AN ISLAND ECONOMY OR ISLAND ECONOMIES?

Ireland after the Belfast Agreement

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Abstract:

The intellectual ground has been shifting under the conventional neo-classical model of convergence. Recent advances in the study of economic geography suggest that the conditions required for convergence to take place tend not to hold in practice. Rather, attention is focused on the importance of such factors as the initial level of regional physical infrastructure, local levels of human capital, or on the fact that regions that start off with structural differences may never converge in any reasonable time period. New research even suggests that the removal of barriers to trade and factor movements might actually lead to a relative deterioration rather than an improvement of some regions.

A second branch of research – institutional economics – looks beneath the behaviour of markets into the role of institutional frameworks that sustain market economies. Here, too, there can be barriers to regional convergence. Indeed, a combination of both the above perspectives – economic geography and institutions – can be used to explore the paradox of the failure of the neo-functionalism hypothesis of common cross-border economic interests, as discussed recently by Tannam, 2005.

Against this intellectual background we examine economic progress in the island of Ireland in the context of its modern history, but with particular emphasis on the post cease-fire and post Belfast Agreement period. Have policy makers and businesses on the island been able to build a more robust economy, benefiting from cross-border synergies as civil conflict faded into the background? In what way has an "island" economy" emerged in the aftermath of internal Northern Ireland conflict, in the sense envisaged by business leaders such as Sir George Quigley and Liam Connellan in the early 1990s? In the absence of a strong "island" focus for the economies of North and South, are the two regions of the island likely to drift further apart and relate to the newly enlarged EU market in different ways? If an island economy does not emerge, has Northern Ireland any future other than as a lagging region of the UK? On the other hand, can Ireland sustain its role as an EU success story in the face of increasing competition from the new member states and from Asia?

[1] Introduction

There were three motivations for this paper. First, a recently compiled set of manufacturing data for Ireland and Northern Ireland covering the 1990s came up with interesting patterns of North-South behaviour that require interpretation (InterTradeIreland, 2003). Second, in attempting such an interpretation, one is aware of the tensions that exist between the two separate areas of economic and business research. Of particular interest is strategic policy design that is relevant to the development and modernization of small open economies and regions such as Ireland and Northern Ireland, where the primary focus is on the important area of industrial policy. Finally, Tannam, 2005 has pointed to the paradox of the failure of the neo-functionalism hypothesis of common cross-border economic interests, and this may have links to the economic and business analysis.

In a global economy, with no barriers to the movement of goods, factors of production or capital, small nations and regions are forced to specialize since they cannot efficiently support a very wide range of different industries (Stigler, 1951). During the nineteenth century, the area that is now Northern Ireland came to specialize mainly in textiles and clothing, ship-building and light engineering.[1] The area that is now Ireland had radically different areas of specialization, almost entirely in agricultural production and associated basic food processing. In the case of Northern Ireland, manufacturing in the region experienced difficulty in diversifying during the twentieth century and still retains a relatively high concentration in sectors like textiles and clothing. However, in the case of Ireland there was a dramatic switch after the 1960s away from the traditional industries that had been fostered behind protective tariff barriers from 1930 to 1960 and towards modern high-technology sectors such as computers, software, pharmaceuticals and chemicals.

Today, both regions of the island of Ireland have a relatively narrow portfolio of sectoral specialization: Northern Ireland to a large extent in mature or declining sectors; Ireland in a range of modern sectors (or, rather, in specific products within such sectors) that are, however, rapidly moving towards maturity and could conceivably soon enter their decline phase. Thus, the perspective provided by industrial strategy frameworks such as Vernon's product life cycle (PLC), Porter's diamond of competitive advantage or Best's productivity triad has implications for the economy of the whole island of Ireland that complement the more conventional economic aspects of international cost competitiveness.[2] The same may hold for the design of industrial policy in many of the smaller newly liberalized economies of Central and Eastern Europe and for some of the smaller Asian economies (Bradley, 2000, pp.22-26).

We can characterize the key challenge of policy making in any small nation or region as that of blending the techniques and insights of the <u>economic</u> analysis of what one might call the outer business environment with those of the <u>business</u> analysis of the middle ground of strategy. These two areas are often studied in isolation from each other by non-overlapping groups of researchers.[3] When cross references are made between the two areas of research,

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[1] For explanations of the late nineteenth century sectoral specialization in Ireland, see Ó Grada, 1994.

[2] Vernon, 1966 and 1979; Porter, 1990; Best, 2001.

[3] Economists tend to be the worst offenders, and seldom if ever can bring themselves to acknowledge the existence of the contributions of, say, Vernon and Porter. However, only in his most recent work has Porter acknowledged the economic research on spatial issues and clustering by Krugman and others, and even then inadequately (Porter, 1998). Kay, 1991 is an attempt to synthesize.

each separate group tends to focus on the inadequacies of the other's methodology.[4] Seldom if ever are the two different perspectives looked at as being entirely complementary and mutually supportive.

The paper is organized as follows. In Section 2 we set the context for the present state of the two economies on this island in terms of their previous histories. Our focus is on the manufacturing sector, in particular, since this can be regarded as the "engine" of growth. Two case studies of sectoral specialization in Ireland are then examined. In Section 3, a mature/declining sector (textiles and clothing) is described, that still remains dominant in Northern Ireland but which has shrunk to a smaller specialist niche in Ireland. In Section 4 a modern, high technology, sector - computers and related software – is described. This has grown rapidly during the past decade and a half and has played a crucial role (together with pharmaceuticals) in driving aggregate national growth in Ireland, but has played a much more modest role in Northern Ireland. The implications of new developments in production processes and firm organization (e.g., "the rise of so-called "virtual" companies) for the design of future industrial strategies in Ireland are explored.

Section 5 concludes with a brief examination into what industrial strategy frameworks appear to suggest for the future, as policy makers in Northern Ireland attempt to address an imbalance in the regional portfolio of businesses caused by declining sectors, and as policy makers in Ireland face up to the likelihood of a rapid onset of maturity and decline of the computer/software sector. The wider challenges faced by policy makers in small peripheral regional economies in competing to attract replacement for maturing sectors are examined, and suggestions made about the role of all-island policy co-operation.

[4] Business researchers tend to disparage as irrelevant the older approaches to trade and growth theory and to ignore the major advances that have been made in recent decades. Economists tend to criticize the lack of formal testing of the validity of business frameworks (Kay, 1983).

[2] The historical island context

After partition in 1920, the island of Ireland was a striking example of highly uneven industrial development. The south was poor and overwhelmingly agricultural. By contrast, the north - in particular the north-east region centered on Belfast - was heavily industrialized and relatively prosperous. The sectoral distribution of total employment, north and south, in the year 1926 is shown in Table 2.1.

Table 2.1: Sectoral employment, Northern Ireland and Irish Free State: (% of 1926 total)

	Agriculture	Industry	(of which Manufacturing)	Services
Irish Free State	53.5	13.3	(7.2)	33.2
Northern Ireland	29	34	(29)	37

Source: Munck (1993)

Manufacturing employment in the Irish Free State in 1926 accounted for 7.2 per cent of overall employment and only 13.3 per cent of total employment was in the broader classification of industry (consisting of manufacturing, building and construction and utilities). In contrast, the share of manufacturing employment in Northern Ireland in 1926 was over four times that of the Irish Free State.

The initial state of manufacturing on the island can be examined using data starting from the 1924 Census of Production (COP) for Northern Ireland and data from the 1926 Census of Industrial Production (CIP) for the Irish Free State, the first such data available (Table 2.2). Such comparisons confirm the dramatic difference between the two regions and serve to establish the full extent that the Irish Free State had to evolve if it was to converge towards the higher level of industrialization and welfare of Northern Ireland.

Immediately after independence in 1922, the manufacturing sector in the Irish Free State was not only a tiny part of the total economy, but was almost completely concentrated in the food processing area. Northern Ireland, on the other hand, had three areas of concentration: textiles and clothing, as well as transport equipment (i.e., shipbuilding, engineering and metal), which were relatively modern capital intensive sectors; and a less modern food processing sector. Very little fundamental sectoral change took place during the following decade, although the Northern textiles and clothing sector declined somewhat, and there was modest growth in a range of other sectors in the Irish Free State.

2.1 Industrial and trade policy in Ireland[5]

Inward orientation: 1932-60

From the early 1930s to the late 1950s high tariff barriers and a strict prohibition on foreign ownership of firms operating in Ireland were the cornerstone of policies designed to promote growth of indigenous manufacturing from the very low base shown in Tables 2.1 and 2.2 above. The high tariffs succeeded in stimulating growth in local manufacturing but by the late 1950s it was clear that protectionism had long outlived its usefulness and that few of the

[5] The material in this section draws selectively from material contained in Bradley (1996); Barry and Bradley (1997); Bradley (2000).

so-called infant industries had matured and become sufficiently competitive to generate much by way of exports.

Table 2.2: Output in manufacturing, Northern Ireland and the Irish Free State

Northern Ireland	1924		1930		1935	
	£thousand	%	£thousand	%	£thousand	%
Textiles & clothing	32,758	54.1	21,105	41.3	22,466	43.1
Food, drink, tobacco	15,036	24.9	13,876	27.1	16,146	31.0
Boot, shoe and apparel	2,944	4.9	3,458	6.8	2,934	5.6
Shipbuilding, engineering, metal	6,540	10.8	9,601	18.8	7,649	14.7
Paper and printing etc	1,690	2.8	1,656	3.2	1,486	2.8
Timber	761	1.3	699	1.4	761	1.5
Miscellaneous	769	1.3	718	1.4	704	1.4
Total manufacturing	60,498	100.0	51,113	100.0	52,146	100.0
Irish Free State	1926		1931		1936	
	£thousand	%	£thousand	%	£thousand	%
Textiles & clothing	1,179	2.4	966	2.2	2,146	3.2
Food, drink, tobacco	38,850	79.3	33,320	76.2	43,398	65.5
Boot, shoe and apparel	1,523	3.1	1,990	4.5	5,607	8.5
Shipbuilding, engineering, metal	1,543	3.1	1,838	4.2	5,283	8.0
Paper, printing etc	1,917	3.9	2,098	4.8	2,947	4.5
Timber	1,347	2.7	1,472	3.4	2,395	3.6
Miscellaneous	2,630	5.4	2,071	4.7	4,444	6.7
Total manufacturing	48,990	100.0	43,754	100.0	66,220	100.0

Source:
Report on the Census of Production for Northern Ireland, (various), HMSO, Belfast.
Census of Industrial Production (various), Dublin CSO
During this period, the Irish pound and sterling were at a fixed 1:1 parity.

The changes forced on Irish policy-makers by economic collapse in the late 1950s were fundamental and far-reaching. The *Control of Manufactures Act*, which prohibited foreign ownership, was abolished and replaced by a policy that systematically cultivated inward investment by offering a zero corporate profits tax on manufactured exports (replaced in 1980 by a flat rate of 10 per cent on all manufacturing and now a flat rate of 12.5 per cent on the whole corporate sector). In addition, attractive investment and training grants were offered as well as a complete dismantling of most tariff barriers within less than a decade.

Much of the history of the economy of Ireland during the following four decades can be explained in terms of the rapid growth of export-oriented FDI in manufacturing, from a very low base in the late 1950s to a situation in the late 1990s where two thirds of gross output and 47 per cent of employment in manufacturing is in foreign-owned export-oriented firms (CIP, 1998). US investment was, and remains, at the very core of this process: almost one quarter of total Irish manufacturing employment is in US owned firms.

