

The US investment alone was 42% of their entire investment in South-East Asia and the Pacific. By the mid 1970s DFI generated employment comprised almost 33% of all manufacturing employment in the Irish Republic. New DFI made up almost all of the growth in manufacturing employment in the second half of the 1970's. The attraction for such investment was seen to be the advantages to be gained from using Ireland as a tax shelter from which to manufacture for export to the rest of the EU. This was believed to be the main reason why manufacturing employment growth in Ireland was being sustained as it was declining in most other European countries. This phenomenon will be examined in the context of the theories of Peripheral Fordism in Chapter 3.

This period of DFI growth was transforming Ireland very much into a high-tech exporter with 80% of Ireland's non-food exports being accounted for by such industries. Ireland had the highest share of electronics in non-food exports of any country in the OECD. Between 1980 and 1985 chemicals, machinery and equipment made up nearly 50% of the growth in exports with electronics making up 28%. In the same period chemicals, office equipment and instrument engineering grew 16% per annum on average. All of these industries were totally dominated by foreign firms, the majority of which are US.⁶³

Kindleberger (1987) regarded the IDA's regional plans (1973 - 1977)⁶⁴ as having been unrealistic. He argued that the *raison d'être* of a subsidiary company, which is part of a multinational corporation is to integrate its operations into the wider operation of a normally very complex international operation. The IDA's desire to attract foreign companies that would possess a high degree of independence in terms of policy and decision making would contradict the essential nature of the 'Multinational Enterprise'.⁶⁵

Despite this however, Ireland, through the Industrial Development Authority, did manage to

⁶³ **The Economist** (16th January 1988), "Survey of the Republic of Ireland"

⁶⁴ Industrial Development Authority (1972), **Regional Industrial Plans, 1973-1977**, Part 1, June, IDA., Dublin, Stationery Office, p.39.

⁶⁵ Kindleberger, C.K. (1987), "Multinationals and the Small Open Economy" in **Multinational Excursions**, pp.111-112.

attract many firm seven though they did not possess the characteristics that the IDA had aspired to in Regional Industrial Plans, 1973-1977. (This aspect of industrial policy will also be looked at more closely in Chapter 4). They managed to do so by offering companies a country with a stable political system and a plentiful supply of labour. On top of this they added easy access to the EEC with quite an array of grants and tax incentives.⁶⁶

The tax incentives were contained within the tax administration system whereas the other incentives/disincentives would be applied directly to profit or were designed to affect the prices of capital and land. Incentives included the following:

1. A low corporation tax of 10% to be charged on profits on the sale of products manufactured within the country, whether sold in Ireland or without.
2. Non-repayable cash grants made available to manufacturing industry towards fixed asset costs of up to 60% in certain designated areas and up to 45% in others.
3. Grants covering the costs of re-equipping and modernisation of up to 35% in designated areas and 25% in others.
4. 100% tax depreciation allowances which included accelerated depreciation, on the gross asset value inclusive of grant, except in the case of buildings which are allowable net of grant only.
5. Rent reductions on purpose-build modern factories.
6. Interest subsidies both direct and indirect. The indirect interest subsidy being available under 3 different schemes;
 - (a) Leasing. Banks which can pay up to 45% tax on profits had the option of buying assets and avail of the depreciation allowances. The asset could then be leased

⁶⁶ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, p.240.

to a firm and the rental could be maintained at a low level reflecting the lower net price which the bank had paid. The depreciation allowance serves as an interest free loan to the bank. The leasing firm received a reduced rental.

- (b) Preference share loan facilities. Banks would issue preference share finance to firms that would qualify for export sales relief. Dividends on the preference shares paid out of tax-free profits are tax-free in the hands of the shareholder. Therefore the banks are receiving dividends, through this unique form of lending, that are tax free.
 - (c) Section 84 loans. This was a similar scheme to the one just outlined above with the greater benefit being enjoyed by the bank. This scheme took over from preference share financing after 1977 but it itself was phased out in 1984.
7. IDA Training grants - to negate the costs of wages, travel and subsistence in Ireland or at parent companies abroad.
 8. AnCo, (now FAS) which was a state sponsored body to promote training at all levels in industry and commerce which is now defunct) training grants.
 9. An employment incentive scheme that was designed to encourage employers to employ more people by specified dates in return for monetary reward.
 10. There were a number of lesser schemes designed to encourage employers to employ more people or at least keep workers employed who might have otherwise been at risk of being made redundant by offering the employer an incentive allowance to do so.⁶⁷

The array of grants and incentives looks extensive but the cumulative effects of them will be discussed in later chapters. The low corporation tax of 10% is still in existence and will only

⁶⁷ **Economic and Social Research Institute, Employment and Unemployment Policy for Ireland**, edited by Coniffe, D. and Kennedy, K.A., E.S.R.I., Dublin, 1984, pp.195-200.

be altered on January 1st 2003. Most of the incentives were applicable to all firms - be they indigenous, foreign, traded or untraded. Nearly all of the direct grants were financed by the exchequer which in turn was fuelled by heavy borrowing. The package of incentives was designed to enhance the process of industrialisation through assisting firms to expand their businesses. It was hoped that by doing so the cumulative effects of such expansion would lead to even greater expansion and that indigenous firms would be drawn inevitably into an upward spiral of more technologically advanced forms of industrial production. In essence, the programme can be seen as an attempt to remove the worst of the disadvantages that the underdeveloped state of Irish industrialisation presented, while at the same time presuming that participating in a free and open market, Ireland would ultimately achieve the same level of industrial advancement as its European neighbours.

In the initial phase of the strategy it was believed that the immediate costs would be minimal. When foreign companies did arrive the cost of providing grants and the tax concessions to exporters would be financed by borrowing. As long as borrowing could stimulate exports and that the economy could attract capital inflows thereby easing the balance of payments situation, there would be no limit on the capacity of the government to borrow. At the outset of the strategy it was believed that, in the long run, previously protected industry would suffer through the opening up of the economy but it was also believed that the benefits of the strategy would have an immediate and positive effect on the economy. Formerly protected industries could counter any loss of sales in the domestic market (due to the inevitable increased competition from overseas companies) by being assisted by government subsidies which were supposedly designed to increase their exports.⁶⁸

The policy of attracting DFI really had started as far back as 1956 and the initial phase is characterised by the domination of British capital. The firms attracted mainly entered the traditional sector such as food-processing, footwear, clothing and textiles, but represented the more modern participants therein. The firms involved mainly catered for the domestic market. Nearly all of the DFI attracted after the Third Programme (1969) tended to be export-orientated.

⁶⁸ E.S.R.I. (Economic Social Research Institute) (1971), "Effective Tariffs and the Structure of Industrial Protection in Ireland", E.S.R.I., Dublin, p.50.

The type that has been attracted, has generally been the modern type of industry that produces exclusively for global markets and locate few of the important functions in the host country. These types of DFI are the ones which are least likely to establish linkages with the Irish economy. Planning policy has been criticized for not being able to encourage foreign firms to retain a greater proportion of their profits in Ireland.⁶⁹

In the late 1960's and up to the present, American capital came to dominate more so in terms of size of investment rather than in numbers of firms. Some of the investment was also located in the traditional sectors but American capital was also to be found in the extraction of raw materials and processing which are very capital intensive activities. Apart from the 8.7 % that accounts for the "others" category in terms of country of origin all the other firms came from North America or Europe.

⁶⁹ Bradley, J. (1990), "The Legacy of Economic Development: The Irish Economy (1960-1987)", from **Planning Ireland's Future - The Legacy of T.K. Whitaker**, edited by McCarthy, F. Glendale Press, Dublin 1990, p.139.

The third phase is also marked by American capital but also that of Germany, Britain, Holland, Canada and Japan. This phase is characterised by firms producing more complex products such as machinery, pharmaceuticals and chemicals, instruments and electronics which are primarily for export.⁷⁰

It is important to look at the overall outcome of Ireland's industrialisation efforts in this the third phase of its economic history. What progress had been made by the time the Telesis Report was published in 1982? This report has been viewed as a landmark in the economic self-analysis of Ireland. Had Ireland progressed to the extent that it should be considered an industrialised country or an underdeveloped ex-colonial economy?

In 1979 just prior to the Telesis Report the World Bank Atlas ranked average Irish incomes as 27th among 126 nations with populations over 1 million.⁷¹ Ireland also has levels of literacy that are comparable to the most developed countries, high life expectancy, nutrition and health levels are high, low incidence of disease and child and infant mortality and income inequalities are less than in most countries.⁷² A look at Table 1.10 would appear to indicate that in terms of a decreasing proportion of individuals being employed in agriculture and with a contemporary increase in the proportion involved in industry, Ireland was beginning to resemble the structure of other more advanced European economies. Service industry involvement as a proportion of the work force was also following a similar pattern. Despite this however, total employment had fallen but was, just prior to the Telesis Report, beginning to rise again.

Telesis And Direct Foreign Investment

A major recommendation of Telesis was that there be a substantial reduction in the level of grants to new Multinational Enterprises as soon as was possible. It was believed that Ireland's incentives to attract MNEs were far greater than those offered by other countries. It was also their contention that the states resources could be better employed in the development of

⁷⁰ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, p.240.

⁷¹ **World Bank Atlas** (1979), p.6.

⁷² **World Bank Development Report** (1980), pp.112-157.

indigenous industry (defined as companies owned in the main by Irish interests).⁷³ In the preface to Telesis, the National Economic and Social Council (henceforth the NESCC) announced how, 'the development of indigenous industry is a stated priority of existing industrial policy'.⁷⁴ Concern was expressed however, that in attempting to bring about the development of indigenous industry, that no action be taken to reduce the effectiveness of incentives in attracting Foreign Direct Investment (henceforth DFI) . What was meant by this apparent paradox was that the level of incentives should reflect the international competition for projects through the monitoring the incentives offered by other countries. Another inconclusive element of the new strategy was that any radical changes in policy towards DFI could have negative the 'effect of destroying Ireland's reputation for consistency in its policies for attracting foreign investment'.⁷⁵

Attempting to capitalise on the supposed benefits of attracting Foreign multinationals to the Irish Republic therefore has been a major pillar of industrial strategy during this latest phase of industrialisation. The effectiveness of this strategy and the substantial amount of financial resources that the Irish State has utilised have been debated frequently, as has the possibility of attempting alternative development strategies. Telesis found that, '...as comparisons show that Ireland on average provides a substantially higher incentive package than other countries for attracting foreign firms'.⁷⁶ The Report also pointed out that, 'Currently Ireland receives almost no tax revenue from foreign owned companies operating in the country.'⁷⁷

Of central importance for this thesis was Telesis's analysis of the role played by DFI in stimulating the development of Irish industrialisation,

'Ireland's economy is becoming increasingly dependent on foreign-owned enterprises. The Irish government spends a large portion of its scarce resources to entice these companies to Ireland. The long-term defensibility of the jobs created by these firms is

⁷³ NESCC (1982), op cit., p. 17.

⁷⁴ Ibid, p.2, Section 8.

⁷⁵ Ibid p.6

⁷⁶ Ibid p.195

⁷⁷ Ibid p. 149

therefore of crucial importance. Equally as significant is the extent to which these companies contribute to raising living standards in Ireland by accelerating the pace of industrialisation and speeding the evolution of Ireland's industrial structure towards high value-added-per-employee businesses.⁷⁸

The Telesis Report was very precise in how it saw the role of DFI in Ireland, but reiterated again and again the need to develop a successful indigenous manufacturing base....'no country has successfully achieved high incomes without a strong base of indigenously owned resource or manufacturing companies in traded businesses'...⁷⁹ The Report's findings and recommendations as regards indigenous manufacturing industry will be dealt with in later chapters.

One of the most profound claims of Telesis and certainly one of its most important findings in relation to the consequences of the role of overseas investment, was outlined as follows:

Foreign-owned industrial operations in Ireland with few exceptions do not embody the key competitive activities of the businesses in which they participate; do not employ significant numbers of skilled workers; and are not significantly integrated into traded and skilled sub-supply industries in Ireland.⁸⁰

Coupled with the low-tax rate, the Report also pointed out that MNEs could even further reduce that level of payment of tax to the Irish exchequer 'through various depreciation and other tax credits.'⁸¹ Even more alarming than the loss of potential revenue for the Irish Government and consequently the economy as a whole, was the Telesis conclusion, that the low tax on profits discouraged foreign firms from locating integrated business operations in Ireland.⁸² Telesis also

⁷⁸ Ibid.

⁷⁹ NESAC,(1983), *op cit.*, p185.

⁸⁰ Ibid. p151.

⁸¹ Ibid. P173.

⁸² Ibid. p152.

concluded that capital grants were the 'extra icing on the cake' as most firms came to Ireland to avail of low taxes and gain access to the EU market.⁸³

Telesis elaborated on how it saw the future of state expenditure in relation to DFI in Ireland: That funding should continue to selected firms which located key competitive functions in Ireland and that could be regarded as stand alone entities.⁸⁴ 'Continuing high grant levels for projects with the desirable characteristics we have described while cutting grants substantially for other projects will yield employment results which are as good as is currently achieved, for less money.'⁸⁵ Even though Telesis believed that 'The activities of foreign-owned companies in Ireland can be enhanced and can be used to spawn indigenous efforts,..... they will not in themselves directly provide the industrial activities needed for rapidly rising incomes.'⁸⁶ The report also claimed that funds targeted for greater indigenous industrial development would have a greater impact.

However, apart from the employment benefits that derived from DFI in general there were specific problems with the type of DFI attracted. In 1982, Telesis had found that in the cases of the electronics firms in their survey most were manufacturing satellites, 'Very few of the electronics companies in Ireland do significant marketing, research and development, or integrated manufacturing in the country at present'.⁸⁷ Furthermore, Telesis pointed out that not only were there few exceptions where the engineering functions were anything more than being, 'limited to production adaptation and marginal process improvements', but that also that the electronics industry in general had failed 'to provide an opportunity for significant sub-supply linkages'.⁸⁸ The Telesis Report had been equally scathing about the foreign firms engaged in

⁸³ Ibid. p198.

⁸⁴ Ibid. p229.

⁸⁵ Ibid. p231.

⁸⁶ Ibid.

⁸⁷ Ibid. p.139.

⁸⁸ Ibid, p140.

the computer industry in Ireland which were not, it was claimed, involved in the key competitive activities such as 'product design (including hardware, systems software, overall system architecture and language software) and, where sales are not done through original equipment manufacturers, marketing and service'.⁸⁹ Ireland's foreign mechanical engineering firms added to Telesis's ever-increasingly pessimistic view of the potential of DFI in Ireland for long-term industrial growth. The mechanical engineering firms surveyed by Telesis, 'consist mainly of sub-assembly and assembly shops of the sort commonly found in newly industrialising countries'.⁹⁰ Likewise with chemicals and pharmaceuticals, the potential spinoff effects for the Irish economy were very limited as the plants involved were specialised firms performing, 'a few process steps and export either intermediate or finished products' in an industry where the key competitive element was R&D.⁹¹

'Because the fine chemical and pharmaceuticals businesses operate in highly specialised areas and their new developments are often patentable, significant competitive edges within a given business can often be gained, leading to very high profitability. It is not surprising, therefore, to find that many of these firms have found "tax-free" Ireland an attractive location.'⁹²

Telesis's analysis of the general situation concerning DFI in Ireland and the potential contribution that it might make to the development of Irish manufacturing was very pessimistic. Referring to the future prospects of DFI in Ireland, the Report claimed that it was likely that the key elements of R&D, marketing and main process developments would continue to be located in or around metropolises with large markets and skilled pools of labour.⁹³ This was seen as the result of 'the competitive economic dictates' of the MNE, the nature of which has been outlined above. But of even more cause for concern for Irish policy-makers was the Telesis' findings on indigenous industry

⁸⁹ Ibid.

⁹⁰ Ibid, p.144.

⁹¹ Ibid, p.145.

⁹² Ibid.

⁹³ Ibid, p.231.

Telesis and Indigenous Industry

‘Successful indigenous industry is, in the long-run, essential for a high income economy. No country has successfully achieved high incomes without a strong base of indigenously-owned resource or manufacturing companies in traded businesses’.⁹⁴ The report drew a distinction between the traded and non-traded sectors. The traded sector involved firms which trade internationally or who must compete to some degree with international competition. The non-traded sector referred to firms producing solely for the internal market. The growth of these firms was seen as ‘inherently undesirable’ as their size and scope for growth was hampered by domestic demand which because of its size would limit their growth. The growth of non-traded firms would therefore be dependent upon the growth of firms in the traded sector and as a result the growth of the traded sector was seen as of paramount importance to the further development of the industrial base in the country.

Telesis was quite clear in how it foresaw the direction in which Irish policy makers should channel its resources for the future. It argued that:

‘To ensure that the Irish government’s industrial policy is appropriate to the creation of an internationally competitive industrial base in Ireland which will support increased employment and higher living standards’.⁹⁵

The success of the indigenous industrial sector would depend on how well it could overcome investment barriers and direct its activities towards developing ‘higher value-added-per employee businesses. The same competitive productivity advantages would also have to be achieved as the complex-factor cost businesses that already existed in the more advanced industrial economies.’⁹⁶

Telesis characterised the indigenous sector as ‘low-wage, subscale, uncompetitive complex-

⁹⁴ NESC, (1982), op cit., p.185.

⁹⁵ Ibid, p. 42.

⁹⁶ Ibid, p.56.

factor business'.⁹⁷ But even as far back as 1961 the Committee on Industrial Organisation (CIO) recognised that the technological sophistication of the indigenous industrial sector was very low. If the Telesis report findings were to be believed, little had improved by the time of its publication twenty years later⁹⁸. The organisation of complex factor businesses, as defined by Telesis, was based on strategic allocation of resources rather than simply taking advantage of the low cost of labour. Complex factor cost businesses 'require identification of key factors in cost structure (run length, scale application, distribution scale) and gaining long-term competitive advantage in those factors through appropriate investment and organizational structure'.⁹⁹

Telesis identified three types of indigenous companies. The first was the firms that were subject to low wage competition. The second were the firms that were involved in non-traded activities. The final sector was where firms were subject to competition from developed economies and experienced complex-factor costs.¹⁰⁰ Unfortunately, as was pointed out, complex factor businesses were the exception as there were few companies apart from the resource based industries that had an export business.¹⁰¹ 'Very few Irish companies have established true leadership based on manufacturing skills or cost advantage, or on product and process development, or on marketing and distribution in these international businesses'.¹⁰²

Telesis outlined the even more dismal impression of the state of indigenous industry when it came to the existence of potential of linkages between domestic manufactures and MNCs. The report found that 'Ireland's industry (indigenous industry) is only minimally meeting the supply requirements of foreign and domestic firms, and the proportion of necessary supplies bought

⁹⁷ Ibid, p.90.

⁹⁸ O' Sullivan, M., Manufacturing and Global Competition, in O'Hagan, J.W. (Ed.) (1995) **The Economy of Ireland, Policy and Performance of a Small European Country**, Gill & Macmillan, p. 385

⁹⁹ Ibid, p.96.

¹⁰⁰ Ibid, p.89.

¹⁰¹ Ibid, p.90.

¹⁰² Ibid, pp.111/112.

in Ireland is increasing only marginally'.¹⁰³ It was also claimed that a components supply industry had not materialised to any real extent. The reasons cited for that situation was the nature of the DFI attracted to the country and the inability of native manufacturing to adopt to the strict requirements necessary for the supply of the competitively traded sector.¹⁰⁴

One of the problems Ireland had as a late-industrialiser was that it had not yet developed a proper corporate base with the resources and management time to identify and overcome barriers to entry that were necessary to compete in internationally traded markets.¹⁰⁵ It was pointed out that the typical indigenous manufacturing firms was a small firm which was owned and managed by the same person with very little other professional input from another quarter.¹⁰⁶

Government policy and the role of the development agencies came in for strong criticism from the Telesis report. It was argued that there was not enough concern about the structure that was needed to make a company or industry competitive in the long run. The effect that this had was that there was a proliferation of small firms with little potential for growth and a proliferation of development agency staff to assist them.¹⁰⁷ Ireland had been too greatly influenced by a wave of contemporary belief in the importance of supporting small manufacturing firms as suppliers to larger firms. This was seen as the wrong objective for Irish policy-makers as Ireland did not yet possess the industrial corporate infrastructure with a net of small sub-suppliers. Ireland had a small domestic market and this hindered smaller firms from building up economies of scale at home and then moving into the export market. In 1982 Ireland continued to have small population and a low population density. It is a problem that many perceive as being a major obstacle to economic development. It prompted Johnson to remark that 'the small total population still makes many of the economic problems of the Republic difficult to solve within

¹⁰³ Ibid, p.116.

¹⁰⁴ Ibid, p.119

¹⁰⁵ Ibid, p.128.

¹⁰⁶ Ibid, p.130.

¹⁰⁷ Ibid, p. 127.

the confines of the national economy, since the small domestic market greatly restricts the kind of manufacturing industry that can flourish without recourse to the greater uncertainties of the export market.¹⁰⁸ If small firms in Ireland want to expand they would be forced to export earlier. Smaller Irish firms therefore would have to build up financial, managerial and marketing expertise far more quickly if they were to compete with their peers in the more advanced European economies for example.¹⁰⁹

Telesis insisted that policy strategists had to work out what should be the appropriate size for certain companies and as to what was an appropriate business structure in each case. Unless these problems were dealt with, Irish manufacturing companies would not expand as traded businesses and the whole body of development agencies would continue to increase in number at an ever increasing cost to the exchequer.

‘A major push towards skill development and export competitiveness needs a different pattern of resource allocation, a stronger corporate structure and the building of in-house capabilities as opposed to the never ending provision of consultancy services. Efforts at creating skilled and traded sub-supply industries are not systematically pursued’.¹¹⁰

There was too much emphasis on grant allocation on capital investment assistance which only proved necessary for a few businesses. Development agencies were being given the role of policy making when this task should be left to strategists with the overall portfolio for economic development policy.¹¹¹ Telesis implied by this that there appeared to be a lack of an overall plan and that what was necessary was a more structured approach.¹¹²

Telesis presented a structure through which the development agencies could stimulate the

¹⁰⁸ Johnson, J.H., (1987), **Republic of Ireland**, in *Regional Development in Western Europe*, Clout, H.D. (Ed), David Fulton Publishers, pp285-306.

¹⁰⁹ Ibid, p. 208.

¹¹⁰ Ibid, p. 210.

¹¹¹ Ibid, p.223.

¹¹² Ibid, p.232.

expansion of indigenous companies. First the 'corporate shell' of the company with export potential would have to be identified so that financial and managerial assistance could be proffered. This might involve a financial institution or holding company involving themselves in an equity share in the company. After this initial phase had been instituted, the subsidy would have to be arranged as a package of incentives designed to achieve the objective of developing a long-term competitive business. The incentives would be used to 'offset competitive price differentials' until such time that the company had improved its 'competitive cost position'.

Funds would be allocated for:

 funding of trips to home bases of foreign purchasers; securing foreign technology licences or paying inducement salaries for skilled personnel to come to Ireland to assist in the early stages of business development. Perform in cooperation with the companies, intensive international competitive analyses to determine the requirements for success in a given business in areas of organizational resources and scale and to seek out technology licences or managerial assistance.¹¹³

It was believed that this would involve assistance for fewer firms than who were already receiving grant-aid. The assistance in the initial phase would ultimately lead to larger companies being developed with strong internal capabilities.¹¹⁴ Other countries offered their exporters preferential rates for export loans and Ireland should do likewise. Following the Telesis extensive review and criticism on industrial policies' over-dependence on direct foreign investment as a means to promote industrial development, there was a realisation among some policy makers and formulators that it could only ever prove to be a short-term solution to Ireland's economic ills. It would only be through the creation of a sustainable internationally competitive indigenous base that such ills could be cured. The government's response to Telesis findings was an increased share of the grant budget to be allocated to indigenous manufacturing

¹¹³ Ibid, p. 232/233.

¹¹⁴ Ibid, p. 234.

companies.¹¹⁵ The Department of Industry and Commerce stated that despite the declared intention of increasing the portion of the development budget on indigenous industry the actual increase was quite small over the period from 1985-1989 in which it rose from 50.9% to 54.1%.¹¹⁶ Telesis understood that developing indigenous manufacturing would be a slow process and that it would be a more costly in terms of employment generation than spending to attract DFI.¹¹⁷ The implication was that it would prove more beneficial in the long-run.

Table 1.10

Source: Munck, R. (1993), **The Irish Economy: Results And Prospects**, Pluto Press, pp. 35 and 39.

Telesis as a Turning Point in Irish Industrial Policy and Performance

At the time of Telesis, the Republic had a population of 3.5 million inhabitants, which with 50 persons per square km made it a very thinly populated country. The employment structure was

¹¹⁵ O'Hagan, J.W. (Ed.) (1995) **The Economy of Ireland, Policy and Performance of a Small European Country**, Chapter 12: Mary O'Sullivan, Gill & Macmillan, p390

¹¹⁶ Department of Industry and Commerce, (1990), **Review of Industrial Performance 1990**, Dublin Stationery Office, p43.

¹¹⁷ A Report by The Economic and Social Research Institute to the Industrial Policy Review Group (1992) **The Impact of the Industrial Development Agencies**, Dublin, p117

considered to be weak with 17% involved in agriculture, 29.8% in industry and 53.2% in services. The GDP per capita at contemporary prices and exchange rates was 5,120 US\$ which at the time was one of the lowest in Western Europe.¹¹⁸

Unemployment rates were very high and were still rising reaching 17.7% in 1986.¹¹⁹ Employment creation was urgently needed with high population growth as a result of a birth rate of 18.2 and death rate of 9.1 per thousand.¹²⁰ Between the early 1960s and the early 1980s the population increased by 22% or some 625,000 persons, a clear reversal of the trend experienced in the 1950s.¹²¹ Despite this growth in population, Ireland in the early 1980s was again starting to experience the outward migration of its citizens. (See Table 1.11)

Annual Outward Migration in Ireland 1982-1986

¹²² **Table 1.11**

One of the main objectives of the policy has been to alleviate Ireland's perennial employment problem. Between 1961 and 1981 the proportion and the amount of employees in manufacturing industry did actually increase as did overall employment. See Table 1.12. The problem with that development was that industrial output was increasing at a much faster rate than employment growth which indicated a strong tendency towards capital intensification. Therefore the apparent success of the IDA in attracting DFI to Ireland in the early 1970's

¹¹⁸ OECD, (1985), **Economic Survey of Ireland**.

¹¹⁹ Department of Finance, (1986), **Regional Development Programme for Ireland 1986-1990**, Dublin, Stationery Office, p19.

¹²⁰ **Yearbook of Regional Statistics**, (1985), Dublin, Stationery Office.

¹²¹ Cuniffe, D. and Kennedy, K.A., (eds), (1984), **Employment and Unemployment Policy for Ireland**, ESRI, p3.

¹²² **Census of Population**, (1986), Dublin, Stationery Office.

obscures some unpleasant truths.

Table 1.12 Source: Kennedy, K.A., Giblin, T. and McHugh, D. (1988), **The Economic Development Of Ireland In The Twentieth Century**, Routledge Press, London, p. 228.

Economist Survey (1988) of the Republic of Ireland contended that the type of deficit financed job creation that the government was trying to promote was granting over-generous incentives to enclave ind The ustries from overseas. It believed that this only had a very negative effect of hampering the growth of indigenous industry as workers were being called upon more and more to finance the government's incentive schemes.¹²³

The financial danger of such deficit-financed industrial growth had already been noted by Telesis in 1982. It stated that apart from the lack of tax revenue that was being extracted from DFI in Ireland, the state was also giving grants towards capital training and research and

¹²³ **The Economist Survey of The Republic of Ireland**, (16th of January, 1988).

development. But the report justified grant payments as being necessary in a country that is lagging behind its industrialised neighbours. It saw the incentives as a discount which the country gives to would-be investors to lower the price of investment in Ireland.¹²⁴ Telesis went on to say that it would urge the state to spend as much as it could possibly afford to spend on investment for industry as long as it began to spend less on attracting DFI and concentrated more on reallocating those resources towards investment on indigenous manufacturing enterprises.¹²⁵

The government had to borrow heavily in order to finance loan commitments partly acquired by past borrowing to finance such schemes which were originally intended to improve the balance of payments position. DFI in Ireland could not a priori be assumed to constitute a net contribution to the balance of payments as part of the investment and the grant of up to 50% for fixed assets from the IDA would have been borrowed from financial institutions abroad and repayment of such loans would have to be considered as net outflows. The opportunity for government to raise taxes from DFI production is limited by the fact that many of the firms are allowed to make tax free profits on exported goods produced in production units that only involve final assembly or the final phase of manufacturing.

Much of the DFI attracted to Ireland represents branch plants of much larger international organisations and as such import many of the components and semi-finished raw materials from their own subsidiaries. The resulting amount of net value added in Ireland is small and employment and income contribution is generally relatively low. There is also the further problem of transfer pricing. This is the practice whereby multinational corporations endeavour to minimise their tax liabilities through creative accounting operations. Primarily this involves the setting of prices on goods and services which are bought and sold between a parent company and its foreign subsidiary. The control of profits and the transfer of such money from the parent company to the subsidiary can be brought about through the payment of interest and dividends, fees for licensing arrangements and management contracts, and the expenses for research and

¹²⁴ Ibid., p.189.

¹²⁵ Ibid., p.198.

development performed by the parent company.¹²⁶ In a country that uses tax free profits on exports as an incentive for DFI, companies have been able to accumulate tax free profits on their components as well as on their products. The fact that exceptional opportunities exist in Ireland for transfer pricing is a disincentive for linkages to occur between the guest company and the local economy. Because of this there has been a series of very isolated firms which are vertically integrated with the international economy but are not horizontally linked with the economy of Ireland.¹²⁷ This contribution of DFI to the economy will be examined more closely in Chapter 4.

Ireland's comparative industrial development was examined by Dr. Lars Mjøset the Research Director at the Institute of Social Research in Oslo was commissioned by the Irish National Economic and Social Council to undertake a comparative study of a group of relatively small but relatively economically successful countries. The countries which include Finland, Sweden, Denmark, Austria and Switzerland are seen as small geographically and culturally homogenous and like Ireland are not particularly well-endowed as regards natural resources that allow them to enjoy a unique economic advantage. Mjøset's report looks at the socio-economic development of Ireland in comparison with those of the five contrast countries and concludes that the Irish situation since the Industrial Revolution can be viewed as a sequence of vicious circles unlike the sequence of virtuous circles in the other countries.

Mjøset looked at two categories of development which he believes are typical of the post-war world. The first is termed auto-centric development which is growth with development and the second is peripheral development which is growth without development. Mjøset views Ireland as lying somewhere between the auto-centric and the peripheral. The justification for this, he argues, is related to the pattern of technical change that has taken place in Ireland and the standard of living. The author states that Ireland's perennial problems of industrial development have more in common with the third world whereas Ireland's standard of living appears more

¹²⁶ Litvak, I.A. and Maude, C.J. (1972), **The Multinational Firm and the Nation State**, edited by Gilles Paquet.

¹²⁷ McAleese, D. (1977), **A Profile of Grant-Aided Industry in Ireland**, IDA. Publication, Series No. 5, Dublin, p.37.

like that of the auto-centric category. Emigration is seen to have played a vital role in Ireland. It has enabled Ireland to escape from the experience of poverty and income inequalities that have been the hallmark of third world countries. The author therefore sees emigration as the most outstanding feature of Ireland's development and different not only from Finland, Sweden, Denmark, Austria and Switzerland but also from anywhere else in the world. Crotty (1987) on the contrary, attributed Ireland's slow growth directly to the emigration of 1.2 million people between 1922-1971. This figure constituted over 40% of all the people born in Ireland during the same period.¹²⁸

Mjøset compares the development of agriculture in his selected countries and examines how it has proved to be a stimulus to the process of industrialisation. The conservatism in the face of agricultural change is referred to by Mjøset as a pastoral bias of agrarian modernisation. This is taken to mean that it was a direct result of the greater and protracted struggle for land reform in Ireland than in Mjøset's contrast cases, that contributed towards a much wider distribution and subdivision of land holdings that led to a desire by the new peasant proprietors to consolidate and survive on what they had fought for so long. As has been stated previously the Land Question (Land Reform) was not resolved until the Wyndham act of 1903. Denmark by contrast had finally resolved its agrarian problems in the 1840's but had begun to do so much earlier. Ireland had shifted away from tillage to pastoral farming in response to the demands of the British market and as this demand continued for so long Irish agriculture tended in this direction. This combination of circumstances conspired against the system of agriculture in Ireland developing any extensive links between agriculture and industry as those which took place in Denmark for example.¹²⁹

The fact that the 'Land Question' was not finally settled until so late in Ireland is a very important element in understanding Ireland's relative backwardness at the time of independence.

Land reform is important in economic development because of the opportunities it creates for individual free-holders. The surplus from agriculture production can stimulate domestic growth and development. The Irish peasantry, unlike their European counterparts, had been deprived of

¹²⁸ Crotty, R. (1987), *op. cit.*, p.73.

¹²⁹ Mjøset, L. (1992), **The Irish Economy In A Comparative Institutional Perspective**, National Economic and Social Council, Dublin, pp.5-9.

an opportunity to create a surplus from their own agricultural endeavours that could have led to higher income levels in the country generally, which would, more than likely have in turn stimulated more sophisticated levels of economic activity. If the influential role that agriculture has played in Denmark's history is compared to that of Ireland's, then it is possible to envision how Ireland's economic history may have been very different if land reform had been achieved earlier.

The Danish system of feudal land tenure had come to an end by the end of the Eighteenth Century. Danish farmers, as free-holders, were producing an agricultural surplus which soon became transformed into an important export sector. It was this very growth of the agricultural export sector that stimulated the growth of the railway system in Denmark in the 1860s and the development of its own indigenous traded manufacture. Denmark, like Ireland was heavily dependent on agricultural exports to Britain but the relative benefits deriving therefrom for each country were very different. Ireland's lack of sovereignty, which many have argued was one of the main reasons why land reform was not high on the list of priorities of British colonialism, and the fact that most of the ownership of the land in Ireland was in the hands of large-holding individuals who appeared more concerned about preserving the status quo through the power of the House of Lords, ensured that the opportunities that were presented to the farming populations of Denmark and Ireland were markedly different.

According to Jorberg (1973)¹³⁰, the development of Danish indigenous industry stemmed from the growth in income which in turn was dependent on the growth of its agricultural export capacity. As free-holders, Danish farmers benefited greatly from the development of the Folkehojskoler. (Folk-High Schools - which were and still remain specialised further and continuing educational institutions offering courses in practical, vocational as well as humanities for post-16 year olds.) The situation of the Danish farmer was further enhanced in the Nineteenth Century by the development of the highly successful Danish Co-Operative movement. From its inception the Co-Operative movement in Denmark oversaw the communal financing, construction and management of its own dairies, slaughterhouses, advisory services and the development of

¹³⁰ Jorberg, L., (1973), *The Industrial Revolution in the Nordic Countries*, in **Fontana Economic History of Europe**, Cipollo, C., (Editor), Vol. 4.2, London p.406.

cross-sectoral supply networks. Danish farmers as individual free-holders were more likely to spend their surplus income in the domestic market thus stimulating the growth in income levels in the home country. The majority of the Irish on the other hand were subsistence peasantry, without the economic means to similarly stimulate their own domestic economy and hence increase income levels.

In a study comparing the economic progress of Sweden and Ireland, emigration in the case of Sweden is not seen to have had a detrimental effect on economic growth and development. This belief is held on the basis that 1 million emigrated from Sweden to the USA in the latter half of the last century coinciding with the first major phase of industrialisation in Sweden in the 1870's. But as the authors point out the situation in Ireland now is quite different to the Sweden of the 19th century. Post-famine Ireland has had a lower density of population per square mile of agricultural land than any of its European neighbours, all this despite a very high birth rate. It has been Ireland's almost continuous draining of its most able youth that has led to a comparatively high dependency ratio. The authors share with Mjøset the concern with the resulting demographic imbalance that Ireland is faced with.¹³¹

Conniffe and Kennedy while recognising Ireland's economic difficulties, felt that Ireland as a small country low in natural resources could not but try to engage in world trade. Only an increase in a country's exports, they believe, can lead to any substantial development of agriculture or industrial output.¹³² The authors realise that Ireland's economy had had to contend with the vagaries of the world economy as any economy would have to, but, as a small economy, Ireland would have greater difficulty in trying to increase its share of world trade. This is as a result of not enjoying economies of scale in production, research and development and marketing that larger, industrialised nations enjoy.¹³³

¹³¹ O'Connor, R., O'Malley, E. and Foley, A. (1978), **Aspects of the Swedish Economy and their Relevance to Ireland**, Economic and Social Research Institute, Dublin, pp.18-23.

¹³² Conniffe, D. and Kennedy, K.A. (1984), **Employment and Unemployment Policy for Ireland**, The Economic and Social Research Institute, Dublin, p.43.

¹³³ Ibid., pp.43-44.

Mjøset also looked at the concept of 'smallness' and its relevance to a study of an economy. He states that the smallness of the home market and the large share of imports and exports in relation to total production are the defining characteristics of a small country attempting to involve itself in world trade.¹³⁴ But Mjøset concluded that the concept is of little value in itself except if small countries are analysed in relation to larger more powerful countries.¹³⁵ The decisions and actions of more powerful nations such as Britain exert much influence on small economies such as Ireland. Ireland's relationship with Britain after independence is evidence of this mighty influence. Even today the mere proximity of Ireland to the financial capital investment market of London represents an attraction to Irish investors that may far outweigh the attraction of returns of investing in Irish manufacturing.

The Deepening Crisis and the Turnaround in the Fortunes of the Irish Economy

The outlook for the economy appeared very bleak which was pointedly expressed by Lee (1989) 'It is difficult to avoid the conclusion that Irish economic performance has been the least impressive in Western Europe, perhaps in all Europe, in the twentieth century'¹³⁶ With the current account deficit reaching 15% by 1981 the Irish pound was devalued four times within the EMS and GNP rose by a mere 1.5% annually to 1986. O'Malley pointed out that most of the job losses occurred mainly in the indigenous sector in the years between 1980-1987 but that the foreign sector also suffered quite badly. The author estimated that by 1985 the number of workers employed in the indigenous sector was far below the 1960 level.¹³⁷

Crotty had been very critical of Irish economic policy since 1948. The creation of public debt made it possible for the government to increase its involvement in industrial development and this has resulted in government expenditure levels in relation to GDP that were much higher than in most other countries. Over this long period of expansion the borrowing levels have led to

¹³⁴ Mjøset, L. (1992), **The Irish Economy In A Comparative Institutional Perspective**, National Economic and Social Council, Dublin, p.39.

¹³⁵ *Ibid.*, p.42.

¹³⁶ Lee, JJ (1989) **Ireland 1912 - 1985**, Cambridge, p.521

¹³⁷ O'Malley, E. (1989), *op. cit.*, p102.

exorbitant debt servicing costs.¹³⁸

The problem of public debt was eventually pushed to the front of the economic agenda. In a report by the Economic and Social Research Institute (ESRI) to the Industrial Policy Review group, economic policy came under heavy criticism: 'In terms of policy stance, recent decades saw inappropriate demand management policy responses to the external shocks of the 1970s and early 1980s which have left a legacy of high public Debt/GNP ratio which is the highest in the EC (EU).¹³⁹ The ratio of debt to GDP began to escalate rapidly, climbing from 52% to 129% within the period from 1973 up to 1987. In the same period 94% of all revenue from personal income tax went to servicing that debt. With the lifting of the crisis Ireland did not cut the expenditure and after the new Fianna Fail government came to power in 1978 promising to reduce the unemployment rate, strong growth continued until the rate dropped to 7.2% by 1979.¹⁴⁰

The need for fiscal rectitude had culminated in the election of Fianna Fail in March of 1987. The austerity measures that the new government proposed appeared even more Draconian than the policies that resulted in the defeat of the previous Fine Gael/Labour administration. The main thrust of the new Finance Bill was to be a reduction in both deficit and exchequer borrowing requirement through widespread cutbacks in government expenditure, a public sector recruitment moratorium and a reduction in take-home pay. It represented an attempt to generate a virtuous cycle to inspire confidence and to reduce interest rates. Fiscal rectitude brought the ratio of debt to GDP to 100% by 1992 and economy returned to much stronger growth i.e. 4.3% between 1986 and 1994. The lessening of government spending, wage restraint and devaluation, which led to a boom in exports, are the main reasons cited for the turnaround.¹⁴¹

¹³⁸ Crotty, R. (1987), *op. cit.*, p.4.

¹³⁹ ESRI, (1992), **Economic Policy and Growth: The Context for Irish Industry**, a report by The Economic and Social Research Institute to the Industrial Policy Review Group, Dublin, Stationery Office, pp2/3.

¹⁴⁰ Haughton, J., The Historical Background, in O'Hagan, J.W. (Ed.) (1995) **The Economy of Ireland, Policy and Performance of a Small European Country**, Gill & Macmillan, pp. 38/39.

¹⁴¹ Haughton, J., (1995), *op. cit.*

In October of that year The Programme For National Recovery (1987-1990) came into being. It was a partnership of government, the trades unions, employers' federations, the farming organisations and other concerned organisations coming to consensual agreement over furthering the recent progress in relation to fiscal rectitude, a more just taxation system as well as greater social equality and a more dynamic strategy for job creation. This was followed by The Programme for Economic and Social Progress (1991- 1993). This was a five-year plan whereby transport, telecommunication, infrastructure, tourism and industry would all be targeted for more rapid development. The move coincided with higher numbers of electronic engineers leaving the colleges, and the coming to fruition of the IDAs ongoing efforts to attract high-tech computer and software companies. Both programmes encompassed wage settlements which kept the per capita wage growth in line with inflation as well as having limitations placed upon industrial action. This corporatist approach was seen as having worked successfully.¹⁴² By 1995 it was clear to everyone that a major turnaround had occurred in the fortunes of the Irish economy.

¹⁴² Commission of the European Communities Directorate-General for Economic and Financial Affairs, (1991), **Country Studies**.

GDP/GNP for Years 1995-2000 (IR£ Millions)

IR£

Table 1.13 Source: Central Statistics Office (2001), Ireland.

The authors of the ESRI report (1992) wrote '... stabilisation and structural adjustments have been carried out to tackle these fiscal and other imbalances, including increases in tax rates, cuts in public sector employment, increased emphasis on export promotion, restructuring of industrial policy and liberalisation of markets'.¹⁴³ Another feature of the success of the Irish Economy has been the control of the National Debt. The National Debt had become greater than GNP for the first time in 1983 reaching its peak of 123% of GNP in 1987. From 1987 onwards therefore, the government made substantial progress in reducing its budget deficit..

Bradley (1996) contended that the opening up of the economy to free-trade, fiscal rectitude, national wage agreements and a stable political and macro-economic environment with a positive upturn in the world economy all combined to lift the Irish economy into the positive cycle of growth that it was now experiencing.¹⁴⁴ Other factors considered as having contributed to the success was Dublin's very successful Financial Services Centre, the stock of direct investment

¹⁴³ ESRI, (1992), pp2/3.

¹⁴⁴ Bradley, J., (1996), **An Island Economy: Exploring Long-Term Economic and Social Consequences of Peace and Reconciliation in the Island of Ireland**, Forum for Peace and Reconciliation, Consultancy Studies, No. 4, Dublin, Stationary Office.

from the US, the development of education and human capital, positive demographics, help from Europe, the opening of the economy after 1960, or the fact that starting from such a low base, Ireland had lots of room for catch up growth.¹⁴⁵ A European Commission (1996) special report claimed that Ireland's economic success was due to fiscal restraint and consolidation, national wage agreement moderation and the positive steps taken towards exchange rate stability.¹⁴⁶ In 1997 the Economist magazine compared the success of Ireland's economy with the Asiatic tigers.¹⁴⁷ It referred to Ireland as the perfect example of how a country on the periphery could prosper. The success it was argued was not a feat of deft bookkeeping skills, statistical fudge, merely attributable to EU subsidy or as a consequence of providing huge tax breaks for DFI. It did point out that there were many Multinational Corporations in Ireland and that GDP was about 12% lower than GNP but that Ireland's GNP was growing nearly as quickly as its GDP. EU transfer payments between the years of 1970 and the early 1990s amounted to between 4% and 7% of Ireland's GDP each year, but as the Survey enthusiastically noted, this could only have been a major influence if the payments had been increased dramatically over time rather than as the steady flow that it was, could the money then be regarded as having inspired 'the miracle'. Other European countries had received large-scale payment but their growth rates were not as meteoric.

The Economist quoted Garret Fitzgerald, a former Taoiseach, to explain how Ireland pulled out of a situation of serious public finance difficulties towards rapid growth at a time when the rest of Europe was faced with declining growth rates. 'High personal taxes; generous welfare provision; a top-down industrial strategy; and an incomes policy in the form of social contracts signed by government, trade unions and employers. These contracts deserve much more credit for the duration of the recovery since 1987'.¹⁴⁸ In April 1997 the ESRI produced its Medium-Term Review 1997-2003. The report was celebratory and optimistic. The country's economy was being

¹⁴⁵ Ibid.

¹⁴⁶ European Commission, (1996), **The Economic and Financial Situation in Ireland: Ireland in the Transition to EMU Special Issue of the European Economy**, European Commission, Brussels.

¹⁴⁷ The Economist, (May 17th, 1997), **Country Survey on Ireland**.

¹⁴⁸ Ibid.

celebrated for having entered into a virtuous economic and demographic cycle with a forecast almost guaranteeing rising living standards for the next 15 years.¹⁴⁹

The Financial Times survey (1998) also pointed to the liberating experience of Ireland being so closely aligned with the European economy and the social partnership as mentioned above provided one of the main pillars of Ireland's transformation.¹⁵⁰ A useful indicator as to how wholeheartedly many individuals have accepted that the Irish economy has in fact truly turned the corner of development, is illustrated in the work of Paul Sweeney (1998).¹⁵¹ In 'The Celtic Tiger' Sweeney described the Irish economy as having been 'transformed' and also that the transformation was itself 'miraculous'. Ireland in 1997, Sweeney argued, was 'a modern economy in the European mould, with a developed welfare system' and a 'highly developed education and health care system'.¹⁵² The author admitted that the modernisation had been brought about largely through the attraction of foreign investment.¹⁵³ And Ireland, it was argued, had little choice but to continue with such a policy in the age of Globalization and to pursue a policy which involved inviting DFI to its shores.¹⁵⁴

Without doubt, some of official data for the structural division of employment figures for the Irish economy are suggesting that it now resembles that of its industrially advanced neighbours. With only 7.5% of the workforce involved in agriculture, 28.9% involved in industry and 63.6% in services this certainly would appear to be the case.¹⁵⁵ In a 1999 Country Survey of Ireland the

¹⁴⁹ ESRI, (April, 1997), **Medium-Term Review 1997 - 2003**, Edited by David Duffy, John Fitzgerald, Ida Kearney and Fergal Shortall.

¹⁵⁰ Financial Times, (September 22nd, 1998), **Country Survey on the Irish Republic**.

¹⁵¹ Sweeney, P., (1998), **The Celtic Tiger, Ireland's Economic Miracle Explained**, Oak Tree Press, Dublin.

¹⁵² Ibid, p.10.

¹⁵³ Ibid, p.12.

¹⁵⁴ Ibid, p. 116.

¹⁵⁵ Central Statistics Office (2001), **CSO**, Cork, Ireland.

OECD referred to Ireland's stunning economic performances.¹⁵⁶ Pointing to Ireland's 'Ten years of rapid growth' and the fact that Ireland's unemployment rate had dropped from 14% to 4% in the same period, the OECD claimed that 'The forces of growth are firmly embedded in the economy through favourable demographics, rising human capital formation and a high rate of technology-oriented investment. The authorities have created a favourable business climate for growth...'.¹⁵⁷ It predicted higher than average growth for Ireland in the coming years. See table 1.14.

OECD Medium-Term Projection of GDP Growth (%) 2003-2006

¹⁵⁸ **Table 1.14**

Conclusion

The above would appear to give the impression that Ireland has achieved its economic objectives. Many commentators in Ireland who believe that a fortuitous set of circumstances in recent years have somehow combined to deliver an economy that is as advanced as its European neighbours. The thesis will endeavour to examine the validity of this notion particularly in relation to Ireland's success in developing a strong, competitive indigenous industrial base. In later chapters The Telesis Report will again be considered particularly as to how it influenced policy measures

¹⁵⁶ OECD, (May, 1999), **Country Survey: Ireland**.

¹⁵⁷ OECD, (2001), **Economic Survey of Ireland, 2001, (May), OECD**.

¹⁵⁸ **Ibid.**

in relation to both indigenous industry and Direct Foreign Industry (DFI). After which, there will be a further examination as to how the policies have relevance to the Global Fordist/Peripheral Fordist model of development in the light of Alice Amsden's work on late-industrialisation and the empirical work of this thesis. Attention will now turn to an examination of the main theories contained within the Regulation Theory/Global Fordism model.

Chapter 2 Global Fordism, Regulation Theory and Peripheral Fordism

Introduction

“Fordism serves both as a heuristic concept when establishing the historical specificity for particular formations and, in its guise as an accumulation regime, it is useful in defining the basic tendencies, counter tendencies, and crisis forms of postwar capitalism.”¹

This chapter will examine the theories of Global Fordism in general and as to how they may contribute to an understanding of Ireland’s attempts to industrialise. Included in this will be an outline of the Theory of Regulation that forms the basis of the theories. The chapter will begin with a brief outline of the range of different schools contained within the paradigm and will proceed with an explanation of its Marxist foundations.

Thereafter there will be an elaboration of Aglietta’s definitive analysis of how Taylorist scientific management and Fordist production methods combined to form what has become known as the Fordist regime of intensive accumulation. This regime, which was characteristic of the central economies of the post-war world, will be viewed in the light of how some of its elements, particularly Keynesian demand management, contributed to the subsequent stability it engendered in those economies. It must be noted however, that the regime of accumulation was hardly perfectly institutionalised in any particular country.

Finally, there will be an examination of an important aspect of the theories of Global Fordism, that is Peripheral Fordism. This theory espouses the view that peripheral countries, like Ireland, began to play a very specific role in the crisis of central Fordism. It is argued that countries like Ireland benefited from central Fordism’s attempt to reestablish itself in the periphery.

¹ Jessop, B. (1990), "Regulation Theories in Retrospect and Prospect", **Economy and Society**, Vol. 19, No. 2, May, p18.

The post-war model of development, characterised by US economic hegemony, was labelled 'Fordism' from a term coined by Gramsci.² The notion of the reproduction of a commodity-producing capitalist economy as being self-sustaining was far from reality. The development of the conditions of production transform over time as does the distribution of income and the preference for various social uses of output. Over time when these transformations become compatible, economic growth or accumulation, occurs without major disturbances. This mode of transformation of production and distribution is called the regime of accumulation.

Fordism therefore in its simplest form is a regime of accumulation characterised by a set of regular economic relationships. For economic agents these regularities were an invaluable guide. The certainty which they brought to agents such as investors, had to be brought about through regulatory mechanisms to overcome deep-rooted uncertainty. These regulatory mechanisms would have to be compensatory, i.e., 'to constantly adjust the expectations and behaviour of individuals'³, in the general logic of the regime of accumulation. This was the mode of regulation. The over-riding concerns were with wage formation, the forms of inter-firm competition and the mechanisms of money and credit creation. The term Regulation is perhaps rather ambiguous as it has been applied to many economic theories. It has however been defined as 'the way in which a system as a whole functions, the conjunction of economic mechanisms associated with a given set of social relationships, of institutional forms of structures'.⁴

According to Boyer (1990) "regulation" as a definitive term was first used by Boccara.⁵ It was in Boccara's work that he linked it with issues such as alternative and socialist forms of economic and social management to enable a solution to the structural crises inherent in the

² Gramsci, A. (1971), *Americanism and Fordism*, **Prison Notebooks**, Lawrence and Wishart, London, p.1.

³ Leborgne, D. and Lipietz, A. (1991), "Two Social Strategies in the Production of New Industrial Spaces", in G. Benko and M. Dunford (eds.), **Industrial Change and Regional Development: The Transformation of New Industrial Spaces**, ch. 2, p.2.

⁴ De Vroey, M., (1984), "A Regulation Approach: Interpretation of Contemporary Crisis", **Capital and Class**, No. 23, Summer, p52.

⁵ Boyer, R. (1990), **The Regulation School: A Critical Introduction**, p.15.

economic system to be found.⁶

Regulation theorists represent a rather broad spectrum of people and it would be incorrect to regard them as a homogenous school of thought⁷, but Regulation Theory is generally associated with the work of French Regulationists. Apart from the French there is also the Amsterdam school, the West German school, the 'Nordic Models' group and the American radicals.

Within the French school there are three separate groupings. As for the Groupe de Recherche sur la Régulation d'Economies Capitalistes (GRREC), their analysis involves a critique of neo-classical equilibrium theory as well as the periodisation of capitalism into three distinct periods. Regulation is secured by social procedures which secure the expanded reproduction of capital. These procedures must maintain an adequate rate of profit despite competition and an acceptable balance between the structures of production and consumption in the face of class struggle. The Grenoblois school stress however that no mode of regulation can succeed indefinitely.

Initial studies of the Parisian school were concerned with Fordism, the nature of monopoly capital, the causes of inflation and the development of public spending in France, but differ from the Grenoblois in the sense that they only recognise two basic stages of capitalism i.e., the extensive and intensive regimes. In both cases these modes of regulation are primarily defined in terms of the wage relation and only then in terms of the form of competition. The extensive regime is competitive regulation involving flexible wage formation and characterised by metallic money, whereas the intensive is monopolistic based on collective bargaining and rising consumption norms and is characterised by credit and state money.

Paul Boccara of the French Communist Party inspired the PCF-CME account of regulation. CME was the new view of state monopoly (Capitalisme Monopoliste D'etat). Even though it does not regard direct state intervention in the sphere of production as important it still qualifies as a regulation approach. It focuses primarily on how monopoly capital is advanced by state measures which transfer the formal ownership of capitals and/or redistribute profits among private capitals, but it also stresses the changing political procedures needed to regulate capital

⁶ Jessop, B. (1990), op cit., p.15.

⁷ De Vroey, M. (1984), op. cit., p.45.

accumulation within successive stages of capitalism.

The Amsterdam school combines both a Marxist critique of Political Economy and a Gramscian analysis of hegemonic strategies. It involves the key concepts of fractions of capital and comprehensive concepts of control. The basis for the latter is grounded in an accumulation strategy which puts forward the specific interests of the dominant fraction but also secures the interests of capital in general while providing sufficient rewards to the greater majority among the dominated classes.

The West German school's best known contributor is Joachim Hirsch and his fellow researchers at Frankfurt and Berlin. This school combines a regulation approach to political economy with their own account of the capitalist state. The most distinctive feature of their work is the re-interpretation of the tendency of the rate of profit to fall and the role of the state in securing the conditions for effective societal regulation.

The Nordic school approach is distinguished by its concerns with national modes of growth and national modes of economic as well as the changing balance of economic and political forces in the Nordic countries.

The North American school or the SSA (the social structure of accumulation) argue that for accumulation to exist for a sustained period of time then there must exist the specific social and political conditions to support and reinforce the economic factors making for growth. The social structure of accumulation occurs through the particular balance of forces and changes that come about when there is an imbalance of these forces which lead to a major economic crisis.⁸

Jessop claimed that all of the main schools within the Regulation approach share a common Marxist heritage.⁹ Regulation theory is a continuing research programme and all share a "scientific realist ontology and epistemology."¹⁰ All regulation theories therefore have

⁸ Ibid., pp.157-184.

⁹ Jessop, B., (1991), *Fordism and Post-Fordism: A Critical Reformulation*, Lancaster Regionalism Group, Working Paper 41, University of Lancaster, p.2.

¹⁰ Jessop, B. (1990), *op. cit.*, p.2.

approached their work based on a strong link with Marx and political economy. Regulation theory as in Marxist theory, is concerned with the underlying dynamics of capitalism which involve the tendencies and counter-tendencies and contradictions of the system. Therefore when Regulationists analyse how modes of regulation are modified it is necessary for them to do this in the light of the underlying laws of capital accumulation. Aglietta is considered one of the founding fathers of Regulation Theory. Much of his analysis and subsequent work by others in this area has been heavily influenced by Marx. It is necessary therefore to outline some of the Marxist theory that has influenced this theory.

Marx and the Marxist Foundations of Regulation and Fordism

In his analysis of Capitalism as a mode of production Marx put his emphasis on production. A mode of production then simply implies the set of social relations within which people produce. It has two distinct aspects: the mode of appropriation of nature, and the mode of appropriation of the product. In the former it is characterised by its production techniques, organisation of the labour-process, division of labour, authority and control. As to the latter it is the surplus product, which is appropriated from one mode of production to the other.¹¹ Surplus value depends on human labour that can be expended over a longer time than that which is required to produce it. If for example, it took a worker four hours to produce his means of subsistence for the whole day then that would measure the exchange-value of one day's labour power. But the capitalist who buys it obtains its use-value, which in fact can be any length of day. It is out of this difference that surplus value arises.¹² In capitalist society the surplus product is appropriated on the basis of apparent freedom, according to the 'economic laws of commodity exchange'.¹³

Capitalist production is the production of commodities; and every element in the labour process has become a commodity, including labour power (i.e. the capacity of labour to work). Therefore capitalist production is a commodity production generalised to the point where labour-power has become a commodity.¹⁴

¹¹ Rowthorn, B. (1974), "Neo-Classical, Neo-Ricardianism and Marxism", *New Left Review*, No. 86, July/August, pp.76-77.

