Bureau of Transport and Regional Economics

WORKING PAPER 55

GOVERNMENT INTERVENTIONS IN PURSUIT OF REGIONAL DEVELOPMENT: LEARNING FROM EXPERIENCE

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FOREWORD

This Working Paper presents the results of the BTRE's preliminary review and analysis of key selected literature on government interventions in pursuit of regional development objectives. This work represents part of the regional research programme of the Bureau to improve understanding of the economic and social factors affecting Australia's regions and help address longer–term regional development issues.

The study offers a review of selected Australian and international experiences with government sponsored interventions for regional purposes so as to provide a useful context and reference tool for the development of Australian regional policy. The report also highlights a number of evaluation and methodological issues in relation to measuring the outcomes from regional interventions.

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EXECUTIVE SUMMARY

The questions of why regions grow or fail to grow, and what, if anything, governments can do about it have attracted considerable interest and debate for many years. This report provides a select review of previous government intervention approaches and experiences in pursuit of regional development. The review attempts to provide useful insights into the purpose and outcomes of various government–sponsored interventions in Australia, and in a number of other comparable countries. This information will assist policy makers by identifying relevant principles and lessons that can be applied to the development of Australian regional development policy. The experiences of the European Union, United States, Canada and New Zealand are examined.

The term "regional" is used in the review to refer to *sub–national* areas that may be defined in different ways depending on the spatial scope (eg. jurisdictional, biophysical, cultural, economic) and objectives of the intervention policy. The review does not (as sometimes happens in Australia) confine the term solely to non–metropolitan areas but includes both urban/metropolitan and non–metropolitan areas where relevant. This is consistent with the international treatment of all types of sub–national areas under the domain of "regional" development policy.

One of the key findings of the report is that evaluation of regional interventions is generally difficult in terms of isolating the cause and effect of particular interventions from other macro–economic and local factors, particularly in light of the complexity of the economic growth process itself. In many instances the efficacy of government interventions is uncertain due to such factors as the cumulative effects of a wide range of policies and macro–economic influences on regions and the diversity of regions themselves. This highlights the importance of effective and ongoing monitoring and assessment of intervention strategies that includes both ex–ante (before) and ex–post (after) evaluations so as to improve our understanding of causal links and maximise the potential impact of future activities. Effective policy assessment must identify the *counterfactual* — that is, anticipated performance in the absence of the intervention — taking into account private sector activities that would have likely occurred irrespective of the use of public subsidies or other forms of assistance, and the possible displacement of other productive activities.

Regional policy evaluation is supported by development of clear, unambiguous objectives for interventions, flexibility in approach to allow for incorporation of improvements through periodic monitoring, and analysis to guide future evidence–based policies.

Despite the general paucity of evaluation materials, the study reveals several common themes linking Australian and international experience. Regional policy has clearly evolved through several ideological generations. In the early to mid 20th century, strategic infrastructure development, protectionist sectoral policies, and generation of depression era employment were common instruments used to develop regional economies.

The policy focus of the 1950s and 1960s was on strategies aimed at attracting large national or multi–national firms and other external investment to specific locations through firm specific subsidies and other financial incentives. These strategies are commonly described as *exogenous* strategies (referred to as external strategies throughout this report) in the sense that the policies were designed to attract investment from large firms located outside the target region with sufficient capital and employment potential to boost lagging regional economies. Over time, these policies suffered from the "footloose" nature of firm investments, reduced long–term competitiveness of subsidised industries, and weak connections between external and local businesses and communities. By the mid–1960s, despite many western nations experiencing post–war growth and prosperity, it had become apparent that some regions and sectors were lagging.

In the early 1980s regional policy makers turned toward revitalising under–performing regions by promoting sectoral (or industry) strategies: facilitating industry clustering, providing essential infrastructure and location development (including urban regeneration, business and technology parks). These policies recognised the "business enterprise" as a key determinant of economic growth, and sought to encourage balanced external and internal (or locally driven) investment in regions, particularly through the encouragement of new and existing local businesses. Evaluations indicate that facilitation of local businesses and inter–firm linkages through local capacity building and advisory services, business incubators and low–interest loans were cost–effective interventions that generated positive employment and investment impacts in some regions. However, dominant financial and tax incentive programmes, such as enterprise zones adopted by many US state governments since the early 1980s, were found to be generally ineffective in attracting investment and long term employment to distressed regions.

Since the mid–1980s, regional policy has increasingly acknowledged that regions, not just companies, compete against each other in a global market. Policies have evolved from a sectoral focus to a region–specific focus.

Promotion of local enterprises that capitalise on region specific resources, know–how and locational advantages are encouraged. These are known as *endogenous* strategies (referred to as internal strategies throughout this report) in the sense that policies are designed to facilitate greater local investment and business activity from firms and communities located within the target regions themselves, and seek to overcome the challenges and problematic issues encountered through incentive driven external investment strategies. A long–term location–specific approach is viewed as productive for building on the comparative advantage of particular regions rather than direct, short–term firm–specific subsidies — as demonstrated by the United States' Appalachian regional development strategy (discussed in Chapter 3).

Internal (or local) development strategies are closely aligned with human and social capital development. By promoting linkages between industry, governments and communities in the regional development process, spatial planning becomes a social process that through sustained effort can improve a region's ability to respond to internal and external challenges. This is particularly important in light of the increasing pressures of globalisation, structural adjustment and technological change. Capacity–building is facilitated through knowledge clusters, education and vocational training, devolution of administration to the lowest appropriate level of government, community engagement in "bottom–up" spatial planning, and promotion of networks and partnerships. European regional development programmes, such as the LEADER initiative (detailed in Appendix II), have capitalised on these instruments with positive effect.

Governments can reduce business costs by providing macro–economic settings that support enhanced international competitiveness and reduced uncertainty for private sector investment. There is broad agreement that at a minimum it is vital for governments to get the "fundamentals right" through stable and efficient management of the public sector and taxation systems, provision of efficient infrastructure, effective education and training systems and a regulatory and competitive framework that facilitates optimum operation of financial and labour markets. Federal governments can play an important role in coordinating policy across jurisdictions and governmental tiers and fiscal equalisation. Devolution is emerging as a complementary movement, through the transference of identified powers to the lowest compatible tier of government.

The emergence of sustainable development principles since the late 1980s has emphasised the integration of economic, social and environmental values (the so–called triple bottom–line) into national and regional level policy making decisions. Sustainable development is regarded as a unifying framework to promote durable social and environmental outcomes and inter–generational equity — defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. Recent European Union experience suggests this is best achieved through well–coordinated and complementary policy that promotes the various economic, social and environmental objectives of regional interventions.

International regional policy experience has borne witness to a variety of intervention approaches — from the United States approach with modest federal intervention, to the highly structured and coordinated European Union administrative and programmatic arrangements. Nevertheless, common themes emerge across Australian and international experience with policies aimed at promoting effective regional development:

- the role of well integrated and stable governance;
- a recognition of businesses as a key driver of economic development;
- human and social capital capacity–building;
- provision of essential infrastructure;
- promotion of sustainable development; and
- taking a long–term locational approach.

There is a clear role for government interventions that improve productivity and competitiveness such as the development of infrastructure and removal of impediments such as inefficient administrative arrangements. Improvements in productivity and competitiveness are regarded as a win–win situation for regions as well as for the economy as a whole. These kinds of policy settings are likely to reduce the overall degree of risk facing investors and businesses operating across regions. Well integrated governance structures, particularly the role of local governments and regional authorities in developing and implementing strategies, provides stability, reduces duplication and encourages the use of concentrated resources to regional issues. Policy and programme flexibility and improved evaluation practices are also viewed as necessary to promote more effective regional development interventions and outcomes.

The strong recognition of the role of businesses in generating economic development also extends to the particular significance of the role played by local businesses in generating sustained growth for particular regions. Within Atlantic Canada and many regions of Europe, for example, there have been numerous positive experiences with local business promotion, as well as the use of business incubators for developing new businesses in distressed regions in the United States. This has led to the more recent generation of policies that have been directed towards stimulating growth from within the assisted regions themselves through local business promotion within a context of global competitiveness and a balanced approach to attracting external direct investment (eg. foreign direct investment).

This study identifies further research issues including the need for more ex-post evaluations to provide systematic feedback and information to better understand regional development processes and the effectiveness of alternative instruments and approaches. More fundamental research is warranted with respect to the development of evaluation methodologies focusing on the less tangible aspects of regional objectives, such as valuing environmental and social cohesion outcomes.

CHAPTER 1 INTRODUCTION

BACKGROUND

The growth and development of regions (or sub–national areas), and the appropriate role of government in facilitating regional development, have attracted considerable interest and debate for many years. Both domestically and internationally, the economic and social development of regions has remained an important concern of governments due to the uneven effects of dynamic processes such as globalisation, structural adjustment and technological change on their rate of development.

Within Australia, the socio–economic impacts of these processes have had particular effect in non–metropolitan regions, particularly rural and remote regions. Many of these regions have experienced:

- lower economic and employment growth compared to metropolitan areas or the national economy;
- low average income and economic diversity;
- persistently high unemployment;
- net migration of younger people to larger regional centres or metropolitan areas;
- difficulties in retaining skilled professionals; and
- reduced access to services.

The complexity of the economic growth process and uncertainties about the key determinants of regional growth and change have triggered a renewed research interest in the dynamics and underlying reasons for regional growth disparities. Policy makers and researchers are recognising the rapidly changing nature of modern, highly developed economies, the emergence of knowledge–based industries and the potentially critical role of knowledge, technology and human and social capital in generating regional growth and desirable social outcomes. In addition to traditional neo–classical growth theories (see, for example, Solow, 1957) that have provided a basis for regional economic development approaches over the past few decades, relatively new regional theories and policies have emerged in recent years. Regional development analysts, typically economists, social scientists and geographers, have turned their attention to both internal (local or region specific) and external (outside of region or rest of the world) drivers of regional growth. These new regional theories (and associated policies) are increasingly focused on such factors as innovation and knowledge, the contribution of small and medium sized local enterprises, social capital, effective institutional arrangements, industrial clustering processes, and the general business operating environment, to achieving sustained regional growth.

Within this context, this report provides a select review of previous government intervention approaches and experiences in pursuit of regional development. The review attempts to provide useful insights into the purpose and outcomes of various government–sponsored interventions in Australia, and in a number of other comparable countries. This information will assist policy makers by identifying relevant principles and lessons that can be applied to the development of Australian regional development policy.

The term "regional" is used in the review to refer to *sub–national* areas that may be defined in different ways depending on the spatial scope (eg. jurisdictional, biophysical, cultural, economic) and objectives of the intervention policy. For example, the review does not (as sometimes happens in Australia) confine the term solely to non–metropolitan areas but includes both urban/metropolitan and non–metropolitan areas where relevant, consistent with the international treatment of all types of sub–national areas under the domain of "regional" development policy. In this report, the term "region" refers to a number of sub–national entities. Within Australia, "regions" tend to be smaller than State and Territory jurisdictions and are defined by the specific objectives of each particular intervention policy. Within comparable countries, "regions" may vary in scale from local to state or provincial levels depending on the scope of the particular intervention.

SCOPE OF THE STUDY

This report has not attempted to undertake a comprehensive review of all available literature on regional development theory and policy. Rather, its aim is to examine key regional intervention approaches and experiences to provide a useful **context** and **reference tool** for the development of Australian regional policy. The study has drawn on a select number of ex–post evaluations and other similar assessments of key Australian and international regional policy interventions. The international review has focused on countries with similar geographic, political and socio–economic characteristics that may help inform Australian regional policy, including the European Union, the United States, Canada and New Zealand.

This study comprises two main components:

1. an overview of Australian (including State and local level) and international experiences with government interventions targeting regional development, the objectives of and rationale for those interventions, their degree of success and lessons for the development of future Australian policy; and

2. two case study analyses of: a) a successful non–capital city region in Australia; and b) an effective regional intervention strategy adopted internationally, with relevant lessons for regional policy and the key reasons for their success.

The Australian case study represents a non–capital city region that has performed well in terms of economic and social outcomes over a sustained period. The criterion for defining a "successful" region is an important issue: in the context of this study, success was based on a summary measure of socio–economic health — regional growth in income and employment. The region selected was Townsville–Thuringowa in north Queensland. This region has performed consistently on income and employment growth over the past few decades and provides a useful example of factors that can contribute to sustained regional development.

CHAPTER 2 REGIONAL DEVELOPMENT THEORY AND POLICY

THEORETICAL PERSPECTIVES

Regions differ considerably in their geography, resources and social conditions. The processes underlying the economic growth and development of regions are far from fully understood, reflecting both the diversity of regions and the inherent complexity of the economic growth process itself. Presently, while it is accepted that within nation states economic development tends to be uneven and growth and decline occurs in a "lumpy" fashion across regions, there is no comprehensive general theory or explanation for differences in the economic performance of regions (Bureau of Industry Economics, 1994). There are, however, a number of partial theories or explanations that emphasise a range of factors and determinants of regional growth. These explanations have become increasingly elaborate as the processes of local organisation and globalisation have intensified the complexity of economic and social interrelationships (Plummer and Taylor, 2001). Regional policy has generally evolved over time under the influence of changing regional development theory, particularly in the context of correcting perceived market failures (Howard, 2001).

An awareness of the more influential theories provides an understanding of the theoretical strands underlying many regional interventions both within Australia and in comparable countries over the past few decades. A more detailed summary of these regional development theories is provided in Appendix I. These theories include:

- *Neoclassical perspectives: supply side models* — labour, capital and technology are considered the three key determinants of growth. Empirical regression analyses have identified the relative contributions of capital and labour to total aggregate output with the "residual" component taken to incorporate technological progress. Regional incomes are argued to converge over the long–term under perfect market conditions where labour will flow to high wage regions and capital will be attracted to low wage regions until inter–regional flows of capital and labour are equalised across regions.

- *Neoclassical trade perspectives:* stress the importance of comparative advantage and opportunity cost as the underlying basis for trade between regions. Trade is mutually advantageous between two regions to the extent that each region has a comparative advantage in the production of a particular good — that is the opportunity cost of forgone production of other goods is lower in one of the regions (refer Box 1).

- *Export demand (Keynesian) perspectives – demand side models:* stress the importance of a region's export sector as a primary influence on economic growth and a stimulus for backward and forward linkages with other related and supporting industries, stimulating further growth.

- *Cumulative causation perspectives*: stress the self–perpetuating nature of the growth process and the notion that some initial activity gives rise to a process that advances the development of cumulative growth in particular regions and the persistence of regional disparities in the medium–term. These theories bring together a number of related paradigms known as: agglomeration economies; growth poles; flexible production systems; learning regions; product–life cycles; and competitive advantage.

- *Endogenous (or new) growth theories:* stress the critical importance of knowledge, technology and innovation spill–overs between related firms and a highly skilled workforce to generate sustained economic growth.

- *Social capital and cohesion – social perspectives:* stress the importance of social factors such as the degree of trust, reciprocity and networks in facilitating economic development opportunities and enhanced community well–being.

BOX 1: THE THEORY OF COMPARATIVE ADVANTAGE

The neo–classical principles of *comparative advantage* and *opportunity cost* are considered the analytical foundations for understanding the basis for trade between regions. The comparative advantage theory of trade, first put forward by Ricardo in 1817 and further developed through the Heckscher–Ohlin model (see Armstrong and Taylor, 2000), identifies the benefits gained from trade between two regions, assuming barriers to trade are low. Trade is mutually advantageous to the extent that each region has a comparative advantage in the production of a good — that is the opportunity cost of forgone production of other goods is lower in one of the regions. This proposition is illustrated by the following hypothetical example comprising two regions (A and B) and two goods (X and Y). It can be seen that region B has an absolute advantage since it can produce more of both goods for given resource inputs. However, it is the *comparative advantage* of regions that gives rise to trade. Region B has a comparative advantage in production of X because the opportunity cost of producing an additional unit of X is only 2/3Y in region B compared to an opportunity cost of 1Y in region A. Region A has a comparative advantage in the production of Y since the opportunity cost of producing one more unit of Y is 1X, compared to 1.5X in region B. Even though region A appears to be less efficient than region B in the production of X and Y, both regions stand to benefit from trade if they specialise in the production of the type of goods where they have a comparative advantage.

Region	**Output of good for given resource input**		**Opportunity cost ratio**		
	X	Y	X		Y
A	100	100	1	:	1
B	180	120	1	:	2/3 (or 1Y : 1.5X)

Broadening the framework to allow for a range of factor inputs such as capital and labour, the Heckscher–Ohlin model asserts that regions will tend to specialise in the production and trade of goods based on initial factor endowments. In other words, a labour abundant region would tend to specialise in the production of labour intensive goods as it has a comparative advantage in those goods compared to capital abundant regions that would tend to specialise in capital intensive goods. While empirical studies have found evidence to support the general conclusions of neo–classical trade models (Armstrong and Taylor, 2000), it is recognised that these models provide only a partial explanation of complex regional trade processes.

REGIONAL INTERVENTIONS AND INSTRUMENTS

Government interventions in regions are undertaken for a number of explicit social purposes that are often framed under generic "regional development" policies. The rationale for regional interventions may include a range of economic, social and environmental objectives (refer Table 1). In many cases a regional intervention strategy may encompass some combination of these objectives (the so–called triple bottom line) to address sustainable development principles.

TABLE 1: REGIONAL INTERVENTIONS – COMMON GOALS AND OBJECTIVES

Economic	**Social**	**Environmental**
• Employment growth • Income/output growth (wealth creation) • Distributional equity: reduce regional disparities between lagging regions and the rest of the economy • Address market failures to regional development and non–market benefits (improve efficiency) • Structural adjustment assistance: facilitate transition from declining to productive industries and/or mobility between regions • Economic diversification: improve resilience of regions to external shocks	• Equality of opportunity: access to services and benefits across regions • Social cohesion: enhance quality of life and community vitality of regions • Diversity: maintain cultural and social diversity • Population decentralisation: reduce urban congestion • Political/administrative decentralisation: improve governance and democratic structures • Defence: strategic development	• Biodiversity: enhance life support and ecological services from ecosystems • Quality of life: address pollution and landscape impacts (externalities) • Resource stewardship: ecologically sustainable use of renewable and non–renewable resources (sustainability) • Structural adjustment assistance: in the case of environmental pressures such as global warming and increasing salinity

Some examples of explicit purposes for government interventions in regions internationally are:

- reduction in sub–national disparities in employment and economic output, and promotion of sustainable development and social cohesion (European Union);
- reduction in unemployment where it is concentrated in some areas; political separation and administrative devolution (establishment of government jurisdictions in Scotland, Wales and Northern Ireland, and decentralisation of key departments for better coordination of regional policy in England) (United Kingdom);
- support for the development of disadvantaged regions, particularly those reliant on a limited industry base, including the integration and economic reconstruction of the former East Germany and equalisation of living standards (Federal Republic of Germany);
- decentralisation of both population concentration and government activity away from the highly urbanised capital of Paris, and pursuit of equal access opportunities to services and knowledge (France);
- promotion of economic development of rural and remote areas to mitigate against rural and northern region depopulation trends (Sweden);
- facilitation of transition to market economy and economic development of eastern border region that has significant infrastructure development needs (Poland);
- large scale infrastructure development for regional water resources and transport, development of depressed regions with low employment and income levels, urban regeneration of depressed city areas, and enhancement of rural regions through sectoral policies (United States); and
- employment and economic growth for under–performing, low population density, rural and remote regions, fiscal equalisation principles for provision of public services across provinces, and political unity and social cohesion (Canada).

In Australia, specific regional goals have included:

- population decentralisation, through the encouragement of regional town centres away from the highly urbanised capital cities;
- equality of access to services across States and regions through fiscal equalisation principles; and
- assistance for areas undergoing significant economic and social hardship from cyclical events (eg. drought) or industries undergoing structural decline.

In addition to specific regional objectives and policies, many industry or sector programmes in Australia have had a direct impact on non–metropolitan regions. Over the period 1996–2001, for example, it is estimated that over $28.5 billion in Commonwealth programme funding was used to support activities in non-metropolitan Australia. These programme activities encompassed agriculture, communications and information technology, education, employment, health, industry science and innovation, local government, natural resource management and the environment, the elderly, families, small business, tourism, trade and investment, and transport (Commonwealth of Australia, 2001a).

The principles of *economic efficiency* and *equity* often underpin the explicit purposes of government interventions. The notion of economic efficiency implies the achievement of a given output at least cost, or the greatest output for a given cost. When resources are allocated to their most highly valued uses, the combination of goods and services produced in the economy result in the most efficient allocation of resources that maximise social benefits. Market failure, whereby markets are unable to provide the most efficient allocation of resources, is a common ground for government intervention to improve social benefits. Market failure can occur when there exists:

- non–competitive markets (eg. regional monopolies leading to less than optimal production);
- externalities, where the prices of goods and services to producers and consumers do not reflect the full social costs and benefits of these activities (eg. pollution spill–overs from one region to another);
- poorly defined property rights (eg. common property resources such as an unregulated fishery); and
- a lack of perfect information (eg. impediments to labour mobility and adjustment through lack of information on job market opportunities and training).

Intervention policies that address market failures attempt to increase the net social benefit derived from the use of scarce resources by improving economic efficiency, so long as the benefits to particular groups within society offset the losses to other groups. If there were to be economic efficiency gains from regional interventions, for example, the induced changes in regional incomes or other benefits within targeted regions would need to offset losses that may occur elsewhere.

Policies aimed at improving *equity* objectives, on the other hand, address issues related to the disparate distribution of income and other benefits or opportunities (eg. access to services) that may exist between different groups within society or regions. Interventions aimed at equalising or minimising these disparities on the basis of broader social considerations reflect such equity objectives, including policies aimed at increasing access to services and employment opportunities in certain regions or places.

Policy instruments

Government instruments to achieve particular goals include:

- macro–level policies (eg. aggregate government taxation, spending and money supply changes) designed to improve economy–wide levels of income and other aspects of social well–being; and
- micro–level policies designed to influence the economic, social and environmental outcomes for particular industries, sectors (or particular groups within society) and regions.

