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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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BASIC STATISTICS OF CANADA

THE LAND

Area (thousand sq. km)	9 976	Population of major cities (thousands, 2003)	
Agricultural area		Montreal	3 575
(1991, per cent of total area)	6.8	Toronto	5 102

THE PEOPLE

Population (2003)	31 618 229	Labour force (2003)	16 770 000
Number of inhabitants per sq. km	3.2	Employment in agriculture	339 625
Population, annual net natural increase (average 1999-2003)	114 254	Immigration (annual average 1999-2003)	223 689
Natural increase rate per 1 000 inhabitants (average 1999-2003)	3.6	Average annual increase in labour force (1999-2003, per cent)	2.0

THE PRODUCTION

GDP (million of Canadian dollars, 2003)	1 218 772	Origin of gross domestic product (2003, per cent of total)	
GDP per capita (Canadian dollars)	38 547	Agriculture, forestry and fishing	2.3
Gross fixed investment per capita		Mining and quarrying	3.6
(Canadian dollars)	7 508	Manufacturing	17.2
Gross fixed investment		Construction	5.6
(per cent of GDP)	19.5	Public administration	5.6
		Other	65.8

THE GOVERNMENT

Government current expenditure on goods and services (2003, per cent of GDP)	19.0	Composition of Parliament (June 2004)	Number of seats House of Commons	Senate
Government gross fixed capital		Liberal Party	135	62
formation (2003, per cent of GDP)	2.6	Conservative Party	99	23
Federal government current revenue		New Democratic Party	19	. .
(2003, per cent of GDP)	16.6	Bloc Québécois	54	. .
Federal direct and guaranteed debt		Independent	1	5
(2003, per cent of current expenditure)	223.6			

THE FOREIGN TRADE

Exports (2003)		Imports (2003)	
Exports of goods and services (per cent of GDP)	37.9	Imports of goods and services (per cent of GDP)	33.9
Main goods exports (per cent of total)		Main goods imports (per cent of total)	
Agricultural and fish products	7.3	Agricultural and fish products	6.3
Energy products	15.1	Energy products	5.7
Forestry products	8.6	Forestry products	0.9
Industrial goods and material	16.6	Industrial goods and material	19.1
Machinery and equipment	22.2	Machinery and equipment	28.7
Automotive products	21.8	Automotive products	22.3
Other goods	8.3	Other goods	16.9
Main customers		Main suppliers	
(per cent of commodity exports)		(per cent of commodity imports)	
United States	87.2	United States	60.7
EU	4.4	EU	11.6
Japan	2.1	Japan	4.1

THE CURRENCY

Monetary unit: Canadian dollar		Currency units per US$	
		Year 2003	1.401

Note: An international comparison of certain basic statistics is given in an annex table.

Executive summary

Economic performance has been solid, and macroeconomic policies are appropriate

– The economy is expected to expand by close to 3½ per cent in 2005, and the output gap will soon be closed. Monetary stimulus should gradually be removed and the fiscal policy stance needs to remain neutral.

– The Canadian dollar appreciated sharply in 2003 and is now probably not far from its fundamental value. Canadian firms will need to continue to adjust by making efforts to improve productivity to maintain competitiveness. Policy makers should remain focussed on policies that enhance productivity growth across all sectors.

– With a sound macroeconomic framework and structural policies that are mostly conducive to a well functioning economy, the country is well placed to meet the challenges of an ageing population, namely:

  • Maintaining rises in living standards through strong rates of productivity growth and policies to attenuate the expected fall in hours worked on average across the whole population.

  • Ensuring that public finances are sustainable, especially given pressures on health care outlays.

Product market competition could be strengthened

– Competition in general is quite strong, but the Competition Act could still be improved.

– Remaining restrictions on inter-provincial trade should be lifted, especially for professional services.

– Restrictions on foreign direct investment should be eliminated, and policy objectives in this area should be achieved through other means.

– Provincial governments need to inject more competition into all segments of electricity markets.

Obstacles to capital deepening and investment in human capital should be tackled

– Provincial governments should ease taxes on capital by eliminating sales taxes on capital goods and abolishing capital taxes. Capital cost allowances should continue to be examined to ensure that they are aligned with useful economic lives.

– More effective programmes for adult education are needed to improve literacy skills and provide opportunities for Canadians without qualifications to improve their labour-market prospects.

Policies should be adjusted where they discourage people from working

– The rules governing Employment Insurance should be changed to address persistent unemployment through more effective case management and activation requirements, reconsidering more generous benefits in high-unemployment regions, and addressing the favourable treatment of seasonal full-time work. Enterprise experience rating should be applied to discourage repeated use of temporary layoffs by some firms.

– The disincentive effects of persistent high effective marginal tax rates (EMTRs) faced by modest-income families need to be addressed by a concerted effort across all levels of governments. Return-to-work income supplements could be used to encourage people to move off social assistance.

– The present disincentives to continued work in the Canada Pension Plan should be removed and the scheme made actuarially fair for early and later retirement, as the Quebec Pension Plan is set to do.

Pressures on public finances will need to be contained

– The long-term sustainability of public finance needs to be closely monitored across all levels of government.

– Structural improvements are needed in the health sector to improve the quality of data, deliver efficiency gains and provide stronger incentives to improve health outcomes. Case-related payment systems for hospitals and more extensive use of mixed payment systems for primary care providers could provide better incentives.

– With a long-term federal contribution to provincial health budgets now agreed, provinces should focus on greater efficiency, instead of seeking additional federal funding, in order to meet health care objectives.

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

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The economic situation and policies of Canada were reviewed by the Committee on 13 September 2004. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 29 September 2004.

•

The Secretariat's draft report was prepared for the Committee by Deborah Roseveare, Annabelle Mourougane and Maria Maher under the supervision of Peter Jarrett.

•

The previous Survey of Canada was issued in September 2003.

Assessment and recommendations

Economic performance has been solid, and macro policies are appropriate

The Canadian economy has delivered solid performance for nearly a decade with increased resilience to economic shocks, demonstrating the benefits of a well-designed macroeconomic framework and the pay-off from a range of structural reforms implemented since the late 1980s. A relatively weak outturn in 2003 was mainly attributable to the impact of the sharp appreciation of the Canadian dollar, lacklustre foreign demand and a series of other unfavourable, but transitory, shocks affecting specific industries. These effects have now dissipated, and activity is once again buoyant. Given recent developments, the economy is expected to expand by around 3 per cent in 2004 and 3½ per cent in 2005, somewhat above the rates projected in the last *Economic Outlook*. At this pace, the OECD's measure of the output gap would close during the course of 2005, and the Bank of Canada will need to continue removing monetary stimulus so as to avoid inflation picking up. The March 2004 budget reflected the federal government's continuing commitment to achieving balanced budgets or better and reducing public debt, a strategy that has widespread public support. The current macroeconomic policy mix is appropriate for this point in the economic cycle. But it will be important to maintain a neutral fiscal stance: any easing of fiscal policy would provide an unhelpful pro-cyclical stimulus that would need to be offset by higher interest rates, pushing up the Canadian dollar still further and squeezing the interest- and exchange-rate-sensitive sectors of the economy.

Businesses need to continue to adjust to the higher Canadian dollar

Last year's appreciation of the dollar reflects a shift in portfolio preferences after a long period when Canada was unjustifiably seen as a perennial under-performer, and the currency is now at a level that is probably not far from fundamental values. This shift in relative prices for domestic *versus* foreign produced output will bring about structural changes as firms adjust. In any case, Canadian enterprises will face even stronger competition from rivals in emerging economies in coming years and higher security costs at the US border. Despite some calls from business for a lower dollar or for government inducements to keep production in Canada, the most appropriate response is for domestic policy-makers to redouble their focus on enhancing productivity growth and innovation in high- and low-technology sectors alike.

Productivity growth has picked up pace as structural policy reforms have delivered results

Canadians have benefited from an expansion in GDP per capita at a rate of around 2½ per cent per year since the mid-1990s, significantly faster than was experienced in the first half of the 1990s. This partly reflects a turn-around in labour utilisation, with strong employment growth offsetting some shrinkage in average hours worked per employee. A larger contribution has come from an increase in hourly productivity growth, which has averaged close to 2 per cent per year since 1995. Although productivity growth is subject to cyclical fluctuations, especially in the business sector, the stronger underlying productivity performance since the mid-1990s in part reflects the better functioning of the economy following a series of structural reforms. These have allowed the economy to adjust more rapidly to the forces of change.

Looking ahead, managing the impact of the ageing population will be important

This positive backdrop provides the new federal government and its provincial counterparts with an ideal opportunity to identify previously overlooked pockets where changes in approach would deliver better outcomes and tackle those areas that for various reasons have so far proved too difficult to address. Looking ahead, as Canada's baby-boomers pass into retirement, the dependency ratio will rise and the working-age population shrink in the absence of net inflows of migrants. Responding to these developments presents the country with two key challenges:

– Maintaining steady improvements in living standards, despite increases in the old-age dependency ratio. This

will mainly require continued strong rates of productivity growth, although adjustments to policies affecting labour supply could contribute by attenuating the expected fall in total hours worked.

– Ensuring that public finances across all levels of government remain sustainable in the long term, especially given the upward pressures on publicly financed health care outlays.

The competition legislation framework could be further improved

One of the key drivers of productivity growth in OECD countries is product market competition. Competitive forces are, in general, strong in Canada, in large part because most barriers to international trade have been dismantled, and administrative and economic regulations inhibiting competition are amongst the lowest in the OECD. Nonetheless, there are a few areas where improvements could be made. The institutional framework governing competition policy could be enhanced in several ways:

– The Competition Act could be strengthened by permitting ready prosecution of hard-core cartels while providing appropriate civil law enforcement for economic conduct that warrants more refined examination, and by converting the prohibitions on predatory and discriminatory pricing from criminal to civil violations.

– Compliance with the Act's civil provisions may be enhanced by authorising monetary penalties for abuse of dominance and other civil violations of the Competition Act; expanding private access to the Tribunal to cover all of the Act's civil provisions (except mergers); and permitting private plaintiffs to sue and recover for damages for violations of the Act's civil provisions.

– Although progress has already been made, lingering misperceptions regarding the independence of the Competition Bureau could be further dispelled by continuing to present its budget as a separate line item within Industry Canada's E*stimates*. This would reinforce the move towards greater transparency for the Bureau.

– More generally, the Bureau (or an independent third party) could be mandated to undertake comprehensive studies of competition in relevant sectors on its own ini-

tiative, to identify the causes of market failures and to make competition-enhancing recommendations.

Remaining provincial and inter-provincial restraints on competition should be lifted

Although competition in most sectors appears to be vigorous, it is rather lacklustre in several specific cases. Canada's regulated conduct doctrine exempts anti-competitive behaviour when required by regulation, and thus some significant parts of the economy remain shielded from competition law. This is a particular problem with provincial government regulation. Hence, identifying sectors where reform is most needed through a comprehensive review of the impact of these restraints on competition would be welcome. Although progress has been made, restrictions on inter-provincial trade continue to exist, and implementation of the Agreement on Internal Trade is less effective than it could be. More attention needs to be focussed on removing those regulations that restrain competition in professional services, both within and between provinces.

Restrictions on foreign direct investment should be eliminated

Canada also has more significant restrictions on foreign ownership than almost any other OECD country – even though they are confined to a few key sectors – and they should be eliminated. For example, removing them in airlines (as well as lifting cabotage restrictions on domestic air routes) would spur competition and provide gains to consumers in the form of price reductions and greater choice. Foreign ownership restrictions in telecommunications and broadcasting may slow the diffusion of new technology, often provided by foreign firms. They are also burdensome, both here and elsewhere, because they could limit the pressure on incumbents to bear down on costs. In any case, the cultural and other policy objectives that Canada has traditionally sought by such means could be achieved more effectively through the direct and transparent mechanisms – such as Canadian content rules – that are already in place.

Provincial governments need to inject more competition into electricity markets

The electricity sector has traditionally been characterised by vertically integrated, provincially owned public enterprises, and competition has been largely absent. The sector stands out: while prices are low in international comparison – essentially reflecting the ample supply of low-cost hydroelectric power – performance has been sub-standard

over the past decade, as illustrated by comparatively poor productivity gains. While it is widely recognised that reforms are necessary, those undertaken in the past have mainly been aimed at bringing in private-sector investment and protecting access to US wholesale electricity markets, while avoiding full competition in generating and retail markets. Only Alberta and Ontario have introduced widespread competition. Full wholesale competition in Alberta began at the same time as the California electricity crisis. The introduction of both retail and wholesale competition in Ontario was accompanied by an unusually hot summer and shortages in capacity. In both cases these unforeseen circumstances led to increases in prices and volatility and the imposition of retail price ceilings. In contrast with Ontario, Alberta's reforms have been successful in large part because those caps were set at a relatively high level, thus preserving incentives for investment. Provinces would benefit from introducing more competition and implementing the structural reforms, such as vertical separation, required to achieve competitive electricity markets. In this effort, the success of reforms in Alberta and lessons learned from the mistakes in Ontario could be used to guide provincial policy makers.

Reducing effective taxation on businesses would encourage investment in physical capital

Vibrant competition provides the pressure for faster productivity growth, which comes about, in part, through capital deepening, *i.e.* the process of augmenting the amount of capital available for each hour worked. Although significant progress has already been made on reducing the impact of taxation on the user cost of capital through various measures announced over the past few years, some business tax distortions that inhibit investment could be removed, namely by:

– Eliminating provincial sales taxes on capital goods and abolishing capital taxes.

– Continuing to examine capital cost allowances to ensure that they are aligned with useful economic lives.

However, such moves would need to be taken within the present prudent fiscal framework.

Adult basic education programmes need to be more effective

Productivity growth also depends on improvements in human capital. Canada already has a well educated adult population and an education system that delivers excellent achievement overall. Boosting the skills of those who are already well qualified would possibly make the largest contribution to human capital growth. But it is less clear how public policies effectively contribute to that process: the analytical and empirical underpinnings are currently being re-examined by the authorities. In the meantime, greater efforts are clearly needed to provide help for those Canadians who have fallen through the cracks of the education system and who have not obtained even a high-school qualification and thus have both a lower earnings capacity and higher unemployment risk. Their difficulties are closely related to improving their basic literacy skills, but the quality of the programmes available for helping them is mixed. Programmes to meet the needs of this low-skilled group need to be redesigned to make them more effective. Improving the efficiency of such investments could pay significant returns over time through better labour-market outcomes, especially for younger people.

Employment Insurance needs to address persistent unemployment more effectively

Rising living standards depend not only on productivity growth but also on the average hours worked by each member of society. Although employment rates are generally high by OECD standards, Canada's structural unemployment rate remains persistently elevated at around 7 per cent of the labour force, and seasonal unemployment claims are significant. The parameters of federal Employment Insurance (EI) could be adjusted in several ways to address pockets where unemployment is persistent, namely by:

– Adopting more effective case management techniques and activation requirements (especially for workers who are frequent users). They should be oriented towards addressing the skill gaps that currently limit such users' options in the labour market.

– Reconsidering the present rules that offer more generous unemployment benefits in regions where unemployment is high so as to achieve a better balance between providing stronger incentives for job search and a fair access to benefits among regions.

– Addressing the present favourable treatment of seasonal, full-time work for those working close to the minimum qualifying hours, especially in high unemployment areas.

– Incorporating experience rating of employers into their premium rates. This would effectively eliminate the significant subsidy that arises because EI is used disproportionately and repeatedly by some firms for seasonal and short-term layoffs at the expense of other employers. This would internalise these costs without reducing income protection to those who become unemployed.

Renewed efforts are needed to minimise the work disincentives of family income support

Another weak spot in Canadian policies that affect the labour supply concerns "welfare traps". The incentives to move from social assistance to work have improved since the mid-1990s, in large part because of the introduction of the National Child Benefit (NCB), which does not depend on work status. But a range of other in-kind benefits are still linked to social assistance, including subsidised health care and housing. Greater use could be made of back-to-work benefits, accompanied by more effective job-oriented case management, to both encourage and facilitate the shift from welfare into work. Although the NCB has reduced the extremely high effective marginal tax rates (EMTRs) faced by families in moving from welfare to work, it has increased EMTRs for some low- to middle-income working families, which are disproportionately headed by lone parents. As a result, many of these households remain persistently below income levels where EMTRs fall back to more moderate values. The problem is exacerbated by means-tested provincial programmes, and all levels of government need to engage together in a concerted effort to address the disincentives associated with these stacked claw-back rates. This exercise may need to be embedded within a broader assessment of tax and benefit arrangements as instruments for dealing with equity concerns.

Pension rules could make it more rewarding for older people to keep working

Labour supply could also be boosted by greater participation by those in older age groups. Although significant numbers of Canadians already work into their late 60s and even their early 70s, surveys suggest that higher proportions would follow suit, at least part-time, if they did not suffer a financial penalty for doing so, as is currently the case under

the Canada and Quebec Pension Plans (CPP/QPP) and many employer-sponsored pension plans. The CPP and QPP (and possibly other retirement income programmes, such as Old Age Security) should be changed to make actuarially neutral adjustments for early or late commencement of benefits. Furthermore, the requirement to stop working in order to start drawing an early pension should be lifted. A proposal along these lines, already made to eliminate obstacles to work from the QPP, deserves support and should be extended to the CPP as well. Changes to public pension plans along these lines could accommodate the trend towards more varied patterns of work and retirement and could also have a significant signalling effect by encouraging employer-sponsored pension plans to similarly revisit their early retirement incentives in anticipation of projected future labour shortages. A further constraint on some of those wishing to continue working is contractual mandatory retirement provisions in collective agreements. For those people, searching for a new job may involve costs and frustration, and their new wages may be lower, because firm-specific skills have little value to other potential employers. On balance, it would be helpful to extend the ban on compulsory retirement that already applies in the federal civil service and some provinces across the rest of the country.

A more comprehensive framework would help in monitoring sustainability of public finances...

Demographic pressures will also weigh on public finances, although deferred taxes on private pension payments will provide some offset and the CPP/QPP are on sustainable paths, unlike in most other OECD countries. Nevertheless, public debt needs to be reduced to make room for future pressures, and the main forces driving up public expenditures, most notably health care, need to be contained. In the 2004 budget, the federal government not only re-affirmed its commitment to budget balance or better but also introduced an objective to reduce federal debt to 25 per cent of GDP within 10 years. Both actions are welcome; indeed this blend of fiscal responsibility year by year and attention to longer-term outcomes could be developed further. Federal and provincial governments should join together in adopting a long-term fiscal sustainability framework covering all levels of government that could identify where pressures are likely to emerge and assess the long-

term implications of different policy options. An independent agency could be assigned the task of periodically assessing the situation to set it outside the political decision-making process and enhance its credibility.

… and better financial information is needed in the health sector

A comprehensive long-term framework would also help Canadians to assess the costs involved in future increases in publicly funded health service standards and the trade-offs in the form of higher tax liabilities and/or reduced non-health public services. The public is very concerned about the current cost, quality and responsiveness of the health care system, but the validity of this disquiet is difficult to assess because of gaps in information. More intensive efforts are needed to upgrade financial management and information systems: detailed, activity-based costing of services is essential to obtaining a comprehensive understanding of present strengths and weaknesses of the system as a whole, as well as the effectiveness of alternative treatments and the efficiency of different providers and institutions. It is also a pre-requisite to ensuring that additional resources currently being pumped into health will be applied in the most effective areas and deliver commensurate increases in outputs.

Greater health-system efficiency could be obtained through better payment methods

Several adjustments to the institutional framework for managing health care could also deliver efficiency gains and provide stronger incentives to improve health outcomes:

– Extending the public health care system to provide coverage for home care and to put a cap on out-of-pocket expenditures on pharmaceuticals. This would lead to more appropriate use of hospital services by reducing present biases in clinical decisions due to differences in coverage.

– Increasing incentives for hospitals to enhance efficiency by modifying funding mechanisms, for example, by reimbursing hospital care on the basis of reimbursement rates established for each Diagnosis Related Group. This would facilitate more transparent, informed choices about health priorities and help in identifying where delivery could be improved.

– Using mixed payment methods more extensively for primary health care providers. Combining a salary or capita-

tion component along with fees for services rendered could provide better incentives for doctors, encouraging them to provide care focused on long-term health outcomes.

A laudable initiative is the Canada-wide approach to establishing electronic patient records, which would help to provide a more integrated approach to health care, reaching across all points in the system.

The new long-term agreement on health-care financing should help provinces to focus on efficiency gains

Funding of health care has been a contentious issue, with provinces eager to persuade the federal government to contribute an increasing share. However, the scope to lobby continuously for extra federal funds reduces the pressure on provincial governments to get better value for money out of their own health spending. The September 2004 agreement between the federal government and the provinces sets out a 10-year plan for strengthening health care, accompanied by an additional C$41 billion in new federal funding. To achieve associated efficiency gains, these arrangements should be made impervious to any further renegotiation efforts over the 10-year period. They provide the provinces with a clear basis for long-term planning and allow them to concentrate their efforts on delivering better results than achieved under the previous arrangements.

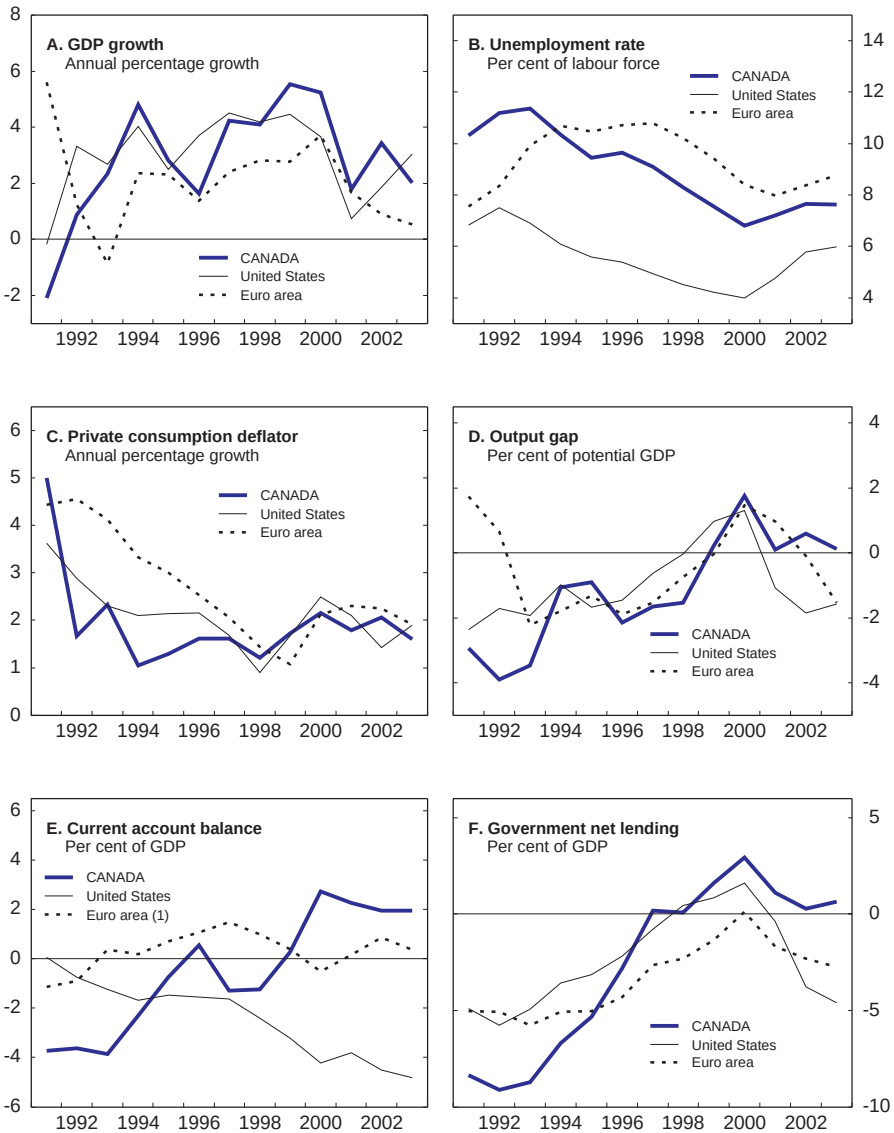
1. Key challenges

Canada's economic performance has remained robust overall, despite a sluggish rebound in 2003 from the earlier global slowdown. The macroeconomic framework established in the 1990s has worked well and places the country in the enviable position of being able to focus its attention primarily on addressing longer-term concerns. A large number of other OECD countries face similar challenges, often to a greater degree and from a less favourable initial position. Nevertheless, some policies that would enhance the living standards of Canadians over the longer term will take time to implement, and in this context the renewed focus on more distant horizons and greater exploration of policy approaches that emphasise improvements in life-time outcomes are welcome.

To set the scene, this chapter first considers Canada's recent macroeconomic performance and potential developments concerning its place in an increasingly globalised world. The country has reaped the benefits of having a sound macroeconomic framework and the economy is currently producing close to its potential. Furthermore, the Canadian dollar appreciated significantly during the course of 2003, reflecting a shift in portfolio preferences in recognition of the country's improved relative performance and the exchange rate is now probably not far away from its equilibrium level. This is likely to bring about some structural changes as firms adjust to the shift in relative prices for domestic and foreign output. Several other factors may affect patterns of trade in coming years, and policy makers will need to resist any calls for measures that would impede the process of adjustment from sectors of the economy that may find this evolution painful. The chapter then turns to the two key challenges facing Canada in coming years, which will in turn provide some pointers towards priorities for the new government to consider:

- To identify ways of continuing to improve living standards – despite demographic patterns that will become less favourable through time – while maintaining the social values that are important to Canadians: productivity growth is the key element although total hours worked may contribute.
- To reinforce the sustainability of public finances and to ensure that the exemplary record of fiscal consolidation over the past decade is

Figure 1.1. **Macroeconomic performance in an international perspective**
Per cent



1. Including intra-trade.
Source: Statistics Canada; OECD.

transformed into a more robust framework for dealing with the ageing-related pressures that will emerge, particularly for health care.

Macroeconomic performance in a globalising world

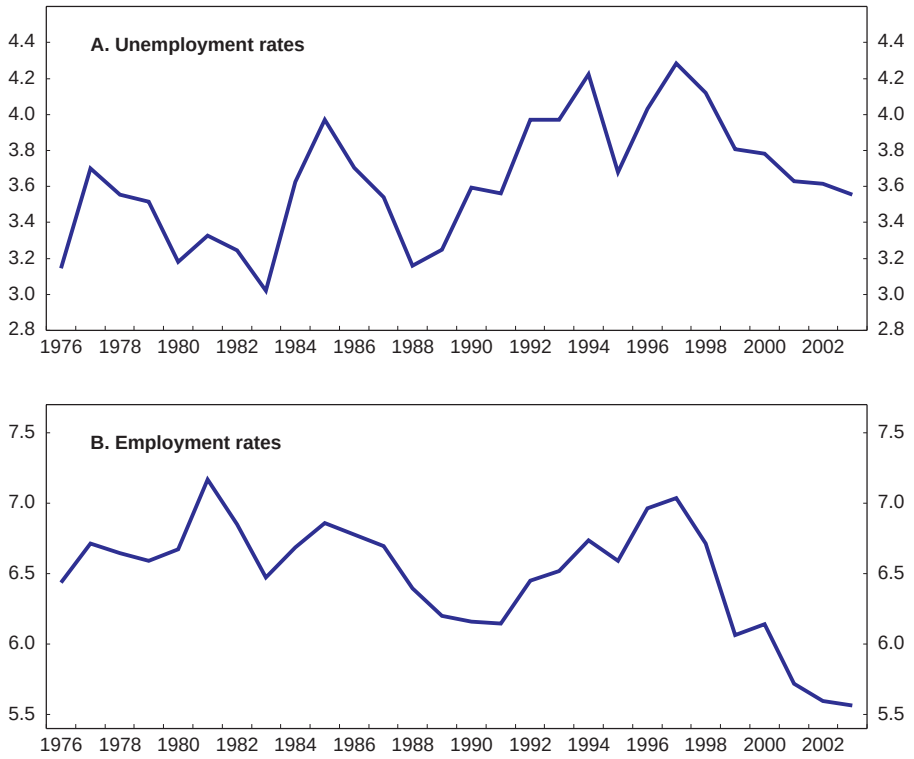
Canada's overall macroeconomic performance has been solid for about a decade, despite the slowdown in 2003, and the upswing is now well underway: no significant macroeconomic imbalances are evident (Figure 1.1). Key features of recent developments are the following:

- From 1998 to 2002, Canada's economy expanded at a faster pace than the United States or the average of the G7 countries, but in 2003 the country grew at a rate that was slightly below the G7 average. A series of one-off, negative shocks (SARS, BSE and the electricity blackout) grabbed headlines and were painful for certain sectors and regions, but overall had a small impact on annual GDP growth (Bank of Canada, 2003). Most of the slowdown can be explained by the currency appreciation, which severely affected net exports.
- Despite the weakness in net exports, the current account surplus rose by a further C$2.4 billion in 2003, with a higher trade balance surplus and a narrowing deficit on investment income. This increase in the surplus stemmed from improved terms of trade, mainly resulting from the boom in commodities prices. It stands in clear contrast with the United States.
- Households' incomes have risen modestly, but consumer spending has continued to grow steadily, while housing is booming. The national accounts measure of the household saving ratio has been declining and reached an historical low in 2003. In contrast, the balance sheet measure, which includes capital gains and purchases of durable goods, shows that the saving ratio remains close to its long term average. Households have adjusted their portfolios from financial to non financial assets since the stock market crash in 2000-01.[1]
- Non-financial corporations have become steadily more profitable since the mid-1990s, thanks to favourable growth performance and moderate wage growth. Corporate profits rose by 10 per cent to a record level in 2003. But firms with a high exposure to international trade have not benefited as the exchange rate appreciation squeezed their profit margins. Firms have been rebuilding their balance sheets, and their financial assets, in particular short-term assets like cash and bank deposits, have increased at a much faster rate than their non-financial assets.
- In contrast to the United States, economic growth since 2002 has become more job-intensive, although there was a slump in the manufacturing sector and an upturn in the non-manufacturing sector. Recent rapid

employment expansion has been characterised by a steady creation of full-time jobs and slow growth in part-time jobs.

– But the decline in unemployment has been limited, as participation rates have increased steadily since 1996, and the average unemployment rate in 2003 was still high at 7.6 per cent, compared with 6 per cent for the United States and an average of 6.6 per cent across the G7 as a whole.[2] Provincial labour-market disparities have diminished since 1997, but with a less pronounced reduction in dispersion for unemployment than for employment rates (Figure 1.2).

Figure 1.2. **Dispersion of provincial labour market outcomes**
Standard deviation



Source: Statistics Canada.

– For the economy as a whole, hourly productivity has continued to expand at a steady pace of close to 2 per cent since the mid-1990s (see below). By contrast, hourly productivity growth in the business sector decelerated markedly from a compound annual rate of nearly 3 per cent in the 1996-2000 period to less than 1.5 per cent in 2000-03, although this slowdown is probably mostly cyclical.

– Both headline and core inflation (as measured by the CPI) have remained in the 1 to 3 per cent target band, except for the last quarter of 2002 and the first quarter of 2003, which partly reflected special factors. The higher exchange rate helped by putting downward pressure on prices and limiting the effects of rising oil prices and a one-off electricity price increase that was the result of the failed liberalisation attempt in Ontario (see Chapter 2).

– With low inflation and weak growth in GDP per employee, wage settlements remained moderate, with an average increase of 2.6 per cent in 2003. This aggregate result masked significant divergences: wage agreements were much more moderate in most of the private sector, including wage freezes/cuts in three Air Canada agreements, but the construction sector and, to a lesser extent, the public sector and primary industries posted much larger increases.

The macroeconomic outlook looks bright

After modest growth in the winter of 2003-04, economic activity is expected to pick up over the near term. Against the background of an expected recovery in world demand, the economy is projected to accelerate over the next two years, now that the effects of the 2002-03 exchange rate appreciation have largely dissipated (Table 1.1). These projections assume unchanged exchange rates and incorporate a rise toward more neutral real interest rates. There are nevertheless some risks to this outlook. The main risk would be higher oil prices than currently assumed. As a net exporter, Canada would gain higher export revenues in such a scenario, but higher prices would have a moderating effect on the US demand and thus for Canadian exports. More generally, a shallower rebound in world trade and/or more pronounced lagged effects of last year's currency appreciation would postpone the expansion. On the domestic side, inflation may not recede as quickly as expected, for example if workers try to recover lost real incomes, leading to a more accentuated slowdown in private consumption. Economic growth could also be curbed by a more rapid rise in the savings rate. By contrast, if trend productivity growth has weakened then the resulting employment gains might boost consumer spending.

Table 1.1. **Short-term projections**
Annual percentage change, volume (chained 1997 Canadian dollars)

	2000 (Per cent of GDP)	2001	2002	2003	2004	2005
Private consumption	55.5	2.7	3.4	3.1	3.3	2.8
Government consumption	18.3	3.7	3.0	3.8	2.7	3.1
Gross fixed investment	19.7	4.1	2.4	4.9	6.2	5.3
Public[1]	2.3	10.4	9.2	6.9	3.3	5.3
Private residential	4.5	10.5	14.4	7.4	8.6	2.2
Private non-residential	12.9	0.7	–4.0	3.2	5.4	7.2
Final domestic demand	**93.5**	**3.2**	**3.1**	**3.6**	**3.7**	**3.4**
Stockbuilding[2]	1.3	–1.7	0.6	0.9	–0.9	0.3
Total domestic demand	**94.9**	**1.2**	**3.7**	**4.6**	**2.9**	**3.6**
Exports of goods and services	44.9	–2.8	1.1	–2.4	8.0	7.7
Imports of goods and services	39.8	–5.0	1.4	3.8	8.5	8.7
Foreign balance[2]	**5.2**	**0.7**	**–0.1**	**–2.4**	**0.1**	**–0.2**
GDP at market prices	**100.0**	**1.8**	**3.4**	**2.0**	**3.0**	**3.5**
Prices and employment						
GDP implicit price deflator	. .	1.1	1.0	3.2	3.7	3.4
Private consumption price deflator	. .	1.8	2.1	1.6	1.7	1.9
Total employment	. .	1.1	2.2	2.2	1.8	1.4
Unemployment rate		7.2	7.6	7.6	7.2	7.1
Memorandum items:						
Government net lending (per cent of GDP)	. .	1.1	0.3	0.6	1.1	1.3
Short-term interest rate	. .	4.0	2.6	3.0	2.5	3.6
Current balance (per cent of GDP)	. .	2.3	2.0	2.0	3.6	4.8

Note: This table contains preliminary projections that will be updated in the OECD *Economic Outlook* 76 to be published at the end of November 2004.
1. Excluding nationalised industries and public corporations.
2. Contribution to GDP volume growth.
Source: OECD Secretariat.

The monetary and fiscal framework is working well

The economic policy framework is characterised by monetary policy geared to a credible inflation target with a floating exchange rate, and a fiscal policy aiming at fiscal balance or better every year, thereby reducing federal debt in relation to GDP over time.

Since 1991, the objective of monetary policy has been to keep year-on-year headline CPI inflation within a target range established jointly by the Bank of Canada and the Government of Canada. The current inflation target of 1 to 3 per cent has been in place since 1995 and extends to the end of 2006. A measure of *core inflation* serves as an operational guide, as it provides a better measure of the

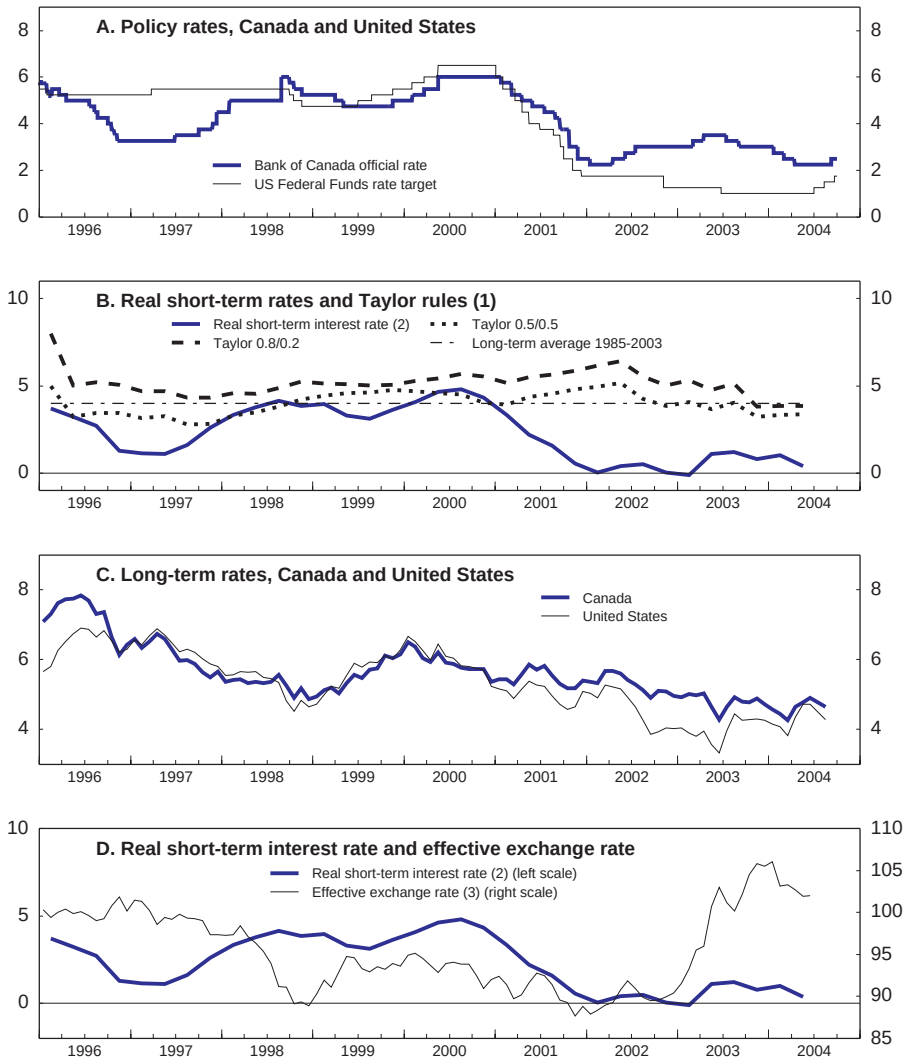
underlying trend of inflation by excluding volatile components like food and energy prices. The monetary framework is also characterised by its predictability and its transparency, with regular publications of assessments of recent economic developments, inflation forecasts and clear statements on monetary policy decisions. This has proven useful in enhancing the credibility of the Bank of Canada's policy, with most indicators of inflation expectations now well anchored to the target.[3] Though the current monetary framework has proven successful, the Government of Canada and the Bank of Canada are committed to reviewing their experience with the inflation control range by the end of 2006. This exercise, last undertaken in 2001, will review the appropriateness of the 1-3 per cent inflation control range and how the target should be formulated in the future. As well, the review will examine such issues as the appropriate measures of core inflation and the potential role of asset prices in the conduct of monetary policy.

The Bank of Canada lowered interest rates three times in 2004 by a total of 75 basis points (Figure 1.3). These moves were justified by the absence of pressures on inflation and uncertainties at that time regarding the strength and the timing of the economic rebound. Recent data suggest that the output gap is closing, and that inflation is close to the mid-point target of the band. As a result, the Bank of Canada raised interest rates by 25 basis points in September 2004. Real short-term interest rates still remain well below their long-term average. They are also below the outcome that would be predicted by a standard Taylor rule using the estimated level of the output gap and the deviation of core CPI inflation from the inflation target, though the size of the difference depends on the preferences of the monetary authorities on the trade-off between inflation and economic growth. This suggests that interest rates will have to rise at least to neutrality if expectations of strong economic growth are realised and generalised capacity constraints emerge. The Bank of Canada should thus continue to be vigilant and closely monitor inflation pressures, as well as signs of recovery in world demand.

The fiscal policy framework is one of the most prudent amongst the OECD countries. An annual contingency reserve of C$3 billion is earmarked in the budget towards federal debt reduction, if it is not needed to deal with unforeseen circumstances. Normally, an additional C$1 billion of "prudence" margin is also set aside in the first year of the budget plan to finance unexpected events. If not required, this is used to pay down the federal debt or to finance new spending or revenue measures. For the fiscal year 2003-04, this "prudence" margin was drawn down to offset the impact of weaker economic growth on revenues. As well, in March 2004, C$1 billion was provided in assistance to the agricultural sector and a supplementary C$2 billion cash transfer was made to the provinces for health care spending (Table 1.2). As a result, only C$1.9 billion of the contingency reserve remained.

In the March 2004 federal budget, some additional medium-term elements were added to the framework. In particular, an objective of reducing the

Figure 1.3. **Interest rates and other indicators of monetary stance**
Per cent



1. Taylor rules are used to derive real interest rates as a function of the output gap and the deviation of actual inflation from its target (2 per cent). Either equal weights (Taylor 0.5/0.5) or a stronger preference on the inflation objective (Taylor 0.8/0.2) are assumed.
2. Deflated by the core inflation rate, proxied by the Bank of Canada measure, calculated over the previous 4 quarters.
3. Index 1995 = 100. A rise indicates an appreciation of the Canadian dollar.

Source: Bank of Canada; Statistics Canada; Board of Governors of the Federal Reserve System.