¹² McLellan, D. (1975), *Marx*, Fontana, pp.49-60.

¹³ Rowthorn, B. (1974), *op cit.*, p.77.

¹⁴ *Ibid.*

The exchange-value of labour was determined like that of every other commodity i.e., formed and measured by the amount of socially necessary labour time which is required for its production: it is determined by the amount of socially necessary labour time embodied in the labourers means of subsistence, i.e., in their exchange value.¹⁵ Subsistence had to be large enough to ensure the perpetuation of the labourer and his/her family. The capitalist who has bought labour power consumes it in the process of production. The worker who is employed expends his labour on materials and means of production which contain embodied labour. The exchange-values of these materials, etc., form part of the exchange-value of the finished product. Labour time spent on its production must be added to this. This is measured as the necessary social average and is the use-value which the capitalist has bought in buying the commodity labour power. But the capitalist has paid for it as its exchange-value, determined by the socially necessary labour time embodied in the labourer's means of subsistence.

Marx drew a clear distinction between absolute and relative surplus value. Surplus value was the sum of value realised by the capitalist additional to that paid out in the original purchase, which is profit.¹⁶ There were according to Marx two ways of increasing surplus-value. One way is to lengthen the working day - this surplus-value is called absolute surplus-value. The other way is to reduce that part of the working day which represents the labour time required for the workers' subsistence which is embodied in the product. The surplus-value that is created in this manner is termed relative surplus-value. An increase in this category depends on an increase in the productivity of labour. If the exchange-value of labour power is to be reduced then it is necessary to reduce the socially necessary labour time embodied in the means of subsistence. Productivity must increase in that branch of production which produces 'wage goods'.¹⁷ Any increase in productivity raises profit or surplus-value accrued to the owner of the means of production, as he is having more commodities produced at a lower cost. The exchange-value of the unit product declines. If however the labour time embodied in the particular commodity by other producers does not diminish then the socially necessary average will fall less than the labour embodied in the product of the first capitalist. As relative surplus-value is directly

¹⁵ Sayer, D. (1983), Sayer, D. (1983), **Marx's Method, Ideology, Science and Critique in 'Capital'**, Harvester Press, p.45.

¹⁶ Roll, E. (1973), **A History of Economic Thought**, Faber & Faber, p.271.

¹⁷ Ibid., p.272

proportionate to the productivity of labour it is a powerful incentive for investment in this area. Competition however encourages other owners of capital to adopt the new methods of production and in turn any initial benefit accruing to the original capitalist will tend to diminish. There is therefore, a constant need for individual capitalists to innovate in production methods. This will be an attempt to reduce the exchange-value of products (including that of labour power).¹⁸ This is an integral part of Marx's general theory of development. Once capitalist production is initiated, the difference between absolute and relative surplus-value explains the means for increasing the rate of exploitation which are adopted in different conditions.¹⁹

Marx distinguishes surplus-value from the rate of surplus-value which is the proportion of the increment of capital which appears at the end of the process of production (surplus value), to the variable capital.²⁰ The capital which the capitalist employs can be divided into constant capital, which includes raw materials and machinery, etc., and variable capital, which is the part spent on the purchase of labour power. The former is called constant because it does not alter its value in the process of production: it only passes it on to the commodity that is being produced. The latter, however, alters its value: it produces its own equivalent and the surplus value which is itself a variable measure.²¹ If C is the total capital, C and V its two component parts, and S the surplus value, the whole process will be one in which C+V result in C+V+S. The rate of surplus value will be $\frac{S}{V}$. This rate expresses the degree of exploitation of labour by capital.

Having explained the value of 'labour' and the origin of surplus value Marx is concerned with the fact that in reality the prices of commodities do not vary according to any changes in the socially necessary labour time embodied in them. This must be looked at bearing in mind the relation of the profit which each capitalist makes to the surplus-value appropriated by the total capital of society. A distinction is drawn between the rate of surplus value and the rate of

¹⁸ Marx, K. (1977 edition), **Capital Vol. 111**, Lawrence and Wishart, London, pp.482-493.

¹⁹ Ibid.

²⁰ Sayer, D. (1983), op. cit., p.46.

²¹ Ibid.

profit.²²

Even though the capitalist utilises both constant and variable capital and both will be indispensable in the creation of surplus-value, the primary concern is the rate of his increment to his total capital. This is expressed as not $\frac{S}{V}$ but $\frac{S}{S+V}$ or the rate of profit. The ratio of

C and V, Marx terms as the 'organic composition of capital'.²³ The higher the organic composition the lower is the rate of profit. The result of this is that the rate of profit will differ in different firms according to the organic composition of their capitals. But such a difference cannot be maintained because of competition. Eventually this will produce a tendency for every capital whatever its organic composition to earn the average rate of profit. Competition therefore tends to make each capitalist receive only a proportion of the total volume of surplus-value (or volume of profit) which is equal to the proportion of his capital to the total capital.²⁴

When surplus value is transformed into capital, accumulation can be said to have taken place. After a sale of a product is made, the surplus value that already exists as part of the value of the product will appear as a sum of money capable of being used as capital along with the original sum which was used in this way. The degree of accumulation will depend primarily on the proportion in which surplus value is consumed and transformed into capital. It will also depend on the rate of surplus value and the productivity of labour. Extending the working day, reducing wages and extracting a more intensive use of labour power are all methods of increasing the exploitation of labour. The possibilities of thus increasing profits also increases with increases in the productivity of labour. Improvements in the productivity of labour increase the mass of products in which a given amount of value (and surplus-value) is embodied.²⁵ As surplus product increases, the capitalist's consumption can grow without impinging on accumulation. Labour power also becomes cheaper, and the same amount of variable capital can set more labour power in motion. The means of production have also increased and accumulation can

²² Roll, E. (1973), op. cit., p.273.

²³ Sayer, D. (1983), op. cit., p.46.

²⁴ Roll, E. (1973), op. cit., p.274.

²⁵ Marx, K. (1977 edition), op. cit., pp.542-562.

proceed faster than before.²⁶

The result of this accumulation is the increase in the organic composition of capital. There must be an absolute increase in variable capital. If it were assumed that the organic composition of capital remains unchanged, accumulation will involve an increased demand for labour power. The increase in demand may at times surpass the increase of supply and raise wages and enlarged reproduction, i.e., accumulation involves an increase of labourers, and an increase in the number of capitalists. Even though the working class may derive some temporary benefits, the situation cannot continue.

Increased productivity will involve a change in the technological composition of capital and a subsequent change to accompany it in its organic composition. Variable capital declines relatively as accumulation progresses. Accumulation also leads to a greater concentration of capital. Competition demands that Capitalists cheapen their products. This will involve greater productivity and larger capital. Accumulation will occur simultaneously with the squeezing out of small capitalists.

The relative decline in variable capital results in the creation of what Marx terms as the 'industrial reserve army'. Accumulation and concentration involve both the absolute increase and relative decline in variable capital. The population will have to grow to keep pace with accumulation; but as different branches of production utilise new and more technologically advanced methods, labour power, as variable capital will suffer a relative decline. As capitalism develops therefore, there will be greater wealth generated in society but there will also be an increase in the mass of unemployed workers. This is what Marx called 'the general law of capitalist accumulation'.²⁷

With accumulation therefore comes the increasing composition of capital and increasingly greater levels of competition appearing in all branches of production. Because the rate of profit is inversely related to the organic composition, accumulation produces the inevitable tendency

²⁶ Ibid., pp.562-573.

²⁷ Roll, E. (1973), op. cit., pp.282-286.

for the average rate of profit to decline.²⁸ This tendency can be counteracted to a degree by an extension of the working day, reducing wages, extracting a more intensive use of labour, lessen the value of materials used in constant capital, or through foreign trade.²⁹

The purpose of capitalist production is the creation of surplus value and the transformation of part of it into new capital. The creation of surplus value can only be realised when the product which contains surplus value has been sold. If it cannot be sold or sold at a price below the cost of producing it, then the process of exploitation (on which the whole process depends) cannot be completed.

The conditions for realising surplus value are not the same as creating it. The latter depends only on the productive power of society; the former on the consumption power of society and on the proportion between the different departments of production. Consumption is limited by the spur for accumulation which is inevitable because of the continual changes in productivity and the competitive struggle which forces every capitalist to keep up the pace for fear of falling behind in or being forced out of the race. There would therefore be a constant increase in social productive powers which would involve a progressive intensification of the conflict between production and consumption, between the creation of surplus value and its realisation.

Marx regarded consumption as only one aspect of the contradictory nature of the whole capitalist system of production. Consumption, with the disproportion between different branches of capitalist production which are revealed in crisis and the falling rate of profit and the tendency counteracting it, were all part of a system that would eventually collapse.³⁰ All these contradictions engineered an economic crisis in which the equilibrium between sale and purchase would be re-established for a period. Equilibrium would however, only be temporarily effective and the contradictions inherent in this mode of production would again lead to crisis.

²⁸ Marx, K. (1977 edition), *op. cit.*, pp.191-212.

²⁹ *Ibid.*, pp.212-222.

³⁰ *Ibid.*, pp.225-226.

Marx and Global Fordism/Regulation Theory

According to the Global Fordist/Regulation school, Fordism was the dominant model of the post-war world economy. The Fordist system appeared to have been able, if only temporarily, to solve some of the inherent contradictions in the capitalist system that led to its periodic crises. But eventually the Fordist system itself went into crisis. The crisis that the countries at the centre of the Fordist model experienced, will be elaborated upon later in this chapter as will the concept that countries such as Ireland actually benefited from that crisis. To be able to do so however it is necessary to understand the historical developments that led to the establishment of Fordism.

The main theme of Aglietta's pioneering book, 'A Theory of Capitalist Regulation', is an account of the development of Fordism and the instability of the very mechanisms that are supposed to be self correcting.³¹ This work focussed primarily on the development of the US economy as it was the US that played the central role in the Fordist scheme of things. Aglietta divided the history of US capitalism into two distinct phases. These phases are separated by the inter-war period. The first phase he termed as a regime of extensive accumulation and was fundamentally different to the intensive regime of accumulation which succeeded it. One of the main characteristics of the Fordist model is the regime of accumulation which is a mode of production and redistribution of surplus or wealth generated by such production. This regime of accumulation (an intensive regime of accumulation), unlike the regime of extensive accumulation which preceded it, secured over a period of time, an adjustment between transformations in the conditions of production and transformations in the conditions of consumption and the reproduction of labour power.³² The mode of regulation in the intensive regime depended heavily on political and social agreements and institutional compromises.³³ A per capita increase in consumption as well as an equivalent increase in the volume of investment therefore was indicative of the intensive regime of accumulation.

The starting point of Aglietta's analysis is a critique of the neo-classical conception of the market, a conception shared by many Marxists.³⁴ That is, the market is not perceived as being

³¹ Aglietta, M. (1979), *op. cit.*,

³² *Ibid.*, pp.67-72.

³³ Leborgne, D. and Lipietz, A. (1991), *op. cit.*, p.2.

³⁴ *Ibid.*, pp.9-15.

the anonymous invisible hand, the mechanism by which equilibrium is achieved. For Aglietta it is a social function, the regulatory functioning of which cannot be taken for granted. Regulation theory examines the possibilities and limitations of social and economic reproduction through an analysis of the complex web of historically specific and socially determined modes of regulation which constitute a regime of accumulation.³⁵

Neo-classical theory on the other hand is seen as idealistic, naive and inadequate as it abstracts from the historical dynamics of accumulation. Within neo-classical equilibrium theory proportionality of the various branches of production, and of production and consumption will be realised by the unfettered workings of the market. Regulationists argue that it is indeed quite the opposite that often happens as capitalists in pursuance of further opportunities for surplus profit disrupt proportionality. New methods of production offer such opportunities within particular branches of production. Competition leads new production norms to be generalised within that branch of production, but it cannot regulate imbalances that occur between branches and departments of production.³⁶

In the final chapter of a *Theory of Capitalist Regulation*, Aglietta introduces the concept of mode of consumption. Capital is divided into departments of productions, (consumer and producer goods) as in Marx's *Capital II*.³⁷ This develops a theory of the formation of a working class consumption norm, where the quality and quantity of consumption is theorised in terms of the needs of capital accumulation.³⁸ The lure of profit stimulates new investment and subsequently stimulates the more rapid accumulation of capital in branches of production that produce the means of production³⁹. Department I i.e., the production goods industries with Department II being the production of consumer goods.⁴⁰ With the more rapid growth of Department I there

³⁵ Clarke, S. (1988), *op. cit.*, pp.63-65.

³⁶ *Ibid.*

³⁷ Marx, K. (1977 edition), *Capital*, Vol. III, chapter 20, Lawrence and Wishart, London, pp.315-415.

³⁸ Aglietta, M. (1979), *op. cit.*, pp.179-208.

³⁹ Clarke, S. (1988), *Overaccumulation, Class Struggle and the Regulation Approach*, *Capital and Class*, No.36, p.65.

⁴⁰ De Vroey, M. (1984), *op. cit.*, p.47.

is a subsequent increase in the productive capacity of Department II. Accumulation can only be sustained over any given period if a harmonious relationship can be sustained between both departments. The relationship is dependent on two main pillars. Firstly, consumption must grow sufficiently rapidly to absorb the growing product of production of consumer goods. With the attendant rise in wages, productivity would have to rise sufficiently to absorb these rising costs.

For an increase in relative surplus value to take place through a reduction in the value of wage goods the commodity that is reduced in value must enter into working class consumption. The difference between what Aglietta terms the extensive and intensive modes of accumulation is the extent of commodification of working class consumption and the re-shaping of working class consumption around mass-produced articles which ostensibly results in the formation of a new consumption norm.⁴¹

Thus the problem of proportionality focuses on the regulation of the wage relation in its dual aspect, as a cost to capital and as a source of purchasing power. There was no reason why the competitive market should reconcile wages and prices which would allow accumulation to be sustained. Therefore the regime of accumulation revolves around the modes of regulation of the norms of production and consumption. Aglietta states that the regime of extensive accumulation was characterised by a system based on competitive regulation, and that the barrier to sustained accumulation was primarily the limited consumption power of the masses of population. The extensive regime is characterised by a significant rate of absolute surplus-value extraction. The increase in relative surplus value was checked by the fact some 45% of all households in the early part of the century remained outside the market for all consumption goods except the basic requirements.⁴² The limited consumption was the result of competitive wage regulation and of the limited commodification of the wage. Accumulation did occur, but was only on an extensive basis as there was only a slow growth in productivity.

Aglietta argued that it was the increase in salaried unproductive workers associated with Department I after the First World War that marked a watershed as it was at this juncture which saw the increase in the social demand for commodities previously consumed as luxuries. The

⁴¹ Aglietta, M. (1979), *op. cit.*, pp. 155-161.

⁴² Leborgne, D. and Lipietz, A. (1991), *op. cit.*, p.152.

desire for automobiles, consumer durables and standardised housing units became the order of the day. The initial expansion failed however in the twenties.⁴³

The discovery of new products and new methods of production led to a very rapid growth in the production of the requisite means of production, without an immediate increase in the production of the means of consumption, stimulating a boom. This however did not lead to a significant rise in real wages, so the market was unable to absorb the increased mass of the means of consumption as the new capacity came into production.

'As long as capitalism controls the labour process by the creation of collective means of production, but without reshaping the mode of consumption, accumulation still progresses only in fits and starts. The regime of accumulation is principally an extensive one, based on the build-up of heavy industry section by section.'⁴⁴

The limited market soon became a severe obstacle to individual capitals in the form of increased competitive pressure and the accumulation of unsold stocks, resulting in competitive wage and price cutting and widespread bankruptcy. The cumulative downward spiral and subsequent crisis led to an enormous strain on the financial system which in turn led to widespread bank failures.

Thus the crisis or 'crash' of 1929 was a dysfunction of the relations between Departments I and II of production which characterised the extensive regime of accumulation and is associated with the development of Taylorist and Fordist methods of production. Ford's technological revolution therefore was not just related to the assembly line but to the fragmentation of tasks and the standardisation of components which made the assembly line possible. A whole range of tasks, formerly performed by skilled craft workers, were mechanised. This not only overcame technological but also social barriers which resulted ultimately in the subordination of the labour process to the dynamics of capital. This happened against a historical background whereby there were shortages of skilled craft labour leading to high wage costs and powerful craft unions, and

⁴³ Ibid., p.87.

⁴⁴ Ibid., p.79.

an ever increasing supply of unskilled and unorganised labour.⁴⁵ The latter provided the spur and the means to break craft control.

Payment on piece rates through internal sub-contracting to skilled workers removed the traditional methods of controlling labour. The speed at which work was carried out quickly moved from the control of workers by a system that subordinated the workers skill to the machine. This could only be done by external supervision and rigorous discipline. Ford realised that the crux of the problem which would lead to the requisite intensification of labour was a new method of encouraging workers motivation. A radical scheme was introduced in 1914 by Ford. The five-dollar day was an attempt at pervasive supervision of labour by offering higher wages.⁴⁶ It was an extremely ambitious exercise in social engineering. Not only did it involve a more radical restructuring of job categories but also to set standards of morality and behaviour both in and away from work.

The classical form of industrial organisation in the Fordist model was the intra-firm division of labour between workshops in accordance with Taylorist principles.⁴⁷ The impetus gained from the Industrial Revolution was weakening in intensity by the last quarter of the nineteenth century. The period saw the onset of prolonged crisis that provided the spur for the development of monopolies, imperialism and the growth of strong labour movements in many countries. The expanded size of the firm in the US also created difficulties in controlling labour. Traditional management methods and control of unions who had begun to 'understand the rules of the game',⁴⁸ could not deal with a decline in the rate of productivity growth, an increase in the organic composition of capital and a declining rate of profit. The scientific management movement grew out of this background in the 1880s. The pioneers were a mixture of production managers, engineers and accountants. New methods and a system would have to replace traditional management practices. Traditional methods were chaotic and inefficient.

⁴⁵ Clarke, S. (1990), "New Utopias for Old: Fordist Dreams and Post-Fordist Fantasies", **Capital and Class**, No. 41, Summer, p.139.

⁴⁶ Meyer, S. (1981), **The Five Dollar Day - Labour Management and Social Control in the Ford Motor Company 1908-1921**, State University of New York Press, pp.131-134.

⁴⁷ Leborgne, D. and Lipietz, A. (1991), op. cit., Section 2.1.2, p3.

⁴⁸ Nyland, C. (1987), "Scientific Management and Planning", **Capital and Class**, Vol. 33, p.54.

The 'Father of Scientific Management' was Frederick Taylor who tried to induce greater use of scientific method into industry. For him it was not only to be defined by method alone but also a mental revolution involving a new attitude of mind. By applying his systematic approach to the problems of management he believed productivity, profits and wages could be boosted greatly. This growth would remove the confrontation and friction between employers and employees. Employers had to adopt methods of measuring what workers actually do, and use that information to develop the absolute best way of working. This could only be done by firstly recording all aspects of the production process and then systemising the data into a format from which technicians could design specific tasks away from the factory floor. Optimum standards of performance for machines and workers would have to be accurately determined. Finally the flow of production had to be redesigned to maximise the management control over all aspects of it.⁴⁹ If these methods were followed, sufficient incentive systems could be established to inspire workers to raise their productivity.

But Taylorism was seen as an instrument for the systematic de-skilling of workers and for strengthening the power of employers. The widespread application of it in the twentieth century had totally degraded the nature of work and worker.⁵⁰ Fordism depended on Taylorism and Gramsci argued that Ford's effort to create a new type of worker failed because it was being imposed on workers from outside, rather than by a new form of society with appropriate and new methods. Gramsci also believed that Fordist high wages could only be paid while American capital enjoyed a monopoly and even then, only to a certain section of the working class. According to him it was only under communism that the Fordist project could be realised. He saw Fordism as deriving from an inherent necessity to achieve the organisation of a planned economy.⁵¹ Fordism was therefore represented as the ultimate stage of the socialisation of the forces of production, 'the most recent phase of a long process which had begun with

⁴⁹ Kelly, J.E. (1982), **Scientific Management, Job Redesign and Work Performance**, Academic Press, London, pp. 25-29.

⁵⁰ Braverman, H. (1974), **Labour and Monopoly Capital: The Degradation of Work in the Twentieth Century**, Monthly Review Press, New York, p.127.

⁵¹ Gramsci, A. (1971), op. cit., p.303.

industrialisation itself... a phase which will itself be superseded by the creation of a psycho-physical nexus of a new type, both different from its predecessors and undoubtedly superior'.⁵²

Many scholars have joined in the debate about its de-skilling nature. The fact that employers used it for that purpose is not evidence that it was an inherent part of Taylorism.⁵³ It is indeed because of the focus on this aspect of Taylorism that leads to the misconception that scientific management was not particularly concerned with advancing technical knowledge. A misconception that tends to obscure the important role Taylor's technical work played in the raising of labour and machine output.⁵⁴

Taylor gradually placed greater and greater emphasis on organisation as the primary determinant of production efficiency. Even though planning in production has existed to an extent before Taylor the same commitment to experimentation, standardisation and systems for ensuring quality of output enabled him to raise the extent to which production could be effectively planned to a dramatically high level.⁵⁵

There was opposition to the way in which many employers utilised Taylorism to undermine the labour movement particularly through the use of the 5\$ day.⁵⁶ The benefits of the systematic management of the production process which improved working conditions and higher wages did obviously prove very attractive to many trade unionists, but unions in general wanted a say as to how and where the new techniques were to be utilised and also as to how the benefits were to be distributed.

During the 1920s the number of firms utilising the techniques of scientific management grew considerably. There were remarkable improvements in productivity. In the seven years between 1919 and 1926, output per worker increased by almost 40%. It has been seen as one of the most

⁵² Ibid.

⁵³ Kelly, J.E. (1982), *op. cit.*, pp.25-29.

⁵⁴ Nyland, C. (1987), *op. cit.*, p.60.

⁵⁵ Nyland C. (1987), *op. cit.*, p.60.

⁵⁶ Ibid.

remarkable advances in production efficiency ever. Herbert Hoover was a great exponent of scientific management. As President of the American Engineering Societies he commissioned a study which was aimed at discovering the major causes of industrial efficiency in the United States. Though opposed to direct control by the State to regulate industry he did agree that the State should adopt policies that limited monopolies and aided industry in how to rationalise itself. The study's (called 'Waste in Industry') primary conclusion was that poor management was responsible for over half the existing inefficiency in industry while workers accounted for less than 25%. It was hailed with great delight by the workers.

As Secretary of Commerce, Hoover then established a large number of bodies to disseminate statistical and scientific information in order to achieve such goals as standardisation, product simplification and the regulation of production to offset the trade cycle. This was a real attempt by Hoover's department to take Taylorism out of the workshop and try to apply it at the national level.⁵⁷

After the 1920-22 depression profits of industrial corporations increased at an average rate of 9% during the years 1923-1927. Profits increased by 80% for the decade as a whole while the profitability of financial institutions increased by 150%.⁵⁸ But despite this Taylorism did not resolve the problem of how sufficient demand was to be generated to ensure the mass of goods produced could be sold. The distribution of the increased prosperity of the period was heavily skewed in favour of the employers. Overall profits increased at twice the rate of productivity. This imbalance led to a corresponding imbalance between peoples' ability to produce and peoples' ability to purchase. This situation was aggravated by the high rate of investment in fixed capital in the period that had been encouraged by high profits. Enormous amounts of excess capacity were created with the result that Capitalists could not find sufficient areas in which their profits could be re-invested profitably. This in turn led to mass speculation and finally in late 1929 to a depression on a worldwide scale. This inspired some countries, such as Ireland, to opt for import substitution policies in the 1930s, in the hope that through developing

⁵⁷ Metcalf, E.B. (1975), "Secretary Hoover and the Emergence of Macro-Economic Management", **Business History Review**, Vol. 49, No. 1, Spring, pp.60-80.

⁵⁸ Schlesinger, A.M. (1957), **The Crisis of the Old Order**, Heinemann, London, p.68.

their own manufacturing capacity and subsequently employment, a way out of the crisis could be found.(see Chapter 1 and later in this chapter)

The war acted as a huge stimulus to the expansion of Taylorism. Many leaders of the labour movement were suddenly given an unexpected opportunity to display their skills on a larger scale and at a higher level. The catalytic effect of war forced the employers and workers to cooperate more closely together. The success of that experience convinced many leading Taylorists of the necessity of counting the movement as an essential condition for the successful introduction of scientific management into the workplace after the war. It was because of this success that the Taylor society in the immediate post-war period began seriously to pursue a policy of promoting conciliation between the two bodies in an effort to cash in on the goodwill generated from wartime cooperation.⁵⁹

The moral regeneration of the working class was to be brought about through Puritan values of sobriety and hard work.⁶⁰ Higher wages would provide the material basis on which workers could enjoy a stable family life, centred around the family home, the family car, and Christian family values. Bonus payments were as a result, only paid to those workers whose morale and personal habits passed stringent tests.

A fall in absenteeism, a rise in productivity, the doubling of wages and the shortening of working day and production costs all seemed to vindicate Ford's utopian vision.⁶¹ But competition with companies like General Motors who followed Ford's lead ensured that he could not continue to afford high wages for very long. Improvements in technology alone could not restore Ford's profitability through cost cutting. Fordist morality was applied with greater vigour to enable the intensification of labour to take place, while at the same time cutting wages. The 'Service Department' enforced Fordist morality through more rigid and ruthless discipline.⁶²

⁵⁹ Jacoby, S.M. (1983), "Union Management Cooperation in the United States: Lessons from the 1920's", **Industrial and Labour Relations Review**, Vol. 27, No. 1, pp.18-33.

⁶⁰ Clarke, S. (1990), op. cit., p.141.

⁶¹ Ibid.

⁶² Meyer, S. (1981), op. cit., pp. 111-121.

But despite the external pressure on Ford's project within his own firm, it still seemed to many that the Fordist vision could still be realised if it could be integrated into a wider frame of reference. The regime of extensive accumulation was a regime that had reached its limits. It was concentrated primarily on the reproduction of the means of production. Therefore the focus of the regime was on the capital stock and the growth in Department II, i.e., consumption goods, remained very slow.

A new regime of accumulation began which replaced the extensive regime of accumulation. The **regime of intensive accumulation** developed from the aftermath of 1929 through the development of new modes of regulation which were appropriate to the new forms of mass production and accumulation based on the production of relative surplus value. Central to the whole system was a new mode of regulation of the wage relation into the regime of accumulation. This was possible because of the development of 'Fordist' modes of regulation which reconciled workers to the intensification of labour through increased earnings and social expenditure. It was also the development of Fordist modes of regulation that provided the rising mass of consumption which absorbed the growing product of Department II. But the tendency towards uneven development in the major branches of production would not be automatically overcome in this regime. The tendency was no longer the product of the market but derived from the revolutionising of methods of production which underlies the production of relative surplus value, resulting in the over-accumulation of capital in Department I.⁶³

The institutionalisation of the Fordist regime of accumulation was associated with the monopolisation of industrial capital and on the tremendous increases in productivity that allowed wages and state expenditure to sustain the mode of regulation. It was the wide use of Fordist production methods; the institutionalisation of a generalised expectation of rising wages in the annual pay round; the institutionalisation of regular increase in welfare expenditure; and the liberalisation of monetary and financial markets, culminating in the adoption of Keynesian macroeconomic policies which allowed for the maintenance of full employment which could absorb overaccumulation through inflation.⁶⁴

⁶³ Ibid.

⁶⁴ Clarke, S. (1988), "Overaccumulation, Class Struggle and the Regulation Approach", **Capital and Class**, No. 36, p.74.

The initial period immediately after the Second World War was not marked by Fordism but on the contrary, by austerity. Recession was staved off not by rising wages but by the Marshall Plan, rearmament and by the Korean War. It was not until the early 1960s that the institutionalisation of Fordist modes of regulation were in any real sense complete.⁶⁵ The Americanisation of European industry under the Marshall Aid programme and the subsequent flood of US direct investment was indicative of this. The stimulus of rearmament and the Korean war boom created the inflationary environment which institutionalised monopoly pricing and the annual pay round. With the dismantling of wartime controls of European currency convertibility came the endorsement of income policies by the majority of OECD countries in 1961. The latter marked a clear rejection of deflationary measures as a response to inflation. The wage relation was now the focus of regulation. Johnson's 'Great Society' programme institutionalised both expectations of rising social expenditure and inflationism on a global scale.

Monopolisation of capital now made it possible for capitals to provide for devalorisation or obsolescence in the form of depreciation or 'amortisation' funds. These funds are built-up, not in relation to the expected physical life of capital equipment but rather in relation to its much shortened value or economic life. These therefore are allowances set aside to negate capital value losses.⁶⁶

This accelerated depreciation is absorbed in the retail price of products and is accommodated by the inflationary expansion of credit. Therefore over-accumulation leads to creeping inflation rather than into the investment cycle of the extensive regime of accumulation. Proportionality between the two departments is maintained through the inflationary mechanism.⁶⁷

When there is a happy marriage between a regime of accumulation and an appropriate mode of regulation there will be a sustained period of technological progress and economic growth. When this situation exists the crises that occur are cyclical rather than structural and perform a stabilising function in the economy. Each mode of development however has its own

⁶⁵ Ibid., p.75.

⁶⁶ Driver, C. (1981), Review Article on: "Michel Aglietta's 'A Theory of Capitalist Regulation: The US Experience', **Capital and Class**, No. 15, Autumn, p.160.

⁶⁷ Clarke, S. (1988), op. cit., pp.63-65.

limitations. These limitations reflect the deeper contradictions of capitalism as a means of production.⁶⁸

The depressive impact on the rate of profit is counteracted by rising productivity and the erosion of real wages through inflation. But the tendency for the rate of profit to fall represents the real limitation to the intensive regime of accumulation. The tendency for the rate of profit to fall upsets the proportionality of accumulation embodied in the existing modes of regulation. Productivity will not rise sufficiently to counteract the rise in the organic composition of capital which leads to increased competition and the adoption and proliferation of new production techniques and subsequently the over-accumulation of capital in Department I. As a result fixed capital (constant capital) is devalued which in turn leads to increased inflation thus eroding to a degree the growth of real wages. The rate of profit may be temporarily maintained but at the risk of provoking industrial unrest which would disrupt the Fordist wage relation. If workers gain wages increases to compensate for the inflationary rise which will enable the rising consumption norm to be maintained but will result in the rate of profit to fall and eventually the slowing down of accumulation. Welfare benefits may sustain demand but with escalating inflation and an increasingly unbalanced credit structure which becomes more vulnerable. Governments cannot stand by and acting as lenders of the last resort, provide credit to stabilise the financial system. This limits the rise in inflation but the crisis is one of stagnation rather than depression and one that is typical of the regime of intensive accumulation.⁶⁹

Regulationists in general differ in two common methodological positions from Marx, in that there is firstly, a move away from the more rigidly determinist, historicist and conceptual realist features of classical Marxism and secondly to use evidence such as econometric tests in their research programmes.⁷⁰ Even though the Regulation School rejects orthodox Marxist periodisation, it retains the orthodox theoretical foundations in seeing the historical development of the social relations of production as the development of forms of regulation appropriate to the

⁶⁸ Hirst, P. and Zeitlin, J. (1991), "Flexible Specialisation Versus Post-Fordism: Theory, Evidence and Policy Implications", **Economy and Society**, Vol. 20, No. 1, February, p.19.

⁶⁹ Clarke, S. (1988), *op. cit.*, pp.63-66.

⁷⁰ Hirst, P. and Zeitlin, J. (1991), *op. cit.*, pp.28-30.

stage of development of the production forces.⁷¹ Regulation theory also differs in the sense that its interpretation does not depend upon a secular rise in the organic composition of capital to produce a decline in the profit rate.⁷²

Regulationists want to argue for the variability of capitalism with its crisis inherent system and on the absence of historical inevitability. Capitalism far from collapsing, survives and proves capable of institutional innovation and national variation within a prevailing international regime of accumulation.⁷³ Aglietta unlike Marx proposed a mechanism which rested on the anticipation of a total sales increase even without a fall in price, due to the continual rise in money wages. Therefore what Aglietta is advancing is what distinguishes monopolistic competition which proceeds by partially channelling the transitory surplus revenue into higher wages. New technology gains union approval, wages rise and as a result the new technology fails to act as a relief to inflationary pressure.⁷⁴

Aglietta's account is an historical account of capitalism in the USA but retains the essential insight of Marx's capital. Aglietta gives a central place to overaccumulation and devalorisation and he integrates disparate aspects of Marxist theory into a dynamic of historical development and business practice.⁷⁵ Internationally, the Fordist intensive regime of accumulation rested on the strength of the US economy. This is referred to as American hegemony which was based primarily on the Bretton Woods system and secondly its high degree of autonomy vis à vis international competition, technical supremacy, large-scale production coupled with a wide internal market. It had been the pioneer of Fordism and had hardly been hurt by the war. All these latter elements conspired to allow it a generous surplus on its current account until the end of the 1960s.

⁷¹ Clarke, S. (1990), *op. cit.*, p.136.

⁷² Driver, C. (1981), *op. cit.*, p.155.

⁷³ Hirst, P. and Zeitlin, J. (1991), *op. cit.*, pp.28-30.

⁷⁴ Driver, C. (1981), *op. cit.*, p.163.

⁷⁵ *Ibid.*, pp.150-151.

The agreement resulting from The Bretton Woods conference led to the establishment of the International Monetary Fund and the International Bank for Reconstruction and Development. One of the basic rules of the system was that in terms of international loans the economic agents involved should respect the contracts which they had undertaken. They would have to pay for what they had purchased and repay debts by a fixed deadline. There were procedures for enforcing this. There were correcting and penalising mechanisms built in to the system that would deal with offenders. It was believed that without these mechanisms the market system would not work. Aglietta refers to this aspect as the 'monetary constraint'. It operated through a system of adjustments in balances of payments. Central banks internationally had to settle deficits in dollars by drawing from their dollar reserves. When these reserves dwindled, internal macro-economic policy would be restricted, which would in turn lead to the deficit being absorbed. The constraint constrained everybody except the US. This system, in which central banks played a major role, globally resulted in the avoidance of a polarisation of surpluses and deficits. Only in the US were deficits allowed to grow in importance.

An important condition for the functioning of the international monetary system was the supply of international liquidity. Even though there was a high demand for US goods and low penetration of the American market by foreign industries, there was still the need for a structural trade surplus that would be sufficiently high to allow the return of dollars to non-residents. This was the basis of the regulation of the basic balance in the system internationally.⁷⁶ On a national level it was Keynesianism that provided the balancing mechanism that allowed Fordist nations to participate in the stability of central Fordism.

Jessop explained the importance that Keynesian policies had played in the mode of regulation before the crisis. Jessop claimed that the "Fordist state is the Keynesian welfare state".⁷⁷ Keynesian policies made possible a system wherein firms would involve themselves in expensive R and D as well as further capital investment for continuing mass production. Keynesian policies universalised mass consumption allowing workers to share in the prosperity reaped from rising economies of scale. The state, using these policies, could intervene in the economy to ensure adequate levels of demand. What follows is necessarily the briefest of outlines of Keynes' ideas.

⁷⁶ Aglietta, M. (1982), "World Capitalism in the Eighties", *New Left Review*, Nov/Dec, p.20.

⁷⁷ Jessop, B., (1991), *op cit.*, p.3.

Keynesianism

At the end of the decade up to 1946 many economists in the West had become disciples of Keynes' ideas. Keynesian explanations seemingly offered a more realistic explanation of the problem of mass unemployment. The Budget of 1941 in Britain was strongly influenced by Keynes' thought. Roosevelt's presidency in the United States was also marked by his influence as early as 1942. The orthodox economics school, which could only espouse a balanced budget and its perennial attack on inflation as a remedy for economic depression, had lost most if not all of its influence by the end of World War II.⁷⁸

During the period from 1958 to 1982 successive governments in Ireland followed the same economic doctrine. The objective was balanced growth through stimulating all sectors of the economy at the same time. Public expenditure had to be increased in order to finance such growth. With each development programme the emphasis was on increased public expenditure and deficit finance as being essential to stimulate the economy in the short-run. In the long-term as the requisite growth targets were attained public expenditure would be cut back accordingly. With the downturns in the Irish economy that followed the two oil crises of the 1970s and the fall in private investment, the government increased public expenditure in an effort to sustain demand.⁷⁹ This was an attempt to expand employment through tax incentives and grants to manufacturing firms. The strategy was essentially Keynesian. It was a Keynesian in the sense that it sought to counteract the deficiencies in private investment by increasing public investment. There was a commonly held belief among successive governments that laissez-faire solutions would not suffice in dealing with a perennial employment problem. Employment could only be stimulated by the State stimulating internal demand.

A central feature of Keynes' ideas was that fiscal policy was the most effective way to keep an economy on an even keel towards realising full employment. Keynes rejected the classical notion that the free and unimpeded workings of the market could bring that about. If the market had any effect at all on bringing full employment about then it was considered to be far too slow moving to be of any practical use to policy makers. Fiscal policy was to be the strongest weapon

⁷⁸ Blaug, M. (1990), **John Maynard Keynes: Life, Ideas, Legacy**, Macmillan, London, pp.25-27.

⁷⁹ Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op. cit.*, p.172.

used in a policy of demand management which represented the manipulation of aggregate expenditure by government in order to bring about an increase in the employment level of the economy.⁸⁰

In Keynes' 'General Theory of Employment, Interest and Money' the author broke with the orthodox Marshallian tradition by stating that indeed the economic system does tend towards an equilibrium state but that different levels of this equilibrium were possible. He arrived at this conclusion in a very interesting way. Keynes made the assumption that a proportionate increase in consumption would always be less than any given increment of income. For any particular level of employment to be maintained there would have to be a 'sufficient amount of investment to absorb the excess of total output over what the community chooses to consume'.⁸¹ Investment and consumption were the two components of effective demand and it was a deficiency of effective demand that Keynes believed was responsible for large-scale unemployment.⁸²

'effective demand is simply the aggregate income (or proceeds) which the entrepreneurs expect to receive, inclusive of the incomes which they will hand on to other factors of production, from the amount of current employment which they decide to give.'⁸³

If the amount of employment that entrepreneurs were willing to offer was just equal to the amount of anticipated earnings from the sale of their goods then the economy could be at an equilibrium level that could be anywhere between zero and one. If widespread money wage cuts were introduced throughout the economy and if employers were encouraged to take on more workers the result would merely be a reduction in the aggregate demand for goods which would subsequently lead the economy to operate at an even lower level of equilibrium.

Only an adequate amount of investment would produce full employment at a corresponding equilibrium level. The issue Keynes addressed was whether the free-market could accomplish

⁸⁰ Trevithick, J.A. (1977), **Inflation: A Guide to the Crisis in Economics**, Penguin, p.42.

⁸¹ Keynes, J.M. (1936 - reprinted 1993), **The General Theory of Employment, Interest and Money**, Macmillan, p.27.

⁸² Stewart, M. (1986), **Keynes and After**, Penguin.

⁸³ Keynes, J.M. (1936 - reprinted 1993), *op. cit.*, p.55.

this. The level of investment is determined by the marginal efficiency of capital and the rate of interest.⁸⁴ The marginal efficiency of capital Keynes defined as 'being equal to that rate of discount which would make the present value of the series of annuities given by the returns expected from the capital-asset during its life just equal to its supply price'.⁸⁵ Both the marginal efficiency of capital and the rate of interest depended on the subjective attitudes of investors towards future returns. The actual amount that investors would invest would depend on the rate of interest. The investment would be to the point where investors felt that the likely return on their capital would be equal to the rate of interest. If these two variables were not the correct requisite proportions so as to create the full-employment equilibrium level then there would be unemployment.⁸⁶

The degree to which movements in the employment level occur as the result of varying levels of investment depends on the multiplier effect.⁸⁷ The multiplier effect was a different way of expressing the marginal propensity to consume which stated that there was a psychological characteristic within the community that seems to suggest that when aggregate income increased, consumption would increase but to a lesser extent. Consumption was a function of income and every individual with money to spend was faced with the decision as to how much of his or her income would be spent or saved. With any given increase in income there was the question as to how much more or less of the increase would be saved or spent. Keynes maintained that each successive increase to real income would be matched by an increase in consumption expenditure with the remainder of the income being saved.⁸⁸ The multiplier explained the factor by which income would be increased. If there were an increase in investment there would be more labour employed the wages from which would increase sales from retailers who would buy more stock and the initial injection of money would pass from one economic actor to the other ad infinitum. The only thing preventing that happening was that people tended to save a portion of their increased income until eventually the increase would leak out of the system as savings. But in

⁸⁴ Mattick, P. (1980), **Marx and Keynes: The Limit of a Mixed Economy**, Merlin Press, London, pp. 1-19.

⁸⁵ Keynes, J.M. (1936 - reprinted 1993), *op. cit.*, p.135.

⁸⁶ Hanson, A.H. (1953), **A Guide to Keynes**, McGraw-Hill, New York, pp.117-125.

⁸⁷ Roll, E. (1973), **A History of Economic Thought**, Faber & Faber, pp.496-496.

⁸⁸ *Ibid.*, pp.487-490.

the process the original injection would have increased national income greatly i.e., if the marginal propensity to save (the flip side of the marginal propensity to consume coin) was 25% then the national income would be increased by a factor of four.⁸⁹

Keynes believed that the marginal efficiency of capital would decline as investment beyond a certain point will diminish the prospective yield from producing one more unit. This fact coupled with the decline of the marginal propensity to consume contributed to a likelihood that investment would persistently fall below the level which was required for full employment. Hypothetically such a situation could be offset by a sufficient reduction in the interest rate levels but Keynes maintained that past experience had shown that they were unlikely to fall fast enough or far enough to maintain a level of investment that could bring about full employment.⁹⁰

Keynes ideas were to remain the dominant economic orthodoxy thereafter until the late-1970s. Eventually, the crisis of Fordism led to the progressive abandonment of full employment policies in favour of price stability as the primary target of macro-economic policy. Credit expansion and wage bargaining were now being frowned upon and gradually moved from the agenda. All these changes ultimately culminated in the rise of monetarism of the 1970s.

That 'Golden Age' period of Fordism which was characterised by Keynesian economic doctrine (early 1950s - early 1970s) was a period of unprecedented growth in terms of the State's intervention in the economy. Apart from the management of the labour movement and monetary affairs there was also the rapid proliferation of provision of public goods, counter-cyclical policies as well as a tremendous increase in public expenditure.⁹¹

Keynesianism had seemed to provide a theoretical basis to a situation that appeared to be quite tolerable. That is as long as the rate of growth was sufficiently high and the unemployment rate was sufficiently low. Observations of unemployment and inflation rates in the 1950s and early

⁸⁹ Hanson, A.H. (1953), *op. cit.*, pp.87-114.

⁹⁰ Roll, E. (1973 edition), *op. cit.*, pp.494-496.

⁹¹ De Vroey, M. (1984), *op. cit.*, p 54.

1960s, in the UK and other countries, seemed to corroborate the relationship postulated in the Phillips Curve.⁹²

The golden age of the period stretching from the beginning of the 1950s to the beginning of the 1970s seemed to have business cycles under a certain degree of control. It had a period of sustained growth, with the cycles being rendered unimportant by counter-cyclical policies.

There are distinctions that need to be clarified i.e., the difference between structural and cyclical crises. Cyclical crisis refers to a particular phase of the cycle and is characterised by a reverse of a set of business indicators, such as employment, production, the stock market, etc.,. The structural crisis is characterised by a threat to the functioning of a given set of institutions and social norms which would not be threatened in a cyclical crisis. The crisis of the thirties is a good example of such a crisis. It was seen by some as the crisis of the inability to establish Fordism through the failure to establish the conditions necessary to enable its existence.⁹³

But as soon as Fordism was generally considered to be in place, a minor crisis within it soon took place in Britain and was indicative of how the fragile balance of the whole regime of accumulation was. Keynesian interventionism was soon faced with a balance of payments constraint in Britain. The stability that derived from Fordism appeared momentarily to falter. The devaluation of sterling in 1967 marked a crisis in Fordism not only in Britain but also had brief repercussion for the world in general. The panic caused by the Wilson governments attempts at 'rationalisation' precipitated a rush into gold and brought tremendous speculative pressure on the dollar. The regime of accumulation was only sustained by an increasingly inflationary expansion of credit on a global scale. The post-war boom was heading into a speculative phase and eventually culminated in the crisis of 1972.⁹⁴

⁹² Cross, R. (1982), **Economic Theory and Policy in the UK**, Blackwell, p.24.

⁹³ Aglietta, M. (1979), **A Theory of Capitalist Regulation: The US Experience**, New Left Books.

⁹⁴ Clarke, S. (1988), *op. cit.*, pp.76-77.

The Crisis of Fordism at the Centre: The First Phase

The crisis of Fordism at the centre was caused by two main events. The notion that it was caused by a supply-side crisis of declining profit rates or that it was caused by a crisis of underconsumption is rejected by Leborgne and Lipietz (1991). They argue that on the one hand the crisis was caused by problems from within the model of development itself particularly on the supply-side and on the other hand it was caused by problems with the internationalisation of the economy which endangered the ability of nations to manage their internal demand.⁹⁵

There were various stages in the development of these events. Towards the end of the 1960s the productivity gains which were fostered by Taylorism began to decline. An increasingly educated workforce became more and more alienated from their work as they were increasingly being asked to function in a less cerebral manner. At the same time, wages continued to rise while rates of profit and rates of investment began to decline. But productivity had not increased in line with wages which had continued to rise. Hence the distributive share between the two main protagonists had shifted.⁹⁶ Consensus had weakened and with it came a situation whereby workers and unions rights were gradually called into question.

The welfare state began to come under increasing pressure through rising unemployment. The first oil crisis of 1973 exacerbated these events. The oil-shock of 1973 was more of a symptom than a cause of the crisis. For years the advanced capitalist world had benefited from very advantageous relative prices for their raw material inputs. The strain on the international economy was thus greatly magnified when the price of crude oil quadrupled and the consequent large and rapid deterioration in the trade balances of oil-producing countries in favour of the oil-exporters.⁹⁷

The situation however, was able to continue to function from 1973-1979 due to monopolistic regulation. Up until 1979 the issue of money and access to credit was not yet a problem and domestic demand could be stimulated through borrowing. Inflation helped to paper over many

⁹⁵ Leborgne, D., and Lipietz, A. (1991), *op cit.*, p.5.

⁹⁶ Mazier, J. (1982), "Growth and Crisis: A Marxist Interpretation", in Botho, A. (ed.), **The European Economy: Growth and Crisis**.

⁹⁷ Gomes, L. (1978), **International Economic Problems**, Macmillan, p.96.

of the cracks that were beginning to become evident. This first phase of the crisis benefited some countries in the periphery. Ireland was one such country. Ireland, like other countries in the periphery was encouraged to borrow heavily in order to stimulate its own industrialisation. It was believed that through increased industrialisation and the export of manufactured goods, countries would eventually be able to repay the monies that had been borrowed. This Peripheral Fordist phenomenon will be examined later in this chapter.

The Second Phase of the Crisis of Fordism

In 1979 however, the system of monopolistic regulation changed and this had a profound effect on the Fordist regime of accumulation at the centre and, as will be discussed later, an even more profound effect for peripheral Fordist countries. The crisis was spurred by the advent of the second oil crisis in 1979. Most governments in the core began to believe that Keynesian demand management policies could not restore the imbalance in the regime of accumulation. Profits were still declining and inflation appeared to be spiralling out of control. The overvalued dollar on whose strength the system rested, started to lose its value rapidly. A crucial change in the hegemonic role played by the US economy took place in the second half of the seventies to that of the early sixties. American industrial supremacy was called into question with the advance of Japanese industry. The new international credit market which operated mainly in dollars but not exclusively became less and less dependent on the US official settlements balances. A monetary sovereignty to impose a discipline on the system therefore began to disappear. The role that the Central Banks that had played during the golden phase of Fordism was now weakened. Pressure was eased as a result on debtors and there was a sharp increase of indebtedness. Deficits no longer exerted a systematic pressure for their own elimination, as they could be turned into increased indebtedness. National economies were therefore much freer of foreign constraint. The international monetary system had become extremely fragile as polarisation of large surpluses and deficits took place. The only thing that prevented a generalised international financial crisis was that the international banking fraternity exercised enough self-control in the absence of panic and showed flexibility in the rescheduling of debt. The response to the crisis was to tighten credit, reduce wages and cut government expenditure particularly that of the welfare state. The crisis disarmed the system of international regulation.

The crisis heralded a monetarist era whereby countries, began to reduce wages more than their competitors, in order to export more and import less. With the apparent failure of Keynesian

demand management policies, neo-classical liberalism filled the policy void. Now market forces alone would regulate economic behaviour. The need to balance the capital account led countries to raise their interest rates so that they were more competitive in attracting mobile funds than their competitor nations. The rise in interest rates had severe effects on many peripheral nations who had borrowed heavily in earlier years. The crisis of Fordism led many to believe that as a regime of accumulation, it had ended and that a new regime of accumulation based on new forms of industrial production had arrived. What follows is a brief outline of some such views.

Post-Fordism and Flexible Specialisation

Post-Fordism is considered a break from Fordist crisis regulation. It is considered to be a new socio-political phenomenon that ushers in a new coherent form of regulation. The post-Fordist mode of production and consumption is believed to provide a new long-term regime of accumulation. Post-Fordism is said to transform production through flexible machinery that can produce a variety of products. According to those that accept the advent of this new regime of accumulation, production moves beyond the standard of mass production towards the production of different products by the same machinery. It suggests a greater 'flexibility' for labour which must move away from traditional work-practices.⁹⁸

Post-Fordism therefore is seen as the lumping together of a series of economic and social changes in general and the borrowing and simplifying the 'flexible specialisation' approach to manufacturing. The simplification however ignores the many hybrid forms of flexibly-specialised production. The primary concern is to explain change caused by the collapse of mass markets. This collapse which resulted in a move from Fordism to Post-Fordism is therefore seen in very conventional economic terms. The archetypal entrepreneur and individual firm responds with new intra-firm strategies, to a new set of market conditions.

Post-Fordism is another aspect among the general theory of Regulation and Global Fordism and the term is sometimes used rather indiscriminately. It is often used alongside Fordism to describe aspects of the flexible specialisation and regulation schools. But even though Post-

⁹⁸ Bonefeld, W., (1991), Reformulation of State Theory, in **Post-Fordism and Social: A Marxist Debate on the Post-Fordist State**, edited by Bonefeld, W., and Holloway, J., Macmillan, pp. 53-56.

Fordism borrows selectively from the concepts and ideas of Global Fordism and Regulation, it is a body of work quite distinct from them.⁹⁹

What is shared by all however is the belief that capitalism had managed to resolve the crises which had beset it in the 1970s. This occurred in the 1980s and it was believed that the foundations for a new Post-Fordist regime of accumulation had been laid with flexible specialist modes of production being its main characteristic.

These modes of production would combine new technologies and new patterns of demand as well as new forms of the social organisation of production. Basing their analysis on the experience of a few successful regions, the Post-Fordism school would argue for the possibility of the social democratic dream, of reconciling the interests of profit and high productivity with the material interests of the populace at large.¹⁰⁰

In the Fordist system rebellion and unrest can only be avoided by increased and widespread automation and the electronic revolution seemed to offer a solution. This is characterised by the microprocessor and electronic interfaces incorporated not only into new products but into the labour process itself. Microelectronics enable the devices required to make the movement of machines more complex but above all they enable equipment to become more flexible. Flexible machines are used with several short runs selected from a range of differentiated goods aimed at smaller segmented markets thus assuring their profitable use.¹⁰¹

Electronics also change the nature and management of the workshop. With the aid of computers the potential for controlling in real time the in-process stocks needed for each operation was increased. Stocks will be controlled in line with the production needs of the firm while production itself can be adjusted in line with the levels of intermediate and final demand. This system which is called the 'just-in-time' principle can be extended to the relations between workshops in one establishment, between the establishments of a single company and between

⁹⁹ Hirst, P. and Zeitlin, J. (1991), *op. cit.*, p.8.

¹⁰⁰ *Ibid.*, p.131.

¹⁰¹ Leborgne, D. and Lipietz, A. (1991), *op. cit.*, p.8.

companies and their subcontractors.¹⁰² Successful specialised dynamic industrial districts were identified in Germany, Italy and Sweden. These were characterised by a network of small and medium-size enterprises which supported local collective services. This supposedly new model of development was termed 'flexible specialisation'. It was brought about by a supply-side response based on skilled work and flexible machines on the one hand and on the demand-side by the desire for customised products, and in product mix on the other.

Optimists who welcome flexible specialisation such as Hirst and Zeitlin (1988), Murray (1989 a and b) Piore and Sabel (1983, 1984), Sabel (1982, 1988) and Scott (1988)¹⁰³ all contend that mass markets are no longer the norm but that there exists a new phenomenon characterised by market instability and an ever increasing demand for high-grade, top quality customised products.

A thorough empirical and theoretical critique of the theory of 'flexible specialisation' by Williams, Cutter, Williams and Haslam, claims that the model postulates no clear relationship between its diverse elements. The critique also states that there is no empirical evidence provided for the supposed break-up of markets, or the supposed lack of ability of mass production to respond to changing economic conditions, or for that matter the supposed correlation between new technology and the scale and social forms of production.¹⁰⁴ The British case of 'flexibility' has involved an intensification of labour on the basis of a shift in the balance of class forces in favour of capital.¹⁰⁵ The State has done most in promoting 'flexibility', which, far from expressing the technological requirements of modern manufacturing has been taken furthest in the public sector.¹⁰⁶ The changes in work organisation, wage bargaining and payments

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Williams, K., Cutler, T., Williams, J. and Haslam, C. (1987), "The End of Mass Production?", *Economy and Society*, Vol. 16, No. 3, pp.405-439.

¹⁰⁵ Pollert, A. (1988), "Dismantling Flexibility", *Capital and Class*, No. 32, pp.42-75.

¹⁰⁶ Fairbrother, P. (1988), *Flexibility at Work: The Challenge for Unions*, W.E.A., London.

systems have more to do with the ever-increasing power of management and the erosion of union power than to any determinate relationship to technological change.¹⁰⁷ And the restructuring of class relations in the auto industry would appear to have more to do with the role of the state than as a consequence of the introduction of new technology.¹⁰⁸

Most of the utopianism concerning flexibility stems from Sabel's original study of the 'Third Italy' wherein he showed that the privileges experienced by the new artisans were due to a combination of a scarcity of skilled labour in a particularly dynamic and specialist production and a reserve army of unskilled low-wage workers. Profitability therefore was guaranteed by favourable conditions in the product market and the intensification of the labour of a majority of low-paid workers.¹⁰⁹

The issue of worker involvement in the production process is raised when it is considered that new technology itself is not necessarily without its own drawbacks. After breaking-down the machines can have long periods of down-time unless its manual operatives can immediately rectify or take charge of the situation. The implementation of flexibility may be complicated and a drawn-out process resulting in the loss of much real-time activity on the part of design, maintenance and manufacturing personnel. Likewise there is a danger that the machine system may become obsolete as quickly as the products for which it has been designed to produce, themselves become obsolete. As a result the electronics revolution may aggravate rather than rectify the underlying crisis of the Fordist model which is the problem of the level of participation of the worker in the production process.¹¹⁰

Leborgne and Lipietz also pointed out that the flexibility does not necessarily mean that the tendency for technical and financial concentration of capital to increase is a thing of the past.

¹⁰⁷ Elgar, T. (1990), "Technological Innovation and Work Reorganisation in British Manufacturing in the 1980's", **Work, Employment and Society**, Vol. 4, Special Issue, May, pp.67-101.

¹⁰⁸ Holloway, J. (1987), "The Red Rose of Nissan", **Capital and Class**, No. 32, pp. 142-164.

¹⁰⁹ Sabel, C. (1982), **Work and Politics**, Cambridge University Press.

¹¹⁰ Leborgne, D. and Lipietz, A. (1991), *op. cit.*, p.10.

They argue that the flexibility is limited to only a narrow range of related products. Furthermore the implementation of flexible production requires time spent on designing it, maintaining it and manufacturing it in the first place. Therefore it could be said that the problem of worker involvement has become greater and that rather than providing a solution to the crisis of Fordism, flexible specialisation represents a deepening of it.¹¹¹

Peripheral Fordism

Peripheral Fordism, unlike post-Fordism is seen as an extension of theory of Fordism. It represents an attempt to globalise the theory. Many countries, including Ireland (see chapter 1), had tried to introduce an import substitution strategy in the 1930s and did, according to Lipietz (1987) manage to generate a type of industrialisation which he referred to as a sub-Fordism. It was the nature of the IS strategy itself that denied these countries a way into 'The virtuous cycle' of central Fordism. Lipietz pointed out that there were fundamental aspects of the strategy that caused this to be the case. Firstly, these countries did not have the experienced working class nor management personnel that would have been necessary for Fordist production methods. Secondly, the markets in the domestic economies remained restricted with little extension of the working populace's purchasing power. Finally, for production to develop to a stage where it could enjoy economies of scale this would require massive and continual investment, the like of which would be difficult to pay for from the export of raw materials.¹¹²

According to Lipietz when central Fordism was experiencing its heyday in the 1960s the role that the periphery had played in the dynamics of accumulation in the centre by providing a market for manufactured goods, no longer seemed to be important.¹¹³ But when the crisis emerged at the centre in the early 1970s companies were forced to try and raise productivity by expanding the scale of production and move to countries with lower wage costs. As Lipietz states this

¹¹¹ Ibid, pp.8/9.