Regional level interventions tend to rely on micro–level instruments that influence the allocation of capital and labour between particular industries and/or regions and the well–being of target social groups. The micro–level instruments typically used to achieve regional policy goals include better coordination arrangements between government jurisdictions, labour enhancement and mobility policies, and capital enhancement policies. Labour enhancement policies typically include:

- development of human capital (eg. improved vocational and skill based training);
- mobility policies (eg. housing and relocation assistance); and
- development of less restrictive labour markets tailored to local conditions (eg. local collective bargaining).

Capital enhancement policies can include:

- taxes (eg. on non–target areas) and subsidies on production inputs such as finance, land, labour and buildings (eg. building grants, interest–rate relief, tax allowances, subsidies on labour wages and energy, enterprise zones);
- improved access to capital markets (eg. provision of venture capital, subsidised loans and loan guarantees, use of public lending agencies);
- provision of regional infrastructure (eg. roads, telecommunications and industrial sites);
- administrative controls (eg. zoning and planning requirements on location of firms, streamlining of regulations);
- development of social capital (eg. grants for community capacity building to support development of economic opportunities);
- improved business operations of firms (eg. advisory services and counselling, management and leadership training, business incubators); and

- promotion of research and development and technology transfer (eg. tax concessions and subsidies for research and innovation, industrial clusters and technology parks).

External and internal development factors and strategies

Underlying the choice of government instruments in regional interventions are theoretical constructs about how economies develop. External or *exogenous* development theory prefers policies focused on attracting investment by external agents such as national or multi–national firms. This theory was common throughout the post–war period to the late 1970s and still persists at a national level through competition among states or provinces for investment and at an international level through such competition between nations. The premise was that large external investments would facilitate economies of scale and provide a stimulus for agglomerative economies. External investment development policies typically supported plant investments by large firms and attempted to import manufacturing or high technology industry to lagging areas, primarily through location based incentives such as tax concessions and subsidised infrastructure and services. Many of those industries had strong horizontal and vertically integrated systems of production oriented to the manufacture of total or assembled products. Large heavy industries and assembly towns emerged under such industry plans. In these circumstances, however, interaction between different industries was fairly limited, and there was significant duplication of research, service provision and resource consumption. These industries were also generally protected by pre–trade liberalisation policies such as import tariffs and other restrictive trade practices, leading to inefficiencies, reduced competition and declining innovation (Stimson, Stough and Roberts, 2002).

While these policies may have increased production activity and employment in particular regions, they also raised questions of economic efficiency in terms of diverting economic activity from other locations and reducing the long–term competitiveness of industries in particular locations. This is because many regions have suffered from the "footloose" nature of these types of investments where the withdrawal of public subsidies can remove incentives for further investment and lead to firm shutdowns or relocations to other regions. The history of ad hoc location subsidies to large companies in Canada, for example, has been characterised by many expensive failures in terms of regional firm closures and impacts (McGee, 1992). Nevertheless, others have argued that in practice, the cost and inconvenience of relocation act to inhibit footloose investment decisions (OECD, 1999).

The incentive driven external investment approach has also been criticised by some commentators for stimulating only weak connections between external investments and local firms and capabilities (Helmsing, 1999). The focus on support to individual firms was regarded as an incomplete policy compared to policies that develop the efficiency of supply chains and the environment in which firms operate, such as the promotion of geographic clustering and cooperation between firms (Porter, 1990). Rather than promoting individual specialisation, vertical specialisation in the creation of sub–processes and services is regarded as a significant contributor to the generation of economies of scale and enhanced competitiveness. The ongoing debate on the role of location based incentives for individual firms highlights the fact that effective regional policies must address issues of long–term competitiveness and the formation of linkages that promote agglomerative economies.

Internal or *endogenous* development theory is a more recent construct that supports development through the promotion of local business investment and specialisation in sectors where a region has comparative advantage and the flow on benefits from better supply chain linkages between local industries. This reflects a trend away from direct subsidy–based policies for individual firms toward competitiveness–enhancing policies for regions as a whole. Internal development policies have origins in the ideas of new growth theory and the knowledge economy that have emerged since the late 1980s. They contend that a broad set of capital conditions is needed for economic growth and development. A traditional reliance upon natural, human and physical capital is now supplemented with intellectual and social capital, where the generation, exchange and application of knowledge are considered key ingredients in successful economies. Strategies to achieve sustained economic growth are geared toward the establishment of high levels of local skill formation and information exchange across the workforce and the capacity for knowledge spill–overs through clustering of related industries. These strategies concentrate upon achieving high levels of education and links between knowledge, learning processes and industry in particular locations.

A strong emphasis on local capacity building is also extended to stimulating the formation and expansion of small and medium sized enterprises (SMEs) from within targeted regions. SMEs are seen as a key contributor to job creation and promotion of a local enterprising culture. In Denmark, around 98 per cent of total private sector employees work in SMEs in one of the most export–oriented economies in Europe (Hansen, 1991). Within the United Kingdom there has been a strong national commitment to promoting the expansion of the SME sector, although limited evaluation of the impacts exists (Armstrong and Taylor, 2000). The contribution of the SME sector has also been criticised as providing only limited high quality jobs, low training opportunities and a poor safety record (Curran and Burrows, 1988).

EVALUATION ISSUES

Evaluation of government interventions is an important component of public policy since it can assist decision makers assess programme outcomes against stated objectives, as well as provide information for improving the development and design of existing and future interventions. Evaluations are usually undertaken to assess the worth and merit of government interventions, based on one or more of the following criteria:

- *Efficiency* — how well inputs are being used to obtain a given output (i.e. achieving a given output at least cost, or the greatest output for a given cost);
- *Effectiveness* — the extent to which programme outcomes are achieving programme objectives; and
- *Appropriateness* — the extent to which the programme remains consistent with broader government priorities and social needs.

The range of evaluation methods available to policy analysts varies, depending on the availability of data and the purpose of the evaluation. The more common methods adopted in evaluation research (see, for example, Corbett, 1996; Bridgman and Davis, 1998) include:

- interviews and surveys of recipients and stakeholders;
- use of statutory commissions and committees of inquiry (eg. hearings and submissions);
- benchmarking with similar interventions in other jurisdictions and/or regions;
- cost–benefit analysis (eg. use of econometric, general equilibrium and input–output models to quantify social costs and benefits);
- social impact analysis (eg. changes in employment, income, demographic, psychological and community measures of well–being);
- longitudinal research studies, that may use controlled experiments or quasi–experimental research between control and target groups so as to make statistical comparisons and inferences;
- historical and descriptive evaluation (eg. historical analysis); and
- performance indicators (eg. monitoring changes in quantitative and qualitative measures to assess performance against objectives).

In general, it is acknowledged that within the regional development literature there is a general paucity of comprehensive ex–post evaluations of sufficient quality to assess whether the desired outcomes of regional interventions are achieved, although many individual programmes have been assessed in some detail (Armstrong and Taylor, 2000). Within the United States, for example, some researchers have called for more attention to be given to more robust evaluation criteria and methodological issues in the evaluation of the effectiveness of popular regional development instruments such as enterprise zones (Boarnet, 2001).

An important evaluation issue related to assessing the effectiveness of regional interventions involves identification of the *counterfactual* — that is, identification of an appropriate baseline of what would have happened in the absence of the intervention so as to provide a basis for comparison of impacts. A comprehensive evaluation approach must identify the counterfactual, taking into account private sector activities that would have likely occurred irrespective of the use of public subsidies or other forms of assistance, and the possible displacement of other productive activities.

From an economic efficiency perspective, the opportunity cost of resources used in regional interventions should also be considered, since government expenditures may generate higher net social benefits elsewhere in the economy. However, in practical terms this is often difficult given that many interventions are intended to address equity objectives and the appropriateness of interventions may need to be assessed based on a combination of social considerations.

From a policy and planning perspective, it is recognised that evaluation is not a one off event undertaken only after an intervention has been completed, but is usually a process that occurs before (ex–ante), during (monitoring) and after (ex–post) a policy or intervention is completed (Armstrong and Taylor, 2000). An ex–ante appraisal is used to assess whether an intervention policy is worth pursuing in the first place after taking into consideration whether it is likely to achieve its goals and at what cost. Ex–post evaluation is used to assess actual outcomes against stated objectives so that future improvements and revisions can be made to existing and new intervention policies.

The varying quality and paucity of comprehensive evaluations of regional interventions partly reflects difficulties in measurement or assessment of impacts. Such difficulties are a result of many factors including the:

- complexity of cumulative effects of a wide range of policies and macroeconomic influences on regions;
- diversity in economic and social structures of regions;
- multiple levels of evaluation objectives (eg. strategies, programmes and/or projects);
- significant methodological issues (eg. treatment of displacement effects and less quantifiable aspects such as social capital);
- lack of adequate and appropriate data;
- short timeframe and changing nature of many intervention policies; and
- long–run nature of realisable benefits from interventions.

Nevertheless, there has been a growing trend toward more evidence based policy development drawing on systematic monitoring and evaluation frameworks to address such theoretical and practical problems (Hill, 2002). The increasing financial commitment of the European Union to Structural Funding programmes, for example, has led to development of more extensive evaluation methods. Since 1993, a common framework for evaluating regional development programmes has been developed through the Methods for Evaluating Actions of a Structural Nature (MEANS) project. The MEANS methodology recommends a range of consistent evaluation methods. Aggregate economic impact tools such as econometric and computable general equilibrium models are being supplemented with local methods such as surveys of local recipients and stakeholders to provide more comprehensive evaluations of impacts (Armstrong and Taylor, 2000).

The regional development agency in Scotland — Scottish Enterprise — has also developed a consistent approach to assessing the performance of publicly funded projects across programme areas that has allowed some comparability across a large number of individual policy evaluations (Hill, 2002). The Organisation for Economic Cooperation and Development has similarly developed a suite of performance indicators to aid in assessing the complex and multi–sectoral nature of regional development and outcomes (OECD, 1996), although issues related to the identification of meaningful indicators still remain (Stewart & Walsh, 1994). Within the United States, periodic assessments of regional programme activities are undertaken by many federal and state agencies to assess their effectiveness against stated performance indicators. However, the quality of evaluations for many US programmes has been criticised in the evaluation literature with respect to the improper use of cost–benefit analysis and inadequate treatment of methodological issues such as the counterfactual and lack of use of control groups for measuring impacts (see, for example, Buss and Yancer, 1999; Boarnet, 2001).

CHAPTER 3 AUSTRALIAN AND INTERNATIONAL EXPERIENCE

AUSTRALIA

Introduction

This section provides an overview of regional intervention policy in Australia, including the major phases and characteristics of key intervention approaches since early colonial government.

As a federal system of government, comprising national, state/territory and local government, Australian regional policy has been shaped by a range of jurisdictional institutions and agencies under varying macro–economic conditions and policy priorities both preceding and following Federation. Regional development interventions can be described in terms of several distinct periods of broader policy and macro–economic influences. These include:

- *colonial policies* (1788–1900): early colonial interventions based on promoting the primary industry export regime (primarily wool) through land availability and basic infrastructure and transport requirements, characterised by a large stable export market to Britain, and protection of emerging manufacturing industries;
- *pre–trade liberalisation era* (1920s–1970s): general policies aimed at protecting and enlarging the home market base of secondary and tertiary industries (i.e. import substitution) largely through tariffs and other industry specific policies, and specific attempts at population decentralisation policies; and
- *post–trade liberalisation era* (from mid–1980s): interventions designed to address structural adjustment issues and adverse regional employment effects arising from Australian trade liberalisation and the open market economy; including sustainable development policies to address market failures such as natural resource degradation.

A key implication of Australian trade liberalisation policies since the mid–1980s has been that regional intervention policies are no longer isolated from global trends and international market conditions. This has also meant that regional disparities can be felt more sharply in regions particularly vulnerable to the pressures of international competitiveness and global market shocks (eg. downturn in demand for particular commodities).

Colonial policies

Government interventions in the colonial period were typically aimed at promoting the ongoing expansion of primary export industries (primarily wool, cereal crops, fisheries and other natural resources) and "protecting" emerging manufacturing industries to promote prosperity and employment goals. Policy instruments used to achieve these goals included land incentives and grants to open up new resource development opportunities; import tariffs, bounties and other trade measures to protect colonial market shares; and the public provision of transport infrastructure such as roads, bridges and railways to promote inter–regional mobility and trade (Sinclair, 1976).

The pattern of Australia's settlement and development of highly urbanised centres (eg. capital cities) and less populated hinterland areas had largely emerged by the late 1920s (Wilson, 1989). This pattern of settlement was influenced by such factors as:

- the steady growth in agricultural development and exports, primarily in the hinterland regions of south–eastern Australia;
- the gold rushes of the mid to late 1800s and rapid increases in immigration and population (particularly in Victoria and Western Australia);
- advances in technology and transport in the late nineteenth century and subsequent agglomeration of construction, manufacturing and service activities in the urban trading centres (or coastal port cities) of Sydney, Melbourne, Brisbane and so on; and
- the in–migration of surplus labour to the cities from increasingly capital–intensive agricultural regions and the declining productivity of the alluvial goldfields.

The transition to a uniform trade regulatory regime, removing barriers to inter–colonial trade, also had the effect of promoting some further agglomeration of people in the major cities based on the imposition of heavy import tariffs. These tariffs tended to aid the development of emerging manufacturing industries for home based markets located in larger cities such as Sydney (Sinclair, 1976).

Pre–trade liberalisation era

Since Federation, the role of governments in regional policy has been one of varying cycles of intervention policy and activity, particularly at the Federal government level. While Commonwealth agencies have routinely taken a "regionalised" approach to the delivery of many programmes — that is, the spatial delineation of areas for administrative and other service delivery purposes — large scale regional interventions have been intermittent and reflect the dominance of macro–economic and industry wide policies as part of the general business of nation building. Early federal policies directed at the development of secondary and tertiary based industries to promote a diversified economic base and value adding (eg. import tariffs), for example, were not explicitly based on regional objectives. State and Territory governments have maintained a more ongoing role in regional development issues, primarily as a means of enhancing wealth creation, living standards and employment within their respective borders (Industry Commission, 1993).

From a broad regional policy perspective, state and federal interventions have been driven by a number of high level goals, including:

- population decentralisation objectives in response to perceived congestion and other costs of expanding capital cities;
- federal fiscal equalisation principles to support common standards of public services provision by State and local governments; and
- specific measures to address the disparate regional and social impacts of structural adjustment pressures, including changes in employment, business activity and service levels in many non–metropolitan regions.

Federal interventions

Federal government intervention in regional development has been quite sporadic and, until recently, less focused on particular regions (refer Table 2 on page 28). Partly this reflects the division of powers in the Australian Constitution between the Commonwealth and State governments, with Commonwealth powers covering such national interest responsibilities as defence, foreign affairs, trade and commerce. The States, on the other hand, have residual responsibility for powers not specifically assigned to the Commonwealth under the Constitution, effectively covering such major policy areas as health, housing, education, land management and law and order within State boundaries. However, through taxation and other general revenue raising powers, the Commonwealth has influenced national and regional level policy objectives through the use of financial assistance in the form of tied or general purpose grants to the States and Territories under Section 96 of the Constitution. After the introduction of uniform income taxation in 1942, a large share of taxation revenue was transferred to the Commonwealth that has enabled it to continue to pursue fiscal policy objectives in the national interest. A key feature of federal assistance to the States has been the application of fiscal equalisation principles that, according to the Commonwealth Grants Commission operating principles, state that:

> "each State should be given the capacity to provide the average standard of State–type public services, assuming it does so at an average level of operational efficiency and makes an average effort to raise revenue from its own sources". (refer: www.cgc.gov.au)

It has been argued that prior to the 1970s, regional policy objectives by the Commonwealth government were largely limited to efforts to equalise each State's capacity to provide public services through the Commonwealth Grants Commission (Higgins, 1989). However, for many years Commonwealth governments have used the equalisation principles to redistribute funds from the wealthier State/Territories to those requiring financial assistance to overcome the consequences of regional imbalances in economic development (Stilwell, 1994).

While recognising the likely cumulative impact of federal fiscal equalisation policies on pursuing sub–national State based objectives, the first significant federal attempt at fostering specific regional development goals came in the 1940s as part of the broader post–war redevelopment effort (Beer, 2000). During this period, the Ministry of Post–War Reconstruction sought to encourage a coordinated approach to regional development and planning between the three tiers of government and relevant organisations through the establishment of regional development committees across designated regions. These committees were not particularly successful with the major impediments identified as the absence of clearly identified objectives, low collective enthusiasm and a lack of statutory power (Logan, 1978). However, a lasting impact of this experience was the identification of planning regions based on social and economic "communities of interest" that included both urban and non–metropolitan areas (Department of Immigration, Local Government and Ethnic Affairs, 1988). This initial process of regional identification during the 1940s formed the building blocks for the subsequent framework of Statistical Divisions and Sub–Divisions developed by the Australian Bureau of Statistics.

During the 1940s a Commonwealth guaranteed high–risk lending facility was also established within the Mortgage Bank Department of the then publicly–owned Commonwealth Bank Australia (CBA). The bank offered primary producers fixed low–interest, long–term loans (ie. 4.125% per annum for loans from 20 to 41 years) (Ramsdale, 1998). This function was legislated in the *Commonwealth Banks Act 1959* to a newly established CBA–affiliated Commonwealth Development Bank (CDB). The CDB was required to lend on favourable terms to people and business enterprises engaged in primary and secondary industry who could not secure conventional financing. The CDB supported the establishment of over 400 000 businesses who otherwise would not have secured funding, but were assessed to have long–term viability by the bank's staff of qualified specialists (Ramsdale, 1998). The CDB operated for over 35 years until it was closed down following the full privatisation of the CBA in 1996.

The next major phase of federal policy intervention in regional issues occurred in the 1970s and coincided with government interest in growth pole theories, not only in Australia but also in other industrialised countries such as France, the United States and Canada. Growth pole theories were advanced by Myrdal (1957) and Hirschman (1958), drawing on the earlier work on "economic space" by Perroux (1950), stressed the tendency for economic growth to be uneven across regions and for agglomeration economies to form around large "poles" of economic activity based on large firms, advanced levels of technology and expertise, and highly developed infrastructure. This approach was founded on the general principles that:

- productivity could best be increased by clustering infrastructure and directly productive activities rather than spreading them thinly; and
- investment in regional areas should be concentrated in areas of significant growth potential.

During the period 1972–1975, the federal government established the Department of Urban and Regional Development and the Cities Commission and pursued a policy of decentralisation by promoting a number of designated growth centres, as well as urban renewal projects in existing large cities. The rationale for intervention revolved around the perception that the major capital cities were growing too quickly in terms of population and associated urban pressures and the need to develop well–planned alternatives to the existing capital cities for future economic and social development. Wilson (1978) has estimated that between 1973–74 to 1975–76 around $564 million (equivalent to over $2.5 billion in 2002 dollars) in Commonwealth expenditure was committed to these objectives, including sewerage ($260m), growth centres ($140m), land commissions ($100m), the local government area improvement program ($36m) and urban renewal ($28m) projects. Of the $140 million devoted to the growth centres program, $24 million was spent in outer Sydney with the balance to Monarto (SA), Bathurst–Orange (NSW) and Albury–Wodonga (NSW). The bulk of growth centre funding was provided to Albury–Wodonga ($79.8m). The aim was to assist growth centres reach a critical self–sustaining size, after which it was expected continued funding support would not be necessary. The outcomes from such a significant investment were rather mixed, with improved infrastructure and amenity provision in key target centres such as Albury–Wodonga, along with increasing population growth and concentration in the capital cities (refer Box 2). Monarto's development corporation was wound up in 1980–81 after a prolonged period of declining funding support, while the Bathurst–Orange development corporation sold off parcels of its land stocks in response to slower than expected growth rates (Industry Commission, 1993).

Another major feature of government interventions throughout the 1970s and 1980s concerned the provision of essential infrastructure as part of the "resource frontier development" brought about by the minerals boom (Higgins and Savoie, 1994). The mineral resources boom resulted in significant infrastructure provision by both state and federal governments in many northern and central regions of Australia to accelerate resource development and export growth.

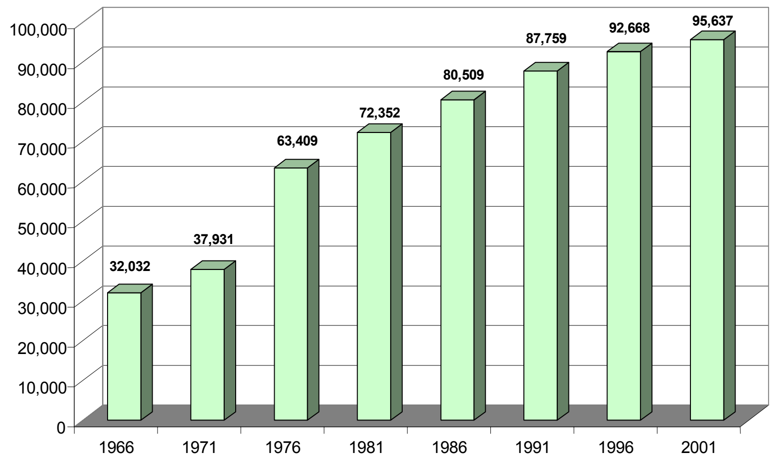
BOX 2: THE ALBURY–WODONGA GROWTH CENTRE EXPERIENCE

The growth plan for Albury–Wodonga represented the most ambitious plan for a deliberate federal government intervention, identifying an initial population target of 300 000 by 2000 from a base of 37 931 residents in 1971. The major instruments for achieving these goals included:

- the role of the Albury–Wodonga Development Corporation (statutory body) in land management and development (commercial and residential) activities;
- a cooperative framework between the public and private sectors, with government providing the initial stimulus for economic activity; and
- the provision of attractive conditions for industry, including low priced land, a skilled labour force, efficient transport and communications facilities and high quality living standards for residents.

