Royal Commission on Renewing and Strengthening Our Place in Canada

Newfoundland and Labrador: Towards an Assessment of the Benefits of the Canadian Economic Union

By:
The Centre for Spatial Economics

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The views expressed herein are solely those of the author and do not necessarily reflect those of the Royal Commission on Renewing and Strengthening Our Place in Canada.

Abstract

Labrador and Newfoundland entered into Confederation with Canada in 1949. The new province helped "complete" the country from coast to coast to coast. It also brought an enormous wealth of natural resources including the Grand Banks Fishery and important military infrastructure. In return, Newfoundland and Labrador gained access to a growing range of national social programs, inter-governmental transfer payments and unfettered access to markets for goods and labour in the rest of country.

This report provides information to assist with the examination of the benefits to Newfoundland and Labrador and to the rest of Canada of the Canadian economic union with specific focus on the contributions the province makes to the Canadian economy in relation to fiscal and other benefits. These contributions are examined through the following relationships: (i) trade, or the import and export of goods and services; (ii) migration of people, both in their capacity as consumers and in their capacity as workers; (iii) interregional "migration" of other production factors, notably investment capital; and (iv) the national government's revenue collection and expenditure in the province. The analysis reviews the benefits from the Canadian economic union on each of these relationships providing a broad view of Newfoundland and Labrador's contribution to and relationship with the rest of Canada.

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About this Report

This report was prepared by The Centre for Spatial Economics, a consulting organization created to improve the quality of spatial economic and demographic research in Canada. The report was commissioned by the Royal Commission on Renewing and Strengthening our Place in Canada. The views in this report reflect those of the authors and are not necessarily those of the Royal Commission.

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Executive Summary

This report was commissioned by the Royal Commission on Renewing and Strengthening our Place in Canada to provide information regarding the economic, fiscal and other benefits to Canada and to Newfoundland and Labrador of the province's presence in the federation.

In 1949, Newfoundland and Labrador joined Canada to secure a brighter economic future for itself – and its new country. In the ensuing half century, Newfoundland and Labrador has certainly become wealthier but has struggled to keep pace economically with the rest of the country and with its trading partners. Perhaps unfairly, the province has too often been characterized as a place with no jobs and dependent upon the transfer payments it became entitled to upon Confederation.

A region's growth involves at least four kinds of external relationships: (i) trade, or the import and export of goods and services; (ii) migration of people, both in their capacity as consumers and in their capacity as workers; (iii) interregional "migration" of other production factors, notably investment capital; and (iv) the national government's revenue collection and expenditure in the region. This report examines the current state and evolution of each of these external relationships and in doing so provides information to help assess the benefits to Newfoundland and Labrador from the Canadian economic union.

Fiscal Benefits

This report finds that the federal government's net spending in the province has not been a major factor in the overall national fiscal position. Newfoundland and Labrador's size meant that more populous provinces receive substantially larger sums of federal money and have a larger impact on the federal government's overall fiscal position.

Federal spending in Newfoundland and Labrador has declined over the last few years. In fact federal spending in Newfoundland and Labrador as a share of spending throughout the country has fallen 0.5% over the last decade – the largest decline of any province – while over the same period Ontario and British Columbia have seen their share of Federal spending rise.

Trade Benefits

The rest of Canada has and continues to benefit from the economic union by exporting goods and services to Newfoundland and Labrador. Companies in Ontario and Quebec have benefited the most from trade with Newfoundland and Labrador. While consumers in Newfoundland and Labrador have benefited from lower prices for imported goods and services since Confederation, it is only now that Newfoundland and Labrador' businesses are starting to see a significant increase in their benefit from the domestic market.

Investment in the development of the province's major oil projects will continue to support high levels of imports for a few years. The production from these projects will, however, start to generate substantial export revenue and help push the trade balance towards a surplus position.

Labour Benefits

People from Newfoundland and Labrador can be found across the country making significant contributions to their local economy. This study estimated that for every 10 current residents in Newfoundland and Labrador, there are 4 people born in the province that are now living elsewhere in Canada. By moving to fill jobs required in the rest of Canada, the Newfoundland and Labrador labour force has acted to reduce labour market disruptions caused by labour shortages in other provinces. The current study estimates that a flow of workers to other provinces the amount of which is equal in size to the number of people born in Newfoundland and Labrador but now resident in other provinces would reduce competitiveness and economic performance leading to a $1.1 billion reduction in the federal government surplus. The latter amount is equal to about 40% of the current federal deficit in the province.

The loss of these people has, however, been at best a mixed blessing to Newfoundland and Labrador. The loss of productive workers and their associated demand depresses economic activity – but it does reduce competition for jobs for those that remain.

Natural Resource Benefits

For the last forty years investment capital has been concentrated in the development of the province's natural resources. While these projects have brought jobs and income there are lingering questions about whether the province receives an appropriate return on its natural resource wealth.

The impact of the Churchill Falls hydro-electric power contract with Hydro Quebec is significant. The loss in real provincial GDP[1] (1997 dollars) was estimated to be between $1,500 and $3,000 a person each year throughout the 1990s and – even at the lower end of the range – would be enough to pull Newfoundland and Labrador ahead of both Nova Scotia and New Brunswick in terms of per capita GDP. The benefits to Quebec's economy have been equally large – supporting the development of a powerful manufacturing sector and providing windfall gains on their electricity exports. The situation has, up to now, stalled the development of hydro-electric resources that would reduce Canada's dependence on fossil fuels and help us meet our greenhouse gas emissions targets.

The government of Newfoundland and Labrador appears to collect, at best, a modest return on its natural resource assets.

- The high costs of development and exploration mean that the province collects about one eighth the revenue per barrel of oil that Alberta does. This low revenue rate, combined with a comparatively short lifespan for the projects, means that Newfoundland and Labrador will not benefit from this resource to the same extent that the other oil producing provinces have.
- Provincial revenues from other mining activity are similar to those in other provinces. The more critical issue for this sector is to process the minerals locally. The recent agreement on development at Voisey's Bay should help the province benefit in a more significant way from this resource.
- Provincial revenues from the forestry sector are the second lowest in the country. The benefit from this resource appears to accrue to the owners of the province's pulp and paper mills.

Appropriate natural resources policies are extremely hard to define. Ideally, the province should capture a larger share of the economic rent from its natural resources to help ensure a more prosperous future. The analysis in this report, although limited in scope, would appear to support a review of the province's natural resources policies.

Other Benefits

Confederation brought a host of other benefits to Canada. The new province helped "complete" the country from coast to coast to coast. While politically Confederation prevented Newfoundland and Labrador from slipping into the United States orbit it has not inhibited the province's strategic importance to continental defence. By adding 406,000 square kilometres of land to the country, Canada gained a wealth of natural resources and dramatically extended its coastline. As a result, the adoption of the 200 nautical mile limit allowed Canada to add 1,826,000 square kilometers of offshore waters to its territory with access to all the riches of the Atlantic Ocean. This physical enlargement also provided a new shipping outlet on the Atlantic sea lanes with St. John's harbour and Gander airport is an important waypoint for international flights.

Finally, the people of Newfoundland and Labrador have not only contributed economically to the success of the rest of the country but have also enriched the culture of the nation through the work of its writers, artists, performers and politicians. The province also enriches our history as the site of the first European settlers in North America.

This report has explored some of the dimensions of the Canadian economic union and Newfoundland and Labrador's relationship with it. In 1949, a small economy became part of a larger economy. This action entailed the creation of a customs union for the movement of goods, services and capital; the removal of barriers to labour movement; and the reduction of non tariff barriers. The process of adjustment to these changes has defined economic development in the province since Confederation. With the tumultuous decade of the 1990s behind it, Newfoundland and Labrador can now look forward to a period of sustained growth. The process of adjustment and integration is still ongoing and the policy choices made in St. John's, Ottawa and the other provincial capitals will help determine how the benefits of the economic union affect the people of Newfoundland and Labrador.

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Introduction

The Royal Commission on Renewing and Strengthening our Place in Canada was proclaimed to address the issues surrounding the province's relationship with Canada. This report was commissioned by the Royal Commission to provide information on the benefits to Newfoundland and Labrador and to the rest of Canada of the Canadian economic union with specific focus on the contributions the province makes to the Canadian economy in relation to fiscal and other benefits. The report consists of several chapters focusing on the following topics:

1. A review of Newfoundland and Labrador's place in the Canadian economic union;
2. An examination of the fiscal balance and major trends in this balance over the last decade;
3. A review of Newfoundland and Labrador's trade patterns in both international and interprovincial terms;
4. The economic impact of net out-migration;
5. The economic impact of the Churchill Falls contract;
6. A review of other natural resources management and policies.

This report was prepared by The Centre for Spatial Economics, a consulting organization created to improve the quality of spatial economic and demographic research in Canada. The views in this report reflect those of the authors and are not necessarily those of the Royal Commission.

Approach

A region's growth involves at least four kinds of external relationships: (i) trade, or the import and export of goods and services; (ii) migration of people, both in their capacity as consumers and in their capacity as workers; (iii) interregional "migration" of other production factors, notably investment capital; and (iv) the national government's revenue collection and expenditure in the region.

This report examines the current state and evolution of each of these external relationships and in doing so provides information to help assess the benefits to Newfoundland and Labrador from the Canadian economic union. While this report does provide the reader with a set of information that can be used to help assess the benefits from the Canadian economic union, it does not take the next step of providing a set of cost/benefit accounts that would yield an overall measure of the benefits from the Canadian economic union. Such an undertaking would require a significant level of effort and likely include many simplifying assumptions that would leave the analysis open to criticism. And while each reader will likely draw their own conclusions about the overall benefits of the Canadian economic union, the authors hope that this report has successfully highlighted some areas where additional analysis and research may be of benefit to the province.

Chapter 2 provides an overview of Newfoundland and Labrador's place in Canada and discusses the economic events that have shaped the province since Confederation.

Chapter 3 examines the last of the four external relationships listed as affecting a region's growth. It reviews the contribution the federal government makes through transfers and spending in the province. Federal spending in Newfoundland and Labrador has never been large enough to substantially affect the Nation's finances. The importance of federal net spending in the province has declined sharply over the last few years for two reasons: (i) federal spending restraint, and (ii) growth of the provincial economy.

The province's trade patterns are reviewed in Chapter 4. The rest of the country has historically benefited from trade with Newfoundland and Labrador. While consumers in Newfoundland and Labrador have benefited from lower prices for imported goods and services since Confederation, it is only now that Newfoundland and Labrador's businesses are starting to see a significant increase in their benefit from the domestic market. The province's current trade deficit is partly due to the investment required to develop its offshore oil potential and an improvement in the province's balance of trade can be hoped for in just a few years.

People from Newfoundland and Labrador can be found across the country making significant contributions to their local economy. The loss of these people has, however, been at best a mixed blessing to Newfoundland and Labrador. Chapter 5 discusses the importance of interprovincial migration to both the national and provincial economies.

Chapters 6 and 7 examine the benefits of investment capital to the province. For the last forty years this has been concentrated in the development of the province's natural resources. While these projects have brought jobs and income many question whether the province receives an appropriate return on its natural resource wealth.

Newfoundland and Labrador's Place in Canada

Labrador and Newfoundland entered into Confederation with Canada in 1949. The new province helped "complete" the country from coast to coast to coast. It also brought an enormous wealth of natural resources including the Grand Banks Fishery and important military infrastructure. In return, Newfoundland and Labrador gained access to a growing range of national social programs and inter-governmental transfer payments and unfettered access to markets for goods and labour in the rest of country. Above all, Newfoundland and Labrador joined Canada to secure a brighter economic future for itself – and its new country.

In the ensuing half century, Newfoundland and Labrador has certainly become wealthier but has struggled to keep pace economically with the rest of the country, with its trading partners, and with similar North Atlantic economies[1]. Perhaps unfairly, the province has too often been characterized as a place with no jobs and dependent upon the transfer payments it became entitled to upon Confederation. This chapter provides a brief overview of the economic events that have shaped the province since Confederation.

Up to Confederation

When first discovered by Europeans, the waters off Newfoundland were described as "swimming with fish." Fish and the annual seal hunt were the mainstays of the region's economy in the centuries prior to Confederation. The first half of the twentieth century saw the region's prospects shift from relative prosperity, to the depths of depression and then to an economic boom.

The completion of the cross island railroad, the development of large scale mining and saw mill operations, and the construction of giant newsprint complexes ushered in the start of the twentieth century. Local manufacturing also flourished on the basis of tariff protection, high transportation costs and a growing population base. And, in 1927, the Judicial Committee of the Privy Council of Great Britain confirmed Newfoundland's ownership of Labrador.

The Great Depression virtually wiped out export markets for Newfoundland's resource-oriented economy. The Newfoundland government faced bankruptcy and had to appeal for financial assistance from Great Britain. Newfoundland's strategic importance to the defence of North America during the Second World War led to an abrupt reversal of fortunes. The Allies embarked on a huge program to build military facilities throughout Newfoundland. This construction and the jobs to support the military bases raised incomes substantially from pre-war levels. The war also generated a revival in the demand for primary goods that was sustained in the post-war years.

When the war ended, Newfoundland's economy had recovered to the point that it no longer needed Britain's financial assistance. It was, therefore, with a sense of optimism and in a stronger economic position than it had been for many years that Newfoundland considered its political future. A pair of referendums in 1948 resulted in Confederation with Canada. Newfoundland hoped to raise its standard of living through lower prices for goods – through the removal of tariff barriers – and access to Canadian social welfare programs. Canada gained control of much of the island's military infrastructure and the fishery.

The Struggle for Growth

The immediate benefit from Confederation was the increase in personal disposable income from personal transfer payments. The resulting rise in consumer spending lured mainland retail organizations to the province which provided jobs and provided a greater range of goods at lower prices than were previously available. The federal government also contributed to the development of schools, hospitals, harbour facilities and the Trans-Canada Highway and associated trunk roads.

These developments, however, had ramifications for other parts of the provincial economy. Goods from the mainland – already cheaper because of mass production – were no longer subject to customs duties and received transport subsidies and so they quickly forced local agriculture and manufacturing operations out of business. The Gulf transportation subsidy, however, provided little support for Newfoundland and Labrador's exports. These were mainly newsprint, fish and iron ore and were sent by ship to market rather than via the subsidized North Sydney/Port-aux-Basques railway-ferry link. As a result, the province developed a persistent trade deficit with the rest of the country. The current sources and trends of this deficit are discussed in Chapter 4.

A variety of other federal and provincial government policies also had profound impacts on the provincial economy: defence policy, industrial subsidies, natural resource mega-projects, and fisheries management.

In the early years of the Cold War, Newfoundland and Labrador remained important to the defence of North America. The military bases provided employment and income for several thousand people. Their closure in the 1960s and 1970s had a significant impact on people and communities throughout the province.

In the 1950s the provincial government tried to diversify the economy to reduce its dependence upon its cyclical natural resource base. Public funds were used to finance new industries that, once successfully operating, were to be sold to private enterprise. Few buyers emerged so the government tried to lure foreign capital through an offer of 50 per cent funding of loans to start up new factories. Most of these ventures failed and by the mid 1950s the provincial government's cash surplus was exhausted with virtually no permanent jobs or other economic benefits to show for it.

The provincial government then decided to encourage interest in its natural resources. It embarked upon a fisheries development program, established the Newfoundland and Labrador Corporation (NALCO) as a holding company for the province's uncommitted natural resources, brought about the creation of the British Newfoundland Corporation (BRINCO), and undertook extensive surveys of the province's mineral, timber and hydro-electric potential.

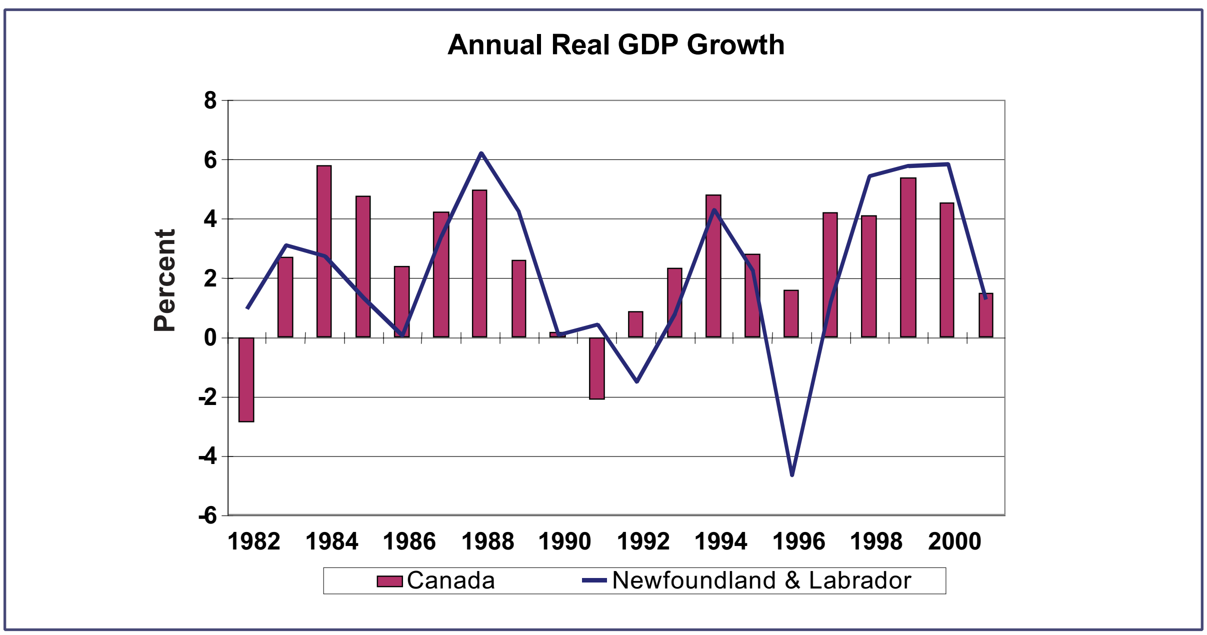
The last few decades have witnessed many dramatic new projects. Unfortunately, the decisions behind some of these major projects often had as much to do with politics as with economic development and the potential benefits of these projects were diminished by the conditions under which they were launched. And in some instances, the government failed to set royalty rates to reflect the fact that natural resources normally have an intrinsic market value over and above the costs of exploiting them. This return is called "economic rent" and it could provide the province with substantial revenue throughout the lives of the projects. Two of the chapters in this report focus on the rent from Newfoundland and Labrador's natural resource based development.