¹¹² Lipietz, A. (1987), **Mirages and Miracles**, Verso, London, p. 62

¹¹³ Ibid, pp.61/62.

represents a real attempt to consolidate Fordism.¹¹⁴ It was an attempt to extend central Fordism's scale of production through the establishment of branch plants in specific countries. Lipietz believed that many of the countries' regimes of accumulation were characterised by what he termed "export-substitution". This was where countries develop exports for manufacture which have been produced lowest level of the Fordist tripartite division of labour.¹¹⁵ This was whereby the manufacturing that took place involved relatively unskilled assembly that required workers to possess few skills. It is the type of firm that is typical of the type that have been attracted to Ireland.

Why would should this type of development be termed as peripheral Fordist? Lipietz insists that it is a type of Fordism because "it involves both mechanisation and a combination of intensive accumulation and a growing market for consumer durables".¹¹⁶ It can only be termed peripheral Fordist if growth in the domestic market for manufacturing products becomes an essential part of the national regime of accumulation. The peripheral aspect of this type of development stems from the fact that in spite of branch plants being established in Ireland, the more skilled and technological processes of the firms overall operations remain located in the centre. Consumption in the local market is by the middle classes and workers in the Fordist sectors of the economy. Unlike at the centre, in the peripheral Fordist country, demand for consumer durables is not regulated at a national institutional level nor is it adjusted to productivity gains in the foreign branch plant sector.¹¹⁷ Ireland, according to Lipietz, is, "a perfect example of the logic of peripheral Fordism, but it can scarcely be described as an industrialised country".¹¹⁸

Peripheral Fordism is distinct from 'Primitive Taylorisation' which refers to the transfer of specific and limited segments of branch circuits to countries or areas with high rates of capitalist exploitation. These are countries with little trade union or labour movement activity and with

¹¹⁴ Ibid, p.70.

¹¹⁵ Ibid, p.73.

¹¹⁶ Ibid, p.79.

¹¹⁷ Ibid, p.79.

¹¹⁸ Ibid, p.84.

limited or no protection of workers against low wages, labour intensity or length of the working day. Invariably the products produced in such countries are re-exported to the centre. The tasks the workers carry out are fragmented and repetitive but they are not linked by any automatic machine system. The equipment used is often light requiring very few operatives. The production therefore can be described as being very labour-intensive.¹¹⁹

Peripheral Fordism would argue that Ireland played a specific role in relation to the crisis in Fordism. With the official opening up of the Irish economy in 1958 the country saw economic growth which was based on the development of a regime of intensive accumulation but its role changed after this regime reached a crisis. With the crises in Fordism when the economies at the core were experiencing declining rates of profitability, peripheral economies like Ireland's became very attractive as a location for overseas production units. The attractiveness of places such as Ireland was based on lower wage costs, generally with less trade union resistance and a host government that was very welcoming. Ireland, though a peripheral nation, was close to the core economies of Europe. The production units that established themselves overseas made use of electronic automated equipment with automatic feedback mechanisms which would mitigate against balance-delay time. The firms had a smaller range of more integrated tasks to carry out. The skills the workers needed were in the main very basic and could easily be learned. Therefore the development of technology now meant that firms could operate geographically distant from the core. Host countries benefited through employment generation and perhaps some spinoff effects to be experienced at a later date. But because of the nature of direct foreign investment (see Chapter 5) these can only be very limited. The Telesis Report found this to be the case in relation to its study of the Irish economy. One of its main conclusions was that trying to industrialise, based on a strategy of attracting DFI to the country would not provide the basis for developing a strong indigenous manufacturing sector and subsequently long-term development.

How did the crisis at the core therefore benefit Ireland? Before the crises, profitability had been maintained through the higher levels of productivity which were possible through Fordist labour processes and Taylorist scientific management which in turn allowed real incomes to rise. Not

¹¹⁹ Ibid., pp.74-77.

only was credit expanded to allow workers participate in the regime of accumulation, creating in its wake its own dynamic of growth within the internal economy, but monies were also advanced to the owners of production giving an additional spur to economic activity. Keynesian demand management policies which were the backbone of the system, were orchestrated by the state at the core and allowed production and reproduction to function in harmony. The fine balance between Departments 1 and 2 of production was maintained. Workers could buy consumer products providing the opportunity for capitalists to produce more. When the crisis occurred there was no longer the potential for raising productivity and hence profitability. Production was therefore re-focussed and the location of production units in the periphery represents the solution for increasing productivity and profitability. Ireland offered generous government incentives and with wages relatively low by comparison to the core economies and with its geographical proximity to the core, it appeared a very attractive location. Despite declining rates of growth elsewhere, Irish growth rates increased in no small part due to the increasing influx of branch plants into Ireland in the 1970s. The growth rates in Ireland were also due to the large amount of government expenditure that had continued from the late 1950s to the 1980s. As Ireland's increased participation in the new regime of accumulation the government spent heavily on health education, social welfare and infrastructural provision. The policy approach therefore was essentially Keynesian.

But just as the crisis of Fordism at the centre benefited the periphery in macroeconomic terms, monetarism at the centre also stifled its growth. The problem was that growth in the periphery was heavily dependent on World demand which was seriously curtailed by the crisis at the centre and the subsequent monetarist reaction to it. Slow growth at the centre meant that the main market for mass production would be dependent on the growth of incomes in the periphery. Lipietz (1987) cites the substantial increase in population in the periphery as another factor in the limitations of peripheral Fordist growth. The increase in population increased the burden on the active working population in the periphery as the dependency ratio increased. With greater democratization i.e., Spain and Portugal, came demands for higher wages which would ultimately detract from competitiveness. Unlike Spain or Portugal, Ireland had had a tradition of democracy but wage increases were also called for by the ICTU (The Irish Congress of Trade Unions) who were eager for their members to share in the recent good fortunes of the country.

Governments in Ireland, particularly Fianna Fail governments (it was this party that had historically introduced most of the country's previous social legislation), were keen to imitate the social, educational and medical advances that the old enemy, Britain, could offer its people. Having been encouraged to borrow previously, successive Irish governments borrowed heavily to fund government expenditure. See Table 2.1.

Table 2.1 Source: Central Bank Of Ireland, (1990), **Annual Report**.

Conclusion

Global Fordism and Regulation Theory provide us with a basis from which to grasp how world capitalism attempted to solve some of its internal contradictions in the aftermath of the Second World War. The dominant model therefore, for this post-war era has been Fordism. It is a model that can be defined primarily as having at its core, a mode of regulation wherein incomes are linked to productivity increases and inflation, and where the state through Keynesian demand management policies foster mass consumption. The peripheral Fordist aspect of the theory provides a heuristic account of how Ireland played a specific role in the Fordist regime of accumulation as it went into crisis. Not only does the theory explain how Ireland began to benefit from the crisis at the centre in general but it also begins to provide an explanation for an area of the Irish economy that has now become one of its major features, i.e., the foreign branch plant of the multinational enterprise (MNE).

One of the most important aspects of the peripheral nature of the Irish economy was that there had only been a limited development of capital goods industries. And it will be argued later, that the foreign companies who have established themselves in Ireland had not directed their operation towards the domestic market therefore ensuring that the internal balance or system of regulation would generally be externally controlled. Later I will examine more closely how the Peripheral Fordist characteristics of Ireland have entwined its industrial policy into assuming a specific role in what is termed as a Neo-Fordist regime of production. Immediately I will examine Lipietz's interpretation of Peripheral Fordism as a model of development and show how Alice Amsden's response and arguments counter those of the Regulation/ Global Fordist analysis. Furthermore I will examine Amsden's theories of how countries in general, and Korea specifically have developed. Thereafter I will summarise

some of the historical theories on how countries, who have found themselves lagging industrially have endeavoured to bring about industrialisation in their own countries.

Chapter 3 Peripheral Fordism, Amsden's Model and Other Theories of Late Industrialisation

Introduction

The purpose of this chapter will be to examine Lipietz's view of Peripheral Fordism in the light of Amsden's contrasting model of 'Late-Industrialisation'. There are many other interpretations of these processes and forms of development but the concern here is how Amsden's analysis of late-industrialisation argues definitively against the Post-Fordist model of development. Amsden, disagreed with much of the Global Fordist model of development. She points out that the model is termed Global in the sense that it understands the development of the Third World in terms of the relations between the centre and the periphery.¹ In the course of this examination it will be necessary to look at some of the origins and development of the concept of core and periphery relations that underpin these viewpoints.

While outlining Amsden's views on late-industrialisation and in particular her work on the development of industrialisation in the economy of South Korea, the historical framework for the justification of such strong state intervention in the process of industrialisation will be looked at. Finally, it is the intention to include some of the work on late-industrialisation of O'Malley who has given the arguments for strong state intervention and a more comprehensive industrialisation policy a strong Irish dimension.

The International Division of Labour, Core/Periphery Relations and the Advent of Dependency Theory

'The International Division of Labour' was a term used to understand the relationship between the centre or core of world economic power with that of the outside world. Adam Smith's (1776) and David Ricardo's (1817) theses on the theory of international division of labour attempted to supply the foundation for both past, present and future international production and specialisation. Smith perceived international trade in terms of what is often referred to as

¹ Ibid.

'absolute advantage': that is, whereby commodities would be produced where their resource inputs were absolutely lowest. Individual countries would have absolute advantages in the production of particular commodities. It would be to the benefit of countries to import those products which other nations could produce at an absolute lower cost. It was this lower absolute cost that provided the basis for determining the profitability of importing or exporting specific goods.²

One of the main benefits of this was that by providing an outlet for the surplus product above domestic requirements, international trade could overcome the narrowness of the home market. This was known as the 'best-for surplus' effect. More importantly by widening the reach of the market international trade would also encourage the division of labour thus enhancing the general level of productivity within any given country. The enhancement of workers' skills, technological progress, the overcoming of technical indivisibilities would all contribute to enabling the trading country to enjoy increasing returns and economic development.³

Thus an undeveloped country could accelerate the pace of its own economic development by opening up for trade and thereby expand the size of the market and, consequently, increase the scope of its division of labour.⁴ An increase in total effective demand, both domestic and foreign (i.e., the extent of the market), would enhance profit levels as well as the rate of capital accumulation and the acceleration of economic development.⁵

With an increase in capital accumulation via wider markets there would be an increase in the demand for labour which, given the relatively inelastic labour supply in the short-run, would temporarily push up wages. Better living conditions would help to expand the work force and

² Smith, A. (1961), **An Enquiry into the Nature and Causes of the Wealth of Nations**, edited by Cannan, E., Methuen, London, pp.468-469.

³ Myint, H. (1958), "The Classical Theory of International Trade and the Underdeveloped Countries", **Economic Journal**, Vol. 68, June, pp.317-337.

⁴ Smith, A. (1961), op. cit., p.470.

⁵ Chaudhuri, A.K. (1967), **The Wealth of Nations: An Analysis with Special Reference to Underdeveloped Countries**, The World Press Private Ltd, Calcutta, p.70.

this would gradually force price of labour down towards subsistence levels. An increased supply of labour will therefore expand the domestic market by raising total demand, which in turn, makes possible the further division of labour and specialisation and also increased productivity. The cumulative total of which will increase a country's exportable surplus.⁶

Ricardo took Smith's theory of 'absolute advantage' a step further. 'Comparative advantage' was illustrated by an example that compared the production of both wine and cloth in both Portugal and England. For Portugal to produce wine in one year might only require the labour of eighty men and that the production of cloth in the same country might require ninety men. England may have to employ one hundred and twenty men and one hundred men in the production of wine and cloth respectively. In such a case Portugal would be said to have 'absolute advantage' as England would be said to have 'absolute disadvantages' in both commodities. It would however, it was agreed, be advantageous for Portugal to import cloth from England in exchange for wine. The reason being that England would have the comparative advantage in cloth despite having the absolute disadvantage in both commodities. In other words, cloth has lower comparative costs in England and wine has lower comparative costs in Portugal.⁷

As a result, England found it advantageous to produce wheat and meat in Argentina, minerals in Africa, raw materials in Canada and in the United States, and for these purposes it exported capital on a large scale.⁸ Smith also argued that the same profit motives which induces goods movement would also stimulate international movement of capital which would be necessary to produce such goods.⁹ Therefore in the nineteenth century international trade was characterised by a movement of the factors of production, motivated by the anticipation of profits to be made in an ever expanding international market. This then constituted the international division of labour.

⁶ Ibid., p.71.

⁷ Ricardo, D. (1951 edition), **The Principles of Political Economy and Taxation**, edited by Straffa, P., Cambridge University Press, pp.135-136.

⁸ Chaudhuri, A.K. (1967), op. cit., p.78.

⁹ Ibid., p.77.

Theoreticians of Imperialism described economic activity outside the centre as 'primitive' or 'pre-capitalist' and argued that it would eventually disappear but would always, it was assumed, comply with the needs of the centre. This analysis coupled with the fact that Marxist intellectuals were in the main Europeans meant that there was even less interest in the internal regimes of accumulation in countries dominated by the colonial powers.

In the classical Marxist theory of Imperialism the centre is 'characterised by increasingly interconnected processes of production with an increasingly clearly defined system of reproduction (auto-centred) whereas peripheral capitalist production develops in accordance with a coherence that is established elsewhere.'¹⁰ Lenin described the centre as developing in depth whereas the periphery, develops in width. Peripheral production was 'extraverted' from the model.¹¹

According to Marx, trade with poor countries plays a number of roles simultaneously. Firstly, it provides a 'vent-for-surplus' for manufactured products of the capitalist countries, which in a mature stage became chronically afflicted by the problems of surplus capacity. Secondly, it provides cheap primary products for the benefit of the rich countries. And finally, to the extent that the terms of trade can be rigged by protectionism and monopoly, imperialist countries can accumulate capital even more rapidly.¹²

Lenin's analysis was slightly more pessimistic than Marx's. In his 'Imperialism: the latest stage of Capitalism', Lenin, building on what Marx had said, tried to take account of newer developments in the capitalist mode of production after Marx's death. Essentially Lenin argued that monopoly capitalism had reached a new phase. Capital in the shape of large industrial conglomerates, backed by the financial capital of the leading banks were using imperialism as a means of maintaining the rate of profit. Financial capital from the centre would be invested in the periphery while at the same time providing captive markets for its products as well as a

¹⁰ Ibid., p.50.

¹¹ Ibid., p.21.

¹² Pincus, J. (1967), **Trade, Aid and Development: The Rich and Poor Nations**, Magraw Hill, pp.102-103.

source of cheap raw materials. Local producers would be forced out of the production process due to the competition from more advanced capitalist producers. This barrier to development made the prospects for the periphery very poor indeed in his view.¹³

But in the mid-twentieth century a new body of theorists emerged for the periphery itself. The result of this was a critique of earlier centro-centrism and the initiation of methodological work on the relative autonomy of peripheral regimes of accumulation. Like Marx, dependency theorists share the following common characteristics: (a) a world-view of conflict of interests among social classes/nation states, (b) an historical view of capitalist development, and (c) an internationalist approach emphasising the integral nature of the world economy rather than concentrating on Nation-states as units of analysis. Though similar in these aspects, the dependency school still differs from Marx in the following ways: firstly, capitalism is not characterised by a specific relation between classes, as in Marx's analysis, but rather by production for profit within a 'world-system' of exchange and exploitation of some areas by others. In this system, the 'metropolitan' centres exploit the 'peripheral' countries by direct extraction of profits, by 'unequal exchange', or by monopolistic control over trade. The class structure is therefore a consequence of dependency relations rather than the key determining factor as it is in Marx's analysis. The dependent ruling class owe their position to their function as intermediaries in the system of exploitation.

Underdevelopment is not a state of original backwardness of an earlier stage of development but is as the result of the imposition of a particular pattern of specialisation and exploitation in the periphery. Thus the underdevelopment in Marx's analysis is caused by certain class structures and organisation of production that may be fully or partly due to external influences whereas in dependency theory it is caused by external influences which also determine a certain class structure and organisation of production.

The historical role of capitalism is not seen as being necessarily progressive and capital accumulation is perceived more as a re-division of a fixed magnitude rather than a continual

¹³ Hunt, D. (1989), **Economic Theories of Development: An Analysis of Competing Paradigms**, Harvester Wheatsheaf, pp.22-23.

expansion. Therefore it can be said that capitalism in Marx's system was the dynamic of the system whereas in Dependency theory it is seen as a static system of exploitation.¹⁴

There are many strands within the dependency school. One of the main ones was the 'theory of underdevelopment'¹⁵ whose principal tenets are that underdevelopment is caused directly by dependency and that capitalism either from the core or the periphery is unable to bring about a process of development.¹⁶ In general, the dependency which dominated the debate in the 1960s, and the beginning of the 1970s postulated the impossibility of an auto-controlled capitalist development process taking place in the periphery. This theory argues that the development of the centre is as a result of the underdevelopment of the periphery. Whatever the industrialisation processes that were developing in certain peripheral economies, these processes merely lead to a higher level of dependency, as this industrialisation did not involve a basic break with the forces that have autonomous capital accumulation.¹⁷

Frank has discounted some developments that have taken place in the NICs (Newly Industrialising Countries). He saw the emergence of the NICs as a zero sum game in the sense that gains from international capital mean losses for domestic capital and vice versa. In other words the 'zero sum' is based on the calculations of social as well as political factors. The greater the foreign investment, the greater the social inequalities, the more authoritarian the political climate and the more repressive the activities of the state.

Dependency theories have come under severe attack both on theoretical and empirical grounds. The theoretical attack has to do with the tautological nature of the argument about the

¹⁴ Hunt, D. (1989), op. cit., pp.41-51.

¹⁵ Frank, A.G., (1967) **Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil**, Monthly Review Press, New York

¹⁶ Palma, G. (1978), "Dependency: A Formal Theory of Underdevelopment, Or a Methodology for Analysis of Concrete Situations of Underdevelopment?", **World Development**, Vol. 6, pp.881-924.

¹⁷ Marcussen, H.S. (1982), "Changes in the International Division of Labour: Theoretical Implications", **Acta Sociologica**, Vol. 25, pp.67-78.

impossibility of real capitalist development in the periphery - that autonomous development is an 'ideal type' of capitalist development.¹⁸ Empirically the dependency position seems to be under scrutiny because of the success of NICs. The attack has come both as a result of tendencies towards global restructuring of industrial production and as a result of internal dynamic processes in a limited number of Third World countries where new capitalist growth poles seem to have appeared.¹⁹

After the end of the Second World War, Raul Prebisch became a vigorous and very influential advocate of IS strategy in Latin America. The IS (Import Substitution Industrialisation), strategy involved an attempt to substitute imported manufactured commodities with domestically manufactured products. Tariff barriers and import quotas would be introduced for certain products so that indigenous manufacturers would be encouraged to produce them locally instead. Often this involved encouraging cooperation with foreign companies in setting up production behind tariff walls. It was hoped that through tax and investment incentives import-substituting manufacturing companies would ultimately experience large scale production, falling production costs and eventually compete in international markets. It went completely against the international specialisation or division of labour principle as advocated by Adam Smith as it represented an all-out development policy.²⁰

The idea of infant-industry protection were first articulated by Frederich List, the most influential economist in Bismark's Germany, who had in the nineteenth century been particularly concerned with similar issues. His ideas had a profound effect on Arthur Griffith in Ireland. Despite Griffith's untimely death in 1922 it was mainly his ideas on infant industry protection that were introduced by the incoming Fianna Fail government in 1932. Much of the protection legislation that was introduced at that time continued well into the 1960s. (See Chapter 1)

¹⁸ Ibid., p.73.

¹⁹ Ibid.

²⁰ Ramirez-Faria, C., (1991), **The Origin of Economic Inequalities between Nations**, Unwin Hyman, pp.61/62.

Import substitution therefore, was not only practised by various Latin American populist regimes in the 1940s. As well as Ireland, South Korea and Taiwan tried their own versions of it in the 1950s but in time abandoned it. In their attempt to finance the importations of Fordist producer goods out of agricultural surplus, mineral and oil rent, massive customs barriers were erected. Some of these, particularly in Latin America were as high as 100%.²¹

Raoul Prebisch and the Structuralist School

Raoul Prebisch, the Argentinian economist who founded the Structuralist School, believed that Argentina's conditions had radically deteriorated with the arrival of 'The Great Depression' in 1929. Prebisch observed how prices of primary products were falling relative to manufactured goods and how this was leading to serious problems for Argentina's terms of trade. Because of the difficulty in financing imports there was rapid growth in the country's industry. These events inspired Prebisch to reassess his orthodox economic education. He rejected the theory of comparative advantage as he began to believe that primary exporting countries would not be able to pursue the path of export-led growth.²²

Prebisch believed that the fundamental principle of comparative advantage 'had been repeatedly violated by the industrial nations, whose economists, nevertheless, utilized the classic theory of trade as an ideological weapon'.²³

Prebisch outlined his theory about the deterioration in the terms and conditions of trade in his book *The Economic Development Of Latin America And Its Major Problems*. He explained that the world was divided into two major parts: the industrialised and technologically advanced

²¹ Haggard, S. (1990), **Pathways from the Periphery: The Politics of Growth in the Newly Industrialising Countries**, Cornell University Press, pp.9-10.

²² Hunt, D. (1989), **Economic Theories of Development: An Analysis of Competing Paradigms**, Harvester Wheatsheaf, p.48.

²³ Solís, L. (1988), "Raul Prebisch at ECLA: Years of Creative Intellectual Effort", International Centre for Economic Growth, (Panama City) Occasional Papers No. 10, p.7.

centre and the periphery which specialised in the production of agricultural products and other primary commodities.²⁴

Economies in the centre sustain themselves by maintaining their technological advantage whereas countries in the periphery are merely the providers of raw materials for the centre. The terms of trade of the peripheral countries deteriorate because of a low income-elasticity of demand for primary products.²⁵ An essential aspect of the disadvantaged position experienced by the periphery relates to the uneven development of income. As real income increases at centre the amount spent on imports, which are the periphery's export products, becomes a decreasing percentage of the centre's total expenditure. Prebisch argued that the periphery had also to endure trade barriers erected by the countries in the centre who were protecting their own primary producers. There were additional disadvantages experienced by peripheral exporters such as the technological advantages enjoyed by the centre which allowed it to advance further towards even greater efficiency in the production of primary products. The situation was further exacerbated by the greater use of synthetic materials. All of this contributed to even lower demand for products from the periphery.

Despite the growth in exports from the periphery which came about as a result of income increases in the centre, the rate of growth could be expected to be less in the periphery. The greater income elasticity of the periphery's import demand would help to stabilise prices but if the centre's productivity grew at the same rate as the periphery's or if the prices of the centre's imports increase then there would be a deterioration in the periphery's terms of trade.

Prebisch added that when productivity increases occur they are invariably accompanied by wage increases and as a result there are no reductions in the cost of finished goods. The monopolistic power of the trade unions accounts for the maintenance of wage levels and manufacturers at the centre exercise such market control that they will not allow the price of their goods to fall. When

²⁴ Ibid, pp. 8-9.

²⁵ Di Marco, L.E. (1972), "The Evolution of Prebisch's Economic Thought" in **International Economics and Development: Essays in Honor of Raúl Prebisch**, edited by Di Marco, L.E., Academic Press, New York and London, p.4.

the centre exports to the periphery therefore, the prices of their goods remain the same and the simultaneous slower rate of productivity growth in the periphery will see export prices decreasing.

If product increases do not match productivity gains there would result a decreased labour demand per finished product which would lead to unemployment. Because of the low income elasticity in the centre's import demand, employment would not grow fast enough to absorb the ever increasing supply of labour. It was necessary therefore for governments in the periphery to implement policies that would prevent increases in real income from being transferred to the centre.²⁶

The only response to these challenging conditions for Prebisch was to create a higher level of efficiency in the economy through higher productivity levels which could only be brought about through industrialisation.²⁷ And industrialisation could only be brought about through import-substitution.²⁸ To start off the process, indigenous industries would be protected from foreign competition through the imposition of tariffs on imports. Assistance would also be given to home industry but only up to such a point that the firms involved had improved their competitive ability to such an extent that they could trade on an international basis successfully. Primary goods production would continue but the proceeds therefrom would be channelled towards paying for imported capital goods which could then be used in increasing the rate of economic growth.²⁹ The fundamental belief is that the industrialisation that has occurred in the histories of the advanced capitalist nations is characteristic of a modern society and that the process by

²⁶ Solís, L. (1988), op. cit., pp.8-12.

²⁷ Di Marco, L.E. (1972), op. cit., p.4.

²⁸ Ibid., p.9.

²⁹ Blomström, M. and Hettne, B. (1984), **Development Theory in Transition - The Dependency Debate & Beyond: Third World Responses**, Zed Books, London, pp.44-42.

which these nations arrived at such a stage of development is essentially one that can and must be repeated.³⁰

Structural changes were deemed as being of vital importance as they would 'release the expansionist forces of the economy'.³¹ The state would have to implement policies to bring about the requisite investment necessary for such a process to be initiated.

Prebisch believed that the potential for industrial expansion was being held in check by 'an unfavourable constellation of internal and external factors'.³² One of the greatest consequences of this stultification of the industrial dynamics was 'the steady growth of the redundant labour force'.³³ Only through the rapid development of the economy could the problem be alleviated. The attainment of such an objective would entail a good deal of expenditure. 'Such a rate of development necessitates a considerable capital formation effort'.³⁴ The investment needed would be financed by domestic saving but international financial resources should be used in the initial phase. The attempt 'to foster investment' would be matched with efforts to 'discourage the expansion of consumption beyond certain limits'.³⁵

Under the influence of Prebisch as the director of the Economic Commission for Latin America (ECLA) the structuralist paradigm attracted many economists from within and without South America. These included Singer, Seers and Myrdal, all of whom helped to articulate further aspects of the paradigm. Hunt summarises the major tenets of the structuralist school as follows: there is a clear distinction between economic growth and development. Despite the definitions not being totally uniform amongst structuralists they all emphasise structural factors and the

³⁰ Ibid., pp.39-43.

³¹ Prebisch, R. (1970), "Change and Development: Latin America's Great Task", A Report submitted to the **Inter-American Development Bank**, p.226.

³² Ibid, p.221.

³³ Ibid.

³⁴ Ibid., p.224.

³⁵ Ibid.

importance of technological progress. There is an emphasis on the continuous expansion in the number of branches using high technology production methods. There is a universal belief that only concerted government action focussing on the development of a diversified domestic industrial sector and the production of capital goods can the economic problems of peripheral nations be alleviated.³⁶

Prebisch therefore, combined a scepticism about the benefits of integration into the world economy with arguments for infant-industry. Primary producers faced price volatility in the short term and declining terms of trade over the longer run. He proposed industrialisation based on protection. He discarded any classical remedy of free-trade as being a solution to the problems of a poorer nation's underdevelopment. The policies certainly led to growth in the manufacturing sectors in Latin America and in Ireland but IS was considered to be of a sub-Fordist type of industrialisation according to Lipietz. Countries, like Ireland that did not enter the virtuous cycle of central Fordism, were restricted by the size of the domestic market and did not have the personnel, either management or workers, needed to carry out Fordist production methods.

After the initial success the strategy started to run into a few obstacles particularly in Latin America. The need for raw materials and capital goods to establish IS industries made IS strategy import-intensive and this contributed to chronic balance of payments difficulties. These imbalances were counteracted by resorting to increasing controls over foreign-exchange transactions and harmful stop-go macroeconomic policies.³⁷

In Latin America many of the industries protected under the strategy were oligopolistic in structure and characterised by excess capacity, high mark-up, and low-quality output. The state's control of import licensing and the rationing of foreign exchange invited corruption, smuggling, and black markets as well as inefficiency in the allocation of resources. This in effect demanded greater political and administrative capacities than were in the possession of many developing countries

³⁶ Hunt, D. (1989), *op. cit.*, pp.47-51.

³⁷ *Ibid.*, p.12.

By the mid 1960s when the appropriateness of these policies seemed to be increasingly called into question the neo-classical school responded by insisting that the IS strategy was unnecessary protection and misguided government intervention. The countries that had been practising these were being increasingly faced with mounting debts and the subsequent adjustment policies that were being imposed by the IMF and other international financial institutions.

There have been many comparative analyses between Latin American countries and East Asian countries that pursued IS strategy in the 1950s. The East Asian countries quickly shifted to export-led strategy by the mid-1950s. Two reasons accounted for this possible early shift of emphasis. Firstly they had chosen a milder version of the strategy than is typically the case. This meant that the undesirable consequences of IS were less pronounced than in Latin America. There was a lower effective rate of protection and less favourable policies towards agriculture.³⁸ Secondly, whereas Latin American countries moved directly from the production of durable consumer goods to intermediate and capital goods thereby prolonging the policies of industrialisation under strong governmental control, East Asian countries moved towards exports of the same labour-intensive non-durable consumable goods.³⁹ In the case of some Latin American countries it has been argued that the IS strategy had had the effect of artificially raising the value of the currency making it difficult for the producers of raw materials or agricultural products to compete on world markets. There was also the fact that the economies were different in structures and countries had different degrees of land reform and inequality. The relative strength of countries' internal markets were also important. Having looked at some of the issues that have involved the periphery and its relationship with the core I will now turn my attention to Lipietz' view of the periphery as an integral part of the theories of Global Fordism.

Lipietz' View of Development in Peripheral Economies and The Presentation of Peripheral Fordism as an Alternative Model.

³⁸ Evans, D. and Alizadeh, P. (1984), "Trade, Industrialisation and the Visible Hand", *The Journal of Development Studies*, Vol. 21, No. 1, pp.22-46.

³⁹ *Ibid.*, p.23.

Lipietz describes The New International Division of Labour as ...'meaning the South produced cheap raw materials and that the North produced manufactures'.⁴⁰ The regime of centre-periphery relations is perceived as being a sort of thermostat. Capitalism could maintain an even keel at the centre but would have to rely on the 'hot and cold' sources of labour, raw materials and extended markets from the periphery to do so.⁴¹

Lipietz praised the value of the classical theory of imperialism as being both relevant and useful. Imperialism did reproduce dependency and an international division of labour with a centre-periphery division between manufacturing and the primary sectors but that this is only a description of reality when considering the extensive regime of accumulation at the centre. It does not however have a significance when studying the consolidation of intensive regimes and the growth of the home market in the mid-twentieth century.⁴² The arrival of a regime of accumulation which was an intensive one with monopolistic regulation centred upon well-regulated mass consumption temporarily provided capitalism a solution to its realisation problem on an internal basis. The periphery would only be used for the centre's manufactures. These exports from the core would be used in exchange for raw materials.⁴³

Lipietz refers to the advent of dependency theory as merely being a shift of focus from the centre orientated imperialism to a study of the relations between the centre and the periphery but with little attention paid to the periphery itself.⁴⁴ Lipietz sees IS as an integral element in the logic of peripheral Fordism. He points to the strategies pursued in the mistaken belief that the problem of underdevelopment could be solved simply by importing factories. The notion that other activities would spontaneously develop alongside the basic industries was also believed to be erroneous. Lipietz contends that, theoretically, a complete industrialisation programme and industrial system can be advanced with an internal dynamic either in accordance with a free-

⁴⁰ Lipietz, A. (1987), *op. cit.*, p.49.

⁴¹ *Ibid.*

⁴² Lipietz, A. (1987), *op. cit.*, pp.67-68.

⁴³ *Ibid.*, pp.57-58.

⁴⁴ *Ibid.*, p.50.

market strategy or totally as a planned system. But he criticises IS strategists as wanting the best of both worlds. No matter how efficient planners might be they could never forecast future downstream demand for semi-finished products.

The role of the periphery in providing a market for manufacturing goods appeared to have little part to play in the dynamics of accumulation in the centre at the height of central Fordism in the mid-1960s. There was an increase in the share of imports and exports in the 1960s which began to show a dramatic change. Once more the international diffusion and integration of capitalist relations was under way. A new division of labour was superimposed upon the old one. It was the advent of crisis that led to new attempts to raise productivity by expanding the scale of production and go in search of cheaper wage zones. According to Lipietz this was an authentic effort to consolidate Fordism.⁴⁵ This move to establish branch plants in other countries led to the emergence of the periphery which was seen as the developing countries of Southern Europe, the Eastern fringe of Europe, Ireland, Mexico and the free trade zones of South-East Asia. These proved attractive for overseas investment because of lower wage rates and less trade union organisation even though Ireland was the exception in the latter case.⁴⁶

The attempt to find cheaper wage zones also had as one of its key objectives the fact that it was gaining a foothold in countries that had previously had high tariff barriers. In Fordist terms this was merely the use of the basic mechanisation i.e., to spread 'branch circuits over conglomerations of workers whose experiences of skill-levels, unionisation and wages were hardly uniform'. Apart from these there were also differences in terms of density of industrial network and proximity to markets.⁴⁷ In the Fordist scheme there is a separation between the conception of an innovation and the unskilled execution of the production process even though skilled productive operations would continue to play a minor role. Lipietz categorises this process by referring to hypothetical geographical regions: engineering and conception in region I, skilled production in region II, and finally unskilled assembly in region III. Region III ideally

⁴⁵ Ibid., p.70.

⁴⁶ Crotty, R., (1986), op cit., p.83.

⁴⁷ Lipietz, A.(1987) op cit., pp.69-71.

would have a labour force that would be cheap and easy to reproduce, close to major markets and endowed with some measure of skill.⁴⁸ Some of the countries in the periphery were characterised by a strategy that the author refers to as export-substitution. This was a deliberate effort to move away from the primary export model and to develop the export of manufactures. This would involve production on the basis of region III which is the unskilled assembly stage.⁴⁹

Peripheral Fordism and Crisis

In the post-war world the periphery had been excluded through its own underdevelopment from the competitive arena of world manufactures. A productivity gap had developed that was caused by the extremely rapid success of Fordist production methods in the centre. As this was happening it became increasingly more difficult for developing countries to finance the purchase of capital goods because the terms of trade of economies relying upon primary products were worsening.

By the early 1970s however, productivity in the countries of the periphery or NICs (Newly Industrialised Countries) began to accelerate as Taylorist and Fordist methods became more and more widespread while at the centre, productivity began to fall. NICs started selling their products to surplus countries and buying capital goods from the centre which would contribute to their growth in the future and this expected upturn in accumulation would have provided the basis for the credit that had been granted to them in the first place. It was believed that enhanced accumulation would gradually improve the exports/debt service ratio.⁵⁰

The 'golden age' of peripheral Fordism therefore was between 1965 and 1982.. The investment that had taken place there was supplied by borrowing on the international bank capital market and profits that were earned locally and re-invested in these economies. The credits were pledged against future income from traditional exports, work that would take place from the profitable launch of new production as well as upon the existence of markets for future output

⁴⁸ Lipietz, A. (1982), "Towards Global Fordism?", *New Left Review*, No. 132, May/April, p.44.

⁴⁹ Lipietz, A. (1987), *op. cit.*, pp.69-73.

⁵⁰ *Ibid.*, pp.130-145.

and finally the redeployment of borrowed capital to buy capital goods. After the first oil shock there was an abundance of the surplus liquid assets from OPEC countries deposited in International banks who in turn were eagerly searching for borrowers. The emergence of the new 'international credit economy' happened against a background of belief in the fact that NICs in the periphery could develop. It was considered to be a reasonable prospect.⁵¹ But despite peripheral Fordism being, what Lipietz terms as an 'overwhelming success', the success eventually turned into crisis.

During the first crisis central Fordism appeared to weather the storm, that is, until events changed for the worse. The Iraqi attempt to capitalise on Iran's difficulties as a result of Islamic revolution inevitably led to turmoil on the oil market. OPEC took advantage of the situation and raised its prices. This was to have a profound effect on countries both in the core and in the periphery.

Whereas monopolistic regulation had been the safety-net that staved off depression in the centre up until that point, there was now a complete change of heart and direction in terms of dealing with crisis. The ruling elite had quite clearly given up on Keynesianism (See Chapter 2). While previously international credit money was based on the assumption that the regime of accumulation would re-establish itself, at the end of the seventies this seemed unlikely. As the world's greatest creditor, the US, could not continue to lend in the hope that NICs would find sufficient demand for their goods in the centre to enable them to repay their debts. The dollar was under increasing pressure and international purchasing power was declining. Rejuvenated neo-classical liberalism began to fill the political vacuum left by Keynesian demand management. It became increasingly clear that the dominant belief would now be that market forces single-handedly would ensure the smooth performance of economic behaviour. The resurgence of monetarism and what Lipietz calls 'the first monetarist shock' led to a rapid rise in interest rates and this immediately led to a series of bankruptcies in countries caught up in the logic of peripheral Fordism.

⁵¹ Ibid., p.106.

Credit is the prevalidation of values in process which would hopefully complete the full cycle of valorisation and realisation. It is only when debts became cumulative that credit became problematic. Lipietz regards this as being indicative of credit not being used in the proper way. It would have been used in non-productive ways or invested in labour which will not be validated on the world market.⁵² The author compared the uses to which different countries put their credit to. Whereas some embarked upon what Lipietz terms the 'adventure of Fordism', others such as Chile and Argentina used their borrowed finances to enhance a credit-based consumer society and also the heavy importation of arms. Brazil embarked on a growth programme that was highly exclusionary in the sense that only a small minority of people derived much benefit therefrom. The regime generated a structural flow of imports of either luxury goods or the means to produce luxury goods. The South Korean regime on the other hand had a more evenly distributed standard of living based on local production. Much more of their borrowed resources were used to develop the country's export capacities. This was an essential part of Amsden's theory as it was how the state in South Korea transformed its borrowings into the efficient use of the subsidy in order to bring about industrialisation.

NICs have had the added problem of not having any say in the types of loans granted to them. Once the refusal of the hegemonic powers to organise debt-recycling by creating a world credit money which had been overtly organised and development orientated, private banks began to enter the fray and replace what used to be government loans with their own. Variable loan rates were introduced by the banks in order to recycle and increase their short-term deposits. Interest rates on these loans would vary during the period in which the loan had to be repaid. The rates depended on the amount it cost the banks to refinance the loans on the international financial market. NICs now had to pay variable interest on their loans plus a commission for risk countries. Interest rates rose throughout the decade as loan periods became shorter and shorter. As loans were granted a greater proportion was used to pay the interest on all debts and as debts began feeding on debts, the financing of peripheral Fordism became further and further removed from the debt problem.

⁵² Ibid., p.151.

Monetarism would never countenance a selective renewal of credits to NICs to try and promote growth in the periphery thus helping the world market to improve. Instead there was a deliberate move to open up the crisis challenging the distribution of value-added between capital and wages and refusal of credit to insolvent capitals and consumers. By destroying all these safety-nets monetarism was seen as the mythical cure which in the process of removing the Fordist regime of growth would set a new regime in its place. Both in the UK and in the USA there were pronounced attacks on wage income and the welfare state. Within a very short time recession had set in followed by an inevitable fall in demand in both price and volume terms for raw materials (including oil). A crisis in the periphery came about quickly. Between 1980 and 1982 there was no growth in the centre with growth generally stalling in the periphery as well.⁵³ This was certainly the case for Ireland for this period. See Table 3.1. (It should be noted however that for the decade 1980-1990 Ireland averaged 3.2% GDP growth) The problem of IMF enforced programmes of structural adjustment also compounded the situation for the periphery at this time.

Average Annual Growth Rates (GDP & GNP) for Years 1973-1979 & 1979-1986

Source: Kennedy, K.A., Giblin, T. and McHugh, D. (1988), *op cit.*, p.82

A Critique of Lipietz's Peripheral Fordist Analysis of Development

There are many other interpretations of these processes and forms of development but the concern here is how Amsden's analysis of late-industrialisation argues definitively against the Post-Fordist model of development. Amsden, who disagrees with much of the Global Fordist

⁵³ *Ibid.*, pp.131-161.

model of development, states that the model as expounded by Lipietz 'brings mass production, the two parts of Taylorism and a concern for underconsumption to the Third World'.⁵⁴ She points out that the model is termed Global in the sense that it understands the development of the Third World in terms of the relations between the centre and the periphery.⁵⁵ Amsden disagreed fundamentally with Lipietz' model as an explanation for the levels of industrialisation that have taken place in some NICs (Newly Industrialised Countries) since World War Two.

Amsden begins her attack on peripheral Fordism by highlighting the subject of her own particular area of interest, namely South Korea and its phenomenal development. She criticises development theories as being unable to explain the rapid growth the late-industrialising countries (Amsden defines these as: countries which have industrialised without the competitive asset of being able to monopolise an original technology) in East Asia. Amsden also attacks the more orthodox economists who, have chosen to ignore the widespread government intervention that has taken place in many NICs and claims that the countries of East Asia (Singapore, Hong Kong, Taiwan, Japan and South Korea) have not violated the canons of free market economics.. It was the conformity to free market principles which would allow the forces of supply and demand to dictate the prices of resources such as foreign exchange and capital and pushes them to their equilibrium levels. And it was precisely because of this that these countries have had such success, argue the neo-classical school.⁵⁶ She argued that in fact the reality was quite the opposite. Amsden argues that it was precisely because they have got their relative prices wrong(in World market terms) that South Korea in particular and the other countries in general have been able to progress.⁵⁷

In her article 'Third World Industrialisation: 'Global Fordism' or a New Model?' Amsden criticises the Global Fordist model as lacking in any explanatory or predictive power that could be useful

⁵⁴ Amsden, A.H. (1990), "Third World Industrialization: 'Global Fordism' or a New Model?", *New Left Review*, No. 182, pp.7-8.

⁵⁵ *Ibid.*

⁵⁶ Amsden, A.H. (1990), *op. cit.*, pp.5-7.

⁵⁷ Amsden, A.H. (1989), *op. cit.*, chapter 6.

in analysing the growth of late-industrialisers. She clarifies that she is particularly concerned with Alain Lipietz's work and not the entire school of regulation theory to which the Global Fordist theorists claim to be part of. A strong criticism is that Lipietz points to the weaknesses of dependency theory but he still looks at Third World development in terms of relations between the centre and the periphery. The crisis in the centre explains the rise and then the demise of the periphery. His methodology therefore can be said to be one of trying to understand the periphery in terms of the centre. Lipietz's analysis is for Amsden nothing more than labelling phenomena and it possesses nothing that can be classed as theory. She cites the success of South Korea in general and the Hyundai Motor Company in particular. Despite being made with Mitsubishi motor technology the cars are indigenously engineered by Hyundai. The electronics industry has moved beyond consumer electronics assembly and has begun to produce semiconductors and complex industrial electronics systems. Korean-Americans run research and development laboratories on a joint-venture basis in Silicon Valley. These personnel have long experience of high-technology and are at the forefront of world electronic development. An analysis of these developments is seen by Amsden as being inadequately served by the term peripheral Fordism.

She argues that the claim that peripheral Fordism is a true Fordism because it involves mechanisation is just to use a label. But there is no explanation of how the emergence of more complex production took place in the Third World. Lipietz, Amsden claimed gives no reason why 'mass production from an earlier import-substitution policy' took place or indeed how it took place. Primitive Taylorism (investment by multinational firms into labour-intensive production processes in the Third World) is according to Lipietz only a step up to peripheral Fordism. Peripheral Fordism is supposedly distinguished from primitive Taylorism by the fact that there is greater consumption and that there exists a greater distribution of income. Amsden disagrees arguing that analytically this relationship cannot be assumed *a priori*. She refers to numerous examples to illustrate her point. Korea, Taiwan and Mexico though favoured by multinational corporations (MNCs) for labour intensive productions could only point to such developments as being a relatively small part of the countries' total investments. In Puerto Rico MNCs are much more prevalent but there is a poor record of economic development. India has little export-processing industry but has a large industrial sector and she argues, the emergence of mass production in Korea could not be attributed to MNCs as this type of investment has been largely

restricted to labour intensive exports. The Third World therefore cannot be analysed in terms of the categories of centre and periphery and it is because of Lipietz's use of them that Amsden considers him to be a dependency theorist and as a result possesses all the flaws that with the benefit of hindsight we can attribute to dependency theory.

Despite the fact that Lipietz rejects the market paradigm and uses an institutional framework for his analysis, Amsden condemns the Fordism model which she states is derived from US twentieth century history. Whereas the Global Fordist model sees the lack of consumption in the Third World as the main obstacle to growth, Amsden on the other hand sees the problem of industrialisation as one of raising productivity and creating international competitiveness. Effective demand for Amsden is perceived as being important but not the overriding concern. Amsden sees late industrialisation as being more of a political process originating in the Third World rather than depending on the entrepreneurial whim of capitalism in central Fordism. Amsden points out that mass production industries in the USA and South Korea have similar technology, use time and motion studies and practise scientific management, yet one is considered to be at the hub of activity in the centre while the other was said to be an NIC.

Lipietz's treatment of underconsumption in South Korea in particular and in the Third World in general is unacceptable to Amsden.⁵⁸ Lipietz refers to South Korea as being quite categorically primitive Taylorist from the period between 1962 to 1972 and peripheral Fordist from 1973 to 1976 when growth was centred on the home market. From 1976 onwards however, wages began to outstrip productivity thus threatening its competitiveness vis a vis Taiwan.⁵⁹ The reality for Amsden presents a different picture. Korean wages began to rise rapidly in the mid 1960s but up till 1990, had not eroded the country's international competitiveness. Compared to India and Brazil, which were both perceived to be NICs, Korea's wage levels have grown far faster. Growth in both India and Brazil took place due to them developing a strong home market which would depend more on increased wage levels to strengthen effective demand. Korea on the contrary began investing heavily in computer-based industries with growth being focussed on

⁵⁸ Amsden, A.H. (1990), *op. cit.*, pp.5-13.

⁵⁹ Lipietz, A. (1987), *op. cit.*, p.80.

exports, rather than on the home market. The focus was on developing a larger proportion of more capital and skill-intensive products than light manufactures. The export success that Korea was experiencing would far exceed the potential of countries involved in the logic of peripheral Fordism.

Amsden sees the problem of developing countries as being not too little effective demand but quite the opposite, that it, it is too great. She envisages too many social classes struggling over what limited wealth is being produced in a poorer country. The Peripheral Fordist model, on the other hand, saw consumption as an integral part of the growth process. Global Fordism and Peripheral Fordism believed that by raising employment and productivity levels within the economy that it was possible to sustain consumption and that that very consumption would sustain growth by producing effective demand. But for Amsden however, the problem is one of increasing productivity and not demand. Amsden sees growth and development coming about through higher productivity and increased exports. The push towards exports would come about through the effective use of the state's resources in that direction.

Amsden agrees with Lipietz about the relative importance of the autonomy of the state as it had a part to play in Korea's development but considers the category of autonomy to be limited in helping to understand late-industrialisation. What matters she argues is how the state in a late-industrialising nation acts in a way to bring about development, i.e., the policies it pursues in an effort to realise this objective. Amsden contrasts the role of the state as demand managers in maintaining the smooth running of the intensive regime of accumulation in the centre, with that of the more comprehensive role of the state in late-industrialisation. The state in the latter case acts as the main initiator of industrial growth through its control over capital as was the case in Japan, Korea and Taiwan.

The theoretical difficulties of trying to apply 'the product aspect of Fordism' namely Taylorism to the Third World are all too great, according to Amsden's critique. Taylorism represents a process whereby the skills of worker collectives were expropriated and systematised by engineers and technicians using the methods of 'Scientific Management' which maximised management's

control over the whole production process. Amsden refutes this aspect of the Global Fordist model by claiming that because of the technical ignorance by management as well as the inexperience of the employees it would have been nigh on impossible for borrowed technology to have been fully optimised from the top down Taylorist type system. Because of the problems associated with technology transfer the only solution for NICs in increasing production productivity is a more participatory role for the state in bringing about industrialisation.⁶⁰

Amsden put forward an alternative to the peripheral Fordist and Global Fordist model. She argues that this alternative which is derived from a particular dynamic of institutions and class relations gives a more substantive account of how late-industrialisers industrialise. In her book "Asia's Nest Giant: South Korea and Late Industrialisation" (1989) she puts forward a comprehensive study as a case in point. In the first chapter of the book she sets out clearly her conception of late-industrialisation. She terms countries that have successfully entered more skilful, technological and capital intensive industries as being 'late' rather than 'New or Newly' industrialising countries, as it is 'lateness' that matters to competitiveness and hence development when one is concerned with the absence of original technology. The author argues that it is not important whether a country industrialised early or late but whether there are specific characteristics that pertain to late-industrialisation and if there are, then how can variations in these characteristics affect the growth rates of different countries.⁶¹ It is her contention that if industrialisation in eighteenth century Britain can be described as having occurred on the basis of invention, and that Germany's and the United States' industrialisation occurred on the basis of innovation, then late-industrialisation must be characterised by learning.⁶² Industrialisation through invention happened largely on a trial and error basis whereas in Germany and the USA a century later it came about by innovation that is to say through the commercialisation on a large scale of individual inventions. This second industrial revolution, which saw the advent of the modern industrial enterprise, was much more scientific in substance and in business organisation. Germany and the USA followed the lead given by Britain. They learned from British firms and

⁶⁰ Amsden, A.H. (1990), *op. cit.*, pp.5-13.

⁶¹ *Ibid.*, pp.14-19.

⁶² Amsden, A.H. (1989), *op. cit.*, pp.3-4.

then surpassed them in areas which included chemical, electricity and energy, electrical equipment and transportation and machinery in the manufacturing sector. The difference was however, that this was brought about through the direct efforts of both Germany's and the USA's state machinery in their respective endeavours to stimulate their own paths to industrialisation

As the low wage rates of late-industrialisers are insufficient to compete against the high productivity levels of the advanced capitalist world and because late-industrialisers do not possess the technology that can be used as a competitive asset, the role of government in intervening in the process of industrialisation has had to be all the greater. Laissez-faire characterised the first industrial revolution, infant industry protection the second, whereas this phase of industrialisation which Amsden terms as late-industrialisation is, according to her, characterised by the subsidy, and more importantly, as to how governments utilise it. The subsidy for Amsden is the combined efforts that an individual state, through its resources, attempts to bring about industrialisation.

The subsidy manifests itself as incentives to export, subsidies on inputs as well as government investment to promote technical or economic linkages between industries. Other areas of government intervention under this umbrella term 'subsidy' would be tariff protection and social welfare, health and education (what Amsden terms as social overheads). These measures are completely removed from the orthodox dictum of letting the forces of supply and demand determine investment and trade. It is the state intervening in the economic process by using the subsidy to deliberately get relative prices wrong in market terms.

Late-industrialising countries are also characterised by Amsden as having seen the emergence of the 'diversified business group' which are the embodiment of mass production in these countries. These groups which are similar to Japan's former Zaibatsu, have appeared in numerous developing countries since the second World War. They are perceived by Amsden to be different from Alfred Chandler's description of the modern industrial enterprise in that they operate in a wider, less related range of industries than the typical modern enterprise. The diversified business groups in late-industrialising countries have also a greater degree of top-down control than the American conglomerate. It is by virtue of the fact that these countries are

'late' to industrialise that these firms do not have the technical or marketing expertise that would enable them to develop within a single high-quality niche and as a result they must enter the lower end of many different markets. Amsden believes that central coordination linked to broad diversification facilitates quick and efficient entry into industry. 'Lateness' therefore combined with these, is a unique competitive advantage.⁶³

The corporate enterprise tends to control its strategic focus in the corporate office as it is here that the research and development functions take place. New technology is developed and marketed at the administrative level allowing the firm to compete on the basis of innovation. Firms in late-industrialising countries on the other hand, compete on the basis of making borrowed technology work. It is on the shop floor where the strategic focus lies of firms that compete on this basis.⁶⁴

Amsden draws upon her extensive study of the development of the South Korean economy to point to the institutions that underpin the success of 'late-industrialising' countries. These institutions (an interventionist state, large diversified business groups, a large amount of salaried managers and a plentiful supply of educated cheap labour) are notable by their absence in unsuccessful developing nations.⁶⁵ The aspect of her study that is most remarkable is that she conveys the absolutely devout almost single-mindedness and all-embracing effort by the South Korean government to generate industrialisation. The type of intervention and the institutions that carry out that intervention in Korea are different to the ones used in the case of Ireland and will be discussed later with particular reference to the work of Weiss.

Taiwan, Japan and South Korea have all used state subsidies to stimulate economic activity. These subsidies were granted on condition that certain performance standards were achieved.⁶⁶ The incentive to break into new manufacturing branches has primarily been motivated by the

⁶³ Amsden, A.H. (1990), *op. cit.*, pp.14-19.

⁶⁴ Amsden, A.H. (1989), *op. cit.*, p.5.

⁶⁵ *Ibid.*, p.8.

⁶⁶ *Ibid.*

state. This is also true of the major shift in industrial diversification in the decades of the 1960s and 1970s. There have been many orthodox economists who have endeavoured to denigrate the successful industrialisation of these countries particularly in the light of the recent so called Asian Crisis but the fact remains that their success in transforming their nations' manufacturing capabilities without relying on the market, is still only too evident.

The government in Korea planned the early import-substitution efforts in cement, fertilisers, oil refining and synthetic fibres. With the advent of independence from the Japanese, unprofitable factories were kept going through subsidisation and subsequently proved to be vital in providing key personnel in the machinery and shipbuilding industries. The Korean government was instrumental in bringing about not only the transformation from light to heavy industry but was also responsible for the venture into heavy machinery and chemicals in the late 1970s. It initiated a further import-substitution phase which in turn aided the electronics and automobile industry to go beyond the assembly stage. As far back as 1962, the government introduced its first five-year industrial plan in which was included as some of its contingent parts, the promotion of an oil refining industry and a car manufacturing protection plan. State intervention reached its zenith with the second five-year plan in 1967. This was administered by The Economic Planning Board using an input-output model it represented an attempt to examine the production relationships in the economy. In particular it dealt with the relation between a given set of demands for final goods and services and the relevant amounts of manufactured inputs, raw materials and labour that this would require. The model was supplemented by industry studies or project studies on the feasibility of governmental support for certain projects.⁶⁷

The Korean state went totally against the grain in terms of the advice given to it by the International Monetary Fund . Whereas the IMF urged austerity measures to ease the burden of external shocks, the government of South Korea took a different path. Heavy foreign borrowing was balanced with large productivity increases enabling the government to borrow its way out of balance of payments difficulties.⁶⁸

⁶⁷ Ibid., pp.79-81.

⁶⁸ Ibid., pp.112-113.

Despite the fact that Amsden sees South Korea as a very typical 'late industrialiser' she does state that it is in the realm of discipline by the state over capital that the country differs from other 'late industrialisers'.⁶⁹ Discipline over private enterprise was part and parcel of Park Chung Hee's industrialisation policies from 1961 to 1979. The rise of big business in South Korea and the discipline of the state went hand in hand. The power of individual big businesses became enhanced in response to the government's performance-based incentives. Firms were rewarded with further licences to expand if they reached designated targets in exports, R&D or new product introduction. If firms entered new sectors involving risk the government would respond by giving them industrial licenses to operate in more lucrative sectors thus stimulating the development of the diversified business group and enlarging the scale of big business in general. Discipline manifested itself in two ways, firstly it penalised poor performers and secondly it awarded good performers. Some firms who have been close to bankruptcy (in construction, heavy-industry and shipping) as a result of over-expansion have been bailed out whereas the government has refused to do so in similar circumstances for firms that are badly managed in healthy industries. The rescue programme has been highly nepotistic as the state has more often than not installed its clients as the ones to take-over such firms.⁷⁰

Korean firms are subjected to governmental discipline in relation to export targets. Corporate leaders are consistently put under pressure to export more. This pressure was the basis of ambitious export targets of the Big Push into heavy industry. Although commercial banks were privatised the government still maintains control over them. The banking system was nationalised under Park Chung Hee and it has had the effect of focussing the Chaebol's (the diversified business group) attention towards capital accumulation rather than towards rent seeking. The government has limited the number of entrants into an industry through its protection and subsidy policies. Scale economies have been realised as a result and this has led to the growth of the gigantic business groups that the government deemed necessary to build basic industry. Market-dominating enterprises had annual negotiated price controls imposed upon them under the guise of curbing monopoly power. Capital flight controls curbed investors from

⁶⁹ Ibid., p.14.

⁷⁰ Ibid., pp.3-18.

transferring investment abroad. Heavy penalties were imposed to ensure this including the death penalty for a transfer of over one million dollars. This prevented any investors from building large personal fortunes abroad on the back of the public subsidy. Middle class people were taxed and the working class had few concessions in terms of social welfare. This lack of expenditure by government allowed it to finance long term investments.⁷¹

The World Bank now recognises the importance of the state in East Asian growth and development. In *The East Asian Miracle* (1993) it was concerned about the government institutions that have played a developmental role in solving the 'problem of coordination' when the market appears to have failed to bring about desired outcomes.⁷² Also in 1993 it essentially acknowledged the importance of the effective state in bringing about economic growth.⁷³

But to understand Amsden's analysis it is important to grasp the Schumpeterian theoretical underpinnings of her work on South Korea. The basis of competition in the First Industrial Revolution was the 'invisible hand'. It could also be noted Britain also had the huge advantage of being the first nation to industrialise and therefore had to face little competition from others. But the disciplinary mechanism of the 'invisible hand' changed with the erosion of competitive market structures in the Second Industrial Revolution. Schumpeter showed how a new method of competition had arisen that disciplined company behaviour in the intensive regime of accumulation. The focus was on the importance of innovations in the process of economic development. Innovations Schumpeter argued, occurred unevenly or in waves. Explained simply, when an entrepreneur innovated, another would follow suit. The second entrepreneur would have the easier task as he did not have to make the discovery in the first place. With each new innovation the economy would move out of equilibrium. In his *Theory of Economic Development* (1912) he argued that without technical change and innovation an economy would settle down to a hypothetical stationary state. Innovations would knock this out of balance as

⁷¹ Ibid.

