Economic Growth in Cork County, Ireland, and Halifax County, Canada, during the 1990s

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The slowness in overcoming the disparities between Atlantic Canada and the more prosperous regions of Canada over the last thirty years recently led policy makers to look toward development strategies enacted in small peripheral island states such as Iceland and the Republic of Ireland. Within this context, the economic transformation of Cork County, Ireland, and Halifax County, Nova Scotia, is compared. The time period of 1991-2001 was selected because it concludes a decade of rapid growth in North America and Europe. Both jurisdictions are reviewing policies' effectiveness in a new economic era. In 2000, the Nova Scotia government embarked upon a new strategy for economic prosperity. Ireland's policies are being assessed with regard to their effectiveness under current weak global economic conditions and a probable decline in European Union funding.

The two counties were selected for analysis because of comparable traits. They are similar in size, located on the periphery of their countries, and have their populations centrally located around a seaport node. This physical configuration creates a definite labour market boundary with comparative spatial commuting costs. Their urban cores are reasonably large and may receive agglomeration benefits with regard to infrastructure and labour market. Nearby offshore natural gas fields are another option for energy and the possibility of an economic niche activity. As well, the regions provide attractive social and physical living environments for employers and employees, including excellent post-secondary educational and medical facilities. Both areas have been the subject of regional planning and economic development over a sufficiently long period to provide

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a comparative temporal framework. Each region has attempted to restructure its local traditional economy to incorporate economic activities representative of more advanced and higher growth sectors. Cork's new industries are clustered around pharmaceuticals and health care, international communications services, and electronics. Halifax is attempting to evolve a new economy around the energy, health sciences and international communications technology sectors. Both city-regions (Cork 4%, Halifax 7.7%) have low unemployment rates (Fitzpatrick 2002; Statistics Canada 2001).

Cork County, with an area of 7,500 km^2 and a population of 420,000 (Southwest Regional Authority 1998), comprises the Cork urban region with a population of 250,000 and a periphery of 170,000 inhabitants residing in small towns and rural districts. This south-western Irish county has had to cope with a decline in the textile and heavy industries located in Cork and around the port. In the peripheral areas a traditional agricultural resource base and resultant out-migration provided different development challenges. Halifax County (the regional municipality of Halifax with an area of 5,500 km^2) has a population of 370,000 with 250,000 living in a dense urbanized core with the remainder spread over a large, primarily forested, periphery. The periphery economic activities have traditionally been fishing, forestry and farming. Today, many of the rural hamlets have become commuter suburbs. The Halifax regional municipality has had to overcome the economic challenges arising from a decline in port functions and the centralizing pull of larger Canadian and American centres.

Approach

The study is foremost an explorative description of economic trends arising from or associated with publicly-assisted development programs. The labour opportunities in Cork County created through the efforts of the Ireland Development Agency (IDA) and Enterprise Ireland will be compared with those generated in Halifax County by Atlantic Canada Opportunities Agency (ACOA) and the Nova Scotia Business Development Corporation (NSBDC). Secondary sources of job creation through smaller local community initiatives are incorporated where possible. The impact of Industry Canada and Human Resources Development Canada is not identified. Indirect or possible long term impacts that may arise from investment in infrastructure and research centres are only briefly touched upon. Analysis of policies and their capital and operating tax incentives in regional and national approaches to development is well-referenced elsewhere and is only briefly summarised to provide a contextual background.

To provide an evaluative lens, the results of economic development strategies are based on the following criteria: What are the additional new employment opportunities created directly by such programs between 1991 and 2001 as a ratio of labour force growth? Were the employment opportunities of high quality and well paid? Are labour opportunities being developed in the newer sectors of the economy or in the traditional ones? Are new dynamic economic generators evolving in traditional or new sectors in terms of clusters, of similar or related economic activities, which become self-sustaining and form a nucleus of a new knowledge region?

If Irish/Cork results are found to be more favourable, to what extent can their strategies be adopted in Nova Scotia and Halifax? Transference of policies presupposes that similar economic and social conditions exist within the origin and receptor state. Does this assumption hold or do a number of exogenous and endogenous factors exist that may constrain the adoption of some or all of the Irish tactics? The regions under study are strongly tied to different economic trading blocs, the European Union (EU) and the North American Free Trade Association (NAFTA), with different markets and regulatory structures. Are the agglomerative benefits associated with these two large markets similar? Do similar location and trade opportunities exist for each region within its respective bloc? Did the conditions of entry establish different sets of parameters with specific time limits for adherence to the new set of structures? Did the time limits provide sufficient time to evaluate the effectiveness of existing approaches and implement changes as necessary? Different structures may also impact on the time required before policies take effect. Or do economic changes primarily occur during specific cyclical periods of opportunity if the appropriate fiscal, monetary and strategic development policies are in place? Can a mismatch of either factor be the difference between success and failure? What role do social factors play in incubating change internally or through the attraction of technology and investment from abroad? Although the transference question is an area that needs to be separately explored, some of the above points are tangentially discussed in the background section of the study.

Data for the analysis were collated from a number of sources. Public and private sources were supplemented by annual reports, published and unpublished statistics released by the responsible departments from the different levels of governance. Data were at times incomplete and/or recorded by aggregated categories, over different spatial areas and time periods which made them difficult to assess. In some instances, extrapolations were made when data could not be disaggregated by area or temporally. The South-Western Development Region (SWDR) in Ireland includes Cork County and southern Kerry County. Irish demographic data are not always broken down by county lines. NSBDC annual reports do not measure job losses arising from client firms going out of business and estimates of job losses were made. Supplementary information concerning initial job claims were solicited from senior officials associated with the pertinent programs either in person by mail and/or electronically.

Background

Between the study areas some of the policy differences are attributable to the different political institutions under which they were formulated. Although both regions operate within a hierarchy of three political jurisdictions, the impact of the upper two levels on each varies significantly. Economic growth in Cork County is a regional manifestation of national policies and directives and of the region's attractiveness as a location for economic activities. National Irish policies are formulated within EU fiscal, social and development guidelines. The regional municipality of Halifax operates under the jurisdiction of the Province of Nova Scotia, which in turn legislates under the constitutional powers allotted to it especially in regard to taxation and resources. Nova Scotia has less control over corporate taxation and international trade agreements within the confederation of Canada than does the Republic of Ireland within the EU. Cork and Halifax County policies are composites of initiatives from three political levels. This difference in power sharing among the tripartite jurisdictions means that firms in the Cork region have been the beneficiary of a national low corporate tax policy, subsidised by a high value added tax, and of substantial indirect funding from the EU. Cork used these inducements to encourage foreign investments. On the other hand, domestic and foreign enterprises in the Halifax municipality operate under provincial and federal corporate tax and fiscal policies which have been less lucrative.