The new era of outward orientation in Ireland

The economic and industrial development dilemma of Ireland was that it could either stay close to UK economic policy and institutional norms and attempt to track the UK's average

performance over the business cycle. However, Irish policy makers took a strategic decision in the late 1950s that the dominance of the UK market was unlikely to provide a suitable context for Irish development, modernization and faster growth. Tax varying (or, more precisely, tax re-balancing) powers were a crucial element of policy making, especially with regard to the attraction of inward investment, and the center-piece of the incentive system in manufacturing- initially a zero rate of corporation tax – required continued high rates of personal income tax and indirect taxes to balance the wider public finances. However, equally important were reforms in education, progressive improvement in infrastructure, evolution of social partnership arrangements, enthusiastic embracing of EU initiatives (EMS, the Single Market, the Social Chapter, EMU), and – after many false starts – the creation of fiscal stability.

The systematic reduction of exposure to the UK market as a destination for Irish exports is illustrated in Figures 2.1 and 2.2 below. Thus, in Ireland's "world" the United Kingdom now has a much smaller export weight than in the late 1950s - when it was almost 100 per cent - with the rest of the EU having a correspondingly higher weight. With no other changes, a shift in export destinations to faster growing European markets would be expected to ease the constraint on the Irish manufacturing expansion.

Figure 2.1: Export destinations for Ireland

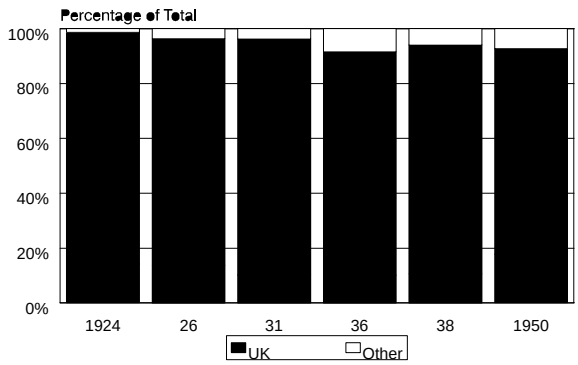
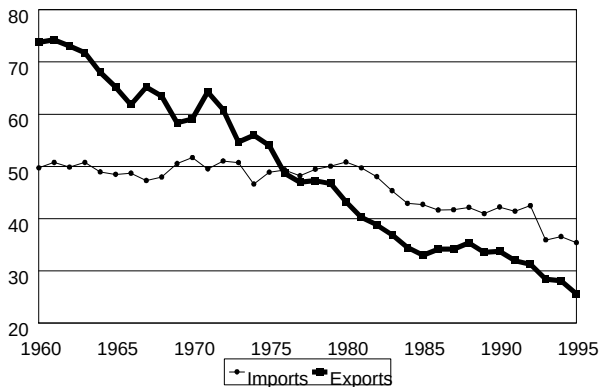


Figure 2.2: UK share of Irish exports and imports – 1960-95



Where did the inward investment come from?

The detailed census data for manufacturing classified by nationality of ownership for the year 1996, the height of the high technology boom, is shown in Table 2.3. Although only 16 per

cent of local plants were foreign owned, they produced just over two-thirds of gross output and made up nearly half of total manufacturing employment. The importance of the US connection is illustrated by the fact that almost 40 per cent of the foreign plants are US-owned, with 16 per cent British and 13 per cent German.

Table 2.3: Total manufacturing: general characteristics

Nationality of ownership	No. of plants	Total persons engaged.	Gross output (£m)	Materials purchased	% of gross output exported
				% imported	
Irish	3871	120,224	12,188	25.1	34.0
Other EU	344	37,114	4,765	65.2	70.5
of which UK	117	12,283	1,960	52.9	53.5
of which Ger	98	10,684	855	80.3	93.3
Non-EU	384	69,296	19,343	65.7	93.9
of which US	286	54,167	15,814	61.6	95.3
Total foreign	728	106,410	24,108	65.6	89.3
Total	4599	226,634	36,296	47.0	70.7

Source: Census of Industrial Production. 1996, CSO

A striking difference between locally owned and foreign owned plants is that the indigenous ones exported on average just over one third of their output while the foreign-owned ones exported almost 90 per cent, rising to above 95 per cent for US-owned plants. Thus, by the late 1990s the domestic market was of little or no significance to the owners of foreign plants. They located in Ireland to produce for export. It was and remains the competitive characteristics that pertain on the supply side of Irish manufacturing that attracts inward investment: i.e., corporate tax rates, labour costs, skill levels, infrastructure.

There are some further differences between foreign and indigenous plants, illustrated in Table 2.4. Foreign plants tend to be larger (measured in terms of gross output, or in numbers employed, per plant); they are more productive (measured in terms of net output per person engaged) and consequently they are more profitable since they face similar wage costs to local firms. In terms of these proxy measures, US owned plants are over seventeen times larger than indigenous owned plants, over five times as productive, and almost eight times as profitable.

Table 2.4 : Manufacturing plants: characteristics by ownership

	Gross O/P per plant (£'000)	Net O/P per person engaged (£'000)	Destination of exports			
			UK	OEU	USA	ROW
Irish	3,149	34.6	42.2	32.2	8.2	17.3
Other EU	13,851	65.3	36.8	46.8	6.8	9.6
Of which UK	16,750	87.4	74.3	10.9	5.4	9.3
Of which Ger	8,724	35.9	12.3	72.7	6.4	8.6
Non EU	50,372	166.7	19.9	50.6	11.4	18.1
Of which US	55,293	177.9	20.1	52.5	9.5	17.9
Total foreign	33,115	131.3	22.6	50.0	10.7	16.8
Total	5481	80.0	25.7	47.1	10.3	16.9

Source: Census of Industrial Production. 1996, CSO, published September 1998;
£'000 denotes thousands of Irish pounds; OEU denotes EU countries other than the UK;
ROW denotes the rest of the non-EU world.

Since the foreign-owned manufacturing sector is so large in Ireland, it has economy-wide as well as sectoral implications. Thus, the overall health of the economy has come to depend on the performance of this sub-sector. However, the mainly tax-based industrial incentive system and the fact that Ireland features as a production platform rather than as a market, means that opportunities exist for transfer pricing. A much larger distortion concerns profit repatriation. Foreign firms tend not to reinvest a high proportion of their profits in the local economy. The resulting outward flows of profits shows up in the Irish balance of payments statistics where there is a large deficit on net factor income. This introduces a wedge of some 10-12 per cent between gross domestic product (GDP) and gross national product (GNP).[6]

Conclusions on recent Irish industrial strategy

The Irish experience has been that a crude erection of trade or other barriers in order to "protect" weak regions was ultimately damaging to economic welfare. A blind belief in competition policy and the forces of market liberalization was never tried, but was also feared to be inadequate. Reviewing the ways in which poorer regions can seek to accelerate their growth rate in order to catch up, Krugman (1997) suggests that the Irish experience is essentially a working out of Marshallian externalities, i.e.,:

(a) An initial clustering of similar industries (often foreign owned and in the high technology areas such as computer equipment, software and pharmaceuticals) supported by local suppliers of specialized inputs subject to economies of scale.

(b) These clusters generate a local labour market for skilled workers which further facilitates the growth of the cluster. At this stage, the training and human resource policies of the EU Structural Funds were crucial aid in ensuring elastic labour supply.

(c) Spillovers of information further encourage growth in the high technology sectors and provide the basis for additional clustering effects, often in traditional areas that can benefit from new technologies in their supply chains (e.g., food processing). Here, the

[6] Hence, although Irish GDP per head has now exceeded that of the UK, GNP per head – a more accurate measure of welfare – is still somewhat less that that of the UK.

improvements in physical infrastructure and in the productive environment supported by the Structural Funds were crucial.

(d) Finally, a consensual process of social partnership needs to be put in place to ensure that there are as few losers as possible in the economic restructuring that accompanies such a virtuous circle, with the result that growth is less likely to be choked off by industrial unrest.

However, Krugman also draws attention to some of the risks to which a country like Ireland is exposed, as it follows this growth process. First, the dynamic foreign manufacturing base is concentrated on a narrow range of technologies that can quickly move through maturity and into decline, an issue that will be taken up again in Chapter 4. Second, the policy initiatives that ensured that Ireland enjoyed an advantageous "first mover" status in the early 1960s may not be sufficient to guarantee success in making the transition to the next wave of technological inward investment when the key electronics, software and pharmaceutical sectors enter their maturity and/or declining phase. Indeed, the Irish industrial incentive package may not even be able to retain the original maturing sectors, which may move to lower cost locations, matters that will be examined in the concluding Section 5.

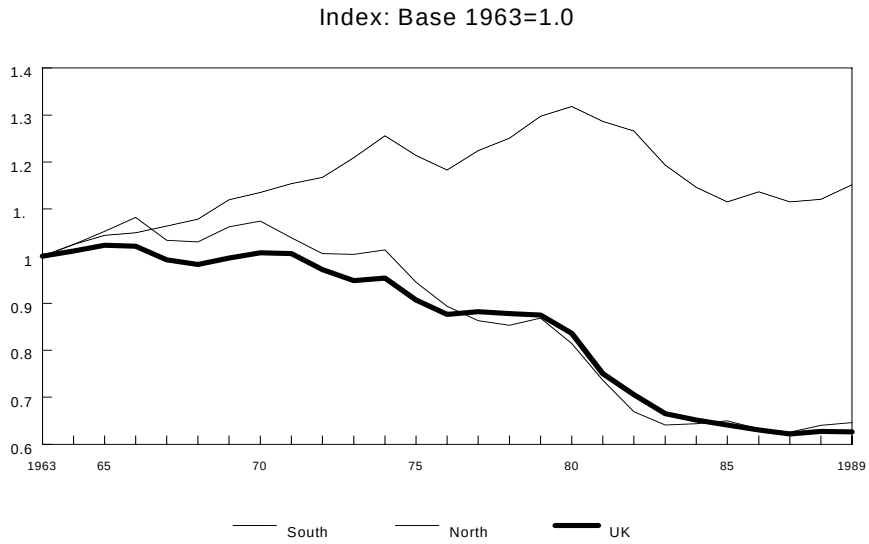
2.2 Industrial and trade policy in Northern Ireland[7]

Although radical changes have taken place in Northern Ireland manufacturing during the past three decades, in some important ways these developments can be seen as a continuation of an historical evolution that started after the First World War. The first Annual Census of Production (ACOP) taken in 1924 in Northern Ireland showed that one sub-sector of manufacturing (textiles, including textile products) accounted for 64.2 per cent of total manufacturing employment and produced 54 per cent of gross output. At the start of the outbreak of civil unrest in 1969, the share had declined to 41 per cent. An ACOP taken just before the Belfast Agreement (for the year 1996) showed the continued important role of textiles, which still accounted for about 23 per cent of total employment in manufacturing.

The evolution of an index of aggregate Northern Ireland manufacturing employment over the three decades from the 1960s to the end of the 1980s (the period of major civil unrest) is shown in Figure 2.3, in comparison with indices for the aggregate UK and for Ireland. A large element of the Northern manufacturing decline can be put down to the inability of the North to attract inward investment to anything like the extent of Scotland or Ireland due to the uncertainty and disruption of the conflict as well as world economic conditions.

[7] In this section we draw selectively on material from Bradley and Hamilton (1999) and Bradley (2001).

Figure 2.3: Evolution of manufacturing employment, 1963-89:
Northern Ireland, United Kingdom and Ireland



While Northern Ireland tracked a wider decline in UK manufacturing, it did not experience the parallel strong growth of private services that occurred in the more prosperous core regions of southern England. A rigorous analytic study by Borooah and Lee (1991) interpreted the Northern decline in manufacturing employment over the 1970s and early 1980s simply in terms of a systemic loss of regional cost competitiveness, and showed that growth of total factor productivity in Northern Ireland during the 1960s and 1970s was at a rate substantially below that of the UK, but at the same time wage rates in Northern Ireland converged rapidly on the UK average.