A planning review of the Albury–Wodonga growth centre policy (Albury–Wodonga Region Planning Committee, 1990) found that the overall outcome, while not a failure, fell short of initial expectations reflecting a range of internal and external factors discussed by various commentators. These factors included a reliance on ongoing public investment and political commitment, overall declining fertility rates and a general downturn in manufacturing employment and population growth in the larger cities in the late 1970s. These factors tended to offset the main incentives offered by the growth centres programme – cheap supply of land and buildings – that were not in short supply in the major cities over the same period (Vipond, 1989). The goals of the policy subsequently changed over time to encourage more self–sustaining growth and the devolution of planning to local authorities within a context of inter–governmental cooperation between the Commonwealth, New South Wales and Victorian governments. Albury–Wodonga's population growth between 1966 and 2001 (Figure A) indicates that the population increased by over 67% between 1971 and 1976, compared to subsequent five yearly increases of between 3–14%.

FIGURE A: ALBURY–WODONGA POPULATION GROWTH 1966–2001



Source ABS Cat. No. 3105.0.65.001 Australian Historical Population Statistics

State and local government interventions

Since Federation, State government policies have been generally directed toward decentralisation, that is — the development of areas outside respective State capital cities (Vipond, 1989). A number of reasons have been put forward for early State level decentralisation policies including:

- that the large cities were unhealthy and suffering from public congestion;
- that a rural or provincial town lifestyle promoted population growth; and
- defence policy in terms of non–capital cities being safer from overseas attack by naval or nuclear bombardment (Neutze, 1974).

The main policy instruments used by State governments to promote decentralisation objectives were the provision of positive incentives (eg. firm–specific subsidies in particular locations) to attract external firms and in–migration to non–metropolitan areas, including:

- low cost loans and loan guarantees;
- subsidies on industrial land and buildings;
- streamlining of approval and regulatory processes; and
- subsidies for reducing utility and other operating costs (Vipond, 1989).

State location based incentive programmes designed to turn around urbanised population distribution trends were not generally successful, with increasing rates of urbanisation and population growth in the capitals over the 1960s and 1970s. Factors seen as contributing to these outcomes included the relatively thin spread of State based funding, which was inadequate to generate the necessary incentives in particular locations, and competition between the States for investment in the large capital centres that discouraged more regulatory regional based approaches at the risk of losing investment to other State capitals (Vipond, 1989). Nevertheless, State governments have continued to pursue regional interventions as part of the broader strategy of promoting the generation of economic wealth and meeting social equity objectives in recognition of issues such as remoteness and lack of access to services such as health and education in some regions.

Post–trade liberalisation era

Federal interventions

The next major period of regional intervention policies emerged following the macro–economic restructuring policies of the mid–1980s. These policies were designed to increase the overall competitiveness of Australia's industries by opening the economy to foreign competition and trade opportunities. Macroeconomic policies included the implementation of a floating exchange rate, phased reductions in import tariffs and deregulation of financial and foreign capital markets.

Not long after, a renewed focus on regional development was put in place to address some of the disparate effects of trade liberalisation. A specific policy initiative was the Country Centres Project with a focus on community driven solutions, local management of development initiatives and private sector participation to generate local economic development (Taylor and Garlick, 1989). The establishment of the Office of Labour Market Adjustment also sought to address the concentration of unemployment in particular regions through the use of business incubators ($10m), regional employment initiatives ($13m) and regional employment assistance ($4m) in recognition of the adjustment pressures of an increasingly open economy (Beer, 2000).

It has been argued that only since the mid–1980s has regional development policy been considered in terms of the long–run potential of regions within a context of global competitiveness. Prior to this, most governments, state and federal, regarded regional development in compensatory or spatial equity terms to address disadvantaged areas that suffered from cyclical (eg. drought) or structural adjustment effects or to smooth out population imbalances between the urban centres and non–metropolitan regions (Garlick, 1999). From the late 1980s the importance of long term productivity growth and international competitiveness to a region's ability to prosper and adjust within an increasingly globalised economy has been underscored by various Commonwealth reports and recommendations related to regional issues (see, Industry Commission, 1993; Productivity Commission, 1999).

Largely in response to persistent unemployment in many urban and non–metropolitan areas, an expanded federal Regional Development Programme was implemented as part of the *White Paper on Employment and Growth* (Commonwealth of Australia, 1994) with a package of $150 million. This programme was oriented toward the importance of gaining access to world markets and business opportunities and the processes driving regional economies, including local leadership and social capital initiatives. The main instruments included a $70 million infrastructure fund for regional projects and the establishment of Regional Development Organisations that were community based bodies to undertake strategic planning and capacity building within regions (Beer, 2000). These were supplemented by Area Consultative Committees that were established throughout Australia, made up of community, union and business partners, to better develop local training, education and employment initiatives. These policies partly reflected the theoretical strands of endogenous growth theories that had emerged since the early 1980s (refer above), that stressed that growth could be more rapid in regions that had:

- a relatively large stock of capital;

- a highly educated population; and
- an economic environment that favoured knowledge–intensive industries.

Another major development influencing Australian public policy, including regional policy, was the broader environmental and sustainable development agenda that arose from the 1987 World Commission on Environment and Development report, *Our Common Future*. This seminal report emphasised the integration of economic, social and environmental values (the so–called triple bottom–line) into policy making decisions to promote durable social outcomes and inter–generational equity — defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

The embodiment of these principles in the National Strategy for Ecologically Sustainable Development (Department of Environment, Sports and Territories, 1992) has had significant regional implications. The development of regionally targeted natural resource management initiatives (such as the establishment of the Murray Darling Basin Commission, Regional Forest Agreement Process and the National Action Plan for Salinity and Water Quality for example) reflect the multiple–goals of long term environmental and economic objectives for particular regions. These initiatives are based on a framework of Commonwealth and State inter–governmental agreements, together with extensive community consultation, for specific action in affected regional areas.

Federal government interventions for regional development since the 1990s have consequently reinforced the importance of global competitiveness and market–oriented solutions to generating national and regional economic growth, while recognising the adjustment pressures of rapid economic and technological change and the underlying importance of sustainable development principles. These objectives are captured in the Commonwealth regional policy statement *Stronger Regions, A Stronger Australia* (Commonwealth of Australia, 2001b) that includes the following broad goals:

- strengthen regional economic and social opportunities;
- sustain our productive natural resources and environment;
- deliver better regional services; and
- adjust to economic, technological and government–induced change.

As part of the recently announced Stronger Regions Programme of $115 million and other Commonwealth activities, the main strategies for achieving these goals include:

- a whole–of–government approach that promotes coordination between departments and agencies in implementing Commonwealth programmes to improve their impacts on particular regions;

- an expanded role in promoting regional development for Area Consultative Committees across Australia;
- a major regional business development analysis; and
- various regional programmes aimed at promoting partnerships and joint solutions between communities, industry and governments.

The Sustainable Regions Programme, for example, targets designated regions undergoing major economic, social or environmental change, and fosters the development of community leadership and local solutions for enhanced economic and social outcomes.

Access to services in rural and non–metropolitan areas, based on equity principles, has also remained an important national policy objective in recent years as a result of significant technological and structural adjustment pressures. These objectives are largely addressed through such instruments as the public provision of infrastructure through establishment of Rural Transactions Centres (integrated financial, telecommunication and other service facilities) in areas experiencing service provision shortfalls, and the fiscal equalisation principles of Commonwealth funding to State and local governments for public services delivery.

State and local government interventions

State governments have usually maintained a key department responsible for regional development issues to support strategic planning, business promotion and infrastructure development, as well as a range of regional and local level development organisations and boards. A survey of these regional agencies in 1996 found that their most common function was the encouragement of businesses to grow within their regions (Beer, 2000). The major instruments for achieving these have included the provision of planning, education and training services and the promotion and marketing of development opportunities to attract investment. Other major strategies adopted by State governments to promote economic development in the regions and equity objectives, such as access to services, have included:

- the relocation of departments and agencies to regional areas (eg. relocation of New South Wales Department of Agriculture from Sydney to Orange) and establishment of regional offices for public administration;
- use of financial incentives (eg. rebates on taxes) and subsidies on production inputs such as power, land and freight costs;
- infrastructure investment in transport, health, education and community facilities;
- incentive schemes for the retention of skilled professionals in non–metropolitan areas (eg. special provisions for teachers and doctors);

- publicly funded research and development activities in regional areas;
- local business development (eg. financial assistance, advisory services, provision of business incubators and technology);
- support of clustering initiatives to facilitate the concentration of related industries, innovation and business networks; and
- social capital building and community economic development initiatives (eg. training and awareness workshops, grants for community projects).

Furthermore, local governments have played a key role in the delivery of many Commonwealth and State regional and local level programmes. Local governments have also had a direct influence on local investment and development decisions through planning and zoning regulations, the provision of land grants and infrastructure subsidies, and an increasing trend toward promotion, training and facilitation of business opportunities for local development.

The effectiveness of state and local instruments in achieving regional development objectives has been difficult to ascertain due to a general lack of comprehensive evaluation studies, and the changing nature and mix of instruments adopted in many state development programmes. However, the effectiveness of financial incentives such as complete or partial rebates on state payroll taxes, widely adopted in the 1980s, has been evaluated and determined to be largely ineffective in attracting new firms to non–metropolitan areas (Collits, 2002). In New South Wales, for example, a smaller than expected number of firms relocated according to analysis by the NSW Treasury and Department of Business and Consumer Affairs (1989, 1990). While it has been argued that such incentives helped retain existing employment in the 1980s, the former payroll tax concessions were not a sufficient incentive to create significant new employment (Collits, 2002).

Infrastructure provision

Infrastructure plays an important role in facilitating regional growth and the location decisions of people and industries through its impact on competitiveness and the availability of services. Within Australia, the public sector provides a significant component of both *economic* infrastructure (physical networks and facilities such as roads, water and power) and *social* infrastructure (facilities used for the provision of services such as education and health). In 2001–02, total government (Commonwealth, State and local) expenditures on gross fixed capital formation amounted to $26.6 billion of which $11.3 billion was provided by public corporations (Australian Bureau of Statistics, 2002). Over the years, the Commonwealth has acquired a role in the provision of a range of infrastructure across Australia, including telecommunications, national highways, railways and airports (Industry

Commission, 1993). The States have played a large role in infrastructure provision for education, health, transport, public safety and housing. Local governments, as the level of government mandated with responsibility for providing basic local services, have provided local infrastructure for community centres, roads, sewerage, waste management and recreation.

TABLE 2: SHORT CHRONOLOGY OF FEDERAL REGIONAL INTERVENTIONS – AUSTRALIA

Major activity	**Instruments used**
• 1940s–1970s: Post–War Federal reconstruction policies (Ministry of Post–War Reconstruction); direct industry strategies (eg. promotion of secondary and tertiary sectors)	• "Regionalisation" of focus of development through inter–governmental regional committees (1940s); industry tariff policies (import substitution) and location incentives
• 1972–1975: Growth Centres Programme; urban renewal projects	• Locational programme funding and public investment in infrastructure, planning and land acquisition activities, and establishment of regional authorities to encourage development in key "growth centres"
• Early 1980s: Country Centres Project; Office of Labour Market Adjustment to address structural unemployment arising from trade liberalisation and open–economy	• Shift toward community self–help programmes for long–run growth; regional employment initiatives including business incubators, training and assistance
• Mid 1980s: endogenous growth strategies based on comparative advantage; community participation in local planning	• Establishment of Area Consultative Committees for local and regional policy development; employment, education and knowledge–industry initiatives such as investment in R&D and vocational training
• 1990s–2002: "whole of government" approaches to regional issues; market–oriented policies and social capital building; public infrastructure provision in non–metropolitan areas experiencing service shortfalls; sustainable development of degraded regions	• Federal agency cooperative frameworks; programmes based on community self–help; investment in Rural Transaction Centres; natural resource management programmes for degraded regions

Evaluation of Australian regional policy

In line with many other countries, there has existed a general lack of ex–post evaluations of sufficient quality and detail to assess whether regional interventions have been effective in terms of achieving desired outcomes. However, since the early 1990s there have been a number of major Commonwealth government reviews or public inquiries into regional policy issues. These reviews have included:

- Economic Planning Advisory Commission (EPAC), *Urban and Regional Trends and Issues*, Office of EPAC, 1991
- Industry Commission, *Inquiry into Impediments to Regional Industry Adjustment*, 1993
- Taskforce on Regional Development (Kelty Report), *Developing Australia: A Regional Perspective*, 1993
- McKinsey and Company, *Lead Local Compete Global: Unlocking the Potential of Australia's Regions*, 1994
- Department of Housing and Regional Development, *Building Better Cities Programme Evaluation*, 1995
- Regional Australia Summit: *Final Report of the Regional Australia Summit Steering Committee*, 2000
- House of Representatives Standing Committee on Primary Industries and Regional Services, *Time Running Out: Shaping Regional Australia's Future*, Report to the Inquiry into Infrastructure and the Development of Australia's Regional Areas, 2000
- SGS Economics and Planning, *Regional Business Development Literature Review*, Report for Department of Transport and Regional Services, 2002

Several consistent policy themes are evident from the range of public inquiries and assessments into regional development issues. These themes include the important role Australian governments can play with respect to:

- providing efficient infrastructure to enhance regional competitiveness;
- facilitating labour market opportunities through targeted human capital development such as education and vocational training;
- fostering local business innovation and expansion through leadership training and social capital building;
- promoting the underlying competitive strengths of regions rather than compensating for their weaknesses; and
- providing better coordination between the various tiers of government to reduce administrative impediments to development.

Issues and lessons

From a general overview of Australian experience with regional interventions, some underlying themes can be identified. In particular, there has been:

- an initial focus on population decentralisation rather than regional economic disparities, partly reflecting the highly urbanised development of capital cities and homogenous nature of economic development across the States compared to other countries (Higgins and Savoie, 1994), and compensating effects of federal fiscal equalisation;
- a general shift away from population decentralisation objectives and specific industry based objectives (eg. secondary and tertiary sector promotion) using location based incentives (i.e. to attract large external firms and investment) to policies more aligned with promoting the long–term economic potential of regions based on their respective comparative advantage and market opportunities;
- increasing use of community participation processes (eg. Area Consultative Committees) and industry and government partnerships in driving self–help approaches and locally based solutions;
- provision of regional infrastructure for public services and to improve industry competitiveness; and
- a greater emphasis on education and training in building human and social capital (i.e. civic leadership, knowledge, networks and degree of social trust) and the role of businesses, particularly at the local level, in generating sustained economic growth.

The general shift away from location firm based incentives for external investment strategies may partly reflect the “footloose” nature of these investments and the artificial nature of public inducements that may detract from the long–term competitiveness of industries and regions. Competition among the States, and regions, for mobile capital on the basis of discretionary, firm–specific incentives may also contribute to the potential for wasteful bidding between competing regions and the scope to increase one region’s welfare at another’s expense where the net benefit for the nation may be negative (Industry Commission, 1993).

The shift away from firm–specific subsidies in particular locations does not undermine the importance of a locational approach to issues of uneven regional development and the correction of market failures. Rather, it supports the case for focusing on intervention strategies that are complementary to promoting long–term competitiveness rather than subsidising inefficient development. This focus on promoting an efficient investment environment is perhaps best articulated by the Industry Commission (1993) that states:

> “Where additional assistance is called for, measures which enhance the skills and mobility of the regional labour force, or which improve its infrastructure, are more likely to lead to sustainable outcomes than assistance which merely compensates for the region’s disabilities”.

EUROPEAN UNION

Several tiers of regional policy exist within Europe, from country level micro interventions to high level macro European Union (EU) policy. A common thread of EU regional policy is a philosophy of equalising the performance of regions by raising the performance of the weakest regions (economic convergence). EU regional development policy is equally focused on promoting social cohesion and sustainable development. The three tiers of EU, national and territorial regional policy are administratively comparable with federal–state–local jurisdictions in Australia, and the experience provides an example of a macroeconomic framework that addresses market failures and social cohesion objectives at the geographic level.

The dawn of EU regional policy is attributed to the 1957 Treaties of Rome. Through these treaties, signatories acknowledged that the successful economic integration of EU group of nations would require the equalisation of regional differences (McNiven & Plumstead, 1998). Regional planning was viewed as a tool to offset economic and social disparities between regions, which in turn would facilitate the political cohesion and socio–economic unity of EU member states.

A steady evolution of EU regional development policy has occurred since that time, with three distinct 'generations' of policy emerging as trends across many European nations (Helmsing, 1999). The first generation, over the 1950s and 1960s, was characterised by application of neo–classical theories of optimal resource allocation. Intervention centred on provision of infrastructure, and regulation and incentives to influence the location of firms, reduce impediments to mobility and monopolistic elements. The focus was distinctly exogenous, seeking to attract external investment into regions.

The second generation of EU regional policy, during the 1970s and 1980s, was a response to growing scepticism about the effectiveness of external investment policies. External investment, particularly in the case of large enterprises, was perceived as difficult to attain and retain, ambivalent to local development goals, and could potentially lead to sectoral dependence and community deskilling. Policy moved towards stimulating endogenous development within the assisted regions themselves, rather than seeking to divert industry from non–assisted to assisted areas, (Armstrong and Taylor, 2000). Flexible specialisation, industrial districts, inter–firm cooperation and business associations were encouraged. Government intervention also moved from primarily funding infrastructure projects towards providing support to business enterprise and small and medium enterprises (SMEs), and providing a macroeconomic framework to aid international competitiveness.

The third — and current — generation recognises that regions, not just companies, compete against each other. Therefore, policies can no longer be exclusively local, but must take into account the position and positioning of territorial production systems within sectoral and global contexts. Third generation policies focus on territorial rather than sectoral development. Regional policy involves providing "basic conditions" and filling gaps by stimulating and undertaking complementary investments in support systems, encouraging firms to develop strategic alliances, and facilitating horizontal and vertical coordination and learning between actors. This also extends to understanding the relationships and dependencies outside the EU, as seen by the negotiations to integrate new states into the Union.

Much of the EU's focus is on establishing a common market with preferential tariffs, free trade areas, and economic and monetary union between member states (Armstrong and Taylor, 2000). The ability of these policies to ameliorate regional disparities is a long–term goal, made increasingly complex by the impending integration of weaker Central and Eastern European states in 2004. In the meanwhile, EU policy targeted at the regions is focused on stimulating the growth of SMEs and development of social capital to help local communities capitalise on territorial comparative advantage (Armstrong and Taylor, 2000). This is primarily supported through provision of institutional arrangements, structural funds and regional development programmes. Figure D provides an overview of the structural arrangements for European regional policy delivery.

A European Investment Bank (EIB) exists to provide loans and loan guarantees for investment projects, around 70% of which are granted to disadvantaged regions on attractive terms and at greater risk than commercial banks (Armstrong and Taylor, 2000). EU Structural Funds also exist to finance collective regional policies. Since 1988 the EU Structural Funds have been applied in an "integrated" economic and social cohesion policy.

The EU funding pool arrangements amount to fiscal equalisation with relatively richer countries contributing more to the EU than the poorer net recipient countries. Rather than being perceived as a subsidy or redistribution, the focus of funding on weaker regions is considered an enabler to both raise their performance, and to open up unrealised market opportunities to the Union generally. For example, the upcoming integration of Eastern European states offers the opportunity to reorient trade away from Russia towards the EU (Armstrong and Taylor, 2000). The benefits sought from levelling of regional performance include real economic gain for all regions, and improved social and political cohesion across the EU.

Current EU regional policy delivery is based around a number of key principles: concentration of assistance, coordination, programming and additionality (Armstrong and Taylor, 2000).

FIGURE B: STRUCTURE OF EUROPEAN UNION REGIONAL POLICY 2000–2006

Objectives	Funding	Programmes
Objective 1 Development and structural adjustment of regions whose development is lagging behind	**European Regional Development Fund (ERDF)** Finances infrastructure, job-creating investments, local development projects and aid for small firms	**INTERREG** Promotes cross-border, transnational and interregional cooperation and partnerships to encourage the balanced development of multi-regional areas EURO 4 875 million (ERDF)
Objective 2 Social and economic conversion of declining industrial regions	**European Social Fund (ESF)** Promotes the return of the unemployed and disadvantaged groups to the work force	**URBAN** Supports innovative strategies to regenerate cities and declining urban areas EURO 700 million (ERDF)
Objective 5b Economic diversification of vulnerable rural areas	**Financial Instrument for Fisheries Guidance (FIFG)** Helps develop and modernise the fishing industry	**LEADER** Aims to bring together actors in rural societies and economies to look at new strategies for sustainable development EURO 2 020 million (EAGGF)
Objective 6 Economic adjustment of regions with an extremely low population density	**European Agricultural Guidance and Guarantee Fund (EAGGF)** Finances rural development measures and aid for farmers, mainly in lagging regions	

Concentration of assistance

The EU adopts a policy of concentrated funding for select regions, rather than scattered universally accessible funds. The principle of "greater concentration" allows the EU to strategically focus limited resources on targeted objectives and regions (see Figure D). Increasing concentration has occurred over the past decades with regional programme funding doubling between 1989 and 1993 to concentrate on lagging regions and lessen deficiencies in economic infrastructure and services (Armstrong and Taylor, 2001). Over the 2000–2006 period, 69% of Structural Funds have been earmarked for Objective 1 lagging regions (European Commission, 2002a). The EU programmes are also used to concentrate funding and effort on highly specific problems.

Coordination of policy

The EU takes coordination seriously, both to retain consistency across activities and instruments, and to release synergies amongst stakeholders. For example, 1989 reforms established procedures to ensure that Structural Funds and the activities of the European Investment Bank were carefully coordinated (Armstrong and Taylor, 2001). Partnerships are promoted across tiers of government and between public and private stakeholders. This is facilitated through regulation in some instances (ie. to prevent aggressive competition for inward investment) and through administrative arrangements that require networking, public and private commitment to local strategies and cross–tier co–financing.

Programming

The programming approach has been a favoured method of policy delivery since the late 1980s (Armstrong and Taylor, 2001). Rather than providing project–by–project assistance, funding is distributed under multi–annual, multi–project, and multi–partner contracts designed to facilitate a coordinated response to regional development. Three key regional programmes have been devised for cross–EU implementation, as shown in Figure D. Together, the programmes absorb 3.9% of the Structural Funds budget, and are considered to be relatively inexpensive but effective interventions.