Although a rich and growing body of literature on regional development and policies has emerged, the dynamics and complexities of regional growth are such that it is still difficult to converge on a single theoretical framework that can capture the complexities of the social and economic processes. Lagendijk's (2001) summary of a joint meeting of the International Geographic Union Commission on the Dynamics of Economic Spaces and its Study Group of Local Development identifies many of the current views on regional growth mechanisms. Some issues were how important are spatial social and economic configurations (clusters, agglomerations, nodes, industrial districts)? Depending on the characteristics of regions, the roles played by large firms, political interests, global networks, horizontal, vertical and institutional networks related to clusters of economic activities, collective learning, social capital and relationships (local and non-local) vary. Stuchtey's (2001) analysis of German economic spatial agglomerations points to the importance of pre-eminent firms in the generation of such economic units. He further investigates theoretically the economic benefits arising from such activity groupings.

The incubation of industrial clusters is complex. Notwithstanding that, many of their outward characteristics appear to be universal. However, their emergence, functions, continuance and decline may follow different pathways than anticipated (see Bathelt 2002). Nor do clusters guarantee local growth as regional stagnation through over-embedment can arise. Bathelt (2001) cautions that a region, which is centred around a domestic market arising from a single major source with limited access to external markets, that provide competitiveness and possibilities for additional growth, may develop an inward looking set of social relations with consequent economic limitations.

Nova Scotia and Halifax

Nova Scotia, with an area of 55,000 km^2 and a population approaching one million, has been confronted with a number of constraints that hindered efforts to create an economic base that mirrors the more successful regions of North America and Europe. Nova Scotia's per capita GDP which was at 70 % of the national average in 1986-88 had increased marginally to 75 % by 2001. In part, this slow rate of convergence is attributable to the province's inability to capitalize on new economic cycles or to advance the traditional manufacturing sector. Nova Scotia has a higher portion of the population employed in the service sector compared to the national average.

Institutional, resource and location bottlenecks have not been adequately addressed to enable the province to forge ahead. Czamamski (1972), after a detailed study of Nova Scotia's economy, observes that the province needs to become less reliant on federal spending and on extraction from a limited resource base. He further notes that multiplier effects remain low due to the small flow of inter-industry trade and suggests that economic policies focus on selecting a careful mix of industrial activities. Some of these concerns with regard to industrial mix appear to be addressed in the latest strategic document "Opportunities for Prosperity" set out recently by the government (Province of Nova Scotia 2000).

Nova Scotia has not been central to the market forces operating within the larger global economy notwithstanding that Halifax is one of the lowest cost centres, with inherent strengths in the knowledge industry, within a set of 86 cities analyzed from major industrial countries (KPMG Peat Marwick 1999). Nor has a myriad of federal and provincial economic development programs provided adequate catalytic forces to propel the province forward, toward a more successful resolution of this economic dilemma. The effectiveness of these has been limited by impediments, many of which arise from the manner in which the programs were structured and carried out. It was thought that a sound social and physical infrastructure around a number of growth nodes (Neil 1991) would create an attractive investment environment in lagging regions. Although the historical and political context which led to the evolution of such programs is well documented and their inherent embedded shortcomings exposed (Savoie 1992, 2001), the attempts to address such shortcomings through restructuring or redrafting of regional development policies have not been as fruitful as desired. Policy shortcomings arise from primary and secondary interrelations. These include the expenditure of limited economic development funds, often from regional development programs, to resolve spatial political problems throughout Canada thereby reducing severely the availability of such funds to build and strengthen the economic base in Atlantic Canada. Overlap between federal development programs and the related duplication of administration expenses tend to reduce their cost effectiveness. A recurrent theme is the need for a clearer and more administratively effective regional policy at the federal level (Savoie 1997).

An inherent spatial bias in federal fiscal policies, whether through special development assistance to the private sector or procurement of goods and services, works at cross purposes with regional incentives for selected areas. National policies on trade patterns and the inflow of investment capital, both domestic and foreign can also mitigate regional growth. Green et al. (2000) ascertain that Nova Scotia had received a small number of investments (142), which comprised 1.3% of US direct investment in Canada over the period 1985 to 1998. Further, they observed that this flow largely reinforced the status quo within Canada and was partially related to proximity. Polèse (2000) is of a similar view that the Atlantic Provinces, located on the north-eastern periphery of North America, are geographically not as well positioned as Ontario and Quebec to take immediate advantage of economic opportunities arising from NAFTA.

The lack of innovative approaches to address regional disparities arises from a number of reasons. In an era of fiscal restraint, the competition for funds among government ministries is fiercer. There has been a downloading of responsibilities to lower levels of governance which have had thrust upon them more undertakings, including economic development. Within Nova Scotia and Atlantic Canada, few municipal governments have the resources to take on this new task. Our theoretical and empirical understanding of the interactive dynamics among the various actors at different spatial levels is not at the stage whereby regional development policies can be easily drawn up and successfully applied. Savoie (1997: 13) puts it succinctly: "If we learned anything about the problem of regional development during the past thirty years in Canada, it is surely that there are no panaceas."

Nonetheless, Halifax has emerged as a thriving medium-size metropolis with a 71.3% labour force participation rate (Statistics Canada 2002). Major employers are the federal and provincial government, the military, call centres, and educational and health institutions. The city has established itself as the cultural, retail, shipping and transportation centre for the Maritime Provinces of New Brunswick, Nova Scotia and Prince Edward Island. Advanced manufacturing in the old economy or the new health and knowledge fields is limited and shipbuilding is cyclical. A small high tech core in software and health is still in the evolutionary stage. Oil and gas as generators of development may provide an additional economic pillar. The out-migration of highly educated individuals mitigates the role played by a well-developed university system. Indeed while Nova Scotia's universities are magnets in the inter-provincial flow of high school graduates going to college, the province suffers a critical outflow of graduates (Burbidge and Finney 2000).

NSBDC and ACOA

Although the data set for the publicly, supported economic assistance programs selected for analysis provides a reasonable snapshot, there are small gaps. ACOA's business development program represents about 40% of that agency's annual expenditures. In addition, provincial farm and fish board loans, for example, are not accounted for. With the exception of call centres, the data do not include the employment impacts from the small venture capital fund, aboriginal programs, special government grants, guarantees, training assistance, payroll or other tax rebates. Call centres have been attracted to Nova Scotia in part through payroll rebates negotiated by corporations with senior levels of the provincial government. If all the direct and indirect forms of primary and secondary assistance for

TABLE 1 NSBDC Authorizations 1992-2001 by Fund and Area in $1,000,000[1]

	NovaScotia						Halifax						
	Business			Industrial			Business			Industriel			
Year Fund	L	S	G	L	S	G	L	S	G	L	S	G	Write off
1992	--	--	--	5.2	--	5.0	--	--	--	--	--	--	20.8
1993	46.9	--	7.4	3.7	--	59.0	16.0	--	--	--	--	--	11.0
1994	22.4	--	30.7	7.1	--	9.0	34.8	--	--	--	--	--	11.0
1995	29.7	--	6.9	--	--	16.0	9.8	--	--	--	--	--	1.6
1996	--	--	--	--	--	--	--	--	--	--	--	--	25.8
1997	27.6	.5	9.2	22.5	--	.2	11.1	--	--	--	--	--	5.7
1998	40.4	.4	9.6	10.3	--	35.5	8.5	--	--	--	--	35.5	24.4
1999	54.0	.45	.9	31.8	1.5	130.0	5.9	--	--	15.0	--	127.0	33.6
2000	9.9	.3	--	7.6	--	3.0	1.9	--	--	1.7	--	1.0	29.3[2]
2001	48.9	--	--	--	--	--	1.3	--	--	--	--	--	
Total	279.8	1.6	74.7	88.2	1.5	257.7	89.3	--	--	16.7	--	163.5	163.2

Note: 1. L - loans. S-shares, G-guarantees.
2. *20.5 million in forgivable loans, - not available or included in another section such as loans.