Table 1.2. **Fiscal outlook including March 2004 budget measures**
Billions of Canadian dollars

	2003-04	2004-05	2005-06
Revised "status quo" budgetary surplus	5.5	4.2	6.6
Budget 2004 measures			
March 2004 agricultural assistance package	1.0		
Health[1]	2.5	0.1	0.1
Learning		0.3	0.5
Communities	0.1	0.9	0.8
Knowledge and commercialisation		0.3	0.4
Canada's relationship to the world		0.4	0.5
Equalisation/Territorial formula financing		0.2	0.2
Other		0.0	0.1
Net impact	3.6	2.2	2.5
Asset sale		–2.0	
Remaining budgetary surplus	1.9	4.0	4.0
Prudence			
Contingency reserve	1.9	3.0	3.0
Economic Prudence	0.0	1.0	1.0
Total budgetary balance	0.0	0.0	0.0

1. This includes the CHST supplement for health, funding to Canada Health Infoway and support to provinces and territories, but does not include the 10-year Action Plan for Health.

Source: Finance Canada (2004).

federal debt-to-GDP ratio to 25 per cent within 10 years was introduced. Concerns about the efficiency of public spending have also been addressed by setting up a Cabinet Committee on Expenditure Review, whose objectives are to examine all programmes and identify at least C$3 billion in annual savings within four years. This sum would then be used for reinvestment in priority areas. This Committee's work was put on hold for few months because of the elections but is set to resume now that the new government is in place. All these changes are welcome and should contribute to better fiscal management.

The current fiscal policy stance has remained neutral so far, despite the electoral context. The government has reiterated its commitment to achieving a balanced budget or better. The C$1 billion "prudence" margin has been restored, and new spending has been limited and targeted to education and health, and to a lesser extent research and community development (see Box 1.1). On the revenue side, the federal government announced its intention to sell its remaining shares in Petro-Canada in the fiscal year 2004-05. With the exception of an increase in the capital cost allowance rates for computer and broadband and Internet equipment and a full GST rebate for municipalities, the latest budget contained no major new tax reductions. Still, a number of tax cuts for both corporations and households came into effect in January 2004, marking the final stage of the 2000

Box 1.1. Main spending and revenue initiatives in the March 2004 Federal Budget

Health

- Confirmation of a one-off additional C$2 billion transfer to the provinces and territories.
- Establishment of a new Canada Public Health Agency.
- Funding of C$665 million from 2003-04 to 2005-06 and over the following two years to improve Canada's readiness to deal with a public health emergency.

Education

- Introduction of a new Canada Learning Bond, which will provide up to C$2 000 for children in low income families born after 2003 for post-secondary education.
- Enhancement of the Canada Education Savings Grant matching rate for low- and middle-income families.
- Introduction of a new grant for first-year, post-secondary dependent students from low-income families.
- Increase in the ceiling for Canada Student Loans and increase in the income thresholds used for determining eligibility for student-loan interest relief.

Knowledge and commercialisation of R&D

- Increase in the capital cost allowance (*i.e.* depreciation) rate for computer equipment from 30 per cent to 45 per cent and in the rate for broadband, Internet and other data network infrastructure equipment from 20 per cent to 30 per cent.
- Additional spending through a range of channels (including CIHR, NSERC, SSHRC, universities and research hospitals, and Genome Canada) with special emphasis on support for commercialisation of research.
- C$250 million to purchase shares in Business Development Bank of Canada, so as to provide new sources of risk capital to pre-seed and seed stage firms; specialised venture capital funds; and start-up and early-stage companies.

Communities

- C$7 billion in GST/HST relief for municipalities of all sizes over the next 10 years.
- Acceleration of the C$1 billion Municipal Rural Infrastructure Fund, with spending over the next five years instead of ten.

Revenue

- Sale of the government's remaining shares in Petro-Canada in 2004-05, which is expected to provide approximately C$2 billion in net budgetary revenues.

Source: Finance Canada, The Budget Plan 2004.

five-year tax reduction plan, while further child tax benefit enhancements and other corporate tax reductions initiated in the 2003 budget will complete their phase-in over the coming years. Against this background, the federal debt-to-GDP ratio would fall from 44.2 per cent in 2002-03 to 37.8 per cent in 2005-06, if the full C$3 billion contingency reserve is allocated to debt reduction. This would bring that debt measure to its lowest level since 1984-85 and constitute progress in moving towards the 25 per cent objective. Several spending measures have been announced since the March budget. In September 2004, the government announced an additional C$500 million aid package to help beef producers hit by BSE. More importantly, the 10-year Action Plan for Health agreed by First Ministers in September 2004 provides new federal funding for health care, but the overall impact on public finances depends on a range of other factors, including the scope for reallocation from lower priority programmes identified by the current programme review process. It is too early to form an assessment, but the government has reiterated that the package will not compromise its fiscal position.

The priorities set out in the different 2004 provincial budgets show many common features and include increasing funds to the health care and education sectors and providing municipalities with more resources for infrastructure investment. This was compensated by less money for administration in some cases. In general, there was a tendency toward alleviating the tax burden for the private sector or to maintain the *status quo* with no tax increases or new taxes tabled. Major exceptions include the introduction of a new health care premium in Ontario and increases in corporate or consumption tax in some provinces.

Canadian firms are likely to face stronger competitive pressures

A period of significant structural adjustment may be underway in Canada as businesses adjust to a different economic environment. Canada's rapid expansion since the mid-1990s to some extent reflects the processes of reabsorbing slack, exploiting the opportunities provided by the liberalisation associated with freer trade in North America and taking advantage of a low exchange rate. But the one-off gains from North American Free Trade Agreement (NAFTA) have probably worked through the Canadian economy and the exchange rate has appreciated significantly and is now at a level that is probably not far from its equilibrium (see Annex I.1). This has resulted in a shift in the relative prices between Canadian and foreign-produced output. This means that competitiveness gains will need to come through other channels than the exchange rates, and the industrial structure of the Canadian economy may need to adjust. Furthermore, a number of other external developments will also affect the economic environment for Canadian firms (see Box I.2). But the heightened pressure to improve products and reduce costs in order to compete, whether in foreign markets or against imports in Canada, should be seen as a positive development, because it should lead to faster productivity growth, a key determinant of rising living standards.

Box 1.2. The international environment and challenges for Canadian firms

The United States has been the natural market for Canadian exporters because of geographical and cultural proximity, and trade between the two countries has become more intensified in recent years. Although this has brought many benefits, it has also elicited some concerns about Canada's vulnerability to its neighbour's economic performance and policies. Any slowdown in US economic activity will lead to lower demand for Canadian products and have a more direct impact than it does on most other countries (Table 1.3). Increased trade linkages have also reinforced the vulnerability of the Canadian economy to movements in the US bilateral exchange rate: a sustained shift in the bilateral exchange rate by 10 per cent would decrease Canadian economic activity by around 1.2 per cent after one year. These estimates assume that the nominal exchange rate is exogenous, so they do not incorporate any change-in-tastes effect. Still, they underline Canada's greater exposure to developments in the US economy, compared with the other G7 countries.

Table 1.3. **US import and exchange rate shocks on Canada**[1]

	Shock on US import (–1 per cent)					
	Canada	Japan	Germany	France	Italy	United Kingdom
Exports						
1 quarter	**–0.1**	0.0	0.0	0.0	0.0	–0.1
1 year	**–0.2**	–0.0	0.0	0.0	0.0	–0.1
Real GDP						
1 quarter	**–0.1**	0.0	0.0	0.0	0.0	–0.0
1 year	**–0.1**	0.0	0.0	0.0	0.0	–0.0
	Shock on the US bilateral exchange rate(10 per cent appreciation of national currency)					
Exports						
1 quarter	**–1.1**	–0.2	–0.1	–0.1	–0.2	–0.7
1 year	**–2.5**	–0.5	–0.3	–0.3	–0.3	–1.1
Real GDP						
1 quarter	**–0.7**	–0.0	–0.0	–0.0	–0.1	–0.2
1 year	**–1.2**	–0.0	–0.0	–0.0	–0.1	–0.3

1. These shocks have been analysed using the equations estimated in Pain *et al.* (forthcoming).
Source: OECD.

At the same time, it appears that the Canadian economy has become more resilient to macroeconomic shocks over time and is likely to recover faster than many other OECD members if a severe shock affects the country. In particular, Canada

Box 1.2. The international environment and challenges for Canadian firms (*cont.*)

has resisted the negative impact of the last downturn better than non-English speaking countries even though the United States was at the centre of most of the factors leading to the slowdown, such as the burst bubble in equity prices, corporate governance scandals and the effects of mass terrorism.

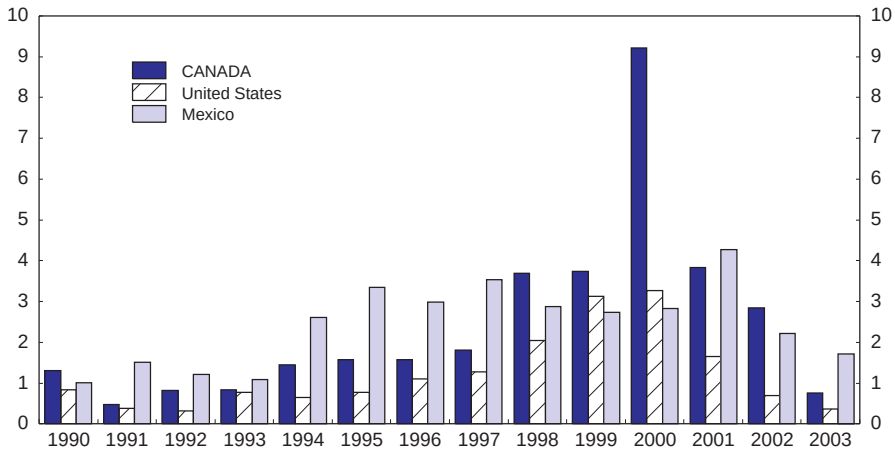
Security issues are another factor that might raise the costs of cross-border trade with the United States. Stricter border controls since September 2001 have not only raised relative freight costs but have also increased uncertainties associated with longer waiting at border crossings. Not all export industries are equally affected by new border-crossing difficulties, with machinery and equipment manufactures and to a lesser extent food industries being the most threatened (Goldfarb and Robson, 2003). The auto assembly and parts makers are especially vulnerable (Andrea and Smith, 2002). Infrastructure bottlenecks, most notably at the Ambassador Bridge between Windsor, Ontario and Detroit, Michigan, exacerbate these administrative delays. It is still too early to assess whether the Smart Border initiative,* once fully implemented, will ultimately reduce transit time for goods and services. But these increased costs make location in Canada less desirable for firms that wish to produce for the US market. This suggests that the impact of increased border frictions may be more significant for foreign direct investment, affecting Canada's ability to attract new investment as well as maintain existing investment (Minister of International Trade, 2003).

Moreover, Canadian firms will increasingly have to take into account competition from third countries. With NAFTA, Mexico is becoming an important competitor for Canada in the US market, especially as the two countries are competing in almost the same industries: transport and related equipment, electronics and machinery and resource-based industries. Given that Mexico's tariff reductions under NAFTA will not be fully implemented until 2008, scope exists for further integration between Mexico and the United States, to some extent at the expense of the Canadian firms.

Canadian exporters may also find it more difficult to compete with increased competition from China in third markets and especially the United States. So far, competition has been concentrated on a limited number of products: China exports mainly labour-intensive manufacturing products and computers and electronics to the United States, while Canada exports mostly autos and technology-intensive products as well as resource-based manufacturing goods. However, looking ahead, stronger competition pressures will appear as China's exports continue to move up the value-added chain to higher-end goods, a trend which has already been observable since 1998. However, developments in China are an opportunity for Canada. It provides a growing market for exports, especially for commodities. Imports from China also supply Canadian firms with a new source of low-priced goods. Indirectly, Canada also benefits from upward pressure on commodities prices induced by developing countries' rapid industrialisation (Roy, 2004).

* The Smart Border initiative was agreed between Canada and the United States in a declaration published in December 2002. The aim is to enhance the security of the border, while facilitating the legitimate flow of people and goods. The blueprint – the Smart Border Declaration – outlines a 30-point Action Plan, on which the two countries are continuing to work together.

Figure 1.4. **Foreign direct investment**
Per cent of GDP



Source: OECD.

Another dimension of the business environment has been the slowdown in foreign direct investment (FDI). In 2003, inward FDI was its slowest in a decade, although some of this effect may be cyclical (Figure 1.4). Attracting greater FDI would be beneficial to the economy for several reasons. F*irst*, it brings additional capital into the economy. S*econd*, it is often associated with higher productivity gains: foreign controlled firms are on average 10 to 20 per cent more productive than domestically controlled firms because of their superior technological and managerial know-how (Rao and Tang, forthcoming). T*hird*, foreign controlled firms have been found to generate significant positive spillovers on Canadian firms: FDI thus appears to be an important vehicle for technology transfer and a stimulus to trade, capital formation and R&D (Rao and Tang, forthcoming).

Higher living standards over the longer term

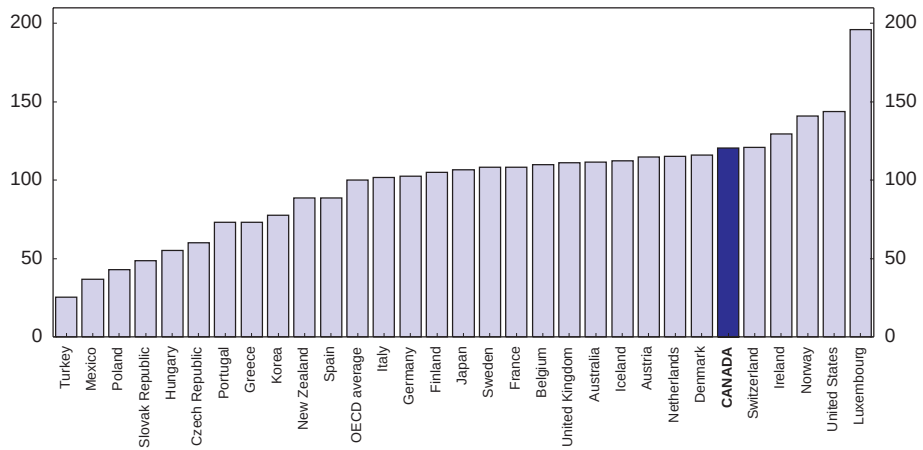
Raising living standards is a priority for all OECD countries, and Canada is no exception. In addition, core Canadian values include promoting equal opportunities for the well-being of Canadians, and furthering economic development is seen as a way towards achieving that (Constitution Act 1982). GDP per person, a conventional measure of average living standards is an incomplete measure, because it ignores some important factors that contribute to well-being, including the value of leisure time, the quality of the environment and social dimensions of

the quality of life. Nevertheless, it provides a useful indicator of economic development and a framework for identifying the factors that can contribute to higher living standards overall and provide the resources to address the country's objectives on equality of opportunities.

Canada's GDP per person is the sixth highest in the OECD (Figure 1.5) and the nation has also delivered one of the faster rates of increase among OECD countries since the mid-1990s (Figure 1.6). This can be decomposed into its two components – increases in labour utilisation and in the GDP produced per hour – allowing a closer examination of the factors that will be important in determining Canada's long-term future prospects.

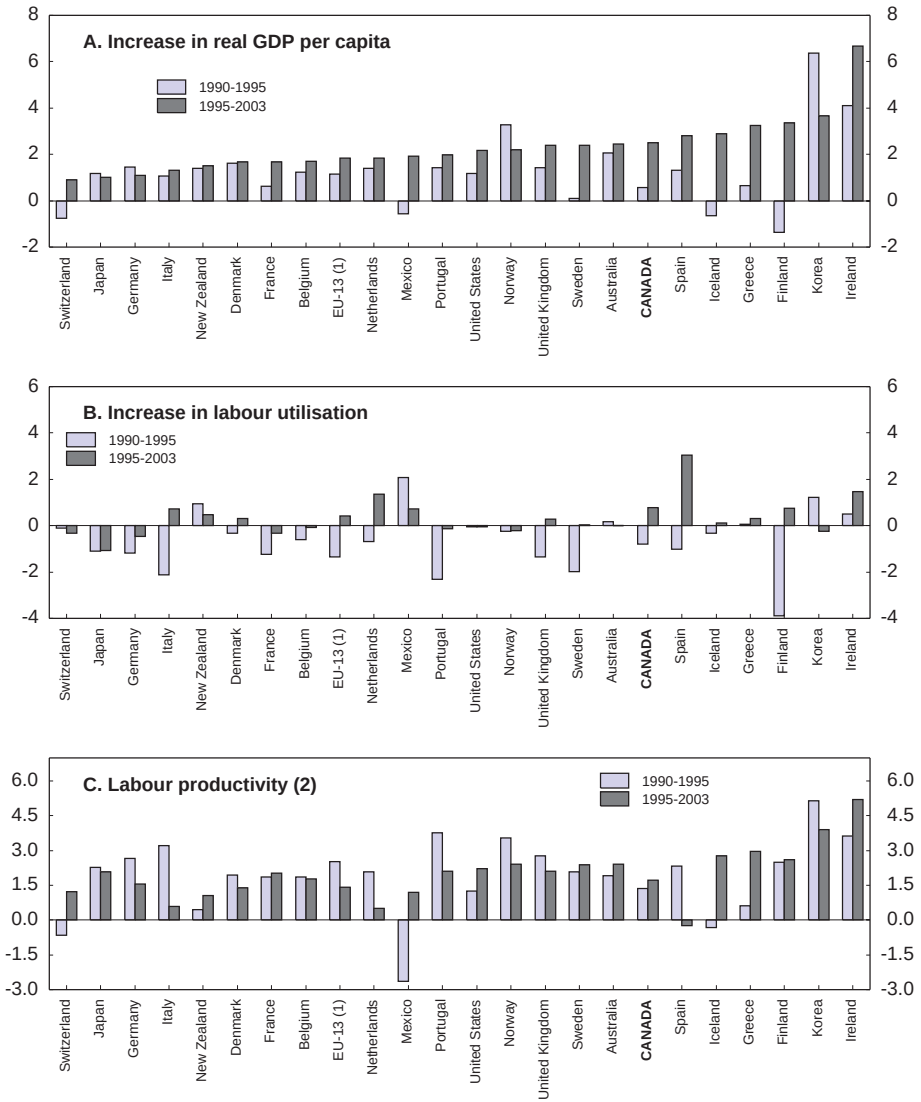
- Canada has continued its long term expansion in labour utilisation (average hours worked per person for the population as a whole), reflecting both growth in the working-age population and a major increase in the paid employment of women. The employment rate of men of all ages has shifted down, although older men are now slightly more likely to be working than in 1995.
- The rise in GDP per hour worked (*i.e.* hourly labour productivity) was one of the smallest in the OECD between 1970 and 1995, but the rate of productivity growth accelerated considerably, over the second half of the 1990s, and into the early part of this decade.

Figure 1.5. **GDP per person**
2002, PPP adjusted, OECD average = 100



Source: OECD, Productivity database.

Figure 1.6. **The sources of growth**
Average annual growth rates



1. EU-13: Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom.
2. Increase in GDP per hour worked.

Source: OECD, Productivity database.

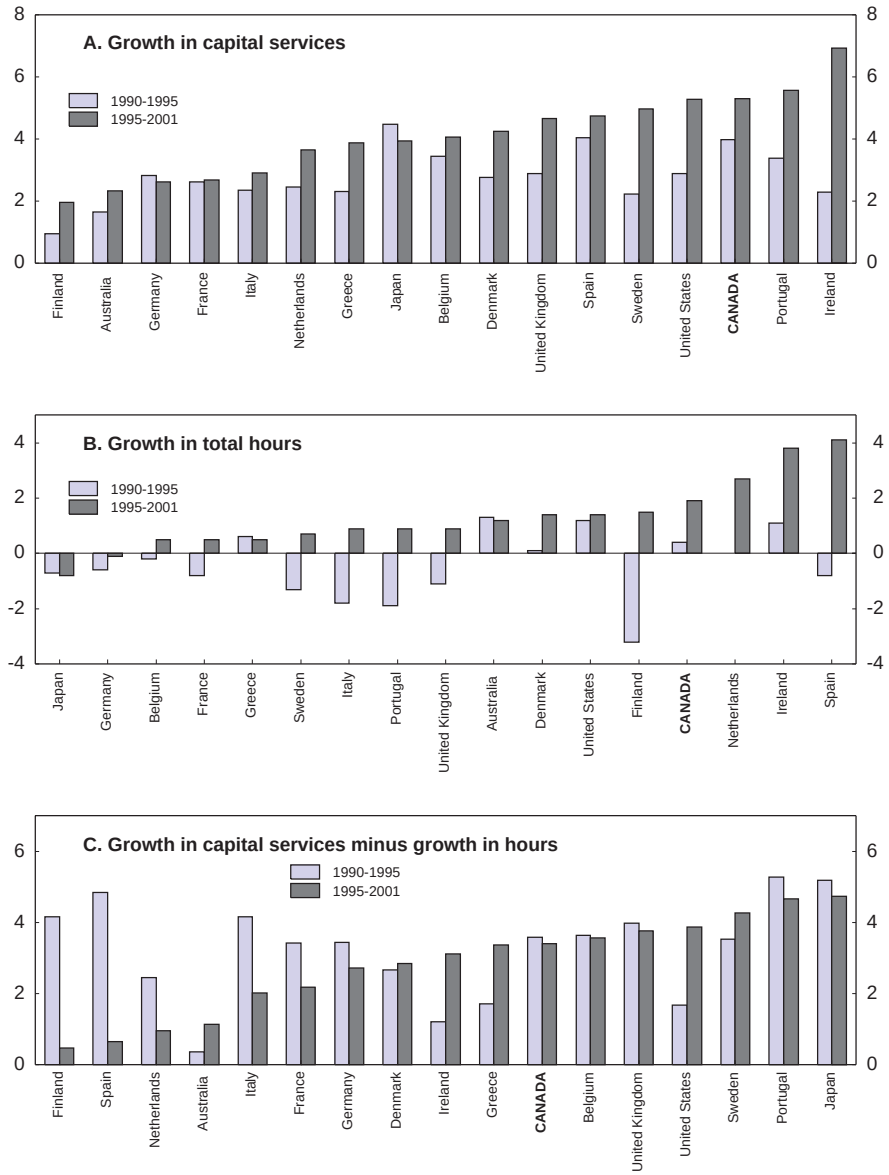
Canada has largely kept pace with US productivity growth for the whole economy since the mid-1990s, although there was a marked divergence in the data for 2003, in particular, with a sharp acceleration in the United States and a roughly stable performance in Canada. It is probably too early to draw firm conclusions from such recent data: part of this difference could well disappear as data is refined and revised in both countries.

Developments in labour productivity can in turn be broken down further into the productivity that comes from additional capital available to workers, increases in human capital and multi-factor productivity growth. Capital inputs expanded more rapidly over the second half of the 1990s than in the first half, and this translated into a steady rate of capital deepening for the decade as a whole (Figure 1.7). Moreover, Canada has seen a significant switch towards a higher contribution to capital growth from ICT (Figure 1.8), and it is now third after the United States and Sweden on this measure (although still noticeably behind). ICT investments have been a key element contributing to faster productivity growth, not only directly through capital deepening but also because, by spurring businesses to reorganise processes to combine all types of inputs into producing more output, they can also stimulate multi-factor productivity growth (OECD, 2004). However, these effects take time to manifest themselves, and, in Canada, the gains are estimated to be strongest three years after the investment is made (Leung, 2004). This provides another reason to expect the rate of productivity growth to pick up again in the near future.

It is more difficult to measure increases in human capital effectively, especially as evidence is now coming forward that suggests literacy levels may be a better indicator of human capital than the traditional measures of educational attainment (Coulombe *et al.*, 2004). One set of estimates suggests that it may have contributed around 0.3 percentage point per year to overall labour productivity growth in the second half of the 1990s (Crawford, 2003). Another set of estimates indicates that its contribution may have slipped to slightly under 0.2 percentage points per year between 1995 and 2001 after more than 0.5 percentage points in the first half of the 1990s (Jorgenson, 2003). In any case, in the OECD productivity database, human capital developments are for the moment incorporated in the estimates of multi-factor productivity growth, which has accelerated to about 1 per cent per year for Canada since the mid-1990s (Figure 1.9).

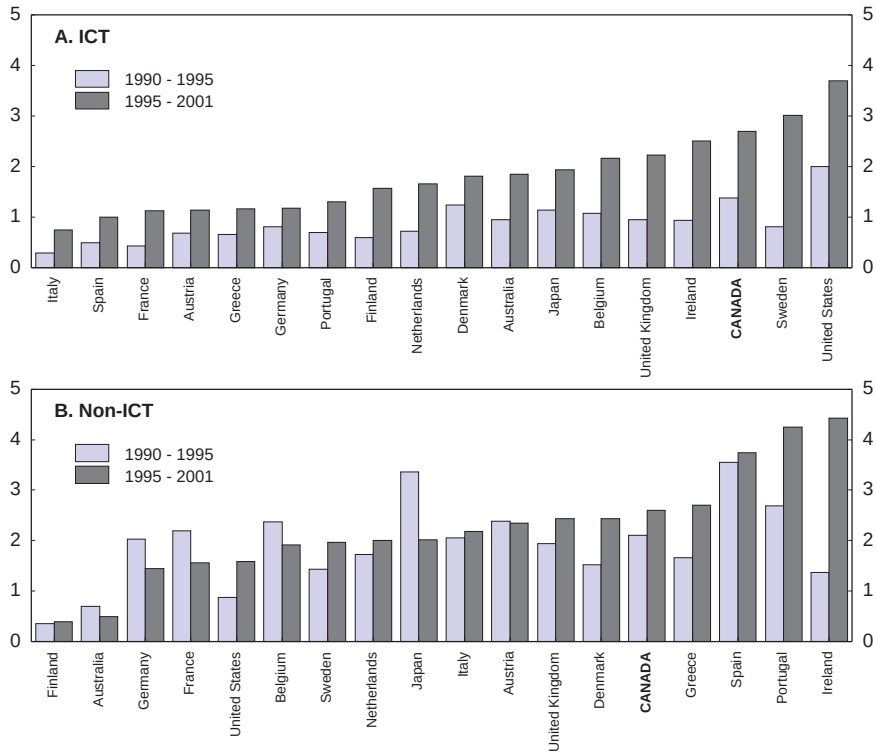
Looking forward, the key challenge will be to set policies in a way that ensures continued strong rising growth in living standards, despite the passage of the baby boomers into retirement. As the share of the working-age population shrinks, faster productivity growth would be needed to offset the demographic impact on total hours worked in order to sustain GDP growth. There are a number of ways in which productivity growth can be boosted, and even a small improvement, if sustained, can lead to significantly better outcomes over time. More

Figure 1.7. **Capital accumulation and capital deepening**
Average annual growth rates



Source: OECD, Productivity database.

Figure 1.8. **Contribution of ICT and non-ICT to growth in total capital services**
Percentage point contribution to average annual growth

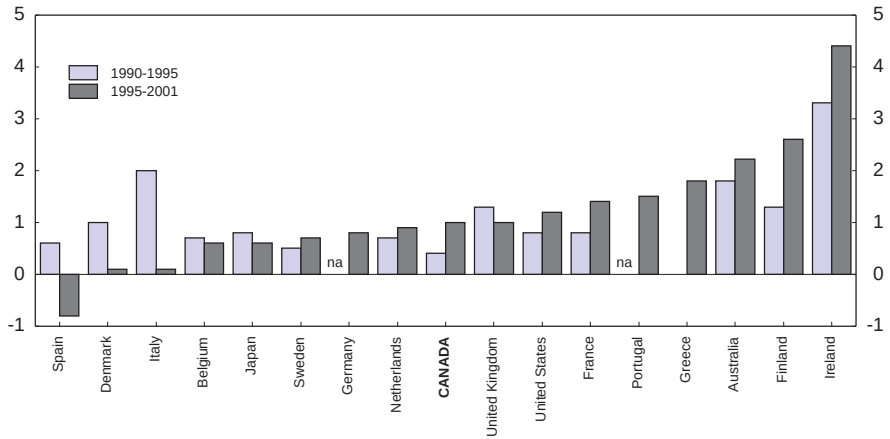


Source: OECD, Productivity database.

intense product market competition provides a key source of pressure for faster productivity growth, and policies that could increase competition are addressed in Chapter 2. Measures that could improve productivity growth by promoting a more rapid rate of capital deepening and development of human capital are discussed in Chapter 3.

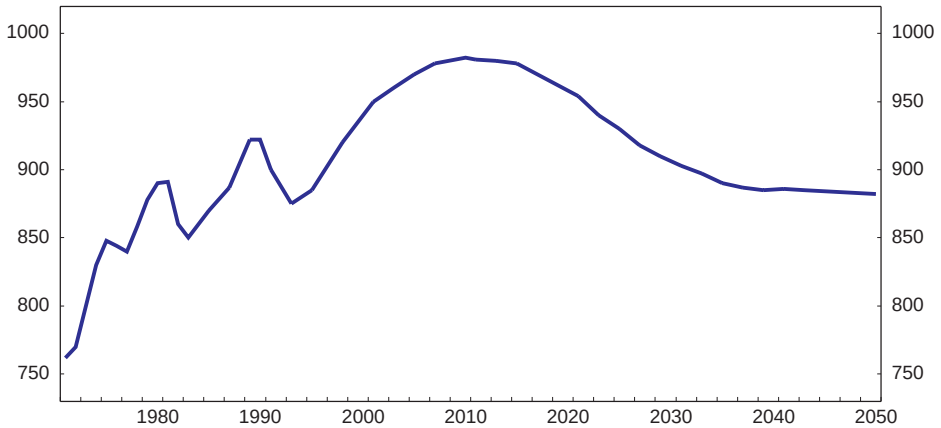
The Canadian working-age population (15 to 64 years) is projected to decline from 2011 onwards, apart from any net inflows from immigration. From the point of view of living standards, what really matters is the average annual hours worked per person in the entire population, which provides a clearer indicator of the relevant labour utilisation (Figure 1.10). For Canada, this also shows that average hours worked would peak around 2011 and decline thereafter on existing policies.

Figure 1.9. **Multi-factor productivity growth estimates**
Annual percentage change



Note: These estimates attribute any increases in human capital to multi-factor productivity growth.
Source: OECD.

Figure 1.10. **Average annual hours worked per person**
1971-2050



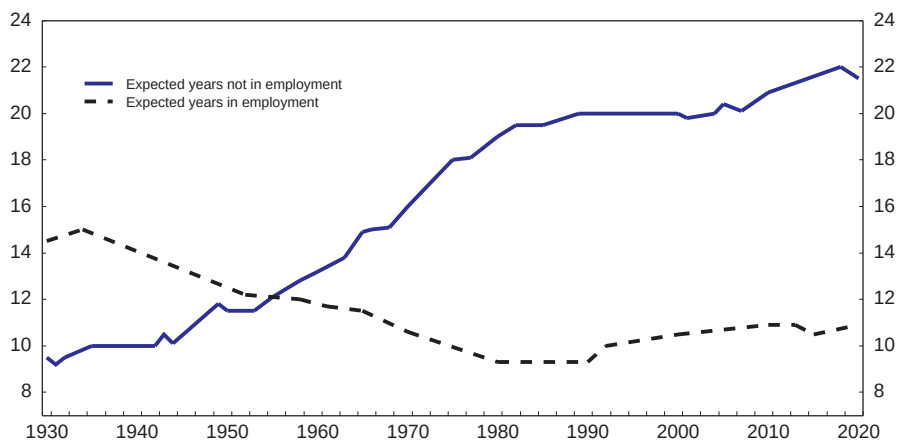
Source: Life Paths (Statistics Canada), using assumptions developed by the Interdepartmental Working Group on Population Aging and Life-Course Flexibility.

Annual average hours of work per person provides a framework for considering the impact of policies that does not rely on a definition of working age and can therefore be used to consider a wider range of policy options that affect labour utilisation. It also points directly to the impact on GDP per person by taking everyone into account, whether or not they are working.

Various measures could be taken to boost average hours worked. Small gains could be made to total hours worked by more effectively addressing unemployment and under-employment. More significant gains would be obtained by a postponement of average retirement age. The average age of retirement for men has fallen from 65 years before the second world war to just over 61 years, while the years spent in retirement have risen from 9 to around 20 years (Figure 1.11). However, an extension of working life by three years would permanently increase labour supply relative to "no policy change", and postpone the inevitable fall in average annual hours worked per person (Figure 1.12).

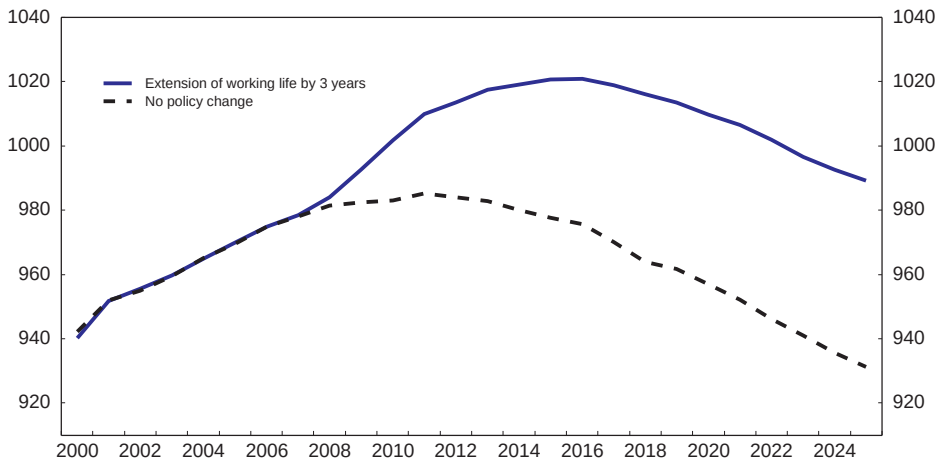
The annual average hours approach also provides scope to more clearly simulate the impact of allowing a different allocation of the total hours that a person works over his or her lifetime in order to get a better match to individual preferences and to put more emphasis on life-course outcomes. This would, *inter alia*, provide a snapshot of the economic impacts that would be associated with an emerging reorientation of Canadian social policy thinking towards greater emphasis

Figure 1.11. **Expected remaining years in and out of employment**
For men aged 50 years[1]



1. Expected remaining years for men with at least some paid work and attachment to the labour force by age 50.
Source: Policy Research Initiative (2004).

Figure 1.12. **Impact of later retirement on hours worked**
Average annual hours per person



Source: Policy Research Initiative (2004).

on life-time outcomes (see Annex 1.2). For example, it can be used to assess the impact of parents with children under the age of 12 years choosing to reduce their working hours (for example, by taking one day off per fortnight) and working additional hours in later years, perhaps by retiring later, to balance total lifetime hours.[4] Although this scenario reduces average hours during the transition – lowering GDP per person, all else equal – in the longer term, average hours could be almost as high as they would have been without that trade-off. This tool could also be used for analysing the implications of alternative approaches to lifelong learning, where time taken off for study was offset by additional hours worked in a subsequent period.

A range of policy measures could be brought to bear to raise total hours worked; these are addressed in Chapter 3. These include policies that would more successfully reduce repeated episodes out of the workforce either in unemployment or on social assistance. Another option would be to increase the currently small after-tax rewards facing many families that might choose to work additional hours if they could significantly improve their economic situation by doing so. A further area where total hours could be boosted, while at the same time producing a better match with people's preferences (*e.g.* see Schellenberg, 2004), would be through a more gradual and later transition from work to retirement.

Reinforcing the long-term sustainability of public finances

Future demographic developments will not only affect growth in overall living standards (*via* the effective dependency ratio) but also weigh on the sustainability of public finances. Canada is already better placed than many OECD countries to face ageing pressures, partly because its healthier current fiscal position (Figure 1.13). But from a fiscal point of view, the current demographic profile is the most favourable it has been for a generation and more supportive than it will be for the next 50 years. Managing effectively the impact of demographics on public finances presents policy makers with a key challenge.

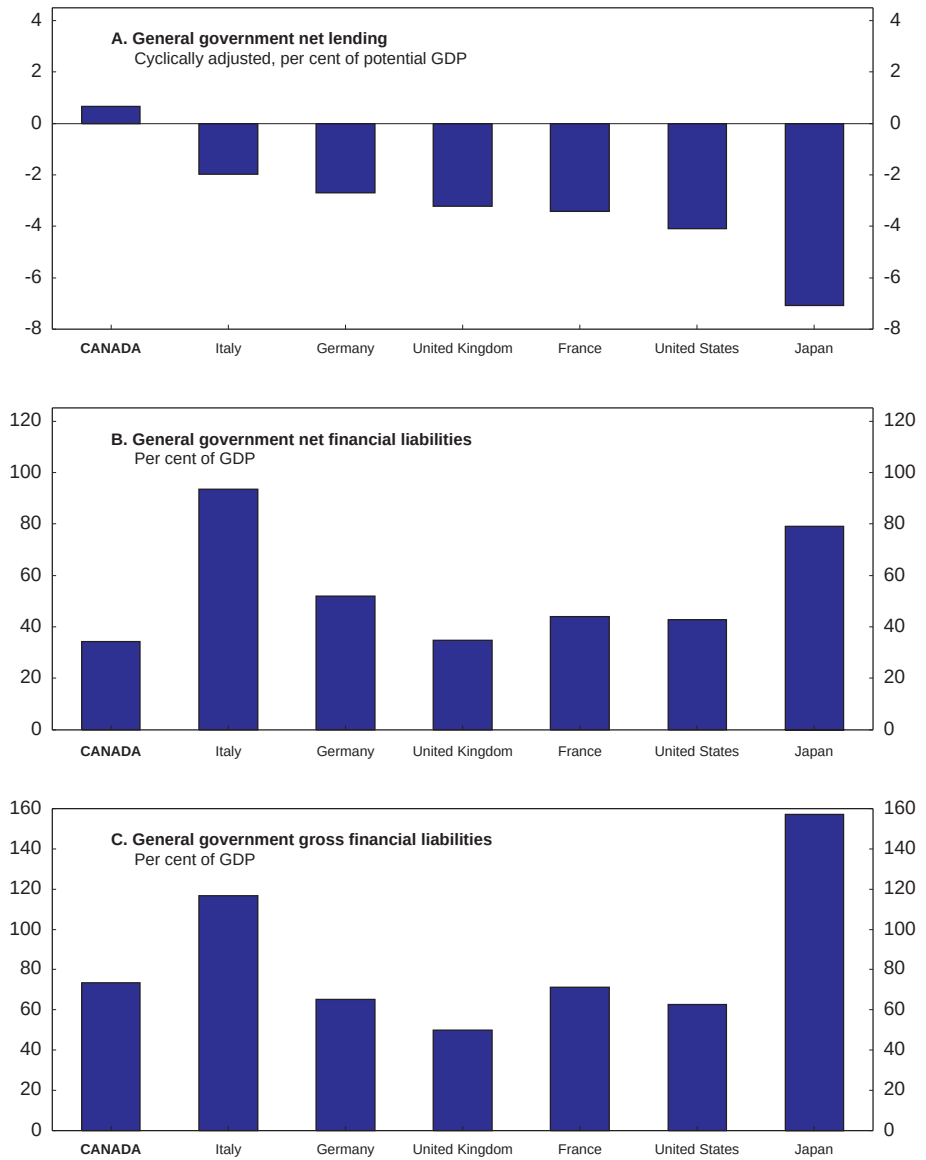
Adding medium-term elements to the fiscal framework

The federal government's fiscal framework is prudent, and since the mid-1990s has focused on a two-year planning horizon; however, five-year forecasts are presented in the Fall update. This strategy reflects changes to address the weakness in the earlier strategy for getting fiscal consolidation underway: namely that when the planning horizon was longer, fiscal consolidation always seemed to be programmed for the later years, rather than in the budget itself. Shifting to a budgeting model that required consolidation to take place in the immediate future has been a successful approach, and Canada has indeed achieved a dramatic improvement in its fiscal position (Figure 1.14). Another important move was to change the rules of the Canada and Quebec Pension Plans (CPP/QPP), primarily by raising contribution rates to the levels required to assure the sustainability of the plans (see Chapter 4).

Since 1997, this approach has been transformed into a budget objective of "fiscal balance or better" every year. This objective reflects attention to a critical element of long-term sustainability: the starting position and whether debt is accumulating or being retired. Nevertheless, whether this "balance or better" objective is sufficiently ambitious depends on the assessment of future budgetary pressures. Several countries have adopted a more aggressive "pre-funding" strategy of producing significant surpluses to run down net debt more quickly and provide more cushion for debt to increase as ageing pressures mount. Denmark and Sweden, for example, aim for general government surpluses of around 2 per cent over the economic cycle. Yet these two countries (and many others) face smaller increases in age-related spending than does Canada (Figure 1.15). Admittedly, such a strategy does require a high degree of political discipline to continue to run fiscal surpluses over a number of years (Elmeskov, 2004), although various legal mechanisms could be employed to reinforce it, as is done, for instance, in Australia, New Zealand and the United Kingdom.