Newfoundland's earlier relative underperformance can be traced to its misfortunes with the fishing industry, while its recent surge in growth can be attributed mainly to the construction and bringing on stream in 1997, of the Hibernia offshore oil field. It is possible to see some of the massive changes in Newfoundland and Labrador's economy over the last 15 years in the employment trends shown in Figure 2. The collapse of the fishery combined with federal spending cutbacks led to widespread job losses in the 1990s. Employment losses in the combined fishing, forestry and mining sector[3] were comparatively minor in relation to the losses experienced in the manufacturing sector. The province's manufacturing sector went from employing over 24,000 people in 1989 to less than 12,000 people in 1995. Manufacturing has made a partial recovery over the last few years and employed 17,000 people in 2002.

Economic Review: 1981-2001

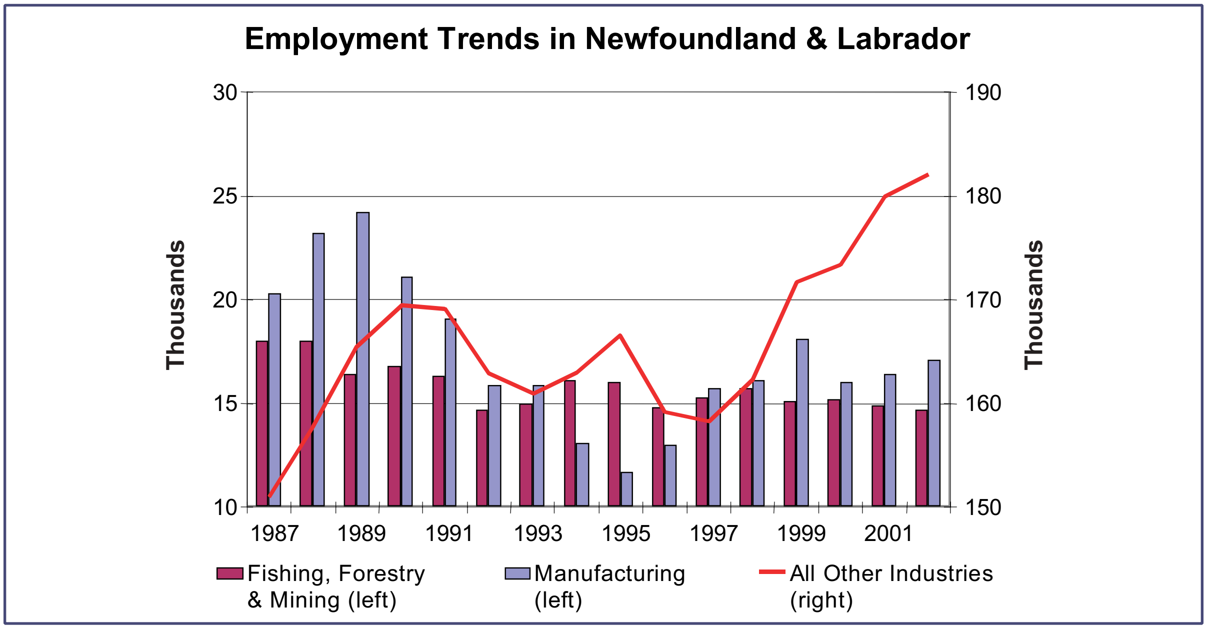
Over the past two decades the pace of economic growth was uneven for both Canada and Newfoundland (Figure 1). Newfoundland did not fare as well as Canada on average over this period, growing at an average annual pace of 2.2 percent compared to 2.7 percent nation-wide. But growth has picked up significantly in Newfoundland in recent years: between 1997 and 2001 its real GDP grew at an average annual pace of 4.6 percent compared to an average of 3.9 percent for Canada.

Figure 1



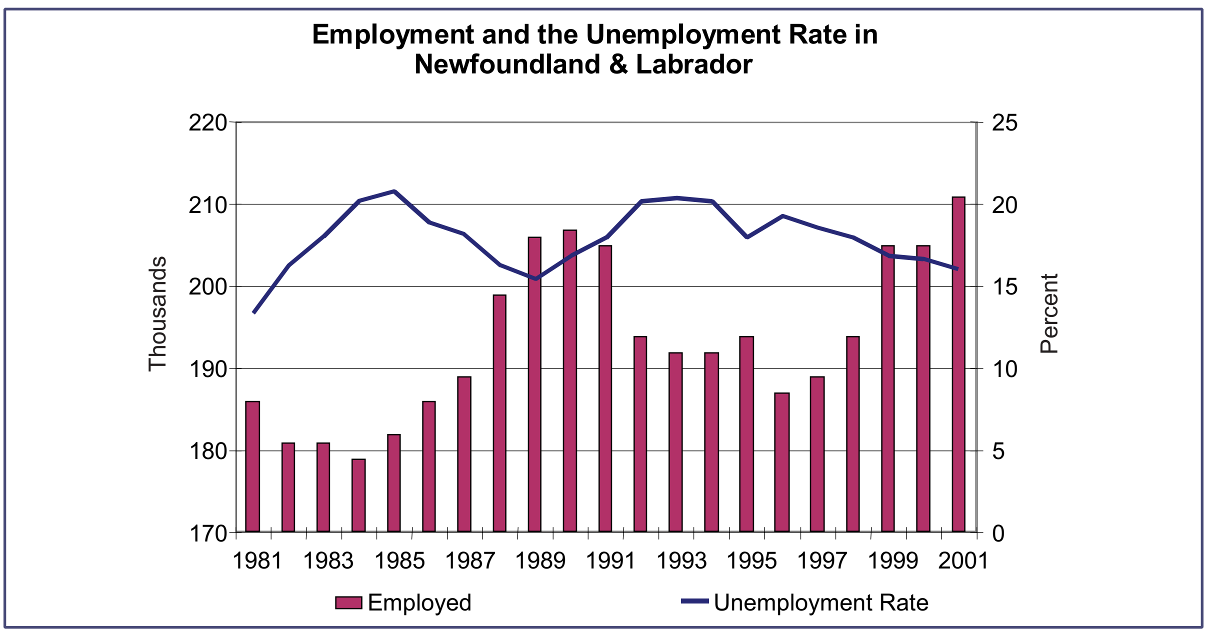
Source: Statistics Canada, Provincial Economic Accounts[1]

Figure 2



Source: Statistics Canada, Labour Force Survey

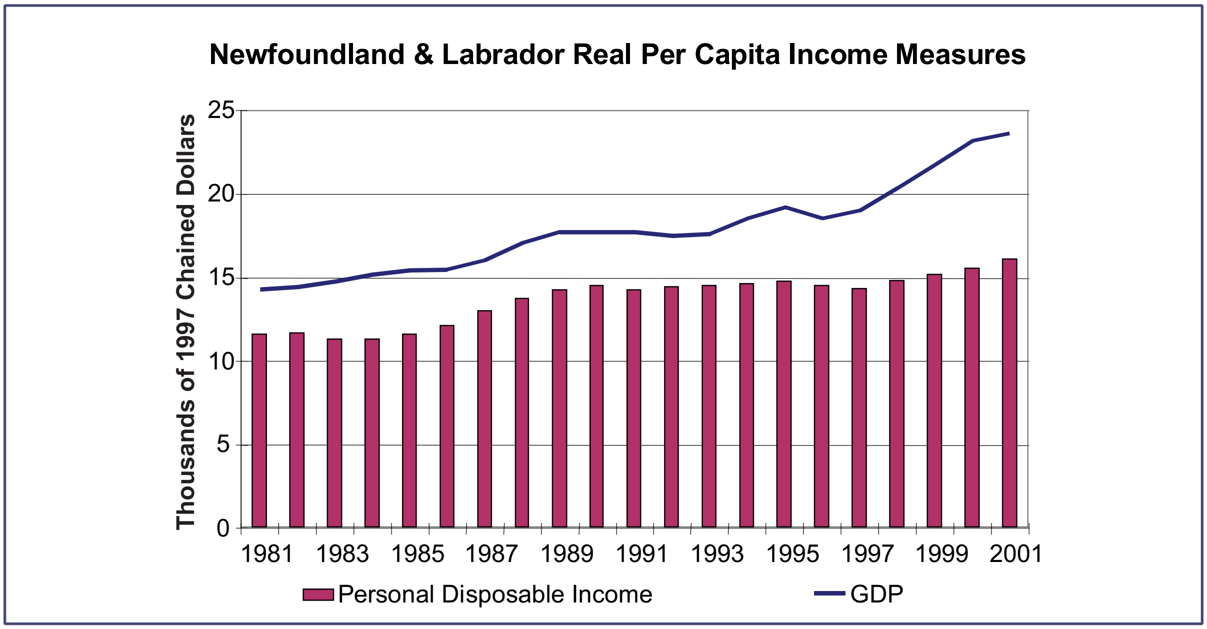
Figure 3



Source: Statistics Canada, Provincial Economic Accounts

Employment in all other sectors of the economy was also significantly curtailed from 1992 until the end of that decade but has expanded rapidly over the last few years (Figure 2). Despite Newfoundland's recent improvement in economic activity its total employment is only now higher than it was a decade ago (Figure 3). Job gains in the province's high-productivity oil and gas sector to date cannot offset the huge job losses it suffered in its low-productivity fishing industry in the early 1990s. And while Newfoundland's employment has grown, its unemployment rate remains above 16 percent, the highest in the country (Figure 3).

Figure 4



Source: Statistics Canada, Provincial Economic Accounts; The Centre for Spatial Economics

Income support for the unemployed in Canada was drastically reduced in the deficit-cutting days of the mid-1990s despite the slow job growth conditions nation-wide. As a result, Newfoundland faced a mass exodus of people over the last decade, a trend that accelerated in recent years despite the higher levels of economic activity. Since 1980 net out-migration from Newfoundland has totaled over 117,000 people in a province with a total population in 2002 of just 519,000. Some of the consequences of this migration are examined in Chapter 5.

High real GDP and employment growth combined with a declining population has led to a rapid rise in real GDP per capita (Figure 4). These gains are not accruing to the personal sector, however[4]. Real personal disposable income per capita has not increased nearly as much as real GDP per capita. Instead the gains have gone to improving the fiscal positions of the federal and provincial governments and to improving corporate profits. In Newfoundland and Labrador the improvement in corporate profits since 1997 has been dramatic (see Figure 17 in Chapter 5). Corporate profits rose from 8% of provincial GDP in 1997, below the national average, to 21% in 2000, well above the national average. The share fell in 2001 to 17% and is expected to return to values closer to – but still probably above – those seen throughout the 1980s and 1990s. This decline will, barring major tax increases, help personal incomes in the province improve.

Major Industrial Projects in Newfoundland and Labrador

The discovery of large oil reserves continues to trigger exploration activity around Newfoundland and Labrador. In 2002 Terra Nova began full production (estimated at about 36 million barrels of oil per year). Another site, White Rose, is expected to undergo development and could begin drawing oil before the end of 2005. White Rose has an estimated reserve of 230 million barrels of oil. Current oil and natural gas reserves in the Grand Banks of Newfoundland have the potential of producing 5.1 trillion cubic feet of natural gas and 2.1 billion barrels of oil.

The government of Newfoundland and Labrador and Inco entered into an agreement to develop the Voisey's Bay nickel deposit in October 2002. The development will include a mine and mill at Voisey's Bay and a processing plant at Argentia. Production is expected to begin in 2006 and continue for about 30 years.

In August, 2002 the provinces of Newfoundland and Labrador and Quebec discussed the principles that could guide negotiations for development of the Gull Island Hydro-electric power project on the lower Churchill River in Labrador. A decision to proceed with the project has not been made. If agreement is reached, then it is expected that an environmental assessment and construction would take eight to nine years to complete and cost $4 billion.

A survey of major projects in Newfoundland and Labrador reveals that major shifts are currently underway in the industrial development direction of the province. The oil and gas sector at $2.3 billion and the utilities sector at $4.1 billion together account for most of the projects. The bulk of the oil and gas expenditures are accounted for by the White Rose project. The bulk of the utilities expenditures ($4.0 billion between 2006 and 2012) would be accounted for by the Lower Churchill River Power Project (Gull Island).

By comparison, major projects in the other export-based sectors in Newfoundland and Labrador are relatively modest. Forestry industry investment was expected to total $114 million in 2002 and 2003. Investment in the mining sector apart from oil and gas is expected to total $785 million for three projects: Voisey's Bay, the Thundermin Resource Inc. and Queenston Mining Inc. base metal project and the Iron Ore Company of Canada's long-term capital investment program. Activity in the fishery is comparatively small, but has also shifted focus over the last decade. Current infrastructure development includes aquaculture expansion and plants to process species such as shrimp and crab.

The Economic Outlook for Newfoundland

The discussion in the remainder of this report makes assumptions about future economic developments in the province. The Centre for Spatial Economics maintains an economic model of the Province of Newfoundland and Labrador which it uses to conduct periodic forecasts of provincial activity. The following bullets are highlights from the last forecast.

- The Newfoundland and Labrador economy is expected to grow at an average annual rate of 3.1 percent between 2000 and 2010 reflecting the continued strong growth expected throughout the decade in the oil and gas extraction sector.
- That pace is slightly faster than the average pace of 2.7 percent per year witnessed in the period from 1995 to 2000.
- Between 2010 and 2020 we expect Newfoundland's pace of growth to slow to 1.6 percent at annual rates as the oil and gas sector reaches capacity and its rate of growth slows to that of external demand.

- The high rate of productivity characterizing the oil and gas sector means that, despite the strong projected output growth, employment growth will be relatively slow. We expect total employment to grow by just 0.9 percent per year between 2000 and 2010, then to slow to just 0.4 percent per year between 2010 and 2020.
- Because the unemployment rate in Newfoundland is the highest in the country, and because the projected pace of job creation is relatively modest, net out-migration will continue throughout the projection horizon. Thus the total population of the province will continue to decline.
- Net out-migration means the growth of community-based jobs will be constrained, as well, thus contributing to the projected slow pace of employment and population growth.

Other Contributions to the Nation

Confederation brought a host of other benefits to Canada. The new province helped "complete" the country from coast to coast to coast. While politically Confederation prevented Newfoundland and Labrador from slipping into the United States orbit it has not inhibited the province's strategic importance to continental defence. By adding 406,000 square kilometres of land to the country, Canada gained a wealth of natural resources and dramatically extended its coastline. As a result, the adoption of the 200 nautical mile limit allowed Canada to add 1,826,000 square kilometers of offshore waters to its territory with access to all the riches of the Atlantic Ocean. This physical enlargement also provided a new shipping outlet on the Atlantic sea lanes with St. John's harbour and Gander airport is an important waypoint for international flights.

Finally, the people of Newfoundland and Labrador have not only contributed economically to the success of the rest of the country but have also enriched the culture of the nation through the work of its writers, artists, performers and politicians. The province also enriches our history as the site of the first European settlers in North America.

In summary, the small economy of Newfoundland and Labrador became part of the much larger Canadian economy in 1949. This action entailed the creation of a customs union for the movement of goods, services and capital; the removal of barriers to labour movement; and the reduction of non tariff barriers. The process of adjustment to these changes has defined economic development in the province since Confederation. With the tumultuous decade of the 1990s behind it, Newfoundland and Labrador can now look forward to a period of sustained growth. The process of adjustment and integration is still ongoing and the policy choices made in St. John's, Ottawa and the other provincial capitals will help determine how the benefits of the economic union affect the people of Newfoundland and Labrador.