Source: Calculated from NSBDC reports.

economic development were tabulated, a figure of $1.3 billion would be a reasonable estimate of incentives and support funnelled through federal and provincial agencies over the last decade.

NSBDC. The Nova Scotia Business Development Corporation (NSB-DC) was established in 1988 to promote business growth especially manufacturing and tourism. It also administers the Industrial Expansion Fund (IEF), the Ventures Corporations Act, seventeen industrial parks and until recently, the community business loan program (NSBDC 2000). Financial assistance is provided through loans, shares and guarantees. The Corporation's goal is to provide start-up and expansion capital to all eligible enterprises regardless of location. In Table 1, the flow of disbursements is illustrated for 1992-2001.

Over the period 1988 to 2001, approximately $280 million in loans had been authorized from the business development corporation fund (Table 1). From the available reports, it appears most of the funds were taken up. In the March 31, 2000, NSBDC annual report, the cumulative impact of the financial assistance is summarised. Over the last twelve years, 700 entrepreneurs had been assisted and in 2000, there were 250 active accounts. NSBDC estimates that the client firms, assisted with a

TABLE 2 Number of Projects and Associated Jobs Generated by Fund and Region 1992-2001

Year	Province			Halifax			Defaults Number
	NSBDC	IEF	Jobs	NSBDC	IEF	Jobs	
1992--93	65	--	3,100	11	--	--	--
1994	49	--	3,600	19	--	--	--
1995	44	--	3,600	10	--	--	--
1997	29	--	1,204	8	--	--	--
1998	67	9	3,024	13	--	377	--
1999	51	14	2,724	11	4	279	17
2000	41	6	1,850	8	2	100	15
2001	--	--	1,284	--	--	285	--

Note: 1. (--) Data not available or included elsewhere.
Source: Estimated from NSBDC annual reports.

start-up or expansion over the years, employ 10,000 individuals with another 12,000 spin-off jobs. Ten percent of the employment was in the Regional Municipality of Halifax. It is not clear how many jobs are directly attributable to the assistance. Financial assistance ranged from $50,000 to $18 million. One third of this financial assistance went to support the food processing sector in rural areas. Another 40% went to firms in the rubber, textiles, and wood-related sectors. A loan default rate of approximately 40% was calculated from the annual reports. This rate is not surprising in view of the fact that 48 of the largest 50 clients surveyed in 1998 were deemed financially insolvent for normal bank loans at the point of their application (Nova Scotia Business Inc. 2002). In 2001, an additional $48.9 million in assistance was committed with a potential of 1,284 new jobs of which 285 were in Halifax.

The industrial expansion fund is of the same magnitude as the business development fund. However, the average level of assistance is substantially higher and provided to a smaller set of enterprises with a stronger focus on manufacturing and food processing. Loan guarantees and equity are methods utilised to assist firms in obtaining additional sources of financing. Guarantees have been up to $80 million to assist the shipbuilding industries. NSBDC (2000) estimates that the IEF program generated employment for 7,700 individuals in the province with another 10,000 spin-off jobs. The number of work places created in Halifax is not recorded in the annual reports and is difficult to extrapolate. If the 10% ratio is used based on the business development loans for Halifax, then the total would be 1,770.

The NSBDC assumed responsibility in 1992 for the community business loan program. This program comprised two areas, a small loan component (up to $25,000) to assist the start up of new firms and a somewhat larger sum (up to $50,000) for existing businesses (NSBDC 1998). During the four years of operation under the direct auspices of NSBDC, 900 applications valued at $16 million were approved for a total of $9 million in loans. An estimated 1000 new positions were created. Community business loans were more effective in the Halifax region which received a total of $1.6 million in funding for 440 jobs (NSBDC 1998). In 1999 the program was put under review, ostensibly because other sources of capital for community development had become more readily available from newly established ACOA community partnerships.

The federal government in the early to mid 1990s, under the auspices of ACOA and Human Resources Development Canada (HRDC), began to put a greater emphasis on a community-based approach to development. There was a shift in the manner assistance was provided. Repayable loans and not grants became the operative delivery mechanism. In 1995 (Community Business Development Corporations 2001), ACOA began to partner with local communities in delivering programs. An initial seed grant of $1.5 million from ACOA to each Community Business Development Corporation (CBDC) provided the capital base for local loans (MacRae 2001). Presently there are thirteen Community Business Development Corporations which offer services at 19 offices in Nova Scotia.

In total, the number of work places arising from NSBDC operations in Nova Scotia between 1988 and 2001 is estimated from NSBDC reports to be 20,000 plus a spin-off of 22,000. This is an upper limit as the numbers also represent jobs maintained and they do not reflect job losses arising from closures. Although account write-offs of approximately 40% of the loans are recorded in NSBDC annual reports, they are not accompanied by the associated loss in jobs. Also, there is double counting as many of the enterprises received funding from a number of programs; federal, provincial, community enterprise boards, and private institutions. After reducing the job creation figures by 40% (equal to account write-offs) to incorporate default and duplication factors, employment estimates would be 25,200. Halifax County, based on an estimate of receiving 10% of NSBDC and IEF projects with their related spin-off and adding in the small business community development jobs, benefited from 4500 work places. Adjustment for defaults and duplication using the 40% reduction approach would reduce this to 2,800 employment opportunities. These estimates did not incorporate the more than 10,000 call centre jobs attracted to the province, one half of which are in Halifax (Blade 2002). By 2004, the number of call centres is projected to reach forty-two with an employment base of 14,000 (Hoare and Mellor 2003).

In 2000, the government set out a new strategy "Opportunities for Prosperity" in which the foundation sectors, primarily resource based (fishing, tourism, culture), are to be maintained but the major thrust is to be in five key economic sectors: digital, gas and oil, knowledge based, advanced manufacturing, and life sciences (Province of Nova Scotia 2000). A new business culture is to be created focussed on working more productively, increasing exports, and attracting foreign investment in high paying manufacturing jobs. Economic investment is to be stimulated by reducing the provincial manufacturing and small business corporate tax to 7.5%. When combined with the federal rates of 21 and 12%, the final corporate tax structure works out to be 28.5 and 19.5%. These ambitious goals are to be achieved by two entities created from the NSBDC. NSBDC functions were taken over by Nova Scotia Business Inc. and Nova Scotia Economic Development Agency. Business Inc. consists of a board of directors drawn from the business community. The directors are to establish the financial incentive parameters required to help the province achieve economic status at or above the national average. The economic development agency's mandate is to establish and coordinate the policies based on the inputs from Business Inc.