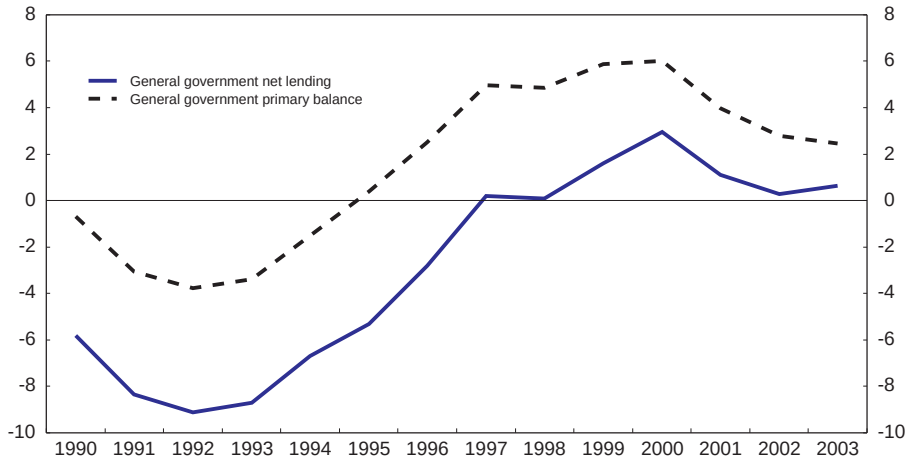
The Canadian government has taken a welcome first step towards incorporating some longer-term considerations into the federal budget framework with the introduction in the 2004 budget of the objective of reducing the federal

Figure 1.13. **Canada's fiscal position in an international perspective**
2003



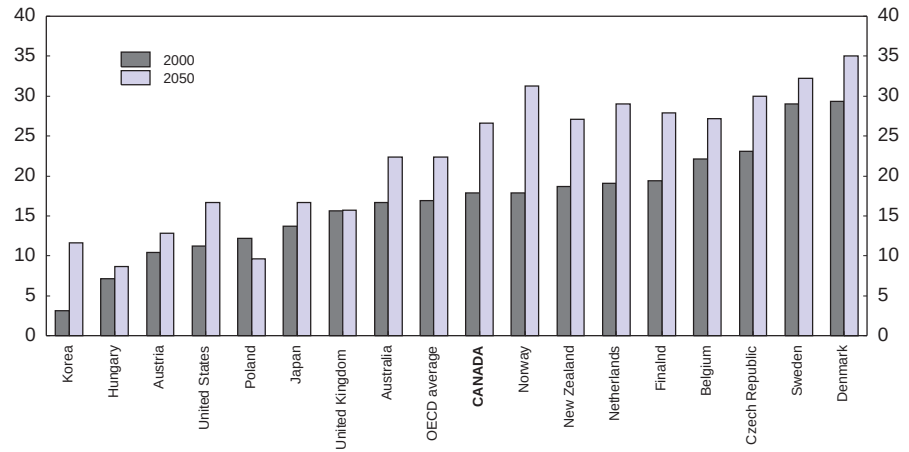
Source: Statistics Canada; OECD.

Figure 1.14. **Fiscal consolidation**
Per cent of GDP



Source: Statistics Canada; OECD.

Figure 1.15. **Age-related public spending**
Per cent of GDP



Source: Dang *et al*. (2001).

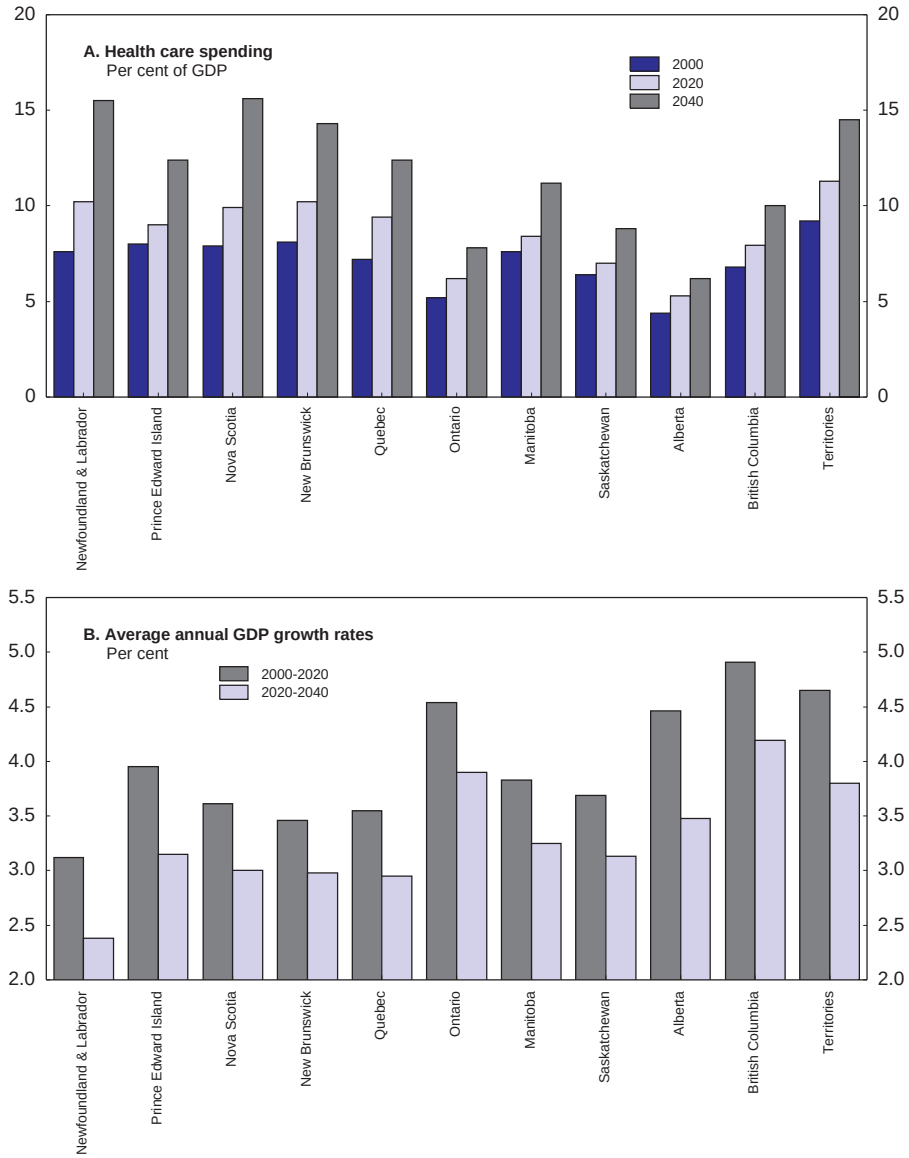
debt-to-GDP ratio to 25 per cent within 10 years. This will help to put the country in a better position to deal with pressures related to an ageing population. It will be reached as long as the prudent budget strategy (including modest debt pay-down) is maintained and Canada's good economic performance continues. Although the particular objective chosen is consistent with economic analysis of fiscal sustainability, it was regrettable that this was not clearly set out in the budget: this would have helped to build public support for embedding the government's fiscal strategy within a longer-term horizon.

Assessment of the most appropriate longer-term fiscal strategy for the country overall would be enhanced by embedding these federal objectives within a more transparent, fiscal sustainability framework (see Chapter 4). This type of framework would be significantly more relevant if it encompassed all levels of government, rather than just taking into account the federal measures. Such a tool would also help to monitor where the pressures are likely to emerge and to assess the long-term implications of different policy options.

Earlier OECD projections for *general* government suggest that Canada would need to run a primary surplus of 3.7 per cent of GDP between 2005 and 2050 to obtain a net debt-to-GDP ratio in 2050 that matched the level in 2000 (Dang *et al.*, 2001): this compares with a cyclically-adjusted primary surplus of 3.3 per cent of GDP in 2003. However, separate calculations for the federal government position indicate that it appears to be on a sustainable track out to 2040 (Jackson and Matier, 2002; Kennedy and Matier, 2003; Conference Board of Canada, 2004b).[5] It should be stressed that all such long-term projections are surrounded by a high degree of uncertainty and are sensitive to the definitions and assumptions used. Canada's population will age later than in many other OECD countries, which means that age-related spending pressures will still be rising after 2040. But they all point to the importance of close monitoring of the situation, especially as alternative scenarios illustrate how apparently small differences can dramatically change the outlook. For example, running a general government surplus of 0.5 per cent of GDP instead of 1.0 per cent of GDP until 2020 would leave debt more than 20 percentage points of GDP higher by 2040. Even more dramatically, if real per capita health care costs grow 0.5 per cent faster each year, then debt would be almost 60 percentage points of GDP higher in 2040 (see previous S*urvey*).

Different provinces and territories face sharply varying prospects, as population growth, demographic composition, economic prospects and the initial positions of public accounts all vary (Figure 1.16). In particular, provinces that are able to run budgetary surpluses before ageing-related pressures reach their peak will be better placed to manage the demographic transition, despite large increases in old-age dependency ratios and slower growth in the working-age population. Earlier analyses undertaken in 2002 find that the public finances in Nova Scotia, Manitoba, British Columbia and the Territories were not sustainable

Figure 1.16. **Projected provincial variations**
2000-2040

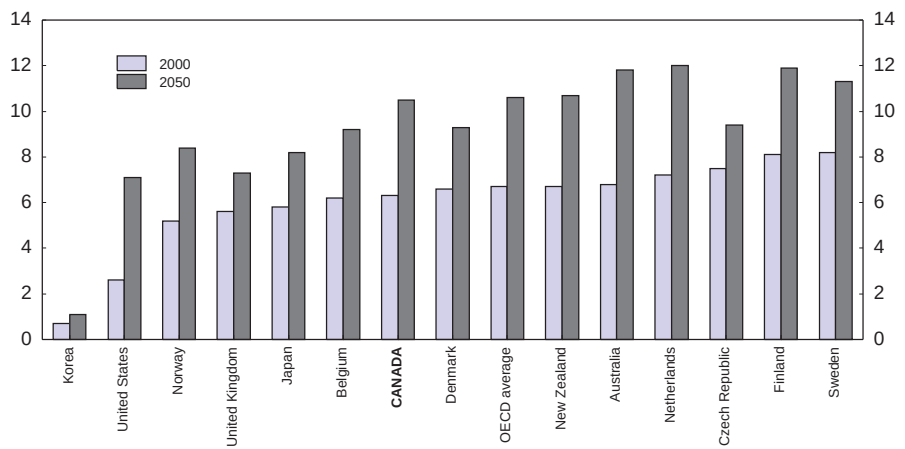


Source: Jackson and Matier (2002).

over the long term, as their debt-to-GDP ratios were expected to rise above their current levels, even under the strong assumption that all budget surpluses are used to pay down public debt (Jackson and Matier, 2002). Under more pessimistic assumptions on health care spending growth, all provinces apart from Newfoundland and Labrador, Saskatchewan and Ontario would have unsustainable fiscal positions.

With CPP/QPP public pensions set on a sustainable path, clearly the main fiscal challenge will be at the provincial level and on health care spending. Indeed, higher income, technology pressures and population ageing are expected to increase health spending further in the future, raising concerns about sustainability in the long run. Increases in spending on health and long-term care for the next five decades are projected to be higher in Canada than for the OECD average, with only the United States, the Netherlands and Australia experiencing faster rises (Figure 1.17). Earlier studies also point to strong ageing pressures on health care budgets in Canada (Robson, 2001; Ruggeri, 2002). The critical issue is the enrichment rate – the change in the value of health care services provided per person on an age-adjusted basis, excluding price effects. Public health care spending in Canada would remain under 10 per cent of GDP by 2040 if 1990s enrichment rates persist, but would soar to more than 30 per cent of GDP if enrichment progressed at the rate of the 1980s (Jackson and McDermott, 2004).[6] Part of the reason for slower public-sector enrichment rates in the 1990s was faster growth

Figure 1.17. **Age-related public spending on health and long-term care**
Per cent of GDP



Source: Dang *et al*. (2001).

in private health spending: enrichment rates for total health spending may therefore provide a more realistic picture of future pressures on public finances (Table 1.4).

Table 1.4. **Enrichment rates and total health spending projections**
As per cent of GDP

	Public health spending		
	2001	2020	2040
Enrichment rate assumption:			
Average rate in:			
1980-89	6.9	12.6	33.5
1990-99	6.9	8.2	11.4
1975-2001	6.9	10.2	18.6
Rate equal to productivity growth	6.9	10.1	15.4
	Total health spending		
	2001	2020	2040
Enrichment rate assumption:			
Average rate in:			
1980-89	9.4	16.3	39.3
1990-99	9.4	11.9	17.0
1975-2001	9.4	13.6	23.5
Rate equal to productivity growth	9.4	13.7	20.3

Source: Jackson and McDermott (2004).

Concerns about the enrichment rate are not hypothetical: health care was a central issue in the June 2004 federal election, with all parties signalling intentions to devote more public funds to upgrading health services and public sentiment apparently clearly behind a desire to see increased resources devoted to the sector. Even existing plans are likely to push public spending to grow at a faster rate, once catastrophic drug costs and home care become standardised across the country. as provided for in the 10-Year Action Plan on Health Care. This suggests that the longer-term fiscal situation may be less benign than might first appear, reinforcing the value of close monitoring of the situation within a comprehensive sustainability framework. It also points to the importance of addressing the current limitations of the system of restraining future cost increases and equipping the system to face future growth in demand efficiently and effectively.

Shortages of medical staff and under-investment in high-tech equipment resulting in excessive waiting times are often put forward as the weak spots of the health care system. However, there is, so far, only little and scattered information available to undertake a comprehensive objective assessment of the current situ-

ation. Although significant progress has been made in the recent past with efforts from the Canadian Institute of Heath Information and Statistics Canada, the data collection, reliability and comparability across institutions or provinces remain insufficient (CIHI, 2004). Part of the shortfall can be traced back to the financial management systems in hospitals and health units; in Ontario, for example, a small minority of hospitals have full activity-based accounting systems allowing costs to be analysed alongside patient outcomes. Closing these information gaps will both make it easier to assess the cost pressures and identify ways to keep them under control. This would also allow a dispassionate assessment of whether the system is really under-funded, as currently claimed by provinces, or primarily suffers from a lack of efficiency.

The question of the provinces' ability to handle these future spending pressures will need to be addressed, as the provision of health care services rests under provincial jurisdiction, but voters by and large seem to be saying that the federal government has a significant responsibility for health care funding. It could be argued that frequent inconclusive negotiations resulting in irregular substantial adjustments to the federal transfers to provinces, renders difficult any multi-year planning (therefore any efficient allocation of resources), and discourages provinces from seeking to achieve longer-term reforms. However, the 10-year Action Plan for Health Care agreed by First Ministers in September 2004 should provide greater certainty and a more stable financial setting, allowing provincial policy-makers to focus their attention on improving the organisation and delivery of health services.

Concluding remarks

This chapter has presented the current macroeconomic situation and forces acting as the backdrop to the policy challenges that Canada faces in coming years because of an ageing population. The country has a sound macroeconomic framework and prudent policy settings and has also put in place mechanisms that allow room to manoeuvre if unexpected events occur without prejudicing progress towards longer-term goals in normal times. The government has also implemented a number of structural reforms that have contributed to its strong performance (see Annex 1.3). Given approaching demographic shifts, the first key challenge is to maintain increases in living standards, even as the ratio of people producing output to those consuming it falls, and the second key challenge is how to keep public finances in good shape as spending pressures, above all from health care, rise with the increasing old-age dependency ratio.

The following three chapters are devoted to the policies and measures that could help the country to respond to these two key challenges. Chapter 2 addresses the role that vigorous product market competition can play in spurring faster productivity growth by encouraging the search for new or enhanced prod-

ucts as well as ameliorating the production process so as to reduce costs. Chapter 3 first considers the measures that would stimulate investment in physical capital, the accumulation of which boosts the output that each person can produce. It then turns to human capital acquisition with a focus on adult education. The chapter then puts forward some ways in which the total hours worked could be increased through tackling pockets of high and persistent unemployment, making additional hours worked more rewarding for families and making work more financially attractive for older workers who are currently induced to retire. Chapter 4 discusses approaches that would reinforce the sustainability of public finances and, in particular, points to the institutional arrangements that may make it harder to find the most efficient ways of achieving the desired health outcomes, while containing health expenditure growth within manageable limits.

Notes

1. If that trend continues, one implication will be that the impact of overall asset values on private consumption will increase over time, as there is evidence that wealth effects from the housing market are stronger than from finncial markets (Pichette, 2004).
2. About half the differential with the United States is attributable to measurement differences.
3. For instance the Bank of Canada regional office survey for summer 2004 indicates that 83 per cent of the questioned firms were expecting CPI inflation to be within the target range over the next two years. While this is down from 95 per cent in the previous survey, most of the fall is explained by the rise in energy prices.
4. A scenario similar to this was in fact modelled by the Policy Research Initiative group, but it assumed that instead of the individual parent making up for the shortfall in later life, the entire adult population would work an additional year. This would imply a transfer of consumption possibilities from the rest of the population towards those parents reducing their hours (Policy Research Initiative, 2004). Nevertheless the long-run level of GDP per capita was found to be virtually unaffected in such a scenario.
5. The papers rely on different methodologies. Jackson and Matier (2002) and the Conference Board (2004b) undertake long-term fiscal projections. Kennedy and Matier (2003) compute fiscal gaps and include CPP/QPP in the federal accounts.
6. Another factor that could lead to higher public spending in the long term is to assume faster inflation in the health sector than in the overall economy.

Annex 1.A1

Fundamental equilibrium exchange rate for Canada

The concept of an "equilibrium exchange rate" is one of the most controversial issues in macroeconomics. Still it is important because it provides an indication of the degree of misalignment of a certain currency. It is of particular relevance when large movements in the exchange rate coincide with broad stability in economic fundamentals, as was recently experienced in Canada.

Many methods exist to estimate equilibrium exchange rates, and none of them is fully satisfactory (see Direction de la Prévision, 2000 for an overview). This annex focuses on the Fundamental Equilibrium Exchange Rate (FEER) method, developed by Williamson (1994), and applies it to Canada. The equilibrium exchange rate is defined in real and effective terms as the exchange rate consistent with the economy being in both internal and external balance. These OECD estimates suggest that the Canadian dollar was not far away from its equilibrium level in the fourth quarter of 2003, a result broadly consistent with IMF estimates, obtained using a purchasing power parity framework (IMF, 2004).

As in Wren-Lewis and Driver (1998), FEER is estimated by modelling only the trade balance and using conventional aggregate trade equations. This has the advantage of simplicity, and as a consequence it is relatively easy to determine the factors behind a particular FEER and to examine its sensitivity to key assumptions. Recent calculations with a similar approach can be found for the euro area, the dollar, the yen or the UK pound (Borowski and Couharde, 2003).

Computation of the FEER for a given current account target

A relationship is derived for the differential between the actual and equilibrium real exchange rate on the one hand, and the gap between the "desired" current account (or target) and the actual current account on the other hand. This is then used to compute the difference between the exchange rate and its equilibrium.

A single country model for Canada is considered, with the rest of the world being exogenous and with a number of other simplifying assumptions. *First*, export and import prices are expected to be fully determined by foreign prices.[1] This assumption is not likely to hold in reality, as a number of studies have shown that the pass-through of exchange rate to import prices is incomplete for OECD countries. However, for Canada, the elasticity of trade prices to foreign prices is very close to one, and in some cases not statistically different from unity (Pain *et al.*, forthcoming).[2] *Second*, investment income and transfers are assumed to be independent of the real effective exchange rate. Third, trend output is not affected by the real exchange rate.

The definition of the trade balance gives:

$$TB = p_x X - p_M RM$$

with TB the trade balance, and X and M respectively export and import volumes, and p_X and p_M respectively export and import prices and R the effective real exchange rate.

It is straightforward to derive a relation between the deviation of the trade balance from its desired level and the corresponding deviation of export, import and real exchange rate:

(1) $$\frac{dTB}{p_M.R.M} = \tau\frac{dX}{X} - \frac{dR}{R} - \frac{dM}{M} \text{ where } \tau = \frac{p_X X}{p_M R.M}$$

where dZ denotes the deviation of the variable Z from its equilibrium level Z*.

X and M can be expressed as a function of demand and the real effective exchange rate:

(2) $X = aY_w^{\eta_X} R^{\varepsilon_X}$ and (3) $M = bY^{\eta_M} R^{-\varepsilon_M}$ where Y is domestic demand (in this case GDP) and Y_W is the foreign demand facing Canadian exporters, a and b are constants.

Relations (2) and (3) can be re-written as:

(4) $$\frac{dX}{X} = \eta_X OG_W + \varepsilon_X \frac{dR}{R}$$ and (5) $$\frac{dM}{M} = \eta_M OG - \varepsilon_M \frac{dR}{R}$$ with $$OG_W = \frac{dY_W}{Y_W}$$ and $$OG = \frac{dY}{Y}$$ respectively the foreign and the Canadian output gaps.

Moreover, by denoting, $ca = \frac{CA}{pY}$, the current account in percentage of GDP, and, $ca^* = \frac{CA^*}{p^*Y^*} \approx \frac{CA^*}{pY^*}$ the current account target, the trade balance differential can also be expressed as:

(6) $$\frac{dTB}{p_M.R.M} = \frac{dCA}{p_M.R.M} = \frac{1}{\mu}(ca - ca^*) \text{ where } \mu = \frac{p_M RM}{pY}$$

Combining equations (1), (4), (5) and (6), a relationship is found between the deviation of the real effective exchange from its equilibrium level, the deviation from the current account from its target and the relative output gap (*i.e.* the difference between domestic and foreign output gaps).

(7) $$\frac{dR}{R} = \left[\frac{1}{\tau\varepsilon_X + \varepsilon_M - 1}(ca - ca^*) + \mu(\eta_M OG - \tau\eta_X OG_W)\right]$$

with $$\tau = \frac{p_X X}{p_M R.M}$$ and $$\mu = \frac{p_M RM}{pY}$$

Parameter and results

Deviation of the real effective exchange rate from its equilibrium level is then calculated using equation (7) with quarterly data from *Economic Outlook* 75 and trade elasticities from Pain *et al.* (forthcoming) (Table 1.A1.1).

In this method estimates of misalignment rely heavily on how the current account target is calibrated. Given uncertainties surrounding the computation of such target, a confidence interval rather than a point estimate is presented,[3] using not only the current account target computed by Williamson and Mahar (1998) for Canada (which is estimated to be zero)[4] but also alternative assumptions (see Table 1.A1.2). A range of –1 to 2 per cent of GDP has been

Table I.A1.1 **Parameters used in estimation**

ε_X	ε_M	η_X	η_M
–1.05	–0.33	1	1

Note: ε_X and ε_M are respectively the price elasticity of export and import volume. η_X and η_M the demand elasticity of export and import volumes.
Source: Pain *et al.* (forthcoming).

Table I.A1.2. **FEER estimates for Canada in third quarter 2003**

Current account target (per cent of GDP)	–1	0	1	2
Deviation from equilibrium in per cent[1]	–3.9	–2.6	–1.4	–0.2

1. A negative sign indicates that the actual exchange rate is below its equilibrium level *i.e.* undervaluation.
Source: OECD.

chosen for two reasons. *First*, most G7 countries have a target included in that interval in Williamson and Mahar (1998). *Second*, in their computation for Canada, the authors made an *ad hoc* adjustment of –1.8 per cent of GDP to the balance between saving and investment.

This estimation suggests that in the third quarter of 2003 the real effective exchange rate was close to its equilibrium level.

Limits of the method

One of the disadvantages of this approach is that no model ensures the consistency between the assessments of trend output and structural capital flows. More importantly, any feedback from the FEER to the inputs for trend output and structural capital flows is ruled out. Lastly, this method gives no indication of what are the main factors influencing the value of the Canadian dollar.[5]

Notes

1. In the calculation this assumption implies $p_X = p_M = p_W$ where p_W is the foreign price.
2. On import price, this result reflects largely the fact that the pass-through is by construction set equal to one in some merchandise import prices calculated by Statistics Canada in order to be consistent with information from Canada Customs and Revenue Agency (Statistics Canada, 2003).
3. It should be noted, however, that this procedure is not sufficient to quantify estimation errors, as it does not address the issue of parameter uncertainties, which can be significant (see Kramer, 1996).
4. Clearly, targets computed by Williamson and Mahar (1998) present a number of drawbacks as they have been estimated for 2001 and an *ad hoc* adjustment was made in the computation of the target for Canada because the authors had doubt as to whether the strong fiscal adjustment was going to be successful. But, despite these shortcomings, these are the most up-to-date estimates for current account targets available.
5. Analyses based on an exchange rate equation developed by Amano and van Norden (1993) provide some information in this regard, and indicate that higher commodity prices can influence the current value of the Canadian dollar.

Annex 1.A2
Preparing a future social policy agenda

Several Canadian policy analysts and researchers have been reconsidering the framework underpinning the design of social policy, and a key contribution to this process was a paper commissioned from the Social Research and Demonstration Corporation (Hicks, 2002). It identifies three key forces that will drive the future social policy agenda: the relentless pursuit of lifelong learning; increasing the producer-consumer ratio (*i.e.* the inverse of the effective dependency ratio); and retirement incentives and the reallocation of leisure. It points to the following main new strands in the policy response, by contrasting current and possible new approaches. However, it should be noted that there are many factors that affect life-course outcomes, and public policies comprise only one element.

Towards life-course flexibility – with more work and learning

Today's policies tend to concentrate paid work into a shorter period in the middle of life – as the result of their encouragement of longer schooling and earlier retirement. And efforts to increase mid-career learning, or time off for care-giving, come mainly from time that was formerly allocated to work. That is, a continuation of existing policies to give people more time off during their working lives would compound, not solve, the emerging demographically driven problem of the falling producer-consumer ratio (*i.e.* the effective dependency ratio).

In the future, more account could be taken of the win-win potential of the largest pool of time that is available for reallocation – time spent in (healthy) retirement – and use it to devise policies that simultaneously address:

- the longer term goal of life-course flexibility. This means providing individuals with greater choice in the duration, intensity and scheduling of work; learning; care-giving; leisure; and cultural and non-market activities over the entire course of life (*i.e.* by allowing people to reorganise and reallocate their lifetime hours worked with greater flexibility, not just providing a tilt towards a better work-life balance at any point in time);
- the medium-term goal of increasing the total time devoted to work and learning – and facilitating care-giving during the periods when people are primarily working and learning. That is, the freed-up leisure in retirement cannot be simply reallocated to leisure at other stages of life.

Towards life-course and asset perspectives

Today, "income at a point in time" concepts still dominate income security policies. Active policies oriented towards a better lifetime outcomes are mainly in separate and fragmented systems – education, labour market integration, etc.

In future, there could be a more integrated, preventive approach within a new policy envelope consisting of income security, learning and labour market integration policies – with an overall goal of social inclusion over the course of life (*i.e.* both fighting social exclusion and providing the resources that allow people to live up to their potential in both the economy and society). This means an "income plus a range of assets over the course of life" approach, where assets include not only human capital but also other assets – housing, financial wealth, information resources, and (perhaps) social capital and civic spaces:

- within skills acquisition and labour market integration policies, there would be a shift to integration across life – filling lifelong learning gaps;
- within safety-net policies, there would be a new focus on tackling persistent problems – including those that endure over life and into subsequent generations, with more reliance on individuals and families to deal with low income or economic insecurity that is of short duration and non recurrent.

Towards a new capacity for making social investments effective

Today, policy has the underlying goal of social investment (generating payoffs in the future). However, policy designs are actually based on expenditures (and payoffs in the present). Public expenditures (whether transfers, direct spending or grants and contributions) are generally assessed in terms of immediate or short-term effects. For example, transfers to individuals might lift those individuals over a certain disposable income threshold, services support welfare-to-work transitions, and educational facilities bring people up to a certain level of skills attainment.

Policies could be redesigned to bring them into line with their underlying social investment goals. This would mean switching to policies that learn over time by automatically incorporating lessons from what is working best. These policies would be driven by specific calculations of expected returns later in life, for example:

- calculations of how the skills acquired by individual clients would be expected to be used, and rewarded, subsequently in the labour market and later life;
- calculations of the extent to which policies can be expected to help their beneficiaries avoid persistent poverty or disadvantage, including over the later course of their lives.

This information would be packaged so that it can also be used in prevention – providing individuals, families, civil society and employers with the information that would allow them to make effective investments in skills.

Towards accountability: A data-based marriage of decentralisation and horizontal integration

By current world standards, Canada has a good record on both vertical integration (balancing decentralisation with ministerial accountability) and horizontal integration (harmonised action across programme streams). But in the 1990s the tools had not been developed that would have allowed such simultaneous integration when more than one actor or level of government were involved. During the decade, the need to strengthen linkages with provinces, social partners and civil society became increasingly evident.

In future, complexity will increase greatly in response to pressures for greater horizontal integration (including with policies in different ministries and levels of government and crossing many traditionally separate health and social disciplines). As well, the shift to life-course and social investment approaches greatly increases the number of players with a stake in the system and the complexity of dealings among them.

Annex 1.A3

Progress in structural reforms

This annex provides a compendium of recommendations carried forward from the previous *Economic Survey*, and records what action has been taken, along with any other major policy changes announced since the previous *Survey*.

Increasing employment rates through labour market reforms

Previous recommendations

- Lengthen the qualifying period for Employment Insurance (EI) to be closer to international norms, and eliminate variations across regions.
- Continue to monitor the reasons behind the rise in the number of sickness and disability benefits to ensure that they are being used for their intended purpose and not to avoid tighter welfare provisions.
- Determine whether federal and provincial tax expenditure programmes offered to social assistance recipients could be simplified in order to improve work incentives.
- Make more use of in work benefits.
- Strengthen training and job-search requirements, and consider more use of diversion programmes.
- Adopt a more rigorous system of programme evaluation and assessment.
- Improve data comparability across provinces, and expand their scope to improve evaluation of ALMPs.
- Shift the focus of ALMPs towards those of a shorter-term nature and away from costly, long-duration training schemes.
- Reduce barriers to mobility by implementing mutual recognition agreements (MRAs) for all occupations.

Actions taken

- Criteria for seasonal workers in rural and remote areas to receive Employment Insurance benefits were softened in May 2004.
- Introduction in the EI system of a six-week compassionate family-care benefit to allow employees to care for a gravely ill or dying child, parent or spouse. Job protection is provided for employees taking such leave.
- In Quebec introduction of a work premium as of January 2005 to assist low income workers and encourage participation in the labour market.
- Ongoing progress on implementing mutual recognition agreements.

Increasing human capital

Previous recommendations

- Assess how rising education expenses are affecting participation in tertiary education and how well government financial assistance is meeting needs.
- Continue research on what can be done about high drop-out rates, especially any link between low literacy and dropping out.
- Look at whether underfunding is leading to a shortage of adult training places for at-risk groups.
- Extend the student loan scheme to more middle-income families, make repayments income-contingent and favour student loans over scholarships.

Actions taken

- Measures to favour learning in the 2004 federal budget: introduction of a new Canada Learning Bond, which will provide up to C$2 000 for children in low-income families born after 2003 for post-secondary education; introduction of a new grant for first year, post-secondary dependent students from low-income families; increase in the ceiling for Canada Student Loans to C$210 a week from C$165.
- In February 2003, the New Child Disability benefit was introduced to help low- and modest-income families to cope with the onerous financial burden of raising children who have a severe and prolonged physical or mental disability.

Increasing productivity through innovation

Previous recommendations

- Broaden the contestable funding pools to include all players, in particular government laboratories.
- Continue to simplify the application process for the R&D tax credit.
- Quickly implement the priority recommendations developed in the November 2002 National Summit on the *Innovation Strategy*.

Actions taken

- Funding provided in the 2004 federal budget: annual increase of C$90 million to Canada's three federal granting councils which fund basic research; increase of C$20 million annually to help offset the indirect costs of research by universities and research hospitals; an additional C$60 million to Genome Canada to strengthen its research.
- Since 2002, a number of service enhancements have been implemented to improve the application process for the Scientific Research and Experimental Development tax credit.
- The government has taken tangible steps to enhance Canada's innovation performance and has implemented some of the National Summit recommendations.

Increasing productivity by improving market performance

Previous recommendations

- Pursue efforts made for further opening of international trade.
- Reduce foreign ownership barriers wherever possible, including telecommunications, airlines and broadcasting.
- Complete the Agreement on Internal Trade (AIT), and set new targets.
- Strengthen the AIT by improving the dispute resolution process, and consider majority voting and mutual recognition of standards as a default solution.
- Accelerate deregulation of the electricity industry, and break up the generation near-monopolies in each province.
- Continue to improve market incentives, especially in the dairy industry where support remains high.
- Establish a fair framework for income support that does not prevent economic adjustment, and stick to it.
- Reduce barriers to expansion of electronic commerce and tax issues by implementing the recommendations of the advisory groups on e-commerce.

Actions taken

- The Ontario government announced in the 2004 budget its intention to reform the electricity sector. Electricity prices will be set more in line with costs.
- A national initiative to help the agriculture sector was set out in the Agricultural Policy Framework. Direct assistance is provided to producers to deal with short-term pressures. Accompanying measures are in the areas of food safety, environmentally responsible production, science and innovation, renewal and business risk management. Implementation of voluntary environmental farm plans: cost shared incentives from the federal government are targeted at producers in high-risk areas, in the hope they will adopt beneficial practices or make infrastructure improvements. Incentives are also provided for conversion of environmentally sensitive land.
- Almost all recommendations from the e commerce advisory groups that fall within federal jurisdiction were implemented. Progress is underway towards the creation of an e-Corps initiative, the availability of all government services online, and the role of Canada in developing a neutral dispute resolution body responsible for resolving domestic and international online disputes.

Financial sector

Previous recommendations

- Clarify the criteria that would determine whether a large bank merger would be approved.
- Continue harmonising regulatory standards, and reduce the number of regulators.

Actions taken

- In December 2003, the Wise Persons' Committee submitted a report to the federal Minister of Finance recommending a single regulator and a single code of legislation for securities markets. In the 2004 Budget, the federal government agreed with the

Committee's principal recommendation and committed to working with provincial governments towards that end.

– Provincial ministers responsible for securities formed a committee focused on structural reforms to securities regulation in February 2003. In a separate reform action, two provinces (Saskatchewan and Quebec) have proceeded with the merging of the financial regulators within each of their provinces.

– The Department of Finance Canada released a paper in June 2003 that clarified the public interest considerations for large bank mergers. This paper raised several broader questions relating to bank mergers, and a consultation process on these questions ended December 2003. The Government expects to announce its broader policy on large bank mergers shortly. The Competition Bureau has also undertaken a review of the bank merger enforcement guidelines (BMEG); new BMEG are also expected to be released shortly.

Taxation

Previous recommendations

– In future tax measures, give priority first to corporate and capital tax relief and then to personal tax reductions.

– Consider shifting the tax base from payroll, personal and corporate income toward value added or consumption.

– Phase-out the preferential tax treatment of the resource sector.

Actions taken

– Corporate tax measures in the 2003 federal budget included a phased elimination of the federal capital tax. They also included a phased reduction in the tax rate applying to resource income from 28 per cent to 21 per cent, the same rate that applies to other sectors, along with phased elimination of the resource allowance in favour of a deduction for actual royalties and mining taxes paid, to ensure more consistent treatment of costs across resource projects and between sectors.

– Increase in the capital cost allowance rate for computer equipment to 45 per cent from 30 per cent, and in the rate for broadband, Internet and other data network infrastructure equipment to 30 per cent from 20 per cent, in the 2004 federal budget.

– Decline in corporate taxation in a number of provinces announced in the 2004 budgets but increase in some others.

Public expenditure

Previous recommendations

– Adopt a medium-term framework, and present the full five-year impact of all decisions at budget time.

– Publish in advance a ranking of contingent year-end spending proposals.

– Re-instate key elements of the Programme Review process.

– Reduce federal/provincial disagreements over the alleged vertical fiscal (im)balance by achieving consensus on the facts.

- Review the rate-setting process for EI, and bring down the rate to the level required to meet programme objectives. Avoid moving the programme further from its insurance principles.
- Improve governance of arms-length foundations and clarify their objectives.
- Put more weight on rate of return when selecting infrastructure investment.
- Modernise the human resource management process. Increase employee accountability and pay flexibility (including bonuses).

Actions taken

- Setting of an objective of lowering the federal debt-to-GDP ratio to 25 per cent within 10 years.
- Commitment to reduce public debt in Nova Scotia was legislated.
- Ontario Minister of Finance has proposed a Fiscal Transparency and Accountability Act and a Budgeting for Results framework to enhance accountability of the fiscal authorities and improve the efficiency of the current procedures.
- Analysis undertaken by the federal government to assess the existence of fiscal imbalances in March 2004 (*www.fin.gc.ca/facts/fbcfacts8_e.html*).

Health care

Previous recommendations

- Introduce a mixed fee-for-service/capitation payment system as a way of reducing costs once the physician shortage problem has been solved. Improve information on costs per procedure.
- Create a database to track key data, such as waiting lists, in order to target expenditure more effectively.
- Accelerate primary care reform based on what has been learned from pilot projects.
- Reform hospital funding mechanisms in order to increase incentives to raise efficiency. Consider output-based funding mechanisms.
- Increase the use of cost-sharing devices in areas where it will not have detrimental impact on health outcomes.
- Clarify the reasons why supplementary private insurance is effectively ruled out by regulation, and look at whether those reasons are valid in all the cases where the ban is currently imposed.

Actions taken

- Continuous work by the Canadian Institute for Health Information on data harmonisation across provinces, especially on financial performances indicators.
- Establishment of a new long-term Canada Health Transfer (CHT) in the 2003 Renewal Accord on Health by 1 April 2004. It includes the portion of the current CHST (both cash and tax points) corresponding to the current proportion of health expenditures in provincial social spending supported by this federal transfer. In establishing the CHT, the federal government is ensuring predictable annual increases in health transfers and improving the transparency and accountability of federal transfer support.

- New investments in a Health Reform Fund were announced in the 2003 Renewal Accord on Health to support primary health care, home care and catastrophic drug coverage. Agreement between Premiers to the goal of ensuring that at least 50 per cent of their residents have access to an appropriate health care provider, 24 hours a day, 7 days a week, as soon as possible and that this target be fully met within eight years. A first dollar coverage will be provided for a basket of services for short-term acute home care by 2006. By the end of 2005-06, Canadians, wherever they live, will have reasonable access to catastrophic drug coverage. Funding from the federal government to support electronic heath records and tele-health services was also announced.
- Increased funding in a number of provinces to expand training places for medical staff.
- In Ontario, introduction of a health premium, earmarked to health spending.
- In September 2004, First Ministers agreed on a 10-year Action Plan on Health to improve access to home care, primary services and pharmaceuticals, and to reduce wait times, in priority areas such as cancer, heart disease, diagnostic imaging, joint replacements and sight restoration. The federal government agreed, subject to parliament approval, to provide new funding of C$41 billion over 10 years. The funding provided by the federal government will be used by the government of Quebec to implement its own plan.

Sustainable development

Previous recommendations

- Make more use of cost-benefit analysis and economic instruments in order to make more progress on policy objectives.
- Make water rights transferable, and price their use through metering with full cost recovery.
- Increase compensation for fishing licence retirements. Encourage a reduction in the size of the fishing sector.
- Increase the share of fisheries managed by individual quotas. Adopt a rules-based approach to setting quotas, and strictly enforce rules against over-fishing.
- Use economic instruments with the largest base possible in order to reduce the overall costs of greenhouse gas (GHG) emissions reduction.
- Apply the polluter pays principle more systematically.

Actions taken

- In 2003, funding of the Canada Climate Change Plan to support implementation in areas such as renewable energy, energy efficiency, sustainable transport and new alternative fuels (C$2 billion over 5 years). Emissions trading of GHGs is a key element of this Plan, and details of the trading system for large industrial emitters are being developed.
- Increasingly stringent emission standards on NOx and VOCs will be aligned with US standards. New regulations will reduce the sulphur content of road fuel.
- Initiatives in Ontario (cap-and-trade system for NO and SO_2 emissions from power plants) and in British Columbia (differentiated fee for industrial polluters).

- Several provinces have adopted an overarching water strategy, vision or plan which has the following themes: renewed emphasis on the user and polluter principles, a source-to-tap approach to provision of safe drinking water, and prevention of large-scale transfers of water beyond basin boundaries. Ontario is introducing legislation, to be implemented this year, that allows municipalities to charge the full financial cost of water supply.
- A National Plan of Action is being developed for measuring fishing capacity, assessing overcapacity, and recommending ways to achieve a balance between capacity and the resource stock.
- In its 2004 budget, the federal government announced that it would increases its investments by C$1 billion in support of new environmental technologies over the next seven years. Moreover, C$15 million will be invested over the next two years to develop and report better environmental indicators on clean air, clean water and GHG emissions.

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2. Product market competition and macroeconomic performance

There is a well identified empirical connection between the intensity of competition in product markets and better productivity performance (OECD, 2002a). In general, economy-wide competitive pressures appear to be relatively strong in Canada, with the exception of restrictions on inward foreign direct investment. Administrative burdens on firms and economic regulation inhibiting competition are also comparatively low. Proposed changes in competition legislation, along with in-depth market investigations, should help to ensure that markets are competitive. In general, competition appears to be strongest in the manufacturing sector; industry concentration and mark-ups are relatively low, and the sector faces vigorous competition from abroad, reflecting Canada's open economy. However, in some non-manufacturing network sectors Canada has experienced relatively weak labour productivity growth since the early 1990s, and a large part of this may be due to weak competitive forces. Over the past decade it has fallen behind a number of other OECD countries that have introduced reforms aimed at intensifying competition in these sectors. This is particularly the case in electricity, where the market in most provinces is supplied by vertically integrated government-owned monopolies. Market power on the part of incumbent firms also remains a concern in other sectors, particularly in airlines.

This chapter assesses what role product market competition and the policies that impact upon competition may have played in the performance of the Canadian economy over the past decade. The main links between stronger competition and macroeconomic performance are reviewed in the first section of this chapter, while the second section describes the competition legislation framework and recent proposed changes to it. The third section discusses regulatory policies impacting upon competitive conditions in the economy, in particular restrictions on foreign direct investment and inter-provincial trade. Regulation, the intensity of competitive forces and recent reforms are then analysed for a wide range of non-manufacturing network sectors: telecommunications, broadcasting, electricity, natural gas and airlines. A concluding section draws on the analysis to recommend policies that could further improve product market competition and boost economic performance.