⁷² World Bank (1993), *The East Asian Miracle: Economic Growth and Public Policy*, New York, **World Bank**.

⁷³ World Bank (1997), *World Development Report*, Washington D.C., **World Bank**.

entrepreneurs started to search for new opportunities for profit. In the static equilibrium state entrepreneurial activity reduced 'pure profits' to zero. Profits were a dynamic phenomenon as it was at the prospect of realising them that provided the incentive to innovate.⁷⁴

Amsden argues that Schumpeter's ideas were inspired by specific historic socioeconomic conditions, i.e., those of the Second Industrial Revolution. In the early part of the Twentieth Century when Schumpeter was at his most influential, inventions were no longer the property of individual inventors who owned and managed small-scale business as was characteristic of the First Industrial Revolution, and as he pointed out they were being used and commercialised on a massive scale by very large enterprises.⁷⁵

What is absent from late industrialisation is innovation. Industrialisation occurs in late-industrialisation on the basis of learning by adapting, borrowing and improving on designs that are initiated in other countries.⁷⁶ Because late-industrialisation is not characterised by a large number of small firms (First Industrial Revolution) or by innovation (Second Industrial Revolution) growth cannot be dependent on a competitive mechanism that creates growth automatically. Growth in late-industrialisation depends on the subsidy. In the case of South Korea the use of the subsidy by the government proved very effective. It was the government's use of the resources at its disposal that enabled the country to industrialise

South Korea relied heavily on foreign technical assistance which was often packaged as a turnkey transfer. The shop-floor focus was an attempt to unravel the mysteries of such packages using foreign technical assistants in the hope that the expertise would be transferred through a process of learning that might eventually enable the firm to discard such assistants and rely on its own indigenous workers.⁷⁷ In South Korea if there was an industry with complex technology transfer

⁷⁴ Schumpeter, J.A., (1912) 1934 Edition, **The Theory of Economic Development** Cambridge, Ma., p108.

⁷⁵ Amsden, A.H. (1989), *op. cit.*, pp.140-141.

⁷⁶ *Ibid.*

⁷⁷ Amsden, A.H. (1990), *op. cit.*, pp.25-29.

problems workers were paid higher wages not because of a shortage of the requisite labour but because the management hoped it would act as an incentive for workers to use all their personal resources in order to overcome any difficulties in implementing the imported technology.⁷⁸

Success in the past and success in the future is and has been based on the governments efforts as well as on the institutions created by leading firms in their quest to get the best from imported foreign technology. The government reformed the tax system and offered greater incentives to encourage such activity. The number of R&D laboratories grew from 3 in 1967 to 138 in 1984. Originally the laboratories were technical offices created so that companies could maximise the benefits of transferring imported designs and production processes. Technology transfer was therefore seen very much as an active rather than a passive process. To transfer technology successfully would require imagination and investments in the capability to improve and adapt.⁷⁹

Education played a very supportive role in Korea's development but its quality was modest and it was certainly not the central dynamic. Even though late-industrialisation depends on the learning of production processes and procedures that advanced economies possess, it is the formal education and the apprenticeship of firms to technical assistants that effect late-industrial expansion rather than the existence of workers' skills in particular crafts. Formal education builds the human capital of the worker while the foreign technical assistance built the technology capacity of the firm.⁸⁰

The South Korean government identified certain areas of heavy manufacturing that it wanted to involve itself in. After careful study of each as to what amount of state support they each would need they then set about building an industrialisation programme around them. As it guided education policy, creating a highly educated workforce which contributed towards the country's progress, the state in South Korea was responsible for every new initiative in entering new manufacturing branches and every major shift in industrial diversification. The transformation

⁷⁸ Amsden, A.H. (1989), *op. cit.*, pp.180-191.

⁷⁹ *Ibid.*, pp.328-329.

⁸⁰ *Ibid.*, pp.215-237.

from light to heavy industry was engineered by the state as was the first gigantic shipyard, the Big Push into machinery and chemicals, and the electronics and automobile industry. It should be quite obvious therefore that it was the government that controlled the pace of South Korean industrialisation rather than the free rein of market forces. Amsden also argues that there is no theoretical basis to believe that the market mechanism would be better than the state in deciding the speed at which economic growth should progress. This debate between those who have advocated strong state-directed intervention in the industrialisation process and those who espouse the liberal economic viewpoint, has risen to prominence recently not just generally but also very much in the context of South Korea

The Asian crisis, of the late 1990s, i.e., the crisis in the economies of the late-industrialising nations of Asia was seen by neo-classical liberal economists as the death knell of developmental capitalism in the region. This state-directed form of industrialisation which critics have called 'crony capitalism' (due to the supposed nepotistic and venal nature of it), appeared to be in serious trouble.⁸¹

According to Wade (1997), the crisis stemmed from the consequences of the IMF and World Bank encouraging these Asian nations to liberalise their financial systems and introduce structural reforms that ultimately ushered in huge capital inflows. In South Korea Kim Young Sam's government which came to power in 1993 was very much in favour of the liberalisation process as he was determined that Korea could move towards becoming a full member of the OECD. The controls that had existed in relation to the movement of capital in and out of the country were relaxed. Apart from opening the economy to capital flows, the new government relegated the economic The Economic Planning Board to becoming part of the Ministry of Finance. The government made clear that it would not be guaranteeing the debts of the larger companies. The Chaebol (the diversified business group) had had a system of cross-guarantees where an affiliate of the Chaebol would guarantee the debts of another.

⁸¹ Wade, R.,(1998), The Asian Debt and Development Crisis of 1997-?: Causes and Consequences, **World Development**, August, pp. 2-4.

With the arrival of the new capital flows, the currencies of these late-industrialising countries appreciated, making their export competitiveness weaker. The situation was exacerbated when the Japanese devalued the Yen and export growth began to slow even more. The slower growth in the Japanese economy seriously affected other Asian states as Japan was not only the supplier of cheap credit for other late-industrialisers but it also imported many of their exports.

When Japan threatened to raise its interest rates in May 1997, panic set-in and investors started to move their capital. Suddenly Korean and Japanese banks were exposed as being vulnerable. The loans that had been made now appeared risky. In Korea, the crisis suddenly exposed the lack of irregular supervision of the banks as well as the poor company accounting practices which Wade believes were a major weakness in the Korean economy. The situation needed to be addressed but it should not have led to the crisis.⁸² Korea for example, was experiencing low inflation, had a small budget deficit with high GDP growth rates and with imports being mainly made up of capital goods rather than consumer goods.

Japanese and European banks started to demand repayment of short-term loans. Korea, faced with these demands that they could not meet immediately, was forced to turn to the IMF. But it must be remembered that Korea had borrowed cheaply abroad from these self same banks that had only been too willing to lend to such a worthwhile investment.⁸³ The borrowing had been highly beneficial to the development of Korea and if the crisis had not occurred the debts that were suddenly called in would have been repaid in time. As a consequence the late-industrialising Asian states experienced a spiral of debt inflation where their economies are affected by downward pressure on the prices of both products and assets while investment demand fell simultaneously. This resulted in the rising value of real debt.

Wade believes, that it is only after a decade or so that it will be possible to determine the true effects of the crisis and as to how it affected the countries in the region and also whether the

⁸² Ibid, p.19.

⁸³ Ibid, p.5.

crisis will be seen as a 'blip' in the trajectory of Asian development.⁸⁴ Wade is very positive and believes the because of the strong fundamentals of the economies the Asian economies will start to grow again.⁸⁵

What is relevant for this analysis however, is not an account of every peak and trough that the Korean economy might experience but what it achieved through the use of its own subsidy in a relatively limited period of time. Amsden criticises Lipietz for his rejection of any real attempt to study individual states or their multifaceted characteristics and histories. She rejects his work therefore on the basis of the impossibility of developing a model without studying some countries to see whether the model is applicable universally. She argues that the Fordist interpretation does not help in grasping the real dynamic of particular capitalist social formations and that only by rejecting such theories, (which she argues are extension of advanced country capitalism) can one understand why and how certain countries have developed economically and how others may do so in the future.⁸⁶ The Fordist model and the theory of capitalist regulation for Amsden offered little by way of illustration about the direction of capitalist development. It was not a model that explained how certain countries had transformed their level of industrialisation. She referred generally to the South East Asian industrial stalwarts but in particular she was concerned about the case of South Korea. A major criticism for Amsden is that Peripheral Fordism explains to some degree the crisis at the centre but only partially explains the historical process of industrialisation and certainly did not explain the phenomenal growth rates of the late-industrialised nation of South East Asia.

A need to study individual countries goes back to the economics of Frederich List in the mid-nineteenth century. List's beloved Germany and the United States which were the two great movers of the Second Industrial Revolution, were not just faced with the daunting task of industrialising, but also with catching up on Britains industrial might. It was for these reasons

⁸⁴ Ibid, p.30.

⁸⁵ Ibid, p.18. (see also Wade, R. (1998), *The Asian Crisis; The High Debt Model Vs. The Wall Street-Treasury-IMF Complex*, *New Left Review*, 228, March/April.

⁸⁶ Amsden, A.H. (1990), *op. cit.*, p.31.

that state intervention intensified in these countries. This phase of industrialisation may be termed as the era of infant industry protection. Frederich List was one of its greatest apostles.⁸⁷

Frederich List

Frederich List had an undeterministic view of history, believing that an individual or nation states had the capability of diverting or changing the conditions that they found themselves in. The contemporaneous position of strength experienced by England was not brought about by any set of 'inevitable' objective forces he believed, but on the contrary, was brought about by very subjective conditions.⁸⁸ List like Marx believed that politics and all its various aspects had economic effects and vice versa, and like Marx, his ideology embraced a view of history and society, and a schema for effecting the future.⁸⁹ He had a great faith in science and the possibilities inherent in technology and manufacturing and as such was primarily concerned with the possibilities of what could happen in the future rather than what 'really happened' in the past.⁹⁰ List criticised conventional trade theory as expounded by Adam Smith (see above). Universal free-trade and harmony he believed would only come about after a great lapse of time, (he believed this would take centuries). Adam Smith's theory, it was argued, ignored the existence of nation states and the concept of nationality. The attempt to objectify and universalise the theory of free-trade denied the importance of political variables being brought to bear on an understanding of economic realities. He uses the example of the English Navigation Acts (see Chapter 1) as evidence of the contradictions inherent in Smith's theory.⁹¹ List questioned the 'advantage' a less-developed France would have in allowing a then already advanced England to compete with her in her own home market.⁹² He understood quite clearly the effect of

⁸⁷ Amsden, A.H. (1989), *op. cit.*, p.12.

⁸⁸ Szporluk, R. (1988), **Communism and Nationalism: Karl Marx Versus Friedrich List**, Oxford University Press, p.124.

⁸⁹ *Ibid.*, p.12.

⁹⁰ *Ibid.*, p.102.

⁹¹ Hirst, M.E. (1909), **Life of Friedrich List and Selections From His Writings**, Smith, Elder & Co., London, pp.292-293.

⁹² *Ibid.*, p.296.

international trade as being one of the greatest forces in human history. It was a force which stimulated human activity and energy as well as a force disseminating ideas inventions and technology from country to country. But his understanding of how some countries had a unique and advantageous position led him to believe that he was dealing with a very imperfect world.⁹³ As Szporluk puts it 'List recognised the diversity of circumstances that had led to England's supremacy'.⁹⁴ He also recognised that a nation which was not at the same stage of development as England would have to utilise a policy of state intervention if it were to compete on the same basis.

List believed that some time in the future would see the advent of a perfect free-trade situation and that until then "the less advanced nations must first be raised by artificial measures to that stage of cultivation to which the English nation has been artificially elevated".⁹⁵ Countries would have to 'modify their own systems according to the measure of their own progress'.⁹⁶ List believed that Germany was in such a position. In the book 'The National System of Political Economy' he presents his ideas on history, society and government, international relations, his notion of a world order and his views about German politics.

List believed that the state and the interest of the state should always take precedence over the interests of individuals. The overall wealth of a country did not depend on the quality of exchange values or commodities that a country possessed but rather on the development of the nation's productive powers.⁹⁷ By production powers List did not just mean the mobilisation of agricultural, commercial and manufacturing sectors but it also included political, administrative, social institutions, natural and human resources, industrial establishments and public works.

⁹³ Ibid., pp.301-302.

⁹⁴ Szporluk, R. (1988), op. cit., p.122.

⁹⁵ List, F. (1856 - reprinted 1966), **The National System of Political Economy**, translated by G.A. Matile, Philadelphia, p.131.

⁹⁶ Ibid., p.108.

⁹⁷ Hirst, M.E. (1909), op. cit., p.128.

Growth in the area of productive powers could not commence until suitable political and social institutions were created i.e., the abolition of slavery, serfdom, despotism.⁹⁸

Despite espousing all the virtues of these aspects of the productive powers of an aspiring 'cosmopolitan' economy he did consider one ingredient as being of the most paramount importance in developing them. Growth would occur with the imposition of prohibitions and import duties in order that domestic manufacturers would be protected in their own domestic markets from competition from more efficient foreign rivals. New industries in particular would be singled out for protection. In general the degree of protection necessary would vary from country to country and from industry to industry depending on what conditions pertained to each individual case.⁹⁹

Every nation should try to provide its own domestic market with its own indigenously produced goods and afterwards become involved in greater free trade with the outside world thus deriving the benefits of foreign produced goods as well as one's own.¹⁰⁰ The state therefore would be required to step in to employ its power or to suspend the free-trade system. But to do this was only justifiable in the case of promoting the internal manufacturing sector. Any prolongation of protective measures post that time when industry was well established would be detrimental. According to Szporluk, List was a believer in free-market competition.¹⁰¹ A state however, could never advance itself purely on the basis of Adam Smith's doctrines. List insisted that a developing state could never aspire to 'a perfectly developed manufacturing power of its own, nor to perfect national independence, without protective duties'.¹⁰² List saw the English as being the first country to combine a sense of nationality, political power and economic wealth into a

⁹⁸ Henderson, W.O. (1983), **Friedrich List: Economist and Visionary 1789-1846**, Frank Cass, p.160.

⁹⁹ *Ibid.*, p.161.

¹⁰⁰ Hirst, M.E., (1909), *op. cit.*, p.310.

¹⁰¹ Szporluk, R. (1988), *op. cit.*, p.135.

¹⁰² List, F. (1856 - reprinted 1966), *op. cit.*, p.316.

single unit. And despite what Smith may have implied in his theories it was the English who were the first to realise the importance of protection and learning from others.¹⁰³

Protection takes place by the use of customs barriers. This was totally justifiable according to List. They were not to be the spanner in the works of world trade but were the result of 'the natural result of a nation's endeavours to secure its own existence and well-being'.¹⁰⁴ A country that wanted to move from a non-protective policy to a protective one would have to begin with low taxes. The tax system would be imposed and maintained by the state. They should not lower taxes before the objective was reached. High import duties would normally be detrimental to countries which imposed them as it deprived the domestic manufacturing sector of competition. If the local manufacturing sector could not benefit under a protective regime then one could say that the 'country has not the necessary qualifications for the development of its own manufacturing system'.¹⁰⁵ Customs duties should not be allowed to drop to such a low level that it could be threatened by foreign competition. As industries were growing foreign competitors in that branch would be allowed a share in the annual increase but would face higher duties again if the greater share of the increase was being had by the foreigner. Because of England's head-start in developing her own industrial might she had a definite preference for the freest trade possible. But it was by very virtue of this fact that other countries were reluctant to apply the same principle. Customs duties and tariffs worked against England's advantage. Trade agreements could overcome such problems but only trade agreements that were mutually beneficial.¹⁰⁶

Nations that did not develop their own manufacturing would suffer in the long term. Countries could not export raw materials and agricultural products and import manufactured products indefinitely as with increasing population the surplus of which would have to find employment in agriculture, which in turn would be weakened by a subdivision of land and an increase in small

¹⁰³ Szporluk, R. (1988), *op. cit.*, p.120.

¹⁰⁴ Hirst, M.E. (1909), *op. cit.*, p.305.

¹⁰⁵ *Ibid.*, p.313.

¹⁰⁶ *Ibid.*, pp.313-318.

landholdings. The consumption of farmworkers or landholders will not exert a great demand for manufactured products and they generally consume the greater part of what they produce. Essentially therefore a nation cannot develop properly if it continues to follow this course. And this situation can even be exaggerated if a nation's neighbours are set on an opposite course of action.¹⁰⁷

List identified four stages in his theory on economic growth. The basis of his analysis according to Henderson centred around the interaction of the economies of the village, region, nation and interaction with other nations. The first stage was one of isolated self-sufficient peasants producing all their own needs in terms of food and manufactured goods. Villages in this case had only little contact with neighbouring communities. The second stage of development was where villages had greater contacts with each other allowing new ideas and techniques to become more widespread. Phase three was characterised by improved communications with urban and rural workshops and provided a whole nation with manufactured goods. In the fourth and final phase nations would trade with each other importing necessary raw materials and exporting manufactured products in return.¹⁰⁸ List's own language describes these stages more succinctly.

"In the first, home agriculture is fostered by the importation of foreign manufactured goods and the export of agricultural products and raw materials. In the second, home manufactures arise by the side of foreign imports. In the third, home-manufactured supply the greater part of the home-market. In the fourth, large quantities of home-manufactured goods are exported and raw materials and agricultural products imported from abroad."¹⁰⁹

The primary importance for any nation intent on being truly independent was to move with as great alacrity as possible from the lower stage to the higher. But according to List the transition from this early stage to the manufacturing economy could only take place under the free-trade

¹⁰⁷ Ibid.

¹⁰⁸ Henderson, W.O. (1983), op. cit., pp.162-163.

¹⁰⁹ Hirst, M.E. (1909), op, cit., p.311.

conditions espoused by Smith and his successors if this development process occurred simultaneously. Because conditions were not like this in reality with some countries such as England having had an early entry into the process and thus an advantage, other countries could not compete on a free-trade basis as all nations were not starting therefore from the same point of development. List saw free-trade as the invention of a policy that would maintain English supremacy over her rivals. The only real response that less advanced nations could adopt would be the tariff system imposed by the state.¹¹⁰ He had a firm belief therefore that if a higher level of industrial growth were to occur then the power of the state would have to be employed in either modifying or suspending the free-trade system.

Gerschenkron looked at the influence the Utopian Socialist Saint-Simon had on List. Saint-Simon placed great importance on industrialisation in his theories. He saw in the banks and the banking system the instrument by which the economy could be organised and developed. Saint-Simon who was a contemporary and friend of Jean-Baptiste Say was not against the ideas of laissez-faire policies but 'to break through the barriers of stagnation in a backward country... a stronger medicine is needed than the promise of better allocation of resources or even of the lower price of bread'.¹¹¹ List's industrialisation theories tried to formulate Saint-Simon's message into a form that would be more appropriate for a German environment rather than Saint-Simon's France.¹¹²

Gerschenkron like List insisted on the importance of studying countries as individual entities in themselves. Each country's historical situation and conditions and industrialisation processes differed from other countries. Backward countries showed considerable differences to developed countries not only in terms of the speed at which they developed but also in relation 'to the productive and organisational structures which emerged from these processes.' The institutional instruments that have resulted in these differences between nations are themselves unique to

¹¹⁰ Ibid., pp.303-305.

¹¹¹ Gerschenkron, A. (1962), **Historical Backwardness in Perspective**, Cambridge Ma., Harvard University Press, p.24.

¹¹² Ibid., p.25.

individual countries as are the ideologies behind them. From his study of industrialisation in Europe Gerschenkron concluded that there 'is a strong sense for the significance of the native elements in the industrialisations of backward countries'.¹¹³

Gerschenkron rejected dogmatism. He rejected the absolute notions of 'right' and 'wrong' in favour of a more flexible approach to the phenomena of how backward countries industrialise. He looks at the concept of the prerequisites of modern industrialisation. He states that it is generally accepted that certain barriers must be removed while others must be created if the process is to proceed. This implies that industrialisation is both historically inevitable and that it will proceed through particular stages. He argues that because we can never possibly possess complete knowledge of the world we can only try to understand historical realities through a study of norms and deviations from norms. Events and series of events are applied to particular observed patterns or models. There are countless models each of which may change or ultimately may be rejected by us. But as long as we adhere to one we are determinists in the sense that we look at events or phenomena which are inevitable.¹¹⁴ A concept or model for Gerschenkron was only as useful to the extent to what could be learned from it.

The study of underdevelopment or of backward countries was for Gerschenkron dominated by Marx's idea that the developed country was the future reality of what the backward country would become. This concept which was universally accepted advertently or inadvertently is encased in a shroud of inevitability. In reality the development of a backward country may differ enormously from that of an advanced country purely by virtue of its backwardness.¹¹⁵

All relevant factors needed to be taken into consideration such as 'the degree of endowment with natural resources, the climatic disabilities, the strength of institutional obstacles to industrialisation, the pattern of trade...', when one examined the case of a particular backward

¹¹³ Ibid., p.26.

¹¹⁴ Ibid., pp.31-32.

¹¹⁵ Ibid., pp.6-7.

country.¹¹⁶ Like List, Gerschenkron looked at historical examples to support his arguments. Gerschenkron was a staunch critic of competitive theory which assumes that the best arbiter of the rate of accumulation is the market. His well researched historical examples from industrialisation of certain nations in Europe he utilised to counteract this assumption. He looked at the industrial development of Britain, France, Germany, Denmark, Russia and the Austro-Hungarian Empire. From his analysis of each it became more obvious that state-sponsored industrialisation could be successful in reducing backwardness, it became clear that different institutional measures could be used to help countries industrialise who were at a different levels of development.¹¹⁷

Gerschenkron examined the historical deterministic notion of the prerequisites of industrial development. It is an idea that there are certain obstacles that must be overcome before development could take place. It also implies that industrialisation must follow a particular path. If it were true that certain prerequisite conditions had to be met before the industrialisation process could proceed backward countries could hardly feel encouraged or very optimistic about their own development. The author attributes some of the 'prerequisites' to being the creations of economic historians who in the interests of historical continuity have adopted an ideal type of pre-industrial society to help them argue as to how industrial development takes place.

Gerschenkron looks at the concept of 'availability of capital for industrial development', which is generally considered as a standard prerequisite from which a nation may successfully transform itself from being a pre-industrial to an industrial nation. He examines Marx's treatment of it as the 'original accumulation of capital' and Adam Smith's as previous accumulation. To begin with, he argues, there is no *a priori* reason to believe that any previously accumulated capital will necessarily be used to finance industrial investment. Likewise there is no reason to assume that industrialisation was going to be copied or repeated in almost all the ways that industrialisation came about in another country. Gerschenkron begged the questions as to why should industrialisation and development proceed in any specific manner or why is it necessary

¹¹⁶ Ibid., p.27.

¹¹⁷ Ibid., pp.12-22.

for a long period of accumulation to come before a period of rapid industrialisation? He argued that the only thing one could safely say by way of comparative industrialisations is that if indeed industrialisation does take place it will come as 'a big spurt' or it will not take place at all. All factors must be taken into consideration when trying to understand successful industrialisations. A long period of accumulation can only be applied to some cases and is certainly not a general rule. It may be true that wealthier countries may find industrialisation easier to initiate but wealth that has accumulated over long periods can be destroyed even more quickly than it was created.

The author agrees that there are general aspects of industrialisation that are similar that may possess some explanatory or predictive power but the deeper one delves the more obvious are the deviations from the model. He concludes that there are not any set of prerequisites that are relevant to every situation in all conditions and at all times in history. The lateness of industrialisation seems to determine a greater drive towards industrialisation when it eventually came. Depending on the degree of backwardness and the 'lateness' of industrialisation the greater appears to be the degree of industrialisation along some organised institutional path.

He admires the ingenuity, originality and flexibility of backward nations that have been successful in industrialising. This however has only happened because certain individuals were willing to invest or willing to allow others to invest their resources in the process of industrialisation. Backward countries where there are problems of poor standards of education, lack of skilled labour and efficient engineers as well as technical knowledge can all be imported from abroad. In this sense the backward country or late-industrialiser has an advantage because the first countries to become advanced did not have this facility available to them.¹¹⁸

O'Malley in the same way looked at the problem of late-industrialisation in the Republic of Ireland. Using a similar framework to Amsden he looks at the Republic of Ireland's most recent attempts to industrialise and whether a neo-classical theory with outward-looking policies and

¹¹⁸ Gerschenkron, A. (1962), *op. cit.*, pp. 31-51.

a heavy dependence on free-market forces has led to industrial objectives being realised.¹¹⁹ It is specifically to this subject that I will now turn my attention.

Referring to Allen's study of Japanese industrial policy O'Malley therefore, argued for a different approach to Ireland's industrial strategy. His aspiration was for a policy that identified select firms in select industries, which the state would nurture through their teething stage by protecting them from competition until such time that they became competitive and thereafter allow them compete with outside firms. The firms selected for such treatment would be chosen through 'careful analysis of the scientific requirements for competitive success.....together with a realistic assessment of the potential.....specialised by product, customer, geographical area or a combination of these'.¹²⁰

O'Malley therefore rejected Ireland's outward-looking free-market industrial policy strategy that became so reliant on attracting direct foreign investment in order to enhance manufacturing and hence economic growth and development. The basis on which O'Malley's rejection of the strategy was that the industrial strategy which was employed by the state from 1958 to the time of publication (1986) had clearly failed indigenous industry. Irish manufacturing was, according to O'Malley, low-key, small-scale, untraded and had in his opinion, enormous barriers to entry to overcome if were to expand their businesses by competing and trading overseas.¹²¹ In a later, more in-depth study, O'Malley (1989) also calls for the recognition of the selective interventionist elements of the industrial strategies of countries like Japan and South Korea.¹²²

The general theme of his analysis is the many obstacles that late-industrialisers have to face. These are referred to as the barriers to entry. They represent the opposite to all the advantages that the already established firms at the core, experience. The barriers therefore, represent the disadvantages that firms in late-industrialising countries have to overcome if they are to compete

¹¹⁹ O'Malley, E. (1985), "The Problems of Late Industrialisation and the Experience of the Republic of Ireland", *Cambridge Journal of Economics*, 9, pp.141-154.

¹²⁰ *Ibid*, p153.

¹²¹ *Ibid*, p.152.

¹²² O'Malley, E., (1986), *Industry and Economic Development: The Challenge for the Latecomer*, Gill and Macmillan, p.6.

successfully internationally. Late-industrialisers have to face the problems of economies of scale in production, the long-term marketing strategies of the larger more established firms, the technological expertise and experience of existing firms and raising sufficient capital to initiate an attempt to compete with the above.¹²³

O'Malley's own study showed that the period of protection had led to substantial industrial development but that this had taken place in a protected home market.¹²⁴ Later when protection was removed (1958) it was the industries in the exposed sectors such as textiles, clothing and footwear and chemicals that suffered most from competition.¹²⁵ He added that even though the trade figures for indigenous industry were maintained until the 1980s, it hid the fact that much of it was actually in sheltered manufacturing providing for the home market.¹²⁶

For O'Malley the weak representation of indigenous industries in industries such as metals, motor vehicles and transport equipment, electronics, mechanical engineering and instrument manufacture was indicative of the limited progress that had been made since the removal of protection. These were the very types of industries that have significant economies of scale in the advanced economies of the world. Therefore, he argued that the 'upward diversification' of industry that was meant to have taken place with the opening up of the economy, had actually led to the opposite.¹²⁷ It inspired O'Malley to refer to the structural composition of indigenous industry 'as little more advanced than that of many LDCs or NICs'.¹²⁸ This conclusion was based on his analysis of the top 100 companies that were in the main involved in sheltered, non-traded basic low value-added activities. The author also claimed that most of the activities could be easily entered.¹²⁹ Indigenous industry therefore was not technologically advanced and O'Malley

¹²³ Ibid, pp.11-18.

¹²⁴ Ibid, p. 115.

¹²⁵ Ibid, pp.124,125.

¹²⁶ Ibid, p.127.

¹²⁷ Ibid, p.153.

¹²⁸ Ibid, p.154.

¹²⁹ Ibid, p.149.

doubted that it was likely to become so in the immediate future. As O'Malley pointed out, the relative strength or weakness of indigenous industry never really became an important issue for policy-makers until the 1980s.¹³⁰ The publication therefore, of the Telesis Report in 1982 was the first real attempt to examine the subject properly to any great degree.

What relevance do the theories of late-industrialisation have for Ireland? What lessons can Ireland learn from the industrialisation of late-industrialisers in an era of Globalisation? The answer lies in the need for Ireland's policy-makers to extensively research how these late-industrialising nations have not only transformed their economies but how having achieved such a transformation they maintain the competitive advantage of their indigenous manufacturing industry. Some would argue that in this era of globalisation there is not much that a small country could do but to continue to use as much of its resources i.e., the subsidy to attract DFI. Globalisation, which Weiss (1998) argues generally assumes the powerlessness of governments and the relative obsolescence of the nation state is an erroneous view. Weiss shows that far from it being an anachronism, it is the relative 'state capacity' of nations that illustrates how some nations are better at 'anticipating and responding to economic change.'¹³¹ Weiss begs the question as to why certain countries appear to be better able to mobilise a collective push towards raising the level of manufacturing exports and also to coordinate the upgrading of their technology.¹³²

Weiss defined state capacity as:

"The ability of policy-making authorities to pursue domestic adjustment strategies that in cooperation with organised groups transform the industrial economy. Such strategies encompass structural shifts: from declining to expanding industrial sectors, as well as technological diffusion and innovation; and the creation of new industries products and processes".¹³³

¹³⁰ Ibid, p.154.

¹³¹ Weiss, L., (1998), **The Myth of The Powerless State: The Economy in a Global Era**, Polity Press, pp.2-9.

¹³² Ibid, p5.

¹³³ Ibid.

Weiss also understands that it is the state that possesses the greatest potential to realise such a capacity. The reason for this was because it was only the state that could “readily absorb and socialise the risk to the extent required by modern productive technologies”.

All states intervene in their economies in some way so Weiss insists that to simply apply the label ‘intervention’ would be inadequate.¹³⁴ What needs to be looked at is the transformative capacity of individual states. Therefore the point is not that states intervene in the development process but it is about how effective that intervention is in bringing about development. Weiss sees the different levels of state intervention as a spectrum with the highly transformative states like Japan, Germany and Korea et al on the one extreme with the liberal states of the English speaking world on the other. Sweden and Norway would lie somewhere between the two extremes. Referring to Katzenstein’s (1985) description of this type of intervention as domestic compensation. This middle way is as Weiss states tends to ‘lead more towards distributive intervention’.¹³⁵ This type of intervention, which does not lead to direct industrial transformation, stimulates growth through increased economic activity but not the direct transformative approach to industrialisation that Weiss maintains has taken place in East Asia. This is similar to the type of intervention that the Irish involves itself in.

Now that industrial development has been achieved in Japan, Korea and Taiwan, the concern in these countries has moved away from increasing and coordinating investment for industrial development and much more towards R and D. Development agencies and industrial policy-makers are now much more focussed on disseminating new products and technology. Weiss categorises the Japanese model of development as one that can be characterised by ‘governed interdependence’.¹³⁶ The interdependence refers to the public and private participants who maintain their own autonomy but are nonetheless governed by a set of objectives under the

¹³⁴ Ibid, p.17.

¹³⁵ Ibid, p.20.

¹³⁶ Ibid, p.38.

auspices of the state.¹³⁷ The public and private sectors involve themselves in regular consultation and mutually influence policy. Overseeing the implementation of policy however was still carried out by the state.¹³⁸

Central to Weiss' argument is that the countries of East Asia adapt to economic change quickly because the risk in doing so is socialised by the state.¹³⁹ Firms rely on the state to help raise the capital for investment, help to develop new products and technologies, find new markets and coordinate the training of the skilled of the skilled engineers and workers that are needed to carry the programme through successfully. The importance for Ireland is the lesson to be learned from how successful the East Asian states have been not only in developing in the first place but also as to how, through there governmental agencies, they maintain such success. Weiss' book 'The Myth of The Powerless State' elaborates on the levels of cooperation that exist in Japan, Korea and Taiwan between the state and industry. The cooperation existed in bringing about industrialisation but now coordinates strategies to maintain the competitiveness of its industries. Weiss points to the 'institutional advantage' that these countries possess. It is:

“the existence of a talented, technically able and prestigious public service, which is charged with a broad institutional mission and is relatively insulated from special interests, and which has developed an impressive in-house capacity for acquiring and managing production relevant information”.¹⁴⁰

The Japanese state through its dedicated civil service provides industry with a highly efficient 'intelligence-gathering infrastructure'. MITI is the country's state sponsored research institute that produces the data for relevant governmental departments. The assistance that MITI grants to firms who wish to increase their capacity through the latest technological

¹³⁷ Ibid.

¹³⁸ Ibid, p.39.

¹³⁹ Ibid, p.75.

¹⁴⁰ Ibid, pp.53/54.

innovations and up to date equipment is dependent on the firms ability to prove its own efficiency. Therefore there is a constant attempt to modernise and innovate.

In Korea The Economic Planning Boards successes have been supported by a strong ministerial network which includes the Korean Institute of Science and Technology, the Ministry for Trade, Industry and Energy and the Korean Trade Promotion Corporation. In Taiwan there is an array of publicly owned research agencies which provide information for the government and industry. The Industrial Technology Research Institute and the Ministry of Economic Affairs' Industrial Development Bureau are two of the most important ones.. The Industrial Development Bureau has two separate laboratories for the electronics and computer industries respectively. The agencies monitor new products, production processes and new technologies worldwide and liaise between policy-makers and industry. Industry and government therefore do not suffer from a lack of information and act appropriately.¹⁴¹

Robert Wade, Chalmers Johnson, Alice Amsden and Peter Evans have all contributed to the view that 'active governments and strategies play a central part in industrialisation'. All recognise that there is no reason to assume that unfettered markets will lead to economic actors channelling savings and investment towards manufacturing and technology upgrading rather than on cost-cutting measures or activities of a more speculative nature.

Conclusion

The two main theoretical and counteracting viewpoints in this chapter represent two supposedly differing views of development. But before it is appropriate to look at this potential mutual exclusivity of the two models it is worth considering the relative strengths and weaknesses of both.

Global Fordism is a valuable theory in that it moves outside the realm of orthodox economic theory and takes cognisance of the historical aspects of the development of World capitalism. In particular it gives a good explanation as to how capitalism in the core economies of the

¹⁴¹ Ibid, pp.50-63.

developed world had a system that was regulated in such a manner as to allow for the continued and sustained growth within it. It was when this system, the Fordist regime of accumulation, went into crisis that countries like Ireland began to play a very specific part in it. This aspect of the overall theory, peripheral Fordism, has great relevance in terms of providing an understanding of the development of the Irish economy. It is a theory that is particularly relevant if one views the development of Irish industrialisation as being characterised by the growth of direct foreign investment. This view will be looked at in the next chapter. It suggests that the type of development that Ireland has experienced is only partial industrial development and that Ireland has assumed certain economic and social characteristics that can be associated with the advanced capitalist nations. In Fordist terms - Ireland has some of the characteristics of peripheral Fordism but is not a Fordist economy as the core economies are. It implies therefore, that these Peripheral Fordist characteristics have been brought about through the attraction of foreign manufacturing after the advent of the crisis in the intensive regime of accumulation at the centre. Whether this is an adequate reflection of Irish industrial development will be examined in subsequent chapters.

The greatest limitation of the theory in terms of shedding light on Ireland's industrial development has been the lack of attention it pays to the development of indigenous industrial development. It is a theory that has not concerned itself with the efforts that less developed countries have made to try and stimulate the growth of their own manufacturing sectors and hence overall industrialisation. Lipietz's peripheral Fordist development model is criticised by Amsden as being too rigid a concept to apply to what she argues is a new model, late-industrialisation. Lipietz states that he 'will not venture so far as to make a concrete analysis of the one hundred and fifty countries that make up the world or of their irreducible specificities'.¹⁴² Amsden concedes that it is hardly necessary to study that many countries' economies before constructing a model, but it certainly must be necessary to study some before doing so. This aspect of the theory i.e., the lack of a study of particular countries' historical experiences, is peripheral Fordism's biggest theoretical failing. Conversely, it is precisely the study of the experience of particular countries' historical experiences that represents the most important strength of the late-industrialisation model.

¹⁴² Lipietz, A. (1987), op. cit., pp.4-5.

Griffith and O'Malley provide an important Irish dimension to a body of international economic literature that has long advocated strong governmental intervention in the economy in order to stimulate the development of indigenous manufacturing. List was the first to formulate a strong argument for the state to intervene strongly in the process of industrialisation and not leave it to the whim of the market mechanism. Gerschenkron took List's ideas a step further by looking at and analysing how countries actually stepped in and interfered with the market mechanism in the development process of their own countries in Europe and concluded that each case was a specific entity unto itself and as such, was deserving of individual analysis. Amsden developed this analysis and focussed on the specifics of one individual case i.e., South Korea, and related her impressive findings in an effort to illustrate as to how other nations can make their own concerted efforts to bring about industrialisation in their own countries. Wade has included more of the East Asian countries in his writings in which he consistently admires the industrial success that these countries have achieved in such a short time. Weiss directly attacks the notion that state intervention has become obsolete in the age of globalisation and gives examples of how the late-industrialisers of East Asia maintain their level of international competitiveness through a coordinated intervention.

Depending on one's viewpoint one could conclude that these theories offer two alternative development perspectives. If one is to pursue an analysis of the Irish economy as solely being a case of dependent development based on the attraction of direct foreign investment or if one was to base their analysis solely around the case that the story of Irish manufacturing development is one that is characterised by a lack of poor indigenous manufacturing then the two theories could be viewed as mutually exclusive. If however, one wants to examine the Irish economy from a more comprehensive perspective then perhaps these two models are not mutually exclusive. They both engender serious questions about the nature of Irish industrialisation and its two key aspects i.e., the foreign sector and the indigenous sectors respectively. The two theories therefore, will be re-assessed in the light of the empirical analysis of the period of the Irish economy since the publication of *Telesis*. The study will now turn its attention away from the level of the international economy towards the level of economic policy within Ireland from the publication of *Telesis* to the present. It is intended

that other research material including secondary material will be used in conjunction with the empirical research in an effort to triangulate the validity of its findings.

The theory of Global Fordism and Amsden's theory of late-industrialisation raise some important questions about their applicability to the case of Irish industrialisation. Peripheral Fordism suggests that countries like Ireland benefited economically through the transfer of international capital to its shores. The implication here is that if with the growth of direct foreign investment, there was any parallel rise in living standards then this would have been dependent to a greater degree on that same direct foreign investment. Is this the reality of Ireland's most recent attempts to industrialise? Has the influx of DFI into Ireland been the main cause of increased living standards or have there been other factors at work? It will be important therefore to look at whether the strategy of the Irish state in attracting DFI has been successful not only in achieving greater industrialisation but also in terms of the possible benefits that may have accrued to the economy as a whole. It will also be necessary to look at what the implications of pursuing such a strategy have been. In the course of doing so it will be imperative not only to look at the role of DFI in recent years but also the degree to which foreign firms have become more integrated into the economy. Moreover it will be important to understand the reason for their establishment in Ireland in the first place.

Peripheral Fordism is a general theory about countries in the periphery and not a study that focuses on individual countries development. As a result it does not offer much by way of an analysis of the development of the indigenous manufacturing sectors of these peripheral economies. The theory of late-industrialisation on the other hand certainly does. Because of the difficulty of applying empirical analysis to the theories of Global and peripheral Fordism it was decided to look at the relative development of industrialisation in Ireland to see how it might shed some light on the relevance of the contrasting theories to the case of Ireland. Therefore, whether Ireland has become an advanced industrialised nation will be looked at in terms of the theory of peripheral Fordism. Is Ireland just a peripheral Fordist country with an economy that mirrors certain aspects of the advanced economies but not others? What strides has Irish industrialisation made independently of the foreign sector? In the light of the Irish state's efforts to engender indigenous manufacturing, to what extent has it created an

industrial base that is capable of sustained indigenous industrial growth similar to that which the advanced capitalist nations have done? How do the contrasting theories help us to answer these question? To begin to get some of the answers it is important to look at the progress of Irish industrialisation in recent years. A useful starting point is 1982, and the publication of the Telesis Report as not only was this publication important as to its findings but it also provides an important landmark from which to assess the development of industrialisation and the success of industrialisation policy over time.

Therefore what follows will be a chapter reviewing some of the literature that has been produced by way of analyses of Irish industrialisation from Telesis to 2000 and thereafter the chapter on the empirical part of this thesis will be presented. The combination of these chapters is an attempt to triangulate an overview of Irish industrialisation in general and whether it is possible to come to some specific conclusions about the state of the foreign and indigenous sectors in particular. It is intended by doing so that a clearer picture of the relevance of the two contrasting theories can be formed.

The empirical chapter will be concerned with endeavouring to establish as to what the specific characteristics of Irish industrialisation are. This will involve specific research proposals for both the foreign sector and the indigenous sector. In relation to the foreign sector they are as follows: 1) to find out what specific features of the Irish economy proved to be the most important in attracting the firms to Ireland in the first place 2) had these motivational factors changed over time and what if anything this might suggest about government policy in this period and 3) to look at how important is the role and effectiveness of the development agencies in this sector.

In relation to the indigenous sector the research proposals are as follows: 4) to form an impression of the relative size of the majority of the firms in the indigenous sector 5) to ascertain as to what are the main obstacles that indigenous firms experience in trying to increase their trade abroad 6) to look at the extent to which indigenous manufacturing firms rely on the development agencies for the success of their operations and 7) to examine the extent to which indigenous firms trade abroad.

Chapter 4 The Role of the Foreign Sector and the Role of The Indigenous Sector

Part 1: The Role of DFI In the Irish Economy from Telesis to the Present.

Ireland, according to Barry and Bradley (1997) is a 'textbook case study of the effects on a host-country of export-orientated DFI' (Foreign Direct Investment).¹

Introduction Part 1

This section involves both an analysis of the implications and significance of the Telesis Report recommendations as to the policy of attracting Direct Foreign Investment in order to stimulate industrial development and the subsequent changes in industrial strategy deriving therefrom, over the period from the early 1980s to the present. It will include a brief study of some of the theoretical underpinnings behind the literature on foreign direct investment. All of this should provide the background to how the Global Fordist School analyses the role of DFI in the development of Irish manufacturing industry.

Theories of the firm are useful in explaining the actions and behaviour of the MNE. The Global Fordist/Regulation School however, moves the analysis to a different dimension. Primarily, it provides a useful analysis of how the advanced capitalist world came to be regulated in the aftermath of the Second World War, how that system of regulation went into crisis and how relatively underdeveloped countries like the Irish Republic came to play a very specific role in the new system of regulation. Ireland's development as a haven or magnet for DFI can be best understood as having come about because of its peripheral characteristics. Global Fordist/Regulation theory therefore puts Ireland's dependent development vis a vis DFI into an international perspective with a much more concrete theory than is presented by the multifarious neo-classical theories of the firm. The Global Fordist/Regulation and Peripheral Fordist models have been examined in Chapter 2. One aspect of the school however that deals specifically with the nature of the firm is the concept of the Neo-Fordist production process.

The Neo-Fordist Analysis of DFI in Ireland

Perrons (1979) argued that it was mainly the peripheral characteristic of the Irish economy that

¹ Barry, F. and Bradley, J.,(1997), **Foreign Direct Investment and Trade: The Irish Host-Country Experience**, *The Economic Journal*, No. 107 (Nov), p.1798.

have made Ireland such an attractive location for multinational branch plants. This conclusion was arrived at through observing how the neo-Fordist labour process has led to Ireland playing a very specific role in the new international division of labour.²The Global Fordist School therefore provides, through its theory of neo-Fordism, an analysis of Ireland's relationship with the MNE.

Palloix (1976) identified four distinct phases in the organisation of the production process to illustrate how capital reorganises itself so that it can increase productivity. Each phase represented an increased division of labour. Palloix referred to these phases as 1) Manufacture (or advanced cooperation) This was an attempt to organise craft based workers in an effort to increase the intensity of the work. 2) The collective worker: mechanisation and the factory. This was whereby mechanisation in the factory replaced the general use of specific artisans' tools. 3) Labour process and mass production which can be referred to a Taylorist scientific management and Fordism and finally 4) What is termed as 'the problem of job enrichment': neo-Fordism.

This new type of organisation of the labour process, neo-Fordism, represented the extension of the division of labour in a way that was different. With Fordism and Taylorism came assembly-line work which was very restrictive in the sense that workers' input involved little intelligence or creativity and placed no demands in terms of responsibility.³

According to Palloix neo-Fordism is characterised by what is termed as job enrichment and recomposition. It involves the regrouping of different work operations but at each work station there is more variety for the workers allowing them to take more control of the operation. It gives the worker more scope for the 'operations of regulation, quality control and maintenance'.⁴

² Perrons, D.(1979), **The Role of Ireland in the New International Division of Labour:A Proposed Framework for Regional Analysis**, Working Paper Number 15, University of Sussex, Brighton, p.28.

³ Duran,C.,(1974), **Les Patronales d'Enrichment des Taches**, Sociologie du Travail, no.4, p.366.

⁴ Palloix,C.,(1976), **The Labour Process and Class Strategies**, Conference of Socialist Economists, London, p.63.

But Palloix denied that neo-Fordism leads to the abolition of the assembly-line. Instead it enables 'Taylorism and Fordism to survive in new conditions of control of labour power'.⁵ Smaller groups therefore are subordinate to the overall organisation of the collective workers. Palloix claimed that neo-Fordism amounted to:

'a purely formal attempt to abolish the collective worker, taking into consideration the social tensions which necessitates the setting-up of an absolute despotism in the coordination of the labour processes based on the automation, of several groups of workers, autonomous in appearance, but which are in reality forced to submit to the logic of the collective worker'.⁶

The emergence of this type of production had implications for many lesser industrialised countries and regions of the world. Ireland, as with other countries, started to attract new international firms and thus became immersed more deeply in the world economy. With the introduction of neo-Fordist processes, consumer durables (rather than capital goods) could now be produced in countries such as Ireland. Many branch plants, subsidiaries of larger firms, have been established in Ireland since the 1960s. Typically they represented single units of operation concerned with a specific part of the overall operation of the international firm.⁷ With the establishment of these firms came the exposure for indigenous industry to the opening up of the economy to free trade. Unfortunately few of the skills of the workers who suffered redundancy through the decline of the traditional sector bore little relevance to the skills necessary for the newly established foreign branch plants. Most of the firms were concerned with the production of components or in the processing of imported components.

The aim of the capitalist/multinational firm is to increase the difference between that part of the labour process that represents the time that is needed for the worker to produce enough to pay for his own reproduction and surplus labour so that the firm can increase the yield on labour (or rate of surplus value) overall. The problem of labour resistance to any measures that would erode the gains of workers which might occur as a result of the above is resolved by transferring the

⁵ Ibid.

⁶ Ibid, p.65.

⁷ Perrons,D., (1976), *Op Cit*,p11.

production to other regions that have never had or have had little experience of organised labour. Perrons adds that the location of branch plants in relatively smaller towns in Ireland is a good example of this.⁸

Despite the apparent fragmented nature of the individual branch plant operating at a distance from the parent company, neo-Fordism re-establishes the totality of the production process through computerisation. Perrons writes,

‘Neo-Fordism then reconstitutes the totality of the production process through the use of electronic information system and programming. This enables a fully integrated, self-regulating and self-correcting machine system to be introduced, i.e., with the introduction of these techniques the existing fragmentation is not merely reintegrated in a more efficient manner but is completely reconceived and reconstituted - then not only almost eliminating the balance delay-time, but further reducing the skill content and control over work by the worker’.⁹

The proliferation of Ireland’s small units of production or branch plants not only have been greatly facilitated by this decentralisation of production but are good representative examples of them as well. The deskilling of the workers assures a greater degree of flexibility for the management in their control of the workforce. It is precisely because the control of production has been removed from the shopfloor that the electronic programming can be located geographically elsewhere. The grants given to MNEs locating in Ireland and the generous tax benefits available to firms, both of which were found to be highly significant in relation to the survey work which was carried out as part of this study, would greatly facilitate such activity. This also allows the firm to locate the shopfloor in smaller provincial or peripheral areas where there is no tradition of organised labour and lower wage demands. Perrons argues that this is a very important factor in determining why Ireland has proven to be such an attractive location for direct foreign investment. The low wage aspect of this contention and not the organised-labour aspect of it was found not to be significant generally in relation to the companies surveyed as part of this study. But firms in the age group that had established 11 to 20 years prior to the

⁸ Ibid, p23.

⁹ Ibid, p.24.

survey being carried out in 1997 certainly specified that the low cost of labour was an important factor in their decision to locate in Ireland.

It was Ireland's lack of development vis a vis its own indigenous manufacturing with large numbers of unemployed, and an abundance of locations desperate for any employment generating enterprise all contributed to the attractiveness of Ireland as a location. To compound this the country was highly stable politically with all the major parties receptive to DFI and very welcoming in terms of allowing tax-free incentives and generous grants. (See above). Perrons concluded that if Ireland's industrial strategy which was based on attracting DFI into the country were to be successful then this very removal of the country's peripheral characteristics might prove to be the scenario that would actually make Ireland a less attractive place to invest in for MNEs. This could prove very crucial in the light of Ireland's recent economic success. As the economy continues to grow (The OECD forecast that the Irish Economy will 'slow' to 8% for the Year 2001)¹⁰, and more of the countries peripheral aspects are being eroded through rising wage costs and the greater threat of restrictions being imposed by the EU on the use of subsidy to encourage development in the first place, then Ireland's attractiveness as a location to invest in might change quickly. If this happens then the frailties of the as yet underdeveloped indigenous sector will become all too obvious. (See Part 2 of this chapter)

But as useful as the theory is in explaining why countries like Ireland started to play a specific role in the crisis of Fordism it is inadequate in that it says little of how this situation, which implies dependent development, might be transformed or rectified. It needs only a brief examination of the theories of the multinational enterprise to understand that the very characteristics of the firms that are attracted to the country can only provide very limited opportunities for the development of a strong indigenous industrial base in Ireland.

'The ultimate factor however, is the competitive dictates of the high technology multinational firms. Their business economies in most cases will limit the placing of key competitive activities in a small, relatively remote 'foreign' country even with significant incentives.'¹¹

¹⁰ OECD,(2001), Economic Survey of Ireland, 2001., **OECD**.

¹¹ NES.C. (National Economic and Social Council), (1982), 'A Review of Industrial Strategy: Summary,

Defining a Multi-National Enterprise (MNE)

DFI has generated much debate in political economy since the end of the Second World War. Some regard DFI as a godsend since, it is claimed, it diffuses its technology and leads to economic growth wherever and whenever it establishes itself in a particular place. Others see DFI as being part of the predatory power of imperialism exploiting as it moves from place to place, everything in its path.

A company is multinational when it no longer distinguishes between domestic and international business. Domestic business is subordinated to and fully integrated with a global plan of action. The head office management staff becomes multinational in outlook and responsibility. Such a company would be receptive to moving towards both international ownership and centrality of corporate structure.¹² Control can be exerted over the firms' operations when the firms' products are sold through local distribution subsidiaries or manufactured locally (overseas operations). Multinational enterprises (henceforth MNEs) engage in production and marketing (through subsidiaries) in several countries on such a scale that their fortunes rest in more than one country and their management is a multinational strategy.¹³

Gilpin pointed out that, investment by corporations from the advanced into less developed nations goes back to the time of the East India Company. The author breaks such activity into three 'waves'. The first wave was the period of what he terms as 'Old Colonialism' in the seventeenth and eighteenth centuries, when the major European nations established mines and plantations in the New World and Asia. During the second phase, Africa and Southeast Asia were the targets of the New Imperialism of the late nineteenth century. The launch of import-substitution strategies by less developed countries heralded the beginning of the third wave.

Direct Foreign Investment

One of the principal factors explaining the multinational corporation was the increasing importance of oligopolistic competition. This was believed to be one of the most obvious

NESC., No. 64, p155. (Telesis Report)

¹² Paquet, G., (1972), **The Multinational Firm and the Nation State**, Collier-Macmillan, Canada, p22.

¹³ Gilpin, R., (1987), **The Political Economy Of International Relations**, Princeton University Press, p.231

features of the contemporary world economy.¹⁴ In manufacturing, oligopolistic market structures in the high-technology and research-intensive industries are characterised by heavy MNE involvement. MNEs are generally considered to be leaders in their fields of manufacturing production. It is believed that they possess a high state of technological development which is complimented by advanced research facilities and a comprehensive administrative system which assists it to function easily despite having aspects of its overall production located outside the borders of its country of origin. These firms appear to operate, therefore, without national restrictions and can operate internationally with multifarious identities. This highly effective administration operates through a very centrally controlled system which allows it to operate vertically or horizontally.¹⁵

Theories of Direct Foreign Investment

Until the 1960s, it was capital arbitrage that provided the main orthodox economic explanation for the motivation behind DFI.¹⁶ This theory suggested that the only reason international capital movements took place was because of differences in the interest rates of different countries.¹⁷ Aggarwal pointed out that orthodox neoclassical theory in assuming perfect competition and perfect flow of information and equal trading exchange between countries, regards capital as it would any other commodity. This commodity and its price - the interest rate - determines its supply, demand and allocation.¹⁸

Capital Arbitrage Theory owed much to the work of the classical economists. DFI occurs as

¹⁴ Kierzkowski, H. (1984), **Monopolistic Competition in International Trade**, Oxford: Clarendon

¹⁵ Caves, R.E., (1982), **Multinational Enterprises and Economic Analysis**, Cambridge University Press, Cambridge, p.2.

¹⁶ Dunning, J.H., (1993), **Multinational Enterprise and the Global Economy**, London: Addison-Wesley.

¹⁷ Stevens, G. V. (1972), 'Capital Mobility and the International Firm', in **The International Mobility and Movement of Capital**, (ed.) by F. Machlup et al., New York: Columbia University.

¹⁸ Aggarwal, R. (1984), 'The Strategic Challenge of Third World Multinational: A New Stage of Product Life Cycle of Multinationals?', **Advances in International Comparative Management**, 1, pp.103-22

companies search to maximise profits (the difference between total revenue and total costs) which are determined by factor prices. It is from the motivation of profit maximisation that the motivation to engage in DFI takes place. The firm reacts to product prices, factor prices, interest rates and tax rates that affect profits.¹⁹ DFI will take place if the marginal revenue from export sales is less than the marginal cost of producing abroad.²⁰

There have been attempts to substantiate the neoclassical general equilibrium model which was originally developed by Heckscher and Ohlin (it became known as the Heckscher-Ohlin or H-O model) in relation to DFI. This theorem assumed constant returns to scale, universally common technology, common tastes and preferences among countries and no country-specific resources or factors of production. There would be a comparative advantage experienced by the two countries concerned relative to their specific endowment of resources. Simply explained, if a lesser developed country has an abundance of labour it will have a comparative advantage in labour-intensive goods whereas a capital intensive economy will experience a comparative advantage in capital intensive goods.²¹

Other theories of DFI are concerned with different areas. One such theorem is concerned with monopolistic advantage. The company may experience monopolistic advantage that may manifest itself in the form of managerial skills, production technologies, technological know-how or factor markets. Lall argued that these types of advantages must serve three useful purposes.²² Firstly the firm must have an advantage over not only domestic competitors but also in the host country as well. Secondly, the advantage for the firm must be transferable and, thirdly, the advantage for the firm must be more profitable for it to locate and produce abroad

¹⁹ Stevens, G. V. (1974), 'Determinants of Investment', in **Economic Analysis and the Multinational Enterprise**, (ed) by John Dunning, London: Allen and Unwin p.49.

²⁰ Horst, T. O. (1974), 'Theory of the Firm', in Dunning, J.(ed.), **Economic Analysis and the Multinational Enterprise**, London: Allen and Unwin, Chapter 2.

²¹ Reidel, J. (1991), 'Intra-Asian Trade and Foreign Direct Investment', **Asian Development Review**, 9 (1), pp.111-146.

²² Lall, S. (1980), 'Monopolistic Advantages and Foreign Involvement by US Manufacturing Industry', **Oxford Economic Papers**, 320, pp.102-22.

than to license out their product to an independent source.²³

Dunning's 'Reading School' has attempted to fuse the many theories of DFI into one which has been labelled 'the Eclectic theory'. The theory uses different branches of economics, including industrial organisation, vertical integration and the theories of location and trade.²⁴ Eclectic theory is thought to be the most comprehensive explanation of DFI.²⁵ The eclectic approach assumes that firms with a base in one country would have to have some advantage over firms of other countries in exploiting a particular foreign market. These advantages would include technology, marketing and management expertise and R and D capacity. Within the imperfectly competitive market, firms are able to develop new products and processes, skills in marketing, organisation, finance or expertise in differentiating products. The monopolistic advantages that the firms have developed have to be able to offset the additional costs of operating in an untried foreign environment. These may be costs such as those arising from cultural, legal, institutional and linguistic differences, and the lack of knowledge of local market conditions.

It must be of greater benefit to the firm to invest abroad rather than lease or sell their rights to foreign firms through licencing agreements. There is also the element of locational specific factors. These locational specific-factors include: productivity; costs such as comparative labour costs, transport and transfer costs; the relative size of the host country's internal market, potential for growth, stage of development, productivity levels and the presence of local competition; the political, economic and social stability and the very important matter of the host government's policies towards DFI, particularly in relation to taxation and the remittance of profit.²⁶

²³ Lall, S and Streeten, P. (1980), **Foreign Investment, Transnational Corporations and Developing Countries**, Macmillan Press, London, p. 18.

²⁴ Petrochilis, G.A., (1989), **The Determinants and Types of Foreign Direct Investment**, Avebury, p. 22.