ACOA-Business Development Program 1990/1991 to 2000/2001. Federal regional economic assistance information utilised were investment data provided by the Atlantic Canada Opportunities Agency (ACOA 2002). The primary sources comprised ACOA assistance provided under the business development program by value of projects undertaken by firms, by county, and by year for the period 1990-91 to 2000-01. They were accompanied by a short description of the firms' activities by a four-digit Standard Industrial Code, number of jobs to be provided or to be maintained and the number of firms assisted that are no longer in operation with the resultant job losses. ACOA assistance provided was also categorised by the agency into four major areas: innovation, marketing, start-up and expansion/modernisation. The business development program focuses on value-added manufacturing, tourism, innovation and e-commerce. Assistance is in the form of interest free loans (grants were phased out in 1994), up to 50% of eligible start-up costs, working capital and capital costs, and up to 75% of eligible related operational costs (ACOA 2001).

TABLE 3 ACOA Business Development Program Impact For Nova Scotia, 1990-91 to 2000-01

Projects	Number	Assistance (1000's)	Value (1000's)	Work Places	
				New	Maintained
Original	3,289	249,675	908,370	7,907	3,529
Defaulted	396	52,995	171,921	1,448	543
% Defaulted	12.0	21.2	18.9	1,8.3	15.4

Source: Calculated from ACOA 2002 data.

Analysis

Within Nova Scotia, over the study period, ACOA invested almost $250 million into the business development program. This assistance was provided to support 3,289 projects valued at $908 million, with the intention of creating 7,907 jobs and maintaining another 3,529 (ACOA 2002). The final sustained job creation for this period cannot be calculated for at least another five years, to incorporate the default rate for the most recent projects over the next five years. Interim figures are summarised in Table 3. The default rates by category were slightly over 21% for financial assistance provided, 12% rate for firms, 18% for new jobs and 15% for jobs maintained. Inclusion of firms that defaulted with the associated employment losses is useful in demarcating an upper boundary of jobs created and maintained. A total of 9,445 new and maintained jobs are claimed to have been generated by the ACOA business development program at a cost of $20,800 per job. Combining this number with provincial, community programs and call centre data public intervention has generated and/or maintained between 60,000 and 44,000 jobs, 9 to 13% of the entire labour force. This aid went primarily to maintain and to upgrade existing traditional economic activities.

Halifax default rates are slightly lower than those noted for the province except for new jobs generated. A default of 9.2% in new enterprises, 16.8 in financial assistance, 19.1 in new jobs and 9.2 for jobs maintained occurred. Approximately 2,335 employment places were created at a cost of $34,487 per job. Cost per job was higher by $13,500 (64%) over the ACOA provincial average. Among all government programs analysed, excluding call centres the upper and lower estimated number of work places established is 7,000 to 5,335 respectively. The number of supported projects dropped drastically over the last five years except for the category, new firms (Table 4). This may reflect a better economic climate which enabled established entrepreneurs to utilise commercial institutions or the

TABLE 4 ACOA Business Development Program Assistance and Job Impact in Halifax County, 1991-2001

Project type	No	Assistance ($1000's)	Jobs	
			New	Maintained
Establish--Expansion	123 (72)*	3,085	288	6
modernization	423 (82)*	29,648	1,053	309
Innovation	229 (43)*	25,024	169	75
Marketing	335 (65)*	20,801	441	94
Business Support	18	749	----	----
Quality--Improvement	3	294	4	0
Human Resources	2	928	310	70
Total	1,133	80,529	2,265	554
Defaults	122	13,626	433	51
Establishment	19	1,802	113	--
Expansion--Modernize	33	2,229	100	6
Innovation	26	4,434	52	--
Marketing	43	5,146	168	45
Business Support	1	15	0	--
Net gain total	1,011	66,903	1,832	503
% Defaulted	10.7	16.8	19.1	9.2

Note: 1. For period 1996-2001
Source: Calculated from ACOA 2002 data.

shift in assistance from grants to repayable loans.

The majority of funds were for the expansion, innovation and marketing categories. The innovation (not surprisingly), marketing and establishment categories record the largest number of failures. Approximately 10% of the approved projects were in the computer, electronics, communications and chemical niches; the remainder went to traditional existing sectors. The new enterprise niches had a slightly higher default rate (11.3%) and it would appear that no significant level of restructuring to higher level jobs had transpired. Statistics Canada (2002) in the 1999 survey of Nova Scotia manufacturing enterprises lists food and paper manufacturing as the top two industries. There were only 21 firms in the pharmaceutical and computer/electronics product manufacturing sector. This sector has less than 5% of the 30,000 individuals employed by all of the manufacturing firms. The impact is greater if call centres are viewed as restructuring services into the new information technology. However, call centres pri-

TABLE 5 Comparison of Change in Labour Force With Jobs Created for Nova Scotia and Halifax, 1991-2001

	NovaScotia	HalifaxCMA
Labour force 1991	447,520[1]	180,665[1]
Labour force 2001	475,300[2]	200,800[2]
Change	+27,780	+20,135
Jobs created through public programs		
Upper estimate[3]	59,450	12,000
Lower estimate[3]	42,650	10,335

Note: 1. Statistics Canada (1994).
2. Statistics Canada (2001).
3. Call centre jobs included.

marily were attracted through rebates of payroll taxes rather than specific regional development initiatives.

A comparison of job creation to growth in the labour force provides additional insight into the impact of development programs on the economies of Nova Scotia and Halifax. In Table 5, the dual economies of Halifax County and the rest of the province are illustrated. Rural Nova Scotia lags behind Metropolitan Halifax. The periphery is heavily propped up through public development programs. The various development programs reviewed claim to have created many more employment opportunities than the decline in the unemployment rate or growth of the labour force would suggest, with the exception of the Halifax region. This discrepancy may be the result of the short term impact of the initiatives, an overestimation of the impacts, and double counting. Or the programs were not able to cope with a very rapid contraction in the resource sectors arising from modernisation processes, the decline of the cod fishery or the bankruptcy of inefficient enterprises. Notwithstanding this financial intervention, the provincial labour force, excluding Halifax, increased by slightly less than 8,000. A good portion of this increase occurred in the counties of Colchester, Hants and Kings. If one further factors in the difference (5 percentage points) in the unemployment rate between Metropolitan Halifax and the rest of the province, it becomes apparent that the development measures have not been able to substantially stimulate economic activities in the periphery.