Additionality

Additionality refers to the complementary use of Structural Funds to align funding objectives with member state objectives and is a key principle of EU regional policy. However, it has proved difficult to attain for a number of reasons. The EU has responded by expanding monitoring procedures and requiring joint financing from member states for programme implementation (Armstrong and Taylor, 2001).

European Union member states' experiences

EU regional and economic policy has a strong influence on member states' regional policies, particularly at the macro level. Nevertheless, member states also exercise autonomy in evolving their own interventions in pursuit of regional development. National regional policy trends include stimulating entrepreneurship and innovation, strategic spatial planning, enhancing territorial governance, and promoting knowledge–based economies.

Strategic spatial planning has focused on population deconcentration and non–metropolitan industrial economic development. Microeconomic policies include British experience with enterprise zones designated between 1981 and 1986. British enterprise zone policy was seen as an experiment to test:

> "…how far industrial and commercial activity can be encouraged by the removal of certain tax burdens, and by relaxing or speeding up the application of certain statutory or administrative controls" (British Department of the Environment quoted in Gunther & Leathers, 1987).

The policy sought to stimulate productive activity and employment through the improved supply and redevelopment of land and premises. Incentives included exemption from local property tax, improved capital allowances giving accelerated depreciation and reduced regulatory obligations. Twenty–eight Enterprise Zones were designated for 10–year trials in small target areas of around 100 to 735 acres. Evaluations have found enterprise zones to be effective in some instances in attracting investment to small, specific sites within a district, with the greatest leverage occurring through relief on the costs of building property assets (Bennett, 1990; Gunther and Leathers, 1987). Drawing on a cost of capital approach, for example, Bennett (1990) has estimated that enterprise zones offered additional rates of return of at least 3 per cent compared with areas outside such zones. These results tended to confirm earlier survey–based evaluations that relief from property taxes and capital allowances were the most highly rated elements of the enterprise zone programme (Tym and Partners, 1984).

However, from an employment policy perspective, enterprise zones have been identified as an inefficient policy due to significant displacement and deadweight effects (Gunther and Leathers, 1987). A report commissioned by the Department of the Environment on the first generation of enterprise zones found that only 4 to 12 per cent of all "new" firms (i.e. new branches and start–ups from within each region) could be attributed to the presence of the zones themselves (Tym, 1984). Further findings indicated that around 85% of all incoming firms would have operated in the same region without EZ incentives and were likely to have displaced local competition to some degree (Tym, 1984).

These findings have led to the observation from early British experience that:

> "The enterprise zones themselves influenced the location decision of firms only at the micro (intra–regional) level in most instances. Indeed, much of the development in the more successful zones can be attributed to strong recruiting efforts by local authorities and development agencies that did not emphasise zone benefits. The most successful zones benefited from assistance provided by several regional development programs. The economic incentives provided by the enterprise zones had only marginal effects on firms' investment and location decisions. Perhaps the greatest value of the enterprise zones has been in terms of the publicity benefits to local communities" (Gunther and Leathers, 1987)

Estimates of the public cost per job created through enterprise zones were also found to be quite high and varied from 40,000 pounds per job created in the Swansea region (Bromley and Morgan, 1985) to around 133,000 pounds per job created for the entire programme (Gunther and Leathers, 1987). Nevertheless, positive employment (up to 58,000 jobs) and economic activity impacts have been reported in later reviews of the United Kingdom Enterprise Zone program (PA Cambridge Economic Consultants, 1995; as quoted in Apthorpe, 2002).

Enhancing territorial governance and local participation is also a trend throughout the EU (OECD, 2001a), and is supported by decentralisation and devolution. Decentralisation occurs when national or state/county administration is distributed across regional offices rather than centralised. The UK Regional Development Agencies and Government Offices provide an example (UK Cabinet Office, 2000). Devolution, on the other hand, involves the transference of identified powers to the lowest compatible tier of government. The United Kingdom is a leader in this movement, with its devolution of policy responsibility for economic development to the Scottish Executive, Welsh Assembly and Northern Ireland Executive. Territorial governance is viewed as better placed to develop distinct and tailored policies to create the right environment to exploit opportunities that will drive local growth and enhance social cohesion (OECD, 2001a).

Perhaps one of the most progressive areas of European regional policy has been the facilitation of "learning regions" – areas with a dense network of firms interacting with higher education institutions and research facilities. Policies to promote learning regions focus on cluster structures and university–firm linkages, while also promoting social inclusion of labour through lifelong learning. The perspective focuses on knowledge–creation at all levels of the regional economy, both at the individual level and between and within organisations. This is seen to facilitate innovation and networking, enhance competitiveness, and promote effective information exchange and wider social interaction (OECD, 2001b).

Evaluation

Several European Commission periodic reports have provided evaluation of the outcomes of Structural Fund interventions. These evaluations involve counterfactual analysis and quantitative performance measurement. They provide evidence of the EU's achievement in meeting convergence objectives. For example, the per capita GDP of the 25 poorest regions rose from 52% of the EU average in 1986 to 59% in 1996 (European Commission, 2002a). At the national level, the GDP of the four least prosperous countries rose from 65% of the EU average in 1986 to 78% in 1999 (European Commission, 2002a). Counterfactual evaluations attribute to the Structural Funds the achievement of contributing around 0.5% per year to growth between 1989 and 1999 in Objective 1 regions (European Commission, 2002a). According to these analyses a third or more of economic convergence would not have occurred without Structural Funds. The EC also estimates that around 2.2 million jobs were maintained or created as a direct result of Structural Funding (European Commission, 2002a). Further, an ex post evaluation of the performance of the European Regional Development Fund (ERDF) found a significant correlation linking ERDF expenditures with positive reactive private investment in the Netherlands target regions, particularly for weaker regions (Nijkamp and Blaas, 1995).

EU regional development evaluation has increased in sophistication since the late 1980s. Over the past few decades, evaluation has been strengthened by Structural Fund evaluation obligations, establishment of "Observatory" organisations on subject areas that monitor, analyse and disseminate information on intervention outcomes, production of evaluation guidelines, and provision of support for sub–EC level evaluators. There is evidence that the EC uses evaluation throughout the policy process — from design, to fine–tuning at the mid–term stage, and in planning appropriate follow–up. Learning and reflexivity are viewed as essential components of a useful evaluation. For example, the LEADER programme, designed to address declining rural communities, has maintained a focus on regions as key stakeholders in the evaluation process. That is, evaluation guidelines, programme monitoring and the LEADER European Observatory, all work to facilitate innovation transfers and exchanges of experiences between the territories and rural players of the European Union (Saraceno, 1999).

Evaluation and comparison of European regional policies is academically supported through the Regional Policy Research Consortium, a sub–group of the independent European Policies Research Centre at the University of Strathclyde, Glasgow. The RPRC is sponsored by ten national regional policy departments in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom, and Norway. The RPRC research involves detailed comparative assessments of regional policy and policy developments across the European Union and Norway and culminates each year in an annual Sponsors Meeting.

Issues and lessons

The prominent features of European Union regional development policy are long–term sustained commitment, reflexive and flexible policy and programme strategies capable of adapting to evolving needs, and a coordinated, multi–tiered government approach. The European experience is also notable for integrating a strong appreciation of regional diversity within the framework of high–level policy. Although EU regional policy has not progressed without challenges, available ex–post evaluations attest to the EU's achievement in realising broad regional policy objectives of reducing regional disparities in GDP per capita.

EU policy views social cohesion as not just an objective, but a condition for future economic development. Development of social capital has been facilitated by devolution, mobilisation of the local community, and networking and building of partnerships (OECD, 1999). Employment is an important contributor to social cohesion, and there has been considerable policy focus on employment growth across the Union. Growth has been particularly strong in services such as health care, education, and recreational and cultural activities. However, a shift towards advanced services and highly skilled jobs has led to labour shortages, even in areas of high unemployment, and has sharpened the policy focus on skills development and lifelong learning (European Commission, 2002a).

In addition, sustainable development across the EU continues to be a policy priority and challenge. Spatial planning strategies include plans and projects to manage spatial change, development investment and environmental quality (Healey et al., 1997). The EC argues for high–level policy oversight of spatial planning because:

> "economic location is characterised by important externalities, some positive, some negative, and…there is no reason to think that market forces alone will strike the right balance between positive and negative effects" (European Commission, 2001).

Overcrowded and congested areas, for example, downgrade quality of life as much as economic decline and depopulation in other areas. Within the European Union, it is noted that major population settlement patterns have not changed substantially over the past 20 to 30 years. The range of local, national and EU intervention policies have had more success in reducing disparities in incomes and stemming rural depopulation trends rather than transforming the pre–existing spatial distribution of populations.

UNITED STATES

The United States federal system of government is characterised by a multiplicity of jurisdictions and government responsibilities at federal, state and local levels (counties and municipalities) that has influenced spatial development over time. There has been significant federal involvement in regional development policies since the mid–1960s.

In broad terms, government regional interventions in the United States have reflected two paradigms. The first, described as "laissez–faire", has advocated a minimal role for government through a greater reliance on markets for the efficient allocation of goods and services within the economy. The main focus of government is on improving the operation of markets through the correction of market failures, such as the removal of impediments to the efficient adjustment of industries and labour to changing market conditions. The second, described as interventionist, has promoted a stronger role for government in addressing such issues as persistent unemployment, poverty, regional disparities, social welfare and the regulation of public utilities. It is argued that throughout most of the past century the ideological background has been closer to laissez–faire, although tempered by an interventionist paradigm through changing economic and social circumstances (Higgins and Savoie, 1997).

Federal expenditures for regional development have therefore represented only a modest component of government spending, representing less than two per cent of total appropriations in each decade since the 1960s. In the financial year 2000, $US7.8 billion was directed to regional and community development programmes compared to total federal outlays of $US1,765 billion (U.S. Office of Management and Budget, 2002). Nevertheless, it is acknowledged that public expenditures in other areas such as transport, infrastructure, education, agriculture, health, energy and defence, have significantly influenced regional development patterns (Redburn and Buss, 2002).

The extent of regional development interventions can be broadly summarised under several phases of activity. These activities have included:

- generating depression era employment in the 1930s through large–scale infrastructure and community projects, particularly for water resources in the western United States (eg. Hoover Dam on the Colorado River), transport and housing;
- addressing persistent regional disparities in particular areas through infrastructure and community development grants and loans in the mid–1960s, particularly through the establishment of regional commissions and the Economic Development Agency (within the US Department of Commerce);

- promoting healthy living environments and revitalised economies in distressed urban and city areas through "Community Development Block Grants" administered by the Department of Housing and Urban Development since the mid–1960s, and expanded programmes in the mid–1990s for designated "Empowerment Zones" in urban and rural areas;
- non–metropolitan (rural) development initially focusing on access to capital, subsidies and technical agricultural assistance (prior to 1970s), successive agricultural sector trade protection policies, industrial "recruitment" strategies based on attempts to attract large firms and manufacturing activities through tax and other financial incentives (1970s and 1980s), and endogenous strategies based on creating new and expanded local firms through business development (mid–1980s onwards);
- a gradual transfer of administration of federal programme funding to state and local governments within national frameworks; and
- accelerated state level activities based on infrastructure projects, locational tax credits and other incentives (since 1980s), followed by a greater emphasis on initiatives to foster SMEs and technology transfer such as business incubators, industrial clusters and the provision of loans and venture capital to local businesses.

Regional disparities

The initial federal focus on employment generation in the 1930s included the establishment of large public utilities such as the Tennessee Valley Authority to provide affordable power and associated economic benefits to an impoverished region. A key lesson from the experience has been the positive impact made by a broadly mandated government utility on resources development and social planning in a region initially characterised by significant poverty and infrastructure needs (Higgins and Savoie, 1997). Critics have pointed to various environmental and social dislocation costs from a pro–development perspective, particularly since the post–war period (Selznick, 1966).

The next major phase of regional intervention policy occurred in the mid–1960s with a focus on ameliorating spatial structural problems such as the persistent under–performance of regions, despite high levels of national growth and prosperity since the post–war period. In 1965, two major regional initiatives were launched through the establishment of:

- a number of regional commissions tasked with promoting the economic development of lagging areas within nominated regions; and
- a broader Economic Development Agency within the Department of Commerce.

The most significant of the regional commissions — the Appalachian Regional Commission (ARC) — was the only commission to continue beyond the 1980s and comprises a partnership between the federal and 13 state governments of the Appalachian region. The initial priorities of the Commission were to provide better access to the region — primarily through highway, water and natural resources development — and the development of human resources through improvements in health, education and housing (Higgins and Savoie, 1997). The main instrument for achieving these goals were federal grants for infrastructure and other projects submitted by recipient state governments and approved by the ARC board.

Between 1965 and 1992, almost $US6.1 billion in ARC appropriations were used to support development projects, with almost $3.8 billion on highway development. The Commission has been acknowledged as improving living standards and productivity in the region, as well as linking a "top–down" approach of federal funding with the "bottom–up" development of projects by the supporting states and local planning bodies (Higgins and Savoie, 1997). Some criticism has been levelled at the promotion of strategic "growth centres" within the Commission's legislative mandate. Field staff considered it ineffectual due to the vagueness of the concept, its potential to overload the service capacity of smaller cities, and its neglect of the need for balanced urban and rural development in the region (Bradshaw, 1991).

A major impact of the ARC intervention has been on the development of roads. An ex–ante cost–benefit evaluation has estimated that ARC investments in the highway system will lead to net economic benefits of almost $2.1 billion over the period 1965 to 2025. These estimates are based on improved travel efficiency benefits and improved competitiveness of local industries (Wilbur Smith Associates, 1998). The ARC continues to fund projects for highway construction, education and workforce training programmes, water and sewerage construction, leadership development programmes, small business start–ups and expansions, and development of health care resources.

The Economic Development Administration (EDA) has operated since 1965 to generate employment, stimulate business growth and improve the quality of life of residents in economically distressed areas across the United States. Since then, more than US$16 billion has been invested in public works and special initiatives such as responding to natural disasters and regional defence industry closures, along with more than US$36 billion in associated private investment (Economic Development Administration, 1999).

The EDA programming structure is based on the use of grants, targeted loans and revolving loan funds. These financing mechanisms are used for infrastructure development, community capacity building and business development projects. A key feature of EDA funding was the creation of over 300 regional districts known as Economic Development Districts (EDDs), composed of local elected officials, business leaders and community representatives. The EDDs are required to work in collaboration with state and federal governments under an approved strategic regional plan, and in most cases state funds match federal grants. The EDA conducts routine performance evaluations using a number of common indicators describing the cost–effectiveness and economic impacts of programme expenditures, as well as the identification of issues related to improving the effectiveness of programmes. A number of key findings from recent evaluations of major EDA and ARC programmes are summarised below.

Urban and housing development (depressed cities)

A significant component of regional development policy has been addressing urban and housing issues, particularly in economically depressed areas of cities. The Department of Housing and Urban Development (HUD) has administered a range of programmes since 1965 through the use of grants and taxation incentives for infrastructure provision, strategic planning and community capacity building. In particular, these programmes have been administered through Community Development Block Grants (CDBGs) since 1974, designed to simplify the proliferation of federal grant systems and create a "block" of funding that would permit local authorities greater discretion in selecting among eligible activities. The objective of the programmes were to create viable housing and living environments that would expand opportunities for economic development, particularly for depressed and economically disadvantaged areas.

In late 1994, the Empowerment Zone and Enterprise Community programmes were developed to provide target areas with opportunities for growth and revitalisation. The Empowerment Zones comprise 30 urban and rural zones that receive assistance in the form of tax incentives (wage tax credits and tax–exempt bond financing) and improved social services. Urban zones have received around $US100 million and rural areas around $US40 million to implement 10 year community–wide strategic plans. HUD has reported that most of the areas have used the funding to leverage additional investment from private and non–profit organisations. In regard to tax incentives, a high level of success in attracting private investment has been reported since 1994, with almost $US12 billion in additional public and private sector investment (Australian Housing and Urban Research Institute, 2001).

State and local government initiatives

For decades, state and local authorities have provided infrastructure as a means to stimulate new investment and job creation, such as highways, water and sewerage systems, and industrial sites. In the emerging information and technology–based economy, state interventions have moved beyond traditional infrastructure to activities that encourage small businesses, research and development and technology transfer. As noted by the Bureau of Industry

Economics (1994), US observers have identified this shift toward more interventionist policies in the context of an *entrepreneurial–state* model, that is:

> "...based on a strategy of intervention, guidance and initiative in the economy. The 50 states and many of their communities are in the process of fashioning, with varying degrees of rigour and coherence, separate little industrial policies, self conscious attempts to foster selected industries judged to provide comparative local advantage or to be critical to the local economic future" (Eisinger, 1988)

The most common instruments used to promote such localised development include pro–business tax systems, state sponsored enterprise or development zones, assisted loans, and direct grants for business training and community partnerships. Based on a review of the evaluation literature, the early experience with Enterprise Zones has been rather mixed and shown not to be effective for distressed areas (refer Box 3). These evaluations have shown them to be generally ineffective using cost–benefit analysis, and have been criticised for generating unproductive bidding between states and regions (Buss, 2002).

Industry clusters

Finally, it is worth noting the significant use of regional industry *cluster* policies based on developing a highly skilled workforce and industrial systems built on networks that are flexible and technologically dynamic. Essentially, a cluster–based development initiative is a structured planning process that encourages related industries and governments to co–operate in developing a long–term strategy to maximise research, innovation and flexibility for the development of value added industries in a particular location. Government interventions in support of industry clusters include financial assistance for facilitation, networking and advisory activities for related firms, and subsequent investments in infrastructure and social capital based on identified needs. A report commissioned by the US Department of Commerce that looked at 17 case studies of cluster–based initiatives provides the following definition of an industry cluster:

> "Industry clusters are agglomerations of competing and collaborative industries in a region networked into horizontal and vertical relationships involving common buyer–supplier linkages, and relying on a shared formulation of specialised economic institutions. Because they are built around core export–oriented firms, industry clusters bring new wealth into a region and help drive the region's economic growth" (Information Design Associates and ICF/Kaiser International Inc, 1997, p.3)

Some examples of the types of industry clusters evaluated in the study included:

- Southwestern Pennsylvania (long term decline of heavy manufacturing industry) — reorient regional economic infrastructure to support growth of high technology industries and advanced manufacturing;

- Monterey Bay Area, California (closure of military base and limited alternative industry) — develop a centre to harness the research and training of the region's institutions to support growth of emerging information, environment and biotechnology industries;
- State of Washington (decline in defense related aerospace industry) — create flexible manufacturing networks to improve collaboration among SMEs to pursue non–military markets.

Ten broad elements of economic strategy that public and private sector partners were using to support industry cluster development and improve competitiveness and prosperity were identified:

- transportation and infrastructure
- research and technology
- trade promotion and market development
- tax and regulatory policy
- education and workforce development
- financing
- environmental preservation and restoration
- quality of life
- economic and community revitalisation
- business development and attraction

The review suggested that a cluster framework can be a valuable tool for governments seeking to promote regional development since it: is market driven; inclusive of small and large businesses and supporting suppliers and institutions; seeks collaborative solutions; is strategic, helping stakeholders create a vision; and creates value through vertical linkages that enhance export industries, and promote productivity and employment generation.

While cluster–based development is still regarded as an evolving concept, there is a growing body of experience from which lessons can be drawn to develop an effective strategy. These include:

- recruit highly committed leadership;
- ensure adequate resources throughout the process;
- choose the appropriate geographic scale (eg. local or regional); and
- engage potentially implementing institutions as early as possible.

Nevertheless, the building of industry clusters is an ongoing process and winning the confidence of businesses and public agencies to share information, collaborate and operate as a cohesive industry cluster, for example, may take many years to develop (Stimson, Stough and Roberts, 2002). There has also been insufficient time to evaluate the full extent to which governments can instigate their sustained development beyond selected regions and cities where they have developed largely as a result of independent market forces. However, the specific characteristics of successful cities and regions have been studied extensively in the past 5 years. The National Governors Association (2000) and the National Commission on Entrepreneurship (2000) have developed a similar list of success factors contributing to the economic growth of regions. These success factors include the presence of:

- intellectual assets
- physical assets, including telecommunications
- availability of diverse sources of capital
- the transfer of knowledge and technology
- an educated workforce
- a supportive infrastructure, including education
- a shared vision of a region's future

Evaluation

The evaluation of regional interventions in the United States is quite mixed in terms of the scope and quality of ex–post evaluations. Within the academic evaluation literature, for example, calls for improved evaluation practices and research methods have highlighted such important issues as:

- the failure to document a casual link between many programmes and local economic outcomes (General Accounting Office, 1996);
- poor evaluation practices by many administering US agencies of popular instruments such as enterprise zones (Boarnet, 2001); and
- the improper use of cost–benefit analysis (Buss and Yancer, 1999).

These issues are well demonstrated by reference to the evaluation of tax incentive programmes such as "enterprise zones" widely adopted by state governments. To date, there has been limited detailed evaluation by state administrators of enterprise zones for regional development. A recent survey through the National Association of State Development Agencies (NASDA) concluded that states had not conducted rigorous evaluations of the cost–benefit of incentives offered to private enterprise (Buss, 2002). However, within the academic community there is a significant body of evaluation literature on the efficiency and effectiveness of enterprise zones with mixed results (refer Box 3).

Buss (2002) provides a very recent and comprehensive overview of the evaluation literature on enterprise zones (EZ) with the following conclusions:

> "Literature is divided among studies finding major effects associated with EZ economic growth and those finding negative or inconclusive results, although the later are more numerous and by far more convincing (eg. Birdsong, 1989). Having said that however, findings showing an association between taxes and EZ economic growth are so disparate they too give little guidance to policy makers. Numerous studies of the same zones come to opposite conclusions.