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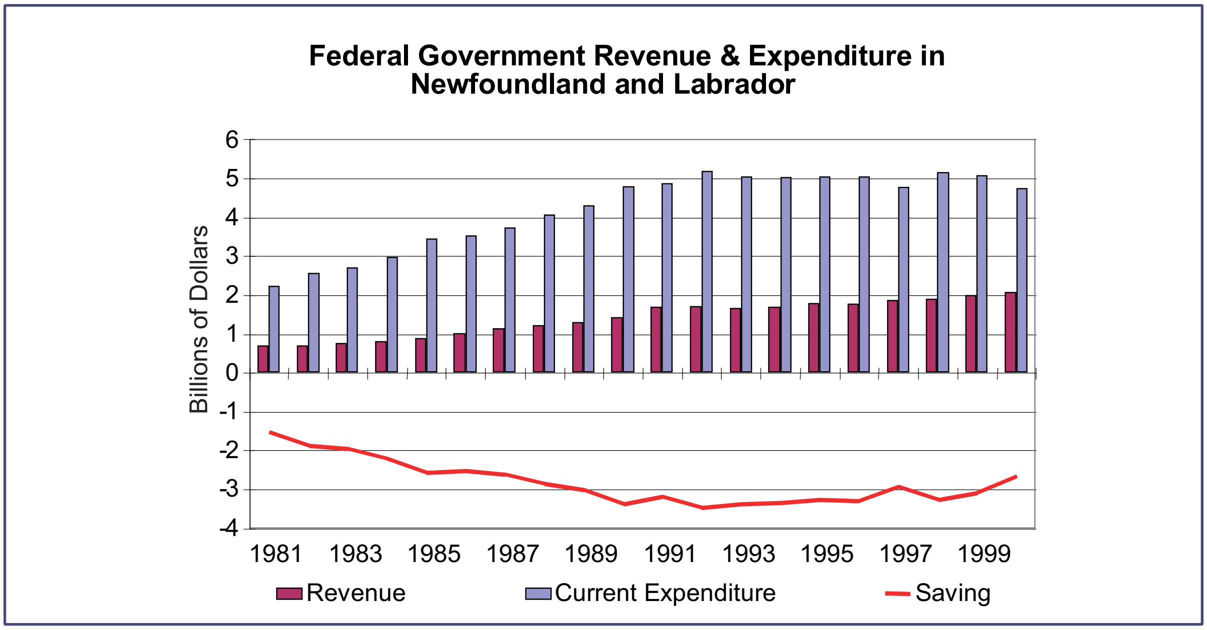
Fiscal Profile

It is a well known fact that the federal government spends more money in Newfoundland and Labrador than it collects. It has been this way, year in, year out since Confederation. What is less well known is how this relates to other provinces and its overall impact on the nation's finances.

Figure 5

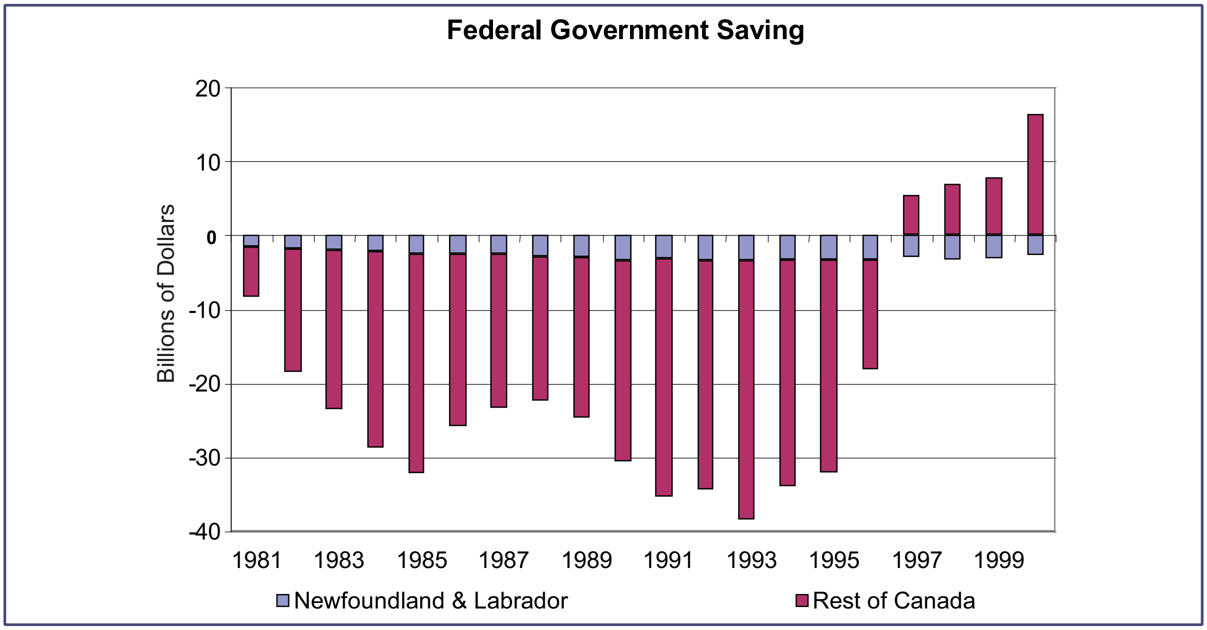


Source: Statistics Canada, Provincial Economic Accounts

Figure 5 provides an overview of the federal government's fiscal position in the province of Newfoundland and Labrador. Federal government revenue from personal and corporate income tax, the GST and other sources has risen steadily over the last twenty years (5.8% a year compounded). Federal government spending in the province, however, peaked in 1992 and has been generally declining ever since. The net result is that the federal deficit in Newfoundland and Labrador has shrunk $0.8 billion since 1992.

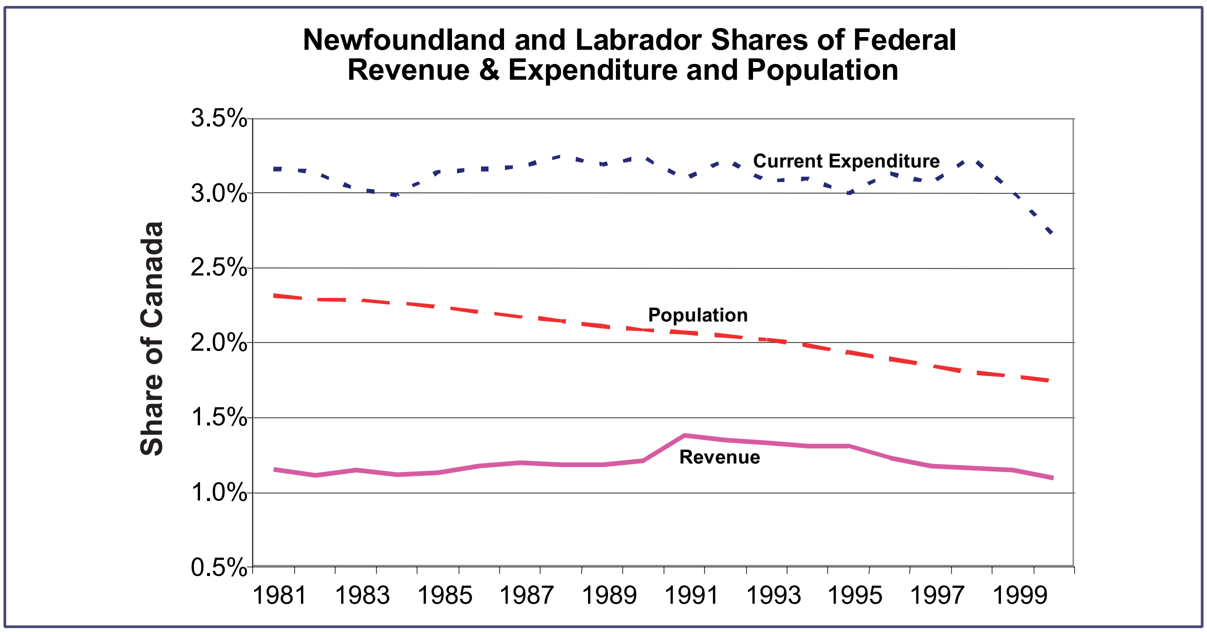
Throughout the federal government's deficit years, Newfoundland and Labrador's contribution to the weak national fiscal position was relatively minor. The bars in Figure 6 show federal government saving in the province of Newfoundland and Labrador and the rest of Canada. The sum of the two is equal to overall federal government saving. Since 1997, the province of Newfoundland and Labrador has reduced the surplus raised from the other provinces. Between 1981 and 1997, the federal deficit in Newfoundland and Labrador accounted for 11% of the cumulative total. Significant, certainly! But hardly the driving force behind Canada's debt woes of the period.

Figure 6



Source: Statistics Canada, Provincial Economic Accounts

Figure 7



Source: Statistics Canada, Provincial Economic Accounts

As seen earlier, federal current spending in Newfoundland and Labrador peaked in 1992. Figure 7 places this decline in perspective by showing that Newfoundland and Labrador has received a shrinking share of federal spending since that time. The declines in 1999 and 2000, the last two years for which data are available, are particularly large; with the province only receiving 2.7% of federal spending in 2000.

Tax Base in Newfoundland and Labrador

Newfoundland and Labrador's contribution to federal revenue as a share of the total has slipped over the last twenty years. But so has the province's ability to generate revenue as its national population share has also shrunk (see Figure 7).

Table 1: Federal Revenue and Key Economic Indicators for Newfoundland and Labrador

Share of Canada unless otherwise noted	Five year averages 81-85	86-00	91-95	96-00	2001
Federal Revenue	1.1%	1.2%	1.3%	1.2%	na
Population	2.3%	2.1%	2.0%	1.8%	1.7%
Employment (*)	1.6%	1.6%	1.5%	1.4%	1.4%
Unemployment Rate (**)	17.8	17.2	19.4	17.9	16.1
Personal Income	1.5%	1.5%	1.5%	1.4%	1.3%
Personal Disposable Income	1.6%	1.6%	1.6%	1.4%	1.4%
Gross Domestic Product	1.4%	1.4%	1.4%	1.2%	1.3%
Relative per capita measures:					
Personal Income	67.1%	70.5%	76.2%	76.1%	76.9%
Personal Disposable Income	69.7%	73.8%	79.3%	79.1%	79.5%
Gross Domestic Product	62.7%	64.4%	67.2%	68.5%	73.3%
Other Measures:					
Housing Starts (*)	2.0%	1.5%	1.5%	1.1%	1.1%
Retail Sales	1.7%	1.7%	1.7%	1.6%	1.7%
New Motor Vehicle Sales (*)	1.7%	1.7%	1.6%	1.5%	1.5%
Manufacturing Shipments	0.6%	0.6%	0.4%	0.4%	0.4%
Mineral Production	2.3%	2.3%	2.0%	2.9%	3.3%
Business Bankruptcies (value)	0.4%	0.5%	0.7%	0.8%	0.3%

(*) Canada excludes Yukon, Northwest Territories and Nunavut
(**)Provincial unemployment rate

Source: Statistics Canada, Provincial Economic Accounts

Table 1 shows data for a set of key drivers that help determine federal revenue collected in Newfoundland and Labrador. Steady declines in the province's share of population and employment[6] can be seen over the last 21 years. Stubbornly high rates of unemployment have been responsible for many people's decision to leave the province. Gross domestic product, personal income and personal disposable income shares have all declined over the last two decades.

A declining population leads to declines in employment and measures of income such as gross domestic product; but it is also true that falling income and high unemployment force people to seek new opportunities elsewhere. This is the vicious cycle that has gripped Newfoundland and Labrador for many years.

A Comparison of Federal Spending by Province

Economic circumstances have clearly hindered the province's ability to generate revenue. A reasonable expectation of Confederation was, however, that the federal government would provide comparable services and programs to people in all provinces. Table 2 examines the distribution of federal spending across the country.

Table 2:

Provincial Share's of Federal Spending in 2000	NL	PE	NS	NB	PQ	ON	MB	SK	AB	BC
Total current expenditure	2.7%	0.8%	4.9%	3.5%	24.0%	32.9%	4.8%	3.8%	7.9%	11.4%
Net current expenditure on goods and services	2.1%	1.0%	7.6%	3.6%	21.5%	40.2%	4.1%	2.2%	6.5%	8.9%
Current transfers to persons	3.0%	0.7%	3.9%	3.4%	25.2%	31.5%	5.1%	4.7%	8.5%	13.1%
Current transfers to business	2.2%	1.4%	7.0%	2.1%	18.5%	32.8%	7.5%	14.5%	6.7%	6.9%
Current transfers to provincial governments	4.7%	1.2%	6.2%	5.4%	27.9%	21.8%	6.8%	4.3%	6.4%	10.6%
Current transfers to local governments	4.0%	0.4%	9.9%	5.1%	16.8%	38.5%	5.5%	0.7%	6.2%	11.7%
Acquisition of non-financial capital	2.2%	1.0%	4.5%	2.5%	20.9%	48.6%	3.1%	2.0%	4.4%	8.8%
Investment in fixed capital and inventories	2.2%	1.0%	4.5%	2.5%	20.9%	48.6%	3.1%	2.0%	4.4%	8.8%
Change in Provincial Share's of Federal Spending: 1990-2000										
	NL	PE	NS	NB	PQ	ON	MB	SK	AB	BC
Total current expenditure	-0.5	0.0	-0.2	-0.3	-0.3	1.2	0.1	-0.4	0.0	1.0
Net current expenditure on goods and services	-0.2	0.2	-0.9	-0.1	0.8	3.5	-0.1	-0.6	-0.5	-0.4
Current transfers to persons	-0.6	-0.1	-0.2	-0.4	-1.8	0.4	0.3	0.4	1.0	0.6
Current transfers to business	-2.2	-0.4	2.3	-1.1	0.8	6.1	0.6	-0.8	-6.4	0.6
Current transfers to provincial governments	-1.0	0.0	0.0	-0.4	0.9	-0.9	0.4	-1.3	-1.1	2.4
Current transfers to local governments	0.3	-0.1	0.7	0.3	-3.4	-1.0	0.3	0.1	1.0	1.9
Acquisition of non-financial capital	-1.6	0.5	-1.5	-0.3	4.5	6.3	-0.8	-0.5	-1.2	-2.0
Investment in fixed capital and inventories	-1.6	0.5	-1.5	-0.3	4.5	6.3	-0.8	-0.5	-1.2	-2.0

Source: Statistics Canada, Provincial Economic Accounts

Federal current spending[7] in Newfoundland and Labrador ranks 9th out of the 10 provinces at 2.7% of the total. Not surprisingly, more populous provinces receive larger shares of federal spending: over three quarters of all federal spending is in the provinces of Ontario, Quebec, British Columbia and Alberta.

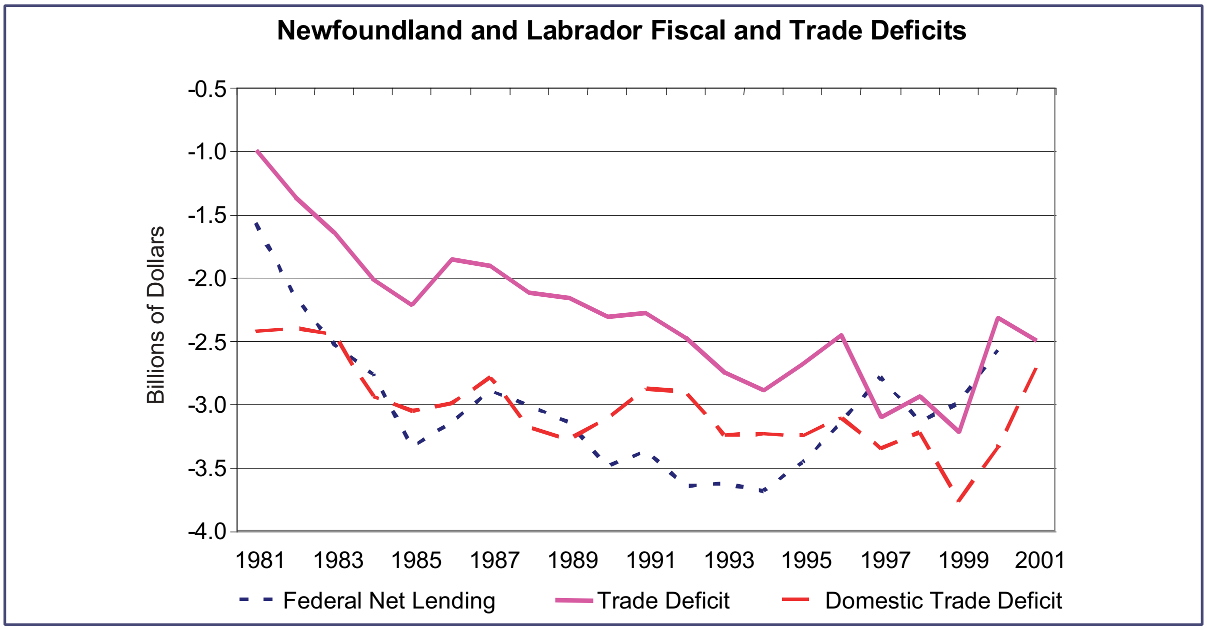
Looking at federal spending in greater detail; Newfoundland and Labrador ranks 9th for the major expenditure categories of spending on goods and services and transfers to persons. Newfoundland and Labrador ranks 8th; ahead of Saskatchewan and Prince Edward Island, for the remaining categories of federal spending: current federal transfers to provincial governments, local governments and businesses and acquisition of non-financial capital[2].