A number of factors play a role in this lack of effectiveness. The traditional resource sectors, as they become modernised, provide fewer work places. Cape Breton County's industrial steel and coal base has been closed down. There have been no corporate investments of a magnitude that generated large numbers of high-paying skilled jobs or large multipliers. Nor has there been sufficient expansion by local or by out-of-province enterprises within similar activities to establish economic clusters and self-sustaining economic-generating learning regions. Growth in Halifax County has been less directly dependent upon economic development programs. Although the picture is more positive, growth to this point does not appear to be based on major new restructuring shifts or an increase in the manufacturing base, though in the future the energy sector may become a larger economic catalyst. Economic expansion has been limited and still relies heavily on traditional sectors. Policy planners are now focussing on life sciences and international communication nodes to provide diversification and a more dynamic base. Such nodal development is still in the infancy stages.

Overview of Irish National Policies

Ireland over the last 80 years has undergone a great fluctuation in its level of economic well being. Although Ireland was relatively prosperous when it attained its independence in 1922, a long period of decline followed. Bradley (2000) attributes this decline to a number of factors. These included Ireland's status as a peripheral economic sub-region of an economically declining UK and the failure of an industrial policy based on protective barriers. In 1973 when Ireland joined the EU, its per capita GDP was 60.8% of the EU compared to the UK's which was at the mean. No significant economic inroads were made in the first decade after membership as the national GDP had risen only to 63.7% of the EU mean by 1986. After this hiatus, Ireland has been able to achieve economic success through its economic policies and, by 2001, its GDP was at 103.4 and GNP at 87% of the EU average (Central Bank of Ireland 2001). The GNP is a more accurate measure of Ireland's economic status as it reflects the impact of repatriation and transfer pricing carried out by the major foreign firms. Today, Ireland has surpassed the other less advanced members on the periphery of the EU – Spain, Portugal, and Greece – whose GDPs range from 80% of the EU average for Spain to a low of 68% for Greece (Bradley 2000).

Ireland's economic success is attributed to a number of historical, temporal, social and political factors some of which cannot be easily replicated. Entry into the EU created opportunities that the Irish policy makers were able to incorporate in their development policies. Perhaps the most important step was the recognition by the nation that new approaches had to be undertaken if desired socioeconomic results were to be realised in conjunction with the new advantages provided by EU membership status (Buckley 2002). The old policies of enterprise zones, deficit financing and low corporate taxation had not been fruitful. Membership in the EU in 1973 brought political and economic discipline which was heretofore lacking. Discipline was a prerequisite to incorporate long-term planning measures in a manner to maximise the ability of EU and national funds to fulfil priority objectives. The weakening of trade unions in the late 1980s, in part as the result of a fiscal crisis, forced the labour movement to examine more carefully its role in the national economy and how to respond positively to national development plans (Nolan et al 2000). The formation of a social partnership among the unions, national government and entrepreneurs enabled Ireland to pursue a policy of open markets within a model incorporating corporate and welfare state elements. The state began to pay down the debt. The debt ratio is expected to fall to 36% of the GDP at the end of 2002 (Commission of the European Communities 2000). Prudent management enabled the treasury to provide matching resources to attract new industries and address infrastructure problems with the assistance of EU monetary transfers.

In return for wage and workplace stability, the government was committed to decrease personal income taxes over time while corporations, as their contribution, would create more and better employment opportunities. A three pronged approach to economic diversification was put into place. The negative elements of the historic economic ties with the UK were replaced by a more favourable broader trade program. Today, the UK is the destination of 20% of Irish exports. Domestic and foreign firms were encouraged to enter the larger EU market. Continental EU has grown to become the second major market (40%) for Irish goods. Finally, foreign firms, in particular American ones, with operations in the chemical, computer manufacturing, international communications technology and supporting service sectors were successfully recruited. This was coupled fortuitously with a rapid transfer of technology and associated levels of higher productivity. American firms, which comprise 57% of the foreign firms, were recruited on the basis of a stable labour market, emotional ties between Ireland and American CEOs of Irish heritage (Buckley 2002), the provision of a familiar linguistic and cultural base for entry into the EU market, low taxes and financial incentives especially the repatriation of profits. In 1956, Ireland introduced an export profit tax relief scheme. The remission on profits from increases of export sales over the previous year was raised from 50 to 100% in 1958. This remission program was replaced by a 10% corporate tax in 1993, under pressure from the EU, and to a further 12.5% on January 1, 2003. In turn, domestic non-exporting firms had their corporation taxes reduced over time to the same level. Foreign firms utilised transfer pricing to reduce their global tax position. The financial advantages provided through the 'social partnership' reduced the propensity of foreign branch plants to relocate to more central European locations. Indeed, the opposite occurred with non-European firms opting to make Ireland their European headquarters and some European operations moved from EU member states to Ireland. Although Ireland achieved diversification, the economy became more strongly dependent on the growth of the American economy. Between 1991 and 1997, 20% of direct capital formation came from the USA, annually $1.124 billion (O'Sullivan 2000).

By 2000, Ireland's policies had achieved many of its transformation objectives. The nation had moved from a closed economy, with a high unemployment rate, to one heavily dependent upon exports (European Commission 2001). Ireland enjoys a large positive trade balance and a low unemployment rate of 4% (Central Bank of Ireland 2001). Out-migration shifted from a positive to a negative balance. Corporate, value added, and income taxes generated by the booming economy enabled the government to provide marginal relief in personal taxes in lieu of wage increases. For the year 2000, corporate taxes paid by foreign corporations were estimated at circa 1.65 billion euros (IDA 2000). All corporate tax receipts were 4.15 billion euros in 2002 (O'Brien 2003).

Whether Ireland can maintain this fast pace of economic growth and keep operating at close to full capacity will be determined in the next decade. The 2001-2003 global recessions in the computer, software and communication technology slowed the rate of development and American investment, although it has eased labour shortages in the highly skilled areas. There are troublesome signs on the horizon. The agriculture sector is still lagging and Ireland remains a major importer of energy. Recent strikes by teachers and nurses may be an omen that the social partnership is weakening. Allen (2000) points out that the benefits did not trickle down to the extent envisaged. Wealth was accrued by the multinational corporations and those able to benefit from investments and profits rather than by wage earners. The government is attempting to address the dissatisfaction with wages by mandating the Irish Development Agency (IDA) to focus on recruiting more corporations which would pay higher salaries and wages, in excess of 40,000 euros (Fitzpatrick 2002). The flow of EU funds will be greatly reduced by the end of 2006 as new member states expected to join in 2004 will require assistance.

Role of EU Structural Funds

Ireland's entry into the EU brought with it access to new sources of funds provided by the European Community. Indeed, this stream of funding was as large and may have played a role as important as direct foreign investment (DFI). Agriculture greatly benefited from the Common Agricultural Policy (CAP) for Ireland received the largest per capita net CAP transfer among member states (Commission of European Communities 2001). A more direct impact was generated by the flow of investment from the structural, cohesion, community initiatives and the European economic area financial mechanism funds, as well as loans from the European Investment Bank. The inflow of matching capital into social, business, educational, research, technology and physical infrastructure programs helped provide a more balanced development process. In the 1989 to 1993 period, 4,589 million ecus through the structural fund program were allocated to four major priorities: human resources (39.4%), peripheral location constraints and economic infrastructure (22.4%), industry and services (13.6%) and the primary sector including tourism and rural development (23.4%) (Commission of the European Communities 1994).