And some researchers report positive findings, then reverse their conclusions in follow–up studies. Many associations between taxes and economic growth are very likely methodological artifacts" (Buss, 2002, p.22)

BOX 3: EVALUATION ISSUES: ENTERPRISE ZONES — A CASE IN POINT

Enterprise Zones (EZ) have been widely adopted by State governments in the United States since the early 1980s as a way to generate employment and economic growth in designated zones (eg. depressed areas), through subsidies, tax relief and land use planning to attract firms. Extensive surveys of the EZ evaluation literature have found that the effectiveness of EZ interventions is still an open research question, although the evidence is increasingly negative (Lambert and Coomes, 2001). For example, an evaluation of California's EZ programmes using shift–share analysis and a survey of businesses concluded that zone incentives have done little to boost job creation and the business environment compared to firms located in non–EZ areas (Dowall, 1996). A wider review of over 21 studies has found little evidence of EZ programme success in the United States (Wilder and Rubin, 1996) but the authors contend this does not infer that the concept is flawed. Rather they point to the paucity of research on the effects that land use and community planning have on the success of EZ programmes and that these factors may be a significant determinant of success.

In a 1991 review of the literature, James (1991) concluded that there has been no thoroughly acceptable evaluation of impacts and cost–effectiveness of enterprise zone programmes. Problems associated with identifying the counterfactual and displacement effects, cumulative intervention impacts and macroeconomic influences have complicated the evaluation of the effectiveness of EZ instruments. Quasi–experimental research design methods are regarded as a tool for dealing with some of these issues where zones are analysed before and after implementation and compared with non–zone control groups (Dowall, 1996). This type of evaluation approach has indicated poor employment growth and low programme effectiveness for the Louisville EZ in Kentucky (Lambert and Coomes, 2001).

Similarities in the uncertainty of results of the impact of the United Kingdom EZ programme are discussed above (refer pp 35–36). In addition, there is debate within Australia on the perceived effectiveness and benefits of enterprise zones as a potential regional development tool in an Australian context (see Collits, 2002; Apthorpe, 2002).

Further observations have included the potential for unproductive bidding for investment between the States based on the proliferation of tax incentives, and the dilution of incentives if not confined to relatively small target areas (Buss, 2002). Most job growth within US enterprise zones have come from existing businesses rather than relocations from elsewhere (Wilder and Rubin, 1996; Erickson and Freidman, 1990). It has therefore been argued that if the goal is to nurture new business development based on endogenous growth (i.e. new and expanded local businesses) within designated zones, more appropriate initiatives would include small business incubators, technology transfer programmes, management assistance and venture capital provision (Fisher and Peters, 1997). Overall, it is apparent that the effectiveness of enterprise zones based on limited tax incentives is an open research question with limited success to date, and represents only a partial tool to promote economic development in target regions. More fundamental requirements for business investment are likely to include efficient infrastructure, availability of a skilled workforce and efficient regulatory arrangements to name only a few.

Findings from selected EDA and ARC program evaluations

- *ARC Infrastructure and Public Works Program Evaluation* — reported on 99 projects completed between 1990 and 1997, including access roads, business incubators, industrial parks, and water and sewerage facilities. The study adopted a number of performance measures to assess returns on programme expenditures. These included public costs per job generated ($470/job from 60,718 new and retained jobs); ratio of private investment leveraged per public dollar spent ($29:1 or $3.07 billion); and personal income generated per public dollar spent ($20:1 or $950 million). Displacement effects were assumed to be negligible given high unemployment in the region. A key issue identified was the prevalence of low entrepreneurial activity through lower than national average firm start–ups and survival rates (Brandow Company and Economic Development Research Group, 2000).

- *EDA Public Works Program Performance Evaluation* — this ex–post evaluation assessed 205 projects including commercial and community buildings, industrial parks, roads, water and sewerage, and marine and tourism facilities. Surveys and interviews were used to assess outcomes using a number of performance measures. The results suggested that 96% of public works projects produced permanent jobs; that for every US$1 million of EDA funding US$10.08 million was leveraged in private sector investment; and 15 full time jobs were created per US$1 million of EDA funding. The report noted that most public works projects achieved the objective of providing communities with the necessary infrastructure to expand their economic base and that without EDA assistance, additional investment and employment would not have occurred in many areas (Rutgers University et al., 1997).

- *ARC Entrepreneurship Initiative Evaluation* — this ex–post evaluation assessed the outcomes from 23 projects in operation for 18 to 21 months, including one–on–one assistance to new and existing firms, education and training of individuals, business networks and seminars, and custom software development. Interviews were used to evaluate the economic outcomes of the intervention — such as new enterprises started, new markets or product lines, job creation, and growth potential of assisted enterprises. The results indicated that: 75% of projects reported businesses developing new products, 55% indicated that firms had upgraded technologies or management methods, and 50% reported the establishment of new businesses. In addition, more than 50% of sampled projects reported creating jobs in existing firms, 39% retained jobs that would otherwise have been lost and 46% reported new businesses created by youth projects. While too early to determine the impacts on the economy, 36% of interviewed businesses expected to grow; 55% wanted stable market shares; and 4% were attempting to reverse a decline. The evaluation noted that a long–term approach was crucial to the success of the programme. It was emphasised that entrepreneurial initiatives were more likely to have lasting impacts if they continued beyond the ARC grant period to build local capacity for entrepreneurial support (Regional Technology Strategies, 2001).

- *The Impact of the EDA RLF Loans on Economic Restructuring* — the study examined the economic impact of the EDA Revolving Loan Fund to facilitate structural diversity and economic resilience in selected regions. The analysis was based on a composite index of regional economic structure based on four measures of structural change: economic diversification, earnings per worker, economic stage and import dependence. The results suggested that RLF loans created positive economic structural change in 42% of cases, no effect or an indeterminate effect in 48% of cases, and a negative effect in 12% of cases. This suggested that RLF loans brought new industries to some regions and reduced their dependence on any one or a handful of industries, together with an increase in earnings per worker. An independent econometric analysis corroborated the statistically significant effect of RLF loans on job creation and retention in counties, but showed a higher cost per job created than that indicated by the RLF loan–recipient analysis (Rutgers University and The State University of New Jersey, 2002).

- *EDA Review of Economic Development Literature and Practice No.11: Does Technology Incubation Work? A Critical Review* — this review of evaluations on US experience with publicly funded business incubators suggests they are a cost–effective tool for job creation in terms of public cost per job created (ranged from $US3500 to $US10, 000) with a relatively high proportion of assisted firms tending to locate locally (84 per cent) with comparable survival rates and strong sales and employment growth compared to unassisted firms. However, the evidence was mixed on the long–term performance of assisted firms and more research is required on the relationship between business incubators and other factors such as tax incentives for R&D and concessionary loans. It was noted that for rural areas in particular, business incubation would be more successful if augmented with one or more "technology generators" such as a university or private research institution, a skilled labour force, a technology culture in the community, and availability of investment capital (Lewis, 2001).

Issues and lessons

Given the dominance of a "laissez–faire" approach to economic development in the United States, regional interventionist policies have represented a small proportion of total government activity. However, since the mid–1960s federal policies have been directed to persistent regional disparities and distressed communities, particularly in urban areas. Early strategies focused predominantly on physical infrastructure (eg. roads) and human capital (eg. workforce training) projects that have generally improved industry competitiveness and employment opportunities in some regions. There has also existed a strong emphasis on "bottom–up" approaches to the development of projects through federal funding and state and local partnerships.

Since the early 1980s state governments have also pursued a range of location based tax allowances and subsidies, assisted loans and grants for development of distressed regions, usually under the banner of enterprise zone strategies with a mixed record of success. The promotion of business incubators has proved more promising and found to be a cost–effective tool for promoting new enterprises with good performance of assisted enterprises.

Problems associated with enterprise zone strategies are more complex than merely providing selective financial incentives to attract external business – the extent of private investment and industry growth also depends on infrastructure, workforce availability and other social factors affecting investment decisions (eg. crime, pollution, quality of governance). In the early 1990s, states became more conscious of the high cost of economic development incentives and as a result there may be a trend away from targeted subsidies toward economic foundation or enabling conditions such as education, human services, public safety and infrastructure (Mattoon, 1993). Where incentives for individual businesses exist, academics recommend benefit–cost analysis to aid decision–making (Snow, 2002).

Finally, there has been a transition since the 1990s to endogenous growth strategies with an increased focus on SMEs, innovation and technology transfer through fostering entrepreneurism, industry clusters, and university and industry partnerships. While there has been insufficient time to evaluate the full implications of such strategies in practice, they are regarded by US policy makers as a promising alternative to previous external investment strategies that suffered from declining industry performance and competitiveness of traditional manufacturing modes of production that relied on targeted financial incentives.

CANADA

The development of regional policy in Canada has been described as incremental (OECD, 2002) and has involved the interaction of three levels of government within the Canadian federal system — federal, provincial and municipal governments. Principally, the federal government has adopted regional intervention policies to address issues of regional disparities in economic growth and employment as well as to promote the political and social cohesion of the nation. The political undertones to promote unity and regional prosperity have been reflected in Canadian regional policy to the extent that:

> "…the sharing of prosperity among Canadians wherever they live has been part of the bargain of Confederation " (Savoie, 1986, p139).

Given the large geographic extent and cultural diversity of Canada, key social issues addressed by governments in the context of regional policies include:

- disparate regional incomes and employment;
- heavily rural eastern provinces with limited economic diversity;
- native reserves lands;
- remote northern territories with dispersed populations;
- urban redevelopment in large cities; and
- special populations (McNiven and Plumstead, 1998).

In addition to infrastructure, social service priorities (eg. transport, health and education) and industry sector policies to boost national income and export growth, the persistence of regional disparities in income and employment has remained a central policy concern. The first major instrument used by federal governments to reduce regional disparities was the provision of minimal public service levels through fiscal equalisation payments to the provinces introduced in 1957. As in the case with Australia, federal fiscal equalisation principles have remained a major component of the funding base for providing comparable public services across the provincial regions. Since then, the federal government has initiated a range of interventions to tackle more fundamental structural issues in slow growth regions, such as the provision of general incentives to attract private sector investment. The Department of Regional Economic Expansion (DREE), established in 1968, provided a range of instruments to achieve these goals, including tax concessions and exemptions, capital grants, accelerated depreciation, cash grants and training programmes. It is estimated that between 1974 and 1982 almost $CAN6 billion was committed to over 130 projects (Savoie, 1992). Problems encountered during this period included conflict between federal and provincial jurisdictions and the impact of other sector specific policies and inter–provincial trade restrictions that tended to discourage rationalisation of declining industries (OECD, 1981).

During the 1970s, inter–governmental agreements between federal and provincial authorities known as General Development Agreements (GDAs) were adopted to promote better cooperation between jurisdictions and set development priorities. These Agreements provided assistance to whole provinces, sub–regions within provinces or particular industries. However, by the mid to late 1970s the Agreements were poorly coordinated and at times counter–productive between different GDAs (Hansen et al., 1990; Government of Canada, 1984). Further administrative changes involved the creation of a new Ministry of State for Economic and Regional Development to take responsibility for the overall coordination of regional policy as well as the relocation of public service units to depressed areas. However, despite over 25 years of federal interventions in regional policy it was apparent that the objectives of improving income and unemployment disparities had generally not been achieved (OECD, 1994). Several empirical studies have shown that while regional disparities in per capita income and production in Canada tended to diminish since the post–war period, this movement toward convergence had fluctuated and slowed since the late 1970s (Coulombe, 1997).

The perceived ineffectiveness of interventions on reducing remaining gaps in regional disparities resulted in a significant decentralisation of federal policy through the creation of regionally based federal agencies within the Industry Canada portfolio in 1986. This resulted in four key agencies responsible for regional development within respective regional boundaries:

- Atlantic Canada Economic Development;
- Department of Western Economic Diversification;
- Federal Office of Regional Development — Quebec; and
- Federal Economic Development Initiative in Northern Ontario.

The main purpose of the decentralised agencies has been to design, implement and coordinate policies and interventions that promote the economic development and competitiveness of the regions. Programmes to support these goals have focused on strategic economic planning (eg. competitiveness studies), the development of small to medium sized enterprises, fostering a climate of business innovation, and the development of physical infrastructure and social capital.

Small and medium sized enterprise (SME) development

A particular focus of capital enhancement policies has been on improving access to finance and venture capital for small and medium sized enterprises (SMEs). Federal and provincial agencies work cooperatively with community based lending institutions, such as the 240 Community Business Development Corporations (CBDCs) across Canada, to promote SME start–up in the regions. These corporations provide financial services, venture loans and extensive business counselling and training for SMEs. In general, these policies reflect a move away from location based incentives that tended to favour large firms and were not always successful (Mcgee, 1992) to more effective tailoring of programmes that suit firm size. It was argued that SMEs were not able to compete with large firms under generic tax incentive programmes and were less able to deal with bureaucratic procedures (Rowlands, 1994). In particular, it was recognised that special tax incentives often did not provide the immediate financial assistance of greater use to SMEs — that being initial access to capital. Hence government programmes have promoted improved mechanisms for facilitating access to capital for SMEs, primarily through public lending institutions. This type of direct market intervention also raises the issue of the appropriate balance between public and private lending and the extent of perceived market failure in the provision of capital to SMEs. Importantly, there would need to be a clear case for addressing market failures through such concessionary public lending, recognising that:

> "While funding riskier projects may well be the raison d'etre of government lending institutions, what needs to be shown is why government institution's evaluation of the trade–off between risk and the rate–of–return is closer to the "social optimum" than the commercial sector's." (Rowlands, 1994, p383)

A further potential risk of increased public lending to SMEs, characterised by high debt to equity ratios, is their vulnerability to interest rate fluctuations and other adverse business cycles. Nevertheless, the Canadian experience with public lending institutions such as the CDBCs has been equivalent to the private sector in terms of failure rates and lending performance (ACOA, 1997a and 1997b; as quoted in Cloney, 2002).

Evaluation

The availability of ex–post evaluations of regional interventions in Canada is quite limited, particularly in relation to comprehensive assessments of their overall effectiveness (McNiven and Plumstead, 1998). This is reflected in the general observation that:

> "There is probably no other field of government expenditure in which so much public money is committed but so little known about the success of the policy. There exist very few objective research studies on regional development efforts in Canada" (Savoie, 1992, p3).

However, public monitoring and evaluation requirements for regional interventions have increased since the 1980s, such as the legislative requirements for 5 yearly reporting on programme impacts by the four federal regional development agencies. The Atlantic Canada Opportunities Agency (ACOA), for example, recently evaluated the impact of its development programme for SMEs over the past 10 years with positive results (refer Box 4).

Furthermore, the OECD Territorial Review for Canada (OECD, 2002) provides a recent external policy review on Canada's overall regional development strategies. In particular, the report observes there has been a significant transition in federal regional development policy away from promoting the redistribution of income between provinces to an objective of facilitating the utilisation of the unexploited potential of regions based on their comparative advantage. Provinces, territories and local governments are increasingly involved in partnership agreements with the decentralised federal agencies for delivery of programmes. It is noted that while decentralisation provides flexibility to respond to specific regional needs, the regional federal agencies must also remain compatible with broader federal policies and sector programmes (OECD, 2002).

A recent trend toward amalgamations of local governments in response to increased devolution and fiscal constraints is also regarded as potentially problematic. This is due to the complex interplay of the potential impacts of amalgamation on a range of issues, including regional economic development and planning, fiscal equivalence and equity, cost and quality of public services, local identity and democratic governance (Council of Europe, 2001 in OECD, 2002). The establishment of mechanisms for promoting inter–municipal cooperation and strategic partnering is regarded as a flexible and functional alternative (OECD, 2002). There has been little evidence to demonstrate the scale economies and cost savings from amalgamations to date, such as the Toronto city area (OECD, 2002).

BOX 4: EVALUATION OF FEDERAL ECONOMIC DEVELOPMENT PROGRAMMES IN ATLANTIC CANADA

In pursuing its mandate, the ACOA focuses on SMEs (less than 100 employees) as a significant contributor to job creation in the region. In 1998–99, total ACOA expenditures totalled $363.5 million, less than 1 per cent of the gross domestic product for the region of $45.3 billion. Project activities include the provision of tools and information such as enhanced business training and planning, and access to capital and technology.

The evaluation used multiple lines of evidence, including client–user surveys and independent verification of similar projects by the Auditor General of Canada, use of quasi–control groups and estimation of direct benefits and flow on–effects on employment and value added using a regional macroeconomic model. The evaluation took explicit consideration of the counterfactual scenario and displacement effects. Overall, the ACOA activities were deemed to have a positive impact on regional job creation and growth. Key estimated outcomes included:

- over the ten year period 1988–1997, the unemployment rate was 2.8% lower due to the intervention and every $1.00 of spending generated $5.00 of GDP impact; and
- over the period 1992 to 1997, the impact of the intervention on GDP had grown from $CAN1.4 billion to $CAN 3.7 billion a year.

Source: ACOA (Thomas and Landry, 1999).

Issues and lessons

Given the jurisdictional complexity, large geographic extent and cultural diversity of Canada, effective coordination of regional development interventions has been a major and continuing challenge (McNiven and Plumstead, 1998). Principally, federal fiscal equalisation principles have *compensated* for regional economic disparities to a significant degree, although significant structural gaps in regional economic output and employment exist. An unquantified shortcoming of federal fiscal equalisation may be the disincentive it may provide to some regions to foster economic development given an historical reliance on transfer payments (OECD, 2002).

There is also a general paucity of ex–post evaluations and comprehensive assessments of regional intervention policies, although systematic monitoring and reporting frameworks are becoming more prevalent. An external review of Canadian regional policies (OECD, 2002) provides these general remarks:

- there has been a transition in regional policy away from income redistribution to an objective to tap the unexploited potential of regions based on local comparative advantage, through encouragement of SMEs, infrastructure provision and community development projects;
- the decentralisation of key federal agencies provides flexibility to respond to specific regional needs, while presenting challenges such as the potential for "capture" by regional stakeholders and inconsistency with broader federal policies and sector programmes;
- the strategic partnering of municipal and local governments may be a promising alternative to the trend toward amalgamations, due to the flexibility and functionality of such partnerships; and
- key remaining challenges include: weak local governance that has hindered the emergence of bottom–up projects; slow diffusion of research and development and dialogue between higher education institutions and businesses; and scope for better coordination between sectoral and regional based programmes.

The use of public or community based credit loans for SME development is also a particularly prominent feature of recent intervention strategies. Tax incentives such as tax credits and accelerated capital depreciation allowances featured prominently in early location based programmes during the 1960s and 1970s. The advantages of tax incentives included their ease of administration through the established tax system and general cost effectiveness for investment, particularly for large firms (Bird, 1980). However, they tended to be less useful for targeting SMEs due to their inability to address more immediate up–front financial constraints. Policies targeting SMEs have consequently been geared toward direct grants for up–front financing and training, repayable grant assistance, and more recently credit loans through government guarantees (CBDCs) or direct government loans through the Federal Business Development Bank (Rowlands, 1994). An advantage of repayable credit loans was the reduced burden on fiscal expenditure for SME development objectives.

NEW ZEALAND

The development of regional policy in New Zealand has been characterised, until recently, by a highly centralised and intermittent approach that has advocated national economic development goals through market oriented policies and the promotion of trickle–down benefits to the regions (Killerby and Smith, 2001). The implementation of a Regional Development Programme in the early 1970s is regarded as the first significant government priority for stimulating regional growth as a result of cyclical changes such as the impacts from the 1967–68 recession. A focus on large–scale infrastructure projects in response to the perceived energy crisis of the late 1970s was also pursued to initiate resources development in specific regions (Karagedikli et al., 2000).

There has been conjecture about whether regional socio–economic disparities increased over the past two decades as a result of the labour market changes brought about by significant macro–economic policy reforms in the mid–1980s. These macro–economic policies were designed to increase the international competitiveness and productivity of the New Zealand economy through trade liberalisation, tariff reductions, industrial and financial deregulation, the imposition of a floating exchange rate and the privatisation of public assets. Some analysts have identified that the effects of the post–1984 reforms had a particularly negative impact on rural areas highly reliant on primary output and manufacturing (Karagedikli et al., 2000). Others have presented evidence that New Zealand's poor trade growth in the 15 years prior to 1984 was a structural over–reliance on primary production (Brownie and Dalziel, 1993) that may have been a key driver of regional disparities.

The post–1984 approach to regional policy was one of increased devolution of non–core central government services to a range of agencies and organisations. This resulted in a range of regional service providers, including the private sector, non–profit organisations, local territorial authorities (with stronger governance powers for provision of infrastructure, land use regulation, local services and development), regional councils (responsible for land transport planning and management of the physical environment) and business development boards. The amalgamation of some 600 local government authorities into 12 regional councils and 74 territorial authorities (in addition to 4 regional authorities with the combined powers of a regional council and a territorial authority) in 1989 reflected a stronger focus on streamlined regional governance arrangements, along with greater financial accountability and consultative requirements. Many of the territorial authorities have established economic development agencies such as tourism or business promotion units. A national association of these development agencies since 1996 has promoted strategic alliances through networking, information sharing and lobbying for development proposals.

A further regional initiative since the late 1990s has been the establishment of community trusts that apply the proceeds from their assets to community and social purposes within defined regional boundaries. These community trusts arose from the rationalisation of former community trustee savings banks and the receipt of significant public revenues from the sale of public assets. The total value of assets held by community trusts in New Zealand is estimated at around NZ$5 billion and returns are distributed regularly in the form of grants, scholarships and gifts for community development (Killerby and Smith, 2001). Tensions arising from the overlapping responsibilities between community trusts and territorial authorities have been noted with calls for funds vested in these trusts to be managed more consistently with local government expenditures (McKinlay, 1999). A further NZ$1 billion was provided by the central government for the settlement of Maori native property right claims that has seen the evolution of a range of regional Maori trusts and organisations responsible for the management and commercial utilisation of land, fisheries, geothermal and other resources.