Recent industrial strategy in Northern Ireland

The most recent report on industrial strategy in Northern Ireland - *Strategy 2010* - was published in March, 1999.[8] The debate around industrial strategy in Northern Ireland has paralleled the experience of Ireland. The overriding emphasis in strategy from the mid-1980s was the need for improved competitiveness as the key driving force behind industrial policy, with a consequential reduction in the level of financial subsidization of industrial activities. However, the necessary changes in policy were only implemented to a very limited extent (NIEC, 1999). There seems to have been a clear lack of success on the part of the agencies in Northern Ireland, whether due to implementation difficulties or reluctance to wean industry off high levels of subsidization. For example, the average rate of financial support to industry in 1996-98 made up 5 per cent of manufacturing GDP and more than 20 per cent of manufacturing investment, values which are very high in comparison with other UK regions and the rest of the EU (*Strategy 2010*, p.113).

Strategy 2010 correctly identified the rapid globalization of economic activity as the primary factor that will set the future context for accelerated growth and restructuring of manufacturing in Northern Ireland. The opportunities offered by globalization are obvious,

[8] Although *Strategy 2010* came under fierce criticism from the media, from the NIEC and from academics (including the present writer), it was never revised, and continues to supply whatever logic there is to Northern industrial strategy (Bradley and Hamilton, 1999).

with international trade growing at over twice the rate of local GDP, but these benefits can only be realized if the local economy can obtain access to export markets by having a high degree of competitiveness, measured in the very widest sense. For a regional economy like Northern Ireland, a local concern for the health and dynamism of the external economy will always have two distinct but complementary aspects:

i. How external markets are going to sustain buoyant demand for exports from Northern Ireland, and

ii. Where is foreign direct investment (FDI) into Northern Ireland likely to come from.

In a short to medium-term perspective, the list of dominant export destinations and the sources of FDI are unlikely to switch dramatically from the position today. Consequently, the British market must continue to be of central concern for Northern Ireland since it is the destination of over half of external sales and is the source of the bulk of inward investment.

The size and persistence of the British Exchequer financing (the so called subvention) serves to influence and color every aspect of the Northern economy. The subvention directly supports employment in the Northern public sector, which makes up about 33 per cent of total employment, compared with 22 per cent in the UK as a whole (about the same in Ireland). The subvention also directly supports incomes of the unemployed, the retired and the sick, as well as providing a high level of public housing, health and education (over and above direct public employment aspects). These might be termed the primary impacts of the public sector.

However, secondary impacts of Northern Ireland's public sector activity on the structure and behavior of the local manufacturing and market service sectors are of equal, if not greater, importance relative to the primary impacts. For example, subvention finance sucks in imports, and explains much of the buoyancy of the retail sector. Northern manufacturing has come to be made up predominantly of small firms, oriented mainly to supplying the domestic market, which is in turn sustained to a great extent by direct and indirect demand arising from public sector activity. The fact that the Northern economy emerged relatively unscathed from the British recession of the early 1990s was due in the main to the large size and cushioning effects of automatic and discretionary public expenditure stabilizers. The buoyancy of activity in the Northern manufacturing sector relative to Britain was also largely due to the much higher level of subsidies and grants, and, therefore, had little to do with local competitiveness in any underlying sense.

Diagnosing the reasons for Northern Ireland's performance

Perhaps the greatest success of the Northern economy was that it functioned in a relatively normal fashion in spite of prolonged and severe disruption from civil unrest. In part, this can be explained by the availability of financial transfers to boost public sector activities so that the negative consequences of the inevitable decline of private sector activities were mitigated. In the 1950s and 1960s, Northern Ireland had attracted a substantial level of FDI to replace the shrinking (but still important) staples of textiles and heavy engineering (Farley, 1995). This investment was predominantly in sectors where the North already had a comparative advantage, e.g. artificial fibers. Unfortunately, this advantage effectively vanished with the

onset of the oil-price rises of the 1970s, and a wide range of labour intensive industries across northern Europe in general migrated to the low cost centers of southern Europe and Asia..

Current policy proposals on manufacturing incentives have focused on the perceived need to rebalance and reform priorities for financial support. Unfortunately, with regard to the provision of incentives for inward investment, current thinking is still very conservative. With regard to direct financial assistance, it is suggested that "the existing grant regime for inward investment should be maintained unless and until new measures become available" (*Strategy 2010*, pp. 168-169). Moreover, the possibility of targeting grants at specific sectors or that differential rates of assistance be decided on a sectoral basis were ruled out, for reasons that were not made explicit. Rather, grant prioritization was recommended based on a series of specific company characteristics, such as commitment to R&D or export orientation. This would seem to be a continuation of what is understood to be the existing situation and, moreover, raises serious questions as to how the necessary rebalancing of industry from low to high value added activities can take place. For example, with regard to attempting to match Ireland's low rate of corporation tax, Northern Ireland has no policy-making powers in fiscal matters and must implement UK-wide rates.

Policy making for promoting and sustaining inward investment in Northern Ireland needs to be based on a comprehensive, critical and realistic evaluation of the present endemic lack of underlying competitiveness of the region, as documented – for example – in the regular DTI publications on *Regional Competitiveness Indicators*. The faster growth of manufacturing output and employment in Northern Ireland relative to Britain is sometimes presented as a sign of underlying competitiveness rather than as an indication that very high grant rates serve to attract a certain type of labour intensive low profit manufacturing and service activities to Northern Ireland before it leaves the UK and the EU for lower wage locations in Eastern Europe and elsewhere.[9] This is likely to deceive nobody, least of all analysts of global economic issues upon whom multinational companies rely for advice on their future investment strategies.

[9] Data presented in the *Strategy 2010* working paper on the textiles and clothing sector show that wage rates in Northern Ireland are almost nine times higher than in Estonia (for textiles) and nine time higher than in Romania (for clothing). The ratios for Bangladesh and Vietnam are in the region of thirty times higher (page 71).

[3] Case Study: The Irish textiles and clothing sectors

3.1 Introduction

Two case studies of sectoral specialization in Ireland are now presented. In the present section, a mature/declining sector (textiles and clothing) is examined. This sector remains dominant in Northern Ireland but has shrunk to a smaller – mainly specialist - niche in Ireland. In the next section, a modern, high technology, sector - computers and related software – is examined. This sector has grown rapidly during the past decade and a half and has played a crucial role in driving national growth in Ireland, but plays a much more modest role in Northern Ireland.

At first sight, these case study sectors would appear to be at opposite ends of the PLC spectrum: textiles and clothing at the mature/declining stage, and computers and software at the introduction/growth stage. But appearances can be deceptive. For example, the Irish computer and software complex is narrowly focused on personal computers, components, peripherals and related software. As shall be discussed later, within this segment of the wider electronics and software industry, personal computers appear to be moving towards maturity. So, the case study can be used to reinterpret the PLC framework more flexibly and applied to niche products within a segment of manufacturing, where future vulnerability might arise because the technologies were not researched and developed in Ireland, but were merely produced and distributed to intermediate and end users.

Even in the case of textiles and clothing, the maturity and decline of the sector is not irreversible. The example of Benetton in Northern Italy shows how, in stark contrast to Northern Ireland, a segment of the textiles and clothing sector was developed and transformed into a high productivity, high profit success story through a synthesis of process innovations and strategic marketing (Pinson and Tibrewala, 1996).

The objectives of this chapter are relatively modest. Attention is drawn to the nature of the portfolio imbalance in Northern Ireland manufacturing. The performance, structural and market trend characteristics of the textiles and clothing sector are examined. Present proposals for addressing the problems are reviewed, and a range of possible future competitiveness strategies are explored.

3.2 Background to the textiles and clothing sector in Ireland

In Section 2, Table 2.2 demonstrated that the textiles and clothing sectors were the largest component of manufacturing in Northern Ireland in the year 1924. In terms of output, they made up 54 per cent in the North, but only 2.4 per cent in Ireland. Over the intervening years, the sector declined in the North, and grew somewhat in the South. For example, in the years 1951, 61 and 67, immediately before and after the switch to outward policies in Ireland and immediately before the outbreak of civil unrest in Northern Ireland, the employment composition of manufacturing was as shown in Table 3.1. By 1967, the textiles and clothing sector in Ireland had grown to just over 25 per cent of total employment in manufacturing (its peak), while in Northern Ireland it had continued an inexorable decline to just under 42 per cent.

Table 3.1: Employment in Irish manufacturing after WW II

Northern Ireland	1951		1961		1967	
	numbers	%	numbers	%	numbers	%
Textiles	70,658	39.9	47,965	29.3	42,412	26.5
Clothing	27,025	15.3	23,820	14.5	21,959	13.7
Engineering and metal	43,461	24.5	51,508	31.4	49,260	30.8
Food, drink and tobacco	20,802	11.7	25,195	15.4	26,191	16.4
Mineral products	3,143	1.8	4,173	2.5	4,243	2.7
Timber and furniture	3,926	2.2	2,653	1.6	3,252	2.0
Paper, printing etc	4,500	2.5	4,954	3.0	5,404	3.4
Miscellaneous trades	3,631	2.0	3,612	2.2	7,081	4.4
Total manufacturing	177,146	100.0	163,880	100.0	159,802	100.0
Source: Report on the Census of Production for Northern Ireland, (various), HMSO, Belfast.						
Republic of Ireland	1951		1961		1967	
	numbers	%	numbers	%	numbers	%
Textiles	9,535	6.8	15,394	9.8	15,504	8.7
Clothing	28,092	20.0	27,808	17.6	29,729	16.7
Engineering and metal	18,019	12.8	26,407	16.8	33,014	18.6
Food, drink and tobacco	42,038	30.0	46,317	29.4	50,668	28.5
Mineral products	5,029	3.6	6,030	3.8	7,995	4.5
Timber and furniture	8,766	6.2	6,963	4.4	7,726	4.4
Paper, printing etc	12,343	8.8	14,696	9.3	15,156	8.5
Miscellaneous trades	16,461	11.7	14,007	8.9	17,776	10.0
Total manufacturing	140,283	100.0	157,622	100.0	177,568	100.0

Source: Census of Industrial Production (various), Dublin CSO

Although simple matrix techniques can be used to examine portfolios of different businesses, attempts to translate these to the level of an entire country or regional manufacturing sector have not been very successful (McKiernan, 1992, pp.115-121). In Table 3.2 an attempt at portfolio analysis for Northern Ireland is presented, while an analogous portfolio for Ireland is presented in Table 3.3. Both refer to the period after the ceasefires but before the Belfast Agreement (1991-1996 for Northern Ireland and 1991-1998 for Ireland).

Taking Northern Ireland first, the key characteristics of the portfolio of manufacturing sectors are as follows:

i. Food Processing was the predominant sector in terms of output share (31 per cent), but only second in terms of employment share (19 per cent). In terms of average annual growth over the five year period 1991-96, it was stagnant in real terms.

ii. Textiles and Clothing had the second largest output share (13 per cent), but the largest employment share (23 per cent), characterizing it as having low productivity. Average annual real growth was only about 4 per cent, and possibly lower since price competition is very strong in the sector (see below).

iii. Electrical and Optical goods are the third largest sector in terms of output (9.4 per cent), and fourth in terms of employment share (9.2 per cent). This is also a very high growth sector (about 14 per cent per year in real terms). The characteristics of Transport equipment are very similar.

iv. For all the other sectors, both output and employment shares are small, and range from a high of 7.6 to a low of 1.9 per cent, with real growth rates clustering closely about the average of 4 per cent per year.