Macroeconomic performance and indicators of competition

Canada has witnessed relatively good economic performance over the past decade at the aggregate level. Average GDP growth between 1991 and 2003 was above both the EU and OECD averages and higher than in any other G7 country with the exception of the United States (Table 2.1). The robust GDP growth performance can be explained by both comparatively strong labour productivity growth (per worker) and sizeable employment gains, unlike many other OECD countries, where GDP growth has been driven mainly by one or the other. The level of GDP *per capita* in 2002 was also above both the EU and OECD averages, and higher than in most other G7 countries with the exception of the United States, with which a productivity gap of 15 percentage points remains. While productivity growth over the last decade is encouraging, it still lags that of the United States. In order to close its productivity gap *vis-à-vis* the United States (and better performing EU countries), productivity growth will need to improve still further.

A sectoral breakdown of labour productivity growth shows that there is scope for improvement in several areas (Table 2.1). Performance in manufacturing and construction has been relatively good compared with other OECD countries. And productivity growth in wholesale and retail trade was also higher than in most other major countries, thanks in part to the entry of Wal-Mart. Reforms to introduce competition in telecommunications were undertaken relatively early compared to most other countries. Although productivity gains in the sector have been weaker than in countries where reforms have been more recent, performance has been comparable with that of other early reformers such as the United States and the United Kingdom. One sector that stands out as having poor productivity growth over the 1990s is the electricity, gas and water supply sector. Canada's productivity gains in this sector, while comparable to those of the United States, have been considerably less than in other countries where average annual productivity growth has been three to five times greater. While increases in the transport and storage sectors have been comparable with those of other G7 countries, a number of smaller countries have had considerably better results, indicating that there is also room for improvement here.

Indicators of the intensity of product market competition

Focusing on regulations that restrict competition and market mechanisms (*e.g.* economic and administrative regulations and barriers to trade and foreign direct investment), OECD indicators of regulation suggest that in 1998 the economy-wide regulatory stance of Canada was around average compared with other OECD countries (Figure 2.1).[1] While Canada had a comparatively low degree of economic and administrative regulation, restrictions on foreign direct investment (FDI) account for its average stance. Indeed, Canada had the second greatest restrictions on FDI in the OECD.[2] In addition to Canada's relatively average economy-wide regulatory stance, its rating in important service sectors was also average (*i.e.* the utilities and transport sectors) (Figure 2.2). Reforms in these sectors over the past two decades have not been as

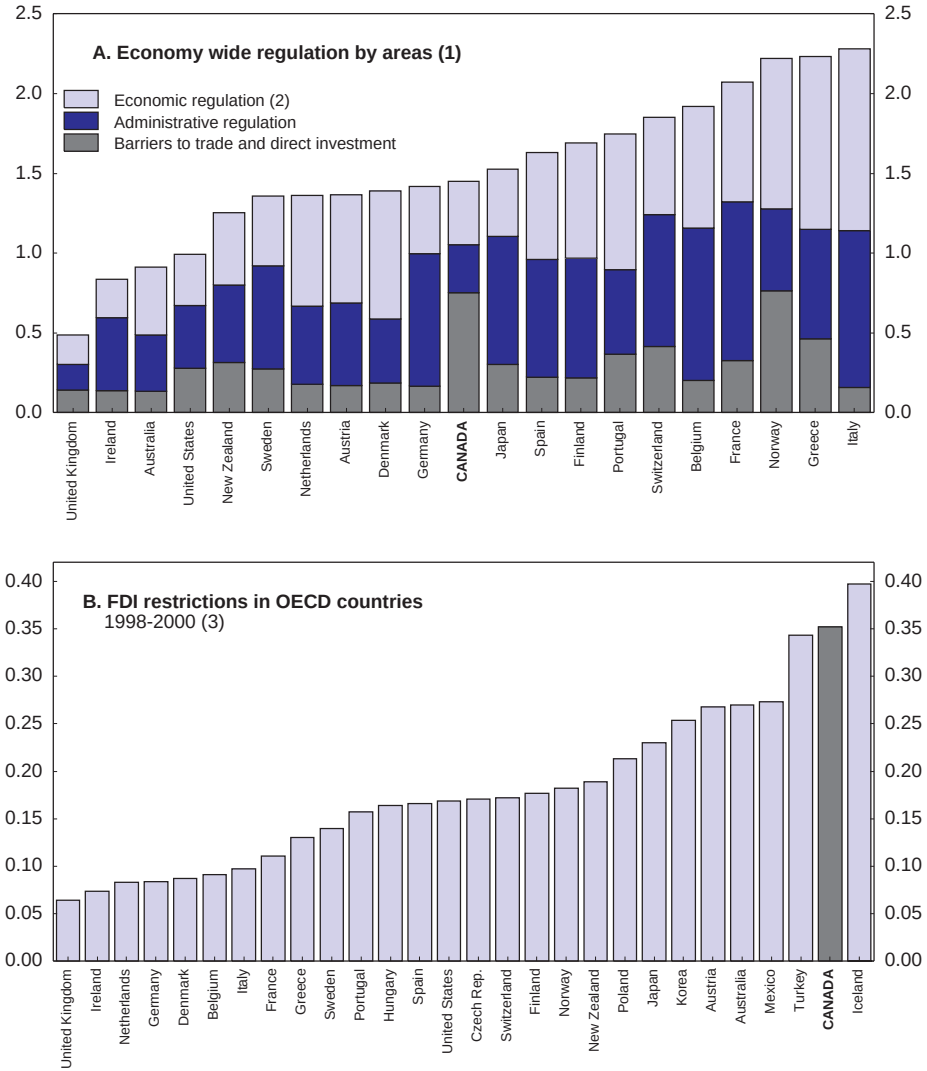
Table 2.1. **Output, employment and productivity**
Average annual percentage change 1991-2003

	Canada	United States	Japan	Germany	France	United Kingdom	Italy	Australia	New Zealand	Denmark	Norway	Sweden	European Union	OECD
Average GDP growth	**2.8**	3.0	1.3	2.3	1.7	2.3	1.4	3.4	2.9	2.0	3.2	1.9	1.9	2.5
of which:														
Productivity (per employed person)	**1.3**	1.8	1.2	0.5	1.1	1.9	1.1	1.9	0.9	1.9	2.3	2.3	0.9	1.1
Employment	**1.4**	1.1	0.1	1.8	0.6	0.4	0.3	1.5	2.0	0.2	0.9	–0.4	0.9	1.4
Labour productivity growth in selected industries[1]														
Total manufacturing	**3.1**	3.6	2.6	2.4	3.5	2.9	2.0	2.4	2.3	2.7	1.0	6.3	. .	. .
Electricity, gas and water supply	**1.0**	1.1	2.2	5.4	2.6	8.3	3.7	5.8	7.4	4.3	3.8	2.2	. .	. .
Construction	**0.6**	0.2	–3.0	0.0	–0.1	2.1	–0.1	0.8	0.6	0.6	0.7	0.7	. .	. .
Wholesale, retail trade[2]	**2.6**	3.9	1.5	0.3	1.0	2.0	1.5	2.9	1.6	2.2	5.7	3.2	. .	. .
Post and telecommunications[3]	**3.2**	4.3	1.6	13.0	4.7	4.4	9.5	7.2	6.1	6.2	11.2	7.2	. .	. .
Transport and storage[4]	**1.8**	1.3	. .	3.8	1.6	. .	1.5	3.5	. .	3.0	2.2	2.4	. .	. .
Memorandum items:														
GDP per capita[5]	**84.0**	100.0	74.2	71.5	75.5	77.3	70.8	77.6	61.8	80.8	98.2	75.4	66.4[6]	69.6
GDP per hour worked[5]	**85.2**	100.0	70.5	92.5	113.2	79.3	93.7	78.4	62.9	93.5	125.5	85.6	81.6[6]	76.3

1. 1991-2001. For Germany, as from 1992.
2. For Japan and the United Kingdom, including hotels and restaurants.
3. For Japan, New Zealand and the United Kingdom, including transport and storage. For Sweden, as from 1994.
4. For Sweden, as from 1994.
5. 2002 levels, PPP based; USA = 100.
6. EU countries that are members of the OECD.

Source: OECD estimates.

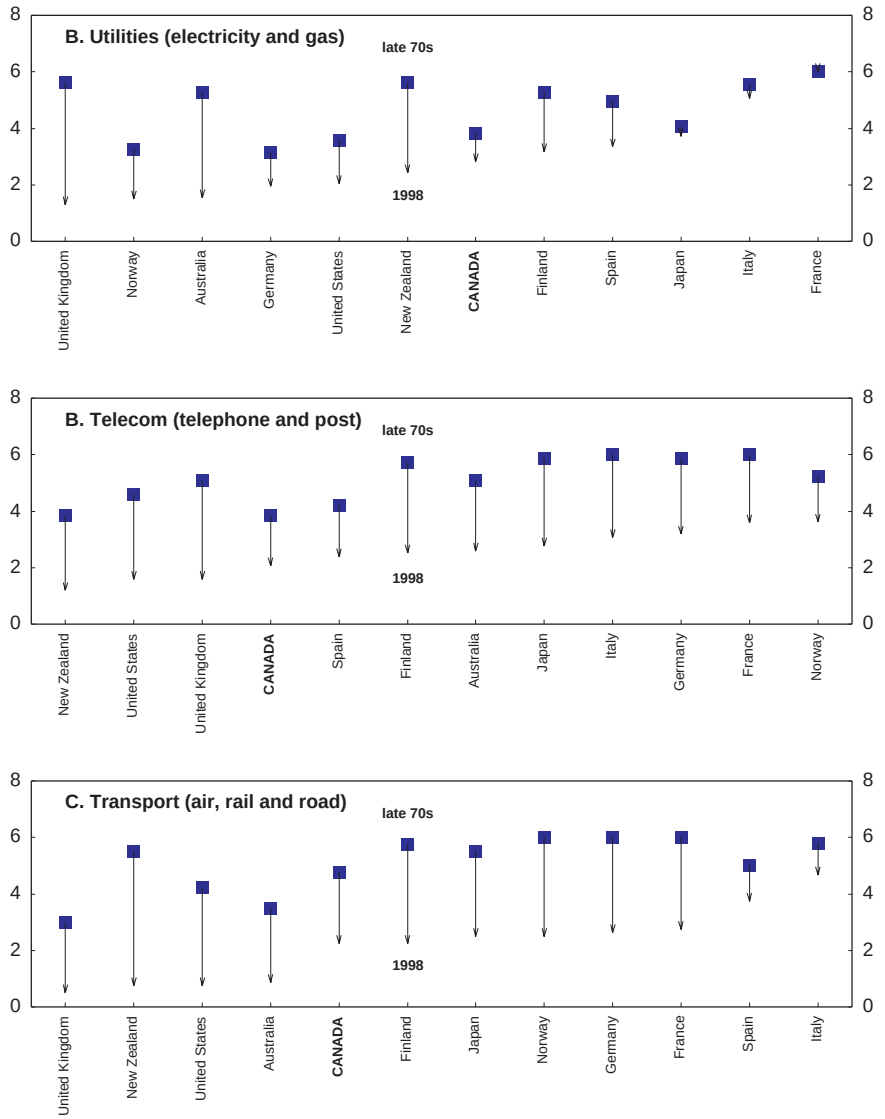
Figure 2.1. **Indicators of economy-wide product market regulations**



1. The regulatory stance is measured by a synthetic indicator ranging between 0 (least restrictive) and 6 (most restrictive) for each year and sector. It covers public ownership, barriers to entry, market structure, vertical integration and price controls. See Nicoletti and Scarpetta (2003) for details.
2. Includes barriers to competition and state control.
3. The indicator ranges from 0 (least restrictive) to 1 (most restrictive). Includes limits of foreign ownership, restrictions on foreign personnel and operational freedom, screening requirements.

Source: Nicoletti and Scarpetta (2003).

Figure 2.2. **Change in regulatory stance in selected non-manufacturing industries**
Late 1970s-1998[1]



1. The regulatory stance is measured by a synthetic indicator ranging between 0 (least restrictive) and 6 (most restrictive) for each year and sector. It covers public ownership, barriers to entry, market structure, vertical integration and price controls. See Nicoletti and Scarpetta (2003) for details.

Source: Nicoletti and Scarpetta (2003).

far-reaching as in other countries. While at the end of the 1970s Canada had one of the most favourable regulatory stances to competition amongst OECD countries, by the end of the 1990s it lagged behind in the electricity, gas and transport sectors.

Although it is difficult to classify markets according to the strength of market forces, the degree of product market competition may be gauged from jointly considering a number of imperfect proxy measures. The structural measures presented below look primarily at the manufacturing sector, but some non-manufacturing sectors are also considered. Manufacturing industries are grouped into four categories. A distinction is made between low-R&D and high-R&D industries and between fragmented industries, which are those that are less concentrated and characterised by a large number of firms, and segmented industries, which are more concentrated sectors containing relatively large firms.

Structural measures such as industry concentration ratios or indices are often used as an indicator of competitive forces. Hirschman-Herfindahl indices (HHIs) show that, in general, Canadian manufacturing industries are slightly less concentrated than in comparable countries like the United States and Japan (Table 2.2).[3] The strength of competitive pressures also depends to a large extent on how exposed industries are to international competition. Import penetration rates indicate that Canadian firms face relatively stronger competitive pressure from foreign firms than their counterparts in other G7 countries (Table 2.3). Canada has the highest import penetration rate in total manufacturing of all the G7 countries. A sectoral breakdown shows that competitive pressures are strong in almost all industries and reflect the fact that the Canadian economy is extremely open to goods trade.

In general, mark-ups, a frequently used gauge of market power and thus competitive pressures, appear to be around the average of those estimated for other OECD countries for which data in manufacturing were available. Average mark-ups in segmented industries and in fragmented, high-R&D sectors seem to suggest that competitive pressures in these sectors are sufficient (Figure 2.3). Somewhat higher-than-average mark-ups in fragmented, low-R&D manufacturing industries, on the other hand, could indicate that there are problems with competitive pressures in the latter. The higher-than-average mark-ups in these sectors are due primarily to a comparatively high mark-up in the pulp and paper sector. This sector is also relatively more concentrated than in comparable countries such as Japan and the United States. The above-average mark-up combined with higher concentration could indicate Canada has a comparative advantage or that competitive forces are relatively weak in this sector.[4]

The poor performance of some of the non-manufacturing sectors may be due in large part to a lack of competitive pressures as evidenced by relatively high mark-ups (Figure 2.4). In the electricity, gas and water sector, where Canada's performance has been particularly poor, Canadian mark-ups are the highest

Table 2.2. **Hirschman-Herfindahl indices of industry concentration**[1]

	Canada	United States	Japan
	2001	1997	1999
Manufacturing			
Segmented, high R&D			
Chemicals products	**29.7**	14.4	14.9
Office and computing machinery	**1.8**	17.9	84.2
Electrical machinery	**3.5**	13.9	21.6
Radio, TV and communication equipment	**3.4**	n.a.	18.6
Motor vehicles	**40.7**	23.9	49.4
Other transport equipment	**13.0**	n.a.	109.2
Fragmented, high R&D			
Medical appliances, optical instruments, watches and clocks	**1.8**	n.a	47.4
Machinery and equipment	**5.4**	7.5	7.5
Furnitureand other manufacturing	**1.6**	11.1	34.2
Segmented, low R&D			
Coke and petroleum products	**29.7**	n.a.	236.9
Basic metals	**30.7**	29.0	46.4
Plastic and rubber products	**4.1**	5.0	6.8
Food and beverages	**10.0**	3.3	1.5
Tobacco products	**10.6**	n.a	386.4
Fragmented, low R&D			
Textiles	**n.a.**	6.5	3.3
Wearing apparel	**n.a.**	8.6	4.0
Leather and footwear	**n.a.**	65.1	45.6
Wood products	**4.4**	3.7	5.0
Paper and pulp products	**30.5**	14.4	23.0
Publishing and printing	**2.8**	3.0	17.9
Non-metallic products	**3.6**	6.6	8.8
Fabricated metal products	**6.5**	1.6	9.9

1. Based on establishment data.
Source: OECD, Statistics on enterprises by size class (SEC database) and Statistics Canada.

amongst OECD countries for which data are available. The high mark-ups in part also reflect Canada's high proportion of hydroelectric power, where the costs of production are very low. While this sector is discussed in detail in a separate section below, it should be noted that barriers to entry in the Canadian electricity sector remain relatively high compared to other OECD countries. Mark-ups in post and telecommunications and transport and storage are slightly higher than average. Canadian mark-ups in the wholesale and retail trade and construction sectors, where productivity growth has been comparable to that of other OECD countries, are below average, suggesting that competitive pressures in these sectors are quite intense.

Table 2.3. **Import penetration by manufacturing industry**
Latest available year

	Canada	France	Germany	Italy	Japan	United Kingdom	United States
	2000	2002	2001	2001	2001	2000	2001
Total manufacturing	**52.6**	36.5	40.8	30.5	11.6	44.8	23.1
Fragmented, low R&D							
Textiles	**62.4**	52.3	89.6	22.2	35.6	54.0	27.2
Wearing apparel	**38.8**	57.0	78.7	22.5	33.8	65.2	53.3
Leather products and footwear	**77.9**	86.7	89.0	44.0	57.2	86.2	79.5
Wood products	**15.6**	22.6	19.4	16.5	25.6	32.0	12.7
Paper and pulp	. .	38.3	43.4	26.3	4.6	35.2	10.4
Printing and publishing	. .	8.8	7.2	7.1	1.8	8.0	2.5
Non-metallic products	**36.8**	19.1	19.6	8.5	4.8	17.9	13.5
Fabricated metal products	**32.8**	14.0	15.3	7.4	3.9	16.6	8.9
Fragmented, high R&D							
Medical precision and optical instruments	. .	46.4	64.8	60.8	68.1	63.5	22.7
Machinery and equipment	**84.1**[1]	54.3[4]	36.6[4]	37.6[4]	8.3	57.0	26.4
Furniture manufacturing	**56.8**[1]	41.8[4]	44.0[4]	20.2[4]	9.9	38.8	38.5
Segmented, low R&D							
Refined petroleum, coke	**10.8**	18.0	27.3	16.4	10.8	21.4	17.9
Basic metals	**44.6**	45.6	45.2	44.4	6.7	46.9	22.0
Shipbuilding and repairs	**58.6**	27.6	49.8	33.8	2.9[2]	21.0	6.8
Rubber and plastic[1]	**42.6**	30.5	29.1	22.3	4.7	26.6	12.1
Food, beverages and tobacco[1]	**17.5**	18.4	19.5	19.7	11.2	20.5	6.3
Segmented, high R&D							
Chemicals	**57.3**	51.1	57.7	48.6	12.1	53.3	20.4
Pharmaceuticals	**52.5**	44.7	83.6	49.1	8.8[2]	63.1	18.7
Office and computing machines	**108.3**	99.3	108.6	93.0	28.8[2]	105.7	68.2
Electrical machinery	**82.2**	46.2	32.4	27.0	12.0[2]	53.6	46.6
Radio, TV and communication equipment	**74.3**	73.6[3]	107.0	60.5	14.7[2]	90.8	41.8
Motor vehicles	**76.4**	36.6	35.0	61.8	3.7[2]	59.0	36.5
Aircraft	**82.8**	47.0	155.7	74.2	43.6[2]	87.4	30.2
Railroad equipment	**37.6**	41.7	42.2	41.2	186.9[2]	43.6	20.3
Other transport equipment	**67.5**	44.0	108.1	55.1	32.6[2]	72.2	25.4

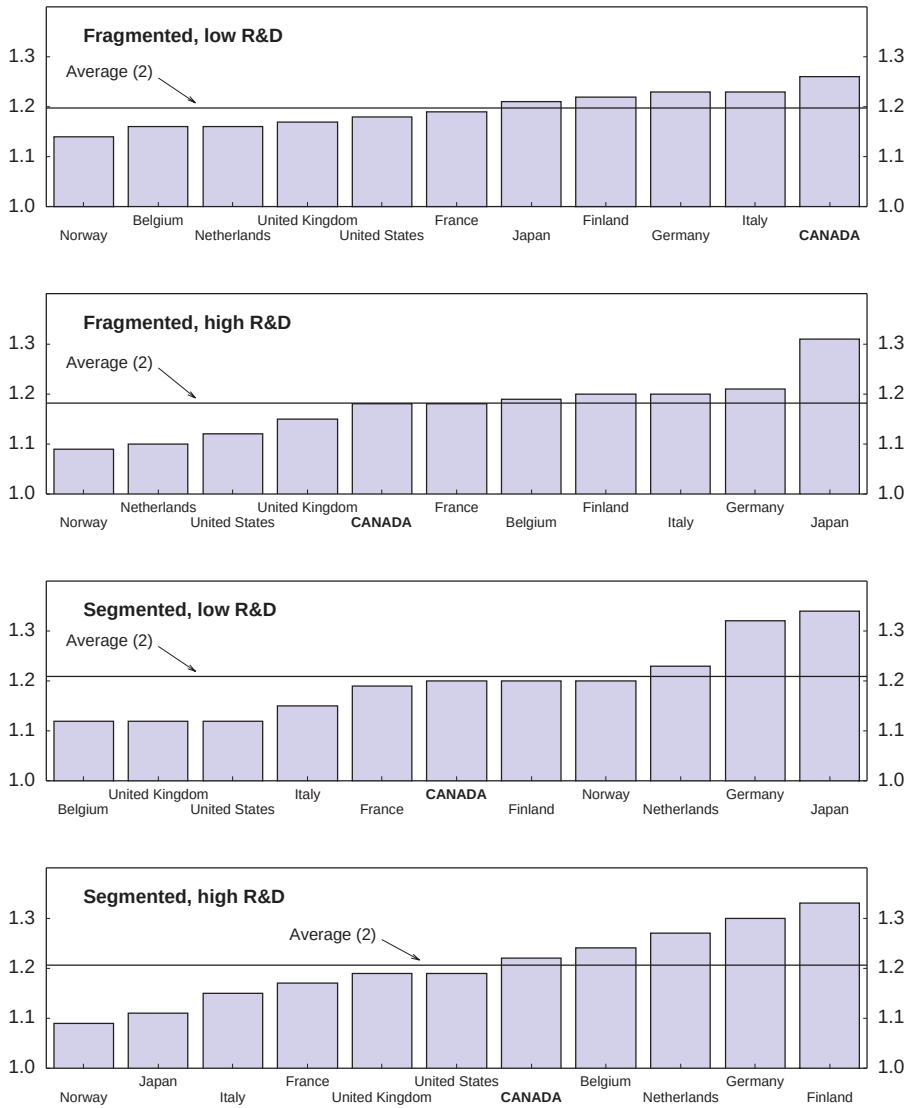
. . = not available.

Note: Imports as a percentage of domestic demand (estimated as production minus exports plus imports). Values greater than 100 can occur when exports exceeded production because of the inclusion of re-exports, *i.e.* products that are imported and then re-exported without any further transformation.

1. Mix of fragmented and segmented sectors.
2. 1999.
3. 2000.
4. 2002.

Source: OECD STAN Database.

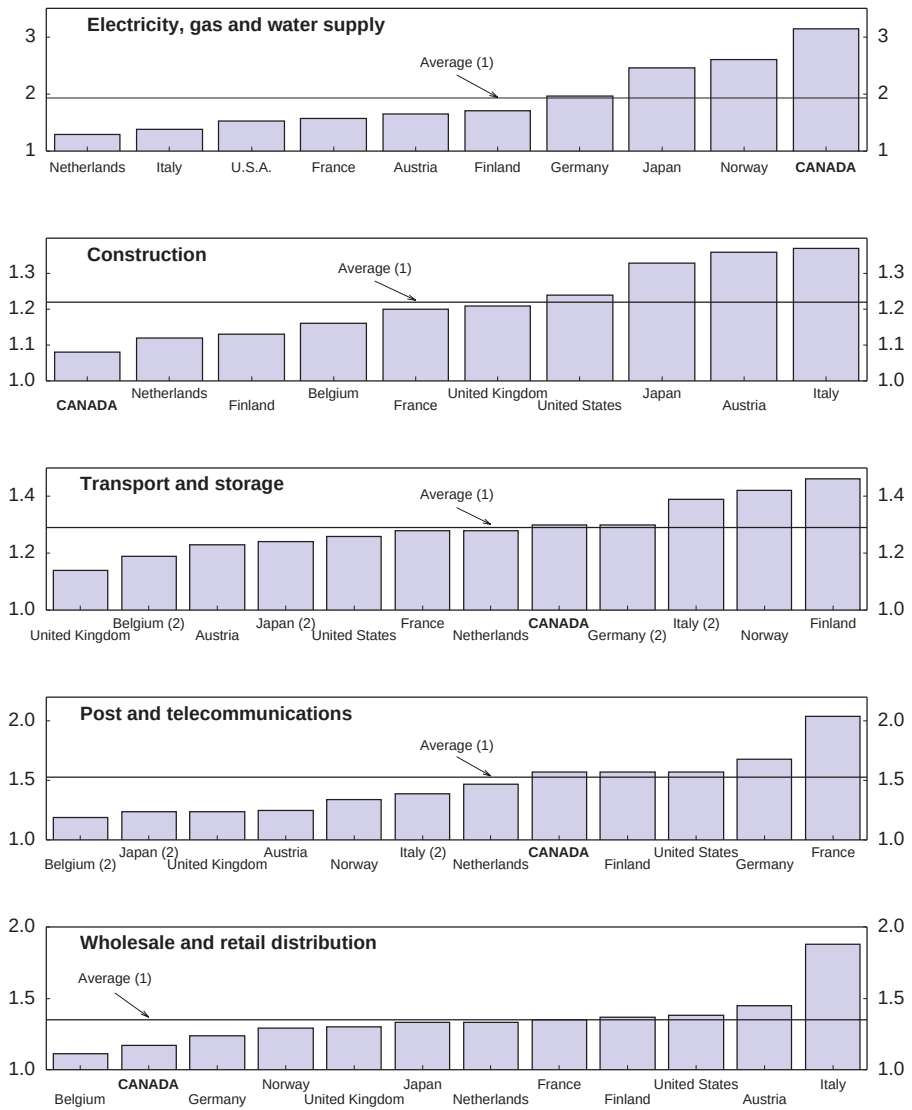
Figure 2.3. **Average mark-ups in manufacturing by market structure**
1981 to latest available year[1]



1. For the Netherlands data is from 1987 to 2002.
2. The average mark-up is an unweighted average of the available mark-ups. ISIC, Rev. 3 classification.

Source: OECD STAN database.

Figure 2.4. **Mark-ups in selected non-manufacturing sectors**
1981 to latest available year



1. The average mark-up is an unweighted average of the available mark-ups. ISIC, Rev. 3 classification.
2. Mark-ups refer to transport, storage and communications sector.

Source: OECD STAN database.

Competition and innovation

Competition is generally considered a primary driver of innovative activity. A more competitive environment tends to strengthen R&D and diffusion of technologies, both of which are primary factors contributing to economic growth (Ahn, 2002; OECD, 2003a). However, in 2001 Canadian expenditure on R&D as a percentage of GDP was well below the OECD average and lower than in all other G7 countries with the exception of Italy and the United Kingdom. Nonetheless, over the past two decades Canadian expenditure on R&D has been steadily increasing. While R&D expenditure at the beginning of the 1980s and 1990s was well below both the EU and OECD averages, by 2001 it was just above the EU average, though still below that for the OECD (Table 2.4).

While overall R&D expenditure as a percentage of GDP is comparatively low, that expenditure is primarily in high-technology sectors. At the beginning of the 1990s, Canadian high-technology industries accounted for the highest share of manufacturing R&D expenditure in the OECD (OECD, 2001a). Over the past decade its position strengthened even further, with these industries increasing their share of manufacturing R&D expenditure by over 10 percentage points, so

Table 2.4. **Gross domestic expenditure on R&D as a percentage of GDP**
1981-2001

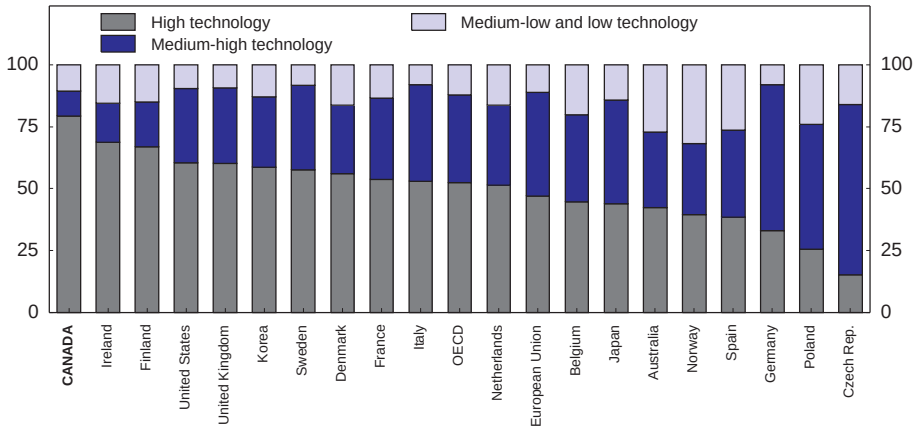
	1981	1991	1995	2001
Canada	**1.24**	**1.60**	**1.72**	**1.94**
United States	2.34	2.72	2.51	2.82
Australia	0.95	1.31[1]	1.66[2]	1.53[3]
Japan	2.29	2.93	2.89	3.09
Korea	. .	1.92	2.50	2.96
Denmark	1.06	1.64	1.84	2.19[4]
Finland	1.17	2.03	2.28	3.40
Norway	1.17	1.64	1.70	1.62
Sweden	2.17	2.70	3.35	4.27
France	1.93	2.37	2.31	2.20
Germany[5]	2.43	2.53	2.26	2.49
Italy	0.88	1.23	1.00	1.07[3]
Netherlands	1.79	1.97	1.99	1.94[3]
Spain	0.41	0.84	0.81	0.96
United Kingdom	2.38	2.07	1.95	1.90
EU	1.69	1.90	1.80	1.93
OECD	1.95	2.23	2.10	2.33

1. 1990.
2. 1996.
3. 2000.
4. 1999.
5. Figures for Germany from 1991 onwards refer to unified Germany.

Source: OECD.

that by 2000 high-technology industries accounted for around 80 per cent of manufacturing R&D, the highest of any OECD country (Figure 2.5).

Figure 2.5. **R&D expenditure in manufacturing by technology intensity**
Percentage change in total manufacturing, 2000[1]



1. 1998 for OECD and Norway, 1999 for EU, Denmark, France, Ireland, Netherlands.
Source: OECD.

Potential macroeconomic effects from regulatory reforms that increase competition

The macroeconomic benefits of regulatory reforms to increase product market competition are significant. The channels through which regulatory reform affects the economy depend on a number of factors, and assessing the impact of regulatory reform is a complex task (Box 2.1). It should be noted that the possible magnitude of regulatory reform on sectoral performance is subject to considerable uncertainty, which is only multiplied in the assessment of economy-wide effects. Nevertheless, an attempt is made to quantify the potential effects of further reforms. Following the approach taken by Nicoletti *et al.* (2001), Nicoletti and Scarpetta (2003) and Nicoletti *et al.* (2003), synthetic indicators of regulatory stance are included in regressions of aggregate performance variables. This method is appealing, because it does not require any assumptions about the character of reforms or *ad hoc* assumptions regarding the impact of reforms on price-cost margins and productivity. Assuming Canada were to align its economy-wide regulation to that of the least restrictive OECD country,[5] it is estimated that the long-run employment rate would increase by 1.01 percentage points and that over ten

Box 2.1. Economy-wide effects of regulatory reforms that increase product market competition

Regulatory reforms that increase product market competition within a sector improve that sector's economic performance through a number of channels; these static gains are further enhanced by dynamic effects.

- Sectoral reforms change relative prices, improving overall resource allocation and consumer welfare.
- Reforms that increase competition reduce price-cost margins, thus lowering price and expanding output in the sectors concerned. This, in turn, may diminish the scope for rent-sharing with suppliers of labour and other primary and intermediate inputs, thereby putting downward pressure on wages in those industries.
- Reforms force firms to reduce slack in the use of input factors (*i.e.* decreasing X-inefficiency), enhancing labour and/or capital productivity.
- In addition to these static effects, a more competitive environment stimulates efforts to innovate and adopt new technologies, which raises productivity growth.

Quantifying the possible magnitude of regulatory reform on sectoral performance is bound to be subject to considerable uncertainty, which is only multiplied in the assessment of economy-wide effects. For example, reduced rent-sharing (stemming from lower mark-ups) might have favourable spill-over effects on wage formation more generally. Furthermore, propagation of sectoral effects into the wider economy also depends on the labour market. The initial effects of a sectoral reform may be a reduction in employment in the sector concerned, highlighting the importance of a flexible labour market in maximising the beneficial economy-wide effects of reforms.

years annual multi-factor productivity (MFP) growth would increase by 0.15 percentage points (Table 2.5). In addition, inward FDI would increase by around 25 per cent in the long run. Aligning industry-specific regulations and state control to that of the best performing OECD country would further increase annual MFP growth by 0.05 and 0.89 percentage points, respectively. This implies an increase in annual MFP growth of around 1 percentage point, equivalent to a 10 per cent increase in the level of MFP after 10 years.[6] If Canada were to reduce its restrictions on FDI, it is estimated that the stock of inward foreign direct investment could increase by 70 per cent relative to current levels. While the magnitude of such gains must necessarily be rather uncertain, there is clearly significant potential for improving performance, although comprehensive reforms in both product and labour markets would be also be required to achieve such results.

Table 2.5. **Potential effects of further regulatory reforms in Canada**[1]

	Long-run employment rate (percentage point increase)	Multi-factor productivity growth over 10 years (percentage point increase at an annual rate)	Inward FDI (per cent increase in level in the long run)
Effect of easing economy-wide regulation	1.01	0.15[2]	24.4
Effect of easing industry-specific regulation	–	0.05	–
Effect of reducing state ownership	–	0.89	–
Effect of reducing FDI restrictions	–	–	70.0

1. Alignment of regulation on least restrictive OECD country in 1998. Effects estimated from the results of panel regressions relating to the employment rate, multifactor productivity and inward FDI to regulation and other variables.
2. Excluding government ownership.

Source: Nicoletti *et al.* (2001), Nicoletti and Scarpetta (2003), Nicoletti *et al.* (2003).

Competition legislation and enforcement

Canada was the first nation to adopt an antitrust law, in 1889. Since 1986, the Competition Act has been amended on a regular basis. It is, however, currently the subject of sharp controversies and challenges (Ross, 2004). The Competition Act was amended significantly in June 2002, and additional changes are now under consideration to modify some of the statute's prohibitions, enforcement methods and sanctions. The pending proposals address many, but not all, of the elements that prevent Canada from having a fully effective antitrust regime. The present focus on the antitrust statute has also meant that less attention has been directed to reforming the government's regulatory role in areas of economic activity that are still not covered by the antitrust law.

Institutional setting

The Commissioner of Competition, supported by the Competition Bureau, is principally responsible for competition law enforcement and policy in Canada. Institutionally, the Competition Bureau is part of Industry Canada and must therefore report for resources and administration to a department responsible for promoting industry, not policing it. Although the Commissioner is empowered by the Competition Act to make all law enforcement decisions independently, the structural posture of the Bureau inevitably leads to the false impression that there are conflicting pressures on a Commissioner's decisions and has sometime fuelled media speculation that antitrust decisions are affected by political calculations. Although progress has already been made, lingering misperceptions regarding the independence of the Competition Bureau could be further dispelled by continuing to present its budget as a separate line item within Indus-

try Canada's Estimates. This would reinforce the move towards greater transparency for the Bureau.

Neither the Competition Bureau nor any other agency in Canada may employ its investigative authority to study an industry without some basis for suspecting unlawful behaviour. Examination of a market's competitive dynamics is, however, a useful tool to advance the objectives of competition policy. Market studies can reveal previously unsuspected forms of private conduct or government regulation that impair competition. And the results can play an important role in promoting public understanding of how competition works and what benefits it produces. Policy discussions and consultations have taken place concerning a proposal to authorize the Commissioner to request that an independent body, such as the Canadian International Trade Tribunal (CITT), study the state of competition and the functioning of markets in any sector of the Canadian economy.[7] It might be more appropriate, however, to vest market competition study authority in the Competition Bureau, because it is the agency responsible for, and most knowledgeable about, maintaining competitive markets, but only if suitable protections can be put in place to preserve the confidential nature of the information and the investigative role of the Bureau.

Substantive law and assessment of proposed reforms

The Competition Act's provisions dealing with horizontal agreements need improvement, because they entail only criminal prohibitions and apply only to agreements that prevent or lessen competition "unduly" or enhance prices "unreasonably". By requiring proof of anti-competitive effect, the statute does not support efficient prosecution and deterrence of hard-core price-fixing cartels. Yet, by exposing all forms of horizontal cooperation to criminal penalties, it discourages legitimate joint ventures. As contemplated by pending proposals, the statute should be amended to permit ready prosecution of *per se* criminal offences and to provide appropriate civil law enforcement for strategic alliances and other agreements among competitors that deserve more refined examination.[8]

Non-price vertical restraints (including anti-competitive refusals to deal, consignment sales, exclusive dealing, downstream territorial or customer restrictions, tying and delivered pricing) are civil offences subject to remedial conduct orders. "Abuse of dominance", also a civil violation, requires that one or several firms "substantially or completely control" a relevant market and engage in a practice of anti-competitive acts (*e.g.* predatory sales and exclusive dealing) that prevent or lessen competition "substantially" or are likely to do so. Conduct orders and divestiture are both available to remedy abuse of dominance. Although conduct orders have a curative effect, they allow violators to retain the fruits of their unlawful conduct. Divestiture is appropriate only for gross abuses of entrenched market power and has never been employed. One of the pending statutory pro-

posals would permit imposition of administrative monetary penalties for violations of the Act's civil provisions (other than those relating to mergers). Some version of this proposal should be adopted because the remedies currently available appear insufficient to deter anti-competitive conduct.

The Competition Act includes several criminal provisions designed primarily to protect small businesses in their relationships with large suppliers and customers. Discrimination between customers in price or other terms (for goods of like quality and quantity) is prohibited, as is the granting of advertising or marketing allowances on non-proportional terms. Neither violation requires any demonstration of an anti-competitive effect. Geographic price discrimination and selling at "unreasonably low" prices are barred where the effect, tendency or intent is to lessen competition substantially or eliminate a competitor. Proposed amendments converting these offences to civil violations and requiring demonstration of an anti-competitive effect should be adopted, because the conduct at issue is not appropriately treated as criminal behaviour subject to imprisonment. Setting "low" prices, price discrimination and offering discriminatory promotional allowances can be pro-competitive, and such practices are better handled as civil matters. The addition of the proposed administrative monetary penalties (AMPs) as a civil remedy would also ensure that the Act retains a sufficient level of deterrence for these practices.

Under the Competition Act, mergers are subject to pre-merger notification requirements and may be prevented or dissolved if the merger prevents or lessens competition substantially or is likely to do so. Unique among the G8, Canada's statute establishes an efficiency defence where an otherwise anti-competitive merger is likely to produce efficiency gains (not otherwise attainable) that offset the effects of diminished competition. The Bureau recently challenged the use of the efficiency defence in a merger case due to concerns about the adverse impact on consumers (Box 2.2).

The Competition Act also includes both criminal and civil provisions that prevent distortions of market competition by addressing false or misleading representations and deceptive marketing practices.[9] Proposed amendments would strengthen these provisions. These proposals, including the elimination of the existing cap on monetary penalties, should be adopted to ensure adequate deterrence of such conduct.

Private enforcement

Authorising private parties to file their own antitrust complaints can usefully supplement the government's law enforcement activities. Since 2002, private parties have been able to seek conduct orders from the Tribunal for violations of section 75 and section 77 of the Act dealing with refusal to deal, market restrictions, exclusive dealing and tied selling. Time will tell how effective this limited

Box 2.2. The use of the efficiency defence in merger control

The Bureau's original merger enforcement guidelines articulated a "total surplus" standard, under which a merger would be permitted if the gain in productive efficiency exceeded the "dead-weight loss" arising from the reduction in output that would result from the merged entity's increased market power. The Bureau, however, broke from the total surplus standard to challenge a merger that was expected to produce dead-weight loss and other inefficiencies totalling about C$6 million but that would also have saved the combined firms about C$30 million. The change in approach arose from the fact that consumer prices for the product involved (bottled propane gas sold mostly to lower-income rural users and small businesses) were projected to increase by nearly 10 per cent, worth about C$40 million. After lengthy litigation, an appellate court held that the total surplus standard was not appropriate and that other economic effects, such as wealth transfers from consumers to producers or impacts on smaller businesses, should be included in making comparisons to the claimed efficiency benefits. The court later confirmed an approach under which the consideration of wealth transfers could be confined to "regressive" redistributions. A private member's bill would have amended the statute so that *i*) efficiency gains would be converted from an affirmative defence to a factor for consideration in assessing mergers, and *ii*) only gains in efficiency that benefit consumers (for example, in the form of competitive prices or product choice) could be considered in the competition analysis. However, the bill died on the dissolution of Parliament in May 2004.

access will be. In addition, private parties in Canada may sue in court for recovery of damages caused either by conduct violating the Act's criminal provisions or by failure to comply with an order entered under the Act by a regular court or by the Competition Tribunal.[10] A pending proposal would enable private parties to sue in court (not the Tribunal) for damages arising from conduct, other than a merger, with respect to which the Tribunal or other civil court had entered an order finding a violation under one of the Act's civil provisions. The pending proposal is an incremental expansion of private litigation rights, reflecting Canada's concern that private suits can be overbearing. Ideally, private complainants should be able to pursue anti-competitive conduct regardless of whether a court or Tribunal has entered an order against the respondent. If the authorities are not prepared to go that far, some form of the pending proposal is a step in the right direction. Enabling private parties to seek conduct orders from the Tribunal for violations of any of the Act's civil provisions (other than mergers) would be another desirable incremental expansion.