Since 1999, New Zealand regional policy by the central government has involved a partnership approach with local government, community trusts, Maori organisations and the business and local communities within a renewed Regional Development Programme (Killerby and Smith, 2001). It is argued that the broad rationale for this approach was dissatisfaction with the effectiveness of market oriented reforms to reduce regional disparities and the adverse impact this was having on the social foundations of economic activity (Department of Internal Affairs, 1997; Wallis and Dollery, 2000). Policies designed to promote a "bottom–up" approach through extensive community consultation and institutional collaboration have formed the main elements of the programme. The main strategy was to develop 20 to 30 "economic development regions" characterised by a common strategic vision based on community economic development and national funding to facilitate strategic planning ($NZ 100,000), capacity building (NZ$100,000) and implementation (NZ$2 million) within each region. Self–defined communities of interest were invited to submit expressions of interest for the programme, with 137 applications received as of October 2000. The submissions ranged from proposals for specific local facilities (eg. airports) to Maori business development strategies, tourism strategies and industry clusters. The Northland Economic Strategy, for example, has identified a range of priority actions to address inadequate health and other social services, develop Maori business skills, attract new business ventures and improve telecommunications and power infrastructure. These actions were identified through "bottom–up" consultation and committee structures comprising business leaders, Maori groups, central and local government representatives and other stakeholders (Killerby and Smith, 2001).

Issues and lessons

Regional economic disparities have remained a problem over recent decades, with conjecture on the impacts of trade–liberalisation and other macroeconomic policies on regional structural adjustment and related social issues such as loss of social capital.

In terms of broad interventions for regional development, there has been a transition from an ad hoc centralist approach to a bottom–up strategy based on partnerships and capacity building within regions. It is presently too early to assess the longer–term outcomes from the post–1999 regional intervention strategy. However, it is important to note that the New Zealand transition to a community based "bottom–up" approach was motivated by a heightened interest in the potential of social capital in enhancing economic development and social cohesion (Killerby and Smith, 2001).

CHAPTER 4 POLICY IMPLICATIONS

MAIN ISSUES AND LESSONS

The general findings from a select review of the evaluation literature on government sponsored interventions for regional development purposes suggest there is no one model that is universally accepted as an explanation for variation in regional performances (Gertler, 1995). This partly reflects the complexity of the economic growth process itself and the existence of a number of partial theories or explanations that emphasise a range of determinants of regional growth. Similarly, there is no single policy instrument or regional intervention that is universally applicable to all regions, recognising the diversity of regions in terms of physical conditions and socio–economic circumstances, as well as the diverse range of regional policy objectives.

However, the review and analysis of Australian and international experiences has identified some key factors or lessons for promoting effective regional development or areas worth further detailed research. These factors are summarised below.

Well integrated and stable governance

Overall, there is general agreement on the role of government in maintaining fundamental policy settings for enhanced competitiveness and reduced uncertainty with respect to private sector investment. While assessments of where governments fit into the process of regional development differ, there is broad agreement that at a minimum it is vital for governments to get the "fundamentals right" (Bureau of Industry Economics, 1994, p xiii). These fundamental conditions are taken to include:

- efficient management of the public sector and system of taxation;
- provision of efficient infrastructure;
- provision of effective education and training systems;
- operation of effective financial and labour markets;

- development of an effective regulatory and competitive framework; and
- stability and predictability in policy settings.

It is apparent there is a clear role for government interventions that improve productivity and competitiveness such as the development of infrastructure and removal of impediments such as inefficient administrative arrangements. Improvements in productivity and competitiveness are regarded as a win–win situation for regions as well as for the economy as a whole (Industry Commission, 1993). These kinds of policy settings are also likely to reduce the overall degree of risk facing investors and businesses operating across regions. The need for effective coordination between government jurisdictions and agencies is therefore paramount. Well integrated governance structures, particularly the role of local governments and regional authorities in developing and implementing strategies, also provides stability, reduces duplication and encourages the use of concentrated resources to regional issues.

Role of businesses as a key driver of economic development

In the regional development literature, there is strong recognition of the role of business development in generating economic and employment growth. This recognition of the "business enterprise" as a key determinant of growth extends to the particular significance of the role played by local businesses in generating sustained growth for particular regions. Within Atlantic Canada and many regions of Europe, for example, there have been numerous positive experiences with local SME promotion, as well as the use of business incubators for developing new businesses in distressed regions in the United States.

The alleviation of impediments facing private sector investment in regional and rural areas, such as access to finance and venture capital, has also been a major focus of North American and European Union regional policy. In Canada, for example, it has been recognised that special tax incentives often did not provide the immediate financial assistance of greater use to small local businesses– that being initial access to capital. Hence government programmes have promoted improved mechanisms for facilitating access to capital for SMEs, primarily through public lending institutions and concessional loans and guarantees. This type of direct market intervention also raises the issue of the appropriate balance between public and private lending and the extent of perceived market failure in the provision of capital. Importantly, there would need to be a clear case for addressing market failures through such concessionary public lending. The most common instruments used by agencies to promote local business development have included:

- *small business incubators*, where entrepreneurs receive business support and advice, and subsidised facilities and access to technologies, often in a multi–tenanted business centre;

- *entrepreneurship training*, to enhance skills and knowledge, especially for disadvantaged groups;
- *export promotion*, where firms receive information and advice on export opportunities and networks; and
- *access to capital,* through subsidised loans or guarantees and direct public lending in light of perceived market failures

Broader business development strategies have included the diversification and development of new business opportunities in response to declining industries (eg. structural adjustment), and the critical importance of export markets to a region's development. Economic diversification away from only a limited number of industries can minimise the risks of cyclical fluctuations and other adverse shocks and enhance a region's capacity to adapt to change over time, assuming these new industries are internationally competitive.

Evaluation and evidence–based policy

There is an acknowledgment of the growing need for more evidence based policies that are supported by scientific and quantifiable assessment methods, and the importance of monitoring and evaluation for the review of the design, implementation and performance of interventions (Hill, 2002). Monitoring and evaluation is an increasingly prominent feature of the European Union Structural Funding strategy, and has been an ongoing element of the US Economic Development Administration regional programme structure (see, for example, Economic Development Administration, 2001).

However, the quality of ex–post evaluations varies, with methods ranging from recipient surveys, economic impact assessment and multiplier analyses, to more comprehensive cost–benefit studies. A key issue in evaluation is the need to take appropriate account of counterfactual scenarios (what would have happened in the absence of the intervention) and likely displacement effects (replacement of some other productive activity) in measuring the estimated benefits (Hill, 2002). It is also necessary to allow sufficient time for the effects of the intervention to be realised in the local or regional economy before completing an ex–post evaluation.

In the United States, calls for improved evaluation practices and research methods highlight poor evaluation practices by many administering agencies (Boarnet, 2001), such as the failure to document a casual link between programmes and local economic outcomes (General Accounting Office, 1996) or improper use of cost–benefit analysis (Buss and Yancer, 1999).

Development of human and social capital

There is significant recognition of the potential importance of policies that develop human and social capital as contributors to economic growth and feelings of social well–being. Policies considered essential to these goals include education and vocational training (human capital) and the enhancement of networks, partnerships, and degree of trust and reciprocity within the community (social capital). While conventional human capital development approaches are recognised as significant contributors to economic development (see, for example, Barro, 2000), the extent to which less tangible and quantifiable aspects of social capital contribute to economic development and growth is an area warranting further research.

Public support for positive lifestyle attributes (eg. clean environment and amenities, diverse sporting and cultural facilities and efficient transport networks) has similarly been identified as part of the potential labour market solution for the attraction and retention of professionals, skilled labour and businesses in many non–metropolitan regions.

Internal (endogenous) development strategies, industry clusters and innovation

The experience of government interventions since the 1950s with traditional external investment strategies that attempted to attract large industry specific investment through firm specific subsidies and other financial incentives has identified a number of problematic issues. These issues have included the footloose nature of such investments where the withdrawal of public subsidies can remove incentives for further investment and lead to costly firm shutdowns or relocations to other regions. The economic efficiency of such incentives has also been raised in terms of diverting economic activity from other locations and reducing the long–term competitiveness of industries in particular locations. The European Union experience with external investment strategies over the 1950s and 1960s has also highlighted the fact that external investment, particularly in the case of large enterprises, was difficult to attain and retain, ambivalent to local development aspirations and could potentially lead to sectoral dependence and community deskilling. Finally, the interaction between different industries and intra–industry firms was found to be quite limited with significant duplication of research, service provision and resource consumption.

This has led to the more recent generation of policies that have been directed towards stimulating growth from within the assisted regions themselves, within a context of global competitiveness and a balanced approach to attracting external direct investment. Closely allied to endogenous development is the emerging view of the importance of innovation and learning to promote *sustained* regional investment and prosperity. This has led to the promotion of strategies based on building human and social capital and the linkages between local industries, governments and communities to foster innovation and ongoing economic activity. The most common instruments for promoting these strategies include research and development, education, vocational skills, technology transfer and industry cluster initiatives.

The theoretical basis for industry cluster initiatives draws heavily on the cumulative causation hypotheses (refer Appendix I) and the notion of the knowledge economy that both emphasise the critical importance of technology and knowledge spill–overs between related firms and a highly skilled workforce to generate sustained growth. A particular shortcoming of the literature concerns the general inferences drawn from only a limited number of international case studies on innovative and knowledge–intensive regions, particularly the high–technology regions of the United States. This issue is discussed in the context of further research issues below.

Long term locational approach

Most assessments have stressed the benefits of taking a long term locational approach to build on the comparative advantage of particular regions rather than direct firm–specific subsidies that can lead to inefficient bidding and competition between regions and the pitfalls of associated footloose industries.

The experience of governments has also been for greater emphasis on locally driven bottom–up approaches compared to top–down centralist policies that are tailored to each particular region. The benefits of bottom–up approaches include a stronger commitment by local communities and the use of local knowledge to develop relevant projects to match regional needs. Many bottom–up approaches rely on community economic development initiatives and the empowerment of local communities in project design and implementation strategies (eg. New Zealand, European Union and United States).

The *concentration* of activity over a long planning period is also considered important to build capacity and generate sustained growth in depressed regions (as per European Union approach). Intervention activity spread too thinly has been attributed to the ineffectiveness of early Australian State government population decentralisation policies (Vipond, 1989). An early evaluation of the United States EDA programme similarly attributed a low correlation between expenditures in depressed areas and changes in per capita income over 1965–1977 to the thin spread of funding activity (Miernyk, 1980).

The development of Albury–Wodonga as part of a concentrated effort to develop growth centres in Australia did result in significant population increases in the early years of the programme, but also demonstrated the effect of wider changes in the Australian economy that tended to offset these early gains. These macroeconomic influences included a downturn in manufacturing employment and fertility rates across Australia in the mid 1970s and the cheap supply of land and buildings within existing capital cities.

Sustainable development

The emergence of sustainable development principles since the late 1980s has also emphasised the integration of economic, social and environmental values (the so–called triple bottom–line) into national and regional level policy making decisions. Sustainable development is regarded as a unifying framework to promote durable social and environmental outcomes and inter–generational equity — defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. Recent European Union experience suggests this is best achieved through well–coordinated and complementary policy that promotes the various economic, social and environmental objectives of regional interventions.

Townsville–Thuringowa case study implications

Several of Townsville's development factors (see Appendix II) accord with findings from several international case studies of successful peripheral regions — for example the presence of a tertiary education institution and the area's status as a service centre for smaller hinterland communities (Polese et al., 2002). While not formally quantified here, the presence of educational institutions has likely facilitated technology and knowledge transfer, and improved productivity in local industries. Townsville also benefits from a diversified economy that builds on its locational strengths in traditional industries, while incorporating a variety of industrial employers in fast growing sectors. The impact of a combination of interventions over a sustained time period to the development of Townsville by successive governments, through investment in industrial, scientific and residential infrastructure in particular, has helped to facilitate the process of agglomeration and sustained growth at the regional level.

For example, continuous development of Townsville's infrastructure and transport network linkages has facilitated agricultural, industrial and commercial interests as well as residential growth. Stable public sector jobs have also provided a stimulus to employment and generated multiplier effects. Although Townsville does not enjoy the benefits of the peripheral effects of proximity to major cities, it has become established as an outer regional service centre in northern Queensland.

FURTHER RESEARCH

Evaluation of government interventions is an important component of public policy since it can assist decision makers assess programme outcomes against stated objectives, as well as provide information for improving the development and design of existing and future interventions. However, it is acknowledged that within the regional development literature there is a general paucity of comprehensive ex–post evaluations of sufficient quality to assess whether the desired outcomes of regional interventions are achieved, although many individual programmes have been assessed in some detail (Armstrong and Taylor, 2000).

The BTRE review of selected literature on the outcomes and experiences from regional interventions in Australia and in a number of comparable countries has similarly found only limited monitoring of intervention outcomes through comprehensive ex–post evaluations. As a result, more ex–post evaluations and assessments of interventions are needed to provide systematic feedback and information to better understand regional development processes and the effectiveness of alternative instruments and approaches. The varying quality and paucity of comprehensive evaluation studies partly reflects difficulties in measurement or assessment of impacts. Such difficulties are a result of many factors including the:

- cumulative effects of a wide range of policies and macroeconomic influences on particular regions;
- diversity in economic and social structures of regions;
- multiple levels of evaluation (strategies, programmes and projects);
- significant methodological issues (eg. treatment of displacement effects and less quantifiable aspects of development such as social capital);
- long run nature of realisable benefits from interventions; and
- relatively short timeframe and changing nature of many intervention policies.

The latter point, for example, is a non–trivial issue characterised by the historical observation of Canadian regional policy that:

> "...it would be difficult to find another area of economic policy, especially at the federal level, which has been as subject to such frequent adjustments to scope, objectives, administrative structures, and roles of operation as has been regional development policy (O'Neill, 1994, p.65)".

Important evaluation issues that need to be considered when evaluating regional intervention outcomes include identifying:

- the scope of the assessment, including such criteria as the effectiveness, efficiency and appropriateness of the intervention;
- the *counterfactual* (ie. an appropriate baseline of what would have happened in the absence of the intervention), including private sector activities that would have likely occurred irrespective of the use of public subsidies or other forms of assistance; and
- associated displacement effects (ie. whether the achievement of desired outcomes occurs at the expense of other firms or people).

The development and implementation of appropriate evaluation methodologies is required to address such theoretical and practical problems, including the less tangible aspects of regional objectives such as valuing environmental and social cohesion outcomes. More research on long term impacts (eg. longitudinal studies) and evaluation methods is needed to better identify the causality of regional changes. Within Australia, for example, a lack of long term studies and robust evaluation methods of Australian labour and employment interventions has been noted, with inadequate attention given to displacement effects in previous labour programme assessments (Industry Commission, 1993).

The regional development literature is also characterised by a collection of theories and ideas that are loosely connected with limited empirical estimation and validation of theoretical constructs about how economies develop. It is acknowledged that regional development policy is a science, and as such, is still an evolving process. In the Australian context, there would be benefit from further fundamental research into the dynamics of regional growth in light of rapid technological and social change (ie. implications of the so–called knowledge economy), and closer investigation of the role of such aspects as:

- social capital;
- innovation, research and development; and
- industry clusters and industrial organisation.

For example, there is no standard methodology for the analysis of industry clusters (Stimson, Stough and Roberts, 2002). Researchers and practitioners have adopted a variety of approaches, both qualitative and quantitative. The quantitative approaches typically analyse industrial sector data using methods that range from measures of industry size and change (eg. employment, wages, number of establishments) to measures of inter–industry linkages (eg. input–output models). Researchers have called for more qualitative analyses, using techniques such as interviews, focus groups and surveys, to learn more about the structure of supply chains and the underlying hard and soft infrastructure that supports their development (Stimson, Stough and Roberts, 2002). A combination of quantitative and qualitative approaches may be required to better understand the role of explicit and "tacit" knowledge transfers between related firms and individuals considered the foundation of the knowledge based economy.

Boddy (2000) in particular highlights a lack of progress with interventions to establish technology precincts in Victoria based on the geographic cluster of industries with specific core technologies and commercial linkages. He attributes this partly to the uniqueness of regions with their own particular histories and influences and the seemingly overstatement of the success of

> "...the same fairly limited places recurring in the literature, such as Silicon Valley" (Boddy, 2000; p.316)

The issue revolves around the degree to which the geographic clustering of local activities and firms is the key ingredient to competitive success compared with the broader nature of networks and innovative production systems. For example, inter–firm collaboration is prevalent among many large firms and establishments that serve international markets and cooperation takes place over wide areas rather than locally (Hansen, 1996), as demonstrated in the case for the US petroleum products distribution industry (Upton, 1995). While business networks are important, it may be those networks beyond the immediate locality, such as downstream producers and export market contacts, that are particularly important in the Australian context (Boddy, 2000). There is a need to take a critical look at the applicability of factors considered important for successful industry cluster initiatives in an Australian context, given the limited number of international case studies and their evolving nature based on new growth theories.

Finally, it is worth noting calls in the US literature for improved evaluation practices and research methods, highlighting such important issues as:

- the failure to document a casual link between many programmes and local economic outcomes (General Accounting Office, 1996);
- poor evaluation practices by many administering US agencies of popular instruments such as enterprise zones (Boarnet, 2001); and
- the improper use of cost–benefit analysis (Buss and Yancer, 1999).

These issues are demonstrated by reference to the evaluation of tax incentive programmes such as enterprise zones widely adopted by state governments in the United States. Extensive surveys of the evaluation literature have found that the effectiveness of enterprise zone strategies is still an open research question, although the evidence is increasingly negative. Despite little evidence of enterprise zone success in the United States, researchers contend this does not infer that the concept is flawed. Rather they point to the paucity of research on the effects that land use and community planning may have on the success of such programmes and that these factors may be a significant determinant of success. It is apparent that problems associated with enterprise zone strategies are more complex than merely providing selective financial incentives to attract external business. Further research is needed on the extent to which integrated land use planning and other social conditions such as education, human services, public safety, infrastructure can influence investment decisions and renewed development within designated zones. This would include more research on the potential role and effectiveness of related instruments such as business incubators, technology transfer initiatives, management assistance and venture capital provision.

APPENDIX I — REGIONAL DEVELOPMENT THEORIES

The following review provides a synopsis of the more influential regional economic and development theories that have influenced regional policies and draws on previous work by the Bureau of Industry Economics (1994), Armstrong and Taylor (2000) and Plummer and Taylor (2001).

Neo–classical perspectives — supply side models

The economics literature has tended to emphasise either supply side factors (the neo–classical approach) or demand side factors (Keynesian approach) as key determinants of the economic growth process, and the central importance of comparative advantage as the basis for trade between regions. The neo–classical approach to explaining aggregate economic growth is largely attributed to Solow (1957), emphasising three main sources of growth in a region's (or nation's) output – growth in the labour force and capital stock, and the rate of technological progress. According to the model, capital and labour will move to those regions offering the highest returns and producers will seek those regions with the highest profits. Other underlying assumptions include perfect competition in all markets, constant returns to scale and diminishing returns to all factors of production. The model predicts that:

- output will grow so long as supplies of capital and labour increase;
- output per worker can increase only if there is capital deepening (additional capital inputs per worker) or technological improvement; and
- when the capital to labour ratio reaches its long–run equilibrium level (ie. output, capital and labour are growing at the same rate), there can be no further increase in output per worker, unless there is further technological improvement.

The implications of the model suggest that wage rates will be relatively high in regions with a high capital–to–labour ratio but that the marginal return to capital investment will be low. This implies that labour will flow to high wage regions and capital will be attracted to low–wage regions until inter–regional flows of labour and capital are equalised across regions. The basic neo–classical approach therefore predicts convergence in regional per capita incomes over time. A considerable number of empirical studies have investigated this issue with seemingly inconclusive results, with evidence of both convergence and divergence amongst selected countries (Bureau of Industry Economics, 1994). This may partly reflect differences in the mobility of labour and capital markets, thereby affecting the speed at which labour and capital is able to flow between regions and influence regional incomes and output.

The role of technological progress as a key driver of long–run economic growth has been further explained through a range of more recent theories that extend the basic neo–classical approach. These theories have become known as "endogenous" growth models and attempt to explain the pivotal importance of technology and the dynamics of how technical change is determined through social and other organisational factors (see below).

Export demand (Keynesian) perspectives — demand side models

It is therefore not surprising that the role of trade and exports in influencing a country's growth and output has extended to the analysis of regional development. Drawing on the importance of natural resource endowments and local abundant factors of production, *staple theory* has been used to explain the historical growth of many resource–rich regions based on primary export markets and the flow of capital and labour into these regions such as early development of North America and Australia (North, 1955; McCarty, 1964). The central proposition of the export or *economic–base* approach is that the initial stimulus to a region's economic development is the exploitation of local factor endowments for export oriented industries (eg. such as agriculture, mining) that form *backward* and *forward* linkages with other related and supporting industries, stimulating further growth. The literature is less prescriptive about the conditions conducive to the growth of linkages between export and other industries, with examples of export enclaves that provide only limited employment and value adding in some regions (Britton, 1980). Some theorists have argued, however, there is sectoral bias in greater specialisation and export opportunities obtainable from manufacturing and processing based industries compared to land–based activities (eg. mining and agriculture). In the longer term, this is argued to lead to growing disparities in economic output and development between manufacturing and primary industry based regions (Kaldor, 1970).

The composition of aggregate demand (including exports) affecting a region's output includes the following broad categories:

- local consumption;
- private investment;
- government expenditures;
- exports; and
- imports (a leakage weakening demand for a particular region's output).

Private actions and government interventions influencing any of these categories of demand (eg. government expenditure on public services or private investment in a new plant) will affect a region's aggregate demand and output. In principle, the impact of changes in any of these categories of demand on a region's income can be analysed using regional income multipliers, drawing on the analytical foundations of the Keynesian income–expenditure approach developed in the 1930s. An injection of expenditure will produce an increase in a region's income which is a multiple of the original injection, depending on the extent to which the injection flows through to locally produced goods and services and leakages out of the region in the form of imports. Input–output analyses, based on the initial work of Leontif in the 1930s, also provide an alternative means of assessing the income and employment effects of changes in demand based on the interrelationships between the inputs and outputs of the various sectors of a regional economy. Input–output tables provide a snapshot of a region's economic structure and are often used by policy makers to assess the impact of large investment projects on the level of economic activity within a region.