Table 3.2: Sectoral portfolio in Northern Ireland manufacturing: 1996

	Gross output 1996 (£million)	Gross output share: 1996	Gross output 1991 (£million)	Average annual growth rate: 91-96	Employment numbers 1996	Employment share 1996
Food, drink & Tobacco	2,726	30.9	2,390	2.7	19,370	19.0
Textiles, Clothing & Leather	1,167	13.2	849	6.6	23,800	23.4
Electrical & Optical Equipment	829	9.4	384	16.6	9,330	9.2
Transport Equipment	742	8.4	652	2.6	10,810	10.6
Other Machinery & Equipment	671	7.6	328	15.4	6,850	6.7
Chemicals & Man-made Fibres	600	6.8	450	5.9	3,620	3.6
Rubber & Plastics	502	5.7	319	9.5	6,280	6.2
Paper & Printing	440	5.0	297	8.2	6,400	6.3
Other Non-Metallic Mineral Products	364	4.1	256	7.3	4,360	4.3
Basic Metals & Fabricated Metal Products	330	3.7	221	8.3	5,140	5.0
Wood & Wood Products	286	3.2	192	8.3	2,750	2.7
Other Manufacturing n.e.s.	167	1.9	113	8.1	3,180	3.1
Total	8824	100.0	6338	6.8	101,890	100.0
Source: Northern Ireland Sales and Exports, various issues Memo item: Average annual inflation rate of UK manufacturing output (1991-96) = 2.65 per cent						

Turning to Ireland, the key characteristics of the portfolio of manufacturing sectors (Table 3.3) are very different from Northern Ireland, and are as follows:

i. Electrical and Optical Equipment is the predominant sector in terms of output share (29 per cent), and in terms of employment share (25 per cent). In terms of average annual growth over the seven year period 1991-98, it experienced very high real growth of 18 per cent.

ii. Chemicals (including pharmaceuticals) and MMF had the second largest output share (24 per cent), but a much lower employment share (9 per cent), characterizing it as having low productivity. This was also a very high growth sector (about 21 per cent per year in real terms).

iii. Food Processing had the third largest sector in terms of output (21.4 per 2.5 per cent per year in real terms).

iv. The only other sector with double digit output share was Paper and Printing (including publishing), with output share of 10.4 per cent and employment share of 9.6 per cent. This is also a very high growth sector (21 per cent per year in real terms). Much of the output of the software sector is classified here, including computer manuals and CD-ROMS.

v. For all the other sectors, both output and employment shares are very small, and range from a high of 2.7 to a low of 1 per cent, with real growth rates somewhat lower than the average of 11 per cent per year.

Table 3.3: Sectoral portfolio in Irish manufacturing: 1998

	Gross output 1998 (£IRmillion)	Gross output share: 1998	Gross output 1991 (£IRmillion)	Average annual growth rate: 91-98	Employment numbers 1998	Employment share 1998
Food, drink & Tobacco	10381	21.4	7807	4.2	47113	19.5
Textiles, Clothing & Leather	777	1.6	808	-0.6	15564	6.4
Electrical & Optical Equipment	13831	28.6	3848	20.1	60127	24.8
Transport Equipment	749	1.5	406	9.1	7464	3.1
Other Machinery & Equipment	1196	2.5	732	7.3	14668	6.1
Chemicals & Man-made Fibres	11728	24.2	2685	23.4	21415	8.8
Rubber & Plastics	855	1.8	515	7.5	10476	4.3
Paper & Printing	5018	10.4	1645	17.3	23260	9.6
Other Non-Metallic Mineral Products	917	1.9	582	6.7	9977	4.1
Basic Metals & Fabricated Metal Products	1301	2.7	869	5.9	14960	6.2
Wood & Wood Products	469	1.0	230	10.7	5016	2.1
Other Manufacturing n.e.s.	1207	2.5	771	6.6	12164	5.0
Total	48429	100.0	20127	13.4	242204	100.0
Source: Census of Industrial Production, 1991 and 1998 Memo item: Average annual inflation rate of manufacturing output (1991-98) = 1.86 per cent						

In summary, both regions of the island of Ireland display manufacturing portfolios that are heavily concentrated. In the case of Northern Ireland at the time of the negotiation of the Belfast Agreement, the two largest sectors were Food Processing and Textiles and Clothing, both of which experienced very slow real growth. There was also significant specialization in a high growth sector, Electrical and Optical Equipment. In the case of Ireland, the predominant specialization was in two very high growth high technology sectors (Electrical and Optical, and Chemicals) and one traditional (but quite capital intensive) slow growth sector, Food Processing.

This form of sectoral concentration was continued, and Tables 3.4a and b show the harmonized data published by InterTradeIreland for the year 2000.

Table 3.4(a): Gross output shares: 2000

	Ireland	Northern

		Ireland
Electrical & optical equipment	33.8	19.5
Chemicals & chemical products	26.3	4.4
Food, beverages, tobacco	17.2	29.6
Paper, paper products, publishing, printing	10.8	4.1
Metal & metal products	2.2	4.9
Other manufacturing	1.9	3.1
Machinery & equipment	1.8	5.8
Non-metallic mineral products	1.6	4.2
Rubber & plastic products	1.4	5.2
Transport equipment	1.2	8.4
Textiles, textile products, leather	0.9	7.6
Wood & wood products	0.9	3.3

Table 3.4(b): Employment shares: 2000

	Ireland	Northern Ireland
Electrical & optical equipment	27	11.1
Chemicals & chemical products	9.1	3.6
Food, beverages, tobacco	18.8	19.4
Paper, paper products, publishing, printing	9.3	6.4
Metal & metal products	6.6	7.2
Other manufacturing	4.5	4
Machinery & equipment	5.6	6.7
Non-metallic mineral products	4.4	5.7
Rubber & plastic products	4.2	7
Transport equipment	3.8	13
Textiles, textile products, leather	4.3	13
Wood & wood products	2.4	2.9

3.3 Performance characteristics of clothing and textiles in Northern Ireland

In designing strategic industrial policy in Northern Ireland, the clothing and textiles sector poses a major challenge. It is a classical declining sector, but is simply too large to be abandoned completely. Although in continual decline, its rate of decline has undoubtedly been slowed by the use of large scale grant aid to prop up ailing firms whose collapse would have destabilized an economy that was already under siege as a result of civil unrest. In other words, it had proved very difficult to attract more modern industries to replace any employment loss from the decline of the traditional specialization in clothing and textiles. But, unfortunately, the sector itself failed to modernize in the way that might have preserved it from further erosion of competitive advantage.

As part of a recent review of industrial strategy in Northern Ireland – *Strategy 2010* – a sectoral working group was set up to examine the textiles and clothing sector (C&T, 1998). The report examined the underlying structure and characteristics of the sector and attempted to formulate policy recommendations that would preserve a role for it within the future of manufacturing. The report of the working group is now examined.

The sector is defined as being made up of business activities involving yarns, fibres, threads, fabric garments, carpets, household furnishings and industrial textiles (C&T, 1998, pp.9-10). It consists of a small number of very large public corporations (the top eight of which are mostly British owned and account for almost half of total employment in the sector), and a large number of small, mostly family-owned and run businesses. The sector employs about 23,000 people (about a quarter of total employment in Northern manufacturing), down from a peak of 70,000 in 1945. Employment is split roughly equally between textiles (10,500) and clothing (12,500).

Table 3.5 shows the aggregate performance of the sector in comparison to the UK as a whole, Ireland, and the rest of the EU.

Table 3.5: Performance in the EU Textiles and Clothing Industries, 1990-97

	Northern Ireland	UK	Republic of Ireland	EU
Production (%)	10	-13	-9	-5.4
Employment (%)	-8	-20	-12	-17

Source: C&T, 1998, page 21.

Production rose in Northern Ireland, but fell in the UK as a whole, in Ireland and in the EU as a whole. But although Northern productivity increased by about 2.6 per cent each year, profit margins declined from £2,300 per employee in 1993 to £1,600 per employee in 1996 (C&T, 1998, p.21). This represents the lowest level of profitability per employee of any Northern Ireland manufacturing sector, reflecting its high labour intensity.

The sector is mainly oriented to external sales.[10] In 1996, 92 per cent of output was sold outside Northern Ireland, of which three quarters went to Britain. The main export destinations for the remaining one quarter of external sales are shown in Table 3.6.

Table 3.6: Destination of Exports of Textiles & Clothing from Northern Ireland

Country	% of exports
Republic of Ireland	32
Asia	10
USA	10
France	6
Germany	5
Miscellaneous	39

Source: C&T, 1998, p.22

3.4 Structure of textiles and clothing sub-sectors in Northern Ireland

The textile and clothing sub-sectors are further segmented, as shown in Tables 3.7 (textiles) and 3.8 (clothing). The carpet sub-sector is concentrated in a small number of firms, and is the largest segment in the sector. The remainder is divided fairly evenly over six remaining segments, with household textiles (table linen, furnishing fabric) making up the smallest

[10] Note that external sales from Northern Ireland represent sales outside Northern Ireland itself. Exports, on the other hand, are sales outside the UK.

segment in terms of turnover (7 per cent) but double that as a share of employment (13 per cent). Very few Northern Ireland companies operate in the area of technical textiles, the main company being Dupont (Lycra and Kevlar).

Table 3.7: Northern Ireland textile sector, by segment

Segment	Percentage of industry employment	Percentage of industry turnover
Carpets	29	39
Threads,Braids,Twines	12	16
Weaving	10	12
Spinning	18	10
Household Textiles	13	7
Dyeing and finishing	7	4
Miscellaneous	11	12

Source: C&T, 1998, p.10

The largest sub-sector of clothing is hosiery/lingerie (about a quarter of turnover and of employment), but is made up of a range of other garments. What is interesting about this sub-sector is the nature of its relationship with its main customers. Nearly 58 per cent of the workforce in the clothing sub-sector is employed on long-term supply contracts to Marks & Spencer. A further 21 per cent works on other non-branded supply contracts, with 19 per cent on branded goods. An insignificant proportion (about 2 per cent) is employed on "cut, make and trim" operations The firms working on the Marks & Spencer supply contracts tend to be large. The rest tend to be small.

Table 3.8: Northern Ireland clothing sector, by type of garment

Type of garment	Percentage of industry employment	Percentage of industry turnover
Hosiery/lingerie	25	24
Men's outerwear	17	15
Shirts	18	14
Childrenswear	10	11
Jeans/leisurewear	5	13
Ladieswear	10	9
Nightwear	7	8
Protective/Workwear	3	2
Other	5	4

Source: C&T, 1998, p.11

3.5 Market trends in textiles and clothing

The sector has moved through fairly distinctive trends during recent decades (C&T, 1998, pp.13-14). The 1970s were characterized by buoyant mass-market demand for high quality goods, and required capital-intensive techniques, long production runs and strong vertical links in the industry. The 1980s were a period of erratic demand where the market became increasingly dominated by competition between the major UK retailers. Consumer tastes tended to become fashion oriented and segmented. Suppliers needed to be able to respond quickly to fickle changes in tastes and the knock-on fluctuation in demand forced changes on production techniques. During the 1990s, quick response capabilities assumed an even greater importance, and the larger Northern Ireland firms formed close strategic alliances with UK retail chains, particularly Marks & Spencer. This led to mergers and rationalizations in the sector.

The sector is likely to face even more daunting challenges. An immediate problem is the decline in the fortunes of Marks & Spencer, whose supply contracts in Northern Ireland support almost 60 per cent of employment. Changing lifestyle characteristics of consumers will generate many opportunities for innovation and branding of high margin products. But the sector does not appear to be well positioned to respond to such demands, since it has functioned mainly as a supply contractor, where design and market research functions have been carried out by retail chains like Marks & Spencer.

Service requirements are also becoming ever more demanding, with continual renewal of styles rather than traditional seasons, requiring a radical shortening of supply response capability. However, if the sector continues to operate supply contracts to major UK retail chains, there is a risk that any competitive advantage possessed by the Northern Ireland clothing sector could be eroded by much lower production costs in Central Europe, North Africa and East Asia, where advances in communications technologies and low transport costs could overcome the Northern Ireland advantage of closeness to the UK market. More seriously, the Northern textiles and clothing sector can no longer compete as a low cost producer without massive capital investment.[11] Furthermore, the phasing out of the Multi-Fibre Agreement - which had served to protect EU producers from low cost competition - will make the EU and UK markets even more competitive. An alternative strategy – to carry out high added-value design and marketing activities locally and outsource production to low cost countries, might be feasible, but is likely to place severe strains on the level of technical and marketing expertise.