²⁵ Agarwal, J.P., Gubitz, A. and Nunnenkamp, P., (1991), **Foreign Direct Investment in Developing Countries: The Case of Germany**, JCB Mohr, Germany, p. 22.

²⁶ Panglaykim, K. and Pangestu, M., (1983), **Japanese Direct Investment in ASEAN: The Indonesian Experience**, Maruzen Asia, Singapore, p. 10.

These are some of the general aspects of multinational trade theory that explain the characteristics and reasons why firms invest abroad. Technology-transfer and transfer-pricing however, are two aspects of the MNE phenomenon that are of much greater importance to understanding the role they play in Ireland's economy.

'The current strategy of the IDA has been to encourage firms locating in Ireland to develop an integrated business in the country, that is, to locate marketing and technical functions as well as European headquarters in Ireland'.²⁷

Problem of Technology Transfer

Telesis was very precise in its acknowledgement of the potential for technology transfer through attracting MNEs to invest in Ireland. It referred to it as a key question that needed to be answered,

'The ability of foreign-owned firms to help Ireland's industrial structure to support higher income levels depends upon several factors: Whether the Irish operation is dependent on low wages; the presence within Ireland of business functions which are crucial to the competitive success of the businesses as a whole; requirements for significant white or blue collar skills; and opportunities for linkages for skilled indigenous sub-supply'.²⁸

Another very important conclusion about MNEs derived from the Telesis survey of the electronics industry. It has the most serious theoretical implications for basing an industrial strategy on attracting DFI to a country with Ireland's level of indigenous industrial development. Telesis found that trying to develop national sectoral strategies such as was the case with the electronics industry based on foreign enterprises, that the main constraint was the economic rationale which guides the operation of the foreign owned high-technology multinational firms.²⁹

According to the neoclassical school, the supposed greatest contribution to economic progress of the MNE is the internationalisation of production and the efficient transfer of technology. Nearly all theories of DFI give a prominent position to technology. Bonin outlines some of many of the channels of the international transfer of technology including trade, joint ventures, licensing agreements, the purchase of specialised services such as marketing, management,

²⁷ NESC,(1982), *Op. Cit.*, p173.

²⁸ *Ibid*, p.136.

²⁹ NESC (The National Economic and Social Council), (1982), 'A Review of Industrial Strategy: Summary, NESC, No.64, p7.

engineering, etc., scientific missions, personal contacts or technical assistance and DFI.³⁰

Foreign technology has had a major impact on less developed countries but not quite to the positive extent that MNE theory and many of its apostles might have hoped for. Muller and Barnet conclude that technology is the key to economic power in the modern world and that MNEs operating in oligopolistic markets normally are in possession of some exclusive piece of technology that they intend to keep secret from their competitors.³¹ The concern of MNEs is profit maximisation and not the imparting of technology in an effort to help developing countries. However by employing indigenous staff and workers, technology can be transferred even though this may have been unintended. Whether technology can be adapted very much depends on the type of product in question. Bonin points to the weakened bargaining position of the host country. He referred to an unnamed case of an American firm intending to set-up in Japan. When the Japanese government tried to play the role of "filter" in the negotiation process the whole deal was called off. This was due to the government's demanding that American participation rate be limited to just one-half of the total equity, with the stipulation that after a set amount of time the technology and production procedures could be used to upgrade the technological know-how of other Japanese firms.³²

Ireland's bargaining position was seriously hampered by the strategy which was being pursued by the Irish government at the time of the Telesis publication in 1982. Telesis claimed that there was too little direct input from government departments in the formulation of industrial strategy. The criticism was that the burden of policy formulation was resting increasingly with the Industrial Development Authority rather than with the government. The criticism pointed to the, '..... inherent dangers in making a development organisation primarily responsible for strategy formulation. The major thrust of its organisation and mandate is as a marketing organisation, selling Ireland to foreign companies and selling industrialisation to the Irish people'.³³ Kojima's

³⁰ Bonin, B. (1972), *The Multinational Firm as a Vehicle For The International Transmission of Technology*, in Paquet, G. (ed.) *Op cit.*, p.111

³¹ Barnet, R.J. and Muller, R.E. (1975), *op. cit.*, pp.162-163.

³² Bonin, B. (1972), *op. cit.*, p.118.

³³ NESAC, (1982), *op. cit.*, p.223.

work on the prospects of technology transfer being more likely to emanate from firms of specific national origin has implications for Irish industrialisation policy. Kojima maintained that many of the theories of DFI were based on the experiences of US companies and consequently were not particularly useful in explaining the experience of Japanese firms and in particular as to why small labour intensive Japanese firms involve themselves in DFI.³⁴ Kojima argued that small corporations, involve themselves in DFI because of the loss of comparative advantage in labour-intensive industries in the mother country. In other words, the DFI carried out by relatively smaller corporations is designed to enable it to transfer its production process from a relatively higher to a lower wage country. DFI by larger corporations is carried out to facilitate the exploitation of oligopolistic factors and product markets³⁵

For Kojima, there are two main types of DFI, the American (and European) type and the Japanese type. The first type, which is consistent with product life cycle theory, is considered anti-trade in that this type of trade cuts off the parent country's comparative advantage. DFI takes place in oligopolistic controlled technologically advanced industries whereas the declining sectors in Japan believe it profitable to establish DFI because of the domestic constraints on factors of production.³⁶ Japanese firms invest mainly in established industries in which they are losing a comparative advantage which will then become the comparative advantage of the host country. The industries involved are mainly labour intensive such as component assembly or textiles. The theory suggests that Japanese firms' motive for investing abroad has been influenced by the desire to exploit natural resources which are not available or are not produced in sufficient quantities at home and is to transfer labour-intensive activities from Japan's

³⁴ Kojima, K. (1982), Macroeconomic Versus International Business Approach to Direct Foreign Investment, **Hitotsubashi Journal of Economics**, 23 (2), pp.1-19.

³⁵ Kojima, K. (1973), 'A Macroeconomic Approach to Foreign Direct Investment', **Hitotsubashi Journal of Economics**, 14 (2), pp1-20.

³⁶ Giddy, I.H. and Young, S., (1982), 'Conventional Theory and Unconventional Multinationals: Do New Forms of Multinational Enterprise Require New Theories?' in Rugman, A.M. (ed.), **New Theories of the Multinational Enterprise**, London: Croom Helm, pp.64-65.

relatively expensive labour-cost environment to a cheaper one.³⁷ Therefore, Japanese DFI plays an important dual role according to Kojima. He believes that it will not only help to build up a manufacturing capacity in developing countries but also that its labour-intensive nature can be easily adapted to the comparative advantage of the host country.³⁸ Therefore, it is the technology that is transferred which is adaptable to less developed types of economies.

Kojima contends that Japanese DFI mainly takes place to exploit the natural resources of resource-rich countries or for manufacturing labour intensive products in labour-abundant developing countries.³⁹

Ravenhill refutes Kojima's argument. In his study of Japanese and US electronics firms operating in East Asia Ravenhill asks whether the nationality of the MNE effects the transfer and diffusion of technology to the host economy. Ravenhill believes that it does, particularly in the case of American and Japanese firms. But in direct contrast to Kojima and Ozawa (1979) whose arguments, Ravenhill claims have not stood to empirical examination over time, it was the subsidiaries of US corporations that were most likely to engage in the host economy in a way that best facilitated local acquisition of technology. This was based on research that showed that the aggregate impact on host economies' balance of trade of American firms was far more positive than the impact made by Japanese firms.⁴⁰

Whether Japanese DFI can help to build up or foster the development of the manufacturing capacity of the host country through the transfer of technology in a country like Ireland is debatable but the important element of Kojima's theories for the Irish case is his views on American (and European) DFI. Telesis recognised the nature of American DFI worldwide and

³⁷ Dunning, J.A., (1977), Trade, Location of Economic Activity and the MNE: A Search For an Eclectic Approach, in **The International Allocation of Economic Activity**, Edited by Ohlin, B., Hesselborn, P.O. and Wiskman, P.J., Macmillan, London, p.412.

³⁸ Kojima, K. (1973), *op.cit.*, pp.1-12.

³⁹ Ozawa, T. (1979), International Investment and Industrial Structure: New Theoretical Implications from the Japanese Experience, **Oxford Economic Papers**, 31 (1), pp.72-92.

⁴⁰ Ravenhill, J., (1997), **Japanese and US Subsidiaries in East Asia: Host Economy Effects**, Harvard Education Papers, P.11.

its increasing role in the Irish economy.⁴¹ If Kojima is correct then the potential for American companies operating in Ireland actually stimulating technology transfer in the Irish economy should be regarded as rather limited or even non-existent.

US investment, therefore normally takes place within oligopolistic, capital-intensive and technologically advanced industries. This occurs so that the individual firms can protect their oligopolistic position in world markets and in response to trade barriers. These investments are perceived as anti-trade and going against the principles of comparative advantage. The American type of DFI is unsuited to the factor proportions of the host country and is, as a result, unlikely to have any spinoff effects such as technology transfer. If such transfer were to take place it would be to a very limited degree. If technology transfer occurs only partially or in a very limited fashion, then the question is posed as to how relatively small low-tech indigenous firms could exploit it. Therefore the situation that was described Telesis' account of increasing numbers of American firms entering the Irish economy at the time of publication in 1982 will now have been compounded by an even greater influx of US firms entering the economy in the recent boom period. This should have rung the alarm bells for policy-makers in 1982, and if not then, it certainly should be doing so at present.

The Problem of Transfer Pricing

Another characteristic of the multinational firm that has particular relevance for Ireland is that of transfer pricing.

'One critical question relating to the explanation of the ROI's (Republic of Ireland) comparative performance, is to judge to what extent the general ROI manufacturing productivity superiority relative to the UK in the 1980s is a "real" phenomenon as opposed to a financial one'.⁴²

⁴¹ NESC,(1982),**Op.Cit.**, p.134.

⁴² Hitchens, D.M.W.N., and Birnie, J.E.,(1994),
Comparative Irish Manufacturing Production, Avebury, p68.

Transfer pricing is the setting of prices on goods and services bought and sold between the parent company and its foreign subsidiary. These are not normal arm's length transactions in that, they are not the prices determined by market forces between two independent economic actors. Classical theory, which has the underlying assumption that prices are competitive, would argue that such intra-firm trade develops from the comparative advantages of individual countries. Significant amounts of international trade arise therefore, from sales within a multinational firm at internal company transfer prices, which are more than likely to be different from those that materialise through the interaction of independent buyers and sellers.

Hitchens and Birnie(1994) were very critical of Ireland's liberal corporate taxation system, implying that the country is seen as something of a soft touch in term's of the ease by which firm's can involve themselves in transfer pricing. Furthermore, as a direct consequence of this transfer pricing, they question the reality of the claims that Ireland has made as much economic progress as some commentators would have us believe. As far back as 1982, Telesis pointed out how foreign firms were using Ireland for the purpose of transfer-pricing by using the low and hospitable tax regime that had enticed them there in the first place. As far back as 1973, Cooper and Whelan warned of the degree of profit repatriation - aided by the lack of governmental controls on capital flight. The authors painted a very bleak picture of an industrialisation policy that appeared to be dependent on very fast growing industries that while providing much needed employment, relied on very low levels of skill in their production processes in Ireland. Apart from some employment generated the spinoff effects were minimal.⁴³

'The tax incentives offered by Ireland form the basis of these companies presence in the country. Any changes in transfer-pricing rules or in tax laws in other countries which made these incentives less attractive could cause a number of these facilities to close since the companies interviewed reported that they suffer significant logistical penalties for operating in Ireland'.⁴⁴

There is large-scale transfer-pricing by Irish branch plants according to Murphy.⁴⁵ The major part of the expenditure on manufacturing R&D is attributable to the MNEs and some part of their

⁴³ Cooper and Whelan (1973), **Science, Technology and Industry in Ireland**, Report to the National Science Council, Stationery office, Dublin.

⁴⁴ NESc, (1982),*op. cit.*, pp.146,147.

⁴⁵ Murphy, A., (1997), **The Celtic Tiger - The Great Misnomer**, Dublin: MMI Stockbrokers.

expenditure on R&D would include monies that would appear in the final accounts of the parent company.⁴⁶ Table 4.1 below compares R & D gross expenditure as a percentage of gross sales for both Ireland and the OECD. These include all manufacturing, both indigenous and DFI. It should be remembered that the latter accounts for two thirds of the figures while the remaining third is for the indigenous sector. Bearing this in mind it is clear that the foreign firms that have invested in Ireland do not involve R & D as a large part of their operation. In the sectors that heavily involve overseas firms it is certainly clear that in the case of electronics, pharmaceuticals and instrument making that R & D expenditures still fall well behind those of the OECD.

Table 4.1 R&D as % of Gross Sales : Irish and OECD Averages Compared (2000)

Ireland

OECD

Source: Forfas/Enterprise Ireland, 2001.

⁴⁶ Barry, F. and Bradley, J. (1997), *op.cit.*, p.1802/1803.

An MNE can easily manipulate or change the flow of its earnings from the subsidiary to the parent company. Within this environment it is relatively easy for firms to engage in transfer pricing.

‘Goods are invoiced at a low price to a low tax country where the local subsidiary, without necessarily even taking delivery, re-exports them at a high price to where they are actually needed. The subsidiaries at the beginning and end of the chain make losses, but these are offset by the high profits in the low tax country’.⁴⁷

Tugendhat argued that it is perfectly within the realm of normal business practice for firms to transfer funds in this manner. After all a strong characteristic of the MNE is its commercial flexibility. These business operations function as ‘providing funds for new investment, repatriating profits, and controlling the exchange of goods between subsidiaries. The method of transfer employed maybe royalty, interest payments, loan payments, loans, dividend, payments for products payment for services, knowledge or other capital transfers.’⁴⁸

Trade theory is often explained in terms of a buyer in one country trading with a seller in another in finished goods. But trade can involve goods being traded when they are at various stages of production. That is, raw materials, basic components, intermediate products and finished products. Some products may have passed many borders before they are finally sold. The deleterious effect of this activity will be to obscure the real picture as to the trade flows between countries. If one country’s export are overvalued then another’s will be undervalued. It would be difficult to implement some form of regulation over such internal payments by MNEs, as individual states have different laws and institutional organisations. MNEs do not operate within markets that deal with simple arm’s length transactions involving independent and individual companies but are guided by a central headquarters that will do what is necessary to pursue its overall global interest.⁴⁹ Host countries can do little to prevent transfer-pricing from happening because if the MNE were suddenly to find itself in a hostile host country, or an unfavourable environment, it could easily shut down its operation and reestablish in a more welcoming host

⁴⁷ Tugendhat,C., (1971), **The Multinationals**, Pelican, p174.

⁴⁸ Ibid, p161.

⁴⁹ Ibid, pp161,162.

country environment.⁵⁰

Ireland operates under this threat and the IDA endeavour to do everything in their power to make inward investment feel as welcome as possible. Transfer-pricing takes place on a continual basis, which is evidenced by the discrepancy between figures for GDP and GNP. Yet, there appears to be very little in the literature on what effect this activity might have on the economy or how the Irish Government assesses the level of transfer-pricing on the development of its own economy. The government has approved of an incentive system that mainly relies on the 10% corporation tax which has resulted in Ireland becoming a mere production platform for MNEs. Because Ireland is not a market for these products the companies involved have great opportunities to practice transfer pricing.

The theories of the multinational enterprise therefore contribute something to our understanding of the way they operate but also as to how direct foreign investment can only be viewed as having limited potential for the host country in generating indigenous industrial growth. Bearing this in mind it is important to look at the first serious recognition of these limitations for Irish industrialisation policy.

Policy Towards DFI in Ireland After Telesis

Fitzpatrick and Storey (1991) beg the question whether there was a dramatic shift in policy towards DFI after the publication of the Telesis Report in 1982 'It is highly debatable whether these arguments concerning the limitations of foreign investment have ever been fully accepted at official level'.⁵¹ Despite Telesis's recommendations, particularly those about diverting funds away from DFI towards the development of internationally trading indigenous companies, Foley and Storey argued that 'in subsequent discussions this point was lost sight of'.⁵² In the National

⁵⁰ Litvak, I.A. and Maude, C.J., (1972), **The Multinational Firm: Some Perspectives**, in Paquet, G. (ed.) (1972), *op cit.*, p.23.

⁵¹ Fitzpatrick, J. and Storey, A. (1991), **Changing Policy Towards Overseas Investment**, in **Overseas Industry in Ireland**. *op.cit.* p52.

⁵² *Ibid.*

Economic and Social Council's (NESC) *Preface to The Telesis Report*, the ambiguous attitude towards Telesis's recommendations can be clearly seen. In the Preface the NESC suggested that perhaps after all it might not then be convenient to reduce grants to DFI as it could put in jeopardy, 'the detailed knowledge and expertise of attracting foreign industry which has involved extensive negotiations with foreign firms by state agencies and the monitoring of incentives offered by other countries.'⁵³

In 1982 The NESC produced *'Policies for Industrial Development: Conclusions and Recommendations'*, which accepted that the focus of industrial policy should be on assisting indigenous firms that traded internationally. This document declared that savings could be made by cutting incentive grants to the native non-traded sector but contended 'that there should be regular ongoing assessment of the level of such incentives aimed at reducing the average grant level where this is feasible'.⁵⁴ The NESC endorsed the view that, because of the then contemporary employment situation, companies that did not fit the criteria in relation to the selectivity policy would continue to be supported by the development agencies.⁵⁵

Thus the commissioning body that sponsored Telesis did not accept its findings in relation to the long-term limitations of DFI but argued instead for measures that would overcome the above mentioned limitations. These measures had already been endorsed by Telesis but the priority which was attached to them from both documents differed considerably.

In 1984 the Government produced *The White Paper on Industrial Policy*. This reiterated the NESC position. The White Paper accepted the need for greater discrimination but not a reduction in grant levels. The White Paper argued that the Telesis Report recommendations had not been given with the foreknowledge of burgeoning international competition for mobile investment. Furthermore it considered that any reduction in grant levels could risk the loss of a substantial number of projects: 'The practice at present is that the level of grants offered

⁵³ Preface to *The Telesis Report*, (1983).op.cit.

⁵⁴ NESC,(1982), **Policies for Industrial Development:Conclusions and Recommendations**, Report No. 66, Dublin,p. p30.

⁵⁵ Ibid, p25.

reflects the best bargain which the IDA can strike to secure a project at the lowest possible cost to the Exchequer.⁵⁶

The White Paper did not accept that the MNEs considered the grants as the 'icing on the cake' and they shared this opinion with the IDA of whom they believed to possess considerable knowledge and expertise in these matters.⁵⁷ Fitzpatrick and Storey claim The White Paper ignored the issue of how to introduce greater selectivity towards foreign firms with greater growth potential in the desired areas of production activity without increasing the overall industrial policy budget.⁵⁸

In order to overcome the perceived problem of enticing overseas firms to locate the more advanced production functions of their operations in Ireland, the White Paper proposed a speeding up of the bureaucracy involved in tax allowability of the costs involved in initial outlays for administration and marketing⁵⁹. It also proposed 'to enable The National Development Corporation to invest in individual companies if this enticed them to locate key business functions in Ireland'⁶⁰. In summary, the White Paper approach was that, 'no radical changes are proposed to the incentives for foreign investment'.⁶¹

'*The Strategy for Development, 1986-1990*', expressed its anxiety about governmental industrial policy. It was mainly concerned about the lack of clarity on the issue of shifting resources towards indigenous manufacturing sector. This NESC report differed considerably from the 1982 Report (No. 66) in that it now accepted the Telesis argument that capital grants to overseas firms

⁵⁶ Department of Industry and Commerce, (1984), **White Paper on Industrial Policy**, Stationery Office (Dublin),(p1.2491), pp63,64.

⁵⁷ Fitzpatrick,J. and Storey,A., **op cit.** p55.

⁵⁸ **Ibid.**

⁵⁹ White Paper, (1984), **op. cit.**,p39

⁶⁰ **Ibid.**

⁶¹ **Ibid**, p115.

were higher than were necessary.⁶²

Also in 1986, the Department of Industry and Commerce produced a review document assessing the industrial performance of the economy. The document conceded that policy should adhere more closely to that of Telesis. It stated that despite the increased competition internationally, incentive packages should be targeted at companies that would best fit the criteria that would best stimulate future manufacturing growth.⁶³ It recommended that only firms involved in projects that involved R and D, marketing, or other advanced functions would receive the maximum grants.

According to Ruane, the IDA has embraced the sentiments in 'The Review' and there is a shift towards indigenous industry.⁶⁴ This can be seen with the establishment of a Directorate For Irish Industry. Subsequently, however, *The Programme for National Recovery (1987)*, which was agreed upon by government, employers and trade unions, still however expected DFI to contribute significantly to the development of a solid indigenous industrial base.⁶⁵

Policy-makers, therefore, yet again did not appear to have taken on board the limitations of DFI for industrial development and appeared to genuinely believe that DFI could be a major contributory factor to the development of a manufacturing base in the Irish Republic. This can be assumed from the consistent efforts of policy-makers to maximise the benefits from the DFI as they continue to make Trojan efforts to attract MNEs to the country.

⁶² National Economic and Social Council,(1986-1990),
A Strategy for Development, 1986-1990, Dublin: N.E.S.C.

⁶³ Department of Industry and Commerce, (1986), **Review of Industrial Performance**, Dublin: Stationery Office, (p14769), p43.

⁶⁴ Ruane,F.(1987), **The Traded Sector: Manufacturing**, in O'Hagan,J (ed),
The Economy of Ireland:Policy and Performance, Dublin: Irish Management Institute. p393.

⁶⁵ The Department of The Taoiseach, (1987), **Programme For National Recovery**, Dublin: Stationery Office (p1.5213), pp.17-18.

Performance and Current Standing of Overseas Investment in Ireland.

From the 1960s through to the 1980s, Ireland's market share of firms investing abroad indicated, that the Irish economy was becoming competitive in attracting DFI. However, indigenous industry was becoming uncompetitive due to the international competition it became exposed to with the advent of the opening up of the economy to free trade.

The policy of encouraging direct, foreign investment was successful in increasing the net number of manufacturing jobs by over 20,000 overall in the period between 1973 and 1988. But in that same period there were 303,000 new jobs generated, there were also 320,000 redundancies. Yet despite the negative figures for job losses, it was pointed out that the rate of survival was much lower for indigenous firms which had been heavily protected until the 1970s. The fact that modern high-tech industries have operated in the Irish Republic is almost entirely due to overseas industry which accounted for 86,000 jobs or 42 percent of the total of manufacturing industrial employment.⁶⁶ After 1988, and the upturn in the economy there has been a substantial improvement in the performance of overseas investment as a source of employment.

But why did the policy continue despite the limitations that had been pointed out on so many occasions? The answer must lie in the fact that because of the unemployment difficulties that the country had experienced historically, (that is until the recent upturn) the country had little option but to do so. But the problem was that what was really an employment-creation policy was being confused with an industrialisation policy. The IDA had become very effective in attracting so much DFI to the country and in doing so became the main instigator of industrial policy continuing, unfettered, through the reign of one government after another. In one sense the IDA were the highly professional organisation that made Ireland adapt easily to the transition from import-substitution to peripheral Fordism

DFI was, and is still therefore, used to promote economic development. In the past, that is in the pre Celtic Tiger era, the need for greater levels of inward investment increased as the employment situation worsened. When unemployment increased, the government had to be seen to act. The remedial action taken involved of inviting a larger number of foreign firms to set-up

⁶⁶ Ruane, F. and McGibney, A. (1991) The Performance of Overseas Industry, 1973-89, **In Overseas Industry in Ireland**, op.cit., Chapter 4.

operations in Ireland. When unemployment became endemic, the response had to be positive in terms of job creation and attracting DFI appeared to be a more certain way to achieve that objective in the short-term. As indigenous industry suffered through greater competition from the opening up of the economy, the government believed that it could counteract the trend by encouraging DFI.

Rising unemployment in one area could be relatively quickly offset by inviting in a foreign firm. As the success of the strategy bore fruit in terms of employment creation, employment targets that had been reached in that past became the justification for even higher employment creation targets in the future. Policy measures became less comprehensive in that budgets were set aside to attract a certain amount of overseas investment. The belief existed that a certain quantity invested through the subsidisation of inward investment would yield a certain amount of employment.

The money borrowed to pay for the capital subsidies which the government paid out would, it was hoped, lead to increased output which would in turn lead to greater amounts of revenue returning to the government which could be used to pay for the original borrowing. But if the economic situation worsened through cyclical downturn, the return on investment for government declined as the dependence on these subsidies increased. As existing jobs disappeared, different employment opportunities needed to be created. Borrowing had to continue as the economy revived and increased as the economic situation declined. If objectives failed to be reached, the initial expenditure would not ultimately generate enough revenue-producing economic activity to cover the initial cost of the subsidy. Inflation sometimes counteracted the cost of repaying the borrowing through increased revenue. But inevitably the cost of the subsidy increased which in turn affected a rise in the cost of borrowing. As the economy became increasingly open to international trade the development agencies tried to keep pace with the secular decline in indigenous industry which was increasingly being exposed to increased competition from abroad. Therefore DFI would be needed counter-cyclically, when growth fell. But despite the best efforts of Ireland experienced severe recession in the 1980s and many MNEs disinvested from Ireland It appeared that much of the state's original subsidies, which had been expended in the belief that they were enhancing industrial development, might be wasted. Yet despite the downturn the IDA was still able to attract foreign companies, even if not to the same degree as before. As the economy began to expand again towards the end of the 1980s the numbers attracted began to rise again.

In the 1990s DFI in Ireland expanded considerably and indigenous industry appeared to have reversed the earlier trend towards decline.⁶⁷ With this strong economic growth, DFI was again seen in a very favourable light. The newspapers were full of praise for the policy of attracting DFI to the country and the underlying belief was that the strategy had been correct all along. There was much self-congratulation and the rising tide of economic activity which was partially due to the extra influx of MNEs would, it was hoped, boost all aspects of the economy. But to what degree had the situation changed for indigenous industry? This will be examined in more detail in the next section.

But despite the increase in the fortunes of the economy the growth in overseas firms is the most striking aspect of the economic boom of recent years. Of the 4600 manufacturing firms in the country in 1995, 725 were overseas investors. Despite having only 16 percent of all manufacturing plants, they accounted for over 47 percent of all manufacturing employment and 65 percent of gross output. On average the overseas firms exported 89 percent of their output whereas indigenous firms exported only 36 percent. US firms, who accounted for 40 percent of all foreign firms were much larger than Irish firms, 5 times as productive and 8 times as profitable as shown by tables 4.2 and 4.3 below. As with previous waves of DFI in Ireland, a large proportion of overseas firms were technologically advanced firms who were much more likely to import their own materials than buy from local suppliers.⁶⁸

Table 4.2

Profile of DFI in Irish Economy 1995

Census of Industrial Production, 1995.

The prominence of the foreign sector in Irish manufacturing is a worrying feature of the

⁶⁷ Barry, F., (1999), *Understanding Ireland's Growth*, Macmillan Press, Chapter 2.

⁶⁸ Barry., (1999) pp51-53.

economy in that the economy appears very dependent on it, but this problem of dependency is compounded by the nature of the foreign sector itself. This can be clearly seen from O'Hearn's studies in table 4.3 below. US computers and pharmaceuticals accounted for 15.9 percent of the total industrial output in the economy. In spite of this rather large proportion, the two sectors accounted for only 3 percent of purchases of local materials by all manufacturing companies. The total for exports for both industries was 98 percent which accounted for 26 percent of the total exports from the country. O'Hearn also pointed out that US companies made up over 66 percent of all non-food exports from Ireland.⁶⁹

Table 4.3

Contribution of Leading US - Owned Sectors To Irish Industrial Categories, 1990

O'Hearn, D., (1998), p56.⁷⁰

O'Hearn also claimed that US chemical, computing and electrical-engineering actually accounted for 50 percent of GDP growth between 1990 and 1996 leaving Ireland in a very vulnerable position. If for example, there was a general downturn in the world economy, Ireland

⁶⁹ O'Hearn, D., (1998), **Inside The Celtic Tiger: The Irish Economy and The Asian Model**, Pluto Press, p56.

⁷⁰ Ibid.

could find itself in any even more precarious economic position than it was in the early 1980s when there were many MNEs that disinvested from Ireland.⁷¹

Barry, Bradley and O'Malley believe that the reason why Ireland has been so successful in attracting foreign firms can be partially explained by the fact that overseas investors would be attracted to a host nation where an increasing number of their competitors had tried, and found the conditions there very conducive to the successful and profitable operation of their companies. Therefore the whole process started to feed upon its own success to generate even more overseas investment. These 'agglomeration economies' as the writers have referred to, go some way to explaining the even greater influx of overseas companies in the 1990s.⁷²

O' Hearn claims that the agglomeration effect that has led to such inward investment in the computer industry can be attributed to one example that was 'astonishingly simple'. He cites the case of INTEL which was established in Ireland in 1990 at a great cost to the Irish state. Every major and many minor player in the computer world followed suit very quickly, producing every conceivable product relating to the computer industry. It was this single movement of DFI that changed 'Ireland into a 'tiger economy' practically overnight.⁷³ Breathnach (1998) also believes that the continued success of the economy depends on the country's ability to attract DFI.⁷⁴

McCutcheon (1995) argues that it was the Irish tax system that provided the impetus for US Direct Foreign Investment in Ireland.⁷⁵ Furthermore, US DFI also benefited from the double taxation agreement between Ireland and the United States. This system operates whereby US

⁷¹ Ibid, p74.

⁷² Barry, F., (1999), *op. cit.*, p65.

⁷³ O'Hearn,D., (1998), *op. cit.*, pp71/72.

⁷⁴ Breathnach, P. (1998), **Exploring The 'Celtic Tiger' Phenomenon: Causes and Consequences of Ireland's Economic Miracle**, *European Urban and Regional Studies* 5 (4) p. 315.

⁷⁵ Mc Cutcheon M., (1995), **The Tax Incentives Applying to US Corporate Investment in Ireland**, *The Economic and Social Review*, Vol. 26, No. 2, January, p.149.

firms gain credit against their US tax liability for having paid corporate tax in Ireland.⁷⁶

Hood and Taggart's (1997) examination of the reasons why German DFI invest in Ireland or the UK. Ireland was chosen as a location because of the availability of government financial assistance and the low level of corporation tax. In comparison with the UK, labour costs and the proximity and ease by which firms could supply the European market were not seen as discriminating factors between the two countries as a locational choice.⁷⁷ The UK however, was a more optimal base in terms of supplying an existing customer base.⁷⁸ The Irish subsidiaries of German companies sourced fewer of their inputs locally than their UK counterparts.⁷⁹ In both countries, it was found that German subsidiaries generally contributed relatively little by way of an impact on the regional economies in terms of technology transfer and the levels of export sales. By comparison with Japanese, German firms were seen as having only limited potential for stimulating indigenous growth. But this type of development of manufacturing industry is dependent development. It is so because Ireland's recent growth is to a large degree dependent on the desire of Global corporations wanting to establish in the Republic of Ireland.

O'Hearn reiterated the views of Kojima by stating that American firms generally maintain their profitability by making sure that outside elements do not gain access to knowledge concerning technologies and product development. This enables product life cycles to be prolonged for longer periods.⁸⁰ The author concluded that: 'Direct foreign investment by Western TNCs does not appear conducive to development.'⁸¹

This is an area that could possibly be the target for further research as at present these views are inconclusive. But perhaps however it is an area that Irish policy-makers should consider in the future as the greatest amount of direct investment attracted in the period from 1987 to the

⁷⁶ Ibid, p.153.

⁷⁷ Hood, N. and Taggart, J.H., (1997), **German FDI in the UK and Ireland: Survey Evidence**, Regional Studies Vol.31.2, p.142.

⁷⁸ Ibid, p.143

⁷⁹ Ibid, p.148.

⁸⁰ O'Hearn, D., (1998), op cit. p15.

⁸¹ Ibid, p24.

present has originated from the United States. This is very much the case in the current boom period. This period has seen a huge increase in software production. For example, all the top US market leaders in software production now locate in Ireland but are considered by Coe (1997) to be of a higher quality than previous types of overseas manufacturing firms.⁸² Indeed Ireland is now seen as the most important centre for European software manufactures according to the National Software Directorate (1996).⁸³

Average Annual % Rate of US Overseas Manufacturing Investment

Table 4.4 Coe, N., op. Cit., p.215.

Coe pointed out that the employment figures were divided evenly between indigenous and

⁸² Coe, N., (1997), US Transnationals and the Irish Software Industry: Assessing the Nature, Quality and Stability of a New Wave of Foreign Direct Investment, **European Urban and Regional Studies**, 4 (3), p.211.

⁸³ **Irish Trade Board/National Software Directorate (1996)**, Irish Software Industry Directorate, Dublin.

foreign with 400 and 90 companies respectively. However, 70% of all indigenous firms have 10 or fewer employees. The top 4 foreign companies on the other hand made up 40% of total employment with the top 20 companies accounting for 76% of the total employment in this sector.⁸⁴ This fact would certainly indicate that the small Irish firms would find it difficult to compete internationally unless they could build up their respective operations fairly quickly. Coe also felt that the linkages were weak and that it was unlikely that significant development operations be added to the remit of foreign software branch plants in Ireland.⁸⁵ There was also a guarded warning implied in Coe's work, that perhaps the supposed rapidity of the development of this sector in Ireland was being exaggerated somewhat. He argues that it only represents 1% of the total workforce, a figure that is comparable to other European nations, and thus the growth in the sector is not quite as impressive as first might have been thought.⁸⁶

Positive Views of the Contribution of DFI to the Irish Economy

Even though Forfas admits that Ireland's industrial development model is largely characterised by DFI growth, it has, the organisation claimed brought huge benefits to the Irish people. It viewed Ireland as having been transformed into a competitive and successful economy with rapid growth in employment and living standards.⁸⁷

Forfas believe that the positive impact that foreign make to the economy might be understated in that many of the investment are greenfield investments. These are, it is argued involve much deeper penetration into the economy as greater takes place through the construction and fitting out of productive facilities as well as generating employment. it does however point out that questions have to be raised about the imbalance between indigenous and DFI -led development. It also pointed out that it was 'difficult to conclude that there is a growing embeddedness of FOEs in the domestic economy.'⁸⁸ Furthermore Forfas noted that because of the 'leakages' that

⁸⁴ Coe. N., (1997)op cit., p.216.

⁸⁵ Ibid, p.226.

⁸⁶ Ibid, p.227.

⁸⁷ Forfas, (2001), **International and Trade & Investment Report 2001**, pp.1/2.

⁸⁸ Ibid, Chapter 2, p.6.

escape the economy through transfer pricing 'one can conclude that each 1 million Euros of exports by Irish owned firms contributes to substantially greater employment in the domestic economy than an equivalent value of exports by the foreign-owned sector'.⁸⁹

According to Forfas, foreign owned enterprises accounted for 85.1% of exports. The output from these firms is overwhelmingly for export and stands in sharp contrast to indigenously owned enterprises that 'continue to rely on the domestic market for the majority of their sales'.⁹⁰ The agency point out that the sectors in which MNEs and indigenous manufactures operate in is very different. Foreign firms are mostly large scale and capital intensive, with long production runs and considerable economies of scale. Indigenous firms on the contrary tended to be much smaller in size and were more labour intensive. They operated in a more diverse range of industries producing medium or low-technology goods of which food and drink being the most important.⁹¹ The differences can clearly be seen from the table below.

Indigenous Industry V Foreign-Owned Exports by Industrial Sector 1999

Table 4.5.⁹²

Yet despite the fact that Forfas concluded that many indigenous firms still relied heavily on the

⁸⁹ Ibid, p.7.

⁹⁰ Ibid, (Introduction),p.2.

⁹¹ Ibid, Chapter 2, pp.4/5.

⁹² CSO, (1999), **Central Statistics Office**, Cork, Ireland.

domestic market,⁹³ the agency echoed Enterprise Ireland's prognosis that there were positive signs that the indigenous sector was becoming more export-orientated.

R&D in the Business Sector 1999

Forfas point out that past investment by foreign firms has served Ireland well but that the IDA were now looking for firms that engaged more of their operations in innovation and research. These would be business projects that were more knowledge intensive and based in high skills and expertise.⁹⁴

However, in a more recent study (May 2001), Forfas showed that R and D spending in Ireland's key industrial was below that international levels. Electronics, pharmaceuticals and the instrument sectors were lagging behind in terms of expenditure as were the food, drink and tobacco industries. (See Table 4.6)

⁹³ Forfas, (2001), Op Cit, Chapter 2. P.7.

⁹⁴ Forfas, (1999), **Research and Development in the Business Sector 1999**, Chapter 1: Total Business Expenditure on R and D, p.3.

**Research & Development as % of Industrial Output by Sector
and OECD Averages as % of Industrial Output by Sector**

Table 4.6.⁹⁵

Even though spending on R and D had fallen in foreign firms there was significant increase in the number of indigenous firms spending over 1.3 million Euros per annum. This represented just 25 companies in 1997 to 43 companies in 1999. (See Table 4.7) Forfas have always argued that most economic analysis pointed strongly towards a close relation between R and D and

⁹⁵ Forfas, 1999, Op Cit., Chapter 2, p.1.

economic growth. This situation could only be rectified by a dramatic increase in business expenditure in R and D (BERD) in the future.

**Business Expenditure on R & D by Irish-Owned
and Foreign-Owned for Years 1997 & 1999**

Table 4.7 ⁹⁶

IDA

The IDA however can claim that their 1,278 supported companies now make a greater contribution to the local economies where they are located than they have in the past. This evident from increased spending by MNEs on labour, indigenous raw materials and services. (See Table 4.8)below. This increasing value that is retained in the economy has, it is argued, generated much downstream employment particularly in the service sectors of the economy.

⁹⁶ Ibid, p.2.

Irish Economy Expenditure in Millions (Euros) of IDA Supported Firms

Table 4.8.

The IDA have also included in their figures for client companies that are involved in the international and financial services sector. This sector accounts for 41,661 of the total number of 141,258 that are employed in IDA supported companies. (See Table 4.9) Even though these cannot be included in the total figures for manufacturing industry they do represent a significant development in the economy as many of the jobs would tend to be ones requiring quite high-powered and well-qualified and highly-skilled individuals.

Total Employment by Sector of IDA Supported Companies

Table 4.9.⁹⁸

The IDA have been highly effective in generating new employment opportunities through their efforts in attracting DFI to Ireland. The IDA have generated 24,700 new jobs in 2000 which is

⁹⁷ Forfas, (2000), **IEE Survey 2000.**

⁹⁸ IDA, (2000), **IDA Annual Report 2000.**

the highest amount in a single year ever achieved. The number of companies the IDA have supported and the amount of people that have full-time employment has increased continuously since 1991.

The IDA point out that an increasing number of their client companies have developed a wider range of strategic corporate functions beyond those of their initial mandate. These include areas such as R and D, technical support, software development, e-business functions, customer support, logistics and shared.

Part 2

The Role of Indigenous Manufacturing In the Irish Economy from Telesis to the Present.

Introduction

This section will examine the development of the indigenous manufacturing sector during the period from the publication of The Telesis Report in 1982 to the year 2000. Telesis was a 'watershed' in economic policy development because it represented the first thorough economic examination of the Irish economy. The section will attempt to examine not only as to how far the recommendations of the Telesis organisation were adhered to and acted upon, but also to ascertain if and how subsequent policy recommendations were carried out by Ireland's development agencies. Policy measures therefore will be considered as to whether a solid base has been established on to which a sustainable indigenous industrial sector can contribute to long-term economic growth and higher living standards in Ireland. The emphasis for economic policy in Ireland has centred around the importance of manufacturing. It is believed that the growth and development of manufacturing industry will have spinoff effects which will benefit the economy as a whole and not just those directly involved in manufacturing. If in the course of manufacturing development, labour, technology and entrepreneurial and management skills are enhanced this will have a spillover effect on other companies in the same environment. Sub-

supply firms may also be established to feed the production process as may other locally supplied goods and services directly benefit from any development.⁹⁹

The section will examine policy measures subsequent to Telesis to ascertain how and to what extent its findings were acted upon. It is my intention to make a comparison of the level of development of the indigenous sector as it stands at present, to what it was at the time of Telesis. This will be based on my findings and those contemporary studies that might also prove to be relevant. These will, of course, be considered in the light of the current economic situation. Ultimately, this appraisal of the current state of indigenous manufacturing, will be considered in the light of the main theories of industrialisation, that I have focussed upon, particularly Amsden's model of late-industrialisation. Does it possibly provide insights into the current state of indigenous manufacturing or the direction in which industrialisation might lead in forthcoming years?

Policy Developments After Telesis

The White Paper on industry in 1984 was a direct response to the recommendations made by Telesis. It recognised what Telesis had said about the state of indigenous industry:

- management weaknesses and the lack of research and development;
- the increasing loss by Irish industry of its share of the home-market;
- the failure to diversify their exports beyond the UK market;
- the fact that most existing Irish products do not have a dominant position in international markets;
- a lack of commercial and educational links between foreign industry and Irish firms¹⁰⁰

There was some emphasis on developing the indigenous sector but only as part of the general plan to enhance all aspects of the economy. Greater selectivity would be applied in attracting

⁹⁹ Smith, S.C., (1991), **Economic Policy in Developing Countries: Reconsidering The Real Forces of Export-Led Growth**, Economic Policy Institute, Washington D.C., pp.119/120.

¹⁰⁰ Government White Paper, (1984) **Industrial Policy**, Dublin:Stationery Office, 9-14

foreign firms but there was nothing to suggest that policy would move away from its heavy reliance on DFI. This line of action was most probably dictated by the persistence of high unemployment. The government put forward their policy objectives:

- to create and maintain the maximum number of sustainable jobs in manufacturing and international services;
- to maximise the value-added element in industry and to retain the wealth created for further employment-creating investment;
- to develop a strong, internationally competitive industrial sector in Ireland, made up of both Irish and foreign firms;
- to promote the rapid development of natural resource-based industries;
- to integrate foreign industry into the Irish economy through greater linkage with Irish industry and educational institutions; and to improve the rate of return in the commercial state companies¹⁰¹.

Since the publication of the White Paper on Industrial Policy in 1984 there have been many changes in the overall content of industrial policy among these the introduction of new programmes, grant schemes and other policy resources. Many of the measures are outlined in Industrial Policy (1984) which were incorporated in the Industrial Development Act of 1986 and the reports of the Department for Industry and Commerce 1987 and 1990. Some of the immediate measures to boost manufacturing growth in the indigenous sector following on from this, were manifest in the following developments.

The setting up of **The Company Development Programme(CDP)** became a central part of the IDA's operations in 1985. In association with other industry agencies such as SFADCO, CTT and IIRS/Eolas, its objective was to work mainly with selected indigenous companies in order to assist in their identification and implementation of strategic development plans. It was a medium to long-term strategy for indigenous firms with a good growth potential in order that they might be able to compete more effectively internationally. It was hoped that it could cope

¹⁰¹ Ibid., p108

with up to 40 companies at a time. Firms were put in contact with a team of experts who could advise as to growth objectives, point out market opportunities whilst appraising the strengths and weaknesses so that a more effective development plan could be formulated.

The National Linkage Programme (NLP) was set up with its main objectives being to develop a strong base of sub-supply companies by fostering links between DFIs and indigenous companies. Agencies such as the IDA, Eolas/IIRS, Anco/Fas, SFADCO, Udaras na Gealtachta and CTT/An Bord Trachtala were all to be involved in its establishment and operation.

Using selectively on a company by company basis the organisation attempted to overcome by technical, economy of scale or operational obstacles that might impede the sub-supply business. It would also look at any reservation that overseas companies might have in relation to purchasing from previously unused local suppliers. The NLP was an attempt therefore to enhance the objectives of introducing greater selectivity in developing indigenous industry while at the same time extracting a greater contribution from the DFI already operating in Ireland.

Under **The Small Industries Programme (SIP)** the IDAs which was established in 1985, grant awards become even more carefully selective. The companies involved had to have operations which focussed on internationally tradeable activities and would not enjoy support if its activities endangered or hindered the employment potential in other indigenous firms.

A commitment to a long-term development strategy was the criterion by which greater state aid would be advanced to selective companies. Within the Department of Industry and Commerce a new subsection was created called the **Office of Trade and Marketing**. From it stemmed new guidelines for the CTT to primarily focus on the marketing deficiencies of indigenous industry and secondly to make itself more financially independent and self-financing by insisting that any financial assistance given would be repayable by levies on future export sales which emanated directly from the assistance rendered. The CTT was to have greater resources to deal with the problems of market entry and development, market research, group marketing for small exporters, and to assist in enhancing marketing strength and the export of services.

A **Special Trading House Scheme** was set up in 1987 with the intention of creating new specialised marketing companies which would carry out the role of marketing Irish made

products abroad. This was intended particularly for smaller firms with a relatively weak capacity to enter export markets. The scheme's main incentive was a 10% corporation tax to those firms that were approved under the scheme.

On top of these innovations there was **The Marketing Consultancy Programme** which gave selected firms access to the services and expertise of a marketing consultant with a view to formulating a market development plan.

The Science and Technology Development Programme

A new **Minister for Science and Technology** was appointed to head a new office of Science and technology with the Department of Industry and Commerce. As part of the Science and technology Act of 1987 the amalgamation of the NBST (the National Board of Science and Technology) and the IIRS came to form EOLAS. Under the Science and Technology Development Programme introduced in the same year, various measures, each receiving a greater proportion of the state industrial development budget, were introduced. These were all attempts to address the weaknesses of indigenous industry.

'Centres of excellence' in selected science and technology fields were proposed under the 'Capital Investment in Technology Infrastructure Programmes'. Industry would be able to call upon them for R + D purposes or pursue programmes in advance technology within third level institutions of education. Also under the Science and Technology Development programme was the 'Skills Base Investment: whereby there would be science and technology personnel sent to selected companies; scholarships would be granted for applied research of industrial relevance; and additional support for graduate training programmes in areas where there was a need identified. EOLAS would provide firms with testing and certification services and technical consultancy. Since 1989, under the auspices of Eolas, **full technology audits** have been offered to companies at greatly subsidised cost. The 'technology audits' examined the existing technology employed by the firm with a view to developing a plan for the more advanced and effective use of manufacturing techniques and equipment in the long-term.

The Business Partnership Programme involved the IDA in helping indigenous companies to develop useful partnerships with other firms through licensing agreements, technical co-operation or joint ventures.

The White Paper on Industrial Policy in 1984 had suggested that there was too much diffusion of industrial policy in the economy. The Department of Industry and Commerce would now be asked to play a more leading role in overseeing policy formulation and evaluation. Because of the array of the development agencies involved it was felt that the rationalisation and merging of some agencies should take place. The most important decision emanating from it was that the Industrial Development Authority (IDA) split into separate departments -- one for the promotion of overseas industry in Ireland and the other for the development of indigenous manufacturing industry.

The White Paper had also recommended that sectoral strategies should also be put in place.¹⁰² These strategies were to build upon the work of the Sectoral Development Committee (SDC) which had already studied certain sectors of industry. Subsequent reports were made for industries such as Electronics, chemicals, textiles and clothing, plastics, mechanical engineering and food processing. Some strategies were devised from these reports but some of the reports themselves became strategy documents. The intention behind the sectoral strategies was to build upon whatever competitive advantage existed and to direct the support of the relevant development agencies in a way, that would bring about positive results, through identifying business opportunities for companies and by facilitating the exploitation of these opportunities. The subject of the identification of specific sectors i.e., toolmaking, automotive components, mechanical engineering and clothing was also referred to in The Programme for National Recovery in 1987¹⁰³.

The Programme for National Recovery was a tripartite agreement between the unions, employers associations and the government between 1987 and 1990 which brought to an end five years of decentralised bargaining. It represented a consensual attempt to get out of a dire economic situation based on a social partnership.¹⁰⁴

¹⁰² White Paper, (1984) Op cit., p104.

¹⁰³ O'Malley, E., (1992), Problems of Industrialisation in Ireland, in **The Development of Industrial Society in Ireland**, Edited by Goldthorpe, J.H. and Whelan, C.T., Published for The British Academy by Oxford University Press, p44.

¹⁰⁴ Roche, W.K., (1992), The Liberal Theory of Industrialisation and the Development of Industrial Relations, in **The Development of Industrial Society in Ireland**, Edited by Goldthorpe, J.H. and Whelan, C.T.,

The Impact of the Industrial Development Agencies Report (1992) claimed that not only did grant assisted industries make a more positive contribution but also that grant-assisted firms had a much better employment record than non-assisted firms¹⁰⁵. The authors of the report, state the case clearly for the importance of manufacturing to government industrial development strategies in Ireland. They reiterated what Telesis had found i.e., that manufacturing plays a pivotal role in economic development but that manufacturing, particularly indigenous manufacturing, remained relatively underdeveloped in Ireland. It also stated that manufacturing would not develop adequately in Ireland without specific industrial policy resources¹⁰⁶

A Time for Change: Industrial Policy for the 1990s which was published in January 1992, was a report by the Industrial Policy Review Group under the guidance its Chairperson, Mr Jim Culliton with whose name it has become synonymous. The report was critical of the overall policy of grant-assistance concluding that there was too little analysis of the cost effectiveness of the programme¹⁰⁷. It also suggested the policy may not have been as effective as has sometimes been suggested. Some of the aspirations included in the report were that enclave-type production would become less of a feature of the economy through the greater promotion of better economic linkages. The report advocated a change in direction from the still already relatively new idea of 'picking winners' to one where the promotion of 'clusters of firms in niches of national competitive advantage' would take precedence. The new emphasis would be on enhancing productivity levels through the development of a more continental type of technical education. Management training would also be improved and there would be more emphasis on marketing and technology consultancy. All of the above would be supported by a 'stable macro economy' and the overall success of the strategy would be 'measured by its ability to address the unemployment crises'.¹⁰⁸

Published for The British Academy by Oxford University Press.

¹⁰⁵ Ibid., pp88/89

¹⁰⁶ Ibid, p115

¹⁰⁷ Culliton, J. (1992) **A Time for Change: Industrial Policy for the 1990's** (A Report to the Industrial Policy Review Group), Dublin, p61

¹⁰⁸ Culliton, J., (1992), Op Cit., pp23/24.

The Culliton Report represented yet another comprehensive view of industrial policy in that it outlined the state of every aspect of the economy and offered a list of objectives to be achieved as regards each of those aspects. But it was different in that it pointed towards the structural limitations which hindered the competitiveness of indigenous industrial sector. One of its main propositions was for a specific agency to cater for development and promotion of native manufacturing. The report also recommended that companies whose type of manufacturing profitability might be considered potentially risky to high-street financial institutions should be given some sort of governmental aid. Also, that there should be more use of equity in place of the typical non-repayable grant.

But despite the well-intentioned recommendations the report did not make it clear whether these clusters of competitive advantage were to exploit already existing competitive advantage or whether the competitive advantage had to newly created.¹⁰⁹ The government acted upon the initial recommendations, and under the Industrial Development Act of 1993 the Industrial Development Authority was subdivided into the Industrial Development Agency which concentrated on the promotion and development of overseas direct foreign investment in Ireland and Forbairt, the agency which would now be responsible for indigenous company development. The government also declared its intention of acting on more of Culliton's recommendations such as increased expenditure on roads, ports and in providing better postal and telecommunications services in general.¹¹⁰

One might have come to the conclusion that the Culliton report offered greater direction for the development agencies but not only did the report not make clear how companies might be selected but neither did it spell out whether it was within the capabilities of the development agencies to play an effective role in the development of strong Irish companies. An underlying theme of the report was that firms would continue to receive support but firms would not be cosseted.

The Culliton Report recommended an increase in Research and Development and the promotion

¹⁰⁹ O' Sullivan, M. (1995), Manufacturing and Global Competition, in **The Economy of Ireland : Policy and Performance of a Small European Country**, Edited by O'Hagan, J.W., Gill & Macmillan, p372.

¹¹⁰ Culliton, J. (1992), *op. cit.*, p71.

of a better use of technology within the Irish economy. The government's response was a 'conservative' one in that it tried to increase the technological capability of indigenous industry through yet another re-direction of grants towards investment in R& D and technology acquisition.

But as with previous reports, Culliton's objectives may have been desirable but there was no apparent understanding of why these rather obvious aims had not achieved in the past. The context in which policy/policies are implemented and the difficulties in achieving policy aims do not seem to have been recognised.

The foundation of **Enterprise Ireland** represents the state's latest attempt at intervening in the economy in an effort to stimulate the indigenous manufacturing sector. With an annual budget of £120 million a new larger development agency was set-up in July 1998 in a new policy shift and under a different structure. Enterprise Ireland was made up from the relatively recently formed indigenous development agency Forbairt, An Bord Trachtala (The Trade Board) and that part of FAS (The creation of FAS was another response to Culliton.) which includes its industrial training division. It was intended that the organisation be a one-stop shop to encourage indigenous business whether it is a manufacturing company or an internationally traded service. Enterprise Ireland sets out its objectives as follows:

- create profitable new fast growth businesses
- increase the number of companies exporting
- deepen the overseas marketing presence of Irish companies
- enhance research and development capability and investment
- build higher skills capability
- boost competitiveness across all business functions.¹¹¹

The organisation therefore offers assistance across the key business function of business including; planning and information, research, development and design, production and operation, marketing & business development, human resource development and finance for growth. When indigenous companies apply to Enterprise Ireland for assistance they are assigned a Development Officer to help the company pursue its development plan. According to the

¹¹¹ Enterprise Ireland (2001), **Enterprise Ireland** Official Publications.

agency's first end of year statement, indigenous Irish firms who had been supported by Enterprise Ireland, achieved total sales of £18 billion in 1998, a 10% increase on the previous year. Export sales for these companies were estimated to be £8.1 billion of the total or 43% of total sales. Enterprise Ireland has produced figures that include data from its predecessor, Forfas, which help to gauge the level of success that indigenous job creation has actually achieved. (see Table 4.10)

The state sponsored body gave a very optimistic End of Year Statement (2000) in January 2001. It could claim that sales for indigenous companies were up from the previous year by 7% to IR£21 billion. Equally positive was the fact that exports were up 6% to IR£10 billion. It was claimed that 57 new high growth companies were established and that there were 82 companies that had exported for the first time. 66 companies had established an overseas presence and 240 new major investment projects had been agreed. But of the 16,500 new jobs created there was only a net increase of 6,300 jobs. As part of its remit, the organisation had managed to involve over 500 companies in over 30 trade missions abroad while at the same time it had encouraged 2,500 international buyers to develop supply partnerships with Irish companies.¹¹²

Table 4.10

Employment Gains, Losses and Net Change for Years 1991-2000

Source: **Enterprise Ireland 2001**

If the above figures are examined carefully then the 10 year period between 1991 and 2000 saw a net gain of 29,645 jobs. If the net losses are taken away then the absolute gain has only been 26,091 which only gives an average of 2,609 jobs created per year in the indigenous sector.

¹¹² Enterprise Ireland, End of Year Statement, 2000, **Enterprise Ireland Official Publications.**

Recent Corroborative Analyses of the Lack of Indigenous Manufacturing Development

One area of indigenous manufacturing growth singled out for praise has been the software industry. While adding similar praise, Coe (1997), admitted that the linkages being developed by foreign software companies represented a more dependent model of development. Even though some of the support companies had progressed technologically through trading abroad to some degree they were found to be still involved in what Coe terms as 'dependent subcontract relationships'.¹¹³ Furthermore, he doubted the long-term viability of the software industry in Ireland because he argued that software as well as software upgrades will be purchased and distributed over the internet in a few years time negating any need for employing people in Ireland at the level at which is taking place now.

Breathnach (1998) claimed that some of the recent recovery for indigenous industry between 1987 and 1995 could be attributable to the proliferation of MNCs establishing branch plants in the Republic and their demand for locally produced goods. In that period indigenous industrial employment grew by 12 per cent while output rose to 19 per cent during the period between 1988 and 1994. Another reason that Breathnach cites for the success, was that the Irish firms that had survived the exposure to outside competition since the economy opened up in 1958, are more streamlined and able to compete with imported products. The positive response of many indigenous firms to the establishment of the European Single Market is also given as an explanation for the apparent recovery of the indigenous manufacturing sector.¹¹⁴

O'Malley (1998) contended that it was policy measures instituted since the mid 1980s, particularly in relation to the development agencies more hands-on approach towards indigenous industrial firms that has brought a turnaround in the fortunes of the indigenous sector.¹¹⁵ Barry also pointed to some of the indigenous industry's success which could be, he claimed,

¹¹³ Coe, N., (1997), **US Transnationals and The Irish Software Industry: Assessing The Nature, Quality and Stability of a New Wave of Foreign Direct Investment**, European Urban and Regional Studies, vol 4 (3), p226.

¹¹⁴ Breathnach, P., (1998), **Exploring the 'Celtic Tiger' Phenomenon: Causes and Consequences of Ireland's Economic Miracle**, European Urban and Regional Studies, Vol 5 (4) p. 312.