Over the last decade, federal spending in Newfoundland and Labrador as a share of the total has fallen 0.5% — the largest decline of any province. The province now receives a significantly smaller share of transfers to business and public investment than it did in 1990. Only local governments in the province receive a larger share of federal funds than they did in 1990.

Looking across the country, only Ontario and British Columbia have significantly increased their share of federal spending over the last decade. Ontario now receives nearly half of all public investment dollars spent by the federal government. It has also benefited from a rise in transfers to business and spending on current goods and services. Following a decade of economic turmoil, British Columbia now receives a larger share of federal transfers to provincial and local governments. The government of the province of Quebec at $8.8 billion in 2000 continues to receive more money in transfers than any other provincial government.

It is important to recognize that activity in one part of the economy is not independent of activity in other parts. Figure 8 looks at the relationship between the federal fiscal deficit in Newfoundland and Labrador and the province's trade deficits. The size and trends of these deficits over the last twenty years are very similar. This relationship is no accident and is a consequence of the fact that investment must equal savings plus net borrowing. Balance of payments accounting tells us that any economy that runs a trade deficit must find the funds to finance that deficit. Without its own currency and with relatively low levels of domestic saving, Newfoundland and Labrador must rely on inflows of public or private funds. Figure 8 indicates that the trade deficit is principally financed with federal net spending[9] in the province.

Figure 8

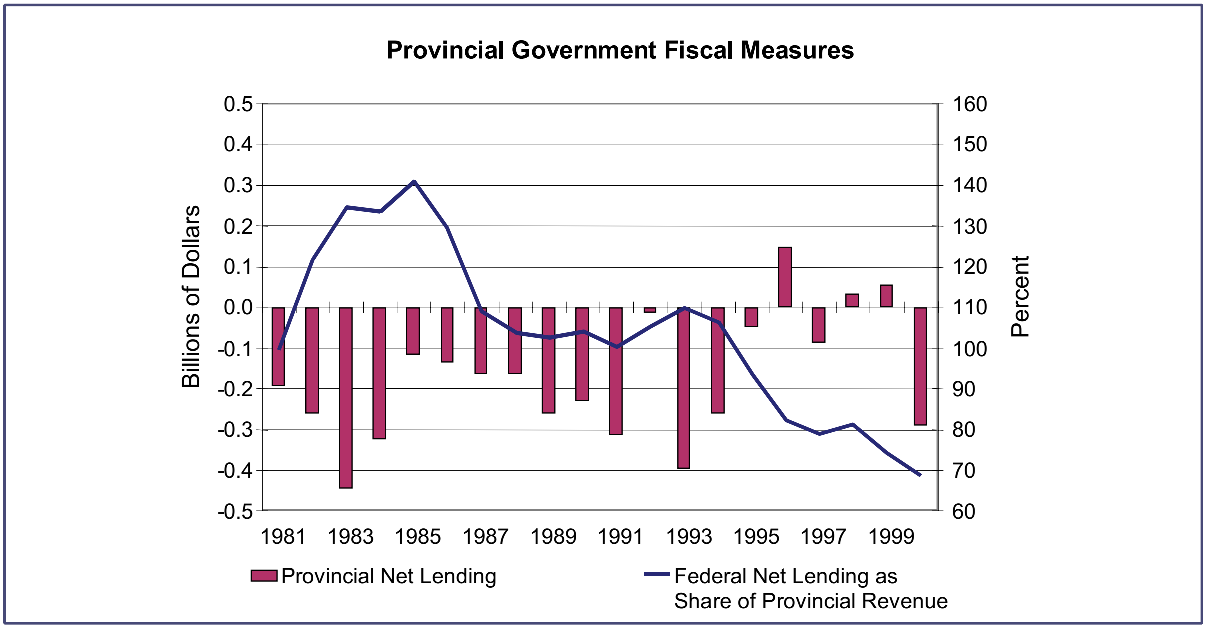


Source: Statistics Canada, Provincial Economic Accounts

The preceding analysis shows that the benefit to Newfoundland and Labrador of federal government net inflows of revenue has fallen over the last few years. The line in Figure 9 shows how important federal net spending in Newfoundland and Labrador is relative to provincial government revenue. In the mid-1980s, federal net spending was as much as 140% of provincial government revenue from all sources. This ratio has fallen sharply since 1994, to the point that federal net spending was equal to less than 70% of provincial government revenue in 2000. This decline occurred despite federal government spending on programs such as TAGS to help compensate for the closure of the fishery in 1993. Although it can be argued that the TAGS program did not truly constitute a benefit to the province since the closure of the fishery was a significant loss to the province. However, without this spending, the decline in federal spending in the second half of the 1990s would have been even more precipitous.

The bars in Figure 9 summarize the provincial government's fiscal position. The provincial government ended its string of deficits in 1996 but, with the economic slowdown in 2000 is expected to remain to remain in a deficit position for the next few years.

Figure 9



Source: Statistics Canada, Provincial Economic Accounts

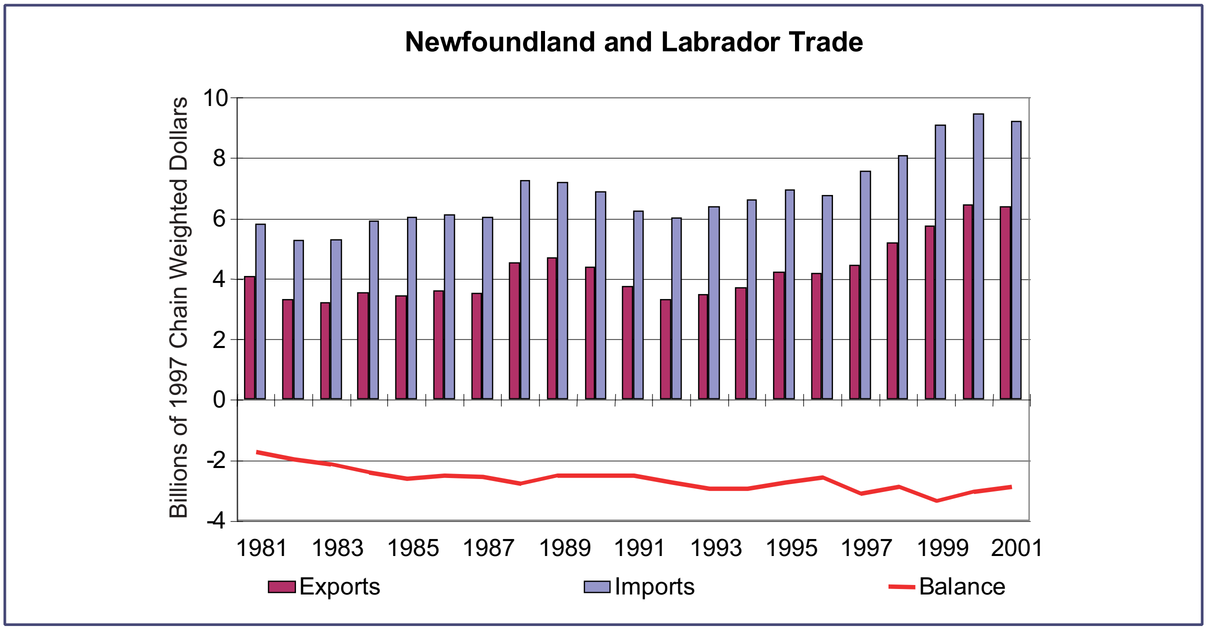
In summary, the federal government's net spending in the province has not been a major factor in the overall national fiscal position. Newfoundland and Labrador's size meant that more populous provinces receive substantially larger sums of federal money and have a larger impact on the federal governments overall fiscal position. Federal spending in Newfoundland and Labrador has declined over the last few years. In fact, the province bore the largest share of the federal government's expenditure restraint of the last decade.

Trade Profile

Newfoundland and Labrador's successful European settlement resulted from profitable trading relationships. Whether it was fish, iron ore, oil or gas, Newfoundland and Labrador have offered their trading partners abundant supplies of these resources in return for all the other products commensurate with a wealthy economy.

Dramatic shifts in the natural resources available to the province over its history continue to fundamentally alter the province's trading relationships. Newfoundland and Labrador has been running a trade deficit of about $3 billion (chain weighted 1997 dollars) since 1993 (Figure 10). This means that the province buys more goods and services from the rest of the world, including the rest of Canada, than it sells. Strong economic growth over the last few years, however, means that this deficit has been shrinking in relation to the overall economy (see Figure 13).

Figure 10

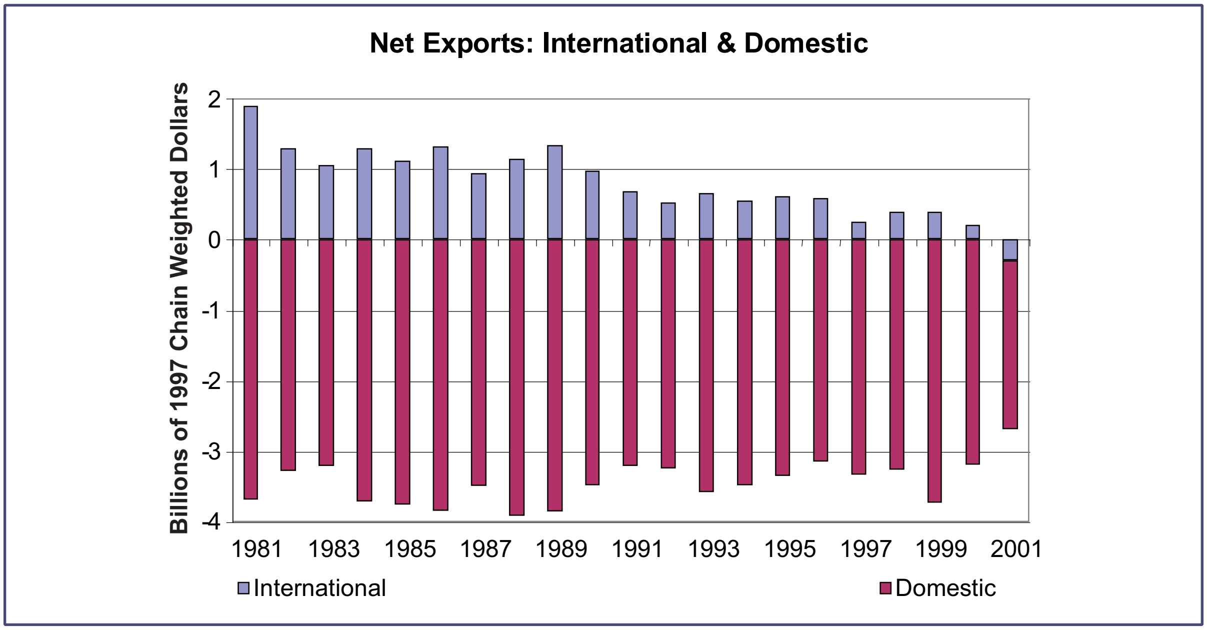


Source: Statistics Canada, Provincial Economic Accounts

In real terms, both exports and imports grew at a very rapid pace between 1997 and 2000 (11.4% and 8.8% a year respectively) after more than a decade of disappointing performance. Global events in 2001 had a clear impact on Newfoundland and Labrador as trade growth stalled.

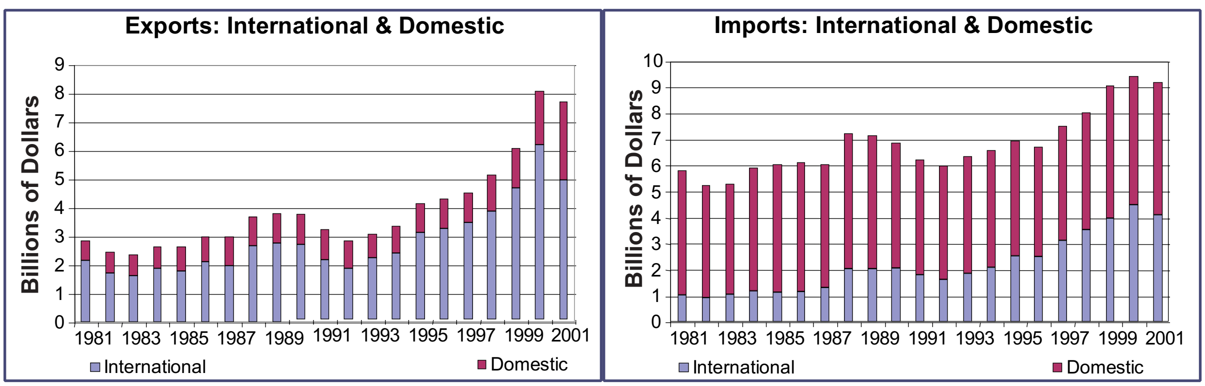
Figure 11 shows that the province has traditionally run a trade surplus with other countries. This surplus has steadily declined over the last two decades and registered a small deficit in 2001. Newfoundland and Labrador's large trade deficit with the other provinces is the reason why the province has such a large and persistent trade deficit. The last two years have, however, seen a fairly sharp improvement in the province's trade balance with the rest of the country.

Figure 11



Source: Statistics Canada, Provincial Economic Accounts

Figure 12

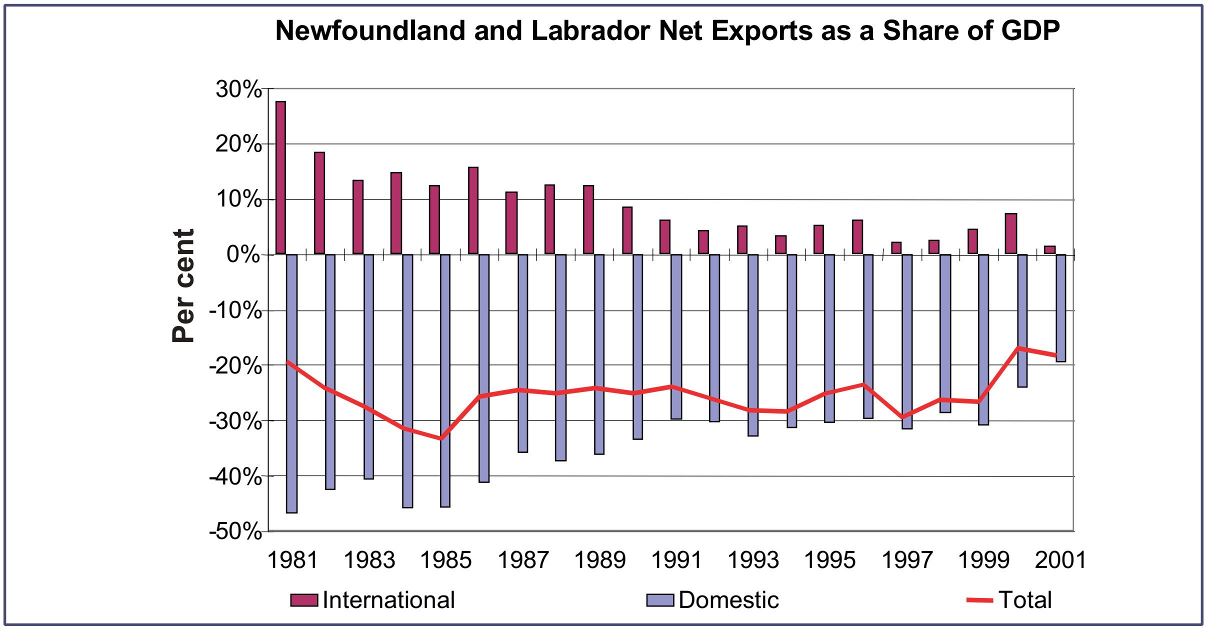


Source: Statistics Canada, Provincial Economic Accounts

Figure 12[4] shows that Newfoundland and Labrador's exports to the rest of the world are generally between 70% and 75% of its total exports. This ratio fell sharply in 2001 as exports to the rest of Canada (domestic) rose while exports to the rest of the world fell. The pattern for import flows is, however, quite different. International imports represented only 18% of total imports in 1981 but have risen steadily as a share of the total to 45% in 2001. The shift in import origin is clearly driving the decline in Newfoundland and Labrador's international trade balance.

Figure 13 shows that improvements in the domestic trade deficit as a share of GDP over the last twenty years have been largely offset by similar declines in the international trade surplus. The overall deficit at 18% in 2001 is still large, but better than it was in 1997. Improvements in this measure can be expected to continue over the next few years as economic growth in Newfoundland and Labrador is expected to be strong[5].

Figure 13



Source: Statistics Canada, Provincial Economic Accounts

The next section of this chapter examines the degree to which Newfoundland and Labrador is still a vibrant trading economy; what it buys and sells and to whom. It will also examine some of the factors behind Newfoundland and Labrador's dwindling international trade balance and the recent improvement in its interprovincial trade balance and whether these trends are likely to continue.