3.6 Future competitiveness strategies

The textile and clothing industry has many of the characteristics of a mature or declining sector. In the absence of exceptional characteristics (such as displayed by a firm such as Benetton in Northern Italy for example), the PLC framework would suggest that the sector has very limited options in its present form. Far from displaying any exceptional capabilities,

[11] Hourly wage costs in textiles (measured in $US) for Northern Ireland are in the region of $13, slightly higher than in Ireland ($11) but considerably lower than Germany ($21). However, Turkey is $2.5, the Czech Republic $2, Morocco $1.9 and Bangladesh $0.4. Hourly wage costs in clothing tend to be lower than in textiles in Northern Ireland ($9) but are also relatively lower in a wide range of less developed countries (e.g., Romania $1) (C&T, 1998, p. 71-72)

the competitiveness of the Northern Ireland textiles and clothing sector has been deteriorating for many decades. There are only a few large firms that can benefit from scale economies in pursuing low cost competitive strategies. Local design capabilities were never very strong at any time, but in recent decades have been neglected as the large firms engaged in supply contracts with UK retail chains. Wage costs have been driven up to UK levels, and a relatively low rate of productivity growth has resulted in high unit labour costs. The availability of high rates of subsidy has served to prop up an otherwise ailing sector and reduce the urgency for rationalization, change and renewal.[12] Finally, the declining nature of the sector precludes any major role for inward foreign direct investment, which is more likely to seek out lower cost labour in the less developed periphery of the east or south of the EU, or is Asia.

In light of the large size of the Textiles and Clothing sector in Northern Ireland, it is surprising that the major review of industrial strategy – *Strategy 2010* – came up with such unfocused proposals (Strategy 2010, pp.92-94). For example, positive aspects of the sector were identified as including strong family firms with professional management, although this has not generated much new thinking or innovation over the past decades. The close partnership with UK retailers was also identified as a strength, an assertion that is open to question (see above). The "flexible, young workforce" is also counted as a strength, although the sector is well known for its low skills and lack of innovation.

Negative aspects of the sector are well known, and include low cost competition from Eastern Europe, Asia and North Africa, low levels of R&D, over-dependence on a small number of UK multiples, and a "poor image". It is suggested that growth in the sector is only likely to be achieved : "by building an international reputation for excellence and specific added-value products or services" (Strategy 2010, p.94). But how is this to be achieved?

There are appropriate end-game strategies for such declining sectors (Harrigan and Porter, 1998). The conventional strategy for a declining sector suggested by portfolio matrices has been to "harvest", i.e., to cease any significant investment activity, maximize cash flow, and eventually divest. This was the strategy followed in Ireland, and has led to the decline in importance of Textiles and Clothing to an insignificant niche (Table 5.3). However, Harrigan and Porter suggest a less one-dimensional approach to strategy for declining businesses, illustrated in Figure 5.1.

Figure 3.1: Strategies for declining businesses

	Has competitive strengths for remaining demand pockets	Lacks competitive strengths for remaining demand pockets
Favorable industry structure for decline	*Leadership or niche*	*Harvest or divest quickly*
Unfavorable industry structure for decline	*Niche or harvest*	*Divest quickly*

Source: Harrigan and Porter (1998), p.114

(a) A market share *leadership* strategy is one where a company attempts to reap above-average profitability by becoming one of the few companies remaining in the industry.

[12] The average rate of regional preferential assistance to all industry in 1996 was 5 per cent of manufacturing GDP in Northern Ireland, but only 1.8 per cent in Wales, 1.1 per cent in Scotland and 0.1 per cent in England.

Leadership permits more control over the process of decline, but does not reverse it. The tactics of achieving a position of leadership include ensuring that other companies retire more rapidly from the industry; perhaps by reducing their exit barriers or by raising the stakes and forcing competitors to reinvest.

(b) The objective of a *niche* strategy is to identify a segment of the declining industry that is likely to maintain stable demand or decay more slowly, but which permits high returns to be made.

(c) In a *harvest* strategy, management tries to get the highest cash flow it can from the business, while undergoing a controlled disinvestments.

(d) Finally, a *quick divestment* strategy is one where the company is sold in the early stages of decline. Divesting quickly will force a company to confront its own exit barriers, such as its customer relationships and corporate interdependencies.

In Figure 3.1 a distinction is made between a favorable and unfavorable industry structure for decline. A favorable structure is characterized by low demand uncertainty, low exit barriers, and fragmented rivalry. An unfavorable structure is characterized by high demand uncertainty, high exit barriers, and conditions leading to volatile end-game rivalry.

Although Figure 3.1 is designed from an industry perspective, it offers useful insights even in the case of a whole sector in a region like Northern Ireland. The Northern Ireland Textiles and Clothing sector would appear to have competitive strengths in certain demand pockets and the structure of the industry appears favorable, suggesting a *niche* or *leadership* strategy. The strategy recommendations made in C&T (1998), pp. 27-42 appear to suggest moving in that direction. Examples include a continuation of the policy of acting as high quality, low cost suppliers to UK and US retail chains; the development of customized products and services; the development of a range of branded products, perhaps in association with the fashion niche in Ireland; specialization in a range of technical textile products. A crucial role for government policy is identified, in terms of support for innovation, design, marketing and training..

3.7 Summary

Attention has been drawn to the nature of the portfolio imbalance in Northern Ireland manufacturing. While there is some justification of the continued large size of the Food Processing sector – since the agriculture sector is the largest, in relative terms, of all 11 UK standard regions – the enduring dominance of the Textiles and Clothing sector is more difficult to explain. Economic logic points clearly to the need to get out of this sector, since the comparative advantage of a high wage region like Northern Ireland is weak at best, and non existent at worst. The performance, structural and market trend characteristics of the textiles and clothing sector have also been examined, further reinforcing its declining nature. Proposals for addressing the problems as contained in *Strategy 2010* policy review appear to be pious aspirations rather than rational, implementable strategy. The range of possible future competitiveness strategies are not appealing, and include at best *leadership* or *niche*, and at worst, *quick divestment*. The future of Northern Ireland manufacturing almost certainly lies elsewhere, and not in Textiles and Clothing. In the next Chapter we turn to the

issues that arise in building and sustaining a fast-growing, high technology sector, a challenge that still faces policy makers in Northern Ireland.

[4] Case Study: The Irish electronics and software sectors

4.1 Introduction

As was apparent in Table 3.3 in the previous section, there is much more going on in the manufacturing sector in Ireland than computers and software. But the computer-related sector is at the heart of the recent rapid growth and development of the economy, and provides a useful way to examine the ability of Irish development agencies to design and implement strategies to attract inward FDI in the high technology sector generally. This is the main reason for selecting the case study.

In this section, the way in which a complex of computer industries was attracted to Ireland is examined. In particular, the approach of the Industrial Development Authority (IDA) is described and shown to be consistent with the industrial policy frameworks associated with Vernon, Porter and Best. However, the great success of IDA strategy needs to be evaluated in the context of the possibility that the computer-software complex in Ireland is focused on a relatively narrow range of products within the wider Electrical and Optical NACE sector. It is suggested that this narrow range of products may be about to mature, and that a new approach is needed in order to make the transition to other related manufacturing activities. The section concludes with an examination of how this is being done in the context of changes in modern production processes.

4.2 How the US computer industry was brought to Ireland

The success of the Celtic Tiger has brought forth many explanations of how it came about. A recent account has been co-written by Padraic White, a former Managing Director of the Irish development agency (the Industrial Development Authority, or IDA) that handled all aspects of industrial promotion prior to 1994 (MacSharry and White, 2000).[13] There is always an element of *post hoc* rationalization about such accounts, written many years after the key decisions were taken. However, White bases his account of the evolution of the modern Irish manufacturing sector in part on an earlier paper, written before the first major computer company ever decided to locate in Ireland (McLoughlin, 1972). The story of the IDA is a classic example of a state development agency that mediated between the narrow firm-based concerns of potential investors and the wider social concerns of national policy makers.

The challenge facing the IDA was how to attract just the right type and scale of foreign investment to fit Ireland's needs. There was a strong Planning and Research section (headed by Ray McLoughlin), which generated new ideas and concepts that were fully tested against the actual experience of the IDA representatives who were in the field trying to convince firms to consider locating in Ireland.[14]

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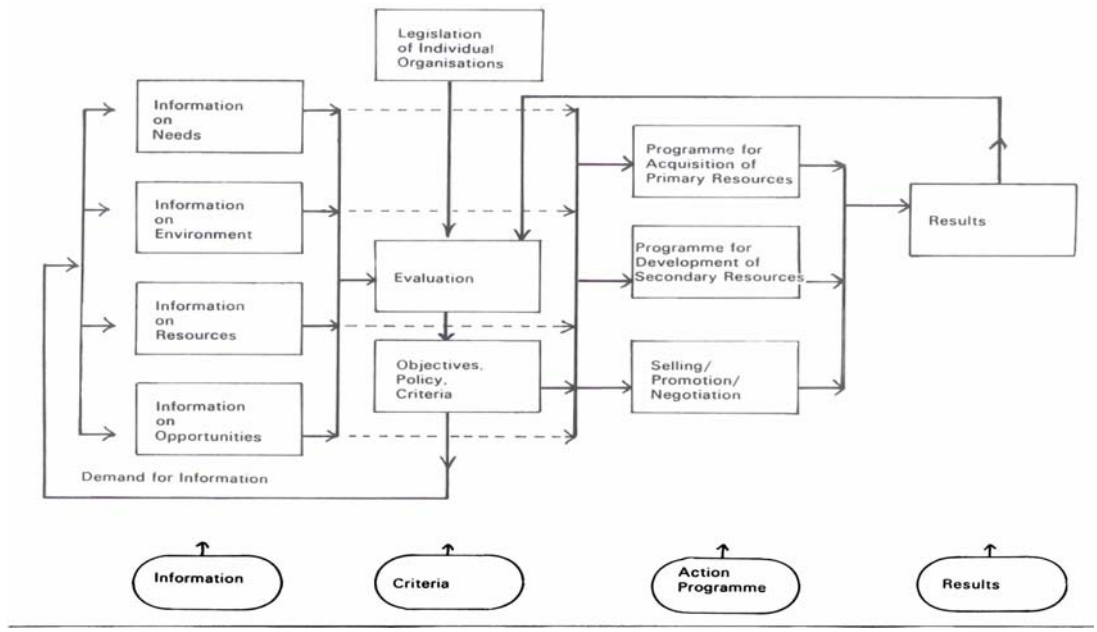
[13] Organizational changes in the wake of the 1992 review of Irish industrial policy split off the task of attracting inward FDI from the very different task of promoting development in locally-owned manufacturing. The former is now handled by a more focused IDA, and the latter is handled by a new agency, *Enterprise Ireland*.

[14] On a personal note, in the year 1986 the author – in the process of compiling a lecture for Development Ministers from LDC countries explaining the Irish experience of foreign direct investment - had occasion to call the IDA Research Section in order to check out the extent to which IDA policy analysts had made use of Vernon's Product Life Cycle framework in selecting attractive sectors. To his surprise, he was told that nobody had ever heard of Vernon or of the Product Life Cycle!

As McLoughlin tells it, the "closed loop" system of industrial planning designed by the IDA in the late 1960s had the following components (see also Figure 4.1):

i. Definition of the national economic and social objectives as defined by government policy;
ii. Definition of the criteria for selecting target industries, whether in terms of Ireland's location or its capacity to attract inward investment;
iii. Identification and targeting of specific foreign companies and detailed assessment of their investment requirements;
iv. Assessment of Ireland's ability to meet the development needs of those companies;
v. Monitoring of progress in successfully attracting investment projects.