¹¹⁵ O'Malley, E., (1998), **The Revival of Irish Indigenous Industry 1987-1997**, Quarterly Economic Commentary, April 1998, ESRI, Dublin, pp. 35-62.

attributable to companies 'successful move into niche markets'.¹¹⁶ But Barry admitted that the that 'it is difficult to identify unequivocal examples of strong indigenous manufacturing sectors'. Indigenous industry therefore was 'under represented in the increasing returns sectors of manufacturing industry'.¹¹⁷ Kinsella and Mc Brierty (1998) contend that policy makers tend only to look at the short-term and tend to overlook the short, medium and long-term requirements of indigenous firms.¹¹⁸

Despite the optimism about the recent success of the Irish economy there are those who believe that it is merely a false dawn. O'Sullivan (2000) claims that indigenous industry has hardly 'broken free of its historical pattern' of development. O'Sullivan argues that sustainable indigenous industrial development can only come about when the productive resources are used to generate higher quality innovation. She argues this was not the case in the recent revival in the fortunes of indigenous industry. This was seen by O'Sullivan as a short-term phenomenon and could just be due to the expansion of the domestic market through the multiplier effect of EU funding and greater Direct Foreign Investment. O'Sullivan pointed to the continued dependence of indigenous industry on the domestic market which remained at 60 percent.¹¹⁹

It is generally accepted among commentators in Ireland that if Irish industry is to develop to the degree that has occurred in the advanced capitalist nations, then the whole contemporary nature and environment of Research and Development would have to be improved radically. Irish expenditure on R and D was low by comparison to other industrialised countries.

¹¹⁶ Barry, F., (1999), **Understanding Ireland's Economic Growth**, Macmillan, London, p. 55.

¹¹⁷ Ibid, p 67.

¹¹⁸ Kinsella, R. and McBrierty, J., (1998), **Ireland and The Knowledge Economy, The New Techno-Academic Paradigm**, Oak Tree Press, p.31.

¹¹⁹ O'Sullivan, M. (2000), **Debates and Surveys: The Sustainability of Industrial Developments in Ireland**, Edited by Danson, M.W. , in **Regional Studies**, Vol.34.3, p278.

Table 4.11

Expenditure on Research and Development as % of GDP

¹²⁰ Source: **The Scientific Foundation of Ireland.**

One third of this expenditure for 1997 (total IR£535) represented expenditure by indigenous companies. The remainder was made up by overseas companies. Significant expenditure by native companies was 19% in the electronics industry, 18% in the software industry and 18% for the food industry.¹²¹

Denis O'Hearn (1998) is one of the most vocal critics of what he perceives to be the myth of the 'Celtic Tiger'. Economic growth for O'Hearn has been dominated by MNC growth while employment growth has been dominated by service industry growth.¹²² O'Hearn, like Amsden argues that the South East Asian economies have succeeded by interfering with the market mechanism to deliberately get prices wrong but doubts that EU rules would not allow for the Irish government to intervene in the Irish economy in the same way to bring about the development of indigenous industry.¹²³

Despite all the exuberance of Sweeney's account of the state of the Irish economy, (see Chapter 1) he admitted that the small size and nature of indigenous manufacturing industry was rather worrying. No clear outline was given by the author as to why he was so concerned.¹²⁴ Therefore, like many enthusiastic commentators on the subject of Ireland's recent economic success, Sweeney extols the virtues of the high-tech modern sector (foreign sector) and its positive effects

¹²⁰ Science Foundation of Ireland (2001).

¹²¹ Ibid.

¹²² Ibid, pp.155/156.

¹²³ Ibid, p11.

¹²⁴ Sweeney, P., (1998), **The Celtic Tiger, Ireland's Economic Miracle Explained**, Oak Tree Press, Dublin, p. 124.

while only briefly pointing out the weaknesses of the indigenous sector and offering no solution as to how the situation could be rectified.

Amsden, O'Malley, Late-Industrialisation and The Development of Indigenous Industry in Ireland

Conventional neo-classical economics suggests that it is the free operation of markets that leads to the efficient and rational use of the production resources of capital and labour. Markets operate efficiently through competition which necessitates producers to produce in an efficient way in order to prolong their existence and make a profit. There is also an underlying assumption that there are many operators in any given industry, all of whom compete without any foregoing advantage over their rivals being present.

Market economies likewise will function efficiently well enough to allow their productive forces to be fully occupied. If unemployment occurs then it is because of some interference in the market mechanism. The interference could, it is argued by proponents of neo-classical economics, come from a government that is over zealous in its involvement in the running of the economy, running up public debt and not doing enough to control inflationary pressures such as overly high wage demands from the trade unions.

The General Equilibrium Theory which underlies this belief rests upon two theorems which are deemed fundamental to it. The first is that social welfare in the broader sense is maximised through unfettered markets and that secondly any required pattern of allocation can be achieved in the same way. Within these two basic tenets are contained the assumption that markets are perfectly competitive, there are no externalities, no public goods, no economics of scale in production and that all sectors have access to the same knowledge. The assumptions underlying neo-classical theory in general and General Equilibrium Theory in particular have had many critics. Hahn (1973) argued that in the process of showing the unrealistic assumptions underlying the theory, adherents of the theory have exposed why the theory cannot be right in its prediction¹²⁵.

¹²⁵ Hahn, F. H. (1973), *On the Notion of Equilibrium in Economics*, Cambridge University Press

'Market failures' or imperfections arise when competitive markets fail to produce the optimal outcomes. This implied a belief that such imperfections are exceptional in the operation of free market economics. Krugman (1986) wrote, 'In reality, however, it may be that imperfections are the rule rather than the exceptions.'¹²⁶

The conventional neo-classical economic wisdom on underdevelopment presupposes that there must exist an anti free-market 'distortive' influence in the particular underdeveloped country as, the world economy, which is firmly based on these principles is relatively free of such hindrances. Once the negative influence within the underdeveloped country is identified it can be removed so that a particular country can develop properly along 'conventional' neo-classical lines. A poor rate of savings due to poverty and inadequate education system and a rapid population growth which reduce average incomes have, often been cited as serious barriers hindering development.

Ireland on the contrary, O'Malley argued, does not fit this conventional description. He stated,

'Most of the conditions which are put forward as the conventional explanation of underdevelopment either do not exist or are not very severe in Ireland - i.e. conditions such as 'traditional' attitudes and a lack of enterprise, capital shortage, poor education, political instability or a poor infrastructure.'¹²⁷

O'Malley therefore, rejected neo-classical economic doctrine and argues that a different approach be applied in analysing development of Irish industrialisation. O'Malley has always argued for direct government intervention in order to stimulate the development of a strong indigenous manufacturing base. According to O'Malley Ireland was in a good position relative to others as it has a 'relatively strong administration and educational structure, its access to major EC (EU) markets combined with the prospects for EC (EU) structural development assistance, and also its small size. Its small size means that successful development of relatively few specialised industries would be sufficient.'¹²⁸

¹²⁶ Krugman, P., (1986) *New Thinking About Trade Policy*, in Krugman, P. (Ed) **Strategic Trade Policy and The New International Economics**, Cambridge, Massachusetts: MIT Press, p12

¹²⁷ O'Malley, E. (1989) *op. cit.*, p6.

¹²⁸ *Ibid.* p266

Why should the Irish government be concerned about policy issues relating to industrial development? Why have an industrial policy in the first place? The primary object of government in pursuing an industrial policy is to ensure that industrial enterprises perform to a sufficient degree so that it can enhance industrial development in general and increase its contribution to the economy. Governments can also influence industry with policies that affect the economic environment such as taxation, interest rates, controlling pay bargaining and exchange rates: Industry is also affected by the administration of structural charges such as transport and communications etc.¹²⁹

Structural policies tend to be characterised by the concentration on areas of the economy where the market has failed in some way so that productivity can be improved as well as the competitiveness of the economy. Governments can enhance the quality of the labour force by educating and increasing the skill level which should result in higher productivity in the industrial sector. By investing in a better quality of road network infrastructure the government helps to reduce the cost of transport for exporting companies thereby improving competitiveness on foreign markets.

Indigenous industrial development is the most important issue involving manufacturing development as it is only through it, that the problem of long-term employment growth can be tackled. The Irish government has used the subsidy as its main policy tool. The subsidy described here should be understood to have the same meaning as that employed by Amsden (see Chapter 3) which interprets the subsidy and the use of the subsidy as being all the resources that the state utilises in bringing about industrialisation. In Ireland the subsidy has mainly taken the form of direct grant aid or tax incentives. The subsidy therefore, is that set of measures which relate to the influence brought to bear on industrial firms which help them to develop and thereby increasing their overall contribution to the economic growth of the economy. The main form of subsidy used in the course of Irish economic development policy has been the grant. These are much sought after as it is grant assistance provided to companies at terms and conditions that are much more favourable than standard financial markets would offer. Generally the subsidy or government expenditure on the promotion of industrial development, can be seen to comprise

¹²⁹

O'Malley, E., Kennedy, K. A. and O'Donnell, R. (1992), **The Impact of the Industrial Development Agencies: A Report by The Economic and Social Research Institute to the Industrial Policy Review Group**, p114

of five main categories: grants, advisory services, provision of industrial property, associated administration costs and the cost of tax relief¹³⁰

O'Malley looked at the problem of late-industrialisation in the Republic of Ireland. Using a similar framework to Amsden he looks at the Republic of Ireland's most recent attempts to industrialise and whether a neo-classical theory with outward-looking policies and a heavy dependence on free-market forces has led to industrial objectives being realised.¹³¹ It is specifically to this subject that I will now turn my attention.

Referring to Allen's study of Japanese industrial policy O'Malley therefore, argued for a different approach to Ireland's industrial strategy. His aspiration was for a policy that identified select firms in select industries, which the state would nurture through their teething stage by protecting them from competition until such time that they became competitive and thereafter allow them compete with outside firms. The firms selected for such treatment would be chosen through 'careful analysis of the scientific requirements for competitive success.....together with a realistic assessment of the potential.....specialised by product, customer, geographical area or a combination of these'.¹³²

O' Malley therefore rejected Ireland's outward-looking free-market industrial policy strategy that became so reliant on attracting direct foreign investment in order to enhance manufacturing and hence economic growth and development. The basis of O'Malley's rejection of the strategy was that the industrial strategy which was employed by the state from 1958 to the time of publication (1986) had clearly failed indigenous industry. Irish manufacturing was, according to O'Malley, low-key, small-scale, untraded and had in his opinion, enormous barriers to entry to overcome if were to expand their businesses by competing and trading overseas.¹³³ In a later, more in-depth

¹³⁰ A Report by The Economic and Social Research Institute to the Industrial Policy Review Group (1992) **The Impact of the Industrial Development Agencies**, Dublin, pp25/26

¹³¹ O'Malley, E. (1985), "The Problems of Late Industrialisation and the Experience of the Republic of Ireland", **Cambridge Journal of Economics**, 9, pp. 141-154.

¹³² Ibid, p153.

¹³³ Ibid, p.152.

study, O'Malley(1989) also calls for the recognition of the selective interventionist elements of the industrial strategies of countries like Japan and South Korea. ¹³⁴

The general theme of his analysis is the many obstacles that late-industrialisers have to face. These are referred to as the barriers to entry. They represent the opposite to all the advantages that the already established firms at the core, experience. The barriers therefore, represent the disadvantages that firms in late-industrialising countries have to overcome if they are to compete successfully internationally. Late-industrialisers have to face the problems of economies of scale in production, the long-term marketing strategies of the larger more established firms, the technological expertise and experience of existing firms and raising sufficient capital to initiate an attempt to compete with the above. ¹³⁵

O'Malley's own study showed that the period of protection had led to substantial industrial development but that this had taken place in a protected home market. ¹³⁶ Later when protection was removed (1958) it was the industries in the exposed sectors such as textiles, clothing and footwear and chemicals that suffered most from competition. ¹³⁷ He added that even though the trade figures for indigenous industry were maintained until the 1980s, it hid the fact that much of it was actually in sheltered manufacturing providing for the home market. ¹³⁸

For O'Malley the weak representation of indigenous industries in industries such as metals, motor vehicles and transport equipment, electronics, mechanical engineering and instrument manufacture was indicative of the limited progress that had been made since the removal of protection. These were the very types of industries that have significant economies of scale in the advanced economies of the world. Therefore, he argued that the 'upward diversification' of industry that was meant to have taken place with the opening up of the economy, had actually

¹³⁴ O'Malley, E., (1986), **Industry and Economic Development: The Challenge for the Latecomer**, Gill and Macmillan, p.6.

¹³⁵ Ibid, pp.11-18.

¹³⁶ Ibid, p. 115.

¹³⁷ Ibid, pp.124,125.

¹³⁸ Ibid, p.127.

led to the opposite.¹³⁹ It inspired O'Malley to refer to the structural composition of indigenous industry 'as little more advanced than that of many LDCs or NICs'.¹⁴⁰ Indigenous industry therefore was not technologically advanced and O'Malley thought it unlikely that native firms would become involved in this area.. This conclusion was based on his analysis of the top 100 companies that were in the main involved in sheltered, non-traded basic low value-added activities. The author also claimed that most of the activities could be easily entered.¹⁴¹

Amsden follows in the tradition of List and Gerschenkron in her insistence on the importance of studying each individual state to ascertain how their historical conditions have determined the level of their respective industrialisation processes. Amsden argues that even though every country has country-specific conditions, countries can set themselves on their own paths to successful industrialisation through the effective use of subsidy. This flies in the face of the neo-classical view of how countries successfully industrialise. It is therefore, a model that advocates a strong and active role for state intervention through the use of the subsidy to deliberately get prices wrong in market terms. On the basis of my own findings as to the current lack of development of indigenous industry I would have to subscribe to Amsden's views on late-industrialisation.

Conclusion

Peripheral Fordism provides a useful framework in which to explain why firms were obliged to move abroad to re-establish profitability. Neo-Fordism explains how Fordist work practices were re-formulated through a greater use of computerisation to enable the production process to continue from a location that was geographically distant from the centre where the headquarters of the company's overall operation was located.

Peripheral Fordism in general therefore, is useful to the extent that it gives an important historical perspective to the development of how DFI became such an important feature of the Irish economy. The fact that the IDA has become such an effective organisation at attracting DFI

¹³⁹ Ibid, p.153.

¹⁴⁰ Ibid, p.154.

¹⁴¹ Ibid, p.149.

to Ireland and the continuation of low corporation tax as well as the fine array of grants, help to explain the extent to which the level of DFI has continued at such high levels for so long.

But in terms of fostering the growth of indigenous industry, DFI can only have limited potential. The main arguments against the proliferation of DFI is that it distorts the economy and the nature of development in less developed economies. This is perceived as dependent development and characterised by the creation of branch plant economies which are incapable of stimulating more lasting development. The branch plants exist as enclaves and use capital intensive production techniques which are inappropriate to the industrial needs of the host economy. MNEs guard their technologies carefully, repatriate as much of their profits as they can through transfer pricing and have a detrimental effect on the entrepreneurial skills of the host economy.

Therefore knowing how and why MNEs operate the way they do, it should be clear for Irish policy-makers that relying on DFI to somehow engender an indigenous manufacturing base is not really an option for a country that claims it is determined to make its economy's structure resemble something akin to that of its wealthier partners within the EU. Either the Irish state recognises the fact that this type of DFI can only continue the type of dependent development that exists now, or this recent period of growth will prove to have been a major exercise in national self-delusion.

The subsidy, i.e., Amsden's broader definition of the subsidy, which is all the resources that the late-industrialiser employs in bringing about industrialisation, has therefore also been used by Ireland to try and promote its industrialisation. The policy of attracting direct foreign investment to Ireland therefore, has constituted a major part of Ireland's 'industrialisation' promotion strategy since the 1960s and as such represents a large proportion of the subsidy that Ireland has used. But the role of DFI in Ireland contrasts radically to Amsden's analysis of how the South Korean government used foreign companies in joint ventures in the early years of its comprehensive industrialisation process. (see Chapter 3)

In relation to Amsden's model of late-industrialisation therefore, the question has to be asked as to how effective that use of subsidy has been in the promotion of industrialisation. If that the long-term objective of developing a strong traded indigenous manufacturing base has not been achieved then the use to which Ireland has employed its subsidy as a late-industrialiser has failed

in relation to this vital sector of the economy.

Chapter 5

Empirical Results and Conclusions: Assessing the Level of Industrial Progress

Introduction

The primary objective of the fieldwork is to examine whether or not the Irish state has managed to create an industrial base capable of developing an enhanced capacity for sustained indigenous industrial growth. The main focus of the research is indigenous industry but it is also concerned with determining what part if any DFI has contributed or is likely to contribute to that aim. My findings will be compared with Telesis' findings and those contained within some of the recent literature on Irish industrialisation to ascertain the degree to which industrialisation has progressed since its publication.

The chapter will be divided into two parts. The first part will be based on a survey which was carried out in 1996/97 on multinational enterprises (MNEs) that have set-up operations in Ireland of which there were 725 in total by the end of 1995.¹ The questions in the survey were designed to illicit information that could provide a good overall picture of what motivated them to establish in Ireland, the relative importance of the development agencies (henceforth DAs²) and to what extent they might be expected to contribute to long-term industrialisation. Therefore the efficacy of the whole policy of attracting DFI will be considered.

The second part of the chapter will focus on the development of the indigenous sector. More specifically the fieldwork undertaken was an attempt to determine the state of indigenous industrial development, particularly as to the relative size of the companies concerned, the degree to which they traded abroad and their potential for growth for the future. This fieldwork was also based on a survey which was carried out in 1995/1996 in Ireland. In 1995 there were 3,879 indigenous manufacturing plants in Ireland³. And as with the with the survey above, the

¹ Census of Industrial Production (1995)

² The development agencies in general are denoted as DAs, and not to be confused with the IDA (The Industrial Development Authority), which is one specific, even though highly important, development agency.

³ Census of Industrial Production (1995)

findings will be looked at in the light of other contemporary studies of the indigenous sector from the previous chapter.⁴

THE SAMPLE SELECTION AND TESTS AND PROCEDURES

Both surveys were based on samples that were chosen from the Kompass Directory of Companies in Ireland. The Kompass directory was assumed to represent a comprehensive list of companies in Ireland, for the years in question. The Kompass Directory was chosen as it was believed that it provided the most comprehensive and up-to-date listings of companies in Ireland. This was based on advice received from employees in Government departments and the development agencies

Later, after having carried out the surveys it was suggested that perhaps the choice of Kompass had not been the correct one in the first place. Moreover, it was suggested that Kompass would only have had a limited listing of companies and that furthermore it was also suggested that perhaps The Kompass Directory had a bias towards smaller firms anyway. Whatever conclusions therefore, that might be drawn from surveys that were selected from such a directory, might on the one hand be limited in the sense that it only represented part of the overall population of companies in Ireland and on the other, have a bias towards smaller-sized companies. If the limitations of the Kompass Directory as outlined above were true, then this would limit the effectiveness of any conclusions emanating from the surveys.

A possible alternative source to The Kompass Directory that might have been employed instead, was suggested, this was the Central Statistics Office, Ireland (CSO). Therefore it was necessary to check with the Central Statistics Office whether in fact they could have provided a more appropriate opportunity for such research. The CSO insisted that any list of companies registered with them could not have been made available for any such study as this was prohibited by their own privacy policy. Thereafter it was necessary to contact the main development agencies to see what advice they would offer on the matter. Forfas, the IDA and Enterprise Ireland were

⁴ The survey was to be supplemented by some interviews with the development agencies. This however was not possible as when attempts to contact the agencies were made the usual response was that the individual agencies' literature would be more than enough to cover any possible queries that any researcher might have. The literature which was then promised was subsequently forwarded by mail.

contacted. Each of these agencies were adamant in their assurance that they always recommend the Kompass Directory as a comprehensive listing of companies. The head office of Kompass Ireland was equally insistent that their directory was the best, the most comprehensive and up-to-date listing of companies in Ireland. On the basis of these inquiries it was felt that the original choice of using the Kompass Directory as a source from which a random sample could be chosen, had been justified.

Two separate random samples of 150 from both the foreign manufacturing sector and the indigenous manufacturing sector were selected. In each case, a rectangular distribution of two hundred random positive integers running from the first page number with records through to the last were generated from the computer. These were then sorted into indigenous or multinational firms and any duplicates crossed off, until one hundred and fifty positive and random integers remained for each sample. For each page thus selected, the first unique record was found, and the page number then crossed off. A simple random sample was chosen since much of the analysis required it; especially the parametric side. Subsequent supporting evidence for its randomness was to be found in the conclusion about the companies' ages, which were found to be normally distributed ($\alpha = 1\%$). A random sample was chosen as this would maximise the likelihood that there would be no systematic bias in the sampling. But there can never be an absolute guarantee that any given sample can achieve this. However the likelihood increases the larger the sample is.

In relation to both surveys a sample size of one hundred and fifty was to be chosen from the pages of the Kompass Directory of Companies. The sample might have been larger but the author was operating under the constraints of limited resources and part-time study. Both samples were representative of the respective populations of companies in each sector (see above). The selected companies were then sent a self-completion questionnaire with an S.A.E. and a covering letter was also enclosed. The questionnaire was structured in such a way as to make it succinct and most of all friendly. This was particularly important in relation to the indigenous firms as some of the advice received prior to designing the questionnaire suggested that many would be wary of divulging information about their firms due to possible fears of tax investigation. Therefore the questionnaire had to overcome the element of threat for the respondents. This was achieved through the relative simplicity of the questionnaire. However, this inevitably limits the breadth of the information that is gathered. One of the main problems

associated with self-completion questionnaires i.e., that not all those selected to receive a questionnaire will complete and return the form, was inevitably encountered. A major assumption in the analysis is that the non-respondents would have replied in much the same way as the respondents, and that both were typical of all their parent population of all companies in Ireland at the time of the survey. This may or may not be true; in relation to the multinational companies a follow up sub-survey of twenty randomly selected non-respondents failed to elicit any responses. Another assumption was that the companies have been weighted equally in their responses. The replies were also influenced by the wording of the questions, which, although attempting to be neutral, would inevitably be influenced by the author's own opinions.

48 questionnaires were returned from each survey from which the subsequent analysis is derived. In the multinational enterprise survey 48 companies returned their questionnaires directly. However, with the indigenous survey only 43 questionnaires were returned initially, and a follow-up letter to twenty of the non-respondents elicited five more records giving a total of 48. This was a good response relative to the original amount of questionnaires that were sent out.

PARAMETRIC AND NON-PARAMETRIC

Where possible, parametric tests have been chosen over non-parametric. In relation to the survey of foreign firms the following were applied. For the questions on opinions (five point ratings, or Lickert scales), non-parametric tests were the only option. The sign test and the Wilcoxon signed rank test were also used in relation to the five point ratings (fields 1.15, 1.16, 1.18). As regards parametric testing the procedures used were as follow: they are the (exact) binomial test (notes 3 & 4, Appendix Part 1), which applied to the Reasons for Investing in Ireland section (Field 1.12) and its conclusions. The chi squared tests in the companies ages section (field 1.2). In relation to the survey of indigenous firms the following were applied. They are the sign test, used in fields 1.15, 1.16, 1.19, the chi squared goodness of fit test used in field 1.2 and cross-tabulations were used to compare various paired fields.

Because of the sample sizes of both surveys it is worth noting certain points that pertain to parametric and non-parametric testing. Parametric tests are considered more powerful than non-parametric tests. The main advantage with parametric test lies in the fact that there is a greater probability of rejecting erroneous hypotheses. They are also considered more robust in that they are less sensitive to moderate deviations from the underlying assumptions made in constructing the test. The choice of whether one chooses parametric tests over non-parametric will depend

on the specific issues of distribution(s) of data, size of sample and the type of data. In relation to distribution the parametric tests usually assume that the data has a specific distribution (usually the normal distribution). Parametric tests tend to only realise their full potential if the sample is large enough.

Whereas non-parametric tests rely on 'nominal' or 'ordinal' data parametric tests rely on either 'interval' or 'ratio' data⁵. The greater the variability of the data then the larger the sample size needed to get the same degree of precision. Smaller samples mean that an estimate of a mean, proportion or whatever is less precise i.e., the confidence interval is wider. This becomes even more of a problem as the sample size falls below 30-35 observations. Small samples therefore, necessarily mean that the less powerful non-parametric will have to be used. It is necessary to realise that in the case of each cross-tabulation the amount of data that we are dealing with is reduced. So for example some of the cells in the table end up with only 10-12 observations.

Part 1 Multinational Enterprise: Survey and Results

First, I will present an overview of the surveyed firms in terms of their age, country of origin, country of origin by age (i.e., years established in Ireland), industry type, size of company (by size of workforce employed) and the proportion of trade by locality. I will then examine some of the reasons given as motivations for these companies to establish in Ireland in the first place

⁵ Different types of data:

nominal = arbitrary labels for different categories of data.

ordinal = labels for different categories of data that can somehow be ordered eg. strongly disagree, disagree, neutral, agree and strongly agree.

interval = different categories of data where we can somehow show their relative importance.

ratio = different categories of data where it is possible to somehow show their absolute importance.

and how important the assistance they have received, and continue to receive, has been to their operation. Finally, I will examine the responses that have relevance to the likelihood of potential industrial linkages being formed between these companies and indigenous firms.

Field 1.2

Age of Multinational Companies

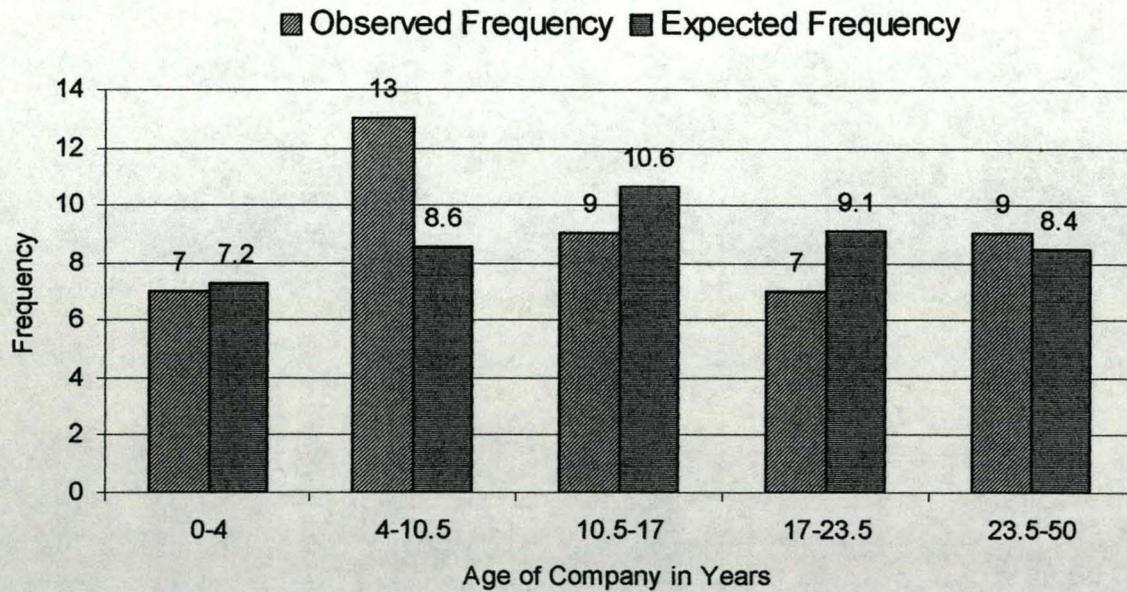


Figure 1

OBSERVED AND EXPECTED FREQUENCIES OF DATA

(GROUPED)

Age Bin	Observed Frequency	Cumulative Expected Frequency	Expected Frequency	Sum of Squares
1-4.5	7	7.25	7.25	0.01
4.5-10.5	13	15.81	8.56	2.30
10.5-17.5	9	26.43	10.61	0.25
17.5-23.5	7	35.54	9.12	0.49
23.5-50	8	43.98	8.44	0.04
Sum of squares is				3.08

Figure 1a

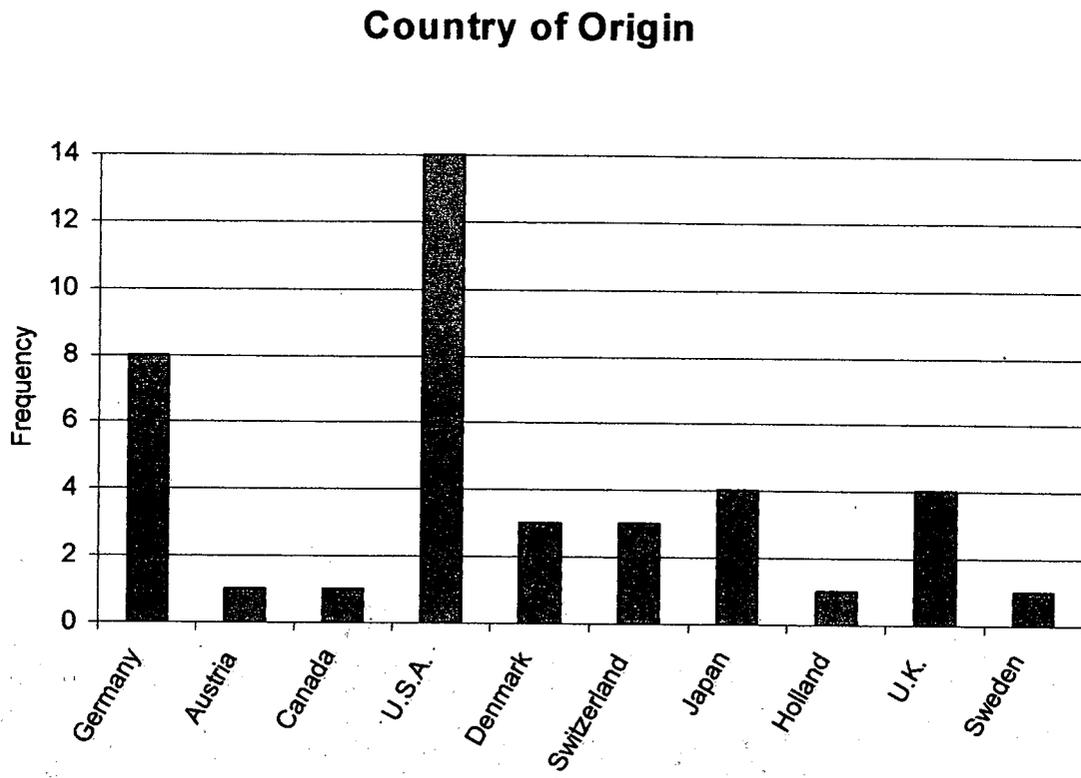


Figure 2

As can be seen from the above chart, Germany and US were the heavy investors in Ireland. Only 4 of the companies were Japanese and 44 were either American or European. The importance of this will be discussed in the next chapter in relation to the work of Kojima and the possibility of technology being transferred to the host economy. The fact that US companies comprised 30% of the respondents in the survey is also important in relation to the companies that were in the middle aged group of respondents in terms of the years that they had been established in Ireland as it was this particular group which was dominated by American investment. (See figure 3 below). The significance of this association will be discussed in relation to the companies' motivation for locating in Ireland.

Country of Origin by Company Age (96/97 as base)

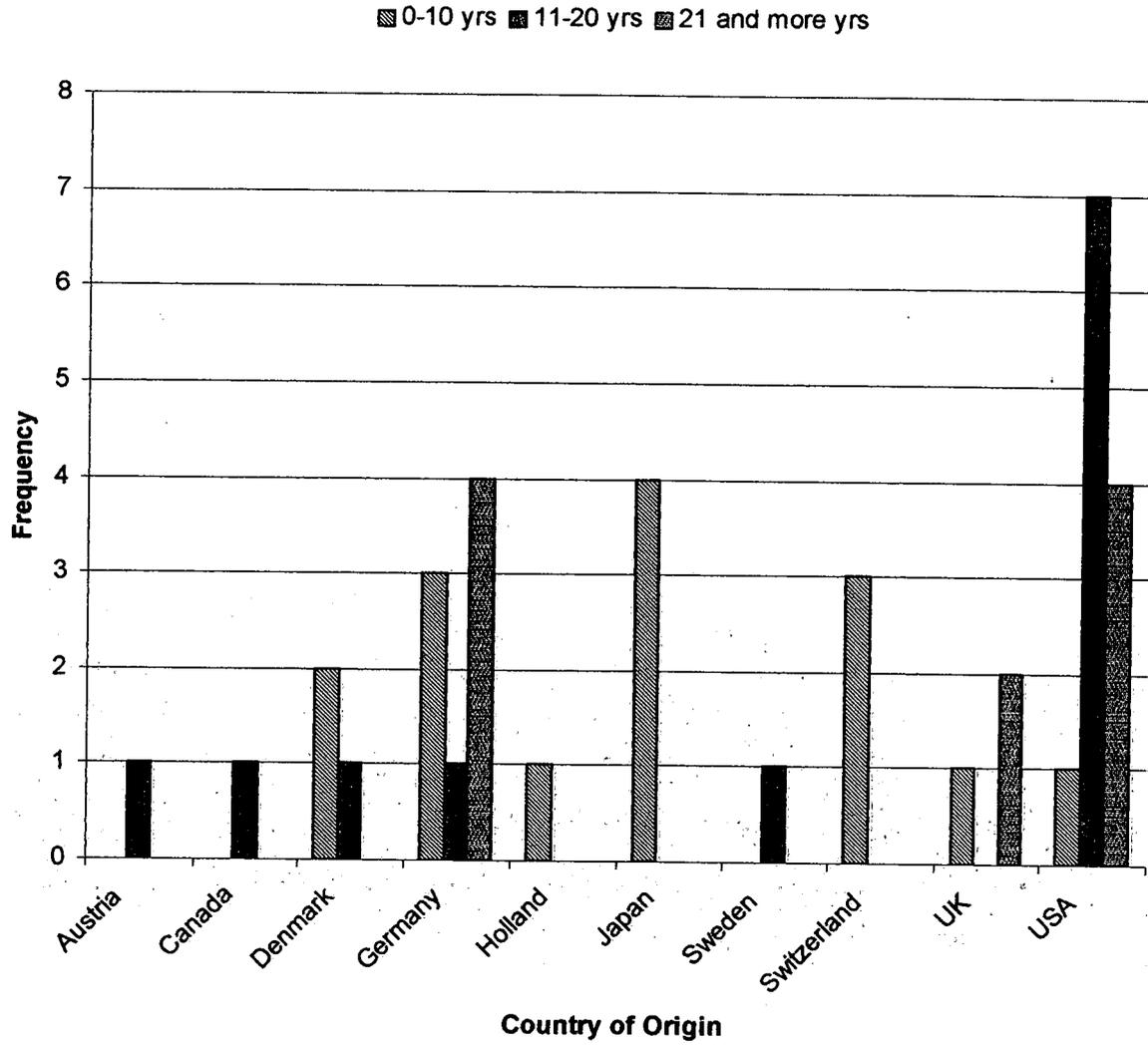


Figure 3

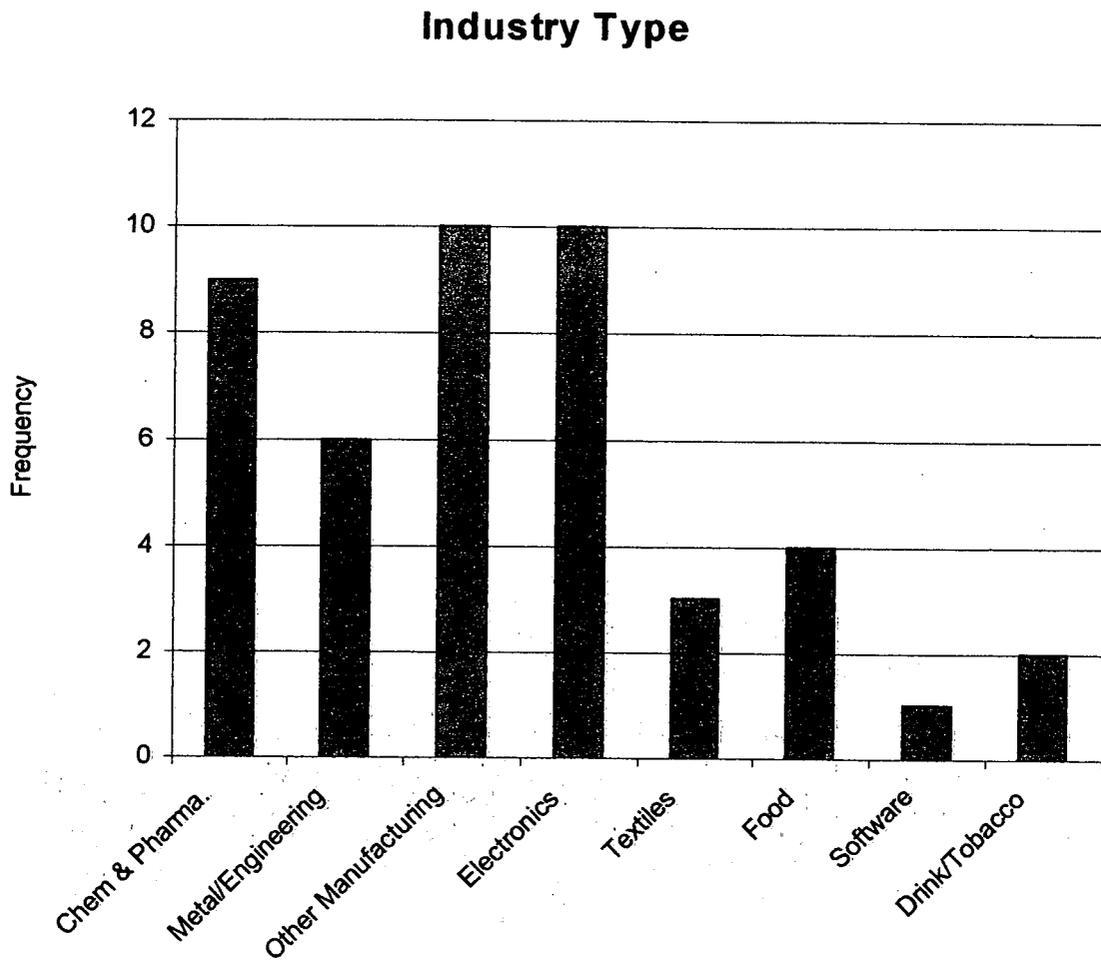


Figure 4

“Other Manufacturing” included amongst other activities plastics and boat building.

Number of Employees

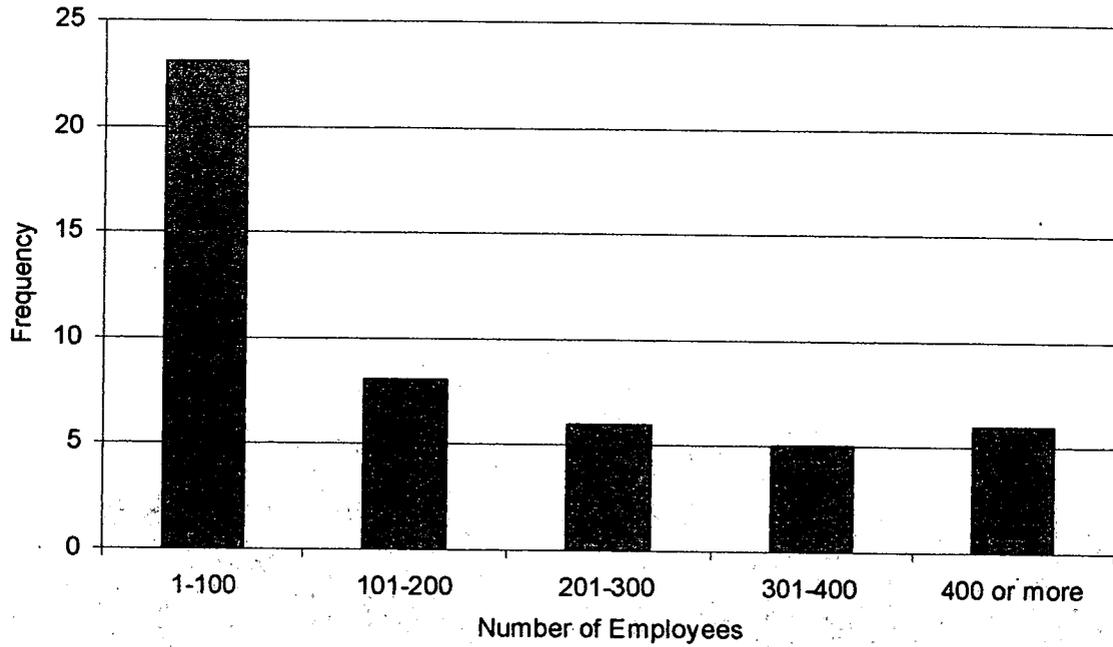


Figure 5

The majority of firms employed between 1 and 100 persons (23/48 of the companies fell within this category). There were eight companies which employed between 101 and 200 employees, six companies within the 201-300 category, the 301-400 range had five companies and only six companies employed four-hundred or more persons. Therefore almost half the companies would be considered smaller multinational companies, and the other half were medium to larger sized firms.

normally distributed. The test was carried out at the 1% level on 44 responses and confirmed that the distribution of companies' ages was normal, with a mean of just over 14 years, and a standard deviation of about of about 10.5 years. This normal distribution was a good indicator of the random selection having been made of all the companies: a requirement for much of the analysis (see note 2 in appendix part 1).

From the pie chart above it is clear that the respondents exported most of their production. Investing in Ireland therefore was advantageous but was having an export platform in an EU country the main reason or one of many reasons for investing in the Irish Republic?

Research Objective 1

To ascertain what features of the Irish economy were the strongest in enticing multinational enterprises to locate in Ireland.

Reasons for Investing in the Irish Republic

Companies were asked to give their reasons for investing in Ireland and could tick as many of the following reasons as they wished.

The branched questions (fields F.1.120 - F1.126) under this general heading were:

“Which of the following categories influenced your decision to invest in the Irish Republic:

- (F1.120) Direct Grant
- (F1.121) Tax Benefits
- (F1.122) Industrial Development Agencies commitment to Training¹
- (F1.123) The availability of requisite skills
- (F1.124) Access to E.U. markets
- (F1.125) Access to U.K. market
- (F1.126) Pool of relatively low cost labour.”

Each category was tested for a proportion $p(+)$ = the proportion of those agreeing (ticking). Where $p(-)$ = proportion of those not ticking and thus disagreeing by default (see note 5 in the

¹ It should be noted that “IDA” stands for the Industrial Development Agency itself, as opposed to Industrial Development Agencies generally, which are denoted by “DA”s.

Appendix Part 1). An indifferent response suggested that the two proportions were the same, and this was consequently taken as the null hypothesis. (See endnote 3 in the Appendix Part 1).

The sign test was again applied to the fields F1.122, and F1.124 and here non-significant figures were obtained. For example, in F1.122 DA's commitment to training, the test statistic was found to be 0.235, not now falling into the rejection region for the null hypothesis. The null hypothesis is consequently kept and there is no good reason for supposing that DA's commitment to training was a reason for Multinational Companies' investment in the Irish Republic. (5% level, two tailed: (see endnote 4 in the Appendix Part 1)).

These fields also gave the survey results in the following pie chart (fig. 7, see below) showing the reasons relative to one another. Fig. 8 below shows a chart with the expected origin under the null hypothesis centred at 24, and the other frequencies relative to this.

Reasons for Investment in Ireland

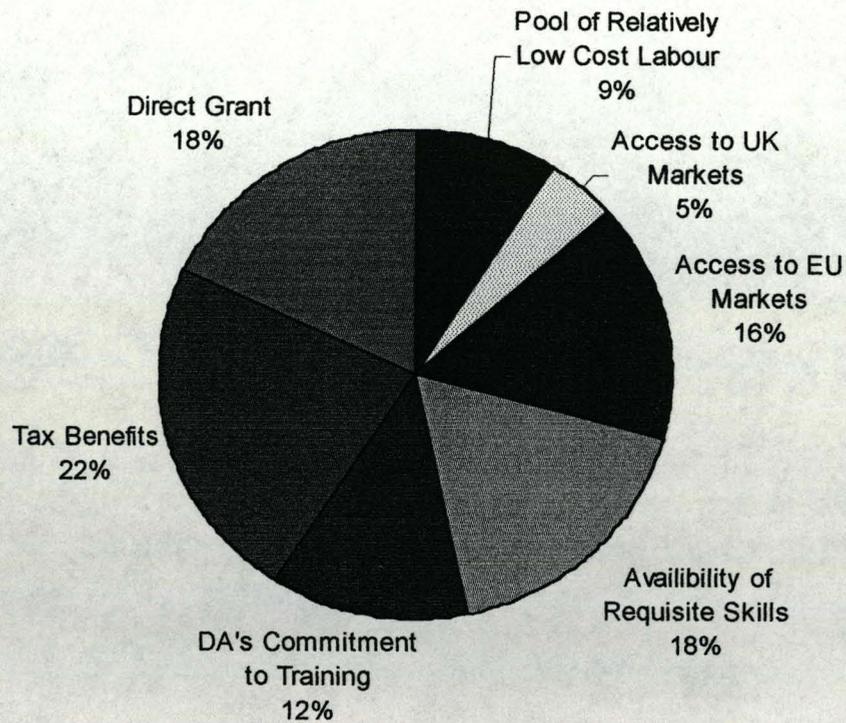


Figure 7

This chart presents the reasons for investing in Ireland relative to each other. The low corporation tax of 10%, direct grants the availability of requisite skills and access to EU markets appear to be the most important determining motivation for locating in Ireland.¹

¹ This pie-chart was constructed simply by adding all the 'ticks' to provide the total, adding the ticks for each category (reason for investing) and deriving each categories' total as a % of the overall total.

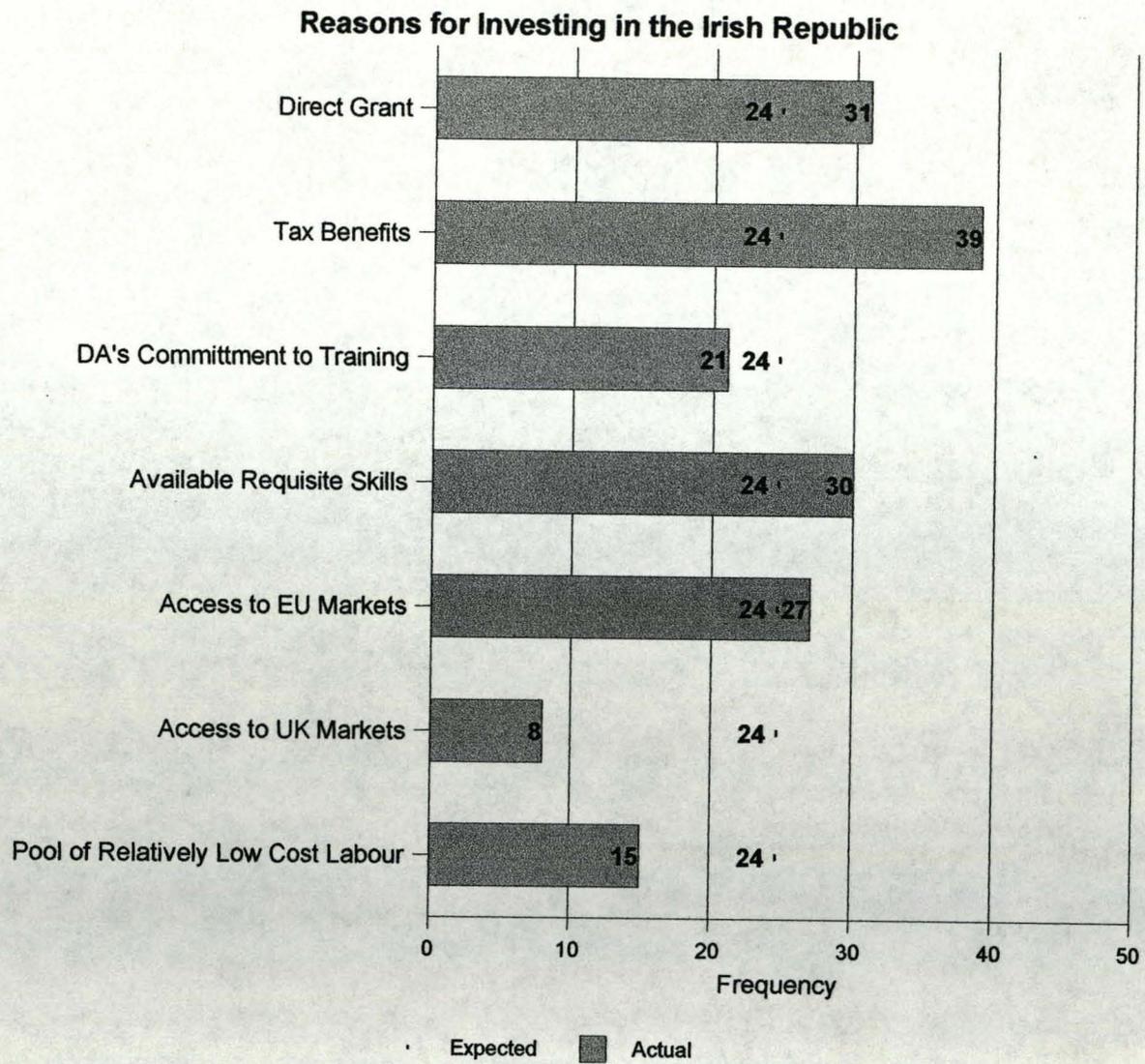


Figure 8

The figure above shows the expected frequencies (24) under a null hypothesis of indifference to the questions asked shown alongside the actual frequencies.

At the 5% two tailed significance level:

- Direct grants (F1.120) were a significant reason to invest in Ireland.
- Tax Benefits (F1.121) were a significant reason to invest in Ireland.
- Access to U.K. Markets (F1.125) was considered unimportant while investing in Ireland.
- A Pool of Relatively Low Cost Labour (F1.126) was considered unimportant while investing in Ireland.

No definite (significant) results were obtained to the following fields

- Industrial Development Agencies Commitment to Training (F1.122) was not found to be a particularly important (significant) reason for investing in Ireland.
- The Availability of Requisite Skills (F1.123) were not a significant reason to invest in Ireland.
- Access to E.U. Markets (F1.126) was found not to be a particularly important factor for investing in Ireland.

Therefore, the main reasons given for locating in Ireland according to the companies surveyed were as follows: 1) that the direct grants received from the Irish development agencies was a significant factor in their company locating in Ireland and that 2) the tax benefits (10% corporation) that were available to companies investing in Ireland was also a strong and significant incentive for locating there. This would certainly offer an easy facility to practice transfer-pricing. (See chapter 4)

However, generally, the pool of relatively low cost of labour was not found to have been a significant factor in attracting companies to locate in Ireland. Therefore arguments for wage demand restraint on the basis that firms might re-locate in cheaper wage zones do not appear to

be a valid. Equally surprising was that despite the fact that most of the companies in the survey traded with the EU, access to EU markets was deemed not to be important. This is also surprising as both of these facets of the Irish economy have in the past featured as part of the IDA's promotional literature and it does not agree with other surveys carried out by the development agencies.

The fact that the industrial development agencies commitment to training was not found to be significant and the fact that the MNEs surveyed did not feel that it was important whether Irish workers possessed the requisite skills or not in determining their reason for locating in the country in the first place, suggests that these firms possessed certain characteristics as to the type of production they employ. In other words, the type of production that takes place in these branch plants relies on in-house company training that probably requires minimum skill levels and are typical of the majority of firms that have established in Ireland. One could assume from this that these firms were involved in low-key assembly or final assembly operations. These firms were therefore, of a type unlikely to engender many opportunities for technology transfer or other spinoff effects for the economy other than boosting employment figures.

However, by the end of the 1990s with the success of the economy in terms of achieving full employment levels and the converging of Irish income levels towards the EU average, the reasons why foreign firms establish in Ireland appears to have changed substantially. The IDA's recent International and Trade Investment Report 2001 presents a very different set of factors that are now influencing foreign firms to invest in Ireland. It must be remembered however that different surveys ask different questions and have a different emphasis in their design. The 2001 report indicated that in order of importance in terms of motivation 'skill levels' was seen as the most important, 'corporation tax' was second in importance, 'English language' in third and 'the motivation and loyalty of staff' was fourth.¹

¹ IDA (2001), International and Trade Investment Report 2001, Dublin.

Research Objective 2

To ascertain whether there were any relationships between company motivation for establishing in Ireland with the company ages. It was hoped by doing so it would be possible to see whether motivational factors have changed over time. If these motivational factors have changed then how significant would this be in relation to how the government uses its subsidy to attract DFI in particular and promote industrialisation in general. (see Chapter 4)

Reasons for Investing in Ireland by Company Age

Question 1.12: "Which of the following categories influenced your decision to invest in the Irish Republic: . . ." was cross tabulated against the companies' ages. The expected frequencies from pure chance (under H_0) were then worked out and a contingency table was then compiled. (For observed frequency see Figure 1a above and also Note 2 in Appendix Part 1, Note 2) It should be noted however, that the sample in this case only refers to 16 companies or 1/3 of the total sample. Therefore as a statistic it can only have a very limited value and any conclusions deriving from the cross-tabulation should be treated with care. The conclusions therefore may or may not point to certain characteristics of American companies in Ireland and only future research and a much larger sample could provide more concrete conclusions.

In fig 3 (see above) it can be seen that the majority of the middle aged firms were American, and any conclusions based on these middle aged firms will apply also to the American firms. They appeared to be qualitatively different to the firms in the other age categories (see fig M2 appendix).

Although the earlier results for the Reasons for Investment in the Irish Republic are still valid, some finer classifications can be looked derived from them albeit with a much sample (16 firms only) (see figure M2 in the Appendix Part 1):

- Middle aged firms only were interested in a direct grant (significant at 5% level two tailed)
- Newer and middle aged firms only were interested in tax benefits ($\alpha = 5\%$)
- Access to E.U. Markets was significantly important for the middle aged firms only ($\alpha = 5\%$)
- Access to U.K. Markets was considered unimportant across all age groups ($\alpha = 5\%$)

- A pool of relatively low cost labour was only important to middle aged companies
- There was some agreement between DA's Commitment to Training and the Availability of Requisite Skills, with all age groups more interested in the Availability of skills than the DAs part in how they got there in the first place, with the newer firms apparently deeming it most important.

The firms surveyed were categorised as to their relative age as established firms in Ireland. Again of significance in relation to Kojima's , is the fact that the 'middle-aged' group of firms i.e., those that established between the years 1976 and 1985 or 11-20 year old firms had a strong association with US firms. The firms in this category were very interested in direct grants, the tax benefits, the low cost of labour and the easy access to EU markets. Newer firms tended to give a greater weighting to the importance of tax benefits than older firms. This would suggest that if and when corporate taxation is increased then perhaps fewer new firms would locate in Ireland. There was a constant and steady increase in trade with the US with newer firms which very much reflects the recent influx of US firms during Ireland's recent boom period. It is necessary to reiterate that any conclusions deriving from this small sample cannot be considered very robust and at best they may suggest possible characteristics associated with American firms. This could provide a lead for some future research on American firms with a substantially larger sample.

Research Objective 3

To ascertain how important is the role of the development agencies to the successful operation of the foreign companies. In Fields 1.150 - 1.181 companies were asked to grade on a scale of 1-5 (from unimportant to essential) how they viewed the contact with said agencies. More importantly it is hoped that I may elicit whether these companies consider the likelihood of industrial linkages taking place between, not only their company but also their particular industry, and indigenous industry.

Fields 1.150 to 1.181

The questions (fields) in full were

- 1.150 (If one or more Industrial Development Agency was contacted..) how important was that contact?
- 1.151 (If one or more Industrial Development Agency was contacted..) how important is this contact to the continuation of your firm's operation in Ireland?
- 1.152 (If one or more Industrial Development Agency was contacted..) how important is the continued support from such agencies to the expansion of your operation?
- 1.163 If one or more Industrial Development Agency was contacted and this was with a view to foster links with either indigenous manufacturing or indigenous non-manufacturing companies, would you rate these attempts to foster such links with the solely indigenous manufacturing companies successful?
- 1.180 Could you rank as to how plausible you would consider the fostering of such links between indigenous manufacturing companies and your company?
- 1.181 How probable could you rank as to how plausible you would consider the fostering of such links between indigenous manufacturing companies and your industry?

They are shown graphed in figure. M1 (Appendix Part 1).

In fig. 9 (below) under the entry "Agree with Proposition" a "No" is taken as actively disagreeing with the proposition, conforming with both the test procedures. Likewise a "Yes" response is seen as agreeing with the proposition.

Multinational Fields 1.15, 1.16, and 1.18 for the Five Point Opinion Ratings

Question		If your company had any contact with DAs,	If your company has had any contact with DAs with a view to fostering links with either the indigenous non/manufacturing companies, how successful would you rate these attempts to foster such links with indigenous manufacturing (only)? (F1.163)	How plausible would you consider the fostering of links between indigenous manufacturing companies and your company? (F1.180)	How plausible would you consider the fostering of links between indigenous manufacturing companies and your industry? (F1.181)		
		how important was that contact? (F1.150)	how important this contact is to the continuation of your firm's operation in Ireland? (F1.151)	how important the continued support from such agencies is to the expansion of your operation? (F1.152)			
Actual Distributions (Frequencies)	Against	3	13	9	8	11	10
	Neutral	13	14	14	8	18	16
	For	27	18	21	8	15	12
	Sample size	43	45	44	24	44	38
Wilcoxon Signed Rank Test	Agree with Proposition	Yes	Yes	Yes	No	Yes	No
	Significant or not at 5% level, two tailed	Yes	No	Yes	No	No	No
Sign Test	Agree with Proposition	Yes	Yes	Yes	Neither	Yes	Yes
	Significant or not at 5% level, two tailed	Yes	No	Yes	No	No	No

Figure 9

Test Results to the Five Point Opinion Ratings

The following conclusions are based on procedures 3 and 4: the Sign Test and the Wilcoxon Signed Rank Test (see note 5 in Appendix Part 1).

Accord

From fig. 9 (above) it can be seen there were only two significant results with which both the Wilcoxon signed rank test and the less powerful and more conservative sign test agreed upon. Complete accord was found in these two questions on the table.