Cumulative causation perspectives

Additional regional development explanations known as *cumulative causation* approaches differ from the basic neo–classical model (presented above) in the sense that growth is considered an inherently unbalanced process contributing to divergences in regional per capita incomes and performance over time. These theories may be regarded as taking a medium term view compared to neo–classical theories that assume inter–regional flows of capital and labour will equalise returns over the long term. These theories are derived from a mix of disciplines such as economic geography and management science and draw on a range of supply and demand factors and other organisational, trade and social characteristics. These approaches, often described as "soft" development theories due to a lack of applied mathematical rigour and empiricism (Plummer and Taylor, 2001), have played a discernible role in the development of regional policy thinking in recent years, particularly in Europe. They include models commonly described as:

- agglomeration economies;
- growth poles;
- flexible production systems;
- learning regions;
- product–life cycles; and
- competitive advantage.

As an initial starting point, explanations for the marked concentrations of economic activity in large metropolitan areas have tended to focus on the lower costs associated with the close proximity of firms and individuals in what have been termed *agglomeration economies*. These economies arise from the geographical association of a large number of economic activities and facilities jointly serving a range of industries that reduce production costs (Tiebout, 1957; Webber, 1972; Porter, 1990). Lower costs may be in the form of transport cost savings, business networks, more efficient operation of concentrated labour markets and the close proximity of consumers and markets thereby reducing transaction and distribution costs. These factors create *external economies* for firms in the sense that the cost savings are generated externally to the firm and not a direct result of changes within their individual production process.

The geographic concentration of industries (commonly referred to as *localisation*) is argued to occur largely because firms find it advantageous to cluster or concentrate in the same geographical area. These principles were recognised as early as Marshall (1920) in the context of the concentration of manufacturing firms and industrial districts in the late nineteenth century. Concentration allows greater specialisation in production between firms and increased labour mobility and skill enhancement through the close proximity of a large number of related firms. Cumulative growth processes are reinforced through the provision of public infrastructure and service industries from increased population concentration and the attraction of further skilled labour in expanding industries. The external economies of agglomerating regions may lead to *backwash* effects, by attracting capital and investment at the detriment of less developed regions. Similarly, there may exist some *spread* effects of positive spillovers to outlying regions through increased demand for some products and diffusion of knowledge. It is also recognised that at some critical point external diseconomies can occur in concentrated regions, such as urban congestion, pollution and excessive bidding–up by firms of certain factors of production such as city land and buildings (Bureau of Industry Economics, 1994).

The common theme of cumulative causation approaches is the self–perpetuating nature of the growth process and the notion that some initial activity gives rise to a process that advances the development of cumulative growth. *Growth pole* theories advanced by Myrdal (1957) and Hirschman (1958), drawing on the earlier work on "economic space" by Perroux (1950), stress the tendency for economic growth to be uneven across regions and for agglomeration economies to form around the success of progressive industries. These growth poles are founded on the establishment of large firms necessary to generate scale economies as well as business and social networks to promote the exchange of information, monetary flows, research and innovation. The growth of enterprising industries and regions, with forward and backward linkages with other firms and industries, are seen as having a number of key characteristics, including:

- a high degree of concentration with large economic units (firms and industries);

- high income elasticity of demand for their products;
- an advanced level of technology and managerial expertise and diffusion of knowledge; and
- promotion of highly developed infrastructure and service provision (Plummer and Taylor, 2001).

The *flexible production* framework (see Scott and Storper, 1992) for explaining dynamic changes between established agglomeration centres and new emerging centres focuses on the role of institutional and cultural factors in promoting more flexible systems of production and specialisation. These flexible systems contrast markedly with the mass production phenomena of twentieth century economic development — commonly described as "Fordist" in reference to large plant organisation and production systems. Growth in emerging centres is argued to arise through the existence of close networks of producers that are highly specialised, adopt the latest technology and interact in stable systems of organisation based on reciprocity and trust. These characteristics tend to reduce transaction costs and promote new product development and flexibility (eg. custom–made orders and sub–contracting) compared to Fordist systems of mass production. Examples used to support the flexible systems thesis include:

- the craft–based, design intensive industries of the north eastern and north central regions of Italy (known in the development literature as the "Third Italy"); and
- high technology centres such as Silicon Valley in California.

The emergence of the globalised and knowledge–based economy[1] has also focused regional development theory on the extent to which these factors contribute to sustained economic development, and the potential new importance of regions in the global economy (Garlick and Pryor, 2002). A corollary of the flexible production approach and the knowledge–economy is the concept of *learning regions*, where the key drivers of local economic growth comprise the transfer of information, knowledge and continuous learning amongst people and firms (see, for example, Asheim, 1997; Maillat, 1996). The focus of the learning region framework is on skilled human capital, intensive interconnection between agents (eg. firms, institutions and universities) and social bonds that create enterprise and specialisation through learning. Tacit

[1] The terms knowledge-based economy (or new economy) refer to a global phenomenon characterised by increasing economic integration across national boundaries, increasing pace of technological and social change with innovation leading to rising productivity, and increasing pace of flow and transformation of information and knowledge, facilitated by networked information technologies (Lee, Markotsis and Weir, 2002).

knowledge, through the informal exchange of information and ideas through social networks, is considered a key ingredient to economic development. Localities and communities are consequently considered environments that can facilitate the evolution of institutions and social networks that add to the process of accumulated learning and economic development (Morgan, 1999).

Alternately, the *product–life cycle* approach, based on the work of Vernon (1966) and Hirsch (1967), argues that a region is likely to follow a path of different stages of development as the competitive and technological conditions of its output change over time. Initially, new product development results in large returns to innovating firms through minimal competition. This is followed by progressive maturing of the production process with industry expansion through increased competition and standardisation of production technologies across a large number of producers and buyers. This process of standardisation tends to disperse the location of production and investment from the core regions to periphery regions based on the declining need for highly skilled labour and the transition to less costly production in peripheral regions. The key features of the model include the dynamic role of technological change and competition on a regions comparative advantage over time.

Various elements from the range of models discussed above have been incorporated into a framework of regional dynamics based on the notion of *competitive advantage* (Porter, 1990). Drawing on a business enterprise and managerial framework of decision making, the growth of regions is judged to depend primarily on the competitive success of firms through productivity growth, particularly in high–technology and value added industries. Firms and industries must continually strive to increase productivity through:

> "raising product quality, adding desirable features, improving product technology , or boosting production efficiency" (Porter, 1990, p.6).

This reflects similar notions to the product life–cycle model in emphasising the importance of technology and innovation in the competitiveness of outputs. The growth of innovative firms and supporting industries creates a self–perpetuating cluster of industrial activities. Determinants that influence these activities include: factors of production (such as skilled labour and infrastructure), demand conditions (home and export demand), related and supporting industries (presence and absence of supplier industries), firm strategy and rivalry (how companies are created and organised), and the role of government (regulatory environment and the provision of infrastructure and services). More recently the framework has elaborated on the role of "clustering" of related firms and industries to improve competitiveness through such processes as local specialisation, greater access to information, institutional support and technological leadership (Porter, 1998).

It is acknowledged that the competitive advantage approach draws on notions of flexible–production systems, learning regions and agglomeration economies from the economic geography literature (Plummer and Taylor, 2001). The approach has also been criticised for downgrading the importance of comparative advantage in factor endowments as a basis for explaining trade and regional development processes (Davies and Ellis, 2000), particularly in the context of prosperous resource rich economies such as Australia, Canada and New Zealand.

Endogenous (or new) growth theories

As noted above, the neo–classical growth model argues that long–term growth is ultimately driven by the rate of technological progress but offers little explanation of the explicit factors determining the rate of technological growth. *Endogenous growth* theory attempts to provide an extended explanation of the causes of technological progress based on the notion of the knowledge economy (see, for example, Romer, 1990). Based on the premise that firms and entrepreneurs can gain an economic profit from the generation of new ideas, the exchange and sale of knowledge provides the stimulus for innovation and economic growth. A region's capacity to absorb or create technical innovation is determined by the collective learning process where individuals and firms interact and exchange ideas (Rauch, 1993). Important factors influencing the rate of technological progress include the knowledge and skills of entrepreneurs and workers (human capital) and the degree to which the institutional and social environment is conducive to the adoption of new ideas into the production system. Economies of scale brought about by the geographic concentration of highly skilled people and related knowledge–based industries are considered a key driver for regional growth.

As highlighted elsewhere, the idea of a knowledge based economy has polemical or controversial tones in much of the literature (Cairney, 2000), with little quantitative evidence of the external economic benefits to be gained from the geographical concentration of highly educated people (Armstrong and Taylor, 2000). Nevertheless, there is wide consensus that high levels of investment in education have significant implications for human capital and the growth of economies (Bassanini and Scarpetta, 2001) and the concept of the knowledge–economy continues to be of ongoing research and regional policy interest, particularly in the United States.

Social capital and cohesion — social perspectives

Another major thread of development theory is primarily concerned with the social structure and conditions that bind communities together and influence national and regional development goals. The notion of *social capital* is analogous to economic capital in the sense that it represents a stock of social resources or conditions that are used to generate community well–being. The term is, however, loosely defined and considered by many as an evolving concept. The OECD, for example, defines social capital as:

> "networks together with shared norms, values and understandings that facilitate cooperation with or among groups" (OECD, 2001c).

Similarly, *social cohesion* is commonly used in the context of the degree of inclusiveness of communities. The World Bank, for example, describes social cohesion as the social capital (the institutions, relationships and norms) that shapes the quality and quantity of society's social interactions. Community productivity and well–being depend on social networks and associated norms that allow various social groups to not only forge ties within and across communities, but find their interests supported in state and private sector systems and operations.

The social capital literature (Putnam, 1993; Woolcock, 1998; Witten–Hannah, 1999) draws on earlier sociological work on the role of bureaucracies and shared values in shaping capitalism and economic advancement (Weber, 1930). Putnam (1993) in particular has attributed the superior economic performance of some regions to the presence of high levels of social capital. Woolcock (1998) has expanded the concept to include the role played by social and economic institutions and governments in facilitating economic development.

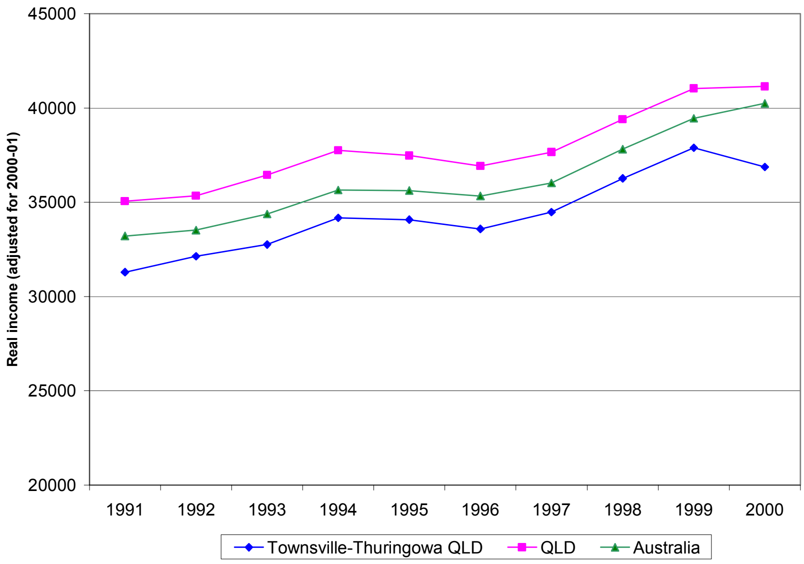
The broad features of the social capital approach encompass social cohesion, quality of governance and interactions between individuals and institutions. Social cohesion is reflected in the prevailing level of social trust, cooperation and networks of association (eg. voluntary organisations). The quality of the institutional environment is assessed in terms of transparency and accountability, bureaucratic efficiency, and control of corruption. The extent to which democracy is participatory rather than merely representative also indicates the degree of connection between civil society and institutions. The key outcome from these social arrangements is the potential for positive collective action as a driver of economic growth and development. Low levels of social trust and civic association, and dysfunctional institutional arrangements, are argued to impede economic activity by limiting the range of viable transactions and development opportunities.

APPENDIX II — REGIONAL CASE STUDIES

TOWNSVILLE–THURINGOWA, QUEENSLAND

The choice of an Australian case study was based on a summary measure of the socio–economic health of a region — regional growth in income and employment. An inspection of regional employment and income trends across Australia's statistical subdivisions identified significant variation in the performance of regions as a result of structural and other cyclical factors. The local area of Townsville–Thuringowa[2] (Townsville) in north Queensland was selected on the basis of consistent income and employment growth over the past decade. The choice of Townsville also allowed assessment of a region relatively isolated from the peripheral influences of close proximity to a major city, such as Brisbane. Figure B below demonstrates that average real income trends in Townsville until 1999 commonly mirrored national and state growth trends.

FIGURE C: NATIONAL, QUEENSLAND AND TOWNSVILLE–THURINGOWA REAL INCOME PER TAXPAYER 1991–2000

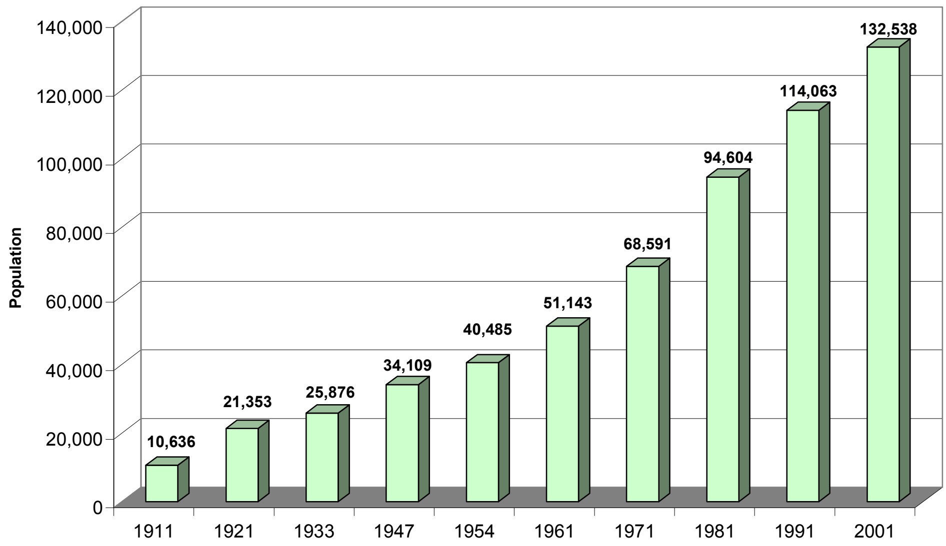


Source Australian Tax Office, 1993 to 2002

2 The Townsville–Thuringowa region is defined as the Townsville and Thuringowa Local Government areas.

Average real income per taxpayer over the 1991–2000 period shows Townsville maintaining steady growth in line with national trends. Furthermore, the long–term trend has been for an average employment growth rate of 1.86 per cent per annum since 1986. Historically, the resident population has grown steadily by between 1.2% to 2.9% (ABS Cat. 2015.3), as shown in Figure C below. Townsville can therefore be seen as a community that has not "fallen behind" in the face of globalisation and other adjustment pressures.

FIGURE D: TOWNSVILLE–THURINGOWA POPULATION GROWTH 1911–2001



Source ABS Cat. No. 3105.0.65.001 Australian Historical Population Statistics
(Note: The series includes Townsville Part A and Thuringowa Part A only. Both Part Bs are not included.)

Development factors

Today, Townsville is primarily a service centre and port hub for northern Queensland that continues to build on its traditional mineral processing, cargo and defence foundations. It is a well–serviced centre, providing the physical, community and lifestyle infrastructure and services necessary to support and attract an expanding resident population. While the economy supports a mix of traditional and service centre activities, Townsville has demonstrated strong growth in the retail trade, education, and health and community services sectors.

Early economic development in the Townsville–Thuringowa region was based on the discovery of gold and other base metals in the mid–1860s, and these goldfields provided the impetus for development of the mining and pastoral industries. In the late 19th century, Townsville was consolidated as a regional centre by port and transport infrastructure including the Great Northern railway link west to Ravenswood, and a southern railway link to Brisbane. By the 1920s, Townsville was established as a coastal centre, facilitating sea and rail cargo shipments for trading routes radiating in many directions.

The establishment of both the copper and nickel processing plants and the Lavarack Army Barracks prompted further population growth between 1947 to 1971. During World War II, Townsville became an important Pacific defence foothold, with the local airport being commissioned to the RAAF in 1939, and the accommodation of up to 100 000 Australian and allied military personnel. In 1966, the establishment of the Lavarack Army Barracks strengthened Townsville's defence presence. The city is now home to Australia's largest contingent of defence personnel, with over 4 500 Airforce and Army personnel.

Shift Share analysis

Shift–share analysis provides a descriptive tool for analysing regional growth and performance, by separating local from national growth factors and assessing the relative importance of industry sectors to overall growth. Shift–share analysis has been widely used since the 1960s and is relatively simple to calculate from readily available information (Stimson, Stough and Roberts, 2002). Over a specific period, it measures regional employment changes attributable to the following three factors:

- ***National growth share (NGS):*** This represents the change attributable to overall national trends. That is, the number of jobs lost or gained in a region if total employment in the region had changed at the same rate as overall total national employment (ie. NGS = local industry employment * national average growth rate of total employment).
- ***Industrial mix share (IMS):*** This represents the effects that specific industry trends at the national level have had on the change in the number of jobs in a region. Negative numbers indicate slower than average industry growth or possible industry decline (ie. IMS = local industry employment * (national industry growth rate – national average growth rate)).
- ***Regional shift (RS):*** This represents the extent to which local factors contribute to regional industrial employment growth or decline. A positive number usually indicates some local comparative advantage or competitiveness for the relevant industry (ie. RS = local industry employment * (local industry growth rate – national industry growth rate)).

By summing NGS, IMS and RS, the ***Total Shift*** is identified. This refers to the total number of jobs created (or lost) due to the combined effect of overall national trends, differential growth across the mix of industry sectors, and regional competitiveness.

For this study, shift share analyses were conducted using the base period of 1981 and end period of 2001 to compare Townsville and Queensland with national employment trends. Table 3 summarises the key results.

TABLE 3: TOWNSVILLE AND QUEENSLAND EMPLOYMENT CHANGE, 1981–2001

Industry	Townsville				Queensland			
	NGS	IMS	RS	Total shift	NGS	IMS	RS	Total shift
Agriculture, Forestry & Fishing	184	-217	418	**386**	29606	-34814	11041	**5832**
Mining	110	-131	830	**809**	7496	-8894	3413	**2015**
Manufacturing	2212	-2543	944	**613**	56078	-64457	49015	**40636**
Electricity, Gas & Water Supply	360	-753	215	**-178**	6368	-13320	4990	**-1961**
Construction	1186	53	1044	**2283**	30352	1364	11452	**43167**
Wholesale Trade	1136	-410	-176	**550**	23257	-8397	12653	**27513**
Retail Trade	2299	1134	1568	**5001**	50915	25114	47698	**123728**
Accommodation, Cafes and Restaurants	646	1246	82	**1974**	13036	25159	20414	**58609**
Transport & Storage	1659	-1182	-686	**-209**	23995	-17098	16984	**23881**
Communication Services	417	-193	-154	**70**	8590	-3982	-764	**3844**
Finance & Insurance	572	-137	-465	**-30**	13114	-3148	4789	**14755**
Property & Business Services	819	2721	41	**3581**	20426	67904	17986	**106316**
Government Administration	2435	-1844	1497	**2088**	24536	-18583	14073	**20026**
Education	1211	641	836	**2688**	18909	10013	46251	**75173**
Health & Community Services	1151	1318	1740	**4208**	24948	28564	39597	**93109**
Cultural and Recreational Services	318	529	112	**959**	5807	9658	8444	**23909**
Personal and Other Services	503	613	308	**1424**	9615	11732	14126	**35473**
Total	**17218**	**845**	**8154**	**26217**	**367048**	**6815**	**322162**	**696025**

Source Source: ABS Population and Housing Census 2001, place of resident data (excluding overseas visitors) for Townsville and Thuringowa Local Government Areas.

Between 1981 and 2001, national employment grew by 45.58%. The National Growth Share component shows that if the local and State employment rates were identical to national employment trends, Townsville and Queensland would have grown by 17 218 and 367 048 jobs respectively. In fact, both Townsville and Queensland outperformed the national average with 26 217 and 696 025 jobs created between 1981 and 2001.

The Industrial Mix Share may partly explain this growth shift. Some sectors grow more rapidly than others. Over 1981 to 2001 the fastest growing sectors nationally were property and business services, accommodation and eateries, retail trade, education, and health and community services. Declining industries included agriculture, manufacturing and mining. The overall industrial growth component implies that Townsville has 845 and Queensland has 6 815 more jobs than they would have if their industry structures were identical to the national trend.

Finally, the Regional Shift suggests that Queensland demonstrates competitiveness in all industries except communications. Townsville has also displayed stronger than average national growth in all but four industries (wholesale trade, transport & storage, communications, finance & insurance). Townsville demonstrates particular competitiveness in the retail trade, government administration, education, and health and community services sectors. Furthermore, Townsville demonstrates strong local performance in the slower growing industries of mining, agriculture and manufacturing.

However the regional shift accounts for a much lower proportion (31 per cent) of Townsville employment growth than for Queensland as a whole (46 per cent), suggesting local area policies and comparative advantage may not have been as important to Townsville's growth pattern when compared with State level trends. A separate shift–share analysis of Townsville's employment growth relative to the Queensland economy over the same period indicates that the only industries that demonstrate stronger local performance include agriculture, forestry and fisheries, mining, construction, and government services.

The Proportionality Effect shows that, after the effects of national trends, industrial mix and regional shift are aggregated, both Townsville and Queensland local industries are nationally competitive. In fact, between 1981 and 2001, Queensland has improved its total share of national employment from 14.5% to 18.5%, while Townsville has improved from 0.7% to 0.8%.