Figure 4.1: The Industrial Development Process



Source: McLoughlin (1972), p. 31

In more familiar language, White described the policy goal as:

> "to target with rifle-shot precision individual companies that met specific criteria, then go directly to them and make the case for locating in Ireland" (MacSharry and White, 2000, p.231-32).

Using even more colloquial marketing language, White referred to:

> "these armies of cold callers, and the commando-style task forces fanning out across the world, laid the ground for Ireland's dramatic success in getting new industries later in the 1970s" (*ibid*, p.231*)*.

Since the IDA was a relatively small organization, the work load to implement all elements of the promotional strategy was phenomenal:

> "In the first full year (1971) of the new direct marketing approach, IDA executives made presentations to 105 different target companies. Next year, they increased this to 775 in thirteen countries. And, by 1973, a staggering 2,600 presentations top individual companies were made across the world". (*ibid*, p. 232)

Even at a very early stage, the IDA had a sophisticated system of scanning the world business horizon, and identified the electronic and pharmaceutical sectors as having desirable characteristics that particularly suited Ireland's situation. The man-made-fibre sector had also been targeted, and had been a big success in Northern Ireland (see Chapter 5). But after an initial period, it was hit by the OPEC oil price shocks of 1973-74, and few firms survived. Clothing and textiles was also targeted, and firms like Wrangler, Bluebell, Farah Jeans and Burlington Industries located in Ireland and created welcome jobs (*ibid, p.274*). But with tough price competition from low-wage Asian and Southern European economies, and disruptive changes in fashion, most of them either closed or cut back severely.

The first critical success in attracting a world-class computer firm was Digital Equipment Corporation (DEC), a pioneer in mini-computers. Its presence heavily influenced many other major multinational computer hardware and software companies to locate in Ireland in the following years. Today, electronics represents the largest single foreign-owned manufacturing sector. It contributes 30 per cent of total exports and employs about 44,000 people directly (i.e., 18 per cent of total employment in manufacturing).[15] In addition, a large software sector has grown up around the hardware industry, and it employs a further 15,000 people directly and produces 40 per cent of all PC package software sold in Europe. Both the hardware and software sectors have further significant impacts on a wide range of other – often traditional – sectors.[16]

It was widely realized by the IDA that their unique selling point, giving Ireland a crucial advantage in winning inward investment in the high technology, high profit sectors, was the low rate of tax on corporate profits (zero on export-related profits initially, but changed to a flat rate of 10% after Ireland joined the then EEC in 1973). This incentive had some striking virtues. Unlike an incentive system that provided high capital grants and required continuing subventions, the benefits of the tax-based incentive was that it only kicked in when firms were up and running, and actually making profits. It also proved to be a crucial benefit to high profit firms, who are invariably located at the earlier stages of the product life cycle and are at the cutting edge of product and process innovation. It was also an incentive that was kept stable over many decades, and the IDA and the Irish government ensured that it could be fully credible over the usual business investment planning cycles of 10 to 15 years or more. Finally, the tax-based incentive had the great virtue of being very simple, easy to understand and transparent.

But the tax incentive, even combined with fairly generous capital grants, would not have been sufficient to stimulate growth from a zero base in new technology sectors. Prior to 1970 there had been no indigenous electronics sector in Ireland and only a handful of mainly US

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[15] Detailed data for the electronics sub-sector of NACE 30-33 (Electrical and Optical Equipment) is taken from CIP (1998).

[16] For example, the packaging and printing industry – largely locally owned – supplies sophisticated products and services to the hardware and software sectors. Only some of the activities of the software sector fall within the classification of "manufacturing", and are included in the Census of Industrial Production. Further data have been taken from the IDA web site: www.ida.ie

companies (General Electric, Ecco and Core Memories). It was quickly realized by Ray McLoughlin, head of the IDA Planning and Research Section, that the limited supply of electrical engineers and technicians in Ireland would be a major deterrent to selecting the country as a location for industries in this potentially fast growing niche. By the mid-1970s, Irish universities were producing about 100 electrical engineers and 200 technicians, but a massive increase in supply was called for if the sector was to expand.

The IDA alerted the Irish government to the potential crisis, that could easily choke off growth. Very quickly, the university sector was expanded and given massive increased resources. By as early as 1979, new and expanded courses in electrical engineering were under way, post-graduate conversion courses were provided to encourage science and other graduates to enter the new field, and a system of sub-degree level regional technology institutes was planned and implemented over the next decade. When the poor quality of the telephone network was also identified as another bottleneck that would impede data-transmission, a crash programme was put in place, a new state telecommunications agency set up, and a fully digital nation-wide system installed and commissioned by the mid-1980s. This programme was also used as a further incentive to attract inward investment in the telecommunications area,

Just as DEC was the lynch-pin of the first phase of inward investment in the computer area, the success in attracting Apple to establish its European manufacturing base in Ireland as early as 1980 was the lynch-pin of a strategy that targeted the new wave of PC-based hardware and software. The IDA approach has been described as follows:

> "The IDA electronics division used a see-through model of a computer to identify every component in it. Then, systematically, it canvassed the makers of each individual component, such as keyboards, hard disks, cables, computer mice and sub-assemblies. The decade (1980) closed with Ireland successfully inducing two companies the IDA had pursued for over a decade to locate here – Intel's microprocessor plant and Motorola's communications-products plant" (MacSharry and White, 2000, pp. 288-89).

The high-point of the IDA strategy came during the 1990s, when Ireland became the front-runner for most of the sophisticated foreign investment in electronics, computers and software. A virtuous circle had been created, with electronic and computer equipment at its core, a spill-over into PC-related software development and customization, and a further spill-over into telecommunications-based marketing, customer and technical-support services both for existing producers located in Ireland, as well as for the creation of a sophisticated international financial services sector.

4.3 The future of the computer and software sector in Ireland

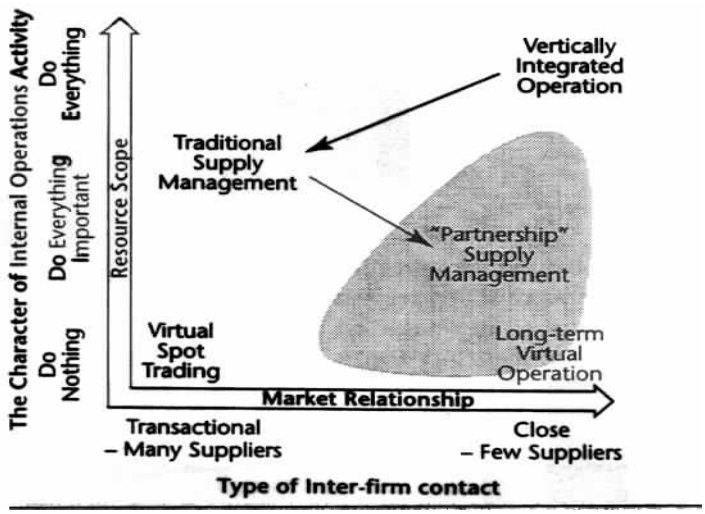
A hint of how the IDA is dealing with the incipient maturity problem of the computer sector was contained in the review of industrial promotion strategy (*Enterprise 2010)* prepared by Forfás:

> "The emerging new business model is leading to a new pattern of international investment, with corporations selecting the best location for each particular activity, rather than necessarily putting integrated projects in a single location" (*Enterprise 2010*, page 2).

This type of splitting between firms of activities in the supply chain is well known, as was the basis for the success of Dell in creating a high profit computer firm in an area that looked as if it was reaching maturity in the late 1980s. The issues are illustrated in Figure 4.2. The nature of operations carried out within the firm range from "do everything" to "do nothing". The nature of inter-firm contacts range from a transactional basis (with many suppliers) to a close basis (with only a few carefully selected suppliers).

What the case of Dell illustrated is that in terms of operations, "everything important" amounted to final assembly, distribution and marketing. In terms of inter-firm contact, a small number of long-term suppliers were used. Ireland was an obvious location for such a company, particularly in the 1990s, since many of the suppliers (including Intel, the supplier of the vital microprocessors) were already located in Ireland, and the geographical peripherality was not much of a problem because of good transport and communications infrastructure and (in stark contrast to textiles and clothing), the high "added-value" density of the final product.

Figure 4.3: Types of supply relationship



Source: DLMBA *Operations Strategy*, Lesson 8, Figure 8.6 (p.12)

Until recently, sourcing inputs from other countries would have incurred unacceptably high transactions costs (both in terms of inter-firm communications and border controls for intermediate products). However, the dramatic fall in transport and communications costs, as well as the completion of the Single European Market by 1992, worked strongly in Ireland's favor. But *Enterprise 2010* appears to envisage a wider application of global outsourcing, with Ireland at the high added-value core of activities. Porter's framework suggests that this approach would leave Ireland vulnerable to changes in technology, and Best's framework suggests that such an approach will require a high standard of excellence in all aspects of the economy. Either way, the suggested new approach of marketing Ireland as a "network" location in a type of post-industrial age will be a major challenge.

4.4 Summary

There were many different aspects to the success of the IDA in attracting inward investment in high technology areas. It had a certain independence from government and a separate role

in planning strategy at the national as well as the firm level. This meant that it was well equipped to deal both with research into the actual needs of individual industries as well as requirements at the national level in terms of basic physical infrastructure, education and training, telecommunications, transport needs, etc. There was also a realization that national industrial promotion was a continuously evolving challenge:

> "The nature of industry keeps changing – there is a continuous process of decline in some sectors (for example, textiles and mechanical engineering) and growth in others (software and e-commerce). So we can assume that a fair share of the industries we have today will decline and decay in coming years. Thus, we need to be continually searching for the emerging star sectors that are competitive in an Ireland of rising costs compared with others in an enlarged European Union" (MacSharry and White, 2000, p.313).

Another crucial characteristic of the IDA approach was its pro-activity, described provocatively as follows:

> "It is IDA policy to gear itself to discharge the total process to the limit of its legislative permit, and while it will not encroach on areas which are clearly the responsibility of other state organizations, it will err on the side of doing rather than not doing where the returns on effort appear to be high" (McLoughlin, 1972, p.30)

But in a curious way, the IDA had a simpler and more direct strategic mission in the Ireland of the dismal 1960s and early 1970s:

> "The need to create jobs is even greater now than before. If the jobs aren't there, the advance factories are useless because we can't fill them, the regional plans are useless because there are no jobs to disperse and the selection exercise is useless because there is nothing to select from". (McLaughlin, 1972, p.36)

As the IDA faces into the new millennium, and as the existing base of PC-based computers and software matures in an increasingly volatile world on electronic and communications revolution, a whole new set of complex challenges are about to present themselves. But the experience of the past thirty years illustrates that the IDA played a vital role in mediating between the formulation of national industrial policy (interpreted in the very widest sense as including taxation, infrastructure, education, etc.) and the requirements of selected sectors and firms within these sectors. The tension that appears to characterize the worlds of academic research in economics and business found no parallel in the IDA's world of promoting Ireland as a desirable location for high technology FDI.

[5] Strategic marketing and future Irish industrial policy

Past and present industrialization on the island of Ireland has displayed a curious asymmetry. In the late 19th century, the north-east region – centered on Belfast – displayed phenomenal growth in a range of what were then modern high technology industries (ship-building, engineering and textiles), while the rest of the island stagnated. Almost exactly one hundred years later, the Southern part of the island – centered to a large extent on Dublin – displayed phenomenal growth in a range of high technology industries (computers, software, chemicals and pharmaceuticals), while the Northern part of the island displayed little or no dynamism and retained a dependence on declining industries.