Those respondents having had previous contact with Industrial Development Agencies agreed that first – this contact was important and, second – the continued support from such agencies was important to the expansion of their operation.

Discord

Also from fig. 9 (above), there was some disagreement over the significance of the results to the question, “If your company has had any contact with Industrial Development Agencies with a view to fostering links with either the indigenous manufacturing or non-manufacturing companies, would you rate a success these attempts to foster such links with indigenous manufacturing?” Eight respondents agreed while eight disagreed. According to the Wilcoxon test, they disagreed – due to the weighting of opinions. However, they neither agreed nor disagreed according to the sign test. As earlier, the Wilcoxon test, due to its finer classification gave a different result to the sign test. Perhaps unsurprisingly, by looking at fig M1 (Appendix Part 1) this result was not significant under each test; the general opinion was rather indifferent to the question.

Another question which gave different results according to the test used was “How plausible would you consider the fostering of links between indigenous manufacturing companies and your industry?” According to the sign test they agreed: it was plausible. According to the Wilcoxon signed rank test they disagreed: it was implausible. This was due to the reasons discussed above.

Summary

A quick glance at fig. M1 (Appendix Part 1) shows that most questions were answered rather randomly (normally distributed) with the exception of the following two.

These were two significant results with which the Wilcoxon signed rank test and the sign test agreed upon with respect to agreement and significance at the five percent level (two tailed).

They were accordingly accepted as reasonably trustworthy. They concerned solely those companies with previous contact with Industrial Development Agencies (fields 1.150 and 1.151):

- This contact was important
- The continued support from such agencies was important to the expansion of their operation.

Therefore, contact with the industrial development agencies therefore was seen as important to all firms as was the continued support of the agencies for the expansion of their operations of the firms. It can be assumed from this that firms were made to feel very welcome in Ireland and were secure in the knowledge that they would enjoy the continued support from development agencies that demand very little in return for their services. More importantly however from the perspective of industrial development, was that the firms responded indifferently to the questions as to how they rated the attempts by the development agencies to foster links between themselves and both indigenous manufacturing industry and indigenous non-manufacturing industry. Equally, indifference was also shown as to their consideration of whether they felt it would be plausible for links to be generated between indigenous firms and the firms' respective industries.

Part 2 Indigenous Manufacturing Survey: Results and Conclusions

In outlining the results from the second survey on indigenous manufacturing companies, again I will firstly present an overview of the surveyed firms in terms of the industry type, size of company by numbers of workers employed, and the amount of part-time workers employed. I will then examine not only how companies rate the assistance they have received from the development agencies (DAs) but also how they rate this assistance in terms of the future expansion of their firms. Finally, I will look at the extent to which these firms trade abroad. It is hoped that by looking at these areas, an overall picture can be formed as to the condition of indigenous manufacturing industry and its potential for providing sustained industrial development in the future.

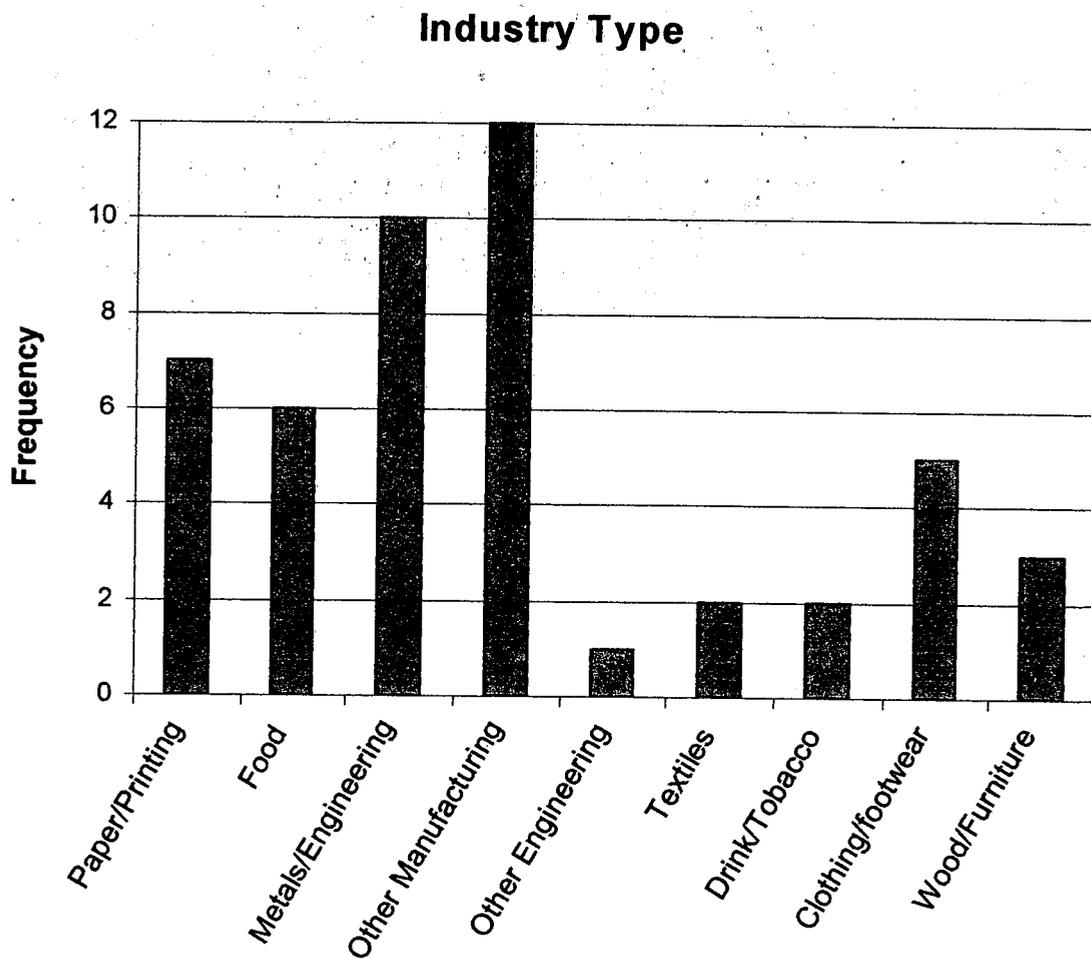


Figure 1

Field 1.4

The Other Manufacturing category proved to be the biggest single category with 12 companies responding to the survey questionnaire. This comprised 25% of the total survey. The next category with the largest number of respondents was in the Metals/Engineering category.

Research Objective 4

Number of Employees



Figure 2

Field 1.6 (Relative Size of Companies)

The concern of this research objective was to look at the relative size of indigenous companies and therefore consider whether the size of indigenous firms might determine the potential for their expansion into the traded sector.

It is hoped that by looking at the responses of the firms, it would be possible to form a picture as to their relative size. These questions involved were targeted at certain areas of the

companies structure and finances. Apart from the questions that asked for the number of employees that the companies employed, an attempt was made to try to elicit whether the company was a public or a private one (Field 1.3 - see indigenous manufacturing questionnaire in the Appendix part 2), how many part-timers they employed (see Field 1.6 below), and a series of boxes to fill in, in a grid (see Field 1.11 in Appendix Part 2) that asked questions about the company's turnover, total assets (fixed and current), profits, net working capital and investment. There was also another series of questions that asked whether these areas had expanded (and by what percentage), contracted or had remained constant.

42 of the total 48 respondents (or 88%) were firms that fell between the 1-100 category of employees per firm. Analysed more closely this produced a mean of 56 employees for these firms. This would denote that the firms were generally smaller firms which would in the main suggest that they would possess a more limited base from which to build a strong export capacity. There were only five companies that employed between 101- 200 employees, and one company with over 300 employees.

Noteworthy by their absence was the lack of responses to more precise and probing questions to the companies surveyed as to their finances, the exact number of employees they employed, the proportion of equity capital to loan capital and the company's turnover in the previous financial year. It was clear from this that not only were the companies were non-public companies but were private ones determined not to divulge information to a source that they could not be sure was not part of any tax-gathering regime or similar government body. This was found to be the case when I made follow-up telephone calls to some companies in an effort to illicit this more precise information. Despite the fact that I explained my status as a student and emphasised the fact that I was not a covert official from the tax authorities, the managing directors were not to be persuaded to alter their initial decisions.

Percentage of Part Timers

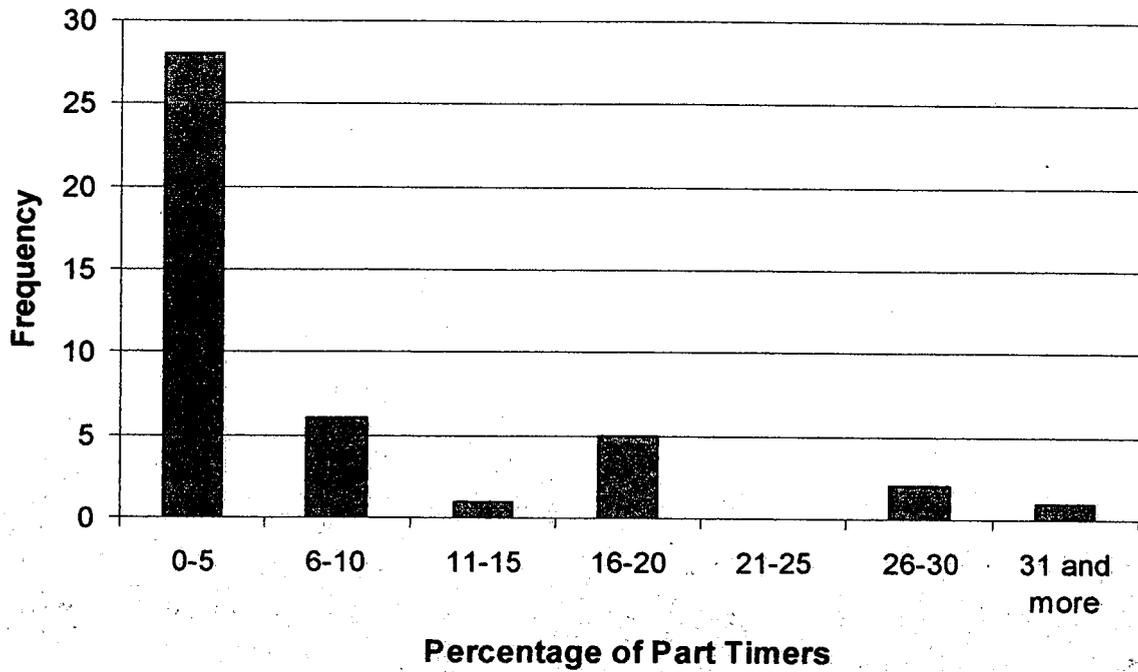


Figure 3

5 of the companies who responded in the 0-5 bin(category) actually employed no part timers. Clearly the majority of companies (27) employed between 0% to 5% of their total number of employees as part time staff. One could conclude from the above that, the majority of firms being relatively smaller sized firms, had a consistent amount of trade that hardly fluctuated necessitating in the employment of casual or seasonal labour.

Research Objective 5

Firms were asked to indicate as to what were the main obstacles to increasing their trade abroad.

The Five Point Ratings in the Indigenous Fields

The questions (fields) in full were

- 1.15 On a scale of 1 (useful) to 5 (essential) how would you rate the difference, the assistance you received, has made to your firm's successful operation?
- 1.16 Could you rank between a scale of 1 (of little importance) to 5 (of extreme importance), which of the following areas would you regard as having been the greatest obstacle to increasing your over seas trade in the period between 1984 to 1994?
 - 1.161 Identifying new overseas markets
 - 1.162 Excessive transport costs
 - 1.163 Higher degree of competitiveness of overseas markets
 - 1.164 Lack of capital for expansion
 - 1.165 Insufficient managerial expertise to develop new markets
 - 1.166 Difficulty in developing new markets
 - 1.167 Insufficient management time to develop new markets

They (1.16) are shown graphed in figure N1 in Appendix Part 2.

Indigenous Fields 1.16 for the Five Point Opinion Ratings

Question		Could you rank between a scale of 1 (of little importance) to 5 (of extreme importance), which of the following areas would you regard as having been the greatest obstacle to increasing your trade over seas in the period between 1984 to 1994?						
		Identifyin g new overseas markets (F1.161)	Excessiv e transport costs (F1.162)	Higher degree of competiti veness of overseas markets (F1.163)	Lack of capital for expansio n (F1.164)	Insuffice nt manageri al expertise to develop new markets (F1.165)	Difficulty in developin g new markets (F1.166)	Insufficient management time to develop new markets (F1.167)
Actual Distribu tions (Freque ncies)	Against	11	7	10	11	21	8	7
	Neutral	14	16	11	8	9	16	14
	For	15	19	19	22	9	16	20
	Sample size	40	42	40	41	39	40	41
Wilcoxo n Signed Rank Test	Agree with proposition	Yes	Yes	Yes	Yes	No	Yes	Yes
	Significant or not at 5% level, two tailed	No	Yes	No	Yes	No	No	Yes
Sign Test	Agree with proposition	Yes	Yes	Yes	Yes	No	Yes	Yes
	Significant or not at 5% level, two tailed	No	Yes	No	No	Yes	Yes	Yes

Figure 4

Results

Agreement

From figure 4, it can be seen there were only two significant results with which both the Wilcoxon signed rank test and the less powerful and more conservative Sign Test agreed upon. Complete accord was found in these two questions on the table.

They agreed that excessive transport costs and lack of management time were a significant difficulty to increasing overseas trade.

Disagreement

Also from figure 4, there was some disagreement over the significance of the results to the questions, "(Was) insufficient managerial time an obstacle to increasing your overseas trade?", "(Was) difficulty in developing new markets an obstacle to increasing your overseas trade?"; and, "(Was) lack of expansion capital an obstacle to increasing your over seas trade?" according to which test you went by, (i.e., Wilcoxon or Sign) although in each test they agreed in direction.

For the first of the above questions, (see figure 4), although both tests agreed that there was an overall lack of capital for expansion to their increasing over seas trade, the Wilcoxon test said this was significant while the Sign Test disagreed; evidently those respondents who felt this way felt it rather more strongly than those that had agreed. The Sign Test, making no allowance for strength of feeling, failed to register this.

For the second question (F1.165) while both tests disagreed that insufficient managerial expertise was a handicap to them increasing their overseas trade, the Sign Test found that this was significant ($\alpha = 0.008$), but the Wilcoxon test disagreed; this time, with a mix of strong and weak opinions, the Sign Test just gives a count, and, by effectively weighting the weak opinions the same as the strong, returns a significant result.

As is rather starkly brought out here, these two tests differ in their assumptions about the weighting of opinions, and that ultimately, these weights are somewhat arbitrary. By the standards of the Sign Test, the disagreement with the proposition that insufficient managerial expertise with developing new markets was a handicap to developing overseas trade was

strongly significant ($\alpha = 0.008$), although the Wilcoxon test gave a significant level of a more moderate $\alpha = 0.087$.

Summary

A look at figure N1 (see Appendix Part 2) shows two negatively skewed distributions, and their corresponding agreement with the proposition in question. They are both significant at the 5% level two tailed level by the standards of both the Wilcoxon Signed Rank Test and the Sign Test. They are both accordingly accepted as reliable. They are that:

- Excessive transport costs were an obstacle to increasing over seas trade.
- Insufficient managerial time to develop new markets was an obstacle to increasing over seas trade.

Two of the greatest single obstacles therefore, for indigenous firms trying to increase their overseas trade were found to be that, firstly, it was the excessive transport costs involved in doing so, and secondly, that they found that they possessed insufficient management time to devote to it.

Though not found to be statistically significant, the following qualitative findings help to give an impression of the difficulties experienced by indigenous manufacturers. The majority of respondents believed that identifying new markets abroad was as obstacle to them increasing their trade overseas but slightly less than half agreed that the higher degree of competitiveness abroad was an obstacle. More than half however, felt that the lack of capital they experienced was a hindrance for their firms in expanding their trade abroad.

Qualitative Conclusions from Fields 1.16

The following are not statistically significant, but numerically they are interesting.

- (F1.161) Discounting the neutrals, the majority of respondents (15 as opposed to 11) believed that "Identifying New Markets Abroad" was an obstacle to their companies efforts to expand overseas.
- (F1.163) Almost half the respondents agreed to the question (19 out of 40), that the higher degree of competitiveness was an obstacle to their potential expansion in overseas trade. While 11 of the respondents remained neutral in opinion, only 10 felt it was not an obstacle.
- (F1.164) Only 8 remained neutral in their opinions as to the question that a "A lack of capital for expansion" was a hindrance to their company's expansion in trade abroad. 11 felt that it was not, while more than half (22/41) of the respondents definitely agreed that it was.
- (F1.166) 8 disagreed that "Difficulties experienced in Developing New Markets" prevented them from expanding abroad, but the neutrals and those that agreed with the proposition were split evenly (16:16). 40 respondents answered the question in this field.

Field 1.15

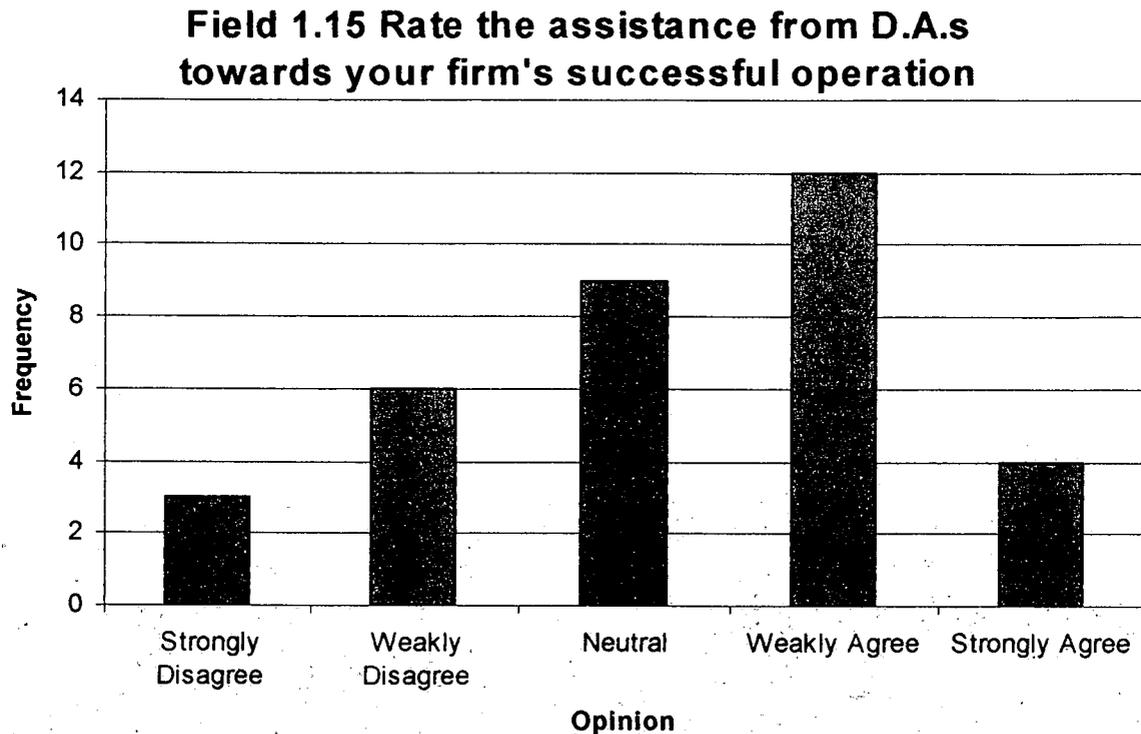


Figure 5

Research Objective 6

This objective was to determine to what extent indigenous manufacturing companies relied on the assistance for the successful operation of their firms.

The question answered by the graph above was: "On a scale of 1 (useful) to 5 (essential) how would you rate the difference, the assistance you received, has made to your firm's successful operation?" It has been coded, where,

1 = strongly disagree, 2 = weakly disagree, 3 = neutral, 4 = weakly agree, 5 = strongly agree.

A Wilcoxon signed rank test and a sign test were applied to the results, with the following conclusions (see note 2 in Appendix Part 2).

Both agreed that the DAs' assistance had been important, but with $\alpha = 0.144$ for the Wilcoxon test, $\alpha = 0.115$ for the sign test. Neither of which was significant at the 5% level (two tailed).

F1.193 Rate the future help from D.A.s towards your expansion plans

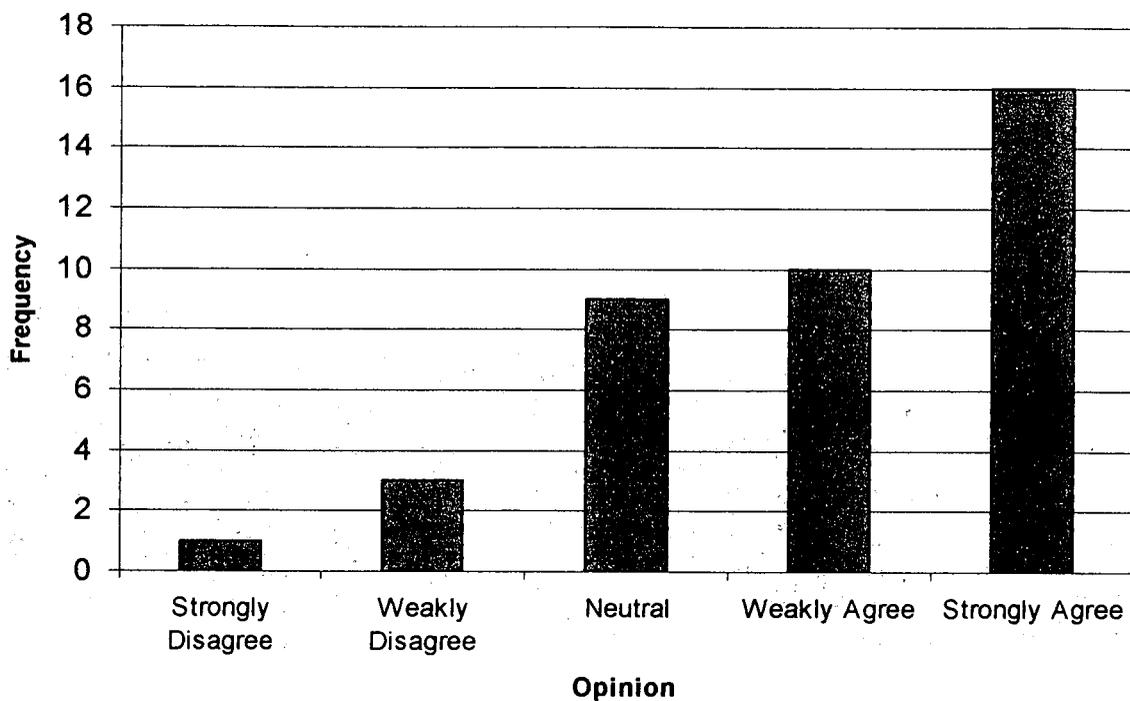


Figure 6

Field 1.19

In answer to the question “Do you envisage receiving assistance from the aforementioned development agencies (D.A.s), could you rank on a scale of 1 (not very important) to 5 (vitally important) how crucial you would regard such assistance to your expansion plans?” the chart above was compiled.

A Wilcoxon signed rank test and a sign test were applied to the results, with the following conclusions.

Both agreed that the D.A.s future assistance was important to future expansion, with $\alpha = 3 \times 10^{-4}$ for the Wilcoxon test, and $\alpha = 3 \times 10^{-5}$ for the sign test. Both of which were significant at the 5% level (two tailed).

Importance of Development Agencies

Therefore, the statistically significant finding of the survey was that the assistance proffered by the development agencies to indigenous firms was deemed to be very important to the future expansion of their respective businesses. Furthermore from the completion of bivariate comparison tables it was found that the companies that had more help from the development agencies generally found it harder to develop new markets abroad thus suggesting that those with the greatest difficulties were being met with the greatest amount of assistance from the aforesaid agencies. It was also evident from the findings that companies that claimed that government support was in fact important for their companies expansion, had had more help from the development agencies anyway. This was a further indication of the importance of the development agencies assistance to indigenous companies and their attempts to trade overseas

Research Objective 7

To establish to what extent indigenous manufacturing firms traded abroad. This should provide a valuable indication of the strength of indigenous industrial development and its potential for the future. I have also constructed some tables that cross tabulate information from the survey which contrast the opinions of the respondents in relation to their trade with the US and EU. I have chosen these two 'regions' as they have been targeted as important potential markets for indigenous exporters.

Fields 1.9 Overseas Trade

Percentage of Trade done by Region

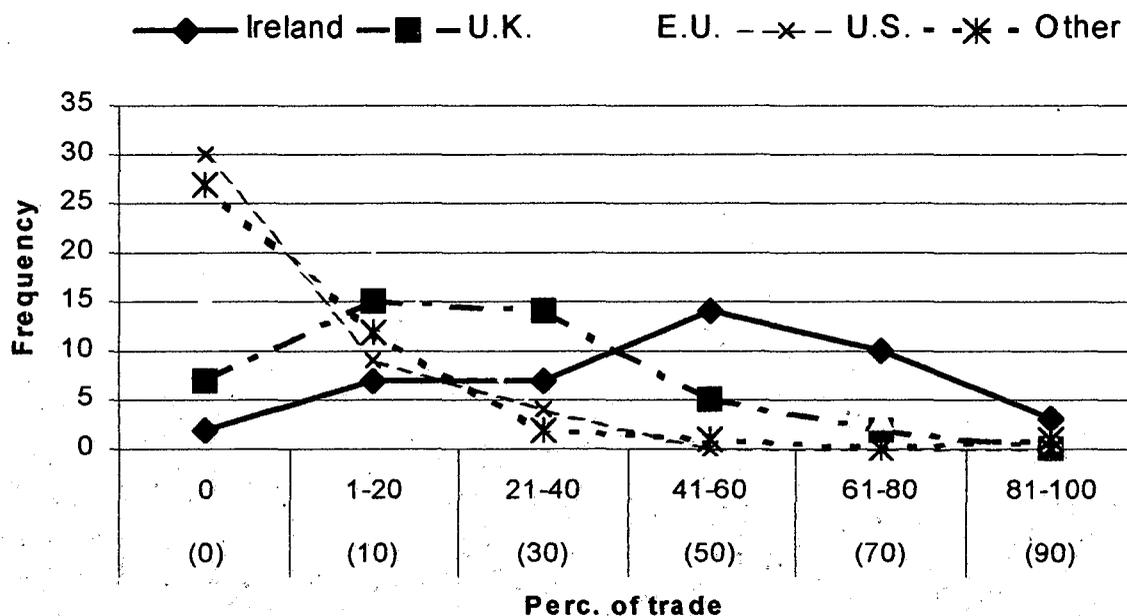


Figure 7

Average in Percentage of Trade done by Region from above graph.											
Average of bin	bin	Ireland		U.K.		E.U.		U.S.		Other	
(0)	0	2	(5)	7	(16)	15	(35)	30	(70)	27	(63)
(10)	1-20	7	(16)	15	(35)	19	(44)	9	(21)	12	(28)
(30)	21-40	7	(16)	14	(33)	3	(7)	4	(9)	2	(5)
(50)	41-60	14	(33)	5	(12)	3	(5)	0	(0)	1	(2)
(70)	61-80	10	(23)	2	(5)	2	(7)	0	(0)	0	(0)
(90)	81-100	3	(7)	0	(0)	1	(2)	0	(0)	1	(2)

Figure 8¹

¹ Figure 8 is merely a representation of Figure 7 in tabular form.

Figures 7 and 8 above are valuable as indicators of the true extent to which Irish indigenous firms trade abroad. More than half of the companies surveyed (62%) did 50% or more of their trade with Ireland, while 80% did at least 30% of their trade with Ireland. Only 5% of companies did not trade at all with the home economy, and 7% had an average of 90% of their trade with Ireland. Similarly, only 16% of companies' trading activities involved an average of 10% in the non-traded business sector. While only 32% of companies had on average between 10% and 30% of their companies' business in the non - traded sector.

68% of the companies surveyed (on average) did between 10% and 30% of their trade with the U.K. While 16% did not trade with the U.K. at all. Only 17% of companies traded more than 50% of their trade with this region.

35% of companies did not trade at all with the E.U., while 70% did not trade with the U.S. Only 19% of companies did more than 10% of their trade on average with the E.U., while only 9% did more than 10% on average of their trade with the U.S. This was similar (9%) for companies involved in trade with "Other Regions".

Conclusion

From the combination of the findings of both surveys and some of the research carried out by other authors (see previous chapter) a clearer picture of the state of Irish industrialisation emerges. The type of DFI that the country attracts is here primarily to exploit the low corporation tax of 10% that the country offers as well as the many direct grants that are available. From the analysis of the medium-aged range of companies corresponds strongly with US firms and it appears that their decision to locate in Ireland was heavily influenced by not only tax benefits and direct grants but also by the relatively low cost of labour and easy access to the EU.

The fact that there has been a proliferation of US DFI in Ireland in recent years and that Kojima has argued that US firms possess certain characteristics that mitigate against technology being transferred to the host economy was looked at in the previous chapter. But these findings are based on cross-tabulations that provide a very small sample and therefore it should be concluded

that these results would at best suggest possible characteristics of American companies. It is however an area that might provide some interesting future research involving a significantly larger sample.

According to this survey the MNEs were not particularly interested in the easy access to EU markets that locating in Ireland would provide but this is certainly not borne out either by the IDA's own survey research or in other reports. This survey also suggests that MNEs were not interested in whether Irish workers have particular skills which would suggest that much of their production required low-skill levels that could easily be acquired on site. Low skill levels are usually seen to be the hallmark of DFI that involves itself in host countries that act purely as an export platform for their products. This generally means that the likelihood of technology being transferred to the host nation is low.

It appears that the foreign firms in the survey enjoy the support from the development agencies but were negative as to the likelihood of greater industrial linkages taking place not only between their companies and indigenous manufacturers but were also doubtful about the prospect of greater industrial linkages taking place between their respective industries and indigenous manufacturing. This would suggest that few opportunities exist for the transfer of technology. This may have been the case for companies in the mid-1990s but this seems to have now changed as the IDA's own research (2001) shows that the relative skills levels of employees in Ireland is the most important factor in firms' motivation for locating in Ireland. The IDA's recent research (2001) insists that MNEs now make a far greater contribution to the economy than they have done in the past. O'Hearn (1998) points out that US chemicals, computer and electronic engineering accounted for 50% of the growth in GDP in the years between 1990 and 1996. The contribution of the foreign sector to the economy as a whole cannot be underestimated. As Barry (1999) shows that even though the foreign sector accounted for 16% of the number of plants they accounted 47% of all manufacturing employment and 65 % of gross output. The increase in economic activity has manifested itself in increasing value being retained in the economy particularly through the provision of greater employment opportunities in the service sector. Without doubt the foreign sector played a huge role in Ireland's economic

success in recent years and as the economy has grown the types of highly skilled positions and highly skilled personnel have grown. This is a new characteristic of the economy that is very welcome and is much in evidence particularly in the service sector.

The overall picture of DFI in Ireland therefore is one wherein MNEs are made to feel very welcome in a country that has utilised its scarce resources to attract them in the first place. There have been many very positive aspects of this policy but there also have been some worrying ones as well. Forfas (2001) are very clear as to the positive aspects of past investment but insist that Ireland needs to attract firms whose operations involve greater degrees of innovation and research. They also pointed that R and D spending in the electronics, pharmaceutical and instrument-making industries were far below those of the OECD and that generally the foreign sector showed relatively poor levels of R and D. Forfas were also worried about the level of 'leakages' or transfer-pricing that was taking place in Ireland. This was also the concern for Hitchens and Bernie (1994) and Murphy (1997). Mc Cutcheon (1995) pointed out the fact that most American firms were benefiting from a double tax agreement between the US and Irish governments.

Forfas rightly highlight the enormous contribution that DFI has made to the Irish economy and recognises the invaluable service that the collective efforts of all the individuals who have worked for the development agencies over the years. The attraction of DFI has clearly helped to transform the economy into a vibrant, competitive and successful one. The IDA's work particularly in relation to the international and financial services sector has contributed significantly to the growth of jobs requiring highly-skilled and highly-qualified personnel. The fact that the agency could boast of 24,700 new jobs created in 2000 is testimony to their outstanding contribution to employment alone. But Forfas' admission that despite the apparent greater embeddedness of MNEs in Ireland there is a much higher return for the Irish economy for every export made by an Irish firm rather than a foreign firm, re-emphasises the importance of the necessity for greater development of the indigenous sector. The fact that Forfas point out that the foreign sector accounts for 85.1% of exports should be evidence in itself that policy measures since Telesis have not been as effective in relation to the promotion of indigenous manufacturing as might have been hoped for. Forfas acknowledge this weakness in indigenous

manufacturing by insisting that the majority of firms still rely on the Irish economy to generate most of their sales. Telesis had argued that the success of the indigenous sector would be gauged by the degree to which firms could overcome barriers to entry and direct their activities towards higher-valued per employee businesses. The survey results would suggest that very few firms are in a position to overcome such investment barriers as most are very small in size.

Telesis was very critical of the role of government as there appeared to be a lack of concern about the structure that was needed to make a company or an industry competitive in the long-run. If this situation were allowed to continue, Telesis argued, then it would lead to a proliferation of smaller firms with little potential for growth. But the proliferation of small-sized companies has continued with little evidence from this research of indigenous manufacturers making substantial inroads into establishing themselves in markets abroad.

There has been much concern voiced about the level of indigenous industrial development since Telesis but in recent years there have been some reports that have expressed a more positive view. O'Malley(1998) believes that the apparent turnaround in the fortunes of indigenous firms has been attributable to more indigenous firms moving into niche markets. Greater in-roads in the area of marketing have been made by indigenous firms according to Enterprise Ireland (2001). Forfas (2001) could also point to another recent positive development within the indigenous sector. The agency claimed that more indigenous firms were investing more than 1.3 million Euros on research and development. Even though this only involved 43 companies it still represented a welcome trend.

However, as regards the survey of firms in the indigenous industrial sector, the analysis paints a rather more negative picture. Most of the firms in the survey would be termed as small private companies and as such have limited potential for expanding to a point where their operations would be sizeable enough to overcome the barriers to entry that would be necessary to trade abroad effectively. As small private companies they were, with few exceptions, quite unprepared to divulge information as to their finances. The weakness of the corporate base of indigenous industry was of special concern for Telesis, particularly the fact that these companies would possess limited resources and management expertise to identify new markets and overcome

barriers to entry. Most of the companies in the survey were small private firms and would therefore lack the corporate structure to overcome such barriers. Telesis had also noted that the majority of firms in its survey were also small private firms.

Newer indigenous companies in the survey tended to trade more abroad but despite this one bright note the level of export trade in general was not so encouraging. Despite the fact that most of the respondents in the survey traded abroad to some degree, generally they did not trade abroad to any great extent. The main obstacles to their expansion into overseas markets were excessive transport costs and insufficient management time to do so. Also, it was found that the majority felt that identifying new markets and that a lack of capital hindered the expansion of their firms abroad. Most of the firms believed that the assistance they had received and were likely to receive in the future was very important to the successful operation of their business.

It is in the comparison of the indigenous sector and the foreign sector that is the most worrying aspect of Irish industrialisation. As Barry (1999) has shown the importance of the foreign sector, he also shows that the indigenous sector by comparison to the foreign sector only exports 36% of its output as opposed to 89% for MNEs. Furthermore, Breathnach(1998) has argued that the initial period of recovery for indigenous firms (1987 - 1995) was based on the increase in MNE demand for locally produced goods. Despite Sweeney's (1998) exuberance for the prosperity generated by the Celtic Tiger the author conceded that the small size and nature of indigenous industry was still a cause of concern. Barry also concluded that it was difficult to find examples of strong indigenous manufacturers involved in the increasing returns sectors of the economy. Likewise O'Sullivan (2000) argued that in the main indigenous manufacturing was still heavily dependent on the domestic market.

The overall picture that these findings would suggest is one where the indigenous sector is very weak. Combining the two surveys it becomes even clearer that with a weak indigenous sector and a foreign sector that uses Ireland as a lucrative and highly convenient export platform for their products that Irish industrialisation is as not as developed to the same extent as most of its European partners. In the recent Forfas publication (2001) (see above) this has been verified

with the agency's own admission that Ireland's development model has been characterised by DFI growth and that indigenously-owned firms 'continue to rely on the domestic market for the majority of their sales'.

The concern of this thesis has been to critically examine Ireland's most recent attempts to pursue policies that would stimulate the development of an industrial base similar to that of economically advanced nation states. The publication of the Telesis Report in 1982 was to be used as the significant watershed from which industrial policy might be compared and analysed to ascertain whether that objective had been successfully achieved or otherwise.

An essential part of the study was to examine the theories of Global Fordism and Regulation with a view to establishing whether they offered some insights in understanding the State's role in stimulating industrial development. The apparent effectiveness of State policy in Ireland was examined in the light of Alain Lipietz's view that the crisis of Fordism at the core benefited 'Peripheral Fordist' countries such as Ireland. This was contrasted with Amsden's theory of late-industrialisation.

It has generally been concluded that rather than these two views being mutually exclusive from each other, combined together they not only provide an excellent analysis of Ireland's economic fortunes, both past and present, but also say much as to the direction in which future policy measures might be directed.

Telesis was quite scathing about the role of DFI in the Irish economy and made its recommendations on that basis. It argued that state resources could be better employed by supporting indigenous industry in order to achieve its aim of creating 'a strong base of indigenously owned resource or manufacturing companies in traded business.'¹ The subsidy had to be re-directed as the foreign companies in Ireland did not involve the key competitive aspects of their respective businesses in the country. Companies that did, however, should get a subsidy. Equally of no significant advantage to the future development of the economy was that they employed only relatively small numbers of skilled workers and their operatives were hardly integrated with the traded and skilled sub-supply industries in Ireland.² Forward linkages, therefore, it was argued, were negligible. Telesis in general, painted a bleak

¹ NESC, (1982), Telesis Report, NESC, Dublin; p. 185.

² Ibid; p. 151

picture of the high-tech sectors in relation to the possibility of the potential development of industrialise linkages being formed.³

But even though, Telesis did contend that MNEs could be used to spawn indigenous efforts they would not in themselves directly provide the industrial activities needed for rapidly rising incomes. Telesis noticed the increasing dependence on attracting DFI at a time when foreign companies provided almost no tax revenue. It condemned the taxation that allowed this to be the case and pointed out that the practice of transfer pricing could easily flourish in such an environment.⁴

Despite the fact that initially the Telesis Report was universally claimed as being a noteworthy and comprehensive study of the Irish economy, many of its recommendations were watered down, acted upon belatedly, and some eventually ignored or conveniently forgotten about.

The National Economic and Social Council, however, (the body responsible for commissioning the Report) gave it a guarded response. Policy in relation to DFI would have to continue as, that any measure to compromise the goodwill that existed between the development agencies and the MNEs would jeopardise employment. However, more concerted efforts would begin to divert subsidies towards indigenous manufacturing companies and away from MNEs that did not locate the key features of their businesses in the country. Subsequent policy proposals and measures represented a series of similar rather conservative and weak responses to the recommendations of the Telesis Report. It was clear from these that the conclusions of Telesis had not been assimilated. The White Paper of 1984⁵ and the NESCC's report (1986)⁶ on industrial strategy are both examples of this.

³ Ibid; pp. 114 -116.

⁴ Ibid; p. 149

⁵ Department of Industry and Commerce, (1984) **White Paper on Industrial Policy**, Stationery Office, Dublin

⁶ NESCC, (1986), **A Strategy for Development 1986-1990**, Dublin, NESCC.

It was not until 1986, that the Department of Industry and Commerce pronounced that policy should adhere more closely to Telesis.⁷ But, even though this review did represent a shift towards indigenous industry, it too expressed its confidence in the policy of attracting DFI and in its ability to assist in the process of industrialisation.

These responses were probably borne from the harsh reality of having to act positively in order to generate employment. DFI, therefore, was yet again endorsed as an important and central policy measure in the overall industrialisation policy. It became so central in fact that a cycle of MNE employment creation developed. This occurred whereby a firm was established in a specific location and as it bore fruit in terms of attaining employment creation targets then those targets became the employment targets to be surpassed for future direct foreign investment.

The two separate analyses of the trajectory of policy since 1982 for both the foreign and indigenous manufacturing sectors were supported by my empirical research which was based on two surveys carried out on foreign and indigenous firms in Ireland respectively. The empirical research was designed to evaluate the role of DFI in Ireland on the one hand and to ascertain the degree of development of indigenous manufacturing on the other. The intention behind this strategy was to establish whether or not policy had changed significantly since Telesis and to what extent that change in policy has effected each of the two sectors. If the policy changes that were made were successful or not, then how valid would Telesis' observations be relevant for Ireland today? How is the reality of Irish industrialisation today similar to that of 1982 and how do the theories of Global Fordism and Regulation and Late-Industrialisation help in providing an understanding of that reality?

In relation to the foreign sector it was necessary to evaluate the literature on the orthodox theories of the firm for two reasons. The first was to ascertain whether Telesis had been accurate in its contentions that relying on MNEs to help to stimulate the development of an industrial base could only provide limited scope for doing so

⁷ Department of Industry and Commerce (1986) *Review of Industrial Performance*, Stationery Office, Dublin.

and secondly to explore which aspects of the theories might be useful in terms of assisting in an evaluation of the role of the MNE in the Irish economy.

Most of the orthodox theories of the firm have elements which are relevant to Ireland. But even when these elements are amassed together they still provide an inadequate theoretical framework from which a satisfactory analysis can be made as to the part played by DFI in the Irish economy. The theories are too abstract and do not take cognisance of country – specific differences in resource endowment. Not only do they ignore the unevenness in distribution of natural resources, but also they are underpinned by economic assumptions that are so inapplicable in reality as to make their usage inappropriate for nation states. If Neo-Classical theory were to be advanced on such a topic as to how countries might develop the explanation it would offer would be to assume that there is some malfunctioning of the market system that was acting as some distortive agent preventing the country from developing. As soon as this negative influence was removed the development would re-continue along conventional lines.

The theory completely abstracts from the historical dynamic of how individual countries have developed or have remained underdeveloped. These are assumptions that are not based on reality and it is argued here should not be employed by scholars, government officials and policy-makers in arriving at important conclusions about development. Only theories that are removed from such assumptions and recognise the historical influences that have shaped the development of individual countries, in particular, and the global economy in general, can be of use in an analysis of a country such as Ireland. Unfortunately, however, if the policy-makers themselves have been trained in economic theory that engenders a belief in Neo-Classical economics to the exclusion of other theories, then development plans and policy initiatives might be stultified by perennial short-term solutions. O'Sullivan (1995)⁸ and Breathnach (1998)⁹ have both contended that Irish economists and policy-makers

⁸ O'Sullivan, M. (2000) Debates and Surveys: The Sustainability of Indigenous Development in Ireland, in **Regional Studies**, Vol. 34. 3.

⁹ Breathnach, p. (1998), Exploring the 'Celtic Tiger' Phenomenon: Causes and Consequences of Ireland's Economic Miracle, **European and Regional Studies**; Vol.5 (4).

are in the main Neo-Classical in orientation. This would go some way, to explaining as to why such a major proportion of Ireland's efforts to industrialise in the past have focussed on attracting DFI.

As Kindleberger¹⁰ pointed out, host countries and MNEs never have the same bargaining strength. For example: if technology were to be widely diffused as some writers claim through free-trade, then what are countries like Ireland to do in the interim? Could anyone even hazard a guess as to the length of the interim? MNEs, as Barnet and Muller have pointed out, operate in oligopolistic markets and are normally in possession of some exclusive piece of technology that they intend to keep secret from their competitors.¹¹ MNEs, therefore, are concerned about profit-maximisation and are not concerned about imparting technical knowledge to the host country. Therefore, the problem of poor industrial linkages is very worrying. Coe (1997) argued that even with the growth of the foreign software industry in Ireland for example, it was unlikely that significant development operations would be added to the remit of foreign branch plants in Ireland.¹²

Hitchins and Birnie (1994) have argued that Ireland is viewed by multinationals as being an easy location from which to participate in the practice of transfer-pricing.¹³ As a result this has obscured the real picture of trade flows in and out of the country. This is an area that needs further research but one that would be hampered by the lack of evidence that would be made available.

Some commentators have suggested that most of the firms that are now established in Ireland, are now more likely to remain. This has been referred to as the degree of embeddedness of foreign firms. But this however remains a topic that will also require further research.

¹⁰ Kindleberger, C. P. (1984), *Multinational Excursions*, MIT, Cambridge, Mass

¹¹ Barnet, R. J. and Muller, R. E., (1975) *Global Reach*, Cape, London, pp.162/163.

¹² Coe, N., (1997), *US Transnationals and the Irish Software Industry: Assessing the Nature, Quality and Stability of a New Wave of Foreign Direct Investment*, *European, Urban and Regional Studies* 4 (3); p. 211.

¹³ Hitchens, D. M. W. N. and Birnie, J. E. (1994) *Comparative Irish Manufacturing Production*, Avebury.

More importantly, the fact that must not be lost sight of is that the very same advantages that attracted MNEs to Irish shores in the first place may prove to be the same ones that entice them to leave for others. If Ireland were to experience such a reversal of fortune it could be very hard felt indeed as it should not be forgotten that the most outstanding feature of Ireland's current boom was the growth of DFI.

The survey findings support the view that the legacy of DFI in Ireland has been one that has had greater benefit for the companies involved rather than for the long-term development of Irish manufacturing. The firms questioned were also firms that were unlikely to prove very beneficial to stimulating industrial development in the long-term. Most firms in the survey agreed that direct grants and the regime of low corporation tax was highly significant in terms of their motives for locating their firms in Ireland. The tax issue is an important one as it creates substantial opportunity for the practice of transfer pricing which could be seen to be giving companies unfair advantage in terms of competition. Furthermore, the long-term influence that may be exerted by the European Commission on this issue is still relatively unclear. Equally important is that the logic of maintaining the level of EU subsidies to Ireland may be called into question if it allows its government in turn to subsidise potential competitors of other European companies (i.e., US companies). If Ireland's level of corporation tax edged towards the EU average then many firms might up and leave to re-establish elsewhere. Equally worth considering is that in the event of these companies facing difficulties or perceiving greater opportunities elsewhere in the global market for reducing their production costs, then the consequences of their inevitable departure would be hard felt in the local economy. The firms that are attracted may or may not prove to be the type that would engender many opportunities for technology transfer or other industrial spin-off advantages in the long-term but their contribution to the economy, particularly in recent years, cannot be underestimated.

Positive Aspects of Global Fordism/Regulation Theory as an Explanation of the Role of DFI in Ireland.

Of all the different theoretical approaches, Global Fordism provides the most useful explanation for analysing Ireland's most recent attempts to industrialise. Primarily, because of the fact that its approach is not the classical orthodox theoretical approach that tends to ignore the historical aspects of the development of world capitalism. Global Fordism and Regulation theory in general, therefore, try to explain the historical phenomena of Global trends in industrialisation and how they have influenced the development of specific countries and regions in the period since the end of World War II. The branches of this theoretical school that have a more specific relevance to Ireland are those which are referred to as Peripheral Fordism and Neo-Fordism. The Peripheral Fordist aspect of the theory would argue that Ireland played a specific role in relation to the crisis in Fordism.

When this crisis occurred, countries at the core started to experience declining rates of profitability, which in turn saw countries at the periphery, such as Ireland, becoming attractive as locations for overseas production units. With lower wage costs and with traditionally less trade union resistance, branch plants could establish themselves in small towns all around the country. The local communities became very dependent on them for employment and as a result the government did everything it could to facilitate the companies. As growth rates at the centre declined, Irish growth rates began to rise. This growth, therefore, was spurred not only by the influx of branch plants, but Ireland like many other peripheral countries was encouraged to borrow which led to the subsequent increased expenditure on health, education, social welfare and infra-structural provision all of which was underpinned by the economic orthodoxy of Keynesianism.

The branch of the Global Fordism/Regulation School that deals with the more specific characteristics of the branch plants were attracted to Ireland as a location and their production processes are best embodied in the theories of Neo-Fordism. These are essentially part and parcel of the theory of Peripheral Fordism. Neo-Fordism represented an extension of the division of labour that was different from Taylorist scientific management and Fordism. It provided more scope for workers in controlling

the operations they perform in the production process. With the introduction of Neo-Fordist processes, countries like Ireland could now produce consumer durables for export in branch plants that were single units of operation concerned with a specific part of the overall operation of its parent company.

The situation has proven very beneficial to the foreign companies. But, the long-term industrial benefits accruing to the Irish state, which has maintained a strategy of attracting DFI as one of its main points of departure in its attempts to stimulate industrialisation, are questionable. This is certainly the case in relation to the still relatively underdeveloped indigenous sector. Also, within the very potential of the strategy succeeding lie the possible seeds of its own destruction. As, if by attracting DFI the economy eventually is stimulated to any great extent and thus leads to greater prosperity in terms of raised living standards and economic growth in general, the country will start to lose its peripheral characteristics and thus make it less attractive a location for overseas companies. In which case it would be forced to rely more and more on its indigenous manufacturing to maintain its level of prosperity.

As Ireland's growth rates continue to outshine nearly all other OECD countries and as the granting of EU structural funds and subsidies to Ireland become less justifiable in the light of increasing prosperity and with rising wage demands from workers keen to share in that prosperity, the peripheral aspects of the Irish economy are gradually being eroded. If Ireland fails to maintain the current level of DFI investment and starts to lose overseas firms to other locations then the frailties of the as yet relatively underdeveloped indigenous sector could become all too obvious. Therefore, despite the phenomenal growth of the Irish economy in recent years the situation could revert back to the times of high unemployment and slow growth.

Global Fordism, therefore, gives a useful historical explanation as to the developments that have taken place within capitalism in the Twentieth Century particularly after the Second World War. It explains how the developed economies at the core maintained a regime of accumulation until finally it reached a crisis point. It explains the efforts of that crisis and how that same regime of accumulation tried to re-establish its logic, thereafter.

Peripheral Fordism provides the most useful theoretical analysis of the development of DFI in the Irish Republic. It explains how Ireland started to play a very specific role in the regime of accumulation as the crisis within it worsened. It shows how more and more companies established themselves in countries like Ireland in order to reverse the trend in declining rates of profit. Neo-Fordism provides an extension of the analysis of DFI in Ireland by dealing with the more specific characteristics of the branch plants that were attracted. With the introduction of Neo-Fordist processes, Ireland began to be able to produce and export consumer durables. The branch plants from whence they came represented single units of production concerned with a specific part of the overall operation of the MNE.

Fordism, therefore, provides a useful analysis of how DFI has played such an important role in the Irish economy but it does not provide the whole picture of the model of Irish industrial development. The other and more important aspect of the Irish economy is indigenous manufacturing. It is important to look at its historical development to the point of independence and as to how successive efforts to stimulate its development have been affective or otherwise.

Sixty years after independence, Telesis provided a rather dismal picture of the state of indigenous Irish manufacturing industry. It was described as being characterised by low-wage, subscale and generally involved firms in uncompetitive complex factor business. Fundamentally, the economy had failed to develop a corporate base where companies possessed both the resources and management time to identify and overcome the barriers to entry that were necessary to compete in international markets. Government policy, therefore, was criticised for not being concerned enough about the structure that was needed to make a company or an industry competitive in the long-run. This had led to a proliferation of small firms with little potential for growth. The problem for Irish firms was that the domestic market was relatively small which meant that small firms could only build up economies of scale slowly. To overcome this, indigenous firms would have to export earlier than indigenous firms would have to do in the advanced capitalist economies with larger domestic markets. Making inroads in export markets would be dependent on how quickly they could build up financial, managerial and marketing expertise.

Subsequent official reports and studies to Telesis were full of comprehensive summaries of the state of industrialisation in general and the weakness of the indigenous sector in particular. But the recommendations that have stemmed from each one, have cumulatively, proven to have been inadequate in bringing about a substantial change in the situation. After the publication of each document there was no real indication that an effective strategy would be put into place or indeed that one had been worked out in the first place. One of the more radical initiatives was the Culliton Report (1992).¹⁴ This report suggested that indigenous industry required its own specific agency. This eventually resulted in the establishment of Enterprise Ireland in 1998.

There are those who would argue that because of the supposed 'transformation' of the Irish economy into what many are calling Ireland's economic miracle, the objective conditions for a comparison between 1982 and the current economic situation in Ireland would not exist. Forfas (2001) claimed that Ireland's recent transformation into what is widely regarded as a competitive and successful economy with high growth levels, rising employment and rising living standards is to a great extent characterised by DFI growth. This is certainly true to some extent but there are also other factors that have contributed to Ireland's recent prosperity. The combination of The Programme for National Recovery (1987-1990) and The Programme for Economic and Social Progress (1991-93) with the broad consensus of employees, employers, farming organisations and government provided a sure footing from which to build for greater stability in public finances. Coupled with a positive attitude towards greater European integration, a burgeoning Financial Centre, a contemporaneous fruition of a well-funded state education system and highly motivated development agency personnel who successfully orchestrated the influx of large numbers of MNEs, the economy ignited. It was the competency and professionalism of the development agencies and their staff that has sold Ireland so magnificently to foreign investors not only in the recent past but also since the inception of the IDA. The IDA in particular has come under the scrutiny of some

¹⁴ Culliton, J. (1992) **A Time for Change: Industrial Policy for the 1990s** (A Report to the Industrial Policy Review Group), Dublin.

other nations' development agencies as a result of their phenomenal success in attracting DFI. Therefore all of these factors contributed to a booming economy. But the problem however with the upsurge in the economy's fortunes and its comparison with the tiger economies of South East Asia is the weakness of the indigenous sector. With the foundation of Enterprise Ireland, there has been some success in stimulating indigenous employment growth but the relatively poor development of this sector is still a matter of some concern.

Therefore the boom in the economy which has been attributed to a combination of different factors and the growth rates in the economy over recent years have been very welcome and have been greeted with relief by many who consider that Ireland has finally arrived at the table of the advanced economies and has redressed the seemingly perennial flight of its youth to more prosperous economies in search of employment. However, the reality for the indigenous sector in particular and industrialisation in general is that the situation has not changed and this reality is being obscured by a newly buoyed economic confidence that pervades much of the country. The evidence for this failure to develop a strong indigenous sector has been corroborated by the findings of Barry (1996)¹⁵, O'Hearn (1998),¹⁶ Kinsella and McBrierty (1998)¹⁷ and by O'Sullivan (2000)¹⁸.

The survey of indigenous firms, which was carried out as part of this thesis only serves to strengthen the force of the arguments above. Its findings too present a picture where the indigenous sector is characterised by small firms with a rather limited base from which to build a strong export capacity. It is also evident that the majority of indigenous firms do not in general trade abroad to any great degree. It would appear that many of the development agencies have encouraged many firms to try and break into markets abroad but it still appears to occur on only a very small scale.

¹⁵ Barry, F. (1991), *Understanding Ireland's Growth*, Macmillan.

¹⁶ O'Hearn(1998), *op.cit.*

¹⁷ Kinsella, R. and McBrierty, J. (1998) *Ireland and the Knowledge Economy, The New Techno-Academic Paradigm*, Oak Tree Press

¹⁸ O'Sullivan, M. (2000), *op.cit.*

Has the situation of dependency on DFI fundamentally changed since the publication of the Telesis Report? It does not appear to have done. One of the main objectives was to move away from dependence on attracting multinational enterprises and towards the development of indigenous industry. When Japanese and South Korea attracted DFI to their countries the underlying belief was that foreign investment in joint venture activity would gradually lead to DFI becoming less important to their economies and that the reliance would shift towards the indigenous manufacturing sector. Ireland has not shown the same preference for acquiring technology through licensing arrangements as Japan and South Korea have. In these countries, there has been an insistence that those foreign companies who have been given permission to establish there, become involved in joint ventures with local manufacturing. This has not happened in Ireland.

There has been a large influx of MNEs into the country in recent years and it has helped foster a belief that the country has achieved a high level of industrialisation. So despite Telesis' warnings as to the dangers of relying on DFI, the evidence of recent years, which has seen the arrival of all the main global computer giants, actually would suggest a growing rather than declining dependence on it.

Has the indigenous industrial structure of Ireland been enhanced since the publication of Telesis? The answer has to be no. One of the objectives that Telesis outlined was that Ireland had to create an internationally competitive industrial sector which would have to be based on a strong indigenous sector. With the upturn in the country's economic fortunes of recent years and particularly the growth of the foreign sector, the country is now perceived internationally as being both modern and industrialised. The reality of Ireland's industrialisation however, is that the indigenous manufacturing sector is still underdeveloped relative to the more advanced nations. Therefore it can be said that there has been greater industrialisation taking place but it is not of the type that was hoped for.

There have been attempts to introduce greater selectivity in terms of support for individual firms but there has not been a very comprehensive top-down strategy that has taken control of industrialisation in the same way as other late-industrialising nations have. The process of trying to assist firms in a more structured way is change that is definitely heading in the right direction but it is not change that is radical enough to bring about substantial development in the indigenous manufacturing sector. The approach to the development of this sector in Ireland has been rather piecemeal. The concern has been to make companies aware that there is assistance

available in terms of advice and some financial benefits and to proffer these, as the agencies deem necessary.