Key development drivers

Singling out the factors of relevance in Townsville's development requires a degree of speculation, particularly given that development is a cumulative process dependent on a range of variables. However, using information from the shift share analysis and available literature, the following factors appear to play key roles in Townsville's development:

- ***Long–term cumulative growth:*** Over Townsville's 140–year history of economic development, sustained growth has been driven by various forms of economic activity and assisted by government intervention. The shift–share analysis demonstrates Townsville's ability to capitalise on endogenous potential and diversify to maintain robustness and weather shocks. Sustained government interventions may have complemented private investment to promote development of the region's geographic and traditional strengths.
- ***Diverse economy:*** A summary measure of economic diversity is the number of residents employed in the three highest employment–generating industries of a region. In 1981, manufacturing, retail trade and government administration accounted for 40% of Townsville employment. By 2001, government administration, retail trade, and health and community services accounted for 38% of employment. This is comparable with State (1981:

35%, 2001: 37%) and national trends (1981: 40%, 2001: 39%). In 1998, the ABS Business Register listed 6565 businesses in the Townsville region. Sixty–six percent of these businesses employed between 1–4 employees, while only 6% of businesses employed over 20 staff. The shift share analysis also shows that over the past two decades Townsville's economy has diversified towards high growth sectors such as retail trade, property and business, and health and community services. Over this period, these sectors have contributed 12 790 jobs to the Townsville economy, or 49% of total employment growth. Retail trade, in particular, has benefited from population growth and higher retail expenditure per capita in the region (Townsville Enterprise Limited, 2002).

- ***Well developed infrastructure services:*** Townsville is an export hub for northern Queensland, and has a well–developed port facility with bulk handling capabilities, rail networks and a major highway servicing the north–south coast with links to the west, an international airport and an RAAF base. Townsville also has several public and private hospitals, three dams constructed between 1950 and 1988 to improve water supply, and a university. Townsville's infrastructure has been variously funded through private capital investment (ports, retail precincts, residential development) and public sector expenditure (rail, road and defence infrastructure, public health and educational facilities). In 1986, the State government implemented a uniform energy tariff system that equalised tariffs across Queensland. This energy subsidisation continues today, despite the competitive energy market start–up in 1997. The policy is designed to promote the supply of competitively priced gas and electricity to provincial cities and forms part of the State government's regional and industry development strategy. In 2001, a Regional Infrastructure Strategy was developed for the Northern Region, of which Townsville is the major centre. The strategy outlines the major development opportunities and infrastructure priorities with 5–10 year forward planning. Identified infrastructure priorities include augmentation of water supplies and management practices, port development and road/rail access linkages, and development of a gas–fired base load power station in Townsville.
- ***Knowledge clusters:*** Between 1981 and 2001, the education sector has accounted for between 7–13% of Townsville employment, which compares favourably with the national trend of 6–12%. A university college was established in 1961, later to become James Cook University of Northern Queensland. Knowledge intensive industries are supported by institutions such as the Australian Institute of Marine Science, CSIRO, Great Barrier Reef Marine Park Authority, Barrier Reef Institute of TAFE and eight James Cook associated Cooperative Research Centres in subject areas as diverse as sustainable sugar production and tropical savannas management. A State funded Innovation and Technology Advisory Group also exists in Townsville, focused on commercialisation of research, technology transfer

and improved productivity within tropical biosciences and mineral processing.

- ***Skilled labour force:*** The proportion of residents with tertiary qualifications has grown from 4.6% in 1986 to 10.8% in 2001. While this is below the national average of 12.9%, it compares favourably with an average of 7.9% for all outer regional areas. The Index of Education and Occupation indicates that most of Townsville is within the national median range, while 25% of statistical local areas are above the median. This indicates a high concentration of residents with high educational attainment and workers in higher skilled occupations (Australian Bureau of Statistics, 1996).
- ***Administrative decentralisation:*** Over the past two decades, between 12–15% of Townsville's employment has been within the public service, primarily through defence. Since 1986 the Queensland government has pursued a policy of decentralisation of public administration. While this has had a modest impact on Townsville employment (a small increase from 0.7% to 1.1% of total employment), it is likely to have had positive implications for regional policy planning and delivery through the 34 State agencies represented in Townsville. The Commonwealth government has 43 agencies with a local presence, and has accounted for between 9–12% of total employment between 1981 to 2001. This presence continues to provide a stimulus for the Townsville local economy, creating demand and providing an economic base for agglomeration.
- ***Multi–tier regional statutory authorities:*** Since the 1990s, Townsville has been a beneficiary of stable council and government administrative arrangements. Townsville Enterprise Limited (TEL), a regional economic development corporation established in 1990, provides a forum for cooperative and coordinated community participation in local development. At the State level, an Office of Regional Development, operating on behalf of the Department of State Development, has a base in Townsville. The Office aims to facilitate whole–of–government service delivery, community empowerment and capacity building. At the Commonwealth level, the area hosts an Area Consultative Committee (ACC). ACCs are volunteer community based organisations that work in partnership with the Commonwealth Department of Transport and Regional Services to identify opportunities, priorities and development strategies for their region. To date, the impact of these bodies and their implementation of policies have not been comprehensively evaluated.
- ***Better Cities Initiative:*** South Townsville was selected as a beneficiary of the five–year Commonwealth Better Cities Initiative, commencing in 1991. The 1996 Better Cities evaluation noted that Townsville lacked a well–rounded development strategy predating the Better Cities Area Strategy, and that the adopted strategy was weighted towards enhancing the residential character of the area rather than economic development. Projects completed under the Area Strategy included preparation of a new

development control plan, sewerage and drainage works, revising road hierarchy and traffic patterns, enhancement of parks and gardens, creation of noise buffers near the rail line, construction of new public housing, street–scaping and provision of a kindergarten.

Several of Townsville's development factors accord with findings from several international case studies of successful peripheral regions — namely a strong public service or university presence and evidence of a service centre for smaller hinterland communities (Polese et al., 2002). While not formally quantified here, the presence of educational institutions has likely facilitated technology and knowledge transfer, and improved productivity in local industries. Townsville also benefits from a diversified economy that builds on its locational strengths in traditional industries, while incorporating a variety of industrial employers in fast growing sectors. For example, continuous development of Townsville's infrastructure and transport network linkages has facilitated agricultural, industrial and commercial interests as well as residential growth. Stable public sector jobs have also provided a stimulus to employment and generated multiplier effects. Although Townsville does not enjoy the benefits of the peripheral effects of proximity to major cities, it has become established as an outer regional service centre in northern Queensland. Together, these factors have facilitated the process of agglomeration and sustained growth at the regional level in Townsville.

In terms of the role of government, Polese et al (2002) point out that policy plays an important, but not a determining, role. The development of infrastructure, construction of hospitals and educational institutions, and decentralisation of public sector employment aid in regional development insofar as they build on locational and agglomeration advantages. The Townsville experience demonstrates positive outcomes from a combination of interventions over a sustained time period designed to build on the region's geographic and traditional strengths.

THE EUROPEAN UNION LEADER INITIATIVE

The LEADER initiative (translated as Links between Actions for the Development of the Rural Economy) provides an example of a large–scale intervention strategy targeted to the differential experiences of rural, lagging and sparsely populated regions. LEADER has proven to be a relatively inexpensive, effective and well–evaluated initiative that provides some useful lessons for Australian regional policy. In essence, LEADER represents a highly flexible, local grants programme tailored to declining rural communities of less than 120 inhabitants per km^2.

LEADER emerged from the 1988 European Commission *The Future of the Rural World* statement for a European rural development policy. The statement underlined the need to try new development approaches and engage rural communities in seeking solutions. The first generation of LEADER Community Initiatives was integrated into the Structural Funds policy in 1991. Since then, LEADER has evolved through three funding rounds, and extended from 217 regions in LEADER I, to all European Union rural areas in LEADER+. Around one percent of the European Commission budget is allocated to LEADER.

The framework of the grants programme requires local groups to submit their development proposal to the national and/or sub–national authority. This authority is responsible for the selection and implementation of local projects. Authorised proposals are then submitted to the European Commission. The EC Directorate–General for Agriculture oversees LEADER. In 1995, the LEADER European Observatory was established to take carriage of the technical implementation and coordination of LEADER, and the development and dissemination of methodological tools. The Observatory's functions are contracted to the non–profit European Association for Information on Local Development (AEIDL).

In practice, LEADER funding is most frequently apportioned to area–based development strategies that capitalise on local resources and know–how. A variety of measures are supported under the general themes of technical support for rural development, vocational training, support for rural tourism, support for small business, local exploitation and marketing of products, and preservation and improvement of the environment and living conditions of a region. Within these themes, a wide range of strategies are used, including employment of full–time regional development officers (known as 'animators'), establishment of new accommodation facilities to promote rural tourism, and upgrading of the quality and organisation of product chains, networking, interregional and transnational cooperation, and capacity building.

Key aspects of the initiative include:

- *Innovation through the development of endogenous potential*: Actions must promote local resources in new ways, be of interest to local development but not be covered by other development policies, provide answers to weaknesses and rural problems, or create a new product, process, form of organisation or market.

- *Area–based strategy:* Involves defining a development policy on the basis of an area's own particular situation, strengths and weaknesses. Areas are functionally or culturally defined, rather than politically or administratively. The development strategy must be economically viable and sustainable.
- *Bottom–up approach*: Promotes participatory decision–making, community ownership and capacity building by involving local actors.
- *Networking and trans–national cooperation*: Considered to be the "value added" of the programme as it is not commonly provided in other programmes. Intensifies cooperation and knowledge exchanges between regions.
- *Public–private partnership approach and the 'local action group' (LAG):* The LAG is a partnership of local public and private players that identify and commit to a joint strategy and local action plan.
- *Integrated multi–sectoral approach*: The strategy proposed must demonstrate that it is not merely a collection of projects or sectoral measures, but an integrated body of linked and coordinated actions.
- *Local financing and management:* In order to provide flexibility and autonomy, global funds are delegated to the LAGs who are responsible for the majority of funding and management decision–making.

Outcomes–based evaluation underpins LEADER monitoring. Assessment is sought for the purpose of transferring innovation and lessons, and to inform enhancement and improvement of LEADER policy. Importantly, the outcomes and *processes* of regional development are weighed equally in evaluation.

Ex–post evaluation of LEADER I has estimated a total employment effect for the 217 involved regions of 22 250 full time jobs, 3 600 part time jobs, and 5 000 new enterprises about half of which were in rural tourism (European Commission, 1999; European Commission 2002b).

Key issues and lessons

The key features of the LEADER programme of direct interest to Australian regional policy is its emphasis on:

- The locally based approach was evaluated as a very positive component of the initiative. Smaller areas favour internal social cohesion and mobilisation actions. Bigger areas favour the achievement of 'critical mass' of resources and the acquisition of competitiveness through innovative actions. The open and inclusive nature of criteria invited participation by a wide audience of participants. However, a critical mass of resources (financial, human, and economic) is recommended as a basic criterion.

- Creation of new small enterprises was favoured over provision of new services. The demand for this type of action was unexpected, and initially underestimated. Over 27,000 beneficiaries of new enterprises were recorded, with diversifying farmers representing 25% of the final beneficiaries.
- Training created a higher level of qualification, but in many areas had no significant impact on employment opportunities.
- The quality of business plans and strategies was generally unsatisfactory. A number of factors contributed including lack of experience, rushed timelines, lack of comprehension of the concepts underpinning the initiative, reference to national and regional policies (which were top down and generic). Precise guidelines and procedures for the implementation of key concepts have since been developed for LEADER II and LEADER+.
- Local Action Groups were the most relevant feature, providing a local level of governance with resources, legitimacy and decision making power. LAGs dominated by public administrators were found to be the least innovative. LAGs dominated by private partners were the most innovative, attracted public support and promoted new and visible actions, but sometimes bred conflictive relationships with existing institutional players and often had difficulties obtaining required co–financing. The most successful LAGs had a balance of public and private interests represented, and the evaluation recommends clear privileging of this type of partnership.
- Vertical partnership was a relevant factor. Where it worked, intermediate bodies effectively managed assistance to LAGs regarding financing and eligibility of action, treasury and guarantee aspects. In less successful cases, intermediate bodies could act as an obstacle by providing funding and procedural blocks. The evaluation recommends more clarity on the division of work among the shareholders of the vertical partnership. Some Member States feared that LEADER might undermine the existing policy delivery mechanisms, and that it might challenge the existing distribution of powers.

The primary benefit for regions experiencing slow decline or slight growth tended to be improvements in local democratic dynamics and participation. This was also true for nations with devolved government, long–standing rural or spatial planning policy or other measures specifically targeted at rural areas. For such nations — which includes France, Austria and Sweden — LEADER has served to consolidate or launch local partnerships and integrated endogenous development approaches. However, the national policy has taken precedence.

APPENDIX III — OTHER REGIONAL COMPARISONS

A recent comparative assessment of government intervention approaches for regional development was undertaken by McNiven and Plumstead (1998). In that study, the findings were presented in terms of four dimensions of regional development policy approaches: focus, governance, intended impacts and instruments. A comparison of the main findings for selected countries with similar geographic and socio–economic characteristics to Australia is provided below (Table 4).

TABLE 4: INTERNATIONAL COMPARISON OF REGIONAL DEVELOPMENT APPROACHES

Country / International Region	Focus	Governance	Impact	Instruments
European Union	Regional disparities in income and employment	European Union and national government agreements	Improve employment and GDP per capita	Grants and special agencies
Canada	Employment growth in low employment, rural and dispersed populations	Federal/provincial agreements	Reduce unemployment and maintain local populations, protect territorial sovereignty	Repayable soft loans, infrastructure expenditures and SME assistance
United States	Infrastructure development and reduction of unemployment	Primarily state governments, some federal expenditures	Relieve sectoral and labour migration problems	Tax concessions, grants and infrastructure expenditures
Australia	Infrastructure, and employment adjustment	Federal/state agreements	Ensure competitiveness and social adjustment	Infrastructure expenditures and grants

Source: McNiven and Plumstead (1998).

Other global studies have assessed the underlying attributes common to many internationally competitive regions, including the role of governments in facilitating the economic development of such regions. A study commissioned by the Welsh Development Agency (2002), for example, has identified six major themes of activities supported by governments that tend to underlie regions that have grown consistently over time within an internationally competitive environment. These common themes are summarised below (Table 5).

The Organisation for Economic Co–operation and Development has also devoted considerable attention to "best practice" principles in regional development and regularly reviews the experience of member nations. The OECD's Territorial Development Unit has identified a number of lessons for successful intervention strategies. In particular, they note that strategies that do not generally work (Huggonier, 1999 as reported in Beer, 2000) include:

- those that provide financial assistance through bureaucratic channels to lagging regions;
- artificial interventions that try to simulate substantial growth in a limited number of sites. These growth centres either fail or result in enclave development where footloose industries locate for the period of the subsidy, without any links to the wider economy;
- infrastructure projects that bear no relationship to the demand for that service or facility;
- direct assistance to declining industries in order to protect one or more local economies; and
- infrastructure decision making based on short–term demands rather than long–term needs.

Alternately, Huggonier (1999) identified a number of positive actions in regional development policy. These were:

- the creation of an environment more suitable for small and medium–sized enterprises;
- the consolidation and improvement of infrastructure; and
- the encouragement of entrepreneurialism or formation of new businesses.

The OECD also considers that the creation of networks and industry clusters are an important means for stimulating and maintaining growth (OECD, 1997). Building connections to the global economy through industry clusters and business networks may raise regional incomes and create more resilient economies. Foreign direct investment is also considered important since it can provide a connection to the global marketplace and policies should be directed to the generation of linkages between foreign direct investments and local businesses (OECD, 1997).

TABLE 5: KEY THEMES FROM GLOBALLY COMPETITIVE REGIONS

Key themes	Interventions	Benefits	Selected examples
Vision, Leadership, Coordination and Funding	Establish regional networks Strengthen local capacity Develop long term "Vision"	Strategic approach to economic development Increased local ownership Effective local networks, public and private partnerships	Emilia Romagna (regional pacts) Auckland and Singapore (50 year plans) Ostergotland, Germany (regional contracts)
Clustering	Establish science and technology parks Support existing clusters Encourage emerging urban clusters	Sharing of skill development and technology "Hothouse" competition Improved business climate	Cleveland (cluster initiatives) Rhone–Alpes (sectoral associations) Emilia Romagna (industrial districts)
SME Support Systems	Promote entrepreneurship Strengthen schools, universities and business linkages Strengthen links between financiers and businesses	More collaborative research and technology transfer Business start–up incubators Risk capital more readily available	Singapore (Phoenix Award for "second time" businesses) Cleveland (advanced manufacturing centre) Emilia Romagna (SME loan scheme)
Role of Universities in Economic Development	Establish links between academia and industry Blur demarcations between research, product development and commercialisation Act as a focal point for diversification of economy	Think tanks on local economy Knowledge and ideas generated R&D facilities provided	Cleveland (Case Western Reserve University) Cambridge University (St Johns Innovation Centre) Darmstadt (R&D, SME incubators)
Human Resource Development	Vocational training Promote education and lifelong learning	Greater productivity and competitiveness Adaptability to market change Culture of self help and initiative	Singapore (Thinking Schools and Learning Nation) Cleveland (retraining of blue collar workers)
National and International Networking	Export promotion Targeted foreign investment Outward investment	Access to new markets Pooling of expertise Increased competitiveness	Emilia Romagna (Office for Internationalisation) Cleveland (Ohio State export promotion scheme)

Source: Welsh Development Agency (2002) — Competing with the World.

In addition, a number of national–level and cross–country empirical studies (refer World Bank web site www.http.worldbank.org/poverty/scapital) suggest that *social capital* facilitates increased economic performance through a range of mechanisms, including investment in human and physical capital, reduced transaction costs and greater levels of research and innovation (Killerby, 2001).

GLOSSARY

A summary of key terms and definitions commonly used in the regional policy development and evaluation literature is presented below.

Agglomeration — refers to the process of "agglomerating" economies through the geographic concentration of a large number of economic activities and facilities jointly serving a range of industries that reduce production costs. Lower costs may be in the form of transport cost savings, business networks, efficient operation of labour markets and close proximity to markets. Growth is reinforced through provision of public infrastructure and service industries from increased population and labour attraction in expanding industries.

Business incubators — facilities designed to nurture the development of new firms through provision of a range of possible services, such as access to office space, equipment and technology, management and entrepreneurial advisory services, marketing information and networking, and training.

Community economic development — the engagement of local communities and individuals in the formulation and implementation of local economic development initiatives and activities.

Counterfactual — refers to the case of what would have been expected to happen in the absence of a given intervention, thereby representing a baseline for comparison of the intended impact of the intervention.

Efficiency — refers to the ratio between outputs of goods and services and the inputs (ie. resources) used to produce those outputs. This relationship can be measured in physical terms (technological efficiency) or cost terms (economic efficiency). An economically efficient policy seeks to identify, for example, that combination of inputs that minimises the costs of producing a given output. The notion of economic efficiency implies that when all resources are allocated to their most highly valued use, the combination of goods and services produced in the economy result in the optimal level of social benefits.

Endogenous strategies — describes policies designed to promote internal (ie. local or region specific) drivers of regional growth through encouragement of local businesses and community capacities, particularly through the development of technology and innovation spill–overs between related firms, a highly skilled workforce and social capital initiatives. Endogenous strategies have been strongly influenced by *endogenous (new) growth* theories since the late 1980s that stress the exchange and sale of knowledge as the stimulus for innovation and economic growth.

Equity — refers to a broad social notion of "fairness" or equality in the distribution of the costs and benefits of goods and services within society. Policies aimed at improving *equity* objectives, for example, may address issues related to the disparate distribution of income and other benefits or opportunities (eg. access to services) that may exist between different groups within society and/or regions.

Evaluation — the systematic collection and assessment of information used to determine the merit and worth of particular interventions. Evaluations are usually based on a number of key criteria including the *efficiency* (ie. ratio of inputs to outputs, or costs and benefits), *effectiveness* (ie. extent to which objectives are realised) and *appropriateness* (extent to which policy remains relevant) of particular actions or policies.

Exogenous strategies — describes policies designed to promote external (ie. outside region) drivers of regional growth through encouragement of large firms located outside the target region with sufficient capital and employment potential to boost lagging regional economies, primarily through location based incentives or subsidies. Popular since the 1950s, these policies suffered over time from the "footloose" nature of firm investments, reduced competitiveness of subsidised industries, and weak connections between external and local businesses and communities.

Externalities — a situation where benefits or costs occur to particular groups within society (consumers or producers) that are not captured in the market through appropriate prices (eg. pollution impacts of a particular firm are not captured through higher input or production costs).

Ex–ante — refers to being applied before an action, such as an *ex ante* evaluation of a proposed policy or programme to assess its feasibility and likely chances of success prior to adoption and implementation.

Ex–post — refers to being applied after an action, such as an *ex post* evaluation of a given policy or programme to assess its actual performance against stated objectives and identification of areas for future improvement.

Fiscal equalisation — refers to the process of distributing fiscal (government spending) payments from a federal or central agency to regions such that an agreed standard of public services is maintained across regions.

Industry clusters — refers to the geographic concentration of competing but collaborating industries that export out of a region and draw on a common infrastructure, networking opportunities and supply–side relationships. The collaboration of firms and industries in industry clusters includes the sharing of *soft* (eg. supporting institutions and universities) and *hard* (eg. roads and ports) infrastructure in order to maximise the growth potential of industries.

Infrastructure — refers to the stock of *economic* (physical networks and facilities such as roads, water and power) and *social* (facilities used for provision of services such as education and health) assets within an economy.

Regions — geographic areas based on the delineation of broader areas (eg. countries) into pre–defined sub–national areas or "regions" for social, environmental and/or economic purposes. Regions can be defined in different ways depending on the scope of the intervention strategy and include both metropolitan and non–metropolitan areas.

Small and medium sized enterprises (SMEs) — refers to enterprises that have a low number of employees compared to larger firms that may be national or multi–national firms. While the precise definition of what constitutes a small or medium sized enterprise varies across jurisdictions, they are usually taken to include more numerous but smaller enterprises that may contribute to economic growth and employment in particular regions. The SME Statistics Division of the UK Department of Trade and Industry (1999), for example, reports on:

- small (less than 4 employees; and between 5 and 49 employees);
- medium (between 50 and 249 employees); and
- large (over 250 employees) businesses.

Social capital — term used to describe the degree of social trust, reciprocity and networks within a community that may enhance civic cooperation and community well–being. Greater levels of social capital have been argued to enhance economic performance through increased investment in human and physical capital, reduced transaction costs and greater levels of research and innovation.

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