Regulatory policies

Canada was one of the first OECD countries to adopt a regulatory reform programme. Unlike most other OECD countries, it has experienced a declining trend in the growth rate of new legislation and regulation (OECD, 2002b). However, its regulated conduct doctrine exempts anti-competitive behaviour when required by regulation, and provincial regulation often displaces the competition law. Common examples include provincial marketing boards and price-setting commissions. In 1995, Canada's provinces adopted an Agreement on Internal Trade to reduce internal barriers to trade, investment and labour mobility. While progress has been made in key areas (*e.g.* labour, residency requirements, consumer-related standards and measures, transportation and the environment), barriers to internal trade continue to exist, and implementation is less effective than it could be (see below). Certain aspects of Canada's trade and investment regime also remain restrictive. Imports of some agricultural and textile products are severely restrained, and there are foreign ownership restrictions in a range of service sectors, essentially airlines, telecommunications and broadcasting (OECD, 2002b).

Sectors traditionally subject to significant regulation have been the focus of important reform efforts over the past 20 years. There is some evidence of a sectoral link between Canada's productivity performance and regulatory reform. Performance in the telecommunications and trucking sectors, for example, greatly improved following successful regulatory reforms introducing competition. In telecoms, there is considerable competition in long-distance, wireless and Internet services, and prices have fallen with the increase in competition. And, in trucking, successful reforms have led to an increase in productivity and trade with the United States (OECD, 2002b). Reforms in the electricity sector have been progressing at different paces across the provinces. Subsequent to problems in Ontario and California after market liberalisation and the Enron debacle, the appetite for reform has waned (Conference Board of Canada, 2003a). This is unfortunate, as the Canadian electricity market has witnessed comparatively poor productivity growth over the past decade, and there is considerable scope for improvement in its performance (see below). Further reforms are also required in airlines. Performance since deregulation has been disappointing, and the sector is dominated by a single player, currently under bankruptcy protection. Relaxing foreign-ownership restrictions would expand the options for developing more competition in this industry.

Foreign direct investment

Foreign investment is expressly limited or controlled in several fields, notably airlines, telecoms and media. The 25 per cent ceiling on foreign ownership interests in airlines serving domestic routes along with the prohibition on cabotage – service between Canadian points by a foreign carrier – were identified

by the Competition Bureau as the largest regulatory barriers to entry in the industry and prevented adoption of the best remedy for the 1999 merger of Canadian Airlines and Air Canada. In the communications sector, FDI restrictions are intended to promote Canadian content and culture and to achieve other policy goals such as universal telephone service. In both telecoms and broadcasting, foreign ownership cannot exceed 20 per cent of a Canadian operating company and one-third of a Canadian holding company. In publishing, foreign ownership of newspapers is limited to non-controlling shares, and approval of Heritage Canada is required for foreign ownership of a bookstore.[11] Foreign-ownership restrictions restrain the development of competitive markets and should be replaced by rules that employ direct and transparent measures to achieve cultural and other policy objectives, while allowing the maximum number of potential entrants.

Inter-provincial trade

Recognition that the elaborate system of inter-provincial trade-barriers was harmful to national welfare led to efforts to reduce them. An Agreement on Internal Trade (AIT) took effect on 1 July 1995, with the stated objective to promote an open, efficient and stable domestic market and to reduce and eliminate, to the extent possible, barriers to trade and investment within Canada. The general principles articulated in the Agreement oblige the parties to:

- treat products and services from other parties no less favourably than each party's own;
- permit unfettered movement of goods, services, persons and investments across borders;
- assure that regulatory measures have a legitimate purpose and restrict internal trade no more than necessary;
- reconcile differing standards among parties; and
- maintain regulatory transparency and notify other parties of proposed actions that could materially affect operation of the Agreement.

The AIT contains provisions dealing with government procurement and bidding, investment, labour mobility, consumer-related standards and measures, agriculture and food products, alcoholic beverages, natural resources, communications, transportation and environmental protection. A promised section on energy remains to be adopted. Certain activities or subjects are exempt from AIT coverage, most notably financial services, but also regional development programmes, aboriginal peoples, cultural matters, national security and taxation.

There are two critical problems with the AIT as a vehicle for reducing inter-provincial trade barriers. First, the obligations it establishes cannot be effectively enforced. The dispute-resolution process available for dealing with allegedly illegitimate trade restrictions depends heavily on negotiation, with disputes generally

being resolved between governments. Private parties have some rights to complain but can pursue a matter only if the person's home province declines to do so and if an independent screener concludes that the claim is reasonably meritorious. The only sanction against a province that fails to comply with a determination in a case brought by a private party is adverse publicity. Where a province does not comply with a determination in a case brought by a government entity, the Agreement permits the complaining province to "suspend benefits of equivalent effect or impose retaliatory measures" until the dispute is resolved. This sanction has never been used. Even if it were, the result would not be the elimination of the offending constraint, but imposition of a new one.[12] While this approach is patterned after international dispute resolution in the WTO arena, this seems to be an inappropriate model to use for disputes within a nation, where stronger dispute-resolution mechanisms should be available. Indeed, the result in Canada is that mutual reduction of barriers between provinces appears to be weaker than in some cases between nations.

The second problem is that, subsequent to the AIT's inauguration in 1995, provincial commitment to its implementation (and to its underlying objectives) waned seriously. In light of this, Canada's 13 provincial and territorial leaders recently formed a "Council of the Federation" for the general purposes of enhancing collaboration and improving relations with the federal government and with the more specific purpose (among others) of "strengthening the economic union, including enhancing internal trade, improving labour mobility, and harmonizing and streamlining regulation".[13] On 11 August 2004, the Council released a report on its progress in achieving its work plan. Progress included an agreement to bind provincial and territorial Crown corporations to obligations of transparency and the equal treatment of suppliers across Canada. Highlights also included improvements to the dispute settlement process of the AIT and greater flexibility for decision-making. The Council's project to revitalise the AIT and reduce provincial regulations that restrain competition should be vigorously pursued, and the Competition Bureau should take an active competition advocacy role in that effort.

Internal barriers in the professional services sector

Professional services are usually subject to pervasive regulation, including the exclusive exercise of certain functions, entry and access requirements, recommended or fixed prices, and restrictions on advertising and business structure or residency requirements. Such intervention is often explained by the need to correct market failures arising from information asymmetries and transactions costs. This regulation can be in the interests of both consumers and members of the profession if it improves service quality and prevents market failure.[14] There is, however, little empirical evidence to suggest that the pervasive set of restrictions applied to professional services in many countries improves consumer welfare

(Nguyen-Hong, 2000; OFT, 2001; Paterson *et al.*, 2003). In practice such restrictions have been correlated with higher prices and less innovation, without improving quality.[15] These results support the view that restrictive regulatory frameworks and self-regulation by professional bodies are often used by the professions to obtain and safeguard economic rents, rather than supporting the needs and interests of consumers.

In comparison with other OECD countries, Canada has a comparatively high degree of regulation in the legal, accountancy and architectural professions (amongst the highest in the OECD) and an average degree of regulation in the engineering profession (Nguyen-Hong, 2000). In spite of the AIT, competition in professional services remains rather weak due to provincial government regulations and to self-regulation by professional bodies. Licensing requirements and other restrictions effectively make it difficult for professionals to practice across several jurisdictions. Governments can, and do, impede inter-provincial labour mobility by designing occupational qualifications for licensing, certification or registration in ways that discriminate against those from outside the province (Beaulieu *et al.*, 2003).[16] In addition, unwarranted anti-competitive practices, such as restrictions on permitted business structures, exclusive exercise of certain functions, residency requirements and mandatory membership of professional associations, continue to exist in almost all provinces. Although the AIT prohibits residency requirements as an employment condition and requires jurisdictions to recognize the occupational qualifications of workers from other jurisdictions and harmonise occupational standards, not all provincial governments have eliminated residency-based policies.[17] Assuring labour mobility, including recognition of credentials offered by foreign trained professionals, is one of the items on the agenda of the newly formed Council of the Federation in its efforts to revitalise the AIT.[18]

Attempts to address the problems through application of the competition law have typically been frustrated by the regulated conduct doctrine. The regulatory structure of these professions, where the associations are often acting as a provincially authorised regulatory body, has prevented the Competition Bureau from taking actions against certain activities, such as collective price setting, that might otherwise have been found to be anti-competitive.[19] A review is needed of the scope of provincial-government restraints that permit business and professional associations to restrict price and other forms of competition among their members. Considerable scope exists to ease restrictions on advertising and on permitted business structures, where professional rules and government regulation prevent multi-disciplinary practices, particularly in the legal and accountancy professions. Provincial government regulations that restrain competition in the professions both within a province and across provinces need to be eased, and the Competition Bureau should increase its advocacy and enforcement efforts to eliminate unwarranted anti-competitive regulations and practices.

Network industries

Network industries in Canada (*i.e.* electricity, gas, water, transport and communications) account for about 10 per cent of value added and 6.5 per cent of employment. These sectors also account for a large share of intermediate inputs. Performance in these sectors is therefore important and can impact overall economic outcomes. There is now a solid body of cross-country evidence that liberalisation polices in network industries have led to higher productivity, better quality and, often, lower prices in the long run.[20] Capturing these benefits is not straightforward, and close attention needs to be paid to the design of reforms (Gonenc *et al.*, 2001) as seen in Canada's experiments with electricity-sector reform discussed below.

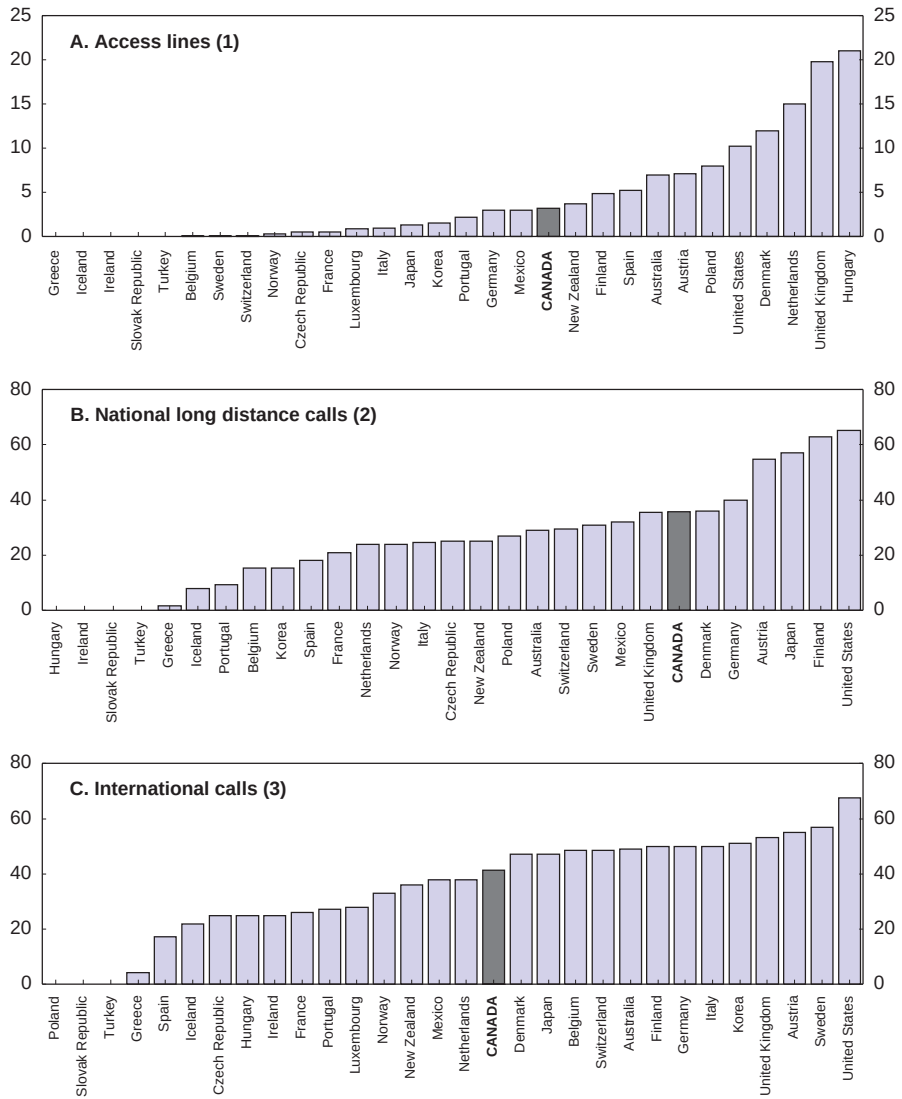
Telecommunications and broadcasting

- Telecommunications

An independent regulator, the Canadian Radio-Television and Telecommunications Commission (CRTC) is responsible for the regulation of the telecommunications and broadcasting sectors. Telecommunications regulation is exclusively under federal jurisdiction, and, as a consequence, reform has proceeded smoothly in this sector. Canada started early relative to most OECD countries in implementing competitive reforms to its telecommunications policy and regulatory regime. That regime is characterised by structural measures that aim at improving competitive conditions, including: equal access, the use of incremental costs and price-caps for determining regulated charges, carrier pre-selection, number portability, local loop unbundling and open access for DSL (OECD, 2002b). Canada has had open market entry in all telecommunications services since the end of 1998. A license is required for wireless operators and international service providers (others need only register). Apart from restrictions on foreign ownership discussed below, Canada's regulatory regime is thus one of the most pro-competitive in OECD countries. The CRTC has taken a number of decisions to forbear from regulation where it has found that a service is sufficiently competitive. Services considered effectively competitive include, among others, long-distance, mobile, Internet, international and inter-exchange private lines. Increased cooperation between the CRTC and the Competition Bureau (*e.g.* allowing the two agencies to share confidential information) would promote more effective forbearance decisions.

The pro-competitive regulatory stance has led to new entry. In 2001, compared with other OECD countries, new entrants in Canada had above-average market share in national long-distance calls, and their market share in international calls was almost 50 per cent (Figure 2.6). In contrast, competition has been slower to take off in the market for local calls, where the market share of access lines held by new entrants is relatively low, particularly when compared with other

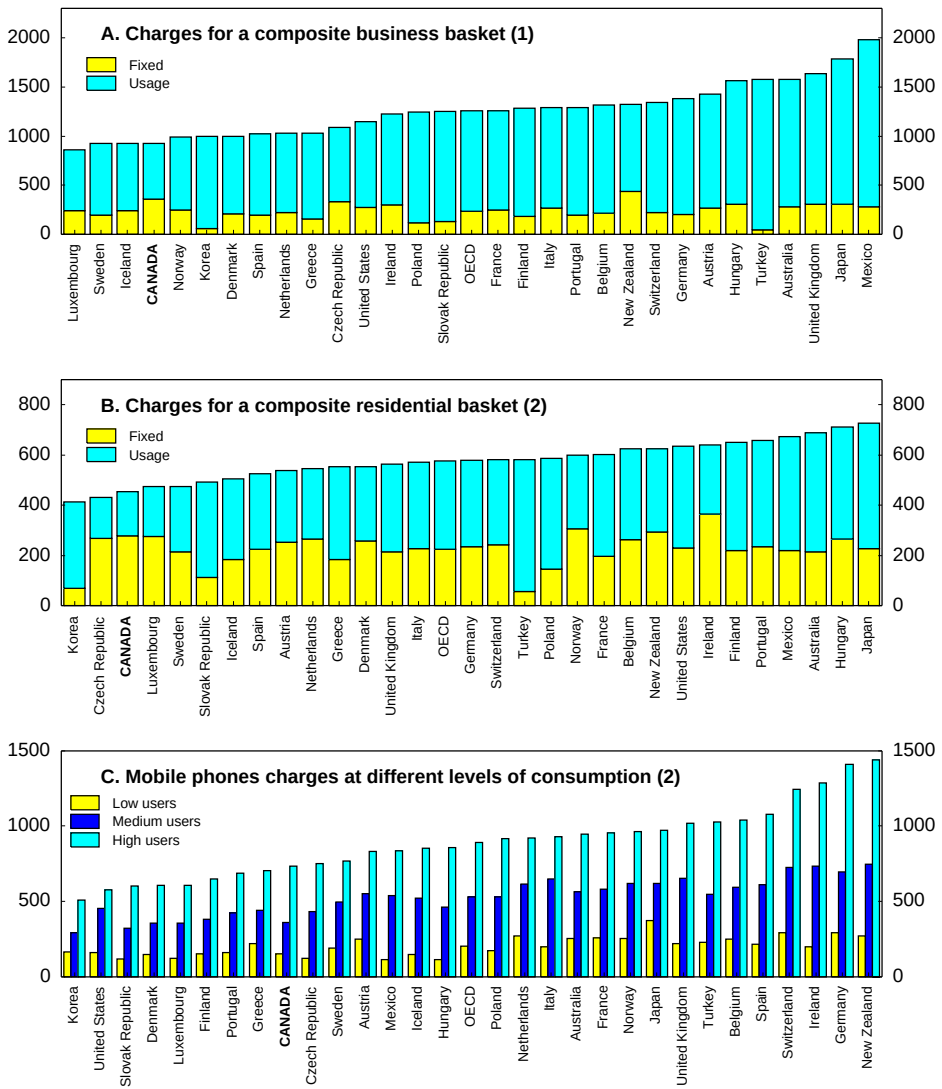
Figure 2.6. **Estimates of market shares of new entrants**
2001



1. Percentage of access lines. For Japan and Switzerland data refers to 2000.
2. Percentage of switched minutes. For Ireland and New Zealand: 1998; for Japan, Switzerland and United States: 2000.
3. Percentage of minutes of international traffic. For Ireland, Japan, Switzerland and United States: 2000; for New Zealand: 1997.

Source: OECD (2003b).

Figure 2.7. **Telecommunications charges**
US dollars, May 2004

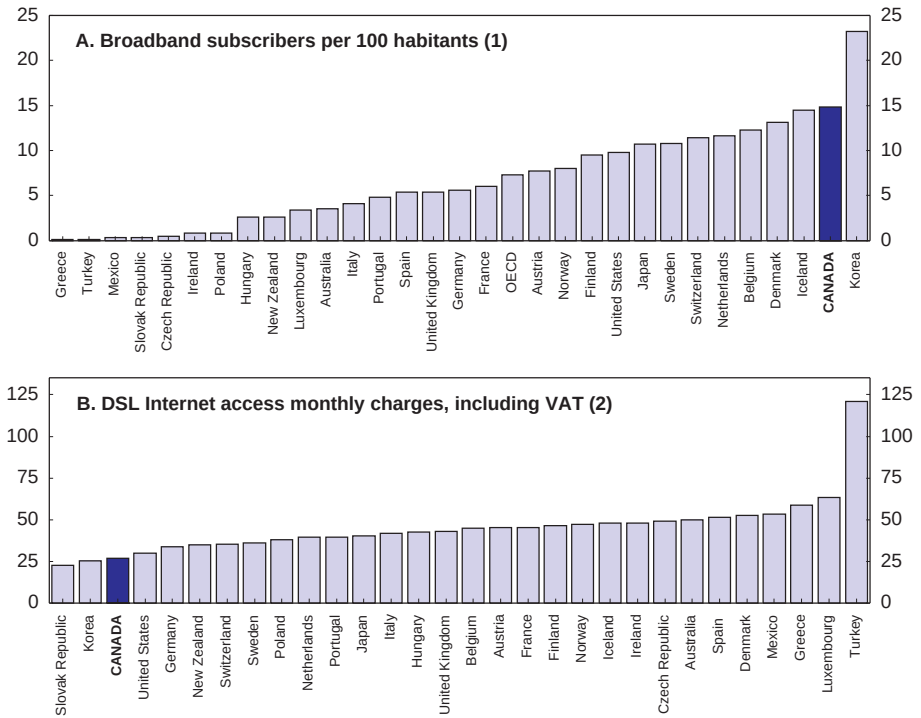


1. Excluding VAT.
2. Including VAT.

Source: OECD, Communications Outlook database.

countries that also began the reform process early on (*e.g.* the United Kingdom and the United States). The new entry has resulted in important benefits for consumers (CRTC, 2002). Prices faced by both business and residential consumers and mobile telephone users are amongst the lowest in the OECD (Figure 2.7). While competition from cable companies to provide local telephone services has been slow to develop, it has emerged for broadband access. Reflecting this, charges for DSL Internet access are also amongst the lowest in the OECD, resulting in Canada's high penetration of broadband (high-speed Internet access) (Figure 2.8). The CRTC, however, does not fully control entry into the market, since Industry Canada is responsible for granting of spectrum licences. In order to more

Figure 2.8. **Broadband penetration and user charges**



1. December 2003.
2. US dollars per month. Modem rentals are excluded, as in most countries they can be purchased by users. October 2003.

Source: OECD, Communications Outlook database.

clearly separate the policy functions from regulatory functions, it would make more sense to transfer the power to grant of spectrum licenses to the CRTC.[21]

- Broadcasting

The CRTC also regulates broadcasting. Its responsibilities include licensing radio and television programming and broadcast distribution. Broadcast programme distribution was opened to competition in 1997, so cable firms now face competition from direct-broadcast satellites and multi-point, multi-distribution systems. In radio, a single owner can have up to four commercial stations (two AM, two FM) in any market that has eight or more commercial radio stations, and up to three stations (with a maximum of two in either bandwidth) in smaller markets. In television, owning more than one conventional, over-the-air station is permitted in a few markets, such as Vancouver-Victoria. Cable television firms may own an unlimited number of analogue cable programme sources, but limits remain on owning digital cable speciality channels. The CRTC reports to Parliament through the Minister of Canadian Heritage (responsible for broadcasting policy). This ministry is responsible for cultural policy, which raises the question whether it is the best sponsor for the CRTC. The CRTC is charged with regulating and supervising Canadian broadcasting, and its primary goals include promoting Canadian content and culture and programming diversity. In order to meet these goals, all kinds of broadcasting (*i.e.* television, cable and satellite) are subject to Canadian-content requirements. It might be better if the CRTC were made a separate, stand-alone agency reporting directly to Parliament or through the Minister of Industry, rather than Canadian Heritage.

The relative openness of the Canadian telecommunications market comes with a major proviso: Canada is one of six OECD countries that have restrictions on foreign ownership and investment in public telecommunications operators (OECD, 2003b). These restrictions could have negative effects, limiting investment, increasing the cost of capital and delaying the spread of new technologies (CRTC, 2003; Quigley, 2004). Because of these concerns, this issue has received considerable attention over the last few years. In 2002, the government requested that the House of Commons Standing Committee on Industry, Science and Technology examines the issue of the continued need for the foreign investment restrictions for telecommunications carriers. While it had been asked to look only at telecommunications, the Committee recommended that the restrictions on FDI in both telecommunications and broadcast distribution be completely eliminated. However, the House of Commons Heritage Committee, reviewing the broader question of broadcasting policy, subsequently recommended that these restrictions remain in place for both the telecommunications and cable industries. The Government has undertaken to review the basis of these conflicting recommendations. It should take this opportunity to abolish them, which can be done without

weakening cultural objectives. Policy objectives such as maintaining a national identity and cultural sovereignty can be met more efficiently through the direct and transparent mechanisms that are already in place, regardless of whether a firm is Canadian or foreign owned.

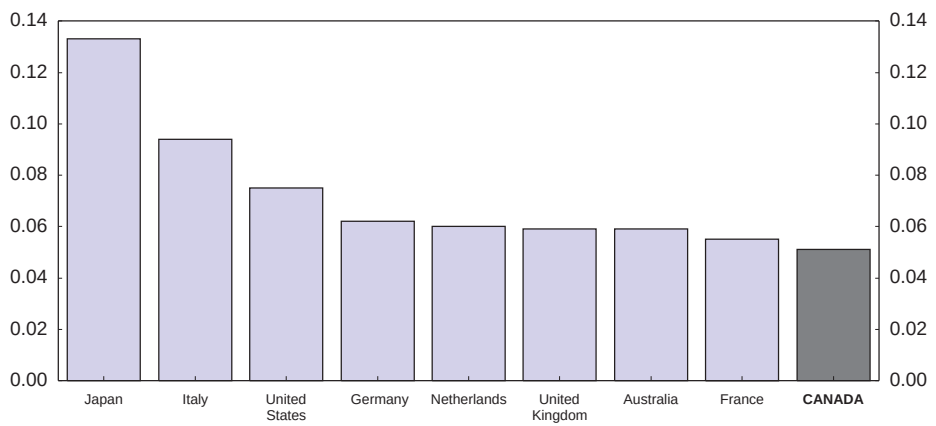
Energy

The Canadian energy sector has had the weakest productivity growth of all the G7 countries, and performance has also been poor compared to a number of smaller OECD countries where reforms have been introduced (Table 2.1). Except for inter-provincial and international trade, electricity and gas regulation in Canada is under provincial and territorial jurisdiction.[22] In addition to exports and inter-provincial trade, the federal government, through the National Energy Board (NEB), exercises jurisdiction over the construction and operation of international electricity transmission lines and international and inter-provincial gas pipelines.

Electricity

Electricity prices in Canada are among the lowest in the OECD (an indication is provided in Figure 2.9). The low prices partly reflect Canada's low costs,

Figure 2.9. **Average electricity prices**
US dollars/kwh May 2002



Note: Figures are based on an average demand load of 831 (kva) and consumption of 222 000 (kwh) per month.
Source: KPMG (2002).

emanating from hydro-electric power. Firms that are government-owned may also face a lower cost of capital. Tariffs in most provinces are regulated on a cost-of-service (or cost-plus), historical-cost basis. It may also reflect regulatory choices and has the undesirable side effect of discouraging investment in new capacity that will be increasingly needed in coming years. Despite low average prices, and reflecting the lack of both performance-based rate making (*e.g.* price-cap or RPI-X regulation) and competition, Canadian mark-ups in electricity, gas and water sectors, as noted earlier, are the highest amongst OECD countries for which data are available.

Both industry structure and policies vary considerably across provinces. Each province has a separate regulator. Provincial regulators in some cases operate at arms-length from the government, in other cases they are part of the policy branches of their respective governments (IEA, 2004). Few provinces have introduced major reforms. Only two provincial governments – Alberta and Ontario – have established markets characterised by wholesale and retail unbundling, although their specific market designs differ.[23] In Ontario and Alberta, an independent system operator (ISO) sets and administers policies for grid interconnection, transmission planning and spot market operation. The remaining provinces are largely characterised by vertically integrated, provincially owned utilities, which offer bundled services at regulated rates to consumers (Global Competition Review, 2004*a*). Although some provinces generally consider reform of the electricity sector to be necessary, reforms have been aimed at inducing private-sector investment and protecting access to US electricity markets while avoiding full competition in generation and retail markets (*e.g.* establishing wholesale access and, in some cases, an open-access transmission tariff). While relatively small generators exist, they seldom operate in direct competition with the dominant Crown corporation. Municipally owned distributors are common.

In their attempt to create competitive electricity markets, Alberta and Ontario took different paths. Ontario set a timeline for gradual divestiture of its Crown corporation plants, while Alberta chose a more proactive approach to creating competition by holding public auctions for control over the generation capacity of incumbents' facilities. Electricity market liberalisation in Alberta and Ontario both occurred at times of increased prices and volatility. However, measures taken in Alberta and Ontario to cope with electricity price hikes provide some useful insights, particularly in terms of government intervention and preserving incentives for investment (Conference Board of Canada, 2003b) (Box 2.3).

In the long term, the introduction of competition should improve performance in the sector, but provinces are politically reluctant to undertake reforms, especially after what happened in Ontario. However, both the success of reforms in Alberta and lessons from the mistakes in Ontario could be used to guide policymakers. If provinces are to move ahead with reforms, then unbundling is crucial in

Box 2.3. Lessons from Ontario's and Alberta's electricity market reforms

Ontario passed the Energy Competition Act in 1998 to restructure Ontario Hydro and to introduce competition in the province's electricity market. Ontario Power Generation Inc. (OPG), which has assumed all of the generation assets of the former vertically integrated Ontario Hydro, is a provincially owned corporation that generates three-quarters of the electricity in Ontario. Hydro One, also government owned, is a separate company that has assumed the transmission and distribution assets of the former Ontario Hydro. Hydro One provides non-discriminatory open access and transmits wholesale electric power to municipal utilities that in turn retail it to customers in their service areas. To avoid abuse of dominant position by OPG, the Market Power Mitigation Agreement (MPMA) under the Act required OPG to divest 4 000 MWof its generation assets (other than nuclear and hydroelectric) by 2006 and reduce its overall share of the market to 35 per cent by 2012.

In Ontario, while the process of establishing competition took longer than expected, all customers had the right to choose their supplier of electricity by May 2002. Prices during the spring were lower than regulated prices, but a combination of an unusually hot summer and delays in bringing nuclear generating capacity back on line led to prices that were much higher than anyone had anticipated. To reduce the impact of price hikes on consumers, the Ontario government capped retail prices for about half of the market at a price well below the cost of power and the entry cost of new plant. The wholesale market was left in place, with the government obligated to make up any difference between the wholesale cost of electricity and the frozen retail price. This resulted in a need for substantial government subsidies and a reluctance of investors to move into the Ontario market. Reforms which aim to correct some of the past failures are currently being discussed and put in place by the new government. Concerned about the impact on the province's finances, the new government has raised prices to cover costs. While preserving elements of competition by measures such as putting contracts for new generation capacity out to competitive tender, the draft legislation proposed by the Ontario government in June 2004 would terminate Ontario's previous plan to divest most of the province's power generation assets to private control. The proposals also include the regulation of prices for some consumers, the regulation of the output from certain power plants owned by Ontario Power Generation (OPG), an expansion of the role of the Ontario Energy Board (OEB) as the independent sector regulator, and the creation of a new agency, the Ontario Power Authority (OPA), with a broad mandate concerning supply and conservation measures.

In **Alberta**, most generation and transmission assets have historically been privately owned. In the mid-1990s Alberta deregulated its electric power industry, establishing open transmission access and a competitive power pool. An independent regulator, the Alberta Electric Utilities Board (AEUB), was created to regulate the development of the market. Transmission facilities are the property of investor-owned companies, and the ISO provides non-discriminatory transmission access and is responsible for transmission system planning. Since 1 January 1996, all electricity has been sold into a power pool, and retail competition was introduced in January 2001, with consumers free to purchase their electricity from any licensed retailer.

Box 2.3. **Lessons from Ontario's and Alberta's electricity market reforms** (*cont.*)

The retail market in Alberta was opened at the height of the California electricity crisis, when Western North American electricity and natural gas prices were very high. Alberta, as part of an interconnected market which includes California and the north-western United States, experienced very high market prices. Most small consumers were purchasing electricity through their local distributors, who in turn were purchasing much of their needs at spot prices. These distributors applied to the regulator to raise retail electricity prices so as to pass through higher costs to customers. To cope with the situation, the government placed a one-year temporary retail price cap on electricity for 2001. But, unlike Ontario, the government set the price cap at a relatively high level, well above long-run marginal cost, in order to preserve a signal for new investment. Investment in new generating capacity has continued, and wholesale prices in 2002 declined to pre-2000 prices, reflecting the new generation capacity that has since come on line (IEA, 2004).

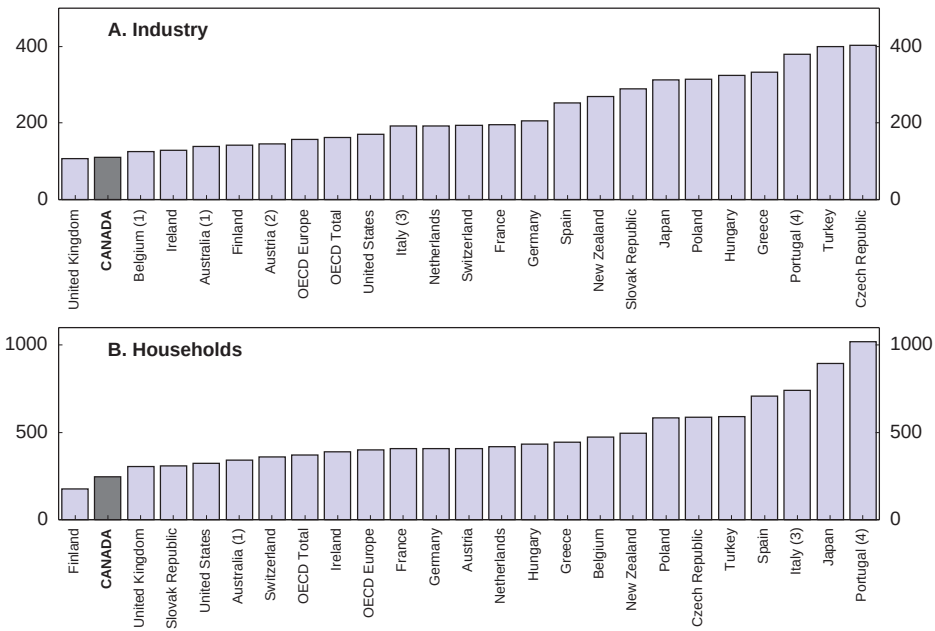
establishing competition in the sector, since vertically integrated incumbents can impede the functioning of the market through cross-subsidisation and discrimination in network access (Gonenc *et al.*, 2001; EC, 2003). Insufficient unbundling may form a barrier to competition, and numerous studies argue that legal and management unbundling are not enough and that further separation is warranted.[24] In the absence of restructuring, competitors and potential investors will be deterred by concerns regarding the level of commitment by provincial governments to competitive electricity markets and the potential conflicts of interest arising from the fact that provincial governments are often incumbents' sole shareholder.

With a view to improving the overall competitiveness of the Canadian electricity industry, the federal government also has an important role to play and could be more active in advocating electricity market reforms. Inter-provincial electricity flows account for about 10 per cent of total Canadian electricity consumption. Most provinces have agreed to provide cross-provincial transmission access in accordance with the AIT. However, while federal and provincial energy ministers negotiated the text of an Energy Chapter in 1998 to be a part of the AIT, passing the text on to trade ministers to conclude, this chapter has yet to be approved.[25] The development of inter-provincial and international electricity trade could be an important factor in bringing about new entry and ensuring that effective competition develops within provincial and regional markets. There is some scope for the federal government to be more active in promoting the expansion of transmission capacity which would support electricity market reforms by promoting the development of a more integrated Canadian electricity market.

Natural gas

In contrast with electricity, the natural gas wholesale market has been largely deregulated since the mid-1980s. Natural gas prices were deregulated in 1985, and prices to both industrial and household consumers are very low by international comparison (Figure 2.10). Since deregulation, many producers and marketers have increased the proportion of their total gas supplies that is sold on a short-term or spot basis. A handful of firms are involved in gas storage, pipeline transmission and distribution to customers. All natural gas transmission pipelines, both inter-provincial and intra-provincial, are owned and operated by private-sector companies.[26] Development of the transmission network is left to the market, although inter-provincial transportation rates, conditions of access and terms of service are regulated by the National Energy Board. Local distribution companies

Figure 2.10. **Retail prices for natural gas**
US dollars/10 mill. kcal (GCV basis) (using PPPs)[1] 2000



1. 1997.
2. 1999.
3. 1998.
4. 2002.

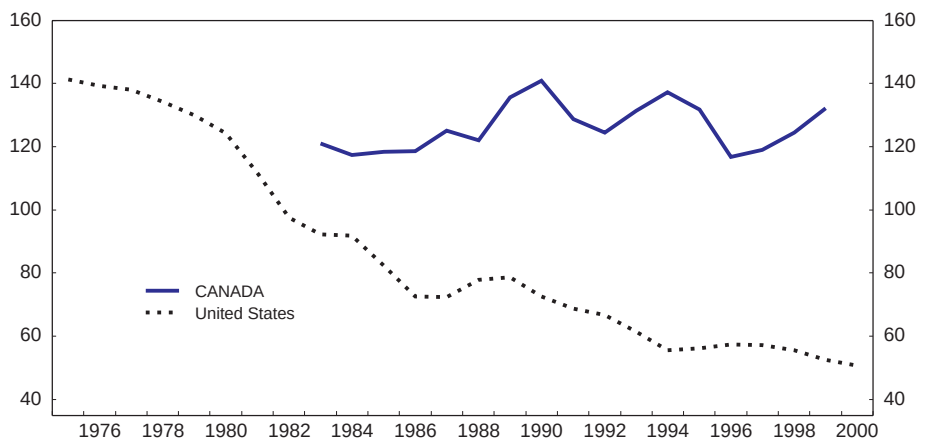
Source: IEA.

(LDCs), with two exceptions, are privately owned,[27] and are regulated at the provincial level by public utility commissions. LDCs are large buyers of natural gas, and regulations seek to ensure they pass gas price variations directly through to household and small commercial customers. Third-party access is allowed to the distribution grids, and large industrial customers and power generators can buy gas directly from producers. Some smaller customers in the residential and commercial sectors can also buy gas directly from producers through aggregators, brokers and other middlemen. The regulated rates for distribution service are for the most part based on cost of service. More recently, however, the mode of regulation has begun to shift from cost-based to performance-based ratemaking (Global Competition Review, 2004b). Lessons from the successful deregulation of the natural gas market could be transposed to the electricity market, particularly with regard to third-party access and the introduction of wholesale competition.

Airlines

The airline industry was largely deregulated in the late 1980s. The 1987 National Transportation Act relaxed entry controls, ended licence restrictions on flight frequency and aircraft type and permitted discounting. However, unlike the United States, airline deregulation in Canada was not accompanied initially by a noticeable fall in prices (Figure 2.11). Competition has been slow to emerge. When

Figure 2.11. **Average domestic air fares**[1]
US, Canadian 1983 dollars



1. Average fares per passenger. Does not take into account possible changes in average flight length.
Source: US Bureau of Transportation Studies; US Bureau of Labor Statistics; Canada Aviation Statistics Centre.

Canadian Airlines, one of the country's only two major scheduled airlines got into financial distress, the government allowed the other major carrier, Air Canada, to acquire it, over-riding a set of Competition Bureau recommendations on restructuring that would have enhanced competition through opening to foreign ownership.[28] Given the potential damage to consumers resulting from increased market concentration, additional regulatory measures were necessary. Amendments were introduced to the Competition Act to address specific concerns about abuse of dominance in the airline industry. Clauses were added to the Act in 2000 establishing airline-specific conduct regulations and specifying one particular action explicitly as constituting "anti-competitive" behaviour: the denial of access on reasonable commercial terms to essential facilities or services or a refusal to supply them.[29] The regulations also describe what conduct would be considered predatory or exclusionary, and provide that it would be anti-competitive for a dominant airline to operate or expand capacity on a route at fares that do not cover the "avoidable cost" of the service.[30] After investigating allegations by low cost carriers, the Competition Bureau (which was charged with enforcing these sectoral rules) concluded that they were not being respected and in March 2001 brought an application to the Tribunal. Full resolution of this case was still pending when Air Canada filed for bankruptcy protection in April 2003 and has gone into abeyance until Air Canada emerges from such protection.

Low-cost domestic carriers have emerged and expanded their market presence in the past few years.[31] Despite new entry, however, Air Canada has not faced effective competition on a national basis, especially for the important business segment of the market, where flight frequency and network connections are imperative. With regard to the longer-term outlook for competition in the sector, there has been renewed public discussion about the possibility of expanding the current Canada/US open skies agreement, which has been in place since 1995 for trans-border services, to include domestic services (Lazar, 2003). However, cabotage alone will be insufficient in bringing about a healthy and competitive industry. In light of Air Canada's current financial circumstances, the recommendations made by the Competition Bureau in 1999 are even more valid today than at the time. In order for the industry to become more competitive, the restrictions on foreign ownership should be eliminated as they serve mainly to restrict competition and protect the interests of incumbents at the expense of consumers (Stanbury and Ross, 1999). Moreover, the government should seek to negotiate a North American Common Aviation Area (NACAA) with the United States and Mexico to allow carriers from all three countries to compete freely throughout North America.

Concluding remarks and priorities for policies

In general, competitive forces appear to be relatively strong in Canada. Economic and administrative regulations are comparatively low, and, apart from

its restrictions to direct foreign investment, Canada has a relatively open economy. In spite of its openness, important barriers to competition and internal trade remain due to regulations at the provincial level, especially in professional services. Sectors that are exposed to international competition (especially the manufacturing sector) are doing well. With the exception of fragmented, low-R&D industries, mark-ups in Canada are similar to those observed in other countries. The unusually high mark-up in fragmented industries is attributed to the pulp and paper sector. The liberalisation of the telecommunications industry has been a success. The market is very dynamic, with strong competitive pressures from cable operators, particularly in the market for broadband Internet access. Performance has been relatively poor in some sectors sheltered from competition. This is especially the case in the electricity sector, where the industry is for the most part characterised by vertically integrated, government-owned monopolies.

In a few industries the Canadian government has determined that it is appropriate to restrict foreign ownership in order to achieve social and other economic policy objectives such as affordable universal service and promoting Canadian content and culture. Such industries include airlines, telecommunications and broadcasting. However, these barriers are often an inefficient way to achieve these policy objectives, and more direct means should be used in place of restrictions on foreign ownership. Foreign investment, for example, could have preserved competition in the airline market, rendering behavioural remedies, which are difficult to control, unnecessary.

The priorities for policies that emerge from the above analysis are the following:

On competition legislation and enforcement

- Lingering misperceptions regarding the independence of the Competition Bureau could be further dispelled by continuing to present its budget as a separate line item within Industry Canada's Estimates.
- Authorise the Bureau or an independent third party to undertake studies of competition in market sectors.
- Amend the statute to permit effective prosecution of hard core cartels, provide appropriate civil law enforcement for agreements among competitors that deserve more refined examination, and convert the statute's pricing provisions (other than hard-core cartels) from criminal offences to civil violations requiring demonstration of an anti-competitive effect.
- Authorise monetary penalties for abuse of dominance and other civil violations of the Competition Act; expand private actions to cover all of the Act's civil provisions (except mergers); and permit private plaintiffs to sue and recover for damages for violations of the Act's civil provisions.