Policy is still, in the main left to the development agencies. Governments come to power inheriting industrial policy rather than they being the initiators of such policy. There has been cross-party support for the development agencies and a belief that the task of bringing about industrialisation is best left to those said agencies. Policy-making therefore, generally tends to come from within the development institutions. The underlying philosophy of intervention deriving therefrom would appear to fall between what Weiss (1998)¹⁹ called the liberal English-speaking states such as Britain, US, Canada, Australia and New Zealand, where intervention is something that is to be tolerated rather than encouraged, and the developmental states such as Japan and South Korea et al. Ireland falls somewhere in between but is much closer to the first model. It is unlikely therefore, that policy in its present form would be capable of initiating a programme that would be radical enough to carry through the development of indigenous industrialisation in the same way as other successful late-industrialising countries have done. It can, therefore, be concluded that relatively little progress has been made since Telesis in terms of the State's effort to foster the development of a strong traded indigenous manufacturing base.

Even though the theories of Global Fordism and Peripheral Fordism do have a relevance to the development of DFI in Ireland, they do not help to explain the lack of development of the indigenous manufacturing sector, or indeed do not provide an adequate theoretical framework, which might be of use in determining a strategy for its advancement in the future. It is for this reason that Amsden's model of late – industrialisation is of more relevance to understanding the indigenous manufacturing sector. Even though Lipietz and Amsden would see their respective theories as mutually exclusive, it is a conclusion of this thesis that certain aspects of both are very useful in considering Ireland's growth and development since 1958.

¹⁹ Weiss, L.,(1998), **The Myth of the Powerless State: Governing the Economy in the Global Era**, Polity Press, Cambridge, p. 20.

For Amsden, the problem for late – industrialising nations is how to raise productivity and create international competitiveness. Amsden like List and Gerschenkron believed that each country possesses individual characteristics, which must be examined individually. Not only were the country's individual characteristics to be examined but that this examination would provide the information upon which the appropriate government intervention would be guided in order to bring about industrialisation.

Amsden like List and Gerschenkron insisted on the importance of studying countries as individual entities. Each country's historical situation, conditions and industrialisation processes differed from other countries. Backward countries showed considerable differences to developed countries not only in terms of the speed at which they developed but also in relation 'to the productive and organisational structures which emerged from these processes'.²⁰ The institutional instruments that have resulted in these differences between nations are themselves unique to individual countries as were the ideologies behind them. There was, therefore, a need to adopt a flexible approach to the phenomenon of how less – developed countries industrialised.

The subsidy for Amsden is the combined efforts that individual state, through their resources, attempts to bring about industrialisation. This could manifest itself as incentives to export, or expenditure on imports for production as well as government investment to promote technological or economic linkages. The value of Amsden's theory for Ireland is that it argues for the role of the state in bringing about the development of its own traded manufacturing sector. It emphasizes the importance and the degree to which the state involves itself in economic development. Indeed Ireland could be viewed as a good example of how the state has failed to use the subsidy effectively in bringing about the development of indigenous industry. The subsidy has certainly been used effectively in relation to attracting DFI, which in turn has made a major contribution to Ireland's recent prosperity but despite the sums that the state has employed in an effort to industrialise there has only been marginal

²⁰ Gerschenkron, A. (1962), *Historical Backwardness in Perspective*, Cambridge Ma., Harvard University Press; p. 24

development of the indigenous sector. By illustrating the late – industrialisation model through an historical analysis of South Korea’s path to industrialisation, Amsden shows how comprehensive the use of the subsidy by the state should be.²¹ The measures that late – industrialisers utilise in bringing about traded manufacturing industrial development is completely removed from the orthodox dictum of letting the forces of supply and demand determine investment and trade. Therefore, it is the state intervening in the economic process through the use of the subsidy to deliberately get relative prices wrong in market terms.

Amsden is the contemporary voice of a tradition that advocates a strong and active role for the state in bringing about industrialisation. As has been mentioned, it goes back to List and was revitalised with the advent of dependency theory and the writings of Gerschenkron. It not only offers an analysis that is relevant for Ireland’s attempts to industrialise but it also offers an anchor to the theoretical analysis that have been proffered by Irish advocates of greater state intervention. In the context of Ireland, Arthur Griffith was a life – long apostle and advocate of List’s economic doctrines. Despite his views not having held great sway with his own Cumann na nGaedheal Party after his untimely death, the coming to power of De Valera’s Fianna Fail Party in 1932, could certainly be said to have based many of their economic policies on Griffith’s ideas.

This tradition of arguing for greater state intervention in bringing about the growth of a strong traded indigenous sector has existed in Ireland ever since. Foremost amongst them has been O’Malley who specifically focussed on the problem of late – industrialisation in Ireland. O’Malley, like Amsden, rejected orthodox theory and insisted on a different approach to industrial strategy, argued in favour of a policy that would identify selected firms in selected industries, which the state would nurture through their early development by protecting them from competition until such time that they became competitive and thereafter allow them to compete with outside firms. The firms would be selected through ‘careful analysis of the scientific requirements for competitive success together with a realistic assessment of the

²¹ Amsden, A., (1989) *Asia’s Next Giant: South Korean and Late-Industrialisation*, New York, Oxford University Press

potential specialised by product, customer, geographical area or a combination of these.'²²

Amsden's theory is vitally important for Ireland, therefore, as at present Ireland's economic growth has been dominated by the influx of DFI. If there is a movement of DFI out of Ireland as has already happened in the past on occasions, how long can the employment growth, which has been dominated by service industry growth, be sustained? If the development of the indigenous manufacturing sector remains weak then the questions that have been continually asked of policy – making since Telesis, will be repeated again and again.

Therefore, I would say that Regulation Theory and Global and Peripheral Fordism are very useful in providing an analysis of one aspect of Irish economic development (i.e.: the role of DFI in the economy). However, some of Amsden's criticisms particularly of Lipietz's work are also valid as it certainly is not a theory that throws much light on the development of the indigenous manufacturing sector. Amsden highlights the need for the development of the indigenous sector by emphasising the importance of country specific development. Both theories, therefore, help to understand how Ireland has arrived at its present state of development. On the basis of my own findings as to the current lack of development of indigenous industry I would have to subscribe to Amsden's views on late-industrialisation. The strength of Amsden's theory is that it is a well presented reiteration of the arguments that espouse a very active role for the state to intervene in engineering and guiding the development of an indigenous manufacturing sector.

Despite the supposed limitations imposed upon the nation states in the era of Globalisation, the theories of late-industrialisation are more relevant than ever for a country like Ireland. Amsden, Evans, Johnson, Wade and Weiss have written extensively about the role of the state in the economies of South East Asia, namely Japan, South Korea and Taiwan. These writers have shown how those nations have not only brought about the industrialisation of their economies but also as to how, having achieved that goal, can maintain the level of international competitiveness of

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O'Malley, E. (1985) *The Problems of Late Industrialisation and the Experience of The Republic of Ireland*, Cambridge Journal of Economics, 9; p,153.

their indigenous industry through the sophisticated support of their development agencies. It is Weiss' (1998) concept of 'state capacity' that has particular relevance for Ireland. It is that very simple idea that some nations set about 'anticipating and responding to economic change' better than others. These nations have possessed a more effective interventionist strategy through which they have brought about the big push towards industrialisation through the use of comprehensive planning. It is this 'transformative capacity' that policy makers in Ireland should explore. This would involve not only looking at the historical aspects of the individual industrialisations concerned but also on how the development agencies and policy-makers, be they public or private, compliment each other in disseminating knowledge on new products and technology so that their nations can successfully maintain their international competitive advantage in terms of exports.

Therefore, the Irish State should study other late-industrialising countries - the late-industrialisers of South East Asia in particular. It should examine carefully the specific strategies employed in each case as well as looking at how these countries maintain their advanced levels of industrialisation once industrialisation has been achieved. This would need to be a very comprehensive analysis of every single institution and how every single aspect of each institution's work contributes to and maintains industrialisation. This research would certainly involve an in-depth analysis of the history of and precise developmental function and operation of each of these developmental support bodies in each of the economies. This would be a costly undertaking on behalf of the Irish government and would involve many specialists over a considerable period of time, but it would be a part of the Irish subsidy that would be very well spent in the long-term. The information stemming from the study could be presented to an open forum of economists of all theoretical persuasions (and not only those narrowly confined to neo-classical theorisation and analysis), academics, trade unionists, scientists, technologists and government officials. Thereupon, a consensus for a strategy could be adopted that would be far more rigorous and dynamic than the 'advice and appraisal' approach of many of the development agencies that exist today. On the basis of such a conference a more effective policy in relation to indigenous manufacturing could be formulated. This would be far more all-embracing and comprehensive with far more specific guidelines

and direction being controlled by the government rather than merely relying on development agencies. The agencies would continue with their invaluable input and knowledge but would have an even greater role to play in carrying out what would be a much more comprehensive industrialisation policy.

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Appendices and Notes Part 1 and 2

Appendix Part 1

1.1 Name of Company	1.2 No of years established (95 as base)	1.3 Country of Origin	1.4 Industry Type	1.5 Is your company partially Irish owned?	1.6 No of workers	1.7 What % of your employees are female?	1.8 What % of your employees are part timers?	1.9 Do you trade overseas?	1.91 % traded with Ireland?	1.92 % traded with UK?	1.93 % traded with EU?	1.94 % traded with US?	1.95 % traded with Other?	1.10 What is EqCap/AllCap?	1.120 Invest in Ireland because of Direct Grant?	1.121 Invest in Ireland because of Tax Benefits?	1.122 Invest in Ireland because of IDA's committed to Training?	1.124 Invest in Ireland because of available requisite skills?	1.124 Invest in Ireland because of access to EU markets?	1.125 Invest in Ireland because of access to UK market?
????omotive Ireland Ltd	23	Germany	Metal/Engineering	Yes	20	5	5	Yes	5	0	25	0	70	1						
Andersen Ireland Ltd	19	Austria	Other Manufacturing	No	300	68	0	Yes	0	0	100	0	0	0.66	Yes	Yes	Yes	Yes	Yes	
Ashling Microsystems Ltd	11		Electronics	Yes	34	40	3	Yes	5	0	75	8	12	0.66	Yes		Yes	Yes	Yes	
Aughinish Alumina Ltd	17	Canada	Chemicals	No	450	5	0	Yes	0	20	50	0	30		Yes		Yes	Yes		
Beckman	23	U.S.A.	Other Manufacturing	No	110	50	2	Yes	0	10	30	30	30	1	Yes	Yes		Yes	Yes	
Caneir	7		Pharmaceuticals	Yes	50	50		Yes							1	Yes	Yes	Yes	Yes	Yes
Chr. Hansen Ireland Ltd	10	Denmark	Food	No	11	36	0	Yes	70	5	85	0	0	0.95	Yes	Yes		Yes		
Component Inter Technologies	13	U.S.A.	Electronics	No	120	15	3	Yes	0	2	30	24	44		Yes	Yes			Yes	
Digital Equipment Ireland Ltd	24	U.S.A.	Electronics	No	340	33	0	Yes	98	0	0	0	98	1						
Filtertek	13	U.S.A.	Other Manufacturing	No	95	60	0	Yes	7	25	61	5	2		Yes	Yes		Yes	Yes	
First Ireland Spirits Co Ltd	2		Food, Drink/Tobacco	Yes	27	40	15	Yes	1	40	19	40	0		Yes	Yes				
Helsinn Chemicals Ireland Ltd	13	Switzerland	Pharmaceuticals	No	50	35	0	Yes	5	0	95				Yes	Yes		Yes	Yes	
K.A.O. Infosystems	2.5	Japan	Software	No	320		20	Yes	60	25	15			0.8		Yes				
Kostal?	15	Germany	Electronics	No	1000	65	0	Yes	0	5	80	2	3		Yes	Yes	Yes	Yes	Yes	
Marle Eire B.V.	8	Holland	Metal/Engineering	No	34	5	0	Yes	30	10	40	0	0							
Microsoft	10	U.S.A.	Software	No	900	50	5	Yes							Yes	Yes	Yes		Yes	
Munelcata Ireland Ltd	6	Japan	Other Manufacturing	No	250	80	10	Yes	30	65	5		5		Yes	Yes	Yes			Yes
Nestle Rowntree	49	U.K.	Food	No	50	8	30	Yes	0	100	0	0	0							
Pfizer	24	U.S.A.	Pharmaceuticals	No	260	10	1	Yes	0	0	100	0	0		Yes	Yes		Yes	Yes	
Reheis Ireland	24	U.S.A.	Chemicals	No	73	12	1	Yes	1	33	35	1	30		Yes	Yes	Yes	Yes	Yes	Yes
Ridge Tool Company	17	U.S.A.	Metal/Engineering	No	91	3	0	Yes	0	0	60	40	0		Yes	Yes	Yes	Yes	Yes	
S.C.A. Molulecke Ltd	20	Sweden	Other Manufacturing	No	140	87	0	Yes	0	0	100	0	0	0.45	Yes	Yes	Yes			
Sandoz Ringaskiddy Ltd	1	Switzerland	Pharmaceuticals	No	214	20	1	Yes	0	3	40	45	12		Yes			Yes	Yes	
Schaefer GmbH	6	Germany	Electronics	No	40	80	0	Yes	0	5	80	15	0		Yes	Yes	Yes			
Schering Plough (Brinny) Co	14	U.S.A.	Pharmaceuticals	No	450			Yes	0	0	30	30	40	1	Yes	Yes	Yes	Yes	Yes	Yes
Schuf Valve Technology	4	Germany	Metal/Engineering	No	50	15	0	Yes	2	3	75	20			Yes	Yes	Yes	Yes		
Seafeld Technical Textiles	4		Textiles	Yes	64	20	4	Yes	5	35	30	0	30	0.25				Yes		
Searay Boats Europe BV	9	U.S.A.	Other Manufacturing	No	150	5	0	Yes	4	6	70	0	20	1	Yes	Yes	Yes	Yes	Yes	
Sem???? Ireland Ltd	28	Germany	Other Manufacturing	No	450	3	0	Yes	6	25	60	6	3	0.62	Yes	Yes	Yes	Yes	Yes	Yes
Star Ball Retainer	21	Germany	Metal/Engineering	No	48	30	2	Yes	4	0	96	0	0		Yes	Yes			Yes	
Tytex Ireland Ltd	11	Denmark	Textiles	No	150	60	10	Yes	0	10	90	0	0		Yes	Yes	Yes	Yes	Yes	
William Cox Ireland Ltd	29		Other Manufacturing	Yes	50	15	0	Yes	90	10	0	0	0	1						
Yamanuchi Ireland Co Ltd	9	Japan	Pharmaceuticals	No	50	25	0	Yes	0	3	20	77	0	1		Yes		Yes	Yes	
z01	27	Germany	Electronics	No	157	50	0	Yes	10	10	80				Yes	Yes	Yes			
z02	18	U.S.A.	Pharmaceuticals	No	350	10	0	Yes	0	30	60		10			Yes		Yes	Yes	
z03	3	Switzerland	Pharmaceuticals	No	250	30	2	Yes	0	10	50	30	10			Yes		Yes	Yes	
z04		U.S.A.	Other Manufacturing	No	115	40	2	Yes	0	5	35	25	35		Yes	Yes		Yes	Yes	
z05	5	Denmark	Food	No	16	40	0	Yes	40	20	40				Yes	Yes		Yes		
z06	5	U.K.	Textiles	No	98	10	4	Yes	20	40	20	10	10	0.25		Yes		Yes		
z07	5		Electronics		340	20	20	Yes	50	10	40			0.8		Yes		Yes	Yes	Yes
z08	43	U.K.	Food	No	80	20	30	Yes			100									
z09	19	U.S.A.	Metal/Engineering	No	90	2	10	Yes	0	0	80	20			Yes	Yes	Yes	Yes	Yes	
z10	10	Germany	Electronics	No	390	80	0	Yes	0	10	70	5	15		Yes	Yes	Yes	Yes	Yes	Yes
z11		U.K.	Electronics	Yes	64	30	4	Yes	10	10	60	20		0.75	Yes	Yes	Yes	Yes		
z12	7	Japan	Other Manufacturing	No	250	90	20	Yes	30	40			30		Yes	Yes	Yes			Yes
z13			Electronics	No	50	70		Yes	5	3	47	45			Yes	Yes		Yes		
z14	11	U.S.A.	Electronics	No	200	68	0	Yes	30	50	15	5		1	Yes	Yes	Yes		Yes	
z15			Drink/Tobacco	No				Yes	60	21	7	9	3	1						

1.1 Name of Company	1.130 Which of the following have you heard of	1.140 Which of them have you contacted	1.151 If you met with, how important is the continued operation of this contact to your firm's continued operation	1.152 If you met with, how important is the continued support from them to your expansion of your operation?	1.161 If IDA met with, was this to foster links with the indigenous manufacturing companies	1.162 If IDA met with, was this to foster links with both indigenous non-manufacturing companies	1.163 If IDA met with, now successful would you rate these attempts to foster such links with indigenous manufacturing companies
????motive Ireland Ltd	IDA SFADCO UNG CTT EOLAS FAS	IDA UNG CTT FAS					
Andersen Ireland Ltd	IDA SFADCO NLP UNG CTT EOLAS FAS	IDA SFADCO NLP CTT EOLAS FAS	2	2		Yes	-1
Ashling Microsystems Ltd	IDA SFADCO CDP NLP UNG CTT EOLAS FAS	IDA SFADCO CDP CTT NADCOORP EOLAS FAS	2	1	1		
Aughinish Alumina Ltd	IDA SFADCO NLP EOLAS FAS	IDA SFADCO FAS	0	-1	0	Yes	-1
Beckman	IDA SFADCO FAS	IDA SFADCO FAS	0	0	-1		
Caneir	IDA SFADCO UNG CTT NADCOORP EOLAS FAS	UNG CTT NADCOORP EOLAS					
Chr. Hansen Ireland Ltd	IDA UNG CTT EOLAS FAS	IDA FAS	1	1	1	Nb	Nb
Component Inter Technologies Ireland Ltd	IDA SFADCO UNG CTT EOLAS FAS	IDA SFADCO CTT EOLAS FAS	2	1	1		Yes
Digital Equipment Ireland Ltd	IDA SFADCO UNG CTT NADCOORP EOLAS FAS	IDA	2	-2	1	Nb	Nb
Filtertek	IDA SFADCO NLP UNG CTT EOLAS FAS	IDA SFADCO NLP CTT EOLAS FAS	0	0	0		
First Ireland Spirits Co Ltd	IDA SFADCO NLP UNG CTT EOLAS FAS	IDA CTT EOLAS FAS	1	0	0	Nb	
Helsinki Chemicals Ireland Ltd	IDA NLP EOLAS FAS	IDA EOLAS FAS	2	-2	-1	Nb	Nb
K.A.O. Infosystems	IDA SFADCO NLP UNG FAS	IDA	0	-2	0	Yes	2
Kostal?	IDA SFADCO CDP UNG CTT EOLAS FAS	IDA SFADCO CDP CTT EOLAS FAS		1	2		
Marle Eire B.V.	IDA SFADCO CDP NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA UNG CTT EOLAS FAS	-1	1	1	Yes	0
Microsoft	IDA SFADCO NLP EDC UNG CTT EOLAS FAS	IDA CTT EOLAS FAS	2	2	1	Yes	-2
Munelcata Ireland Ltd	IDA FAS	IDA FAS	0	0	0		
Nestle Rowntree	IDA SFADCO NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA EOLAS FAS	2	0	0	Yes	1
Pfizer	IDA SFADCO NLP EDC UNG CTT EOLAS FAS	IDA EOLAS FAS			1		-1
Reheis Ireland	IDA SFADCO NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA NLP CTT EOLAS FAS	1	2	1	Yes	0
Ridge Tool Company	IDA CTT FAS	FAS	-1	-2	-1	Yes	0
S.C.A. Mblutscheke Ltd	IDA SFADCO UNG CTT NADCOORP EOLAS FAS	IDA CTT EOLAS FAS	1	0	0		
Sandoz Ringskiddy Ltd	IDA NLP EOLAS FAS	IDA NLP EOLAS FAS	2	1	0	Yes	1
Schaefer GmbH	IDA SFADCO CTT FAS	IDA CTT FAS	-2	-1	-1	Yes	1
Schering Plough (Brinny) Co	IDA SFADCO UNG CTT NADCOORP EOLAS FAS	IDA FAS	1	-1	0	Nb	Nb
Schuf Valve Technology	IDA CTT EOLAS FAS	IDA EOLAS FAS	2	2	2	Yes	-2
Seafield Technical Textiles	IDA CTT EOLAS FAS	IDA CTT EOLAS FAS	2	2	2	Nb	Nb
Searay Boats Europe BV	IDA SFADCO CDP NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA CDP NLP CTT EOLAS FAS	2	-2	-1	Nb	Nb
Serr???? Ireland Ltd	IDA SFADCO NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA NLP CTT EOLAS FAS	1	1	2		0
Star Ball Retainer	IDA SFADCO NLP UNG CTT EOLAS FAS	IDA UNG CTT EOLAS FAS	0	0		Yes	-1
Tyrex Ireland Ltd	IDA SFADCO UNG CTT NADCOORP EOLAS FAS	IDA UNG CTT EOLAS FAS	0	0	1	Yes	1
William Cox Ireland Ltd	IDA SFADCO NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA SFADCO UNG CTT EOLAS FAS	2	2	2	Yes	0
Yamanuchi Ireland Co Ltd	IDA SFADCO NLP UNG CTT NADCOORP EOLAS FAS	IDA SFADCO NLP CTT EOLAS FAS	0	-1	-1	Yes	-2
z01	IDA CDP NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA CTT EOLAS FAS	1	1	1	Yes	0
z02	IDA SFADCO NLP CTT EOLAS FAS	IDA SFADCO CTT FAS	0	-1	0	Yes	0
z03	IDA NLP EOLAS FAS	IDA NLP EOLAS FAS	2	0	0	Yes	0
z04	IDA SFADCO FAS	IDA SFADCO FAS	0	0	-1		
z05	IDA CTT EOLAS FAS	IDA FAS	1	1	1		
z06	IDA CTT EOLAS FAS	IDA CTT EOLAS FAS	2	2	2		
z07	IDA SFADCO UNG CTT FAS	IDA	0	-1	0	Yes	2
z08	IDA SFADCO NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA EOLAS FAS	2	0	0	Yes	1
z09	IDA CTT EOLAS FAS	IDA EOLAS FAS	0	-2	-1	Yes	0
z10	IDA SFADCO CDP NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA SFADCO CDP CTT EOLAS FAS	1	2	2		
z11	IDA SFADCO CDP NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA SFADCO CDP CTT NADCOORP EOLAS FAS	2	1	1		
z12	IDA FAS	IDA FAS	0	0	0		
z13	IDA EOLAS FAS	EOLAS FAS					
z14	IDA SFADCO NLP UNG CTT NADCOORP EOLAS FAS	IDA SFADCO NLP CTT EOLAS FAS	-1	-1	-1	Nb	Nb
z15	IDA SFADCO CDP NLP EDC UNG CTT NADCOORP EOLAS FAS	IDA NLP CTT EOLAS FAS	1	0	1	Yes	0

Fig A1 cont.

Multinational Fields 1.15,1.16 & 1.18

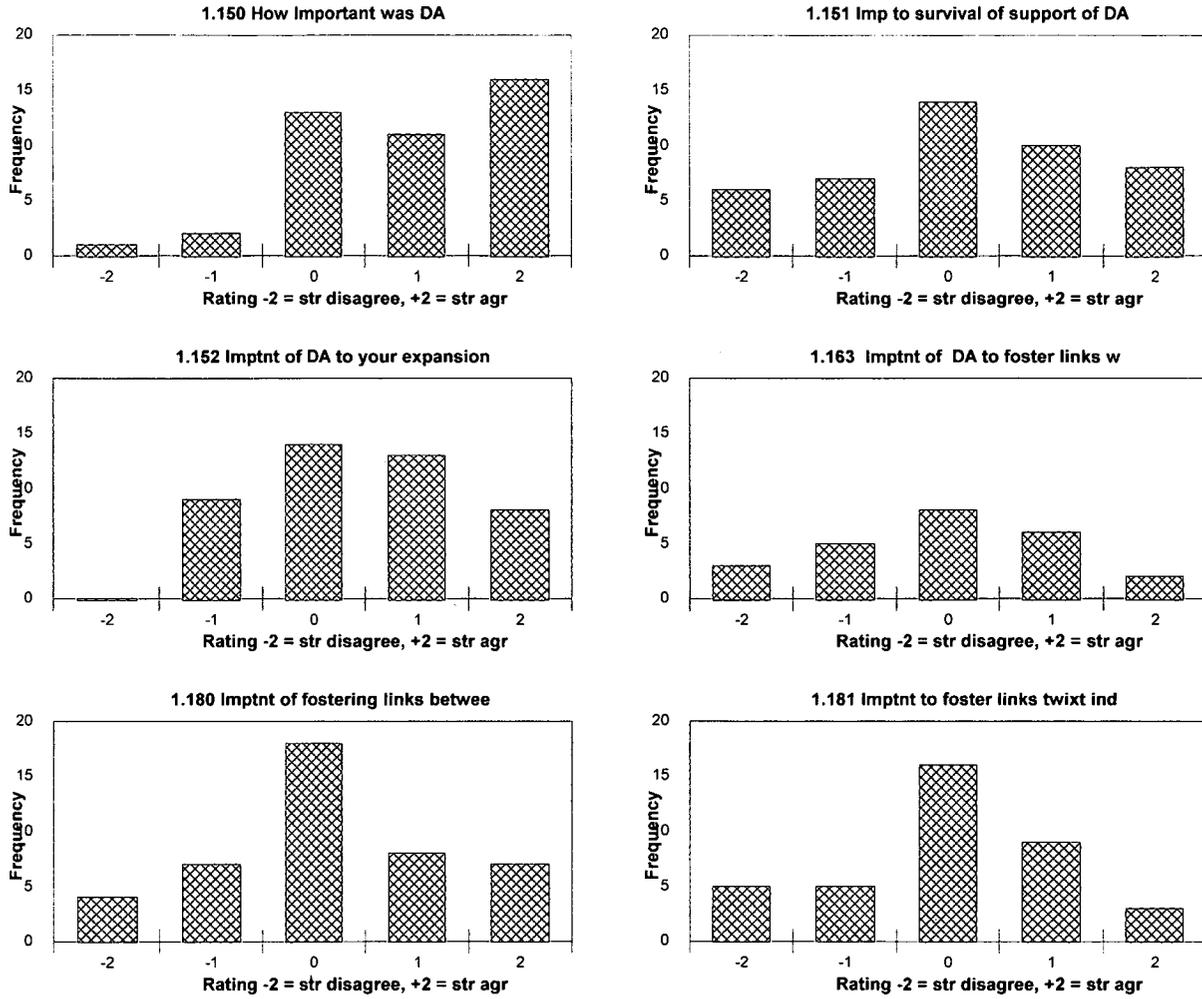


Figure M1

Notes Part 1

1) THE VALIDITY OF THE TESTS AND PROCEDURES

THE SAMPLE SELECTION

The Kompass directory was assumed to represent a fair cross section of all multinational companies in Ireland, for the year in question. Choosing only one record from each page led to a possible systematic error, in that companies somehow related by the same or similar names were possibly not included. It was not thought to be important.

A simple random sample was chosen since much of the analysis required it; especially the parametric side. Subsequent supporting evidence for its randomness was to be found in the conclusion about the companies' ages, which were found to be normally distributed ($\alpha = 1\%$).

Any stratified sample chosen according to any reasonable criteria would, of course, be included in this sample; for example a demographic partition by county. It has some advantages over a stratified sample in that the criteria for a stratified sample are necessarily arbitrary, and that it is easier to carry out.

THE SIGNIFICANCE TESTS IN GENERAL

Where possible, parametric tests have been chosen over their non-parametric counterparts, due to their greater power. For the questions on opinions (five point ratings, or Lickert scales), however, non-parametric tests were the only option.

A major assumption in the analysis is that the non-respondents would have replied in much the same way as the respondents, and that both were typical of all their parent population of all multinational companies in Ireland at the time of the survey. This may or may not be true; a follow up sub-survey of twenty randomly selected non-respondents failed to elicit any responses. Another assumption is that the companies have been weighted equally in their responses.

The replies were also influenced by the wording of the questions, which, although attempting to be neutral, were inevitably influenced by the author's own opinions.

NON-PARAMETRIC

The sign test and the Wilcoxon signed rank test were used. Although normally more powerful than the sign test, there is some controversy over the validity in the rôle of ties in ranking methods with the Wilcoxon signed rank test. Hence it was thought safer to accept its conclusions only when they agreed with the signed rank tests on the same data, whose intuitive assumptions were not open to question. In agreement with this, the conclusions to the five point ratings (fields 1.15, 1.16, 1.18) hold.

PARAMETRIC

The procedures used in this class were as follows. They are more powerful than their non-parametric counterparts.

They are the (exact) binomial test (notes 3 & 4, Appendix Part 1), which applied to the Reasons for Investing in Ireland section (Field 1.12) and its conclusions. These should be read with the innocuous caveat

mentioned in the note 3 above.

2)

Number of Years Established

Mean	14.31
Standard Error	1.59
Median	11
Mode	11
Standard Deviation	10.57
Sample Variance	111.70
Kurtosis	2.02
Skewness	1.28
Range	48
Minimum	1
Maximum	49
Sum	629.5
Count	44
Confidence Level (95.0%)	3.21

Figure 2

OBSERVED AND EXPECTED FREQUENCIES OF DATA

(GROUPED)

Age Bin	Observed Frequenc y	Cumulative Expected Frequency	Expected Frequency	Sum of Squares
1-4.5	7	7.25	7.25	0.01
4.5-10.5	13	15.81	8.56	2.30
10.5-17.5	9	26.43	10.61	0.25
17.5-23.5	7	35.54	9.12	0.49
23.5-50	8	43.98	8.44	0.04
Sum of squares is				3.08

Figure 3

GOODNESS OF FIT TEST FOR NORMALITY

H_0 : A normal distribution is the correct model for the Multinational Companies' ages.

H_1 : A normal distribution is not appropriate.

1% level of significance

$\chi^2_{1\%,2} = 9.21$ from computer, while $\chi^2 = 3.08$ from fig. 3.

Proc. 2

With two parameters μ , and σ , estimated from the data (fig 2, p3, 40), and a constant sample size there were 5 groups after combinations. So, $v = 5 - 1 - 2 = 2$. The test value (observed, fig 3) is 3.08. The critical (theoretical) value was 4.61. Since $3.08 < 9.21$, the observed value lies well within the acceptance region of the null hypothesis, we do not reject H_0 , and conclude that the normal distribution is an adequate model, (1% level).

3) This is a fairly reasonable and conservative assumption. 7 respondents put no ticks in these boxes at all, which, if interpreted as blanks would reinforce nearly every (significant) conclusion; there being now 41 instead of the 48 respondents in the summation, with a corresponding decrease in the type I error = α as given in the revised schedule underneath:

<i>Reason</i>	α
Direct Grant	2.1×10^{-4}
Tax Benefits	1.9×10^{-11}
IDA's Committed to Training	0.34
Available Requisite Skills	7.3×10^{-4}
Access to E.U. Markets	0.014
Access to U.K. Markets	5.6×10^{-5}
Pool of Relatively Low Cost Labour	0.059

The one exception here is that the α for the Pool of Relatively Low Cost Labour is not now significant at the 5% level, two tailed, although it is at the one tailed.

4) This test makes no assumptions about the underlying distribution of frequencies, and simply assumes that the median of scores is (here) zero, i.e. as many agree as disagree. It assigns equal weights to strong and weak opinions.

The test was applied to each of the above questions from field F1.12, giving, for the field F1.120 in particular, "(Did a) Direct Grant influence your decision to invest in the Irish Republic?" the (exact) test

statistic of cumulative probability = $\sum_{x=0}^{17} \binom{48}{x} = 0.0147$ where, the lesser of 31, and, $48 - 31 = 17$, has been

used for the upper bound in the summation. The number 0.0147 is less than one of the 2.5% tails of the binomial curve. It therefore falls into the critical region for rejection of the null hypothesis. The null hypothesis is consequently rejected at the five per cent level, and the alternative (see fig 14, p13 for the direction) accepted: a direct grant did indeed influence the firms' decision to invest in the Irish Republic. (5% level, two tailed). See next page.

Field 1.12 — Which of the following categories influenced your decision to invest in the Irish Republic?

Category	Number of "yes" votes (out of 48).	Probability of this randomly happening (under H_0) = α	Significant or not at 5% level (two tailed), and (dis/agreement with proposition.)
Direct Grant (F1.120)	30	0.0147	Yes (Agree)
Tax Benefits (F1.121)	39	1.65×10^{-6}	Yes (Agree)
Industrial Development Agencies commitment to Training (F1.122)	21	0.235	No (Disagree)
The availability of requisite skills (F1.123)	30	0.0297	No (Agree)
Access to E.U. markets (F1.124)	27	0.156	No (Agree)
Access to U.K. markets (F1.125)	8	1.65×10^{-6}	Yes (Disagree)
Pool of relatively low cost labour (F1.126)	15	0.00664	Yes (Disagree)

5) THE SIGN TEST

This test makes no assumptions about the underlying distribution of frequencies, and simply assumes that the median of scores is (here) zero, i.e as many agree as disagree. It assigns equal weights to strong and weak opinions, and does not count the neutrals. An exact test was made with the help of the computer.

$H_0: p(+) = p(-) = \frac{1}{2}$ opinion is neutral

$H_1: p(+) \neq p(-)$ opinion is either for or against

Under H_0 , $x \sim \text{Bin}\left(n, \frac{1}{2}\right)$

5% level of significance, two tailed

Proc. 3

It can be carried out on each question in turn. Its results for each opinion are given in Fig. 17 (p19).

THE WILCOXON SIGNED RANK TEST

This test again makes no assumptions about the underlying distributions, does not count the neutrals, but now weights the strong opinions more than the weak ones. Its null hypothesis is that the median of the differences in scores is zero, i.e. that as many agree as disagree. This required a null model, which naturally suggested itself as a score of three to every question asked. After coding (by subtracting 3 from each of the original ratings of 1,2,3,4,5, where 5 = strongly agree, and, 1 = strongly disagree), this would imply a difference or score of zero to every question asked.

H_0 : Median of differences = 0, opinion is neutral

H_1 : Median of differences \neq 0, opinion is either for or against

where the differences are normally distributed, and,

$$\mu_T = \frac{n(n+1)}{4}, \text{ and, } \sigma_T = \sqrt{\frac{n(n+1)(2n+1)}{24}}$$

are the test statistics if $n > 25$, otherwise tables were used.

5% level of significance, two tailed

Proc. 4

Appendix Part 2

F1.1 Company Name	F1.2 Years Old	F1.3 Private or Not?	F1.6 Number of Workers	Number of DA's had help from (past/current)	No. of DAs to get help from (future) rider to F1.192)	F 1.10 Ratio of Equity Cap:All Cap	F1.7 % Female Employees	F1.8 % Part timers	F1.9 Do you trade overseas	F1.91 % trade with Eire	F1.92 % trade with UK	F1.93 % trade with EU	F1.94 % trade with US	F1.95 % trade with other
A.G.B. Scientific Ltd	27	Yes	100	2	3			0	Yes	0	10	80	10	0
Ardmac Group Ltd	18	Yes	150	2	3		10	20	Yes	40	60	0	0	0
Blacktorn Sales	43	Yes	100	2	2		60	0	Yes	65	15	5		15
Carbemy? Plastics Ltd	18	Yes	30	1	1		6		Yes	60	0	40	0	0
Carraig Dunn Knitwear	23	Yes	55	4		0.5	60	5	Yes	50	4	23	20	3
Cleggan Lobster Fisheries Ltd	40	Yes	4		2	0.333	25	20	Yes	1	0	95	0	4
DraperErin Ltd	24	Yes	27	6	1	1	12	0	Yes	60	4	1	32	3
E. F.???? and Sons	195	Yes	50	2	1	1	15	2	Yes	95	1	1		3
E.D.L. ?	20	No	50	2	3	1	5	0	Yes	55	10	0	30	5
Eurostyle Ltd	23	Yes	60	4	1	0.833	66	2	Yes	37	51	11	2	0
Galco Steel Ltd	28	Yes	80	0	1		12.5	0	Yes	75	20	5	0	0
Grover Ltd		Yes	50	2	1		0		Yes	50	0	10	40	0
Irish Seaspray (Oilean Mara Teoranta)	6	Yes	50	2		0.364	60	30	Yes	5	7	75	13	0
Irish Table Top Group Ltd	16	Yes	31	2		0.5	50	0	Yes	80	4	2	14	0
Kenilworth Products	27	Yes	50	2	2		40		Yes					
Kill?? Precision Components Ltd	14	Yes	45	6	3	0.8	8	0	Yes	86	10	3	1	0
Mannin Bay Salmon Co Ltd	7	Yes	15	0		1	20	20	Yes	10	0	0	0	90
McHale Engineering Ltd	9	Yes	50	3	3	1	6	5	Yes	30	40	20		10
Murphy Brewery Irl Ltd	12	Yes	350				40	20	Yes					
Omnitron Services Ltd	6	Yes	19	4	3	1	70	0	Yes	70	0	0	0	30
Prodieco Ltd	32	Yes	50	3	3		4	8	Yes	50	40	5	5	0
Reliable Plastics	13	Yes	50	4			30	4	Yes	60	30	0	0	10
Rom Plastics Ltd	10	Yes	61	4	4	0.25	7	0	Yes	92	7	1	0	0
Ryan Plastics	16	Yes	26	5	1	0.8	65	0	Yes	5	25	65		5
Shamrock Forge and Tool Co. Ltd	22	Yes	60	1	2		10	1	Yes	0	41	59	0	0
Sligo Crystal	19	Yes	50	1	1		70	30	No					
South + East Coast Fishermen Coop Ltd	27	Yes	50	1		0.5	33	33	No					
Tuam Engineering	17	No	52	4	1		0	20	Yes	60	25	15	0	0
Wanted to be Private	12	Yes	50	3	3		20	5	Yes	50	50	0	0	0
Wanted to remain private	21	Yes	67	3			0	0	Yes	70	10	0	0	20
y01	25	Yes	50	1	2		40	10	Yes	30	70	0	0	0
y02	20	Yes	27	4	1		50	10	Yes	60	40	0	0	0
y03	27	Yes	37	2	1		40	1	Yes	30	60	10	0	0
y04	41	Yes	46	3	1		20	2	Yes	40	40	20	0	0
y05	35	Yes	98	0			20	5	Yes	60	30	10	0	0
y06	6	Yes	50				30	10	Yes	10	20	40	0	30
y07	19	Yes	40	2	1		10	0	Yes	80	0	20	0	0
y08	6	Yes	28	0	2		30		Yes	30	70	0	0	0
y09	18	Yes	28						Yes					
y10	18	Yes	25	1	1	0.5	15	0	Yes	50	30	20	0	0
y11	38	Yes	98	2			30	10	Yes	80	20	0	0	0
y12	13	Yes	150	3	2	0.75	59	2	Yes	10	40	50	0	0
y13	9	Yes	34	2	2	0.909	34	2	Yes	5	30	15	5	45
y14	36	Yes	50			1	5	0	Yes	80	7	0	8	5
y15	11	Yes	50	2			90	0	Yes	60	0	0	40	0
y16	23	Yes	130	2	3		45	5	Yes	65	30	0	0	5
y17	4	Yes	50	2	2	0.667	50	15	Yes	60	30	10	0	0
y18	40	Yes	50	2	2		70	10	Yes	70	30	0	0	0

Figure B1 (page 1)

F1.1 Company Name	F1.5 is firm wholly Irish?	F1.121 Expansion due to impro econ	Expansion due to Gov Support	Expansion due to other	F1.17 Are you thinking about overseas trade?	Overseas trade with the UK?	Overseas trade with the EU?	Overseas trade with the US?	F1.181 Do you make end products?	Do you make intermediate products?	F1.182 Do you sell to Irish Companies	Do you sell to Foreign companies in Ireland?	Do you sell to Foreign companies in Ireland?	F1.191 Do you see yourself getting help from aforesaid DAs?
A.G.B. Scientific Ltd	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes		Yes	Yes
Ardmac Group Ltd	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		No	Yes
Blacktom Sales	Yes				Yes	Yes	Yes	No	Yes	Yes			Yes	Yes
Carbemy? Plastics Ltd	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes		No	Yes
Carraig Dunn Knitwear	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No	Yes		Yes	Yes
Cleggan Lobster Fisheries Ltd	Yes				Yes	Yes	Yes	Yes	Yes	No	Yes		No	Yes
DraperErin Ltd	Yes				Yes	Yes	No	No	Yes	Yes	Yes		Yes	Yes
E. F. ????? and Sons	Yes				Yes	Yes	Yes	Yes	Yes	No	Yes		Yes	Yes
E.D.L. ?	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	No				Yes
Eurostyle Ltd	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes		Yes	Yes
Galco Steel Ltd	Yes	Yes	No	No	No	No	No	No		Yes	Yes		Yes	Yes
Grover Ltd	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes		No	Yes
Irish Seaspray (Oilean Mara Teoranta)	Yes	Yes	Yes	No										
Irish Table Top Group Ltd	Yes	Yes	No	No										
Kenilworth Products	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	Yes		No	Yes
Kill?? Precision Components Ltd	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes		Yes	Yes
Mannin Bay Salmon Co Ltd	No				Yes	No	No	No	Yes	Yes	Yes		No	No
McHale Engineering Ltd	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes		No	Yes
Murphy Brewery Irl Ltd	No								Yes	Yes	Yes		Yes	
Omnitron Services Ltd	No				Yes	No	Yes	No	Yes	Yes	Yes		Yes	Yes
Prodieco Ltd	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		No	Yes
Reliable Plastics	Yes	Yes	No	No										
Rom Plastics Ltd	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes		Yes	Yes
Ryan Plastics	No	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes		Yes	Yes
Shamrock Forge and Tool Co. Ltd	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes		Yes	Yes
Sligo Crystal	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes		Yes	Yes
South + East Coast Fishermen Coop Ltd	Yes				Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No
Tuam Engineering	Yes				Yes	Yes	No	No	Yes	No				Yes
Wanted to be Private	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes		Yes	Yes
Wanted to remain private	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes		No	Yes
y01	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes		Yes	Yes
y02	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes		Yes	Yes
y03	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes		No	Yes
y04	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes		Yes	Yes
y05	Yes	Yes	No	No										No
y06	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes		No	No
y07	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Yes		Yes	Yes
y08	No	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes		No	Yes
y09	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes		Yes	No
y10	Yes	No	No	Yes	Yes	No	No	No	Yes	No	Yes		No	Yes
y11	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes		Yes	
y12	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		No	Yes
y13	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes		Yes	Yes
y14	Yes				Yes	No	Yes	No	No	Yes	Yes		No	No
y15	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No	Yes		No	
y16	Yes	No	No	Yes	Yes	Yes	No	No	Yes	No				Yes
y17	Yes				Yes	Yes	Yes	No	Yes	No	Yes		Yes	Yes
y18	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes		Yes	Yes

Figure B1 (page 2)

Obstacles to Increasing Overseas Trade Fields F1.6

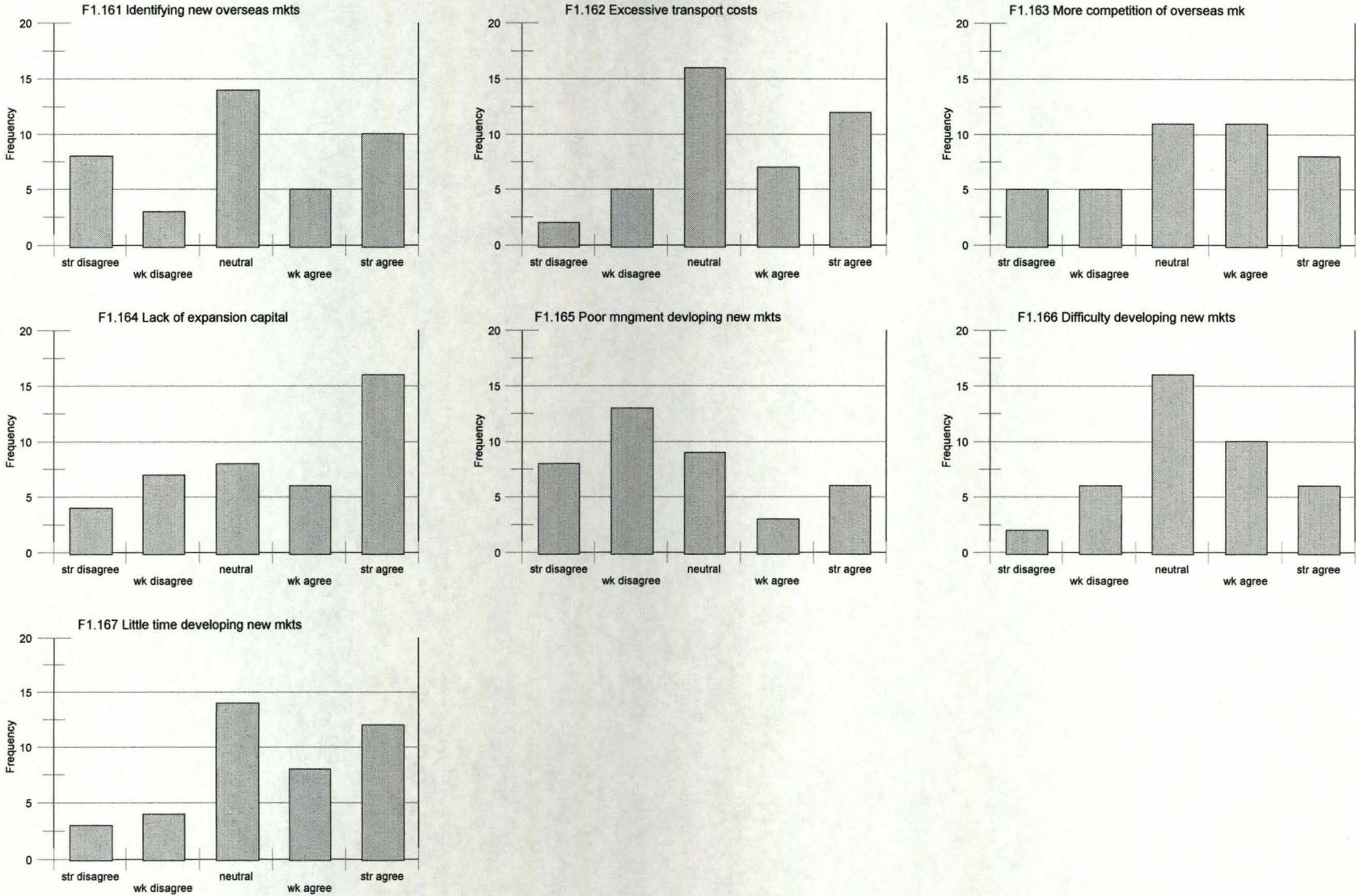


Figure N1

Notes Part 2

Note 1) **The Validity of the Tests and Procedures**

The Sample Selection

The Kompass directory was assumed to represent a fair cross section of all indigenous manufacturing companies in Ireland, for the year in question. Choosing only one record from each page led to a possible systematic error, in that companies somehow related by the same or similar names were possibly not included. It was not thought to be important.

A simple random sample was chosen since much of the analysis required it; especially the parametric side. Subsequent supporting evidence for its randomness was to be found in the conclusion about the companies' ages, which were found to be normally distributed ($\alpha = 1\%$).

Any stratified sample chosen according to any reasonable criteria would, of course, be included in this sample; for example a demographic partition by county. It has some advantages over a stratified sample in that the criteria for a stratified sample are necessarily arbitrary, and that it is easier to carry out.

The Significance Tests in General

Where possible, parametric tests have been chosen over their non-parametric counterparts, due to their greater power. For the questions on opinions (five point ratings, or Lickert scales), however, non-parametric tests were the only option.

A major assumption in the analysis is that the non-respondents would have replied in much the same way as the respondents, and that both were typical of all their parent population of all indigenous manufacturing companies in Ireland at the time of the survey. This may or may not be true; a follow up sub-survey of twenty randomly selected non-respondents elicited five more responses. They appeared to be distributed much like the previous respondents.

The replies were also influenced by the wording of the questions, which, although attempting to be neutral, were inevitably influenced by the author's own opinions.

A further assumption was in the equal weighting of each firm. This was perhaps not so important with the opinions, but more so with the proportion of trade done abroad. This was inevitable, due to the sparsity of information from the fields 1.12 to 1.14, because a lot of the companies were small companies and private companies. They were unwilling to divulge information about their finances and volumes of business.

Non-Parametric

The sign test and the Wilcoxon signed rank test were used. Although normally more powerful than the sign test, there is some controversy over the validity in the rôle of ties in ranking methods with the Wilcoxon signed rank test. Hence it was thought safer to accept its conclusions only when they agreed with the signed rank tests on the same data, whose intuitive assumptions were not open to question. In agreement with this, the conclusions mentioned on pages 13 *et al* hold.

Parametric

All procedures in this class and their subsequent conclusions are statistically more robust.

They are the sign test, used in fields 1.15, 1.16, 1.19, the chi squared goodness of fit test used in field 1.2 (Proc. 1,) and, a difference in means and difference in proportions) used to compare means obtained from various paired fields.(Note 2)

THE SIGN TEST

This test makes no assumptions about the underlying distribution of frequencies, and simply assumes that the median of scores is (here) zero, i.e as many agree as disagree. It assigns equal weights to strong and weak opinions, and does not count the neutrals. An exact test was made with the help of the computer.

$$H_0: p(+) = p(-) = \frac{1}{2} \quad \text{opinion is neutral}$$

$$H_1: p(+) \neq p(-) \quad \text{opinion is either for or against}$$

$$\text{Under } H_0, x \sim \text{Bin}\left(n, \frac{1}{2}\right)$$

5% level of significance, two tailed

Proc. 3

It can be carried out on each question in turn. Its results for each opinion are given in Fig. 17.

THE WILCOXON SIGNED RANK TEST

This test again makes no assumptions about the underlying distributions, does not count the neutrals, but now weights the strong opinions more than the weak ones. Its null hypothesis is that the median of the differences in scores is zero, i.e. that as many agree as disagree. This required a null model, which naturally suggested itself as a score of three to every question asked. After coding (by subtracting 3 from each of the original ratings of 1,2,3,4,5, where 5 = strongly agree, and, 1 = strongly disagree), this would imply a difference or score of zero to every question asked.

$$H_0: \text{Median of differences} = 0, \text{ opinion is neutral}$$

$$H_1: \text{Median of differences} \neq 0, \text{ opinion is either for or against}$$

where the differences are normally distributed, and,

$$\mu_T = \frac{n(n+1)}{4}, \text{ and, } \sigma_T = \sqrt{\frac{n(n+1)(2n+1)}{24}}$$

are the test statistics if $n > 25$, otherwise tables were used.

5% level of significance, two tailed

Proc. 4

Questionnaires

First Company Survey: Indigenous Firms

Second company Survey: Foreign Firms

Questionnaire: K. Rushe, PhD Research

1. Information on Company Background

1.1 Name of Company: _____ 1.2 Year established: _____

1.3 Type of Company: (a) Public []
(b) Private []

1.4 Industry Type: Food []
Drink/Tobacco []
Clothing/Footwear []
Textiles []
Wood/Furniture []
Paper/Printing []
Chemicals []
Minerals []
Metals/Engineering []
Other Manufacturing []

1.5 Is Company totally Irish owned? yes [] no []
If no, could you specify what % of your operation is Irish owned?

0 - 33% []
34% - 66% []
67% - 100% []

1.6 Number of Employees (financial year 1994/95):
1 - 100 []
101 - 200 []
201 - 300 []
301 - 400 []
401 - []

1.7 What % of your employees are female? []%

1.8 What % of your employees are part-timers? []%

1.9 Do you trade overseas? Yes [] No []
If yes, what % of your operation involves trade with:

REP. OF IRELAND []%
UK []%
(excluding UK) EU []%
US []%
Other []%

If no, have you ever considered trading overseas? Yes [] No []

What do you consider to be the main obstacles? _____

1.10 What is the proportion of Equity Capital to Loan Capital? []%

1.11 Please complete the following:

	Labour employed	Turnover	Total Assets (Fixed & Current)	Profits	Net Working Capital	Investment
Financial Year 1995/96						

	Labour employed	Turnover	Total Assets (Fixed & Current)	Profits	Net Working Capital	Investment
Since 1984 has your business:						
Contracted						
Remained Constant						
Expanded						
If expanded, by what %						

1.15 On a scale of 1 (useful) to 5 (essential) how would you rate the difference, the assistance you received, has made to your firm's successful operation:

[1 | 2 | 3 | 4 | 5]

1.16 Could you rank between a scale of 1 (of little importance) to 5 (of extreme importance), which of the following areas would you regard to having been the greatest obstacle to increasing your trade over seas in the period between 1984 to 1994.

Identifying new overseas markets [1 | 2 | 3 | 4 | 5]

Excessive transport costs [1 | 2 | 3 | 4 | 5]

Higher degree of competitiveness of overseas markets [1 | 2 | 3 | 4 | 5]

Lack of capital for expansion [1 | 2 | 3 | 4 | 5]

Insufficient managerial expertise to develop new markets [1 | 2 | 3 | 4 | 5]

Difficulty in developing new markets [1 | 2 | 3 | 4 | 5]

1.17 Are you considering increasing your trade overseas? Yes [] No []
If so, which trade areas will you be targeting? UK []%
(excluding UK) EU []%
US []%
Other (please specify) []%

1.18 Do you produce Finished Products [] or Intermediate Products []?

Do you sell to Irish Companies [], Foreign Companies in Ireland [] or Both []

1.19 Do you envisage receiving assistance from the aforementioned industrial development agencies? Yes [] No []

If yes, could you specify which agencies: _____

Could you rank on a scale of 1 (not very important) to 5 (vitally important) how crucial you would regard such assistance to your expansion plans.

[1 | 2 | 3 | 4 | 5]

If no, are you aware of the aforementioned industrial agencies?

Yes [] No []

Have you applied for any assistance from any of the aforementioned agencies?

Yes [] No []

If your application was unsuccessful, could you state the reason given for such an outcome? _____

Questionnaire: K. Rushe, PhD Research

1. Information on Company Background

1.1 Name of Company: _____ 1.2 Year established in Ireland: _____

1.3 Country of Origin:

1.4 Industry Type: Food () Minerals ()
 Drink\Tobacco () Metal\Engineering ()
 Clothing () Electronics ()
 Textiles () Pharmaceuticals ()
 Wood\Furniture () Electrics ()
 Paper\Printing () Other Manufacturing ()

1.5 Is your company partially Irish owned? Yes () No ()
If yes, could you specify what % of your operation is Irish owned?

0 - 33% ()
34% - 66% ()
67% - 100% ()

1.6 Number of employees (financial year 1995/96):

1 - 100 ()
101 - 200 ()
201 - 300 ()
301 - 400 ()
401 - ()

1.7 What % of your employees are female? ()%

1.8 What % of your employees are part-timers? ()%

1.9 Do you trade overseas? Yes () No ()
If yes, what % of your operation involves trade with:

REP. OF IRELAND ()%
UK ()%
(excluding UK) EU []%
US ()%
other ()%

1.10 What is the proportion of Equity Capital to Loan Capital? ()%

1.11 Please complete the following:

	Labour employed	Turnover	Total Assets (Fixed & Current)	Profits	Net Working Capital	Investment
Financial Year 1994/95						

	Labour employed	Turnover	Total Assets (Fixed & Current)	Profits	Net Working Capital	Investment
Since 1984 has your business:						
Contracted						
Remained Constant						
Expanded						
If expanded, by what %						

1.12 Which of the following categories influenced your decision to invest in the Irish Republic:

- Direct Grant ()
- Tax Benefits ()
- Industrial Development Agencies commitment to Training ()
- The availability of requisite skills ()
- Access to E.U. markets ()
- Access to U.K. market ()
- Pool of relatively low cost labour ()

1.13 Which of the following Industrial Development Agencies are you aware of:

- | | | |
|--|------------|--------------------------|
| IDA () | SFADCO () | Udaras Na Gaeltachta () |
| Company Development Programme (CDP) () | | Bord Trachtala (CIT) () |
| National Linkage Programme (NLP) () | | NADCORP () |
| Enterprise Development Council (EDC) () | | Eolas () FAS () |

1.14 Which of the following Agencies have you had contact with:

- | | | |
|--|------------|--------------------------|
| IDA () | SFADCO () | Udaras Na Gaeltachta () |
| Company Development Programme (CDP) () | | Bord Trachtala (CIT) () |
| National Linkage Programme (NLP) () | | NADCORP () |
| Enterprise Development Council (EDC) () | | Eolas () FAS () |

1.15 If yes, could you rank on a scale of 1 (unimportant) to 5 (essential) on how important that contact was: (1\2\3\4\5)

If yes, could you rank on a scale of 1 (unimportant) to 5 (essential) as to how important this contact is to the continuation of your firm's operation in Ireland: (1\2\3\4\5)

If yes, could you rank on a scale of 1 (unimportant) to 5 (essential) as to how important the continued support from such agencies is to the expansion of your operation: (1\2\3\4\5)

1.16 If your company has had any contact with the aforementioned agencies was this with a view to fostering links with the indigenous non-manufacturing companies () or indigenous manufacturing companies () or () both

If yes, how successful would you rate these attempts to foster such links with indigenous manufacturing (only) on a scale of 1 (very unsuccessful) to 5 (highly successful) :

(1\2\3\4\5)

1.17 Do you envisage greater cooperation between your company and indigenous manufacturing () indigenous non-manufacturing () or both ().

1.18 On a scale of 1 (highly improbable) to 5 (very plausible) could you rank as to how plausible you would consider the fostering of links between indigenous manufacturing companies and :

1) Your company (1\2\3\4\5)

2) Your industry (1\2\3\4\5)

In the space provided or elsewhere could you specify why you believe this in either situation. _____