Newfoundland and Labrador's Domestic Trade Partners

Canada's income is dependent upon its ability to trade. Table 3 examines the importance of trade, at the provincial level, across the country measured relative to provincial GDP in 2001. Newfoundland and Labrador exports significantly less of its GDP than most of the other provinces: only British Columbia, Nova Scotia and Prince Edward Island export less. Even considering just international exports, Newfoundland and Labrador's strength, the province's ranking only rises by one place with Manitoba exporting less (as a share of GDP) to the rest of the world. Somewhat surprisingly, Newfoundland and Labrador's domestic exports are higher as a share of GDP than provinces such as Ontario and Quebec.

Table 3: Provincial Trade Measures as Shares of GDP in 2001

	NL	PE	NS	NB	PQ	ON	MB	SK	AB	BC
Exports of goods and services	55.7%	55.7%	50.1%	76.1%	60.4%	**69.3%**	63.1%	68.7%	63.7%	46.7%
Exports to other countries	35.7%	29.8%	29.4%	42.9%	41.0%	**50.8%**	31.2%	42.5%	41.4%	32.5%
Exports to other provinces	20.0%	25.9%	20.7%	**33.2%**	19.4%	18.5%	31.9%	26.2%	22.3%	14.2%
Imports of goods and services	73.9%	72.7%	70.9%	**86.3%**	56.6%	59.6%	64.6%	63.5%	49.8%	50.7%
Imports from other countries	34.3%	20.5%	36.0%	45.4%	37.1%	**46.5%**	29.9%	26.3%	27.7%	29.4%
Imports from other provinces	39.6%	**52.2%**	34.9%	40.8%	19.5%	13.1%	34.8%	37.3%	22.1%	21.3%
Net exports of goods and services	-18.1%	-17.1%	-20.8%	-10.1%	3.8%	9.6%	-1.5%	5.2%	**13.9%**	-4.0%
Net exports to other countries	1.4%	9.3%	-6.5%	-2.5%	3.9%	4.2%	1.4%	16.3%	**13.7%**	3.1%
Net exports to other provinces	-19.5%	-26.4%	-14.2%	-7.6%	-0.1%	**5.4%**	-2.9%	-11.0%	0.2%	-7.1%

Source: Statistics Canada, Provincial Economic Accounts

Newfoundland and Labrador's reliance upon imports is, however, second only to New Brunswick. The province's strong demand for imports from the rest of the country is the reason for this as the province is only moderately reliant upon international imports[1]. As a result Newfoundland and Labrador has the second worst trade deficit as a share of GDP of all the provinces: only Nova Scotia's deficit is worse.

Table 4: Provincial Trade Measures: Change in Shares of GDP 1981-2001

	NL	PE	NS	NB	PQ	ON	MB	SK	AB	BC
Exports of goods and services	-0.9%	-0.8%	2.6%	2.5%	9.0%	10.4%	11.9%	12.9%	4.2%	6.7%
Exports to other countries	-6.9%	16.9%	9.7%	7.4%	16.9%	21.7%	12.3%	8.9%	16.3%	5.9%
Exports to other provinces	6.0%	-17.7%	-7.1%	-4.9%	-7.9%	-11.3%	-0.4%	4.0%	-12.1%	0.8%
Imports of goods and services	-1.9%	-8.5%	-17.1%	-12.4%	2.9%	7.3%	11.6%	5.4%	1.9%	6.9%
Imports from other countries	19.4%	6.4%	1.8%	0.1%	9.9%	14.3%	11.8%	9.8%	9.8%	10.4%
Imports from other provinces	-21.4%	-15.0%	-18.9%	-12.5%	-7.0%	-7.0%	-0.2%	-4.4%	-7.9%	-3.5%
Net exports of goods and services	1.1%	7.8%	19.7%	14.9%	6.1%	3.1%	0.3%	7.5%	2.3%	-0.3%
Net exports to other countries	-26.3%	10.5%	7.9%	7.3%	7.0%	7.4%	0.4%	-0.9%	6.5%	-4.5%
Net exports to other provinces	27.4%	-2.7%	11.9%	7.6%	-0.9%	-4.3%	-0.2%	8.4%	-4.2%	4.2%

Source: Statistics Canada, Provincial Economic Accounts

Table 4 shows that Newfoundland and Labrador's overall trade orientation – exports, imports and trade balance as shares of GDP – has changed only marginally over the last two decades. All other provinces, except Prince Edward Island, have seen a significant increase in exports as a share of their economies. Imports have generally risen as well, reflecting the impacts of globalization through GATT, the FTA and NAFTA. Newfoundland and Labrador missed this increase in trade, although the increase in exports and imports in the last few years indicates that the province may be catching up.

As already seen, Newfoundland and Labrador has a large trade deficit with the rest of Canada. Table 5 shows that Newfoundland and Labrador ran a trade deficit with every other province in the country in 1999. The largest deficit was with Ontario followed by Quebec while the deficit with the Maritime Provinces was over $0.6 billion.

Table 6 shows the distribution of Newfoundland and Labrador's exports and imports to/from the other provinces. Ontario and Quebec buy the majority of Newfoundland and Labrador's exports – although this share has fallen since 1992 while the share purchased by the Maritime Provinces has risen. Likewise, the majority of Newfoundland and Labrador's imports come from Ontario and Quebec. The share of imports from the Maritime Provinces has fallen slightly over the last decade while rising in both Central and Western Canada.

Table 5: Newfoundland and Labrador Interprovincial Trade in 1999

Millions of Dollars	Exports	Imports	Net
Prince Edward Island	29	54	-25
Nova Scotia	220	536	-317
New Brunswick	114	383	-268
Quebec	445	1217	-773
Ontario	387	2440	-2053
Manitoba	20	47	-27
Saskatchewan	17	30	-12
Alberta	42	232	-190
British Columbia	47	106	-59

Source: Statistics Canada, Input Output Division; The Centre for Spatial Economics

Table 6: Newfoundland and Labrador Interprovincial Trade Shares

	Exports			Imports		
	1992	1995	1999	1992	1995	1999
Prince Edward Island	1.8	2.8	2.2	1.5	1.2	1.1
Nova Scotia	13.8	18.1	16.5	13.0	11.2	10.6
New Brunswick	7.0	9.9	8.6	7.1	6.8	7.6
Quebec	36.9	29.6	33.5	25.6	24.8	24.1
Ontario	30.1	27.5	29.1	45.8	48.3	48.3
Manitoba	1.1	1.5	1.5	0.9	0.9	0.9
Saskatchewan	1.3	1.4	1.3	0.5	0.8	0.6
Alberta	3.9	4.3	3.2	3.5	3.8	4.6
British Columbia	3.9	4.6	3.5	2.1	2.2	2.1

Source: Statistics Canada, Input Output Division; The Centre for Spatial Economics

Newfoundland and Labrador's International Trade Partners

Newfoundland and Labrador's international trade partners are shown in Table 7. The table shows export and import shares for the province's major markets in 1992 and 2001. The Concentration Ratio[1] measures the degree to which Newfoundland and Labrador's trade to or from a specific country is more or less concentrated than that for the country as a whole and is also reported for 1992 and 2001.

A number of significant changes in the province's export markets have taken place since 1992. Like the rest of the country, the United States has become an even more critical trade partner in the decade after the FTA and NAFTA trade agreements. Other countries buying a larger share of Newfoundland and Labrador's goods include France, Germany and China while markets such as the United Kingdom, Italy and Japan have declined in importance. Of particular note is the degree to which Newfoundland and Labrador's export markets have become more concentrated: 85% of all exports went to the province's top 5 destinations in 2001 – up from 75% back in 1992.

This specialization is reflected in the concentration indices. The index values for eight of Newfoundland and Labrador's top 10 markets are greater than 100. Newfoundland and

Labrador's export share to Germany, for example, is 7.4 times larger in 2001 than Canada's export share to Germany. The exceptions are Canada's top two export destinations: the United States and Japan. Newfoundland and Labrador is somewhat less reliant on the US economy as an export market than is the rest of the country.

Table 7: Newfoundland and Labrador Trade Partners

	Share of Total		Concentration Ratio	
	1992	2001	1992	2001
Total Exports				
United States	50.7%	65.6%	66	75
France	1.5%	7.3%	168	1355
Germany	3.6%	5.4%	251	741
United Kingdom	9.5%	3.4%	493	275
Italy	5.1%	3.0%	704	740
China	0.0%	2.7%	1	252
Japan	3.9%	1.3%	85	65
Australia	0.0%	1.3%	6	490
Denmark	1.2%	1.0%	1269	696
Taiwan	0.7%	0.8%	119	316
All Others	23.8%	8.3%		
Imports				
Iraq	0.0%	47.6%	0	18696
United States	20.0%	13.4%	31	21
Saudi Arabia	3.9%	4.7%	1070	2007
Russia	0.0%	4.2%	0	3962
United Kingdom	3.5%	3.6%	127	106
Norway	12.7%	3.4%	1247	330
Faeroe Islands	0.0%	2.5%	0	15951
Estonia	0.0%	2.2%	0	8419
Syria	0.0%	2.2%	0	12207
France	0.8%	1.6%	47	99
All Others	58.9%	14.6%		

Source: Industry Canada, Strategis

Newfoundland and Labrador's international import origins have changed dramatically since 1992. International politics have a major impact on the origin of oil imports. In 1992, Nigeria, Iran, Yemen, Norway, Saudi Arabia, and the Former USSR were among the top 10 import origins but by 2001, Iraq had displaced the imports from many of these countries. Similar to the situation with exports, international import origins have become more concentrated over the last decade: 74% of all imports came from the top 5 countries in 2001 up from 67% in 1992.

Again, the concentration indices for eight of Newfoundland and Labrador's top 10 import origins are greater than 100. Newfoundland and Labrador's imports account for a significant proportion of Canadian imports from these countries. The significant exception is the United States. With only 13% of all imports coming from the United States, Newfoundland and Labrador stands in stark contrast to the rest of the country[1]. In 2001, 64% of Canada's imports came from the US.

The reasons for the international trade relationships described in the preceding section become apparent when examining Newfoundland and Labrador's trade by industry sector[2]. The data in Table 8 shows export and import shares for the province's top ten industry sectors in 1992 and 2001. Similar to the previous table, the Concentration Ratio measures the degree to which

Newfoundland and Labrador's trade in the products of that industry sector is more or less concentrated than that for the country as a whole and is also reported for 1992 and 2001.

Table 8: Newfoundland and Labrador Trade Sectors

	Share of Total		Concentration Ratio	
	1992	2001	1992	2001
Total Exports				
32411 - Petroleum Refineries	24.4%	35.8%	1322	1553
31171 - Seafood Product Preparation and Packaging	25.1%	19.9%	2143	2654
32212 - Paper Mills	36.1%	17.7%	720	508
21221 - Iron Ore Mining	8.7%	14.2%	1760	5995
21111 - Oil and Gas Extraction	0.0%	6.6%	0	63
32111 - Sawmills and Wood Preservation	0.1%	0.9%	3	28
33313 - Mining and Oil and Gas Field Machinery Manufacturing	0.0%	0.5%	2	242
11411 - Fishing	1.4%	0.3%	446	129
21231 - Stone Mining and Quarrying	0.1%	0.3%	346	981
33329 - Other Industrial Machinery Manufacturing	0.2%	0.1%	49	23
All Others	3.8%	3.7%		
Imports				
21111 - Oil and Gas Extraction	26.3%	58.6%	921	1549
32411 - Petroleum Refineries	38.8%	13.0%	4577	1685
31171 - Seafood Product Preparation and Packaging	1.5%	12.2%	317	2534
32519 - Other Basic Organic Chemical Manufacturing	0.0%	4.9%	0	328
33313 - Mining and Oil and Gas Field Machinery Manufacturing	0.1%	1.7%	33	768
33291 - Metal Valve Manufacturing	0.1%	1.5%	23	189
33641 - Aerospace Product and Parts Manufacturing	1.9%	1.1%	78	33
33329 - Other Industrial Machinery Manufacturing	0.9%	0.6%	72	51
33121 - Iron and Steel Pipes and Tubes Manufacturing from Purchased Steel	0.0%	0.5%	9	135
33451 - Navigational, Measuring, Medical and Control Instruments Manufacturing	0.8%	0.5%	43	21
All Others	29.4%	5.4%		

Source: Industry Canada, Strategis

Newfoundland and Labrador's natural resource strengths can be clearly seen in the province's export profile: oil, seafood, forest products, and iron ore. Activity at the Come By Chance refinery accounts for a significant percentage of provincial trade. Nearly 59%, by value, of all imports to the province is crude oil which is refined and, for the most part, exported to the United States (accounting for nearly 36% of all exports). In 2001, the Competition Bureau agreed to modify restrictions which prohibited the sale of Come by Chance refinery products in other Canadian provinces. This decision likely helped fuel the 55% increase in the value of Newfoundland and Labrador's exports to other provinces in 2001.

Imports, other than crude oil, are heavily oriented toward helping Newfoundland and Labrador's export sectors grow. The purchase of various types of machinery and fabricated metal products to help develop the province's oil and gas fields can clearly be seen.

Benefits from Trade

Trends in Newfoundland and Labrador's trade data bear some resemblance to Norway's about 30 years ago[1]. In the mid-1970s, the Norwegian current account registered huge deficits as energy-sector investment rushed in to develop their North Sea oil reserves. These current account deficits rapidly turned around to becomes surpluses in the 1980s as the economy reaped the benefits of its investment. In Newfoundland and Labrador, a rise in imports of machinery and fabricated metal products has contributed to a decline in the trade balance.

The current account balance can be thought of as the difference between saving and investment in an economy. Thus, when the current account balance is in deficit, investment exceeds saving. Looking forward, this investment in the development of the province's major oil projects will continue to support high levels of imports for a few years. The production from these projects will, however, start to generate substantial export revenue and help push the international trade balance back to a solid surplus position. Increased shipments of crude and refined petroleum products to the rest of Canada will continue to narrow the province's trade deficit with the rest of the country. Trade in other commodities, while clearly vital to everyday life, will be swamped in dollar terms by these flows.

The rest of Canada has and continues to benefit from the economic union by exporting goods and services to Newfoundland and Labrador. Companies in Ontario and Quebec have benefited the most from trade with Newfoundland and Labrador. In turn, households in Newfoundland and Labrador have been able to buy a wider variety of goods and services and at a lower cost than would have been possible without the economic union. In contrast, it is only now that Newfoundland and Labrador's exporters are starting to experience rising benefits from the domestic market. For example, a decision supporting free trade in Canada is finally allowing the province to benefit significantly from its investment in the Come by Chance refinery. Its unfettered access to both domestic and international markets means that it can operate at significantly higher levels of capacity than it could before.

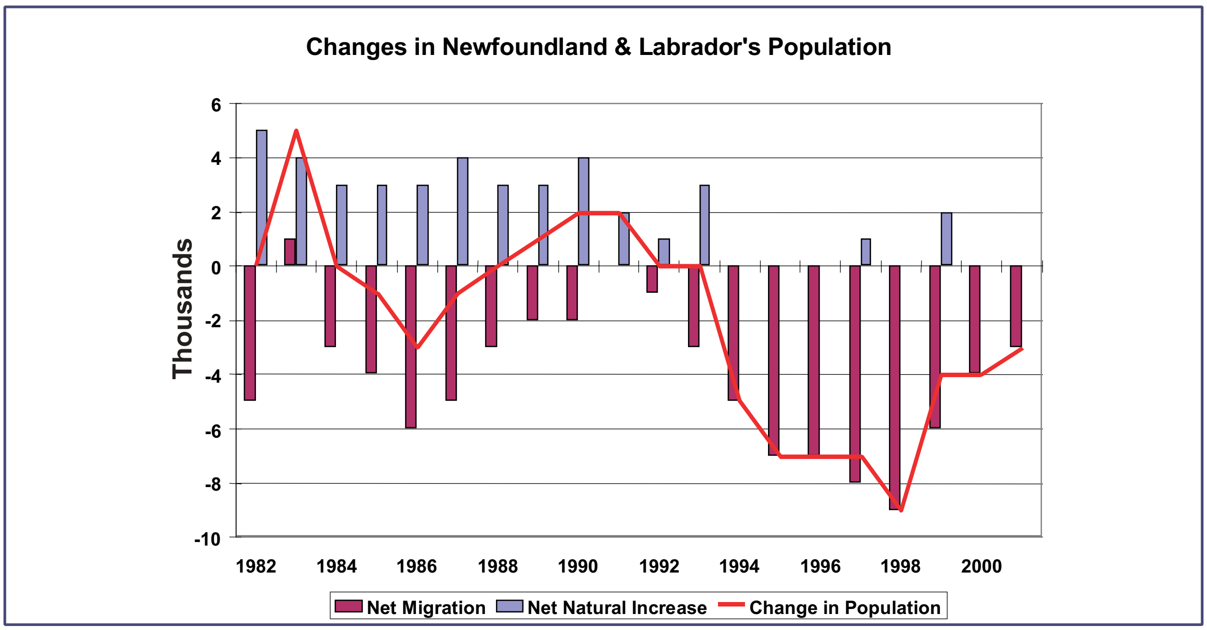
A general improvement in the provincial trade balance can, therefore, be hoped for over the next decade. An improvement in the trade balance would mean that the province would require smaller inflows of capital from public and private sources.