In the 1994-1999 period, Ireland received 5.62 billion ecus in structural funds. Cohesion and other funds increased this amount by another 20 %. Fund allocations generally followed the previous period's framework but new initiatives to broaden economic growth were formulated. A small allocation was made to 34 local community enterprise boards to stimulate the creation/expansion of small enterprises at the local level. As well, some of the structural funds were matched with national funds to provide 90 million Euros to establish sixteen venture funds as start-up capital to encourage indigenous entrepreneurs in emerging economic niches. These new policies were extended into the 2000-2006 period.

The 2000-2006 structural and cohesion fund allocation was sharply reduced to 3.172 billion Euros (Commission of European Communities 2000). This reduction reflects Ireland's rapid economic progress since 1989. Growth, however, was not equally distributed. By 1996, Dublin reached or exceeded the EU per capita GDP while the lagging regions were still at 74%. In recognition of the overall positive economic changes, the EU and Ireland agreed to reduce the amount of structural and cohesion funds to be received and to address increasing regional inequality. The border, midland and western regions still retain their objective I development status, while the southern and eastern regions were to enter a transitional assistance phase to end in 2005. Transitional areas still receive circa half the EU funds commensurate with their population.

In 1994, the trade and employment development programs were separated and entrusted to two departments. IDA Ireland focussed on foreign firms and Enterprise Ireland on domestic enterprises. Funding is provided by EU, Government of Ireland and private partners. Their annual budgets are approximately $200 million Euros. Over the last decade about $ 5.6 billion Canadian has been allocated for program and administrative functions. The achievements of both are briefly reviewed nationally and for the south-west region.

National and Regional Overview of Roles Played by IDA and Enterprise Ireland

IDA Ireland's mandate is to attract and expand foreign firms in the manufacturing and international services sector. IDA provides a number of subsidies and tax incentives for qualified applicants, with certain restrictions and special provisions (IDA 1999). These include, in addition to the lowest corporate tax rate within the EU for specific economic undertakings, special tax exemptions for foreign corporation branches, for patent royalties, for certain government securities, and repatriation of profits. Grants are provided for capital costs, employment, training, research and development.

In total, 1278 IDA projects have been carried out. IDA assisted firms have 141, 258 full time and 14,633 part time employees (IDA 2000). Ninety two percent of the jobs are in three sectors: (1) electronics-engineering (49%), (2) international and financial services (29%) (3) pharmaceutical and health care (14%). During 2000, 150.5 million euros in grants were provided to create an additional 24,717 jobs, after defaults, at an average cost of 12 thousand euros. Between 1991 and 2000, 421 new client firms worked with IDA to create 69,240 full time and 11, 189 part time jobs (IDA 2000). These were net additions over and above job losses resulting from plant closures, reductions in production or the introduction of new technology. Annual replacements are currently running at 7.5% of total employment and over the last decade they have almost equalled all new additional jobs created.

Enterprise Ireland's objectives are to assist domestic firms to incorporate new technological advances, to become more productive, to increase exports to new markets and shift to new economic sectors. Ireland's growth had been primarily driven by foreign manufacturing firms. Foreign manufacturing firms accounted for 16% of the industrial plants, almost half of the manufacturing employment and 74% of the exports (Commission of

European Communities 2000). The existing productivity gap in the domestic manufacturing sector is also mirrored in the domestic primary sectors. This gap needs to be addressed if the Irish economy is to sustain a socially stable, productive and balanced growth among all sectors and ownership groups. Although all eligible clients from the broad spectrum are assisted, there is a focus on the food, electronics engineering and the international services sectors. International services include information, internet-related, telecommunications, financial, healthcare, training software and services, digital media and e-learning. A major thrust is to enable indigenous firms to become global players, to work within clusters, and to incubate new drivers of growth. Human resources development, R&D, e-business, exporters and new high potential start-up companies are seen as drivers of growth and thus encouraged.

Other projects committed to by Enterprise Ireland are intended to complement existing opportunities and to develop new administrative and technological advances. These include the establishment of micro chip research centres, venture capital funds, entrepreneurial partnerships with centres of higher learning and the encouragement of nationals abroad to set up firms at home. These efforts are not drawn into the comparative analysis as the data are difficult to evaluate at this early stage.

During the year 2000, 241 projects received support in excess of 142 million euros, about 57% of the department's budget (Enterprise Ireland 2000). The two largest domains, each 25%, went to (a) increasing productivity through R&D and human resource development programs and (b) capacity expansion. Equity capital of 20 million euros was also provided. Other general budget allocations were made to local enterprise boards and to sixteen venture capital funds.

By 2001, Enterprise Ireland client firms provided 148,116 jobs, of which 40% were in the traditional consumer, industrial, natural resources sector, 26% in the food and allied products area, 20% in metals and engineering, and 14% in software and international services (Enterprise Ireland 2001). Most of this growth had occurred during the 1994 to 2001 time frame. In the year 1999-2000, 8,988 net new jobs were created and almost all of these were in the software and international services sectors. The recession in 2001 reduced that year's net gain to 1081 (Enterprise Ireland 2001).

In total, the two agencies have provided assistance to enterprises that today employ an additional 290,000 individuals. Nearly half of the net new jobs were created during the 1991-2000 period. These jobs comprise 17% of the present labour market and 40% of the labour force in the sectors selected for rapid development. Twenty percent of the employment in these sectors is provided by foreign firms, which played an important part in the economic revival of Ireland. A significant portion of this solid record of development is attributable to the labour force employed by the client firms of IDA and Enterprise.

On the regional level disparities have not been overcome. Dublin's economy, spurred by financial and international communication technology sectors, has further distanced itself from all the regions with the exception of the SWDR. In the near future, this disparity is unlikely to be overcome. Dublin-based firms are receiving the majority (72%) of the available venture capital provided by Enterprise Ireland, upon which future growth is expected to be based.

SWDR Enterprise Ireland. Although economic development goals are set nationally and the technical expertise required is based in Dublin, regional offices such as the SWDR do play an important role in providing local expertise and funding. Domestic funding approvals for Enterprise Ireland in the SWDR are carried out in the Dublin office, Cork office and five local regional boards. IDA requests to assist foreign firms are handled in Dublin. The regional IDA offices provide assistance in the non - monetary aspects of location and expansion.

At present, Enterprise Ireland assisted firms in the SWDR provide 23,937 jobs (Enterprise Ireland 2001). This ratio of the regional total when compared with the national total is commensurate with the region's population. Indeed in 2000, the SWDR net growth in employment of 2,442 was remarkable given that in three other development regions net losses were recorded. Enterprise Ireland's SWDR office accounted for 40% of all national net jobs created in that year. Not all restructuring processes are successful. Nationally, in 2000, client firms through bankruptcy, increased productivity or downsizing shed 9,982 jobs of which 1,031 occurred within the SWDR.