On regulatory policies concerning inter-provincial trade

– Vigorously pursue the Council of the Federation's project to reduce anti-competitive provincial regulations, with the Competition Bureau taking an active competition advocacy role in that effort. To support this, undertake a comprehensive review of the impact of provincial government restraints on competitive markets, identifying sectors where reform is most needed.

– Implement without further delay the agreement for eliminating residency-based policies affecting occupational mobility, originally scheduled for July 2001. Provincial and territorial governments also need to ensure consistent treatment and mutual recognition of credentials offered by foreign-trained professionals.

– Ease regulations imposing advertising restrictions, pricing regulation and prohibitions on permitted business structures and multi-disciplinary business practices.

On network industries

• Telecommunications and broadcasting

– Make the CRTC a separate, stand-alone agency reporting directly to Parliament or through the Minister of Industry rather than Heritage Canada.

– More clearly separate policy functions from regulatory functions by transferring to the CRTC authority now held by Industry Canada for granting spectrum licences. Spectrum planning, which is a policy function, would remain with Industry Canada.

– Eliminate restrictions on foreign direct investment.

• Energy

– Approve without further delay the text of an Energy Chapter for the Agreement on Internal Trade, originally scheduled for July 1995.

– The federal government needs to be more active in advocating electricity market reforms and in ensuring that effective competition develops within provincial and regional markets by promoting increased inter-provincial and international transmission capacity.

– Rather than introducing competition at the edges, there is considerable scope for provincial governments to be more active in introducing competition in the electricity sector – enhancing market reforms, particularly through structural unbundling involving the separation of generation from transmission and distribution.

- Airlines

– Eliminate the restrictions on foreign ownership.

– Remove restrictions to cabotage, and seek to negotiate a North American Common Aviation Area (NACAA) with the United States and Mexico to allow carriers from all three countries to compete freely throughout North America.

Notes

1. A limitation for current cross-country comparisons is that the data in Figure 2.1 stop in 1998. The Secretariat is now in the process of updating these indicators.
2. Canada may be more forthcoming than some other countries in self-reporting its restrictions, and if so, this could affect its ranking (Golub, 2003).
3. HHIs are defined as the inverse of the sum of squared market shares of each participant. For most OECD countries they are based on enterprise data. Canada, Japan and the United States use establishment data, and their HHIs are therefore not comparable with those of most other countries. Establishment-based HHIs are less useful as a measure of firm-level concentration, as they neglect the existence of multi-plant firms.
4. Indeed, competitive forces may be unlawfully restrained. This sector has been often been the subject of antitrust scrutiny in other jurisdictions. Canada's antitrust enforcement agency recently confirmed that it is investigating allegations of price-fixing affecting the paper and forestry products industry. *Globe and Mail* (25 May, 2004).
5. The simulations take 1998 as the base year and estimate the impact on employment, multi-factor productivity and inward FDI if Canada were to align its regulatory stance to that of the least restrictive OECD country.
6. For example, if annual MFP growth were 3 per cent, this implies that annual growth would increase to 4 per cent for 10 years, after which it would return to its average of 3 per cent. The one percentage point increase over 10 years would imply a cumulative increase in the level of MFP of over 10 per cent.
7. The CITT, which is responsible for the application of Canada's anti-dumping and trade subsidy laws, may now conduct studies to assess the market impact of unlawful import trade practices. These studies are not the same as the market competition studies contemplated in the statutory proposal, and the CITT is not well suited for broader examinations.
8. The Bureau has an immunity programme applicable to the first firm that comes forward to disclose a cartel, and in recent years it has obtained substantial consent settlements in various international cartel cases that were initially investigated by other countries. The need for a better statutory vehicle to attack cartels is most pronounced for domestic conspiracies that involve only Canadian participants.
9. See *http://laws.justice.gc.ca/en*C-34/35984.*html#rid*-35971, secs. 52-60 for the law's criminal provisions in this area; the civil provisions can be found at *http://laws.justice.gc.ca/en*/C-34/36014.*html*.
10. The Tribunal is a special court comprised of judicial and lay members that is available as a first-instance decision-maker under the Competition Act. Private actions may also be filed before the Tribunal seeking conduct orders (but not damages) against respondents for violating the Act's civil prohibitions of anti-competitive refusals to deal, exclu-

sive dealing, tied selling and downstream marketing restrictions. To minimise strategic or frivolous litigation, plaintiffs must apply to the Tribunal at the outset for leave to pursue the case.

11. The restriction on bookstores prevented the implementation of an effective remedy with regard to a merger that combined the only two national book-selling chains in Canada.

12. The elaborate consultation procedures do not apply to procurement and bid protests, for which a more efficient and streamlined process is provided.

13. The Council recently released a work plan for finishing a series of tasks contemplated by the AIT that remain incomplete. These include: negotiations on the Energy Chapter (originally scheduled for completion by July 1995); bringing procurement actions by now-excluded Crown corporations under the AIT (originally scheduled for June 1996); a review of the scope and coverage of the Agriculture chapter (originally scheduled for September 1997); and implementation by all parties of the agreement for eliminating residency-based policies affecting occupational mobility (originally scheduled for July 2001).

14. However, restrictions on competitive practices such as price competition and advertising do not explicitly address the issue of quality and can have a negative impact on competition. For example, recommended prices may facilitate the co-ordination of prices amongst service providers and can mislead consumers about reasonable price levels.

15. OFT (2001) provides an overall review of the empirical evidence. Nguyen-Hong (2000) examined the effects of regulations on price-cost margins in engineering services and found that they led to an increase in prices on the order of 10 to 15 per cent in countries with the most restrictive practices. And Paterson *et al.* (2003) found a negative correlation between productivity and the degree of regulation, and no evidence that less restrictive regulation led to a lower quality of services.

16. This practice is changing as a result of an AIT commitment requiring regulatory bodies to consult with each other whenever they introduce a new or revised occupational standard or entry requirement.

17. Until recently, the federal government had also conducted hiring practices that did not comply with the AIT. Many jobs advertised by the Public Service Commission of Canada specifically excluded residents from outside Eastern Ontario or Western Quebec from applying for the job (Beaulieu *et al.*, 2003).

18. While progress has been made in recognition of professional accreditation among provinces, the same recognition does not necessarily apply to foreign trained professionals. See the previous S*urvey* for a more complete discussion.

19. The courts have also been notably vigorous in protecting the legal profession from the Competition Act. For example, the Ontario law authorising the body regulating the legal profession to set up a liability insurance scheme and set rules for members' contributions was interpreted by the courts to authorise a bar-managed monopoly.

20. See OECD (2001b), which reviews the literature and adds more evidence on the relationship between regulation and performance in these sectors. The set of OECD Reviews of Regulatory Reform (of which OECD, 2002b for Canada) also constitute a rich source of information on the effects of industry-specific reforms on performance.

21. Industry Canada should, however, retain its responsibilities for spectrum planning, which is a policy function.

22. Provinces in Canada have more jurisdiction over energy matters than the sub-national governments of any other federal country in the OECD (IEA, 2004).
23. These two provinces represent about 40% of the total electrical load in Canada. This percentage is comparable to the electrical load in the United States having access to competitive markets.
24. For example, see Newbery (2002a and 2002b).
25. Once approved, the Energy Chapter will provide for non-discriminatory, open transmission access across the provincial boundaries and establish dispute resolution procedures. However, Canadian provinces with major inter-provincial and international cross-border electricity trading have adopted the US FERC's open-access transmission tariff and thus already provide open access to US markets.
26. The one exception is the natural gas transmission system in Saskatchewan, TransGas Limited, which is a provincial Crown corporation.
27. SaskEnergy is a Crown corporation in Saskatchewan, and in 1999 Manitoba Hydro (a Crown corporation) bought the private gas distribution company, Centra Gas Manitoba.
28. The Competition Bureau had recommended that the government allows 100 per cent foreign ownership of carriers that serve only domestic routes; permits up to 49 per cent of voting shares of other Canadian carriers to be held by foreigners; and allows modified sixth freedoms, either on a unilateral or reciprocal basis. Modified sixth-freedom rights would allow US carriers to offer one-stop service across Canada *via* US hubs, *e.g.* Ottawa to Calgary *via* Minneapolis.
29. Those "essential" facilities or services, described further in regulations, include operating slots, interline arrangements, airport gates and related facilities, maintenance services and baggage handling.
30. Avoidable costs are all costs that can be avoided by not producing the good or service in question (in general, the variable costs and the product-specific fixed costs that are not sunk). This is a stricter test than average variable costs to assess predatory pricing and has particular significance for its application to a range of industries (*e.g.* network industries) that have high fixed and low variable costs and, as such, have been virtually immune from claims of predatory pricing. Other kinds of anti-competitive conduct described in the regulations are pre-empting slots or facilities to withhold them from the market and using commissions, incentives, loyalty programmes or scheduling to discipline or eliminate a competitor or to prevent entry.
31. Companies such as WestJet, CanJet and Jetsgo have aggressively expanded their market presence. Between January 2000 and May 2004, Air Canada's share of domestic seat capacity fell from 87 per cent to approximately 51 per cent, reflecting a parallel increase in the combined market shares of low-cost carriers. F*inancial Times* (7 July, 2004).

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3. Policies for enhancing productivity and labour utilisation

As laid out above, a key economic challenge for Canada is to raise living standards, which in turn depend on both labour productivity and labour utilisation. Product market competition (see Chapter 2) provides a major source of pressure for firms to strive for productivity improvements. Labour productivity increases, the ultimate driver of real income growth, require producing incrementally larger amounts of output for each hour worked; combining more complementary inputs in the production process is one avenue for achieving such gains. This chapter first considers policies that would stimulate capital "deepening" or additions to the capital services available per hour worked. Tax rules clearly play a central role in the investment decision, and the section points to places where adjustments could generate the greatest improvements. Next, the discussion turns to ways of boosting productivity growth by adding to the stock of human capital and in particular considers the benefits that would be obtained by improving literacy. Significant amounts of job-related training does take place, but those wanting to upgrade their skills face a range of obstacles that need to be addressed. Stimulating innovation, which contributes to multifactor productivity, is briefly discussed along with the government's Innovation Strategy.

The chapter then turns to three key areas that are important in the quest for raising total hours worked relative to the demographic baseline. First, the reliance of certain workers and firms on the regular (unemployment) benefits within the Employment Insurance programme is examined, along with the policy parameters that may keep some people locked into persistent unemployment patterns. Second, the "welfare wall" and disincentives for additional hours are considered, with a particular focus on the effect on high effective marginal tax rates of the introduction of the National Child Benefit Supplement for low-income families. Third, options are considered for increasing flexibility for those older workers who wish to remain in the workforce longer but are financially discouraged from doing so. The chapter ends with some concluding remarks and recommendations.

Raising productivity growth

Capital deepening

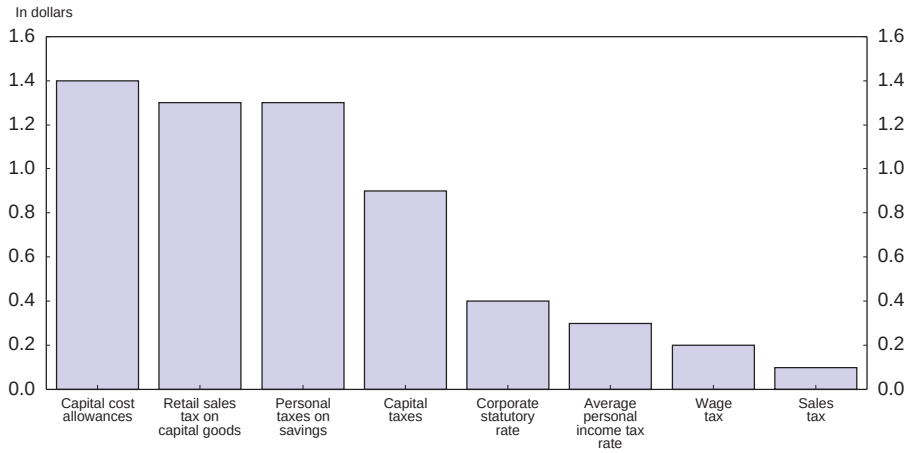
Productivity growth can be boosted by a more rapid rate of capital deepening, *i.e.* a pick up in the trend rise in the amount of capital available for each hour worked. As shown in Chapter 1, Canada's performance on capital deepening has already been creditable by OECD standards – perhaps surprisingly, given the cost of imported capital goods and the effective taxation of capital. More recently the cost of investment has fallen, especially with the appreciation of the Canadian dollar during the course of 2003, which should translate into higher investment rates.

Reducing the effective marginal tax rate (EMTR) raises the after-tax return on investment and makes more projects profitable than would otherwise be the case. Canadian business taxes have been gradually reduced in successive phases since 2000 (see Annex 3.1). As well as reductions in the statutory corporate tax rate from 28 to 21 per cent, the 2003 federal budget announced the gradual elimination of the federal capital tax by 2008, and the 2004 budget increased capital cost allowance rates for computer equipment and ICT infrastructure. The Ontario government has also announced that its provincial capital taxes will also be phased out by 2012.

Despite these adjustments, which go in the right direction, Canadian EMTRs faced by businesses remain relatively high. Calculating EMTRs is a complex exercise, because they depend on the size of the business, the type of investment and the funding used. Nevertheless, estimates by Finance Canada indicate that after currently legislated federal tax changes are fully implemented (in 2008), Canada's average EMTR on capital will still be between 23 and 24 per cent, compared with a rate just above 21 per cent estimated for the US tax system.

Altogether, these elements suggest that Canada could encourage greater capital deepening by further reducing effective taxes on capital. Indeed, Finance Canada estimates of the long-run welfare gains from revenue-neutral tax reductions obtained from a general equilibrium model are largest for cuts in taxes on investment and savings (Figure 3.1). Business tax initiatives targeted at new capital are particularly potent since no windfall gain accrues to the owners of the existing capital stock. For example there are large benefits from aligning capital cost allowance (CCA) rates with economic lives where depreciation costs are not adequately covered. Such a policy change would reduce not only inter-temporal distortions but also inter-sectoral and inter-asset distortions, although the last element is not captured in the model used by Finance Canada. The benefits would be virtually the same per dollar of tax revenue foregone if provincial retail sales taxes were eliminated for capital goods, directly reducing the cost of new capital investment. Further gains could also be obtained by eliminating provincial

Figure 3.1. **Welfare gains from tax reductions**
Welfare gain per dollar of tax reduction[1]



1. The revenue loss is assumed to be recovered through lump-sum taxation.
Source: Department of Finance, Canada.

capital taxes, as Ontario has started to do.[1] The model results indicate that addressing any of these tax features would be more valuable per dollar of tax reduction than a cut in the corporate tax rate, although the model does not capture tax planning effects, which could have a substantial impact on revenues and hence welfare. The effective tax rate could also be lowered by changing the tax treatment of inventories to permit last-in first-out (LIFO) inventory accounting, although the significance of this element has diminished over the years as inventory turnover has shortened, inflation has fallen and the share of services in overall activity has risen.

At the federal and provincial levels, corporate taxes currently provide government revenues amounting to around 3 per cent of GDP, and, given the importance of fiscal prudence, any reductions would need to be financed by cuts in low-priority expenditure or increases in other taxes. More generally, financing reductions in effective capital taxes by switching more of the burden onto consumption taxes could yield better economic outcomes (Dahlby, 2003), especially if all provinces adopted a harmonised approach to federal GST and provincial sales taxes, following the lead of New Brunswick, Nova Scotia and Newfoundland and Labrador. This move would, *inter alia*, remove the retail taxes on capital goods, since value-added taxes allow businesses to recover the tax paid on their purchases through an input tax credit. A single rate, harmonised broad-based value-

added sales tax system would be simpler, fairer, and more economically efficient (Heady and van den Noord, 2001).[2] Importantly, a broad-base value-added tax would reduce capital and operating costs of business compared with retail sales taxes that currently apply in some of the provinces. This would promote investment, productivity and the competitiveness of Canadian-based firms both domestically and in foreign markets.

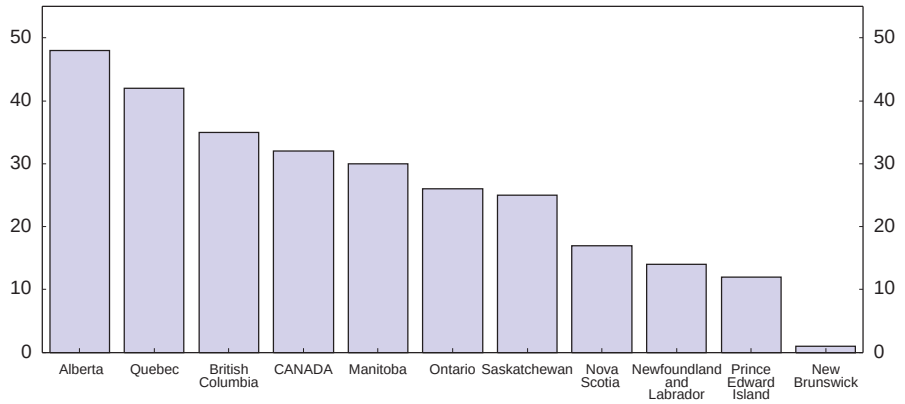
B*uilding human capital*

Productivity growth can also result from additions to the stock of human capital. Canada already has a well educated adult population, with nine out of ten 25 to 34 year-olds and four out of five 45 to 54 year-olds having at least an upper-secondary qualification, which puts the country comfortably above the OECD average. Furthermore, Canada tops the OECD for the proportion of these age groups that have a tertiary qualification (OECD, 2003). As a result, most Canadians come to the workforce with strong endowments of formal education. Canada is also able to attract skilled immigrants, which is another, potentially important, way to add to the stock of human capital (see previous S*urvey*). However, to make the most of their skills, an efficient accreditation of foreign qualifications is necessary and some may need assistance with acquiring language fluency. Indeed, difficulties with recognition and language may explain part of the deterioration in economic performance of recent immigrants. In any case, human capital accumulation continues during working life, through on-the-job coaching and off-the-job training. The net human capital stock can also be influenced by the human capital of cohorts coming into, and exiting from, the workforce: stemming the outflow of skilled workers into retirement can be one way of boosting the human capital available (see below).

Canada's compulsory education system delivers good results for most young people, well above the OECD average in most provinces, albeit with significant variation across the country (Figure 3.2). Nevertheless, some 11 per cent of young people leave school without graduating, although around one quarter of them return to high school or move straight into post-secondary education within around two years (Zeman *et al.*, 2004). This second chance is especially important, because unemployment rates are higher and earnings are lower for those without high-school qualifications (Figure 3.3). Put in a lifetime perspective, the reduction in unemployment risk and increased lifetime earnings that are attached to obtaining even a high-school diploma suggest that effective "second-chance" education for younger people would not only be an investment that would generate positive net returns, but would also contribute to the Canadian objective of equalising opportunities.

Recent analysis suggests that literacy may be an even more critical factor in improving labour market performance, especially for those whose skills are

Figure 3.2. **PISA scores across Canada**
OECD average = 0[1]

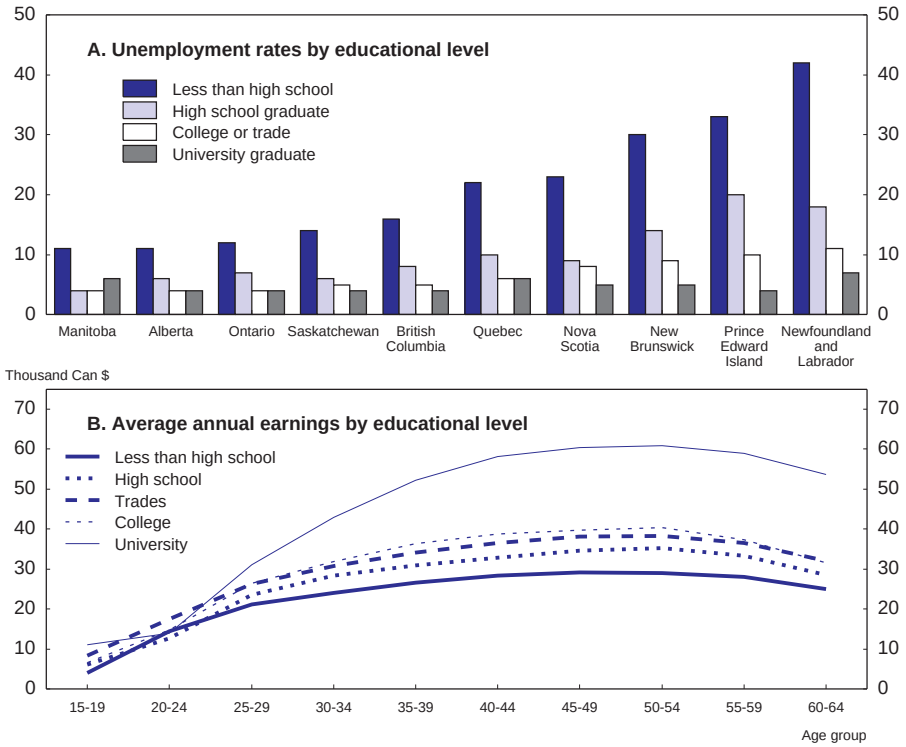


1. Combined scores averaged across reading, mathematics and science. Using the original data, the average OECD score was 500, and Canada's average score was 532.
Source: OECD (2001).

weakest. Indeed, among adults, higher literacy skills improve labour market outcomes even when other factors, such as gender, age and educational attainment, are held constant.[3] From a productivity point of view, it has been estimated that a small improvement in literacy skills (10 points on a scale from 0 to 500) on its own can raise earnings by more than 3 per cent (Green and Riddell, 2001). Furthermore, panel analysis using literacy scores for 14 OECD countries as an indicator of human capital shows that they have a positive effect on long-run levels of GDP per capita and labour productivity (Coulombe *et al.*, 2004). Since the dispersion of literacy skills is higher in Canada than many countries even for 26 to 35 year-olds (OECD, 2000), there is significant potential for improving productivity *via* appropriate policies.

Developing an effective strategy for raising Canadians' literacy and other essential skills levels is made more complex because of the number of players involved, including federal, provincial and territorial governments and other partners, as was highlighted in the recent Review of Adult Learning for Canada (OECD, 2002). While education is a provincial responsibility, all governments share the objective of ensuring that Canadians of all ages are equipped with the knowledge and skills required for work and learning, as was highlighted in a recent report by the relevant federal Parliament Standing Committee. In the meantime, there is limited knowledge of *how* to move individuals from low levels of literacy to

Figure 3.3. **Educational attainment and labour market outcomes**
2001



Source: Statistics Canada, Labour Force Survey; 2001 Census of Population.

the levels necessary for the modern world, and few Adult Basic Education (ABE) programmes have been evaluated for their effectiveness (OECD, 2002). Current programmes are slow-paced – successful programmes might need six to twelve months of concentrated study, whereas most ABE programmes involve only three to six hours per week – and often these programmes have long waiting lists. This suggests that making substantial progress in improving literacy and other essential skills would require more vigorous efforts to identify the critical factors for achieving better outcomes and could involve significant resources. Although increasing expenditures in this area might be difficult when provincial and federal budgets are tight, the improved lifetime outcomes that spending on effective pro-

grammes might generate should be considered and compared with the benefits obtained from other expenditure programmes.

At the other end of the spectrum, job-related training intended to boost productivity growth is most often taken up by those employed full-time and already well qualified (Table 3.1), but it is difficult to know whether the current level is too high or too low (OECD, 2002). It is sometimes suggested that firms do not fund the optimal amount of human capital development, because workers are able to change companies and take their new skills with them, while individuals face financing constraints that also lead them to under-invest. In fact, the reasons cited for unmet training needs/wants show that financing is only one of the issues

Table 3.1. **Job-related training, 2002**

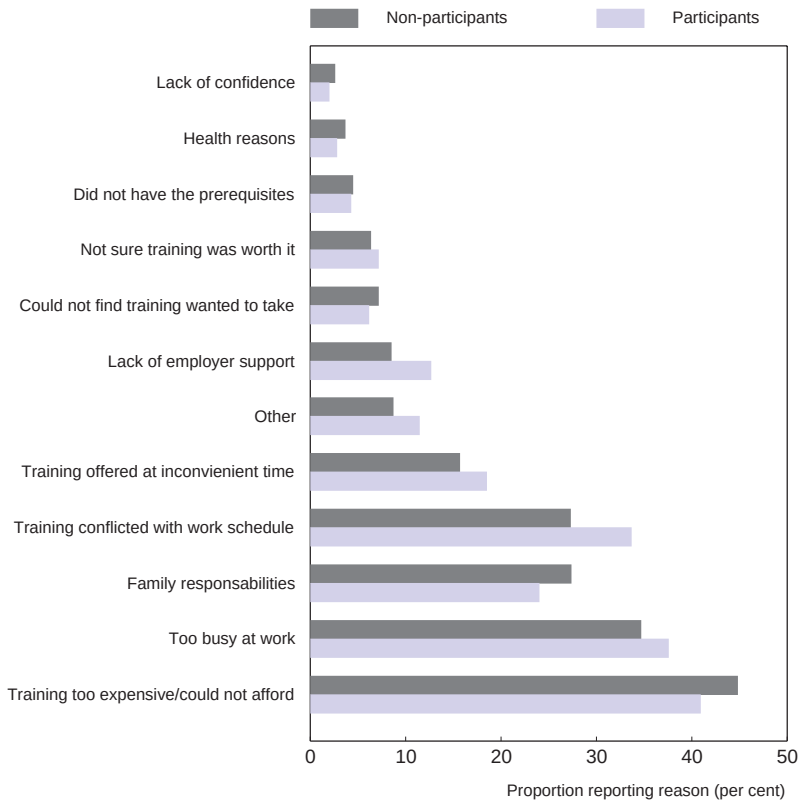
	Participation rate	Mean hours per participant
Total	**30.1**	**176**
Age group		
25 to 34 years	39.5	279
35 to 44 years	32.0	149
45 to 54 years	29.8	108
55 to 64 years	14.4	98
Gender		
Men	30.0	180
Women	30.2	173
Educational attainment		
High school or less	14.4	139
University	47.8	211
Origin		
Born in Canada	31.4	155
Not born in Canada	26.1	255
Labour force status		
Employed full-time	36.3	122
Employed part-time	31.7	219
Unemployed	22.1	331
Outside labour force	11.3	585
Provinces		
Newfoundland and Labrador	24.0	239
Prince Edward Island	26.9	85
Nova Scotia	31.0	182
New Brunswick	28.3	174
Quebec	26.7	146
Ontario	30.3	184
Manitoba	35.3	162
Saskatchewan	33.6	189
Alberta	31.7	154
British Columbia	33.6	211

Source: *Adult Education and Training Survey* 2003, Statistics Canada.

(Figure 3.4). Uptake could be boosted by addressing obstacles such as inconvenient times, conflicts with work schedules and high workloads. More investigation may be needed into the reasons why institutions providing adult education and training programmes are not more responsive to these aspects of demand and whether this reflects some unhelpful restrictions in the way that publicly owned education institutions are funded and managed.

The issue of financing remains a significant factor, but it is unclear what the appropriate role for public policy should be. A recent Canadian assessment of the issues and knowledge gaps pointed out that although there are theoretical arguments suggesting various market failures and externalities leading to underinvestment in training, there is little evidence of their empirical importance (Lin and

Figure 3.4. **Reasons for unmet training demand**
Per cent of respondents, 2002



Source: Peters 2004.

Tremblay, 2003). A key pre-requisite to designing a more appropriate set of policies to address these concerns would be to establish whether workers who receive training are in fact more likely to change employers, whether high returns on training but lower than expected participation would imply information failures, and whether there are credit market failures in practice. A range of possible instruments has been identified, but their appropriate application depends on the real nature of the problem being addressed, and it is even possible that the evidence might finally point to the absence of any role for public policy at all. Pursuing the empirical research agenda laid out to answer these questions would seem the most useful course of action. In the meantime, two "no-regrets" approaches to easing liquidity constraints on individuals deserve mention. The first, already in place, allows individuals to withdraw funds from their Registered Retirement Savings Plans to finance a study programme.[4] The second way that people can finance their studies does not involve a policy intervention *per se*, but it may require a shift in attitudes to become more widespread. This option involves employers and individuals voluntarily contracting for study financed by a "pay back" clause, whereby the employer finances some or all of the costs up-front, and the employee agrees to reimburse these expenses on a diminishing scale if the person quits before a certain date. This would allow willing employers and employees to reduce their risks and costs and bring about welfare-improving exchanges and is already used in a number of countries, including among public-sector employers.

Improving the capacity to innovate

Innovation plays a key role in productivity growth, as it is through this route that an economy's outputs can expand faster than the combined growth in inputs. Innovation can involve new products and/or new processes. To some extent, innovation can be diffused through the economy *via* the take up of new technology. Thus, eliminating restrictions on foreign-owned firms can play an important role here (see Chapter 2), as can ensuring that taxes on business investment do not discourage investment in new equipment and processes (see above). However, it is rather difficult to ascertain exactly how much innovation is actually taking place and the indicators used often measure inputs into the innovation process, such as research and development expenditure, rather than innovation itself. Nonetheless, considerable efforts are underway in Canada to better identify both the extent of innovation and the factors driving it (Earl and Gault, 2004) and Statistics Canada has been collecting various data since 1993. Furthermore, Industry Canada has contracted out the establishment of independent, third-party benchmarking of Canada's innovation performance against other countries.

In 2002 the government presented its Innovation Strategy (see previous *Survey*) which has two parts: the first set of goals is focused on encouraging innovation and the second part concentrates on improving skills. The strategy specifies

some 30 specific targets in various areas (for example, by 2010, to have Canada ranked among the top five countries for R&D performance and significantly improve the innovation performance of communities across Canada). But the strategy itself does not set out the policy measures that would be required to meet the specified targets. It is also unclear whether all the targets are consistent and could be achieved without conflicts or tensions emerging, as pointed out in the previous *Survey*. Work is underway to advance the innovation agenda on a number of fronts by: accelerating timelines for regulatory review; reviewing telecommunication foreign ownership provisions; developing a strategic framework for investment in research and the scope for streamlining the research funding environment; strengthening the framework for commercialising the research output of universities and colleges; and benchmarking Canada's innovation performance. Further funding for R&D in specific areas was announced in the 2004 Budget, along with a new private sector-led group to focus on reducing administrative burdens on small and medium-sized enterprises, and a commitment to introduce new legislation to improve corporate governance.

Boosting total lifetime hours worked

Although productivity growth is the main source of rising living standards, the demographically driven reductions in labour utilisation expected in the future could be offset to some extent by boosting the total hours worked over each person's lifetime. This can involve minimising time spent out of the workforce, especially on unemployment or social assistance, but also allowing greater flexibility over how many hours are worked at which points in time according to people's individual preferences and, in particular, reducing the obstacles that discourage them from exercising their preferred choices. Enabling older workers to stay longer in the workforce if they wish would be an obvious area on which to focus.

Employment insurance

Canada's unemployment rate is currently around 7 per cent, which points to one potential source of additional labour utilisation and leads to questions about the incentives embodied in the Employment Insurance (EI) programme. In fact, the overlap between EI and unemployment is surprisingly limited: the ratio[5] of those receiving benefits to those who are unemployed has been stable at about 45 per cent since the late 1990s (Canadian Employment Insurance Commission, 2004). Around 35 to 40 per cent of claims at any time come from frequent claimants (on average between 1995 and 2002), but the dynamics of persistent use are more complex. Much attention has been paid to the use of EI by seasonal workers, but not all long-term seasonal workers end up claiming EI, and not all seasonal jobs result in subsequent EI claims (de Raaf *et al.*, 2003). Long-term seasonal workers' reliance on EI turns out to depend on the characteristics of those frequent users, especially

education and age, as well as the conditions of the local labour market (Table 3.2). Repeated use is far more frequent in the Atlantic Provinces and Quebec than elsewhere in the country.

The unemployment insurance system has undergone major improvements since 1990, improving work incentives by tightening eligibility criteria and shortening the duration of benefits.[6] Nevertheless, the programme continues to contain some rules that discourage seasonal and intermittent workers in the high-unemployment areas from working more steadily through the year (see Annex 3.2). Although the rules were designed to ensure equitable access to the EI programme across the country, they can result in some unfortunate incentive effects for those who work

Table 3.2. **Selected characteristics of long-term seasonal workers**
1993-98, per cent

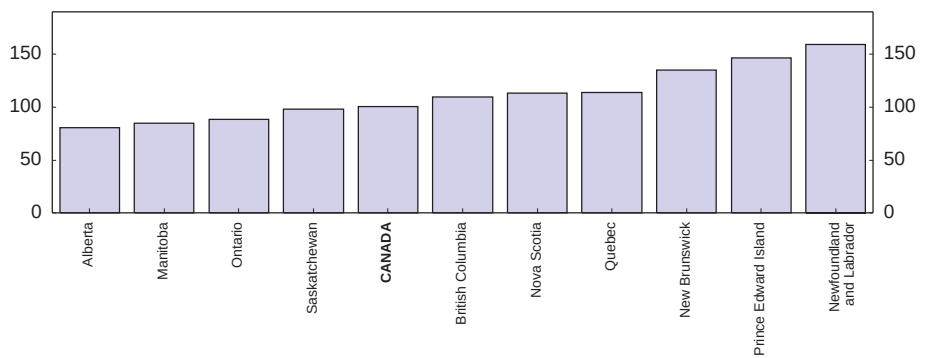
Demographic characteristics	Degree of reliance on EI following all three seasonal losses				
	Entire sample	Never	Once	Twice	Three times
Proportion relying on EI	–	17.3	20.2	24.9	37.6
Age					
Under 30 years	37.1	45.4	48.9	36.8	27.1
30-39 years	32.3	33.5	30.3	31.3	33.6
40 years and older	30.6	21.2	20.8	31.9	39.3
Gender					
Male	63.7	50.8	53.3	68.4	72.0
Female	36.3	49.2	46.7	31.6	28.0
Education					
High school or less	59.8	54.8	53.5	55.7	67.9
More than high school	40.2	45.2	46.5	44.3	32.1
Regional unemployment rate					
7 per cent or less	28.8	49.3	42.5	24.5	14.9
7 to 9 per cent	20.3	17.0	27.2	21.9	17.0
Over 9 per cent	50.9	33.7	30.2	53.6	68.1
Marital status					
Without partner	30.4	40.0	33.4	31.3	23.8
With partner	69.6	60.0	66.6	68.7	76.2
Region					
Atlantic and Quebec	47.6	28.4	25.2	44.8	70.2
Ontario and West	52.4	71.6	74.8	55.2	29.6
Family income					
Under C$35 000	34.8	32.4	26.6	42.7	35.0
Between C$35 000 and C$60 000	37.9	40.6	33.6	34.1	41.4
C$60 000 and over	27.4	27.0	39.8	23.3	23.6

Note: "Long-term" seasonal workers are workers who experienced a job loss in the same three-month "off season" in at least three of the five years from 1993 to 1998.
Source: De Raaf, Kapsalis and Vincent (2003).

only just enough hours to qualify for benefits. For example, someone who has worked only 12 weeks (full-time) in a high-unemployment area (*i.e.* with joblessness of more than 16 per cent) can receive up to 32 weeks of benefits whereas a claimant who has worked 20 weeks in a low-unemployment area could receive only 14 weeks of benefits. As qualifying hours continue to accumulate, in low-unemployment regions the additional weeks of benefit coverage obtained per hour worked is broadly constant until the maximum is reached, whereas in high-unemployment areas the additional coverage per hour worked declines significantly. These diminishing returns may act to discourage efforts to pursue work opportunities (de Raaf *et al*, 2004). Furthermore, there is some evidence to indicate that both employers and employees who are experienced with the system can be adept at organising work patterns so as to maximise the EI benefits that are received (Gray and de Raaf, 2002).

The various measures can be combined together to provide an EI disincentives index, which shows major variations across the country (Figure 3.5). This suggests that in some areas, high unemployment may to some extent be self-perpetuating and may need to be addressed *via* a combination of more vigorous case management and job-activation measures (especially involving efforts to overcome skills weaknesses) and revised benefit rules that provide stronger incentives for job search and acceptance of work offers. (Gray, 2003). However, on benefit rules,

Figure 3.5. **Regional variations in the EI disincentives index**
As at mid-2003



Note: The index is compiled using the parameters of the regular (unemployment) benefits of the Employment Insurance scheme on the assumption that individuals who choose intermittent employment and unemployment use the rules to optimise their choice of duration of employment and unemployment. The average disincentive across Canada in 1970 was set to equal 100. The methodology is presented in Sargent (1996).
Source: Department of Finance Canada.

a pilot project announced earlier this year has increased benefits in high unemployment areas, potentially weakening work incentives, all else equal, by extending the maximum benefit period by anadditional five weeks.[7]

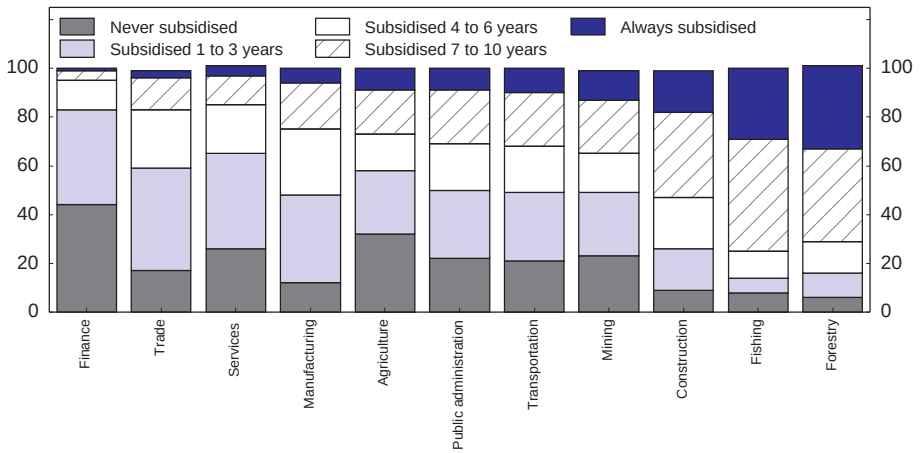
A key feature that emerges from detailed examination of unemployment benefits is the clear evidence of cross-subsidisation among industries and firms. Indeed, the relative benefit-to-tax (RBT) ratio indicates that firms in the fishing, forestry, construction and agriculture sectors were consistently (and heavily) subsidised by those in other industries from 1986 to 1996 inclusive[8] (Corak and Chen, 2003). In forestry, construction and agriculture, the claim rate was higher due to temporary separations than to permanent separations, while for fishing the claims were split roughly equally. Furthermore, the firms that were subsidised in every year of the 11-year period were more likely to be middle-sized (between 20 and 499 employees), to have a higher rate of temporary job separations and to be located in Quebec (Table 3.3). At a more detailed level, it becomes clear that cross-subsidisation occurred not only among industry groups but also among firms within each industry group[9] (Figure 3.6). Altogether, this suggests that certain firms may

Table 3.3. **Subsidisation status and characteristics**
Annual averages, 1986-96 Percentages

Characteristics	Always subsidised firms	Never subsidised firms	All firms[1]
Firm size (per cent of jobs)			
Less than 20 employees	11.3	3.2	11.0
Between 20 and 99 employees	27.4	5.0	16.8
Between 100 and 499 employees	28.4	12.7	18.4
500 employees or more	32.9	79.7	53.8
Reasons for layoff leading to a UI claim (per cent of claims)			
Temporary job separation	71.5	43.2	47.8
Permanent job separation	21.1	40.4	37.0
Unknown reason for job separation	7.4	16.4	15.2
Province[2] (per cent of firms)			
Ontario	15.0	38.5	33.1
Quebec	37.8	14.7	23.5
British Columbia	–	–	13.2
Alberta	–	14.6	–
New Brunswick	9.7	–	–
Industry[2] (per cent of firms)			
Services	23.8	41.4	36.5
Trade	10.7	19.1	23.2
Construction	30.7	–	10.8
Finance	–	14.1	–

1. Figures are based on the 318 217 firms that were in operation for all 11 years from 1986 to 1996.
2. Figures by industry and province only indicate percentages for the three top categories.
Source: Corak and Chen (2003).

Figure 3.6. **Firms by industry and subsidisation status**
Per cent, 1986-1996



Source: Corak and Chen (2003).

have been taking advantage of the existence of EI to keep an experienced workforce available on demand while shifting the cost onto other firms. To further reduce this cross-subsidisation, one instrument would be to adjust firms' EI premiums to take account of firms' record of previous layoffs leading to EI claims, *i.e.* enterprise experience rating. Doing this implies that the social costs of the lay-offs would be internalised and employers would have to think more carefully about repeatedly using temporary layoffs as they would bear the costs. Experience rating has been in place in the United States for many years for exactly this reason (see Box 3.1).

Social assistance and the "welfare wall"

Although significant improvements have been made over the past decade to reduce the number of welfare recipients (see previous *Survey*), the country still faces a problem of "welfare traps". The EMTRs associated with moving from welfare to work or increasing hours of work are still high, even if no loss of in-kind benefits (such as housing and supplementary health coverage) are taken into account (Figure 3.7). Those in low- and modest-income ranges generally face higher EMTRs than higher earners do. The main factors are the claw-backs that apply to Social Assistance (SA), which result in very high EMTRs at low incomes, and the National Child Benefit (NCB) supplement [a key component of the Canada Child Tax Benefit (CCTB)] that was introduced in 1998 to target additional benefits to low-income

Box 3.1. Enterprise experience rating

Experience rating of employers has been a permitted feature of the US Unemployment Insurance system since its inception, although it has been left to individual states to decide whether they wished to put it into place (Baicker *et al.*, 1997).