Labour Mobility

A key concern at the time of Confederation was that too many people might choose to migrate from Newfoundland and Labrador to other parts of Canada. The industrial policies of the 1950s were intended to provide people with economic opportunities within the province. High birth rates succeeded in offsetting population losses due to net out-migration up until the early 1990s. The collapse of the fishery provided the catalyst for a wave of migration to other parts of the country. These migrants have made significant contributions to the communities in which they have settled. The loss of these people has, however, been of considerable concern to the government of Newfoundland and Labrador which released a report in April 2002 titled Demographic Change: Newfoundland and Labrador Issues and Implications.

A principal tenet of economic theory is that trade among regions allows each region to specialize in those activities for which it is best fitted by its endowments of resources and other fixed local input factors thus maximizing their economic potential. This specialization of regions is limited, of course, by interregional transfer costs as well as by lack of information, inertia, and the like. But so far as it goes, the effect of freer interregional trade is likely to be in the direction of equalizing not only commodity prices among regions but also wages, incomes, and the rates of return to capital. The reason for this is that a region in which capital is scarce relative to labor can, with interregional trade, specialize in "labor-intensive" lines of production requiring much labor and little capital while importing the products of "capital-intensive" activities from regions better endowed with capital or less well endowed with manpower.

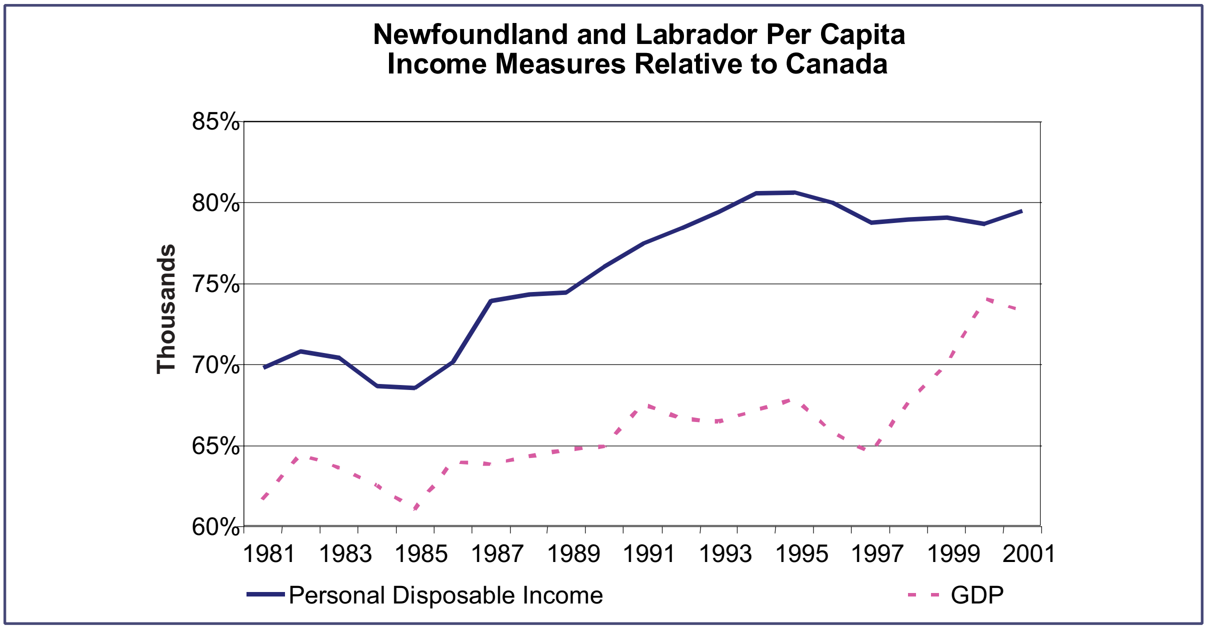
Figure 14



Source: Statistics Canada, Provincial Economic Accounts

There are a variety of factors that influence labor mobility. The rate of return to labor (real wages) is a major determinant; but migration and regional manpower supplies depend also on the handicaps to movement imposed by uncertainty, lack of information, cost of moving, and social distance. Moreover, a person's mobility varies widely according to their age, marital and dependency status, education, skills, and recent migration experience; and migration flows between places depend on such additional factors as previous flows (the beaten-path effect), the size and diversity of labor markets, and the effectiveness of interregional job-information and placement systems. Age is the personal characteristic most markedly related to migration rates, with generally declining rates to the late teens, a sharp peak around age eighteen to twenty, and a decelerating decline to old age with a small peak at retirement time. Migration rates are positively associated with both education and occupational status or skill, at any given ages.

Figure 15



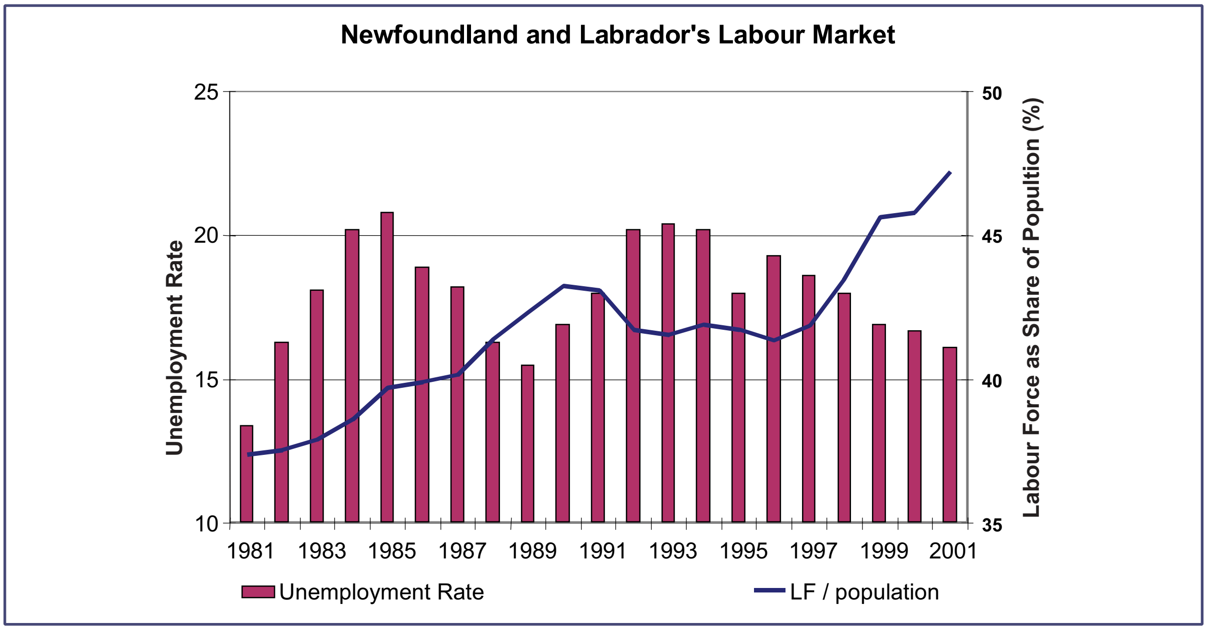
Source: Statistics Canada, Provincial Economic Accounts

The Costs of Labour Mobility

Historically in Newfoundland and Labrador, the impacts of out migration on population growth had been offset by a relatively high level of natural population growth. In the 1990s, however, the continual decline in births since the 1960s, together with the severe economic shocks resulting from the fisheries crisis, public sector restraint and changes in the UI/EI program took their toll. So in 1993-94, following a decade of little or no change in total population, Newfoundland and Labrador entered a period of continuous population decline, precipitated by record high levels of net out-migration and continually declining births (see Figure 14).[2]

Over 70,000 people have left the province to seek new opportunities elsewhere in the world in the last decade. At one level, however, the province's economic performance over the last two decades can be judged a success as all measures of per-capita income for Newfoundland and Labrador have converged towards the national average (see Figure 15). In principal, the out-migration should have helped reduce competition for job openings in the province. The unemployment rate has, however, remained stubbornly above 16% – the highest in the country – as workers that had previously been discouraged from entering the official labour market registered for work. Figure 16 shows a sharp increase in the proportion of the population in the labour force: rising from 41% in 1996 to 47% in 2001 while the unemployment rate fell 3 percent from 19% to 16%.

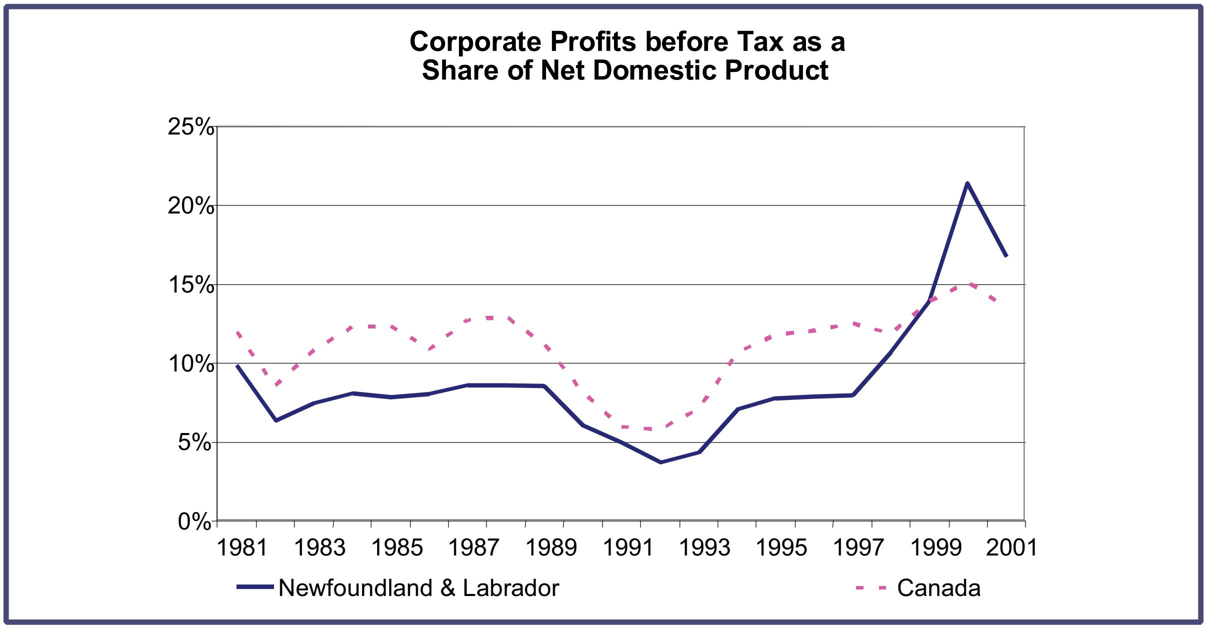
Figure 16



Source: Statistics Canada, Provincial Economic Accounts

The rapid increase in the province's relative GDP per capita from 1997 to 2000 seen in Figure 15 is not matched by a corresponding rise in relative personal disposable income. This is a result of the reduction in personal transfer payments from the federal government (discussed in Chapter 3) and a significant increase in before tax profits for the corporate sector. Figure 17 shows that corporate profits have generally been lower than the national average in Newfoundland and Labrador[3]. Corporate profits as a share of output tend to fall when the economy is weak and rise during a boom. The sharp increase in corporate profits in Newfoundland and Labrador since 1997 is a sign of the importance of the offshore oil patch. Over time the corporate share of income is likely to return to values closer to – but still probably above – those seen throughout the 1980s and 1990s and, barring significant tax increases, personal income in the province will rise.

Figure 17



Source: Statistics Canada, Provincial Economic Accounts

Many argue that the loss of these people has had a profoundly negative effect upon the province. From a purely demographic point of view, the migrants have been young and generally well-educated. This has led to a significant rise in the average age in the province placing a corresponding burden upon the health care system. The more worrisome impact is the loss of local demand for goods and services that would have resulted had those people remained in the province. Although they may have remained unemployed and, therefore, required social assistance or employment insurance payments. Or they may have been significantly underemployed.

The Benefits of Labour Mobility

While the economic losses to Newfoundland and Labrador described above are real and may be significant; many economists would argue that the overall benefit to the country resulting from increased labour mobility is positive. When workers move to either secure employment or to jobs in which they will be more productive, both individual and national incomes will rise. Labour mobility can also help to speed up the adjustment to economic shocks that affect one region more than another.

The Centre for Spatial Economics Canadian Quarterly Model (CQM) was used to study the benefits to Canada from increased labour mobility. A substantial number of people born in Newfoundland and Labrador are now living and working in other provinces in Canada. Imagine that those people had been prevented from moving to seek or take up employment in the rest of the country and had, instead, remained in Newfoundland and Labrador. This would have contributed to labour market shortages in the communities they would have moved to.

Companies in the affected areas would, therefore, have had to bid up the wage rate to attract scarce workers.

The first step in the analysis is to estimate the number of people born in Newfoundland and Labrador and now living in other provinces in Canada. Table 9 shows how this estimate was derived. The 1996 Census found 191,185 people born in Newfoundland and Labrador were living in other provinces. An estimated 32,000 migrants joined them between 1997 and 2002. It was assumed that 1.5% of the total died or left the country to leave a balance of 220,000 people in 2003. It is interesting to note that Newfoundland and Labrador's total population in 2003 is estimated to be just 516,000; therefore, for every 10 residents in Newfoundland and Labrador, there are 4 people born in the province that are now living elsewhere in Canada.

Table 9: Labour Mobility Economic Impact Assumptions

NL Demographics	Population	Natural Change	Total Net Migration	Domestic Net Migration
1996	560584	1892	-9262	-7436
1997	547826	1361	-14119	-11919
1998	534199	905	-14532	-12332
1999	527943	635	-6891	-4691
2000	524231	407	-4119	-1919
2001	521200	148	-3179	-979
2002	518069	65	-2522	-325
NL Living in RoC				
1996 Census	191185			
Plus sum from 97-02	32165			
Less Loss of 1.5%	3350			
NL Living in RoC	220000			
Source Population Impact	176000			

Source: The Centre for Spatial Economics

The analysis further assumed that 20%[1] of these people are not eligible to enter the labour force because they are too young leaving an impact of 176,000 people on the source population[2]. Of course, not all these people may be in the labour force: some could be students, retired, or otherwise engaged outside of the labour force. Based upon the national participation rate, the number of former Newfoundland and Labrador residents active in the labour force in the rest of Canada is 95,000. A reduction in the labour force of 95,000 contributes to local labour market shortages and drives up the wage rate by 0.6%[3].

The national economic impacts in Table 10 were generated by solving the CQM based upon an initial increase in the wage rate of 0.6% – the amount it would rise based upon the estimated labour shortage. The impacts were generated as the discounted present value over the (8 year) medium term period in which the economy adjusts to the shock and are reported as the average annual impact[4]. They can be interpreted as the annual recurring cost to the Canadian economy over the medium term of higher labour costs induced, in this instance, by a shortage of labour in some markets.

An increase in labour costs raises the costs of production for domestic firms and results in a loss of competitiveness. This leads to a reduction in export sales and higher imports as foreign goods and services become cheaper relative to Canadian goods and services. The increase in labour costs also causes firms to substitute capital for labour. The result is a decline in employment and output with higher prices and wages. Table 10 shows that output falls by

$2 billion a year, employment by 41,000 while prices are 0.3% higher and wages are 0.4% higher.

Table 10:

Impact of a Reduction in Labour Mobility on the Canadian Economy	
Macroeconomic Impact	
GDP ($ millions)	-2004
GDP Deflator (%)	0.3%
CPI Inflation (%)	0.3%
Wage Rate (%)	0.4%
C$/US$ Exchange Rate (%)	0.2%
GoC 3 month T-Bill Yields	0.00
GoC 10 year Bond Yields	0.00
Labour Force Participation Rate	-0.04
Labour Market Impact	
Labour Force ('000s)	-12
Employment ('000s)	-41
Unemployment Rate (%)	0.2
Federal Government Fiscal Impact	
Revenue ($ millions)	-56
Expenditure ($ millions)	1038
Net Lending ($ millions)	-1093

Source: The Centre for Spatial Economics

Over time, adjustments to the exchange rate, interest rates and the labour force participation rate allow the economy to return to its trend output and employment path but at a higher price level. The exchange rate depreciates to help offset higher prices in Canada – raising exports and lowering imports. The labour force participation rate falls as weaker employment prospects lead to more discouraged workers. Interest rates show no change because their initial rise, to combat higher prices, is offset by a subsequent decline consistent with the weaker domestic economy. The real interest rate – the nominal rate less the rate of inflation – is lower throughout the period which is also consistent with a weaker economy. Throughout this period of adjustment, however, there have been real costs associated with projects that had to be cancelled or scaled back because of a lack of workers.

The weaker economy also has an impact on the federal government's fiscal position. Federal government revenue falls only marginally as the effect of the weaker economy on the tax base is largely offset by the increase in prices. Direct taxes from persons and corporations fall by about $190 million a year while indirect taxes[1] rise $96 million a year. Federal spending rises as a result of higher prices and higher unemployment. Federal transfers to persons rise by $480 million a year. The decrease in the federal surplus of about $1 billion a year also means the government has to pay interest on a higher stock of debt so debt interest payments rise by about $280 million a year.