A cluster of thirteen domestic information technology firms is emerging in the SWDR serving international customers. When these firms are added to the IDA generated enterprises in this sector, a strong cluster emerges with potential agglomeration benefits. This should bode well for future growth in this sector and region. Notwithstanding the attempt to move the domestic firms into new economic sectors, with some success, the data for 2001 indicate that much energy is still expended in the food/consumer sector and in mapping out new strategies (Tables 6 and 8). A total of 9.8 million Irish pounds in 2000 and 11 million pounds in 2001 were provided by the Dublin and Cork Enterprise Ireland offices to these sectors (Enterprise Ireland 2002). In 2001, 267 requests for assistance were approved. The spatial distribution of approvals conforms to the regional

TABLE 6 2001 Enterprise Ireland Approvals by Sector for Southwest Region[1]

Sector	SWDR	Dublin
Food/consumer goods	57	63
Industrial products	38	16
International services	82	11
Total	177	90

Note: 1. Tabulated from Enterprise Ireland 2002 data.

TABLE 7 Location of Approvals by Centre[1]

Location	SWDR	Dublin
Cork City	77	51
Cork County	75	34
Kerry County	20	05
Dublin	04	00
Tipperary	01	00
Total	177	90

Note: 1. Tabulated from Enterprise Ireland 2002 data.

TABLE 8 Form of Assistance Provided by Centre[1]

Type	SWDR	Dublin
Feasibility/marketing	40	60
European orientation	00	11
Trade Fairs	10	01
Mngmt. develop./Consult.	09	09
Mentor	23	00
Restructuring	12	10
Grants[2]	33	19
Employment grants	21	11
Equity capital	16	05
Training grants	01	11
R&D	03	03
Other	07	04
New Industrial grant	01	00
Total	176	90

Note: 1. Tabulated from Enterprise Ireland 2002 data.
2. Changing condition of aid, closing of firms etc.

population ratios. Slightly more than half of the approvals went to the City of Cork. When multiple requests are eliminated, the total of enterprises receiving approval for funding is narrowed down to 117.

The different functions of the national and regional offices become more apparent from the distribution in forms of assistance (Table 8). The Dublin office was more involved in the areas of training, European orientation, management development and restructuring firms with difficulties. The regional office was more oriented toward feasibility studies, providing mentors, and trade fairs. Both offices were equally involved in funding employment grants, providing equity capital and in increasing both capacity and production productivity. Most approvals, with the exception of restructuring or related to mentor functions required investments by the applicants. These matching investments were estimated to be 66 million pounds for 2001. Approximately, 83% of the financial assistance went to four categories allocated as follows: 25% to sixty-six proposals for expansion and improvement of production lines; 31% went to twenty-one requests for equity capital; 17% toward employment grants, and 9% to support research and development. When multiple requests in different categories are combined, a picture of public support to a small number of enterprises emerges. Ten internationally oriented communication technology firms received one third of the funding and another twenty-two firms in other sectors were allocated approximately one half of the funding.

SWDR - IDA. IDA also had reasonable success in attracting foreign firms to revitalise the regional economy. The IDA (2002) lists 132 firms, which based on the 2001 national annual survey, employ 18,499 individuals. This is an increase of almost 7,000 from 1994 (IDA 1999). From the most recent statistics, 13% of IDA's national employment total is located in the SWDR. This is slightly lower than the regional to national population ratio. More significant, three clusters of activities emerged (IDA 2002). The most employment occurs in the high value-added information and communications technology sector (46 firms) providing 41% of the work places. Firms including Apple Computer have their European head quarters in Cork.

A second high value-added manufacturing cluster is the dynamic pharmaceutical and health care sector accounting for 35% of the jobs. There are thirteen major pharmaceutical corporations including Eli Lilly, Jansen, GlaxoSmithKline, Novartis, Pharmaceia and Upjohn, Pfizer, and Schering Plough. Another sixteen firms in the related health care areas produce blood filtration products, orthopaedics implants-joints, hearing devices, surgical instruments, and ophthalmic laser equipment. Lilly pharmaceuticals came to the Cork area for six major reasons: access to EU,

TABLE 9 Labour Force Change and Employment Generated by Enterprise Ireland and IDA for 1991-2001

	Ireland	SWDR	CorkCo.est.
Labour force1991	1,382,870	200,000[1]	156,688
Labour force2001	1,787,416	250,800[1]	195,624
Change	404,446	50,800	38,936
Net job creation 1991-2001[2]			
IDA	70,750	9,249	--
Enterprise Ireland	74,250	12,000	--

Note: 1. Cork and Kerry Counties.
2. Estimated from IDA and Enterprise Ireland data bases.
Source: Central Statistics Office (1991, 2001).

low corporate taxes, attractive agreements between Ireland and industrialised countries, no restriction of repatriation of profits, incentives for expansion, an English language base and a young skilled labour force (Lynch 1996). Pharmaceutical firms have gone through several stages of investment and are now moving from production to the research and development stage, indications that self-sustaining clusters may be emerging. It is critical for the Cork region that this shift into higher level functions is maintained for Roper (2001) notes that plant location in Ireland has little correlation with innovations or their successful development. Health care based on advanced laser and micro chip technology is becoming an important new generator of growth for IDA (Fitzpatrick 2002).

A new fast-growing field, which may evolve into a learning-based growth cluster, is the international services sector (Fitzpatrick 2002). More than three thousand individuals are employed with twenty-six firms. Corporations have made Cork their European call centres. Several of the higher function call centres, staffed with highly trained employees, are fielding and repairing sophisticated corporate equipment (Fitzpatrick 2002). These higher function centres, with salaries reaching the $60,000 plus range, are highly recruited.

Inputs at the local level in the regional development process are provided by the five regional enterprise boards set up in 1994, one for Kerry County, one in the City of Cork and three in Cork County (North South, West). Locally operated, the board's aim is to encourage grass roots development for small enterprises with fewer than ten employees. Feasibility studies, employment, and capital grants are provided to support a wide range of activities from crafts, nursing homes to fishing operations. The upper limit, of feasibility and employment grants, is 5,000 pounds. Capital grants are provided up to 50% of the investment to a maximum of 50,000 pounds. The boards, established in 1993 with the assistance of EU structural funds, have been given additional EU funding until 2006.

Over the first six years of operation, the West Cork Board granted 2.7 million pounds to 275 projects which created or maintained 604 jobs (West Cork Enterprise Board 1999). Data were not available for the other three Cork County boards but if their job creation success rate followed that achieved by West Cork, this number would be increased by up to another 3,400 work places.

Comparisons and Findings

From the preliminary data, the per capita investments and number of jobs provided by the ACOA, NSBDC, IDA and Enterprise Ireland to Nova Scotian and Irish clients appear to be similar over the study period. The Irish procedure of subtracting jobs lost over the years does underestimate the impact of their programs in comparison to those in Nova Scotia. After adjusting for population differences, the growth in the Irish labour force has been four times that achieved in Nova Scotia, a dramatic difference. This labour force growth has been accompanied with a declining unemployment rate which now hovers around 4%. Sectors stimulated in Ireland's programs appear to have created higher multiplier effects and stimulated greater internal expansion.