The key principle is that those firms with a higher rate of lay-offs pay a higher premium than those who make little use of the system, and its introduction was based on the belief that employers had a significant degree of control over the use of seasonal and temporary layoffs. An insurance system in this situation would introduce moral hazard, because those firms would be able to keep their workforce available when needed again, without having to bear the costs of maintaining attachment. Effectively, employers and workers in firms with variable production enter into an implicit contract to shift costs onto other enterprises.

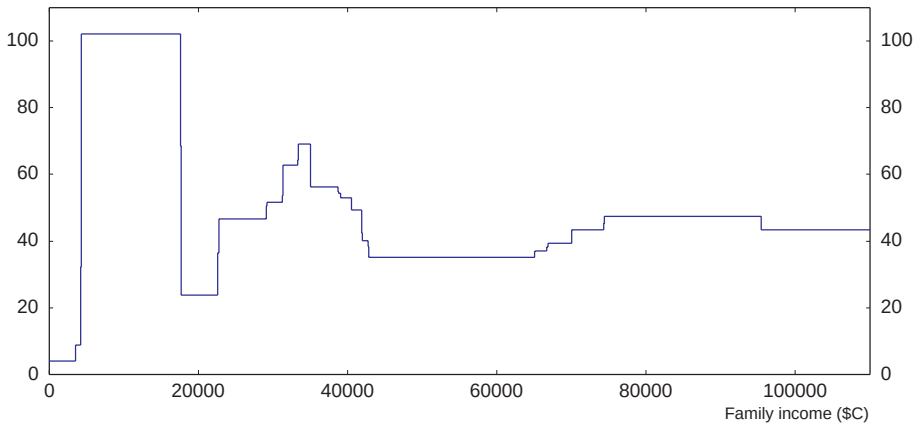
In the United States, unemployment insurance is funded through payroll taxes, and experience rating means that firms whose workers draw more heavily on unemployment benefits pay a higher tax rate. In practice, there is a variety of systems applied in different states. Perhaps the most common is the "reserve ratio", which is the difference for each firm between payroll taxes paid and unemployment benefits disbursed, relative to the firm's payroll, accumulated over time. There is a maximum and a minimum tax rate (although the minimum rate could be zero). A higher reserve ratio will bring about a lower tax rate and *vice versa* (although some systems have "flat" parts where the relation between tax changes and the reserve ratio is not linear). With the use of maximum and minimum rates, experience rating is incomplete, but it can still provide an effective response to moral hazard.

Empirical evidence of the impact of experience rating on seasonal unemployment is relatively difficult to obtain, but it suggests a reduction in moral hazard in the United States (Baicker *et al.*, 1997). Instead, much of the debate has turned on the outcomes of different theoretical models on employment as a whole. For example, a standard implicit-contracts model produces opposite results depending on whether or not a budget constraint on the unemployment insurance system is imposed. With a budget constraint on the system as a whole, experience rating allows for a lower average payroll tax rate, which at the margin boosts employment overall (Fath and Fuest, 2002).

The effectiveness of enterprise experience rating depends heavily on the extent to which lay-offs are temporary (OECD, 2004*a*). This suggests that Canada would be more likely to benefit from its introduction than many other OECD countries, where temporary lay-offs are less significant.

families. With the NCB, a typical single parent moving from SA to work now sees a marginal gain in disposable income instead of suffering a loss[9] (National Child Benefit Progress Report, 2002). Since the introduction of the NCB, and with the help of a strong economy, the number of families receiving SA has dropped sharply; the NCB

Figure 3.7. **Combined federal and Ontario effective marginal tax rates**[1]
Per cent



1. One-earner couple with 2 children (both over the age of 7).
Source: Finance Canada.

has thus been successful in its objectives. However, these gains have come at the expense of higher EMTRs for many other families with incomes in the NCB claw-back range (*i.e.* between about C$20 000 and C$35 000). Modest-income families face EMTRs of about 70 per cent for annual household incomes of just under C$35 000 in the 2004 benefit year for a one-earner family with two children.[10] In contrast, the EMTRs fall to less than 40 per cent at around C$45 000, and the same family would face an EMTR of around 45 per cent on income of C$100 000.

Perhaps more disquieting are the initial results of longitudinal analysis, which indicate that many families remain consistently in or below the NCB claw-back range over a number of years and seem unable to get into the income range where EMTRs become more moderate (Cain, 2004). This confronts the inevitable policy dilemma facing many countries of how to provide support to low-income families without weakening work incentives. The same programme without claw-backs would be prohibitively expensive and would provide transfers to many families that are clearly not poor. But reducing claw-back rates to reduce EMTRs would widen the claw-back income range further: it remains an unanswered empirical question whether it is better to have high abatement rates over a narrow income range or slower abatement over a wider income range. The room for manoeuvre on EMTRs may turn out to be relatively small. This suggests that it might be more fruitful to pursue other approaches, drawing on the insights gained from the "self-sufficiency project" (see Box 3.2). Looking further ahead, it could be worthwhile to look for

Box 3.2. Self-sufficiency project

The self-sufficiency project (SSP) studies were designed to test the effects of a work-conditional financial incentive on single parents in receipt of social assistance. It involved three linked studies using a random assignment research design. The SSP Recipient Study was designed to test the impact of the financial incentive to get a full-time job on those who had already spent at least a year on welfare. The SSP Plus was designed with the same criteria as the Recipients Study but provided employment-related services as well as a financial incentive. The Applicants Study was designed to test whether recently approved welfare recipients would stay on welfare longer in order to qualify for the earnings supplement.

The key features of the programme were the following:

- Eligibility for the supplement was limited to single parent, long-term social assistance (SA) recipients. In the Recipient and Plus studies this criteria was already satisfied, whereas in the Applicants study, participants were told that they would have to stay on assistance for the first year after entering the study to establish eligibility for the supplement. Once a long-term recipient, the person could sign up for the supplement if full-time work was taken up within the next 12 months. If the applicant did not sign up within that period, he or she could never receive the supplement.
- Supplement payments were made only to eligible single parents who worked an average of at least 30 hours per week over a four-week or monthly accounting period, whether in one or more jobs, and who were not receiving SA. A person could collect the supplement for up to three calendar years from the time he or she began receiving it, as long the person was working full time and not receiving SA payments.
- The supplement was calculated as half the difference between a participant's earnings from employment and an "earnings benchmark" set by SSP at a level designed to make full-time work pay better than SA for most recipients. The supplement was reduced by 50 cents for every dollar of increased earnings. Unearned income (such as child support), earnings of other family members and number of children did not affect the amount of the supplement.
- After beginning supplement receipt, people could decide at any time to return to SA, as long as they gave up the supplement and met the eligibility requirements for such assistance. They could also renew their supplement receipt by going back to work full time at any point during the three-year period in which they were eligible to receive the supplement.

The studies are now completed and the final results have been published by the Social Research and Demonstration Corporation, which conducted them (Michalopoulos *et al.*, 2002; Ford *et al.*, 2003). Because the studies assigned people to the programme and control groups at random, the impact of the supplement offer is measured as the difference in employment, earnings, income, and other outcomes between the two groups. The principal effect of the financial incentive was to bring forward the exit from welfare and into work (except during the first 12 months for the Applicants group, where exit from welfare was slightly lower than for the control

Box 3.2. **Self-sufficiency project** (*cont.*)

group). As a result, SSP increased full-time employment, earnings, and income and reduced poverty for at least three years, but after around six years, the control group had virtually "caught up" to the programme group. Further analysis of the SSP Recipient study indicates that these results were obtained to a large extent because of the 12-month time limit for finding a job in order to qualify for the supplement, although there was also an incentive to choose work over returning to welfare during the period when the supplement was paid (Card and Hyslop, 2004).

Although the results suggest that there may be no lasting advantage in employment and earning outcomes from the programme, reducing the number of years spent on welfare by participation in the programme lifted household income during the six year study by considerably more than the cost for government budgets. Indeed, the SSP Recipient study involved a net cost to government of approximately 67 cents per C$1 in financial gains to participating households (Michalopoulos *et al.*, 2002). The SSP Applicants study involved a net cost to government of about 10 cents per C$1 in financial gains realised by programme members (Ford *et al.*, 2003). However, it has been pointed out that these assessments of net benefits are partial and do not take into account the general equilibrium effects of the programmes on other workers, either through displacement of other unemployed workers in the labour market, through the wage distribution or by influencing entry and exit rates to income assistance in general (Lise *et al.*, 2003). Once these are taken into account, the net benefits are reduced and even may be negative.

The SSP Plus study delivered better outcomes than the SSP Recipient study and especially in the years after the earnings supplement was ended. The employment rate among the SSP Plus programme members remained around 6 per cent higher than both the SSP Recipients and the control group at the end of the study and their average earnings were higher. But the small sample size of this group limits the scope for analysing how exactly the addition of services to the financial incentive affected the participants' behaviour.

other solutions by re-examining the underlying rationale for these income-support policies. To the extent that they are intended to give children a better start in life by reducing child poverty, analysis of the data from the Canadian National Longitudinal Survey of Children and Youth provides important insights. It shows that most vulnerable children do not live in poor families and that not all children living in low-income families face weak lifetime prospects: other positive factors including good parenting skills and a cohesive family unit can outweigh the negative effects of poverty[11] (Willms, 2002). This suggests that income-support programmes *per se* may not be the critical factor in improving the outcomes for children when viewed in a

lifetime perspective and that a more radical reassessment of possible policy approaches might be warranted (Hicks, 2002). In the long run, such an exercise might lead to a different mix of policies that would deliver better results for the public funds used.

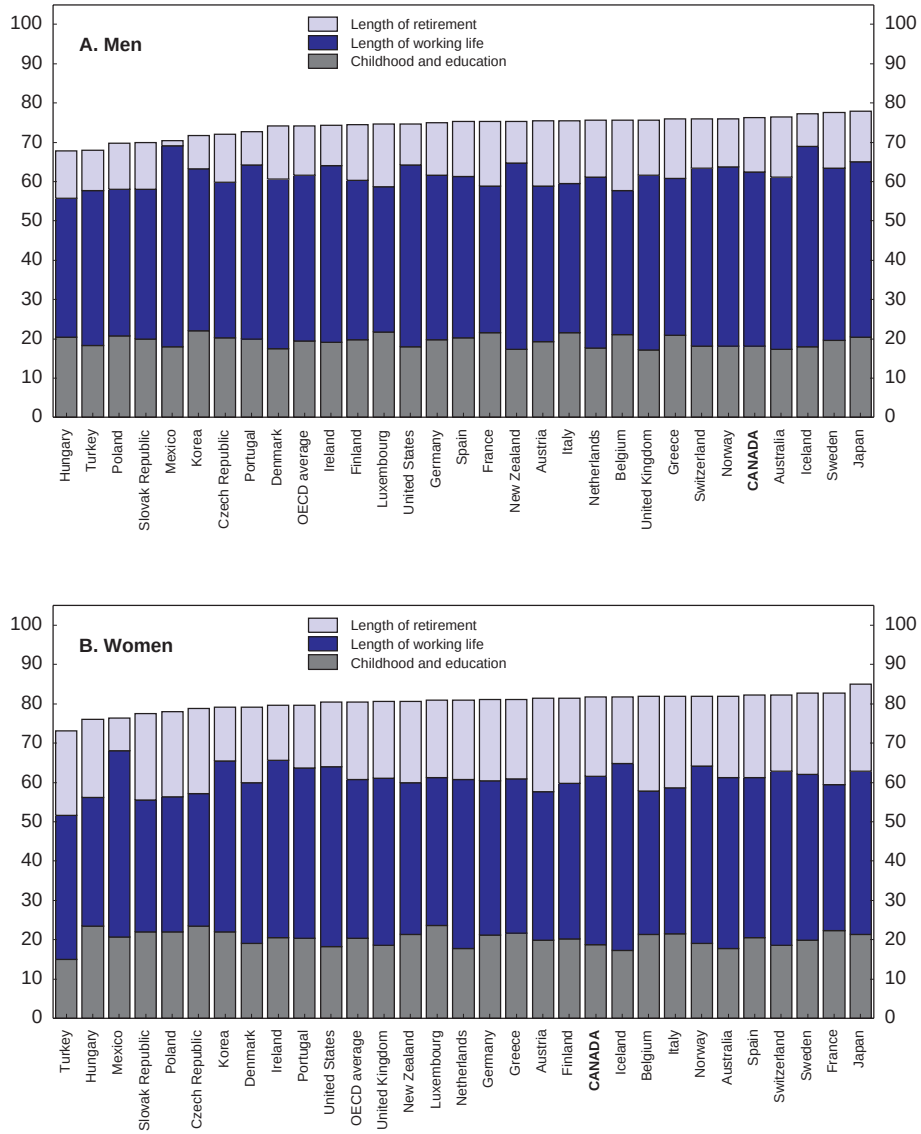
Greater participation among older age groups

Labour supply could also be boosted by making it easier for older workers to remain in the labour force. Canadian men spend on average 18 per cent of their life in retirement and women 25 per cent (Figure 3.8). Yet not all this retirement is consistent with people's preferences. Indeed, a significant proportion of recent retirees would have continued to do paid work under different circumstances (Table 3.4). Nevertheless, the financial penalty of continuing to work while drawing a pension is clearly a significant factor. The desire to keep working is also reflected in the fact that almost 30 per cent of those who "retired" later returned to the workforce, with around 40 per cent of them taking part-time jobs (PRI Project, 2004).

A number of pension-related factors could discourage workers from continuing to work beyond a certain age. For example, the claw-backs associated with the universal basic pension (see Chapter 4), the Old Age Security (OAS) pension and related benefits (Guaranteed Income Supplement and the Allowance), and the old-age income tax credit increase the effective marginal tax rate on earnings. However, while these claw-backs could potentially reduce work incentives for seniors, their effect relative to other factors is unclear.

The 1998 reforms to the Canadian Pension Plan (CPP) were designed to place it on a sound actuarial basis at the aggregate level and ensure its financial sustainability. However, for the individual, there remains a bias towards taking early retirement between the age of 60 and 65. To qualify for retirement pension before age 65, the person must stop working, and although he or she can start working again after the pension has started, this can involve search costs to find a new job. At the same time a permanent downward adjustment is made to the monthly pension payment of 0.5 per cent for each month under 65 years of age (when the pension officially starts). Conversely, continuing to work after age 60 does not increase the future pension entitlement by enough to offset the reduction in total benefits received from delaying retirement. Perversely, a worker who delays drawing his pension until age 65, but, in the interim, chooses to work at a wage lower than his average wage over his career may actually be worse off than if he had retired earlier. The employee continuing after the age of 65 is also penalised, because their future pensions are less than fully adjusted for the postponement. In short, these adjustments are not actuarially neutral (Office of the Chief Actuary, 2003). This could be addressed most comprehensively by calculating each individual's pension payment on the basis of his or her contributory earnings, in other words making the system a notional fully defined-contribution one. This approach has been taken by Sweden

Figure 3.8. **Lifetime allocation of time across OECD countries**
Years



Source: Burniaux *et al*. (2003).

Table 3.4. **Recent retirees**
Per cent, 2002

	Total	Men	Women
Per cent who say they would have continued to do paid work at the time they retired if…			
• Could work fewer days without affecting pension	28.3	29.0	27.5
• Could work shorter days without affecting pension	25.6	25.9	25.2
• Had more vacation leave without affecting pension	19.0	19.5	18.4
• Any of above three reasons	31.9	32.3	31.5
• Could have worked part time	27.9	28.3	27.3
• Health had been better	26.4	26.8	26.0
• Salary was increased	21.2	21.9	20.4
• Mandatory retirement policies had not existed	11.8	11.9	11.6
• Could have found suitable care giving arrangements	6.3	6.6	5.9
• Other reasons	11.3	9.8	12.9

Source: Schellenberg (2004).

with their notional defined-contribution accounts (OECD, 2004b). This arrangement also has the advantage of automatically adjusting for flexible use of working time and for increases in life expectancy.

The Quebec authorities have proposed reforms to the Quebec Pension Plan (Régie des rentes de Québec, 2003) that would allow individuals to start drawing their QPP retirement pension from age 60, whether or not they choose to continue working. They would also simplify the formula for calculating retirement benefits so that it does not penalise those working longer, increase the adjustment factor for those working beyond 65 years of age and, for those pensioners who return to work, take their additional contributions into account in future pension payments. These measures go in the right direction and would substantially improve the overall actuarial fairness of the scheme and encourage older workers to remain in the workforce until a later age. The CPP could usefully adopt similar rule changes.

Another factor that can affect the age of exit from the workforce is the mandatory retirement age set in some collective employment contracts. It is often argued that these arrangements are voluntary agreements that by definition bring benefits to both parties, by enabling firms to pay workers less than their productivity in their early years in return for overpaying them later, but only until the age ceiling of mandatory retirement.[12] But these agreements may be at odds with individual preferences, and although those who wish to continue working beyond that age could move to another job, this imposes costs on the person, especially if they are unable to use their skills because their industry is characterised by widespread application of a mandatory retirement age. Forcing workers to retire earlier than they want may also increase fiscal burdens at the margin. Contractual mandatory retirement is already banned (on age-discrimination grounds) in Manitoba, Quebec

and in the federal civil service and is under review in Ontario.[13] Extending it across the rest of the country may have a relatively small effect on the size of the older workforce (Shannon and Grierson, 2004) but it would facilitate more flexible transitions from work to eventual retirement. At the same time, it would encourage employers to examine more carefully the reasons for any slow-down in productivity amongst their workers and find effective ways of arresting such declines. Alternatively, employers and employees might choose to adopt more flexible age-earnings profiles that would help keep productivity and wages more closely aligned.

Concluding remarks and priorities for policies

This chapter has pointed to a number of areas where adjustments could be made to present policy arrangements so as to produce better outcomes *via* faster productivity growth and greater utilisation of labour and thereby lead to enhanced living standards. In some cases, making the appropriate changes will require action by the federal government; others require the provinces and territories to take the initiative. The inevitable interactions of different policies and programmes mean that concerted and co-operative action involving both levels of government may be needed to obtain the best results.

To boost productivity growth, Canada could give priority to policy changes in the following areas:

- To encourage physical capital deepening, capital cost allowances should continue to ensure that they are aligned to economic depreciation rates, capital goods should be exempted from provincial retail sales taxes (which would be the case if all provinces adopted a value-added tax, as businesses could recover the tax they pay on inputs through the input tax credit mechanism), and provincial capital taxes should be abolished. Another measure which could be analysed further would be to permit last-in first-out valuation of inventories for tax purposes.
- To stimulate increases in human capital, effective programmes need to be identified for raising levels of literacy and other essential skills among those with the weakest skills, and sufficient resources need to be allocated to the task. This priority needs to be tied to improving labour market prospects and/or bridging learners to secondary school completion and further studies, especially among poorly educated youth. Publicly funded providers of education and training for adults at all levels need to be more responsive to the demands and needs of adult learners.

To boost total hours worked, adjustments are warranted in the following domains:

- To encourage people to move from dependence on Employment Insurance (unemployment) benefits into employment, especially for sea-

sonal workers, greater efforts should be made to address the individual characteristics that tend to lock people into persistent unemployment, especially their lack of skills and qualifications. Benefit formulae that tend to encourage repeated recourse to unemployment benefits should either be adjusted to prevent recurrent use or counter-balanced with more stringent job search requirements, including mobility. The merits of applying much easier rules to those unemployed in a high unemployment area should be reconsidered. Enterprise experience rating would discourage firms from repeatedly shifting the cost of temporary layoffs onto other businesses.

- To help people climb over the welfare wall, high EMTRs faced by modest-income working families should be tackled. This might require a switch in strategy away from pure income support measures to reduce poverty towards programmes that more effectively promote self-sufficiency through work-based earnings. For the longer run, it would be worth looking more closely for other policy solutions that would improve the lifetime outcomes for vulnerable children in particular.
- The CPP and QPP pension plans should be adjusted to make them more actuarially fair and to enable people to continue working while drawing their pensions.
- Banning contractual mandatory retirement would make it possible for those who wish to do so to continue working until a later age.

Notes

1. In fact, the results understate the gains from capital tax reductions, because the distortions arising from its profit insensitivity, or risk-shifting impacts, are not modelled.
2. A broad base and value-added structure would enhance transparency for consumers and reduce distortions. Compliance costs would be reduced since businesses would have to deal with only one set of forms, one set of operating rules and one tax administration. Governments would also realise administrative savings.
3. The International Adult Literacy Survey showed that for young Canadian men aged 16 to 25 years, the probability of being unemployed is almost halved by moving from a prose literacy score of 100 to 200 (out of a possible maximum of 500) (OECD, 2000).
4. It is also possible to draw on RRSP savings for first home purchases.
5. This result reflects two factors: just over half the unemployed were potentially eligible, while the rest either quit their jobs, were engaged in non-covered work, such as self employment, or had not worked in the previous 12 months. Of those potentially eligible, 16 per cent had not accumulated enough hours of paid work to qualify for benefits.
6. The reforms in 1996 were designed to reinforce the insurance principle: the work disincentives in the system were reduced further; eligibility was tightened again, albeit by less than in the earlier reforms; and some income redistribution measures became better targeted.
7. During the pilot project, the government will evaluate its effect on the project participants, the labour market and the existing incentives to work embodied in the EI programme.
8. RBT ratios were 14.8 for fishing, 5.1 for forestry, 3.3 for construction and 3.2 for agriculture for the 11-year period 1986 to 1996. All other sectors of the economy had a RBT ratio of less than one, which means they were net payers.
9. This can be illustrated by the fact that three industries (defined at the three-digit SIC level) appear among both the industries with the highest proportion of always-subsidised firms and the industries with the highest proportion of never-subsidised firms.
10. These illustrative EMTRs do not take into account claw-backs of in-kind benefits and have been calculated for families living in Ontario.
11. In the lowest quartile of family income, 37 per cent of children were assessed as vulnerable, compared with 24 per cent in the highest quartile. Children were classed as vulnerable if they scored poorly on behavioural and cognitive tests.
12. It could be noted that this approach presupposes that older workers are less productive than younger ones, but thus far the empirical literature has not shown conclusively that this holds in general (Kesselman, 2004). A further argument advanced for mandatory retirement is the need for older workers to move aside to provide opportunities

for advancement of younger personnel, but this is manifestation of the "lump-of-labour" fallacy.

13. New Brunswick banned mandatory retirement in 1973 but exempted cases where it was part of a *bona fide* retirement or pension plan; however, this exemption represents the vast majority of cases. The situation in Nova Scotia, Alberta, and Prince Edward Island is similar to that in New Brunswick (Shannon and Grierson, 2004).

Annex 3.A1

Recent business tax reforms

Main federal business tax reforms

2000 *budget*

- Legislated a schedule for reducing the general corporate income tax rate from 28 per cent in 2000 to 21 per cent in 2004 and reduced the corporate tax rate on income between C$200 000 and C$300 000 earned by a Canadian-controlled private corporation from an active business carried on in Canada from 28 to 21 per cent effective January 2001.
- Reduced the capital gains inclusion rate from three-quarters to two-thirds for disposition of property after 27 February 2000, and before 18 October 2000, and then to one-half for disposition of property after 17 October 2000 and introduced a rollover of capital gains on the disposition of qualified small business investments and deferral of the income inclusion from exercising qualifying stock options until disposition.
- Improved the capital cost allowance system for certain rail assets, manufacturing and processing equipment, certain electrical generating equipment, and heat/water production and distribution equipment.

2001 *budget*

- Removed tax-related impediments to venture capital investment in Canada through the use of partnerships by Canadian pension plans and by foreign investors.

2003 *budget*

- Increased the small business deduction limit to C$300 000 over four years and enhanced the small business capital gains rollover measure by removing the original investment and reinvestment limits and extending the length of time available to make a qualifying reinvestment.
- Phased out the federal capital tax over a period of five years, eliminating it in 2004 for smaller corporations.
- Removed impediments to the use of qualifying limited partnerships as investment vehicles for Canadian venture capital funds.
- Reduced the corporate tax rate on resource income from 28 to 21 per cent over five years while gradually removing the resource allowance and phasing-in a deduction for Crown royalties and mining taxes and a new corporate tax credit for mineral exploration. The temporary mineral exploration tax credit for flow-through share investors was extended for one year to the end of 2004.

– Increased the Film or Video Production Services Tax Credit from 11 to 16 per cent and proposed amendments to simplify and better target the tax incentives for certified Canadian films.

2004 *budget*

– Improved the capital cost allowance system for computer equipment and data network infrastructure equipment.
– Amended the scientific research and experimental development investment tax credit rules so that small Canadian-controlled private corporations that have a common group of shareholders who are not acting together will not have to share the C$2 million expenditure limit.
– Extended carry-forward periods from 7 to 10 years for certain losses and foreign tax credits and extended the temporary mineral exploration tax credit to the end of 2005.
– Accelerated the increase in the small business deduction limit to C$300 000 by one year to 2005.

Provincial measures

– *Nova Scotia* increased its tax on large corporations from 0.25 per cent to 0.3 per cent, effective on 1 April 2004. Corporation capital tax on financial institutions also increased from 3 to 4 per cent from that date. The threshold for small business tax will increase on 1 January 2005.
– *Prince Edward Island* will raise its capital tax on financial corporations from 3 to 5 per cent in 2004-05.
– The small business corporate income tax rate in *New Brunswick* was reduced from 3 per cent to 2.5 per cent, and the small business income threshold increased effective from 1 July 2004.
– *Quebec* raised the tax on capital exemption to C$1 million, thereby excluding 75 per cent of businesses from paying the tax in the 2004-05 budget and signalled an intention to reduce the rate of tax on capital for all businesses in next year's budget.
– *Ontario* will phase out capital taxation by 2012.
– *Manitoba* is reducing its general corporation income tax from 17 per cent in 2001 to 15 per cent in 2005. The 2004 budget announced a further reduction to 14.5 per cent after 2005.
– *Alberta* cut the general corporate income tax from 12.5 per cent to 11.5 per cent and the small business rate from 4 per cent to 3 per cent both from 1 April 2004.

Annex 3.A2

Regular benefits under employment insurance

This annex sets out the principal parameters of the regular benefits that are available to the unemployed within the Employment Insurance programme. Regular benefits can be paid to claimants who lose their job through no fault of their own (for example, due to shortage of work, seasonal or mass lay-offs), and who are available for and able to work, but cannot find a job.

Qualifying for benefits

To be eligible for regular benefits, the claimant must have been without work and without pay for at least seven consecutive days and have worked the required number of insurable hours during the qualifying period, which is the previous 52 weeks or the period since the last claim, whichever is shorter. The insurable hours are based on where the claimant lives and the unemployment rate in that economic region at the time of filing a claim for benefits. Only the insurable hours that fall within the qualifying period are used to start a benefit period. However, the qualifying period may be extended up to 104 weeks for people who were not employed in insurable employment and not receiving EI because they were incapable of work by reason of illness, injury, quarantine or pregnancy; or because they were attending a course of instruction or other related employment activity on referral from an Human Resources and Skills Development Canada (HRSDC) designated authority.

Most people will need between 420 and 700 insurable hours of work in their qualifying period, depending on the unemployment rate in their region at the time of filing their claim for benefits. In some instances, a minimum of 910 hours in the qualifying period may be needed to qualify, for example, those in the workforce for the first time or re-entering the workforce after an absence of two years (with special provisions for those who have received maternity or parental benefits).

The "labour force attachment period" is the 52-week period immediately prior to the qualifying period. If less than 490 hours have been worked in the labour force attachment period, then a minimum of 910 hours must be worked during the qualifying period to gain entitlement to regular benefits. The calculation of hours takes into account: any hours of insurable employment; any hours for which benefits have been paid or payable (calculated on the basis of 35 hours per week for each week of benefits paid); any hours that relate to a situation arising out of insurable employment or a situation which prevents the payment of benefits.

Benefits calculations

There is a two-week unpaid waiting period before EI benefits start being paid. Generally, this period is the first two weeks of the claim. But if a benefit claim is re-opened and the wait-

Table 3.A2.1. **Number of weeks of benefits payable**

Insured hours worked during qualifying period	Unemployment rate in claimant's region											
	6% and under	Over 6% to 7%	Over 7% to 8%	Over 8% to 9%	Over 9% to 10%	Over 10% to 11%	Over 11% to 12%	Over 12% to 13%	Over 13% to 14%	Over 14% to 15%	Over 15% to 16%	Over 16%
420-454									26	28	30	32
455-489								24	26	28	30	32
490-524							23	25	27	29	31	33
525-559						21	23	25	27	29	31	33
560-594					20	22	24	26	28	30	32	34
595-629				18	20	22	24	26	28	30	32	34
630-664			17	19	21	23	25	27	29	31	33	35
665-699		15	17	19	21	23	25	27	29	31	33	35
700-769	14	16	18	20	22	24	26	28	30	32	34	36
770-839	15	17	19	21	23	25	27	29	31	33	35	37
840-909	16	18	20	22	24	26	28	30	32	34	36	38
910-979	17	19	21	23	25	27	29	31	33	35	37	39
980-1 049	18	20	22	24	26	28	30	32	34	36	38	40
1 050-1 084	19	21	23	25	27	29	31	33	35	37	39	41
1 085-1 154	20	22	24	26	28	30	32	34	36	38	40	42
1 190-1 259	21	23	25	27	29	31	33	35	37	39	41	43
1 260-1 329	22	24	26	28	30	32	34	36	38	40	42	44
1 330-1 399	23	25	27	29	31	33	35	37	39	41	43	45
1 400-1 434	24	26	28	30	32	34	36	38	40	42	44	45
1 435-1 469	25	27	29	31	33	35	37	39	41	43	45	45
1 470-1 504	26	28	30	32	34	36	38	40	42	44	45	45
1 505-1 539	27	29	31	33	35	37	39	41	43	45	45	45
1 540-1 574	28	30	32	34	36	38	40	42	44	45	45	45
1 575-1 609	29	31	33	35	37	39	41	43	45	45	45	45
1 610-1 644	30	32	34	36	38	40	42	44	45	45	45	45
1 645-1 679	31	33	35	37	39	41	43	45	45	45	45	45
1 680-1 714	32	34	36	38	40	42	44	45	45	45	45	45
1 715-1 749	33	35	37	39	41	43	45	45	45	45	45	45
1 750-1 784	34	36	38	40	42	44	45	45	45	45	45	45
1 785-1 819	35	37	39	41	43	45	45	45	45	45	45	45
1 820 +	36	38	40	42	44	45	45	45	45	45	45	45

3. This table does not include the additional weeks of EI benefits in the pilot project that started on 6 June 2004.
Source: Human Resources and Skills Development Canada.

ing period already served, it is not required again. Earnings made (for example, vacation pay, severance pay, ...) or allocated during the two-week waiting period will be deducted in the first three weeks for which benefit is otherwise payable following the waiting period. Earnings allocated to any week of the waiting period result in a dollar-for-dollar deduction equal to the weekly benefit rate. This means that the maximum deduction for the two-week waiting period is twice the weekly benefit rate.

Regular benefits can be paid from a minimum of 14 weeks to a maximum of 45 weeks usually over a period of 52 weeks.* The number of weeks of benefit is determined at the starting date of the benefit period, based on the unemployment rate in each region and the amount of insurable hours accumulated (Table 3.A2.1) .This table does not include the additional weeks of EI benefits in the pilot project that started on 6 June 2004.

The basic benefit rate is 55 per cent of average insured earnings up to a maximum amount of C$413 per week. EI payments are taxable income, and federal and provincial or territorial (if it applies) taxes are deducted at source. A higher benefit rate (the family supplement) applies to low-income families (with an income of less than C$25 921 a year) with children if they receive the Canada Child Tax Benefit.

If the claimant has earned less than C$225 a week ("small weeks"), any time during the last 26 weeks of work, earnings in those "small weeks" may be excluded from the calculation of the benefit rate. The number of small weeks that can be excluded depends on the "minimum divisor", which establishes the minimum number of weeks' earnings that will be counted for determining weekly benefits and is dependent on the regional unemployment rate: in regions with 0-6 per cent unemployment, a minimum of 22 weeks' earnings are counted, whereas if unemployment is above 13.1 per cent, then only 14 weeks are counted, unless the claimant has worked a higher number of regular weeks.

Claimants can work part-time while receiving regular benefits. The first C$50 or 25 per cent of weekly benefits, whichever is higher, can be earned without changing the amount of benefits received that week. Any monies earned above that amount will be deducted dollar for dollar from benefits.

EI premiums

EI premiums are paid on all earnings up to the annual maximum salary of C$39 000. This means that deductions for the year 2004 are C$1.98 for every C$100 of salary until C$39 000 has been reached. The maximum contribution amount is therefore C$772.20 for 2004.

Repayment of benefits at income tax time

There is a provision clawing back EI regular benefits (including regular fishing benefits) through the income tax system from those with annual net income exceeding C$48 750. The repayments required are 30 per cent of the lesser of net income in excess of C$48 750 or the total regular benefits (including regular fishing benefits) received in the taxation year.

* The duration of the benefit period may be extended up to 104 weeks, but the number of weeks of benefits which may be paid will remain unchanged.

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4. Reinforcing the long-term sustainability of public finances

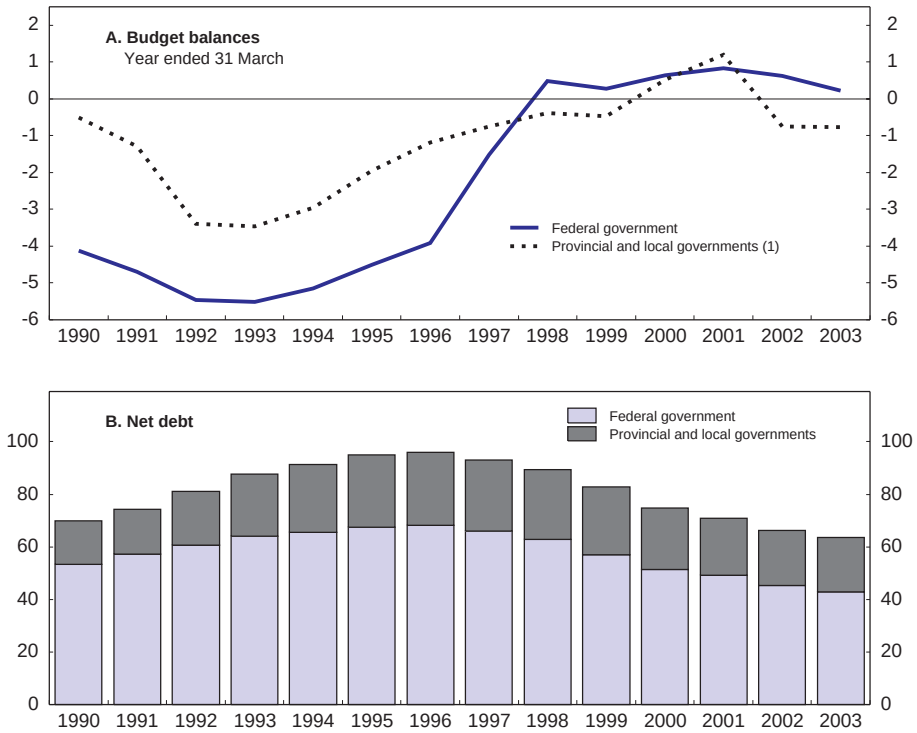
Chapter 1 has underlined the fact that demographic forces and rising health care spending could endanger the sustainability of public finances in the long term. In particular, revenue and cost implications of current trends are such that provinces and territories are expected to face severe resource constraints over the foreseeable future on present policy settings. Thus, a key challenge for the Canadian economy is to ensure fiscal sustainability across all levels of government.

Against this background, this chapter reviews two important areas where improvements could be made to prepare the economy to cope with forthcoming pressures. First, the chapter looks at budgeting procedures and highlights the importance of incorporating more medium-term elements into the current framework. This would allow a better allocation of resources and make it easier to assess whether current fiscal objectives are sufficient to prepare for the future. Second, the chapter considers health care where there are a number of weaknesses, including shortages of medical staff and high-tech equipment, but where productivity also appears insufficient. A number of changes to the institutional framework are examined that would enhance efficiency and help contain costs in this sector.

Long-term fiscal sustainability framework

Significant progress has been made over the past decade in improving the federal and provincial fiscal balances and reducing debt levels (Figure 4.1). Furthermore, the CPP and QPP pension schemes have been put onto a sound financial basis and are regularly monitored to ensure that they remain sustainable (Box 4.1). Together, these measures have left the country much better placed to cope with the fiscal pressures of an ageing population, and it is certainly in a better position than many other OECD countries. However, this favourable outlook depends to a large extent on the ability of governments to control health care spending, and long-term projections have shown that unsustainable paths cannot be ruled out[1] (see Chapter 1). Moreover, as deficits have moved to surpluses, the need to focus exclusively on a short-term horizon is less crucial. Against this background, it would be

Figure 4.1. **Federal and provincial budget balances and net debt**
Per cent of GDP



1. Data before 1997-98 are not strictly comparable.
Source: Statistics Canada.

useful to supplement the present arrangements by introducing more medium-term elements in the fiscal framework in order to set current decisions within a plausible assessment of fiscal sustainability and of the long-term risks. This section reviews the current budgeting framework and highlights how the use of some long-term indicators could improve it.

The current fiscal framework of the federal government is prudent, and recent moves have been in the direction of further fiscal responsibility. Canada has no statutory fiscal rules to control spending, deficits or debt at the federal

Box 4.1. Public pension plans

The current retirement income system is composed of three parts. The first tier comprises the Old Age Security (OAS) pension, which is paid to all those aged 65 years or older and who have fulfilled the residency requirements. The OAS is taxable and may be reduced or supplemented depending on other income:

- Those pensioners with a net income including the OAS above a threshold (C$57 879 in 2003) have their OAS pensions trimmed back.
- Those elderly with little or no other income from other sources receive the Guaranteed Income Supplement (GIS). The GIS is not taxable. The Allowance and Allowance for the Survivor is paid to those aged 60-64 years whose partners qualify for the GIS or would have before their death. Half of the provinces also provide income supplements to their elderly poor.

The second tier comprises the Canada Pension Plan (CPP) and the Quebec Pension Plan (QPP), and most elderly rely heavily upon this part of Canada's retirement income system. The plans are compulsory and cover all employed and self-employed. They are financed by premiums shared by employers and employees (the self-employed pay both parts). The pension is defined-benefit but designed to replace about 25 per cent of the earnings on which a person's contributions were based. The plans provide not only retirement benefits, but also survivor, disability and death benefits. The CPP is a joint federal-provincial programme but administered federally. Major changes proposed by the federal government must be agreed to by two-thirds of the provinces with two-thirds of the population.

The third tier is private pensions. They are either employer-sponsored pension plans (Registered Pension Plans), many of which are defined-benefit schemes, or individual retirement savings vehicles (Registered Retirement Savings Plans), which are all defined-contribution arrangements. Employer-sponsored private pension plans and individual retirement savings plans cover just over half of all earners. Participation and contribution rates for pension plans and retirement savings plans are higher amongst those with greater earnings, reflecting a desire to receive retirement income that provides a higher replacement rate than would be provided by public pensions.

1998 reforms of the CPP/QPP

With the changes introduced in 1998, the CPP moved away from pay-as-you-go financing to partial advance funding. Similar reforms were implemented for the QPP. The main changes were the following:

- The premium rate was increased from a combined (employer and employee) rate of 5.6 per cent of pensionable earnings in 1996 to 9.9 per cent by 2003, after which the rate is projected to remain at this "steady-state" level.
- It was decided that the Fund surplus would be invested more broadly in the market in a diversified portfolio of assets, following the practice of large employer funds in Canada and other countries.

Box 4.1. **Public pension plans** (*cont.*)

- The Year's Basic Exemption – the earnings level below which premiums are not levied – was frozen at C$3 500 and thus will decline in real terms over time.
- Benefits were modestly reduced: a five-year average of the year's maximum pensionable earnings is used to calculate retirement pensions rather than a three-year average; the maximum death benefit was frozen at C$2 500; eligibility conditions were tightened; and payments for disability benefits reduced.

Latest assessments suggest that the CPP and QPP are on sustainable paths

According to the 20th Actuarial report for the CPP, published in April 2004, the federal court of appeal decision to broaden the interpretation of the legislative provision related to employer contribution refunds has had the effect of lowering CPP contributions. This had put future financial sustainability at risk. However, if a number of clarifications regarding employers' contributions are introduced into the Plan, the report confirms that "the legislated contribution rate of 9.9 per cent for 2004 and thereafter is sufficient to pay for future expenditures".

According to the most recent Actuarial report for the QPP published in 2001, the contribution rate of 9.9 per cent that is applicable since 2003 is sufficient to pay future benefits.

Source: Office of Chief Actuary (2004), International Reform Monitor (2004), Régie des Rentes du Québec (2001), Régie des Rentes du Québec (1998).

level. However, clear fiscal objectives are set by the government in the budget formulation process:

- Since the elimination of the deficit in 1997, the objective has been to reach a balanced budget or better each year, after setting aside contingency and prudence reserves. If the annual contingency reserve of C$3 billion is not needed during the course of the year, it is used to reduce debt. A prudence margin of C$1 billion is also kept for unexpected spending or revenue shortfalls. If not required, it can go toward debt reduction or for spending or revenue measures. The prudence margin was re-established in the 2004 federal budget after an interruption of a year.
- In the 2004 budget the objective to lower the federal net debt-to-GDP ratio to 25 per cent within 10 years was also formally introduced.

Until the mid-1990s, a four-year fiscal framework was used, but the government found that consolidation was hard to actually deliver, so to enhance its credi-

bility and be held accountable for meeting its targets, it switched to making its budget decisions over a two-year planning horizon. Detailed budgets are presented for both years in nominal terms that sets out the government's priorities and plans. The budget's macroeconomic assumptions are based on an average of private-sector forecasts. Some estimates of the risks stemming from changes in economic assumptions are presented in the Budget Plan, but they are very limited (for example, shocks to real GDP, inflation and interest rates) and are for two years only. The impact of new measures is assessed over the two fiscal years. An exception is for equalisation and territorial financing, for which renewal is examined up to five years.