While these impacts are small relative to the overall economy, they represent a significant share of current federal net lending to the province of Newfoundland and Labrador. Recall that federal net lending in Newfoundland and Labrador in 2000 was $2.6 billion so about 40% of the deficit could be "offset" by the contribution made by these non-residents. The benefit to Canada of a highly mobile labour force contributing to the efficiency of local labour markets is clear. Economic theory can only reassure us that the country as a whole will benefit from labour mobility – it does not follow that all regions make gains. As discussed in the previous section, it remains less certain whether the region losing population gains or loses. The loss of productive workers and their associated demand depresses economic activity – but it does reduce competition for jobs for those that remain.

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Hydro-Electric Power

The development of Newfoundland and Labrador's hydro-electric energy resource at Churchill Falls in Labrador was an engineering success. Today, it is a powerful symbol to Newfoundland and Labrador of what is wrong with the economic union. The deals that were required to get the project constructed remind one of the cowboy who, when asked why he sat in the cactus bush replied, "It seemed like a good idea at the time". Churchill Falls (Labrador) Corporation Limited (CF(L)Co) had to have a long term contract for its electricity before construction could begin. The negotiations resulted in a 65 year contract[2] with declining prices for the electricity.

While the energy shocks and inflation of the 1970s and 1980s were unanticipated by all parties, all the windfall gains from higher energy prices have accrued to Hydro Quebec. The Government of Newfoundland and Labrador has made various attempts with both the federal government and the Government of Quebec to renegotiate the power deal and to establish conditions conducive to further development of the resource. All efforts so far have met with failure.

Quebec's Gain

The benefits from this resource have helped Quebec develop a powerful manufacturing sector based on a cheap and plentiful supply of electricity. Quebec's manufacturing sector uses more electricity per dollar of output than any other jurisdiction in Canada. Quebec has also been able to generate substantial income from export sales of surplus electricity purchased for a fraction of its worth and sold at prevailing market prices. The income generated by this sector has helped the province economically and, therefore, reduced the federal equalization payment it may have received. Newfoundland and Labrador has certainly gained export sales to Quebec – but at a value significantly less than if the electricity had been sold at prevailing market prices.

Newfoundland and Labrador's Pain

It is not the purpose of this study to say whether the Churchill Falls contract is fair or not. It is, however, instructive to examine the potential impact on Newfoundland and Labrador's economy of a renegotiated contract at the start of the 1990s. The Newfoundland and Labrador Department of Finance used the Newfoundland and Labrador Econometric Model (NALEM) and its equalization model to determine what the impact on the provincial economy might have been if the electricity had been sold at higher prices[3] over the period 1991 to 2001. Since there is no way of knowing exactly what price the electricity could have been sold for – that would have been influenced by a number of factors such as demand conditions, transmission costs, and the negotiation process – the impacts of receiving an additional $20, $30 or $40 per megawatt hour more than were actually paid under the 1969 contract were studied[4]. The increase in price was not assumed to have an impact on the demand for electricity from Churchill Falls because Hydro Quebec could have exported any surplus to the United States.

Table 11: Assumptions for Extra Revenue From Churchill Falls Electricity Exports

	Electricity Exports MWh	Increase in CFLCo Revenue ($millions) Case 1: +$20/MWh	Case 2: +$30/MWh	Case 3: +$40/MWh	Increase in NL Government Revenue Net of Equalization Clawback ($ millions) Case 1: +$20/MWh	Case 2: +$30/MWh	Case 3: +$40/MWh
2001	28,159	563.2	844.8	1,126.4	315.0	472.5	630.0
2000	30,268	605.4	908.0	1,210.7	338.6	507.9	677.2
1999	29,674	593.5	890.2	1,187.0	331.9	497.9	663.9
1998	32,793	655.9	983.8	1,311.7	366.8	550.2	733.6
1997	30,301	606.0	909.0	1,212.0	338.9	508.4	677.9
1996	25,748	515.0	772.4	1,029.9	288.0	432.0	576.0
1995	26,693	533.9	800.8	1,067.7	298.6	447.9	597.2
1994	27,413	548.3	822.4	1,096.5	306.6	460.0	613.3
1993	29,909	598.2	897.3	1,196.4	334.6	501.8	669.1
1992	25,951	519.0	778.5	1,038.0	290.3	435.4	580.6
1991	26,330	526.6	789.9	1,053.2	294.5	441.8	589.1

Source: NL Hydro Annual Reports; NL Department of Finance

CF(L)Co's export volumes from 1991 through 2001 were multiplied by the three alternate price increases to generate the extra revenue that CF(L)Co could have earned. It was assumed that the extra revenue received by CF(L)Co would be paid out to the shareholders. In 2000, 65.8% of CF(L)Co was owned by Newfoundland Hydro with the remaining 34.2% owned by Hydro Quebec. Therefore, while all the extra payment to CF(L)Co would be counted in the province's GDP, only 65.8% would accrue to provincial authorities. Any increase in provincial revenue would, however, be offset by a decline in federal government equalization payments. The equalization clawback rate on extra revenue to the provincial government was assumed to be 15%. Table 11 shows the impact on CF(L)Co revenue and the government of Newfoundland and Labrador for each of the three price assumptions based upon actual exports to Hydro Quebec from 1991 to 2001.

Provincial exports would have risen and so would provincial government revenues. As discussed, the increase in provincial government revenue would, in part, be offset by a decline in federal equalization payments. The additional provincial government revenue, net of equalization, was then spent: 50% on additional expenditures and the remaining 50% on lowering provincial personal income taxes. The end result is that the provincial government surplus (or deficit) does not change from its historical values since government spending increases and personal provincial income tax cuts were used to dissipate the increase in government revenue.

Table 12 highlights the economic impact based on the assumption that CF(L)Co had exported its electricity at an additional $30 per MWh (Case 2). The table shows the impact in terms of both the absolute and the percentage change in each measure that should be added to the actual historical values. For example, provincial GDP would have been $1.2 billion (constant 1997 dollars) higher or 11% above what it was over the period 1991-2001. The increase in economic activity would have raised prices in the economy. The CPI would rise by only a small amount because many consumer prices are set nationally. The GDP deflator would rise by more because Newfoundland and Labrador is receiving more money for selling the same amount of electricity – in other words, a price increase. The outcome is positive for households as disposable income rises by more than total personal income because of the personal income tax cuts. Employment and the labour force both rise – while the unemployment rate falls – and the positive economic environment encourages more people to remain in the province.

Provincial government revenues rise as a direct result of the increase in revenue from CF(L)Co and from the increase in economic activity. The provincial government is in the enviable position of being able to increase spending while at the same time cutting tax rates. The lower tax rates offset some, but not all, of the increase in government revenue. By assumption, the provincial deficit is unchanged from its historical values through the 1990s although at a higher level of both provincial government revenue and expenditures[1].

Table 12: Economic Impacts of Additional Churchill Falls Electricity Revenue
Case 2: Extra $30 per MWh of Electricity Exports

	Average 1991-2001	
	Dollar Impact	% Impact
Macroeconomic Impact		
Real GDP (1997$ Millions)	1182	10.7
GDP Deflator (1997=100)		0.2
Consumer Price Index (1997=100)		0.0
Real Personal Income (1997$ Millions)	305	2.9
Real Disposable Income (1997$ Millions)	483	5.6
Real Retail Sales (1997$ Millions)	148	3.7
Housing Starts	77	4.1
Labour Market Impact		
Employment ('000s)	6	3.0
Labour Force ('000s)	5	1.9
Unemployment Rate (%)		-0.9
Population ('000s)	8	1.4
Provincial Government Impact		
Current Expenditures ($millions)	219	5.9
Investment ($millions)	15	6.9
Total Expenditures / Revenues ($millions)	234	6.0
Net Lending ($millions)	0	0.0

Source: NL Department of Finance

The economic impacts for Case 1 and 3 were smaller and larger respectively than for Case 2. The increase in real provincial GDP (1997 dollars) was estimated to be between $790 million for Case 1 and $1,600 million a year for Case 3 in the 1990s. This represents between $1,500 and $3,000 a person each year and – even at the lower end of the range – would be enough to pull Newfoundland and Labrador ahead of both Nova Scotia and New Brunswick in terms of per capita GDP.

The increase in provincial government revenue would be between $300 and $600 million a year and the decrease in federal equalization payments between $50 and $100 million a year. The provincial government tax cuts and spending increases generate additional activity in the province which is taxed by the federal government resulting in an increase in federal revenue of between $35 and $75 million a year. Federal net spending in the province, therefore, would have fallen by between $100 and $200 million a year[1].

A Brighter Future?

The dispute over Churchill Falls has national significance. It has contributed to tensions between all the governments involved. Newfoundland and Labrador's foregone revenue will total billions of dollars before the contract expires in 2041. The benefits to Quebec's economy have been equally large – supporting the development of a powerful manufacturing sector and providing windfall gains on their electricity exports. The situation has, to date, stalled the development of hydro-electric resources that would reduce Canada's dependence on fossil fuels and help us meet our greenhouse gas emissions targets. The potential agreement on the Gull Island hydro-electric project is, however, an indication that future development may be possible with equitable economic benefits for all parties.

Natural Resources

The earliest settlers were drawn to Newfoundland and Labrador for its abundant natural resources. However, since Confederation many efforts to capitalize on the province's resources have at best been disappointing and, in the case of the fishery, an outright catastrophe.

Chapter 4, Trade Profile, provided figures on the importance of Newfoundland and Labrador's natural resources to the province's exports. Exports of raw and processed materials dominate the list of the province's top exports. Table 13 shows the growth and distribution of the province's GDP by sector. The oil and gas mining sector representing 6.9% of provincial GDP between 1998 and 2000 is now the dominant natural resource sector followed by other mining at 4.0%. The fishing and forestry sectors are considerably smaller at 1.9% and 0.9% respectively. In total, these resource sectors accounted for 13.7% of provincial GDP between 1998 and 2000.

Table 13: Real GDP by Major Industrial Sector in Newfoundland, 1984 to 2000

	Average GDP 84-86 ($97 million)	Average GDP 98-00 ($97 million)	Average Annual Percent Change	Absolute Change	Share of Average GDP 98-00	Share of Absolute Change
All industries total	8,641.8	10,718.0	1.7	2,076.2	100.0	100.0
Agriculture and related	39.7	51.8	2.2	12.1	0.5	0.6
Fishing, hunting and trapping	283.3	204.2	-2.0	-79.1	1.9	-3.8
Logging and forestry	110.2	93.7	-1.1	-16.5	0.9	-0.8
Oil and gas mining	0.0	738.7	n/a	738.7	6.9	35.6
Other mining	464.3	431.2	-0.5	-33.1	4.0	-1.6
Manufacturing	716.9	734.4	0.2	17.5	6.9	0.8
All other industries total	7,027.4	8,463.9	1.5	1,436.5	79.0	69.2

Source: Statistics Canada and The Centre for Spatial Economics

Change, however, has been the hallmark of the natural resource sector in the province. The fishery helped define Newfoundland for generations but output from this sector has fallen nearly 30% over the last two decades. The management of the fishery was ceded to the federal government as one of the articles of Confederation. This was, by any standard, a significant gift. Although the reasons for the failure of the fishery are many, it is hard to refute that it is a resource that the federal government failed and continues to fail at managing. And when the federal government has tried to manage the resource through quota allocations, it has succeeded in creating bitter inter-provincial rivalries. A recent example is the decision to allocate a large proportion of the shrimp quota to Prince Edward Island, which remains a source of frustration to Newfoundland and Labrador.

It is beyond the scope of this paper to determine the economic rent that could have been realized if the fisheries were efficiently managed by the federal government over the past few decades. One notes, however, that Iceland – also a relatively small economy – provides an example of fisheries management that has contributed significantly to the maintenance of much higher levels of employment and living standards than experienced in Newfoundland and Labrador since 1949.

In contrast, the oil and gas mining sector did not exist back in 1984-86 and so has accounted for over a third of the increase in provincial GDP over the last two decades. The forestry sector and other mining have been in slow decline over the last two decades. The development of the Voisey's Bay mine will, however, dramatically reverse the fortunes of the mining sector.

The remainder of this chapter will review the benefits that the province receives from its natural resources. The principal question is whether the people of Newfoundland and Labrador are receiving a fair return on their natural resources. It has been argued that the government has often failed to set royalty rates to reflect the fact that natural resources normally have an intrinsic market value over and above the costs of exploiting them. This return is called "economic rent" and it could have provided the province with substantial revenue throughout the lives of the projects.

Determining the right price, or royalty, to charge for natural resources is not simple. Natural resources are sold on world markets at prices set by global supply and demand. Companies can either choose to sell at that price or shut down production. If the province charges too little for its natural resources then companies may choose to produce a higher amount in the province than they otherwise would have and employment and income may rise. The companies involved will make extra profits resulting from the fact that their costs are lower, due to the low provincial royalty charge, while they still sell their output at the world price. If, however, the province charges too much, then companies will produce less which provides fewer jobs to the people of Newfoundland and Labrador. While the province may or may not generate more revenue directly from the resource, it will surely be worse off overall because of the reduced level of economic activity resulting from lower employment and income.

The issue then is what happens to the extra corporate profits that result if natural resource royalty rates are set too low. These profits will accrue to the owners of the companies nearly all of whom live outside the province of Newfoundland and Labrador. The effect, therefore, is to provide extra economic benefit to people other than the residents of Newfoundland and Labrador. To the degree that people in other parts of Canada benefit from this, it could be considered an offset to government transfers to the province. In this era of global multi-national corporations the benefits could, however, accrue to nationals of any other part of the world.

There is a profound sense of cynicism now as to whom the benefits of the province's natural resources might accrue. Despite the best intentions of the governments and people involved, projects such as Churchill Falls and the Labrador iron ore mines have left an impression of squandered opportunities.

This study attempts to provide some insight on whether current natural resource royalties are too high or too low by comparing them with rates in the rest of the country. A comprehensive review of natural resource policies in Newfoundland and Labrador and the other provinces was beyond the scope of this report. The measures constructed in this report compare implicit royalty rates for the ten provinces by natural resource category. While the measures presented are crude and imprecise, they do provide a basis for comparison across the provinces. The reader is cautioned, however, to recognize that a definitive statement on whether the province's royalty regime is meeting the needs of the people of Newfoundland and Labrador requires further study. The analysis presented here is just the first step in determining whether a more comprehensive review is warranted.

The Oil and Gas Sector

Growth in the oil and gas sector has been explosive in the last few years and has helped the province become one of the fastest growing in the country. The determination of royalty rates and other provincial revenues from oil and gas development is based upon a number of different factors: the amount produced, the date production started (or vintage), the type and quality of product, and the costs of development and production. For example, exploration and production costs for oil in the offshore area of Newfoundland and Labrador are considerably higher than costs for conventional oil fields in Alberta or even for offshore fields in the North Sea. Royalty rates for reserves developed prior to the first oil crisis in 1973 are higher than for those developed after that time. Higher prices following the oil crisis made previously uneconomic reserves profitable – but only at that higher price. Therefore, governments cannot set royalty rates as high for these newer or more costly projects.

Table 14 provides a summary of the oil and gas industry in Canada. The first line shows the share of national production, in terms of the value of output, by province. Three quarters of the value of oil and gas production in 2001 took place in Alberta. British Columbia and Saskatchewan garnered shares of 11% and 9%. Despite spectacular growth over the last few years, Newfoundland and Labrador still only accounted for 3% of national fuel production in 2001 while Nova Scotia accounted for the remaining 2%.

Table 14: Oil and Gas Provincial Revenue Rates

	NF	PE	NS	NB	PQ	ON	MB	SK	AB	BC
2001 Share of National Fuel Production (value)	3%	0%	2%	0%	0%	0%	0%	9%	75%	11%
Provincial Revenue as Share of Production Value (avg 96-01)	2%							15%	16%	32%

Source: Natural Resources Canada, Canadian Minerals Yearbook;
Canadian Association of Petroleum Producers (CAPP)

Provincial revenues from oil and gas mining are reported on a fiscal year basis (i.e. year ending March 31st) while the production data is reported on a calendar year basis. In order to minimize this mismatch, provincial revenue for fiscal years 97-98 through 01-02 was summed and divided by total production from 1997 through 2001. The result is reported on the second line in Table 14 and is the share of oil and gas industry revenues that are collected as revenue by each provincial government. This measure provides an estimate of the economic rent that the province collects from the resource and allows comparisons across provinces.