Explanations for this behavior require economic as well as business perspectives. Research suggests that development is most active where two conditions hold:

i. A sufficient degree of policy autonomy is available that permits freedom of action to address local problems;

ii. Economic and business policy are designed and implemented in tandem: the first to design an attractive environment for business to flourish; the second to recognize and exploit profitable opportunities where they exist, and to feed back information to policy-makers where problems and obstacles are identified.

Must the success of one region of the island of Ireland always be at the expense of the other? We conclude by examining issues related to business and policy co-operation on the island.

5.1 Industrial policy in regions and states

At various times in the life of a country or region, often when the economy is performing particularly poorly or is facing major new challenges, state and regional governments and agencies carry out in-depth reviews and re-evaluations of economic and business strategy. To the extent that focus is on problems and challenges that are regarded as "strategic" rather than "tactical" in nature, such policy reviews are only carried out infrequently, and have a medium or long-term orientation. The ability of such reviews to improve economic and business performance depends both on the extent and quality of the review of past policies and future options as well as the extent to which any policy prescriptions are systematically implemented.

The key differences in policy emphasis between states and regions are summarized in Table 5.1:

Table 5.1: Policy focus in regions and states

	Region	State
Economic policy	Derivative	Primary focus
Business policy	Focus on differentiation	Institutional and regulatory focus

In the case of a state (like Ireland), there is a primary focus on economic policy, since states have considerable freedom of action in setting policies in the fiscal and monetary areas. A region (like Northern Ireland), on the other hand, has little or no freedom in this area, and its policies derive from the larger state (in this case, the UK) of which it is a part. When it comes to business policy, regions have – or at least usually seek - some freedom of action which they can attempt to use to differentiate their business environment from other regions of the nation. In the case of Northern Ireland, an example of business policy differentiation has been the use of higher rates of grant aid than apply elsewhere in the United Kingdom. States also need to focus on business policy initiatives, but in the wider context of institutional and regulatory arrangements that promote greater efficiency of their firms as they compete within the international marketplace.

States can use economic policies to attempt to influence the environment within which businesses can function efficiently, even though their freedom of action has diminished as supranational organizations like the European Union take on more power as a result of policy harmonization. Regions have far less power, and must take most aspects of the economic policy environment as set externally by the state to which they belong. But regions are not completely powerless when it comes to policy making, and can use business policies to distort conditions in their favor relative to the other regions of their nation state. Nevertheless, policy makers in regions still need to understand how national economic policies affect them differentially, even though there is little that they can do to influence policy other than to call for some form of "compensation" to offset actual or perceived disadvantages. Unfortunately, such "compensation" often comes in the form of financial transfers from the core regions to the periphery regions that can blunt competitiveness and engender dependency.[17]

The dilemma facing regional policy makers requires them to strike a balance between the knowledge that national policies can have regionally asymmetric negative impacts, and the extremely constrained scope for designing off-setting region-specific policies within the context of the nation state.[18] Thus, regional policy has a built-in tendency to become inward-looking that is sometimes difficult to counteract. National policy-making, on the other hand, tends to be more outward looking and is constrained only by the more complex, political and diffuse rules of the global marketplace as it seeks to optimize local gains from policy initiatives.

These policy dilemmas have been summarized by Kenichi Ohmae as follows:

> "The world economy today represents a simultaneous shift of power from the traditional national government down to region-states, and up to super-national economic blocs. Governments in tune with this change will seek economic stability through the latter, and prosperity by means of the former". (Ohmae, 2000)

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[17] The *Mezzogiorno* region of southern Italy has given its name to a phenomenon of underdevelopment and dependency that arose originally when the much richer northern Italian regions gave generous long-term income transfers to the south, which had an unintended side effect of locking the south into a low efficiency, low productivity, low entrepreneurial dependency (CEC, 1993).

[18] A recent example of an asymmetric shock that negatively impacted on Northern Ireland relates to the refusal of the UK government to join EMU at its inception in January 1999. The subsequent strengthening of sterling relative to the euro had a more serious impact on the weaker Northern Ireland economy that on the more prosperous and strong core British regions, particularly due to the trade exposure to Ireland, a euro zone member (NIEC, 1998).

With the recent regional devolution measures affecting Northern Ireland, Scotland and Wales within the UK, power is beginning to pass from the center (London) to the regions (Belfast, Edinburgh and Cardiff). Simultaneously, increasing integration tendencies within the European Union is resulting in some powers that were previously the prerogative of nation states passing to supranational agencies like the European Central Bank and the European Commission. In certain respects, the policy environment of regions is coming to resemble that of small nation states, while the policy environment of small nation states is coming to resemble that of regions. Indeed, according to Ohmae, the world economy has become a series of interacting regions, where national boundaries have lost much of their previous economic and business significance (Ohmae, 1996).

At the risk of oversimplification of what are very complex issues, perhaps what the comparison between Ireland and Northern Ireland shows is that the intelligent combination of economic policy and business strategy can generate huge synergies in terms of rapid national growth and convergence. To achieve these synergies requires a degree of economic policy autonomy that can be used to protect workers who lose their jobs in declining sectors and who require extensive retraining for other occupations. But more importantly, policy autonomy can be used to address weaknesses shown up by frameworks such as the Porter diamond or the Best capability triad. Regions simply do not have sufficient economic policy autonomy and are heavily restricted in the extent that they can intervene to support individual sectors and sub-sectors.[19]

5.2 Wider strategic policy issues on the island of Ireland

In a wide strategic context, the two regions of the island appear to be characterized by very different economic policy environments as they plan for their futures. In the case of Ireland, its strategic policy orientation towards the future is relatively benign at present and could be characterized in terms of five key issues.

i. The continued creative use of its modest but significant scope for national policy-making autonomy against a background of a progressive ceding of elements of macroeconomic fiscal and monetary policy autonomy to the institutions of the EU.

ii. The continuation of the crucial policy orientation of the past decades concerning openness to inward investment using a mainly tax-based system of industrial incentives and associated improvements in physical infrastructure and human capital.

iii. Further modernization of the industrial base through targeted foreign direct investment in high technology areas as well as through steady expansion of indigenously-owned industry.

iv. A likely continuation of the process of “decoupling” of the economy away from the earlier heavy dependence on the UK as a result of its sustained systematic and pro-active orientation towards participation in EU policy initiatives.

[19] An example of the limits to discretionary policy making in Northern Ireland is the case of the high level of aid promised to a Taiwanese textiles plant (Hualon), which sparked off protests from rival textiles companies in England and had to be adjudicated (in favor of Northern Ireland) by the European Commission. In the event, Hualon changed its plans and never came to Northern Ireland.

v. The pursuit of steady improvement in economic performance with the aim of converging systematically towards the standard of living of the wealthier core economies of the EU as well as bringing about greater social equity.

The strategic policy context for Northern Ireland is more difficult to characterize with any degree of precision since the region has only recently experienced a sustained period of peace and is in the process of designing and implementing major changes to its system of political and economic governance. Nevertheless, from a strategic point of view the region faces major policy challenges and will have to address some potentially serious issues.

i. The continuation into the medium term of a situation where the region has limited regional policy-making autonomy combined with a lack of political consensus as to the wisdom of seeking out and using greater policy autonomy in the context of the *Belfast Agreement*.

ii. The continued dependence on of a range of policy instruments (particularly in the area of indiscriminate grant-based industrial incentives) that have not proved particularly effective in the past.

iii. Difficulties in modernizing its manufacturing base away from its traditional specialties, e.g. textiles and clothing towards higher value-added products.

iv. A continuing dependence on Britain as the main external sales destination, with potentially undesirable consequences in terms of slow and erratic growth in the longer term and with the UK remaining outside EMU for the present at least.

v. Economic peripherality within the UK, a relatively low standard of living among the UK regions, combined with the possible perpetuation of dependence on external financial aid in the form of the "subvention", with consequential lack of dynamism in the regional economy (i.e. a *Mezzogiorno* problem).

The fact that the Northern and Southern strategic policy orientations are so out of alignment is likely to continue to have disruptive consequences for planning and executing any desire to “complete” the island’s economy. While there are likely to be many positive aspects to the evolution of North-South relationships over the coming years, there will be negative aspects as well. In very general terms, the strategic policy environment of Ireland would appear to be somewhat more favorable at present than the situation facing Northern Ireland. There remains the possibility that, in the absence of explicit and concerted North-South co-operative initiatives, there will be a tendency for a continuation of the previous process of essentially separate development of the two regions and an inability to complete the island economy, even as conventional North-South trade continues to expand. In the absence of appropriate island-wide policy making forums, there is likely to be a lack of focus and urgency in addressing the related problem and consequences of policy mismatch.

5.3 Industrial structure and North-South business links

Overall manufacturing employment shares in Northern Ireland and Ireland are fairly similar, though the South has a far higher concentration in high technology industries. The Southern situation reflects the much more significant contribution of foreign direct investment, which has raised productivity and profitability substantially. Indirect information on the indigenously owned sectors suggests greater similarity, North and South.

A key relationship between the economies of Northern Ireland and Ireland involves North-South trade. The ability to sell outside a regional economy requires the ability to produce a range of goods and services that are in demand elsewhere. The characterization of the Northern and Southern productive structures - with the South having a more modern industrial base - has important implications for internal trade.

Table 5.2 shows Southern exports to the North, to Britain and to the entire EU, disaggregated using the Standard Industrial Trade Classification (SITC), with specific details of some sub-divisions. The table highlights some striking facts. Exports from the South to the North are heavily concentrated in SITC 0 (Food and Live Animals), accounting for 24.5 per cent of total Southern exports to Northern Ireland. For the same product category, this compares with 17 per cent of total exports to Britain and only 11 per cent of total exports to the EU as a whole.

There is a very high concentration of Southern exports in categories SITC 7 (Machinery and Transport Equipment) to Britain and the EU as a whole, accounting for over a third in each, but only 12 per cent of total Southern SITC 7 exports to the North. More notably, for the important category of SITC 75 (Office and ADP machines), almost 25 per cent of Southern exports to Britain and to the EU fall into this category but less than 2 per cent of total exports to the North.[20]

Thus, the composition of bilateral trade between the North and the South is very different from bilateral trade between Britain and the South, as well as between the EU as a whole and the South. North-South trade – both ways – is predominantly in traditional, low technology products with an exceptionally high weights for SITC 0 (Food, Drink and Tobacco). Of course, this phenomenon simply reflects the underlying industrial structure in Northern Ireland compared with Ireland. However, the most important dynamic promoting increased intra-EU trade in the Single Market of the EU is associated inter-firm trade in similar product areas rather than trade in finished consumer goods. This two-way trade simply cannot easily take place between North and South, given the contrasting production structures.

[20] The situation for SITC 5 (Chemicals and related products) is also anomalous, but not quite as dramatic as the previous cases, with 24 per cent of total exports to EU in this category, 16 per cent to Britain, but only 9 per cent to the North. One should note a residual category – "Other" – which makes up 15 per cent of total Southern exports to the North, and is negligible to anywhere else. This category consists of goods whose trade volume is at too low a threshold to be accurately recorded, and almost certainly consists of traditional rather than high technology products.

Table 5.2: Republic of Ireland export shares by SITC sections: 1997

SITC	Exports to NI (% of total)	Exports to Britain (% of total)	Exports to rest of EU (% of total)
0	24.5	16.9	11.3
1	6.6	1.7	1.6
2	2.8	2.2	1.8
3	1.1	1.0	0.6
4	0.0	0.2	0.1
5	9.3	15.9	24.4
(54)	***(0.8)***	***4.2***	***(5.6)***
6	17.4	5.6	4.4
7	12.1	36.8	35.6
(75)	***(1.8)***	***(25.1)***	***(23.8)***
(77)	***(1.9)***	***(5.9)***	***(6.4)***
8	12.0	14.8	15.0
9	0.0	3.1	3.9
Other	15.3	1.8	1.3

Source: Trade Statistics, December 1997, CSO.
Note: Totals of shares may not add to 100 due to rounding

The potential gains from greater North-South trade interaction, given existing Northern industrial activity, may be modest relative to the potential gains from greater penetration into wider world markets, including British markets. Nevertheless, there are gains to be made from intra-island trade in circumstances that will assist in strengthening the competitive performance of all businesses on this island. North-South trade improvement on this island is not an *alternative* to East-West trade improvement, but is entirely *complementary* to it. It is a transitional process that will produce gains in the short term and, by strengthening its supply side, will help to position the island economy to make further advances in world markets. North-South trade will reach its potential if and only if the structure of manufacturing in Northern Ireland can be modernized and brought into line with that of Wales and Scotland.