In Nova Scotia, the publicly derived jobs created a small increase in economic activities in the province outside of Halifax and the surrounding counties of Hants, Kings and Colchester. Indeed, the number of jobs claimed to have been generated through NSBDC and ACOA outside Halifax were almost twice as large as the growth in the labour force. Although the thrust of the programs was more ambitious, the main achievement was to make up for the job losses in the resource sector arising from introduction of new technology and the closing of the coal and steel sectors. The programs were maintaining the status quo and keeping the unemployment rate from increasing.

Other factors provided additional financial stimuli to the benefit of the Irish economy. The most significant has been the very low corporate tax rate, initially for foreign firms in targeted sectors but now also for domestic corporations. Such low corporate rates are not possible in Nova Scotia without the agreement of the federal government. Corporations were further assured of a stable labour market with few if any volatile work stoppages. This assisted their long-term planning and enhanced the Irish advantage. No formal provincial social agreement to enhance stability and harmony in the labour markets exists in Nova Scotia. Due to continued out-migration the province was less able to draw upon the energy of a young vibrant confident labour force.

Some firms located in Ireland on the basis of the low corporate tax rate, low labour costs and a stable labour market without the specific assistance of Irish development agencies. These firms do not show up on the list of economic development clients. Foreign firms were heavily oriented toward manufacturing in the computer, communications, electronics and chemical branches. These foreign-dominated manufacturing sectors generally provide higher salaries and wages.

The continued large inflow of private investment funds and EU structural funds has created a large number of domestic construction and service employment. Such additional funds were generally not available to Nova Scotia's economic development. Indeed, when large flows did materialise in the energy sector, the domestic employment impact was mitigated by offshore firms who had their own labour force and suppliers.

Ireland/Cork has also been able to attract sufficient international firms within similar economic clusters to provide sectoral advantages locationally. These large firms with substantial financial resources and marketing capabilities gave domestic firms the opportunity to supply them and thereby enlarge their operations to the level they could work with Enterprise Ireland to exploit foreign markets. The growing ability of domestic firms to market abroad is an added benefit of IDA development funds. It is unclear if the economic agglomerations appearing in Ireland/Cork are fully developed or still in the emergent stage. Nova Scotia, in spite of Halifax's cost advantage, was less able to attract major firms which could play a preeminent role in forming or solidifying a regional industrial node.

A major difference in development program functions is apparent. The NSBDC and ACOA economic development programs have tended to primarily support local enterprises and as such compare to Enterprise Ireland's functions. The Nova Scotia community business development programs and the Irish community enterprise boards play similar roles at the grassroots level. There is, however, no real equivalent of IDA with a mandate to attract out-of-state major economic players. Perhaps more striking is that the Irish programs were more focussed on creating high value economic clusters, domestic and foreign owned, that generated growth through exports of manufactured goods and services.

The Halifax region did better than the province even though it was not the major focus of provincial development funds. Its labour force growth rate was similar to that of Cork. With the exception of call centres and some offshore energy related activities, Halifax did not benefit from the inflow of large corporations, particularly in high value added manufacturing as did Cork. It also did not achieve the same level of success as did the Cork region in developing major clusters in the new economic sectors - software, communication, electronics, health care and pharmaceutical sectors. Halifax's entry into the international service market has as yet not moved beyond the ubiquitous call centre stage to a more stable and higher level of international services. In part, the lower level of achievement can be attributed to the role played by the national, provincial and community economic incentive programs. The programs primarily maintained the economic status quo. Nova Scotia Inc. has attempted to encourage the location of foreign firms. However, it is limited in staff and financial resources and the department has other domestic economic mandates to fulfill.

A number of reasons exist for the different routes of development. Canada's entry into NAFTA did not come with the same tax advantages or export advantages as did Ireland's entry into the EU. Corporations wishing to use Canada/Nova Scotia as a base for exporting their products to the US did not have a similar advantage in corporate tax rates that fostered manufacturing and enabled them to take advantage of transfer pricing. Halifax could thus not attract, on the basis of low corporate taxes, firms who would be interested in utilising the availability of natural resources within a low cost operating environment. When Ireland entered the European Union many of the structural regulations had been ironed out. In the NAFTA and FTA agreements, trade problems are still being worked out on a trilateral or bilateral basis without benefit of a neutral arbitrator. Changes in trade agreements create uncertainties that do not encourage the attraction of major investors.

Furthermore, the flow of private development capital into high value-added manufacturing sectors was substantially less in Nova Scotia/Halifax than in Ireland/SWDR. Nova Scotia and the Canadian government were not required by an outside agency to develop a sense of discipline as was required of Cork and the Irish Government in competing for, developing and monitoring the effectiveness of long-term planning financed through EU structural funds. Federal transfer payments to Nova Scotia are primarily intended to provide a level of social, educational and health services comparable to the national average. Finally, the relationship between Cork and Irish expatriates is a difficult one to emulate. This factor alone may account for one third of the direct foreign investment into Cork. Halifax has also not been able to benefit to the same extent as Cork from a national body of highly trained experts who can fast track projects. For federal technical assistance, Nova Scotia and Halifax must compete with other more powerful provincial and urban jurisdictions.

Both Halifax and Nova Scotia, in response to the historic lags in economic performance, are developing different economic directions, focussing on new economic endeavours with more promising long term growth potentials. These are economic endeavours that are based upon intellectual processes rather than lower level service functions and upon a shrinking primary sector. Similar policies and goals have been in place in Cork and Ireland for over a decade. It will take time before Halifax and Nova Scotia achieve their new goals and this can only occur with the collaboration of the Canadian government in putting into place the appropriate level of technical, fiscal, marketing, taxation and trade mechanisms.

Economic growth needs constant infusions of management know-how, employee skills, technology and capital to be sustained. Without these inputs, firm failures increase. If Cork City and its hinterland are to maintain their rate of economic growth, it is essential that local and foreign corporations not only form but also transform clusters of similar activities into innovative learning and development agglomerations. New member states in the EU with similar economic activities and much lower wage rates will put pressure on weak agriculture and resource-based sectors. Ireland also has a relatively young population which soon will enter the labour market. This will put more pressure on job creation policies. Resolving these challenges over the next decade is crucial as EU funding will dry up and renewed pressure for higher corporation taxes, by other industrialised member states, may reduce the present social and economic advantages.

Not all of Ireland's/Cork's policies are transferable to Nova Scotia/Halifax due to the different structures of the economic blocs that they belong to. However, there are universal elements that can be adopted. These include more strategic-based planning with the aim of attracting or developing nodes of activities that through interaction reduce costs and develop new high value-added products that meet changing demands. Resource based industries that co-operate to advance production and higher value processing should be further encouraged with financial incentives and technical assistance. Federal and provincial agencies need to attract several large manufacturing multinationals and work with them to create vibrant industrial areas as was done by the states of Alabama and South Carolina with the auto sector.

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