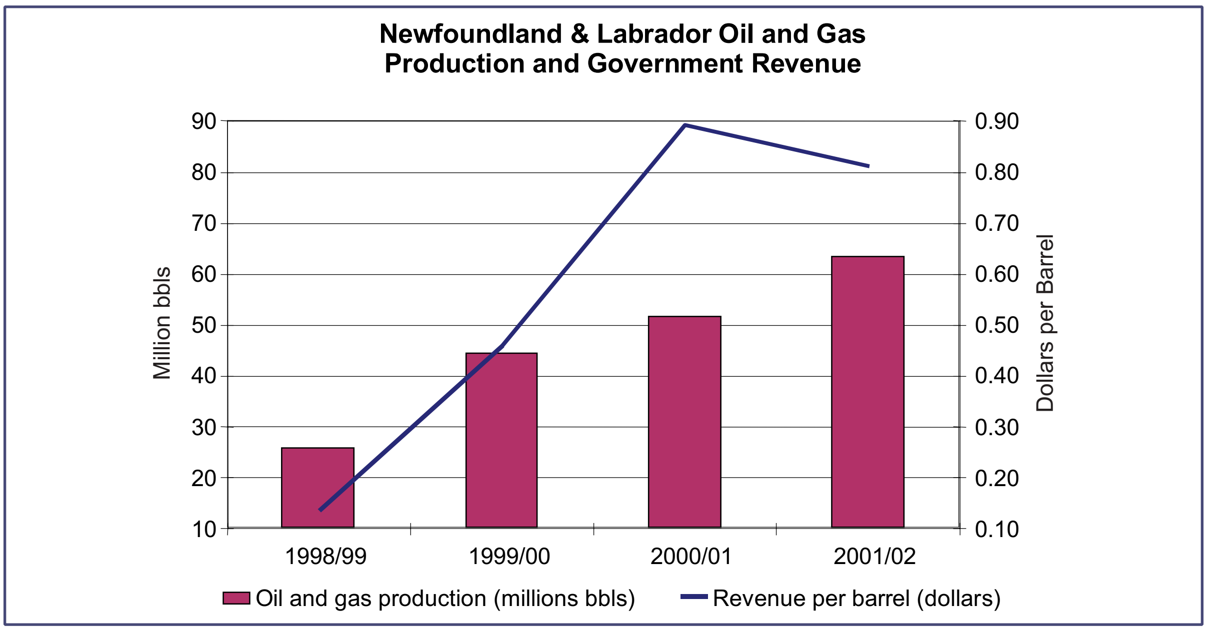
At 2%, the government of Newfoundland and Labrador collects a significantly smaller share of industry revenues than the other provinces. This measure has risen slightly since production started in 1997. Provincial revenue as share of production revenue was 1.7% in 1998-99 and 2.3% in 2000-01.

Figure 18 shows fiscal year production levels of offshore oil. By fiscal year 2001/02, production had exceeded 100 million barrels of oil and was subject to a higher basic payout rate[1]. Provincial revenue, in terms of dollars per barrel, rose as expected until 2000/01 but then stalled in 2001/02 because of lower oil prices.

As mentioned earlier, the determination of appropriate royalty rates is a function of many different factors. The 1985 Atlantic Accord established the framework for management of the province's offshore oil and gas resources. The offshore royalty regime is intended to account for the challenges, risks and costs associated with "frontier" exploration. In simple terms, provincial revenue rises after various levels of production are achieved (or after a certain number of years) and are based on the "profitability" of the project. The profitability of the project is heavily impacted by the substantial costs of developing the offshore oil field. Economic rents are, therefore, lower for the offshore oil fields because of the high cost of development. Higher oil prices will, however, have a positive impact on provincial revenue.

The current royalty structure will likely raise provincial revenues per barrel of oil produced over the next few years. Royalties from the Hibernia oilfield are a smaller proportion of the overall value of its production because of the use of a higher cost Gravity Based production platform constructed in the province. Subsequent developments such as the Terra Nova and White Rose fields are subject to lower costs including the use of floating production structures and a more profit-sensitive royalty regime, which should yield a higher proportion of royalty revenue.

Figure 18



Source: Newfoundland and Labrador Department of Finance

The increase in royalty revenue per barrel of oil over the coming years is, however, likely to be quite modest. And with implicit royalty rates currently of only one eighth the levels calculated for Alberta and Saskatchewan, the government of Newfoundland and Labrador will after likely royalty rate increases still benefit far less from this resource than the other oil producing provinces. While provincial GDP gains will be substantial, the gains to households and the government will be far more limited. The gains in provincial royalties per barrel over the next few years will not lead to the kind of massive surpluses that Alberta has been able to generate from its oil. The gains to households will also be limited because the sector is highly capital intensive. As seen in Figure 17, corporate profits in the province have risen sharply as the companies in the oil sector start to recoup their development costs while labour income gains have been modest. A review of the current royalty regime may be warranted if the share of income going to corporate profits stays significantly above historical norms beyond the next couple of years.

Current projections indicate that oil production, and revenue will grow throughout this decade and peak next decade. Production is expected to diminish between 2018 and 2025. This is a far shorter period of time than the other major oil producing provinces have had to collect economic rent from their resources. This short time frame is another reason why Newfoundland and Labrador is unlikely to experience the same level of fiscal benefits from its oil and gas resources as Alberta. Any changes to the royalty regime will, therefore, have to occur soon if they are to have a material impact on the province's fiscal future.

The federal government's recent ratification of the Kyoto Protocol to reduce Greenhouse Gasses could have a significant impact on the province's economy. The key objective of this treaty is to permanently reduce our emissions of gasses such as Carbon Dioxide starting in 2008-2012. This can only be achieved by using fewer fossil fuels such as oil, natural gas and coal. If the government achieves its goal, then demand for oil and petroleum products will fall by the end of this decade. The oil and gas sector is expected to reduce production at its most costly facilities, which could include the Newfoundland and Labrador's offshore fields. Activity at the Come By Chance refinery could also be curtailed. These projects account for a significant percentage of the province's trade and their disruption would have major repercussions.

The Mining Sector

The mining sector[2] in Newfoundland and Labrador is dominated by the metals sector (95% of the value of total production in 2001) with iron ore accounting for 97%. Over 60% of Canada's iron ore production comes from the Iron Ore Company of Canada and Wabush Mines operations at Labrador City and Wabush, respectively located in western Labrador. The mining sector accounts for 4% of provincial output and is a major source of its exports.

Table 15: Mining Sector Provincial Revenue Rates

	NL	PE	NS	NB	PQ	ON	MB	SK	AB	BC
2001 Share of National Mineral Production (value)	5%	0%	1%	4%	20%	31%	5%	13%	3%	11%
Provincial Revenue as Share of Production Value	2%				1%	1%	2%	11%		3%

Source: Natural Resources Canada, Canadian Minerals Yearbook;
Governments of Newfoundland and Labrador, Quebec, Ontario, Manitoba, Saskatchewan and British Columbia

Table 15 provides a summary of the mining sector in Canada. The first line shows the share of national production, in terms of the value of output, by province. Ontario and Quebec accounted for over half the value of mining production in 2001. Saskatchewan and British Columbia also have significant mining sectors. Newfoundland and Labrador accounted for 5% of national mineral production in 2001.

Provincial revenues from mining are reported on a fiscal year basis (i.e. year ending March 31st) while the production data is reported on a calendar year basis. As before, provincial revenue for several fiscal years was summed and divided by total production for matching calendar years in order to minimize the impact of this mismatch. The result is the share of mining industry revenues that are collected as revenue by each provincial government[1].

At 2%, Newfoundland and Labrador government revenue is comparable to the revenue collected by most other provinces. Ontario and Quebec each only collect 1% and, effective this year, Ontario is reducing its mining tax by 50%. The exception is Saskatchewan which is able to effectively capture the economic rent from its sizable potash deposits. Excluding potash, it does not appear that the type, and therefore value, of mineral produced has a significant impact on the royalty rate that provinces are able to set. Provinces appear to collect, for example, 1% of the value of either gold or iron ore produced rather than a high percentage for higher value minerals and a low percentage for lower value minerals.

The announced development of the Voisey's Bay nickel deposit could practically double the size of the province's mining sector when production begins in 2006. This time the Government of Newfoundland and Labrador has tried to ensure higher benefits for the province by negotiating the construction of a processing plant in Argentia for the mine's ore. This condition addresses the lingering concern regarding the permanent loss of jobs and income to Quebec at the pelletizing plant in Pointe-Noire and to the town of Schefferville both of which benefit from iron ore mined in Labrador. There is a sense that political decisions "robbed" the province of the opportunity to enjoy the full benefits of its iron ore resources.

The Forestry Sector

The forestry sector in Newfoundland and Labrador represents about 1 percent of provincial GDP. Ownership of the sector is highly concentrated with firms that have very long-term, renewable forestry leases at rates that are less than favorable to the provincial government.

Table 16: Forestry Sector Provincial Revenue Rates

	NL	PE	NS	NB	PQ	ON	MB	SK	AB	BC
2000 Share of National Timber Harvested (volume)	1%	0%	0%	3%	20%	16%	1%	3%	12%	43%
Provincial Revenue per cubic metre (avg 96-00)	$1.82	$20.53	$6.91	$10.31	$6.64	$10.80	$2.76	$1.78	$5.81	$24.16

Source: Canadian Council of Forest Ministers, National Forestry Database

Table 16 provides a summary of the forestry sector in Canada. The first line shows the share of national timber harvested from Provincial Crown Lands, in terms of the volume of output[1], by province. The British Columbia forestry industry dominates national production at 43% of the total. Ontario, Quebec and Alberta also have significant forestry sectors. Newfoundland and Labrador accounted for 1% of national forestry production in 2000.

Provincial revenues from the sale of timber from Provincial Crown Land are reported on a fiscal year basis (i.e. year ending March 31st) while the production data is reported on a calendar year basis. Provincial revenue for fiscal years 96-97 through 00-01 was summed and divided by total production from 1996 through 2000 in order to minimize the impact of this mismatch. The result is the average revenue per cubic metre collected by each provincial government from Provincial Crown Lands[2].

This analysis reveals that Newfoundland and Labrador has the second lowest revenue rate from its forestry resource in the country. Only Saskatchewan collects less. Newfoundland and Labrador's revenue rates are only a third to a fifth of those in Nova Scotia and New Brunswick; provinces with similar species of trees. Newfoundland and Labrador's harvested wood is primarily used in newsprint production which is controlled by two companies at three mills in the province. The low rent collected on the timber subsidises the capital employed in the newsprint sector. Since the companies involved are multi-nationals, much of the benefit from this resource accrues to interests outside the province.

Natural Resources, Who Benefits?

It is evident that Quebec has enjoyed substantial economic and fiscal gains from Newfoundland's natural resources. Their investment in the Churchill Falls project secured a source of cheap electricity that has helped Quebec develop a strong manufacturing sector. Processing, transportation and management of Labrador's iron ore has also been a significant source of employment and income Quebec.

The distribution of the "economic rent" from the province's oil and gas, mining and forestry resources is not known with certainty. The government of Newfoundland and Labrador appears to collect, at best, a modest return on these assets. The analysis in this report indicates that the province has either the lowest, or nearly the lowest, average revenue associated with its natural resources of any other province. The net benefit, therefore, flows to the owners of the factors of production. These companies and people are located throughout Canada and the rest of the world.

So, has Newfoundland and Labrador reaped sufficient rewards from its natural resource riches? Economists think of there being three factors that help an economy produce goods and services: labour, capital, and natural resources. Newfoundland and Labrador has, in general terms, only two of these three factors: labour and natural resources. As discussed earlier, the province's labour force has shrunk substantially over the last decade and with changes in technology and shifts in the natural resources being exploited from fish to oil, the need for labour will expand marginally at best over the coming decade. The third factor of production, capital, has flowed into the province from the rest of the country and – to a lesser degree – the world.

The free flow of capital is a benefit to both Newfoundland and Labrador and the rest of Canada from the economic union. The inflow of capital has made it possible to exploit the natural resources providing jobs and income for the province. It is also clear that the province's natural resources are a source of significant income for people throughout Canada – and through global interests – the rest of the world. The benefits to Newfoundland and Labrador accrue to labour and the public sector. Although workers in this sector may be paid high wages, there are relatively few of them, thus limiting the benefit to the province. But provincial income from these resources is also low relative to other provinces. Further research would be required to develop an understanding of the reasons why natural resource returns in the province appear to be low and whether any changes in policy are warranted.

Endnotes

1 GDP or Gross Domestic Product is a measure of the value of goods and services produced each year by an economy.

2 Some research has been done comparing Newfoundland and Labrador with countries such as Iceland, Norway and Ireland.

3 The Provincial Economic Accounts data used in this report is from the November 2002 release.

4 The Labour Force Survey does not provide employment estimates for the individual industries in this sector.

5 A nation-wide phenomenon.

6 The province's share of employment is slightly over-stated because data for the Yukon, Northwest Territories and Nunavut are excluded from the total.

7 Current spending includes spending on goods and services; transfers to persons, business and government, and interest on the public debt. It excludes spending on non-financial capital, net capital transfers and a capital consumption allowance.

8 This is the sum of public investment in fixed capital and inventories and the acquisition of existing assets.

9 Net spending – the difference between revenue and expenditure – is referred to as net lending by Statistics Canada reflecting the notion that saving occurs when revenue (or income) exceeds expenditure and borrowing (or lending) occurs when the reverse is true.

10 The remaining figures and tables in this chapter are based upon actual (or nominal) dollar figures rather than constant chain weighted dollars. This is done for several reasons: (i) there is more detailed information available in nominal dollar terms; (ii) ratio analysis and shares are not valid using constant chain weighted dollar data; and (iii) nominal dollars are less abstract than 1997 constant chain weighted dollars.

11 The November 2002 APEC **Atlantic Report** finds that Newfoundland and Labrador should lead the country with real growth in excess of 8% in 2002. They also forecast that the province is also likely to be a growth leader in 2003 with real GDP growth of about 4.4%.

12 International import data are recorded by province of clearance, which does not always coincide with the province of consumption. International imports cleared in another province and shipped by a wholesaler to Newfoundland and Labrador would count as an interprovincial import.

13 The concentration ratio is constructed by dividing Newfoundland and Labrador's share of its exports/imports to a given country by the same ratio for Canada and then multiplying by 100. An index value of more than 100 means that country is more important to Newfoundland and Labrador as a trade partner than it is to Canada. Conversely, a value

of less than 100 means that Newfoundland and Labrador's trade with that country is proportionally less than Canada's trade with the country.

14 The transshipment issue may partly explain Newfoundland and Labrador's apparent lack of US imports since international imports cleared in another province and shipped by a wholesaler to Newfoundland and Labrador are counted as interprovincial imports.

15 The trade data in Table 8 is presented in terms of five digit NAICS industries. The tables report trade in the products produced by that industry – either within the province for exports or by a foreign supplier for imports.

16 Obstfeld, Maurice and Kenneth Rogoff (1996). Foundations of International Macroeconomics. Cambridge, MA: The MIT Press. Page 16.

17 Demographic Change: Newfoundland and Labrador Issues and Implications, Government of Newfoundland and Labrador, April 2002.

18 Corporate profits before tax are measured as a share of net domestic product at basic prices.

19 This is equal to one minus the ratio of people in the labour force as a share of the total population in 2002.

20 The source population is defined as all people eligible to enter the labour force.

21 This estimate was derived from the CQM's Phillips' Curve. The Phillips Curve traces the relationship between wages and the unemployment rate. The assumed reduction in the labour force leads to a reduction in the number of unemployed and, therefore the unemployment rate. A decrease in the unemployment rate leads to an increase in the wage rate.

22 The discount rates used varied by concept. For nominal concepts such federal government revenue and expenditure the rates used was 6.1% - the average yield of Government of Canada 10 year bonds from 1995 to 2002. For real GDP (restated in millions of 2002 constant chain weighted dollars), the rate used was 4.2% - the average yield for Government of Canada 10 year bonds less the CPI inflation rate from 1995 to 2002. And a discount rate of 0% for concepts such as rates of inflation, interest, exchange and unemployment rates, the labour force and unemployment.

23 Indirect taxes include the GST which generates more revenue when prices rise.

24 The contract will expire in 2041.

25 The Centre for Spatial Economics reviewed the Department of Finance's assumptions and approach and believes they provide a reasonable assessment of the costs to the Province of the Churchill Falls contract over the last decade.

26 Average revenue per MWh in Quebec over the 1990s ranged from roughly \$46 to \$56. Wheeling (transmission) costs of about \$15 to \$20 per MWh would leave roughly \$20 to \$40 per MWh of surplus that could be paid to CF(L)Co.

[27] The fiscal assumptions adopted here are common for this type of analysis. There are, however, numerous alternative assumptions that could have been made regarding the choice between deficit and debt reduction, tax relief or spending increases and combinations of these measures.

[28] The analysis assumed that the increase in electricity revenue would be treated as a royalty and not subject to the Federal corporate income tax of 28%. If the revenue were treated as corporate profits, the Federal government would collect an additional $160 to $320 million in taxes a year – and the revenue available to the Provincial government would be reduced.

[29] The next, and final, increase in payout rates occurs after 200 million barrels of production which was reached in 2002.

[30] The mining sector includes metal and non-metal mining but excludes oil and gas mining.

[31] Provincial government mining revenue for Ontario includes its (small) oil and gas activity. Provincial revenue data for Quebec was available for 2 years (2000/01, 2001/02), for Manitoba was available for 3 years (1999/00 through 2001/02), and British Columbia was available for 4 years (1997/98 through 2000/01).

[32] Thousands of cubic metres

[33] The provincial revenue data used in this analysis is for the sale of timber from Provincial Crown Land and includes the following types of charges (not all categories are levied by each province): stumpage, sales and rentals, permit & licence fees, reforestation levies, protection fees, rent charges, area/holding charges, bonuses, penalties and interest charges.

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