5.4 The island economy of the future

Industry in Northern Ireland has yet to develop dynamic, self-sustaining characteristics, especially in terms of clusters of related and supporting industries. It remains heavily subsidized by public funding and is concentrated in the low technology sectors of traditional industries such as textiles and clothing. The situation in Ireland is somewhat healthier, but because industrial development has been so heavily driven by foreign direct investment, which tends not to lay down the full range of developmental roots in the domestic economy, the key interconnections between related firms and industries have yet to take place fully.

How might this situation be improved? Both regions are individually small, with populations of only 1.6 and 3.8 million respectively. The North is not only separated geographically from Britain, but, importantly, also appears to be very weakly integrated into the supply side of the British economy, even when demand for Northern output is driven by the British market. For example, the North is almost never central to strategic planning by British firms and is, therefore, both geographically and economically peripheral to Britain. However, recent improvements in access transport and a more positive political situation should help to

alleviate this situation over time. But the North is unlikely ever to be placed on a par with the rest of the British economy, at least from the supply side perspective. Rather, it is likely to remain the case that the North will remain economically peripheral to Britain. In contrast, however, there is less geographical or economic logic to the North remaining peripheral to the South.

The logic in favor of deepening North-South supply-side links, thus making the two Irish regions less peripheral to each other, is partly economic (dealing with cross-border policy externalities and spillovers), partly geographic (close proximity and land borders have a unique and inescapable logic of their own), partly cultural (although this aspect is not without problems), and partly political (since deeper North-South economic links might aid the consolidation of peace and political stability within the North and greater North-South trust and harmony).

The situation in Ireland, relative to the countries that provide the bulk of its foreign direct investment (i.e. predominantly the US, but also Britain and the rest of the EU), has strong analogues with the position in Northern Ireland. For example, just as Northern Ireland is not strategically central to externally owned (mainly British) firms located there, neither is the economy of Ireland central to the strategic planning of many of its (mainly US-based) plants. Rather, Ireland is seen as a highly profitable location for production of products mainly designed, developed, tested and marketed elsewhere, and a location where a very high quality labour force is available at reasonable cost. As already argued, the branch plant nature of foreign firms located in Ireland tends does not always encourage the establishment of strong economic performance built on competitive advantage. Heavy dependence on foreign investment is less likely to generate the type of cumulative self-sustaining indigenous growth that is a characteristic of successful European regional economies such as Emilia-Romagna in northern Italy and Baden-Württemberg in Germany (Best, 1990; Porter, 1990).

Porter has suggested that four interacting characteristics are essential for competitive success: factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry. It might be suggested that what is required to upgrade the four Porter competitiveness factors on the island is not for the North and South to develop separately, as two competing regions, but to facilitate their coming together, building on strengths and eradicating weaknesses so that genuine synergies can be realized for the mutual benefit of both North and South. Such synergies would ultimately be reflected in the formation and development of deeply embedded, inter-connected and supportive island industrial activity. This would be seen in the emergence of industrial *clusters* of firms and industries feeding backwards and forwards off each other, industrial *districts* centered around specific industries in specific geographic regions and with the potential to increase local sourcing, and industrial *networks* involving the exchange between firms and industries of mutually-supportive information and knowledge.

The unfortunate reality is that both North and South are attempting to improve their competitive advantages largely in isolation from each other (*Strategy 2010*; *Enterprise 2010*). Given the political climate of the last few decades, this process of separate development is easy to understand. The type of public and private sector planning and consultation needed to build a Porter-type strategy would have demanded levels of co-operation that were never realistically going to be politically feasible as long as the conflict in Northern Ireland continued.

However, what of the post-Belfast Agreement period? During the 1990s I had been of the opinion that north-south market imperfections were a serious constraint on cross-boarder co-operation, and that this was restricting the development potential of both regions (Bradley, 1996). It might appear that many of these imperfections have been addressed, and that cross-border institutions are now in place. But as Tannam, 2005 notes, cross-border business co-operation has remained at a rather narrow level that has left the underlying development processes of both regions untouched. Tannam went on to ask whether this is due to the short time that has elapsed since the institutions were put in place, or whether the wrong kind of institutions came out of the Agreement negotiations, and concludes that this is not a fruitful way to examine the situation.

My own views, based on economic and business research, are now considerably more pessimistic. Not only have I come to believe that the economic and business cross-border institutions of the Agreement were a grudging, minimalist concession to an "Irish" dimension of the inter-communal problems of Northern Ireland that fundamentally rejected the concept of an island economy. But I find it impossible to envisage any politically acceptable process through which the economy of Northern Ireland can break free of the constraints of being a peripheral region of the United Kingdom,

Remaining as part of the UK under direct rule will very likely doom it to play out the process of continued industrial decline, stagnation and dependency that we described in Section 3.[21] Devolved government, even under the most optimistic of circumstances, is unlikely to be more beneficial to Northern Ireland than it is at present to Scotland, where the local administration finds it difficult to design and implement distinctive, Scottish development policies. And there do not appear to be any other options that would command the enthusiastic support of both of the communities in Northern Ireland and their political representatives. I fear that future generations will look back on the Belfast Agreement as a missed opportunity to put history behind us. This was not – as the neo-functionalists claim – due to a failure of the political elite to react to pressures emanating from the business communities. At a deep psychological level, both business communities are probably happy to function in their separate spheres, and far from urging greater action on the politicians, I believe that they colluded with them to prevent the Agreement from encroaching on the tranquility of their lives.

[21] Northern Ireland's economic dependency is of the comfortable variety, since the British subvention ensures that living standards do not fall too far below national levels.

References

Barry, F. (ed.) (1999). *Understanding Ireland Economic Growth*, London: Macmillan

Barry, F. and J. Bradley (1997). "FDI and trade: the Irish host-country experience", *Economic Journal*, 107 (445), 1798-1811

Best, M. (1990). *The New Competition: Institutions of Industrial Restructuring*, Cambridge (UK): The Polity Press.

Best, M. (2000). *The Capabilities and Innovation Perspective: The Way Ahead in Northern Ireland*, Research Monograph 8, Belfast: Northern Ireland Economic Council.

Best, M. (2001). *The New Competitive Advantage*, in press.

Borooah, V. and K. Lee (1991). "The Regional Dimension of Competitiveness in Manufacturing: Productivity, Employment and Wages in Northern Ireland and the United Kingdom", *Regional Studies* 25(3), 219-229.

Bradley, J. (1996) *An island economy: exploring long-term consequences of peace and reconciliation in the island of Ireland*, Dublin: Forum for Peace and Reconciliation, August.

Bradley, J. and D. Hamilton (1999). "*Strategy 2010*: Planning economic development in Northern Ireland", *Regional Studies*, vol. 33(9), 1999).

Bradley, J. (2000). "Foreign direct investment: implications for Irish economic development and wider lessons", *Rassegna Economica: Quaderni di ricerca*, 3, April, pp. 97-138.

Bradley, J. (2000). "The Irish Economy in Comparative Perspective", in *Bust to Boom*, eds. B. Nolan, P. O'Connell and C. Whelan, pp. 4-26, Dublin: The Institute of Public Administration.

Bradley, J. (2001). "The Island Economy: Past, Present and Future", in *Cross Currents*, Cork: Cork University Press

Clothing and Textiles (1998). *Sectoral Report*, Clothing and Textiles Working Group, Belfast: Department of Economic Development (available on www.strategy2010.com)

Commission of the European Communities (1993). "The economic and financial situation in Italy, Annex III: Regional disparities: the Southern issue", *European Economy*, Reports and Studies, No. 1.

Culliton, J. (1992) *A Time for Change: Industrial Policy for the 1990s*, Report of the Industrial Policy Review Group, January, Dublin: The Stationery Office.

Forfás (2000). *Enterprise 2010: A New Strategy for the Promotion of Enterprise in Ireland in the 21st Century*, Dublin: Forfás.

Farley, N. (1995). “A comparative analysis of the performance of the manufacturing sectors, North and South: 1960-1991”, in *The Two Economies of Ireland: Public Policy, Growth and Employment*, ed. J. Bradley, Irish Studies in Management, Dublin: Oak Tree Press.

Forfás (1998). *Annual Competitiveness Report*, Dublin: National Competitiveness Council.

Harrigan, K. and M. Porter (1998). “End-Game Strategies for Declining Industries”, in *On Competition*, M. Porter, Harvard: Harvard Business Review Book

InterTradeIreland (2003). *A North-South Analysis of Manufacturing Growth and Productivity*, Newry.

Kay, J. (1991). "Economics and Business", *The Economic Journal*, 101, pp.57-63.

Krugman, P. (1997). “Good News from Ireland: A Geographical Perspective”, in A. Gray (ed.), *International Perspectives on the Irish Economy*, Dublin: Indecon Economic Consultants.

MacSharry, R. and P. White (2000). *The Making of the Celtic Tiger*, Cork: Mercier Press

McKiernan, P. (1992). *Strategies of Growth: Maturity, Recovery and Internationalization*, London: Routledge

McLoughlin, R. (1972). “The Industrial Development Process: An Overall View”, *Administration*, 20(1), pp. 27-36

Munck, R. (1993). *The Irish Economy: Results and Prospects*, London: Pluto Press.

NIEC (1998) *Regional Economic and Policy Impacts of EMU: The Case of Northern Ireland*, Research Monograph 6, ed. J. Bradley, April, Belfast: Northern Ireland Economic Council.

NIEC (1999). *The implementation of Northern Ireland’s development strategy in the 1990s: lessons for the future*, Report No. 131, Belfast: The Northern Ireland Economic Council.

Northern Ireland Growth Challenge (1995). *Northern Ireland Growth Challenge: Interim Summary of Progress*, Belfast, May 1995.

Ó Grada, C. (1994). *Ireland: A New Economic History 1780-1939*, Oxford: Clarendon Press.

Ohmae, K. (1996). "Putting Global Logic First", in *The Evolving Global Economy*, K. Ohmae (ed.), Harvard: Harvard Business Review Books, pp. 129-137.

Ohmae, K. (2000). *The Invisible Continent*, London: Nicholas Brealey.

Pinson, C. and V.Tibrewala (1996). *United Colors of Benetton*, INSEAD-CEDEP, Case Study 597-008-1, Fontainebleau: INSEAD-CEDEP.

Porter, M. (1990). *The Competitive Advantage of Nations*, London: Macmillan.

Porter, M. (1998). *On Competition*, Massachusetts: Harvard Business Review Press.

Stigler, G. (1951). "The Division of Labor is Limited by the Extent of the Market", *Journal of Political Economy*, LIX, pp.185-93.

Strategy 2010 (1999). *Strategy 2010*, a report prepared by the Economic Development Strategy Review Steering Group, Belfast: Department of Economic Development.

Tannam, E. (2005). ZZZ

Vernon, R. (1966). "International investment and international trade in the product cycle", *Quarterly Journal of Economics*, May, pp. 190-207.

Vernon, R. (1973). *Sovereignty at Bay*, Harmondsworth: Penguin.

Vernon, R. (1979). "The product cycle hypothesis in a new international environment", *Oxford Bulletin of Economics and Statistics*, Vol. 41, No. 4, pp. 255-267.