With its focus on the short-term framework, conservative assumptions and tighter expenditure management since 1995, the government has succeeded in regularly exceeding its fiscal targets and restoring credibility to the budgeting process. Given that the federal deficit has turned to a surplus and against the background of the forthcoming pressures from ageing and rising health care spending, there has been a gradual shift toward adding a more medium-term orientation to the budget process. However, this evolution has thus far been limited to the introduction of the objective for the federal net debt-to-GDP ratio in the latest budget.

Budgeting practices vary widely across provinces and territories. Several provinces have multi-year plans, ranging from two to four years (Table 4.1). In its latest budget, the Ontario government extended its planning horizon from two to four years. All provinces except Prince Edward Island and Newfoundland and Labrador have fiscal rules, generally requiring their budgets to be balanced over a specified time horizon.[2] In most cases, a surplus in one year can provide an accounting reserve to be drawn on if a deficit is incurred in a subsequent year. In addition, the legislation in many provinces allows exemptions for special events. In some provinces, a commitment to lower debt is enshrined in legislation.[3]

Table 4.1. **Provincial budgeting horizons**

Province	Budgeting horizon
Federal government	2 years
Newfoundland and Labrador	1 year
Prince Edward Island	1 year
Nova Scotia	1 year plan/3 year outlook
New Brunswick	1 year
Quebec	2 years
Ontario	4 years (1 year plan/3 years outlook)
Manitoba	4 years
Saskatchewan	4 years
Alberta	3 years
British Columbia	3 years

Source: 2004 Provincial Budgets; 2004 Federal Budget Plan.

Although restricting fiscal planning to the short term can help to keep the pressure on consolidation, it can also have a number of drawbacks. There is a risk that balancing the budget year by year, as targeted at the federal level and in most provinces, could lead to pro-cyclical fiscal policy. This would be the case if the contingency and prudence reserves at the federal level prove insufficient in case of a severe cyclical downturn and lead the government to tighten fiscal policy at the wrong time. Moreover, a short-term focus can have adverse effects on resource allocation. It could tend to squeeze discretionary spending, in particular investment, which is most easily cut, and lead to neglect of structural reforms. It also could create incentives to use off-budgetary funds, public-private partnerships and loan guarantees, which all make spending commitments less transparent and which may be subject to less public scrutiny (Joumard *et al.*, 2004).

Another limitation of the current framework is that the objective to pay down net public debt, while a welcome step in the right direction, is set only at the federal level. However, spending on education and health care, which will have the greatest impact on sustainability, are both under provincial jurisdiction. Furthermore, as seen in Chapter 1, a number of provinces' finances are likely to be on an unsustainable path if current trends continue. Focusing only on the federal net debt thus appears insufficient, as such an objective can mask diverging patterns between the different levels of government. Given the complex inter-linkages between federal and provincial budgets (through transfers and equalisation payments), the federal net debt target cannot usefully be viewed in isolation. A better alternative would be to set a net debt objective in terms of general government as a whole, or to agree to harmonise debt repayment objectives across all provinces and the federal government.

The federal net debt-to-GDP objective of 25 per cent is consistent with analyses of fiscal sustainability based on intergenerational fairness related to the impact of population ageing. For instance, a simple, exogenous growth model indicates that the federal net debt-to-GDP ratio would have to fall by approximately 50 percentage points from its highest level of about 75 per cent in the mid-1990s to offset the negative effect on GDP per capita of the baby boomers' retirement (Scarth, 2004). More sophisticated, endogenous growth models would not alter significantly this conclusion. While the budget documents mentioned that reducing the debt would help Canada to better cope with developing pressures related to the ageing of the population, they did not underline economic analyses such as that mentioned above. Spelling this out more clearly would help to increase the general public's awareness of the necessity to strengthen the analysis toward more medium to long-term horizon as ageing pressures mount.

Adding medium and longer-term elements to the fiscal framework

All levels of government would benefit from integrating more medium-term elements into the fiscal framework to complement the present short-term

emphasis. It would allow a better allocation of resources, as spending programmes could be evaluated in terms of their medium-term rate of return rather than their short-term impact (see Chapter 3). It would also increase transparency and credibility of the policy-making process, as it allows the government to present the impact of new major measures in the budget documents, especially where implementation is phased in over a period of years. Integrating long-term elements would also be useful, as it would make it possible to examine the effect of demography and other long-term trends on public finances. In particular, this would give insights on whether or not the current federal "balance or better" objective is sufficient to cope with future ageing pressures. Moreover, a long-term assessment would also be useful for checking whether spending and taxation decisions impact on different generations reasonably fairly.

Provinces that have adopted fiscal rules can gain some additional advantages, as there is evidence that fiscal rules are more effective when combined with an extended planning horizon (Joumard *et al.*, 2004). Indeed, this combination allows a proper accounting for the future costs associated with current spending programmes and the avoidance of arbitrary short-term spending adjustments. However, the provinces currently plan their budgets independently of the federal government. A longer planning framework and horizon would also enable governments to better co-ordinate their policies.

However, medium-term projections in budgets should be used with care. Indeed, there is a risk that expenditure forecasts are viewed by spending ministers as a confirmation of entitlement to future funding, a problem encountered with the medium-term framework in place in Canada in the early 1990s. Moreover, even if long-term trends are generally well understood, there is a degree of uncertainty about the nature and timing of these developments that can make them difficult to quantify in a medium-term analysis. Projections of those fiscal variables that depend on the economic cycle are surrounded by even greater uncertainty.

A less ambitious approach than explicitly extending the budgeting horizon would be to complement the budget documents by analyses of long-term sustainability. Various OECD countries including Australia, New Zealand, Norway and many EU countries already publish their own long-term reports or include information on the long-term situation in their annual budgets. In some cases, the requirements for long-term analyses are even legislated (see Box 4.2). The United States publishes assessments of the long term either as part of budget preparations or as separate stand-alone policy briefs (see Congressional Budget Office, 2003). Some moves in that direction are also visible in Canadian provinces. In the Fiscal Transparency and Accountability Act proposed in the 2004 budget, the Ontario government aims to enhance transparency mechanisms by the publication of a long-term report.

Box 4.2. Examples of legislated requirements for long-term analysis

The 1990s saw the development of a variety of fiscal frameworks in different countries that recognise the importance of longer-term implications of current fiscal policies. This box provides some examples.

Code for Fiscal Stability 1998 in the United Kingdom

The Code requires fiscal and debt-management policy to be formulated and implemented in accordance with a set of five key principles: transparency, stability, responsibility, fairness and efficiency. A number of other commitments follow from this. For example, governments must state explicitly their short- and long-term fiscal policy objectives and must ensure these objectives are consistent with the fiscal principles embodied in the Code.

Charter of Budget Honesty Act 1998 in Australia

Fiscal policy should be set in a sustainable medium-term framework. Among the principles of sound management, the government should manage prudently the fiscal risks the Commonwealth of Australia faces, including by: maintaining Commonwealth general government debt and contingent liabilities at prudent levels; ensuring that fiscal policy contributes to achieving adequate national saving and, as appropriate, to dampening cyclical fluctuations in economic activity, taking account of the economic risks the nation faces and their impact on the Commonwealth's fiscal position; pursuing spending and taxing policies that are consistent with a reasonable degree of stability and predictability in the level of tax burden; maintaining integrity of the tax system; and ensuring that when policy decisions are made, their financial effect on future generations is considered.

Fiscal Responsibility Act 1994 in New Zealand

The Act provides the legislative framework for the conduct of fiscal policy in New Zealand. It aims to improve fiscal policy by establishing five principles of responsible fiscal management and by strengthening the reporting requirements on the Crown. The principles are: increase the transparency of policy intentions and the economic and fiscal consequences of policy; bring a long-term (as well as an annual) focus to budgeting; disclose the aggregate impact of a Budget in advance of the detailed annual budget allocations; ensure independent assessment and reporting of fiscal policy; and facilitate parliamentary and public scrutiny of economic and fiscal information and plans.

Source: New Zealand Treasury (1995); Commonwealth of Australia (2002); HM Treasury (1998).

Incorporating already available tools in the fiscal framework

A number of different methods to assess long-term sustainability are available. The more common approaches range from the computation of simple indicators (net debt or accrual-based balance sheets) to long-term projections or indicators derived from inter-temporal budget constraints (inter-temporal budgets and fiscal gaps). Some more sophisticated techniques derive measures of generational fairness by using micro-simulation models (generational accounting systems). Indicators of net debt or balance sheet positions appear to give limited insights on fiscal sustainability, as they provide information only on the current state of public finances. In contrast, the other approaches are forward-looking and thus more suitable indicators of sustainability, but as they are assessed over very long time horizons, they are also uncertain.[4] Generational accounting is the only technique that allows the computation of inter-generational fairness and is usually considered as a helpful complement to the other approaches. More generally, all these methodologies provide only partial analyses of sustainability, and therefore a cautious approach would be to present results from a broad range of complementary results.

Most of these techniques have already been applied to Canada in recent years (Table 4.2 lists some examples). But the outcomes are scattered in various studies and rely on different scopes (provinces *versus* federal, total public spending *versus* health care spending), so that they fail to give a clear overview of the fiscal sustainability for general government as a whole. More importantly, except for net debt and accrual-based balance sheets, they are not integrated in the fiscal planning framework. It is thus difficult to see whether current fiscal decisions are addressing the long-term challenges in the most efficient way.

One alternative would be to publish an annual report on long-term public finances as a complement to the budget documents. This approach is currently followed by the UK Treasury: its *Long-Term Public Finance Report* sets out a comprehensive

Table 4.2. **Some examples of studies on fiscal sustainability in Canada**

Methods	Sample of study for Canada
Net debt or accrual-based balance sheet position	Federal Budget (2004).
Long-term forecasts	Robson (2001); Jackson and Matier (2002); Ruggeri (2002); Jackson and Mc Dermott (2004); Conference Board of Canada (2004a).
Fiscal gaps	Matier *et al.* (2001); Kennedy and Matier (2003).
Generational accounting system	Oreopoulos and Kotlikoff (1996); Oreopoulos and Vaillancourt (1997); Lu *et al.* (2003); Gupta and Kapur (2003).

Source: OECD.

picture of the sustainability of public finances and an indication of the degree of inter-generational fairness using a range of indicators (HM Treasury, 2002 and 2003). Denmark also routinely publishes an indicator of fiscal sustainability for general government in its budget documentation, while the Swedish authorities started publishing long-term general government fiscal projections as an annex in the 2004 Budget.

Another option would be to contract out this type of report or the construction of the necessary tools to an independent agency (Kotlikoff, 1997). In the Canadian context, this would have the advantage of setting the task outside the current dynamic of federal-provincial relations while providing an important analytical tool to both levels of government. Independence would enhance the credibility of the findings, as well as provide an objective perspective to the public debate. Such a report would complement existing official budget publications and provide the public with further scope to assess whether the decisions made by governments are consistent with their long-term objectives. It could be published at regular intervals to monitor how the governments are progressing in meeting those objectives. Presenting results obtained under reasonable alternative assumptions would give some insight into the uncertainties surrounding the outcomes.

Ensuring the sustainability of the health care system

As seen in Chapter 1, the health care system presents the main risk to fiscal sustainability. If the enrichment rate is any faster than economy-wide productivity growth, which on past trends looks entirely plausible, most provinces are likely to experience unsustainable rates of growth in their health spending. The probability of being on an unsustainable path will even be higher if prices increase faster in the health sector than in the economy as a whole. Moreover, the system suffers from a number of weaknesses, which have emerged most obviously through public discontent over excessive waiting times for treatment. Changing a number of features in the institutional framework to enhance incentives for providers to improve the efficiency of health care delivery would help address these immediate issues and facilitate the longer-term control of costs in the health sector. Canada is not alone in grappling with these issues: OECD Health Ministers met recently to share their common experiences and learn from one another (see Box 4.3).

Current situation and forthcoming pressures

Canada has a predominantly publicly financed, privately delivered health care system, known as "Medicare". The system provides access to universal, comprehensive coverage for medically necessary hospital, in-patient and out-patient physician services (see Box 4.4). After a period of cost-containment policies from 1992 to 1998, which led to a drastic fall in health spending as a per cent of GDP,

Box 4.3. Conclusions of OECD Health Ministers meeting, May 2004

OECD Health Ministers met in May 2004 to discuss the results of the OECD's three-year Health Project, which had investigated ways to improve the performance of health systems. They noted that all OECD countries are facing challenges with the financial sustainability and efficiency of their health systems and with how to provide high-quality health care to all. Yet they agreed that there is no single, ideal health care system, because values, traditions and institutions differ across countries.

Taking into account national differences where appropriate, Ministers concluded that OECD countries should:

- build upon current success in improving life expectancy and health status by using the most cost-effective means to provide the highest quality of health care to their citizens;
- attach priority to illness prevention and promotion of healthy lifestyles in the face of rising threats to health, such as obesity, tobacco, alcohol and drug abuse, mental disorders and traffic accidents;
- reduce the lingering disparities in health and access to healthcare in OECD countries;
- continue to secure the financial sustainability of their health care systems; if private health insurance plays a role in this task, it requires a well designed regulatory framework to support its development;
- strive to achieve the gains in productivity that are required to contribute to financial sustainability and to improve quality of care;
- do more to encourage industry to develop innovations that meet health needs in an affordable way;
- ensure that long-term care offers quality and choice, and is affordable; and
- make sufficient investment in human resources and their professional development to meet the future demand for health care.

Source: Final News Release – Meeting of Health Ministers, Paris, 13-14 May 2004.

total health expenditures have increased markedly since 2000 (Figure 4.2). At 9.6 per cent of GDP in 2002, they were one of the highest amongst the OECD countries, 1.7 percentage points above the OECD average.[5] However, high spending systems do not necessarily imply good performance, as the share of GDP devoted to health care says nothing about the quality of care, health outcomes and effectiveness, or about the distribution of health care consumption. Despite high overall spending, last year's SARS epidemic underlined some limitations of the system, in particular human resource shortages in Ontario and the province's lack of capacity to respond to a public health emergency, along with shortfalls with respect to infection control (Walkers, 2004).

Box 4.4. Main features of the Canadian health care system

The management and delivery of health services is the responsibility of each province. Provinces plan, finance and evaluate the provision of hospital care, physician and allied health care services, some aspects of pharmaceutical prescriptions, and public health. The federal government assists in the financing of provincial health care and administers the national principles set out in the Canada Health Act. This Act requires that the health insurance plan of a province must be publicly administrated, comprehensive, universal and portable across provinces. It must provide reasonable access to insured hospital and physician services.

Primary care

Primary care physicians, half of all active physicians, are usually the initial contact with the formal health care system, and they control access to most specialists and many allied providers, hospital admissions, diagnostic testing and prescription drug therapy. Most doctors are private practitioners who work in independent or group practices and have a high degree of autonomy. Private practitioners are generally paid on a fee-for-service basis and submit their service claims directly to the provincial health insurance plan for payment. Physicians in other practice settings may also be paid on a fee-for-service basis but are more likely to be salaried or remunerated through an alternative payment scheme.

Hospitals

Over 95 per cent of hospitals are operated as private, non-profit entities run by community boards of trustees, voluntary organisations or municipalities. Hospitals have control of the day-to-day allocation of resources, provided they stay within the operating budgets established by the regional or provincial health authorities. Hospitals are primarily accountable to the communities they serve. The for-profit hospital sector comprises mostly long-term facilities or specialised services.

Medicare coverage

Canadians do not pay directly for insured hospital and physician services, nor are they required to fill out forms for insured services. There are no deductibles, co-payments or dollar limits on coverage for insured services. Supplementary health services are largely financed out-of-pocket or by private insurance. Most provinces restrict private insurers from offering coverage for those services included in the benefits package of the government programmes. Provinces provide public coverage for other health services that remain outside the national health insurance framework for certain groups of the population (seniors, children, welfare recipients). These services include, for instance, prescription drugs (outside hospitals) and home care. Worker compensation boards are funded by employers and are allowed by legislation to purchase health care services either publicly or privately for injured workers, providing them with preferential access to diagnostic services and treatments.

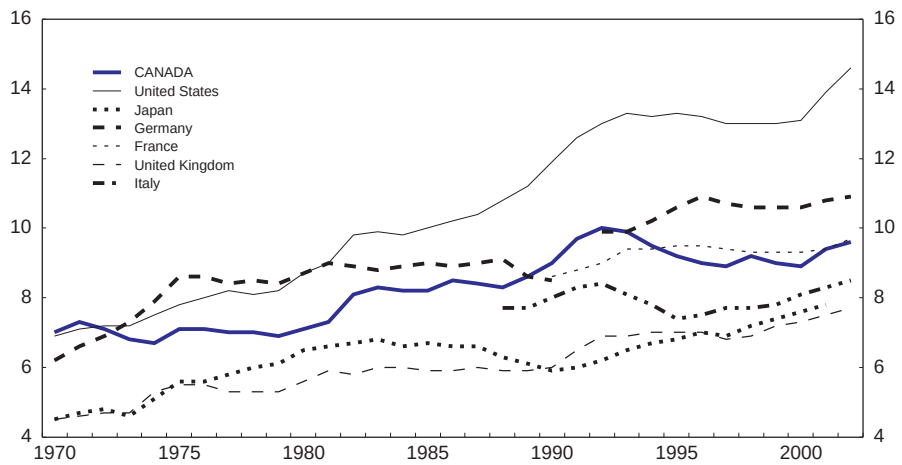
Box 4.4. **Main features of the Canadian health care system** (*cont.*)

Funding

Around 70 per cent of total health care spending is public expenditure, which is financed primarily through taxation. Federal support to health care is provided through the Canada Health Transfer and Health Reform Fund, direct federal contributions (*e.g.* for First Nations or veterans' health) and through a portion of Equalisation payments. A large part of financing is raised at the provincial/territorial level, mostly through general taxation. Some provinces use ancillary funding methods which are targeted for health care. Three provinces (Alberta, British Columbia and Ontario) utilise some degree of earmarked taxation through "health care premiums". All provinces except Ontario channel most of their funding through 5 to 20 regional health authorities. These are largely coordination bodies, charged with matching supply and demand, but they do not raise revenue or make decisions about physicians' services.

Source: Health Canada (2002); OECD (2003b); LeBourdais (1999).

Figure 4.2. **Total health expenditure**
Per cent of GDP



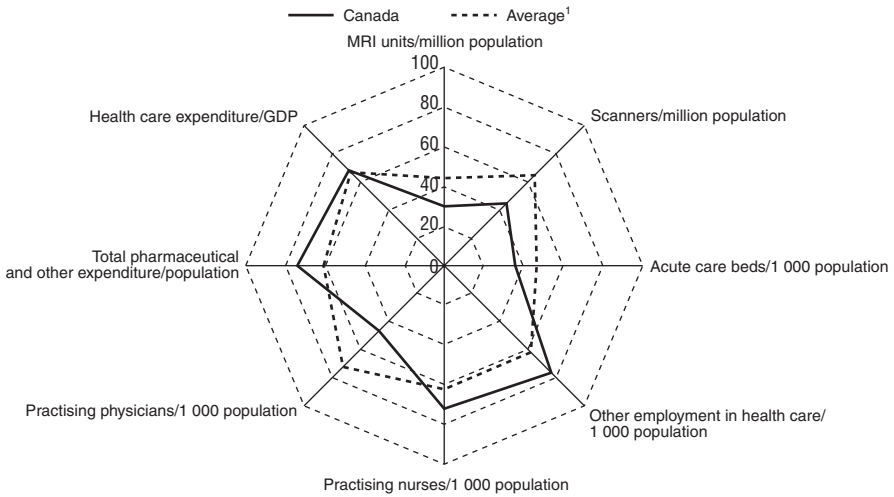
Source: OECD Health Data 2004.

Medical personnel are a key element in any health care system, and Canada has fewer doctors available per head of population than most countries. This ratio has been broadly stable since the mid-1980s, while it has expanded significantly in all other countries (OECD, 2003). This stability can be attributed primarily to a sharp drop in Canadian post-graduates entering practice from 1994 to 2000, due mainly to longer post-graduate training requirements since 1993, a decrease in the intake of medical graduates and reversal of a surge in enrolment at the beginning of the 1990s (Chan, 2002). One consequence has been greater difficulty in finding a family physician as well as longer waiting times for specialist consultations. The country does have a higher proportion of practising nurses than many others, but the ratio shrank over the 1990s at a time when other countries were expanding these inputs. The number of nurses being trained in Canada dropped, and new nurse graduates have been seeking job opportunities outside the country. With health care personnel in a strong market position, increased allocations of resources to health care have shown up as increased wages and salary rates. The median income for health professionals grew by 15 per cent in real terms from 1990 to 2000, while aggregate median real incomes rose by only 3.3 per cent (Galarneau, 2004). These signals are important in encouraging people to take up medical training, professionals to remain working, and immigrants to choose to live in Canada.

Canada also ranks low amongst OECD countries in terms of high-tech equipment, with a more limited density of MRIs units and CT scanners (Figure 4.3). It is not easy to determine the optimal level of endowment in high-tech equipment *per se*, given the difficulties in assessing the relative costs and benefits of new technologies, and such advice will be country specific. The return on high-tech equipment must also be assessed against other investments that may be less glamorous, but which may actually make a greater contribution to improving the quality and/or cost of care.

In addition, there are some indications that costs in the health sector are high by international standards. Canada had similar spending as a share of GDP to the average of 13 selected OECD countries in 2001, but inputs into the health care system – in particular the number of practising physicians, MRI units, scanners and acute care beds – were lower (Figure 4.3). This suggests that it had higher aggregate average costs per unit of these inputs than many OECD countries (Oxley and Hurst, 2003). Moreover, indicators also suggest that Canada's productivity level is lower than in many OECD countries, although these data should be interpreted with caution (Table 4.3). Indeed, as primary care is not included in these calculations, the indicators reported in the table are likely to underestimate the true productivity of doctors. Moreover, they do not incorporate information on the quality of health services and therefore provide only very partial information on productivity. Improved data coverage is needed in order to give a more accurate assessment of the situation (see below). Nevertheless, for Canada most of these

Figure 4.3. **Supply of resources**



Note: 2001 or last available year. Values were set at 100 for the country with the highest value for each indicator.
1. Average of 13 OECD countries.
Source: OECD Health Database 2004.

indicators deteriorated from 2000 to 2001, despite increased resources devoted to the health sector.

Reduced emphasis on human and physical capacity and increased demand have contributed to waiting lists for treatments (Figure 4.4), a situation which has attracted considerable political attention in recent months. In 2003, an estimated 4.3 million of Canadians reported difficulties accessing first contact services (18 per cent of those seeking such treatment) and approximately 1.4 million reported difficulties accessing specialised services such as specialist visits, non-emergency surgery and selected diagnostic tests including MRIs, CT scans and angiographies (23 per cent of those seeking such treatment) (Statistics Canada, 2004). Despite the difficulties in constructing reliable measures of waiting times, there is some evidence that waiting times for elective surgery in four Canadian provinces were high in 2000, in particular for hip and knee replacements (Siciliani and Hurst, 2003). In addition, there is some evidence that wait times may be increasing: according to a recent survey of Australia, Canada, New Zealand, the United Kingdom and the United States conducted by the Commonwealth Fund (2004), 44 per cent of Canadian hospital executives reported that waiting times have become longer in the past two years, although Canada fares relatively better on absolute measures of wait times.[6] In any case, the attention paid to waiting lists can exaggerate their impact from a clinical perspective and undue emphasis on reducing them for particular treatments risks diverting resources from more critical priorities.

Table 4.3. **Health productivity indicators**

	Productivity indicators based on discharges[1] per:					
	2000			2001		
	Acute care bed	Practising specialist[2]	Practising physician[3]	Acute care bed	Practising specialist[2]	Practising physician[3]
Australia	41.5	143.1	63.9	42.1	135.2	61.7
Austria	45.9	158.7	91.1	47.5	154.3	89.2
Belgium	. .	87.4	40.0	. .	89.8	. .
Canada	**28.4**	**85.4**	**44.8**	**27.9**	**82.6**	**43.2**
Denmark	54.3	87.9	58.5	55.7	86.5	58.2
Finland	106.4	182.8	83.5	106.8	175.2	80.9
France	61.0	148.1	75.8	63.3	149.6	76.1
Ireland	42.4	. .	57.4	43.3	. .	54.5
Italy	35.7	. .	37.7	32.7	. .	35.3
Luxembourg	30.9	110.9	73.6	30.5	108.3	71.1
Netherlands	26.6	96.3	29.0	27.5	95.5	27.8
New Zealand	. .	291.4	89.7	. .	300.0	96.3
Norway	49.6	76.9	54.0	51.7	77.7	53.9
Spain	39.5	. .	35.4	. .	. .	35.4
Sweden	67.2	75.1	54.1	. .	. .	. .
United States	38.4	78.7	50.9	33.8	62.2	40.8

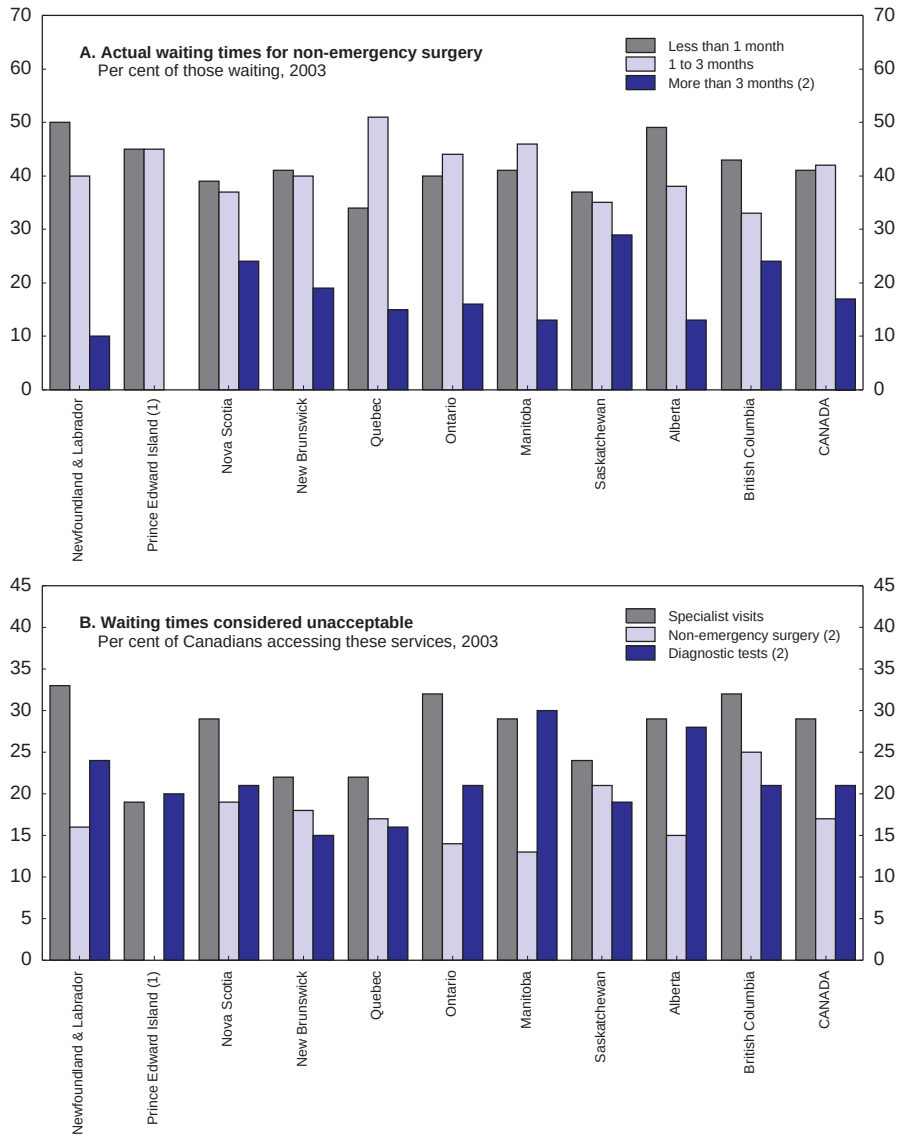
1. Austria, Luxembourg, New Zealand and the United States include same day separations in their hospital discharge data, whereas other countries exclude them.
2. Finland and the Netherlands provide the number of specialists entitled to practice, rather than actively practising specialists.
3. Finland, Ireland and the Netherlands provide the number of physicians entitled to practice, rather than actively practising physicians.

Source: OECD Health Data, 2004.

In addition to addressing these current problems, reforms are needed to manage the risks of unsustainable increases in health spending in the future, as illustrated by long-term projections (see Chapter 1). A number of demand and supply factors have pushed up spending relative to GDP in the past and will continue to do so:

- Ageing is expected to play a much stronger role in the future due to the rising share of the elderly in the total population, although it depends on the extent to which costs are determined by proximity to death (Shehamini and Gray, 2004).
- Technology can be expected to remain an important driver of health-care expenditure, especially if Canada is to catch up from its deficiency in high-tech equipment.[7] Recent developments in medical sciences such as imaging or biotechnology suggest that these trends are likely to continue.
- Drugs are already the fastest rising cost factor in health care in Canada (CIHI, 2004), and many new, potentially expensive drugs are expected to

Figure 4.4. **Waiting times**



1. Some data not provided due to extreme sampling variability or small sample size.
2. Interpret with caution (high sampling variability).

Source: Statistics Canada, Health Services Access Survey 2003.

enter the market in the next decade, further exacerbating upward pressures on overall drug costs. This will also have an effect on public spending if catastrophic drug use is to be covered by Medicare.

– A significant proportion of doctors and other health care workers are expected to retire with the baby boom cohort (CIHI, 2003), and health professionals are retiring earlier than in the past (Gower, 1997). Thus, assuming no change in net migration inflows, supply may fall just as the demand for care for the elderly increases, intensifying current medical staff shortages and leading to upward pressure on wages in the sector.

Recent measures

Several comprehensive official reports – the Fyke Commission (2001), Mazankowski Council (2001), Kirby Commission (2002) and the Romanow Commission (2002) – have addressed the weaknesses of the health system and proposed solutions to increase productivity. But recent measures have been largely limited to injecting more money into the sector. The 2003 First Ministers' Accord on Health Care Renewal led to the provision in the 2003 federal budget of an increase in federal support for health care of C$34.8 billion over five years. An additional C$2 billion of federal funds was also provided to the provinces and territories in the 2004 Federal Budget, bringing total funding under the Accord to C$36.8 billion over 5 years. At the provincial level, 2004 budgets generally included an increase in health care spending, with more support to hospitals, purchases of new resources to reduce waiting lists and increases in training places for medical staff. Given the inevitable delay before additional medical graduates can have a visible impact on the market, it is likely that the sector will continue to suffer from personnel shortages in the coming years. No major measures were announced in the 2004 provincial budget plans to enhance productivity in the sector, but the September 2004 meeting of First Ministers reached agreement on a 10-year Action Plan for Health (Box 4.5).

Improving knowledge of the system

A reliable and comprehensible set of financial data is necessary to make a full assessment of the performance of the health care system, shed light on the effectiveness of different policies and ensure its long-term viability. One of the most important reforms now being undertaken by governments is to improve the information available concerning the sector. For instance, the Canadian Institute for Health Information (CIHI) was given the mandate to provide and coordinate the dissemination of accurate and timely data and information required for effectively managing the Canadian health system. Thanks to joint work by CIHI and Statistics Canada, health status indicators, based on vital statistics, that are

Box 4.5. A 10-year action plan on health

On 13-15 September 2004 the First Ministers met in Ottawa and agreed on a 10-year action plan on health with a view to improving access to care and reducing wait times. The main points of the plan are listed below:

Funding

The federal government agreed, subject to parliament approval, to provide new funding of C$41 billion over 10 years in support of the action plan on health. This will include:

- C$3 billion over two years to as a short-term supplement to the Canada Health Transfer.
- C$500 million in 2005-06 for home care services and catastrophic drug coverage.
- A new Canada Health Transfer base at C$19 billion in 2005-06 and an escalator of 6 per cent as of 2006-07.
- C$5.5 billion over ten years for the Wait Times Reduction Fund.
- A one-off C$500 million for new medical equipment.

The funding provided by the federal government will be used by the government of Quebec to implement its own plan. In addition, the federal government proposes to increase funding to the Northern Territories totaling C$150 million over five years and commits to continued investments to sustain activities in support of health innovation.

Reducing wait times and improving access

The First Ministers committed to achieve meaningful reductions in wait times in priority areas such as cancer, heart disease, diagnostic imaging, joint replacements and sight restoration by 31 March 2007. Quebec will apply its own wait time reduction plan. The Wait Times Reduction Fund will augment existing provincial and territorial investments and assist jurisdictions in their diverse initiatives to reduce wait times.

The First Ministers agreed to collect and provide meaningful information to Canadians on progress made in reducing wait times. Each jurisdiction agrees to establish comparable indicators of access to health care professionals, diagnostic and treatment procedures with a report to their citizens to be developed by all jurisdictions by 31 December 2005. Evidence-based benchmarks for medically acceptable wait times will be established by end-2005 through a process to be developed by federal, provincial and territorial Ministers of Health. Multi-year targets to achieve priority benchmarks will be established by each jurisdiction by end-2007. Provinces and territories will report annually to their citizens on their progress in meeting their multi-year targets. An annual report on the health status and outcomes of all the Canadians will also be prepared.

Box 4.5. **A 10-year action plan on health** (*cont.*)

Strategic health human resource action plans

The First Ministers agreed to continue and accelerate their work on Health Human Resources action plans and/or initiatives to ensure an adequate supply and appropriate mix of health care professionals. They agreed to increase the supply of health professionals, based on their assessment of the gaps and to make their action plans public, including targets for the training, recruitment and retention of professionals by end-2005. They will make these commitments public and regularly report on progress.

Home care

The First Ministers agreed to provide first dollar coverage by 2006 for certain home care services, based on assessed need. Quebec will pursue its own objective of providing more first dollar coverage for some home care services. Each jurisdiction will develop a plan for the staged implementation of these services and report annually to its citizens on progress in implementation. The First Ministers tasked their Health Ministers to explore next steps to fulfil the home care commitment and report to First Ministers by 31 December 2006.

Primary care reform

Work is underway in all jurisdictions to meet the objective of 50 per cent of Canadians having around-the-clock access to multidisciplinary teams by 2011. The First Ministers agreed to establish a best practices network to share information and find solutions to barriers to progress in primary health care reform. They agreed to regularly report on progress and to accelerate the development and implementation of electronic health records, including "e-prescribing".

National pharmaceuticals strategy

The First Ministers directed Health Ministers to establish a Ministerial Task Force to develop and implement a national pharmaceuticals strategy and report on progress by 30 June 2006, although Quebec will maintain its own pharmacare programme. The strategy is intended to develop, assess and cost options for catastrophic pharmaceutical coverage; establish a common National Drug Formulary for participating jurisdictions based on safety and cost effectiveness; accelerate access to breakthrough drugs for unmet health needs through improvements to the drug approval process; strengthen evaluation of real-world drug safety and effectiveness; pursue purchasing strategies to obtain best prices for Canadians for drugs and vaccines; enhance action to influence the prescribing behaviour of health care professionals so that drugs are used only when needed and the right drug is used for the right problem; broaden the practice of e-prescribing through accelerated development and deployment of the electronic health record; accelerate access to non-patented drugs and achieve international parity on prices of non-patented drugs; and enhance analysis of cost drivers and cost-effectiveness, including best practices in drug plan policies.

Box 4.5. **A 10-year action plan on health** (*cont.*)

Prevention, promotion and public health

All governments committed to further collaboration and cooperation in developing co-ordinated responses to infectious disease outbreaks and other public health emergencies through the new Public Health Network. The federal government also commits to building on recent investments in immunization. In addition, governments commit to accelerate work on a pan-Canadian Public Health Strategy.

Source: *News release*, *New Federal Investments on Health Commitments on 10-Year Action Plan on Health*.

comparable across provinces, as well as some health system indicators on physicians and hospitals, are now available online.

But financial performance indicators, notably for the hospital sector, are still missing, despite important efforts geared towards establishing standards for financial and statistical information and establishing national performance indicators. This type of indicator is crucial to get a fair assessment of the relative cost-effectiveness of specific treatments, efficiency of individual hospitals and performance of the sector as a whole. Since the fiscal year 1995-96, CIHI has been collecting annual data from provinces according to a standardised framework and computing a number of financial indicators, including total margins and cost per weighted case. Although the response rate for data submission has improved significantly over the years,[8] not all hospitals provide a complete set of data. More importantly, comparability of the data has still not been achieved, as, for instance, Quebec submits its data in a different format. More than half of the provincial and territorial submissions have been rated with a warning that data can only be used with major *caveats* (CIHI, 2004). Additional problems are related to the diversity in provincial legislation with regard to privacy and confidentiality; this is lengthening delays in collecting data considerably. Therefore, although substantial progress has been made on data collection, reliability and harmonisation in recent years, an overall view of the hospital sector is still missing; and further work on data standardisation is required.

Closing the gaps in the safety net

In contrast to most OECD countries,[9] prescription drugs outside the hospital setting are not covered by the provisions of the Canada Health Act, so that the publicly funded drug coverage varies considerably from province to province. All

provinces have drug programmes covering costs for low-income seniors or recipients of social assistance, and the federal government assumes drug costs for some aboriginals and veterans. Moreover, five provinces provide a protective cap on the cost of drug expenses borne by individuals. Still, a significant percentage of the population have to assume the full cost, either out of pocket or through private insurance coverage. In addition to equity considerations, this situation can lead to inefficiencies, for instance when physicians admit patients to hospital or delay their discharge to spare them the costs of medicines; when cheaper but less effective drugs are prescribed; or when alternative less effective treatment approaches are chosen primarily because they are covered. The loss of coverage in moving off social assistance can also add to the high effective marginal tax rates faced by those on welfare (see Chapter 3). Standardising the coverage at least for all people facing significant pharmaceutical outlays[10] could provide more effective protection, reduce inefficiencies and lead to better health outcomes. Some measures in that direction were announced in the 2003 Accord on Health Care Renewal, but the level of coverage is a provincial decision, so that it is still unclear whether this agreement will reduce differences between provinces (Boothe and Carson, 2003).

In the same vein, home care is considered as an extended service and is thus not insured under Medicare. This has led to a situation where eligibility, scope of coverage and user charges for publicly funded home care vary greatly between provinces, implying inequity amongst Canadians (Conference Board of Canada, 2004b). It also results in some people taking up hospital beds because they cannot afford the support services that would be necessary with an earlier discharge. Moreover, home care still represents a very small part of provincial health budgets, although it is generally considered to be an effective substitute for more costly services and often more in line with patient preferences. The explicit support for home care in the 2003 Accord on Health Care Renewal is a welcome move but is so far limited to a small basket of services. A comprehensive approach to home care development as an integrated part of public health service across the country would reduce current inequalities and facilitate a better allocation of the overall resources in the system. However, as the United States found, these changes are likely to imply also a rapid expansion of home care services. Careful medical guidelines on the appropriate use of home care would need to be established and payment incentives developed that rewarded efficient discharge planning regimens. Such measures are required from the outset to ensure cost containment.

Expanding the basket of services covered by Medicare will require increased public funding, but this could be offset by a rebalancing of the current cost-sharing arrangements. A range of cost-sharing arrangements are possible (see Box 4.6) but, in effect, the public system currently takes an all or nothing approach, whereby services are either reimbursed 100 per cent or not at all. The planned extension of coverage of home care and catastrophic drug care could provide

Box 4.6. Cost-sharing arrangements in health care

Various insurance concepts can be applied to cost-sharing arrangements in health care. These are based on the principle of containing moral hazard, although if these out-of-pocket payments for publicly funded services are in turn covered by private health insurance, their impact in reducing demand for services may be limited.

The *deductible* is an all-inclusive amount entirely paid by the patient before insurance cover begins. The remainder of the cost of care can be on either a co-payment or a co-insurance basis – where the expenses are shared – or entirely taken in charge by the insurer. This deductible can be applied to each service or to the overall amount spent during the contract period. The deductible makes the system of cover and refunding non-linear in its impact. A higher deductible generally combines with a lower premium as the cost borne by the insurer is lower.

Co-insurance is the percentage of the expenditure beyond the deductible that the patient must pay.

A *co-payment* is the amount paid by the patient for a health service and is independent of the total cost of the service. Behaviour is not affected by the total cost of care but by the number of services used.

Maximum out-of-pocket payments or ceilings in cost-sharing policies ensure that subscribers do not face "excessive" expenses during the year, thereby reducing uncertainty and risk.

Source: Docteur and Oxley (2003).

an opportunity to reconsider modest cost-sharing arrangements across a range of health services. This would attenuate the fiscal cost of extending the scope of services covered by Medicare. Such arrangements are common in a number of other OECD countries and, where the initial level of cost-sharing is zero, they can lead to significant reduction in spending on health care (Docteur and Oxley, 2003). However, it is more difficult to ascertain whether they are primarily reducing essential treatment or unnecessary consumption.[11] In any case, co-payments should be limited to avoid having undesirable effects on access and health outcomes. Exemptions for vulnerable groups (for example, children, those on low-incomes, and the elderly) and caps on out-of-pocket spending in case of catastrophic illness or injury could help to prevent these negative effects.

Changes to the institutional framework to achieve greater efficiency

Improving efficiency is an essential part of any strategy for reconciling rising demands for health care with the need for public budget restraint. Providing

the right incentives for key actors in the system is a pre-requisite.[12] In the primary sector, fee-for-service arrangements are used most widely to pay general practitioners and specialists working in ambulatory care, with fee levels negotiated at the provincial level. This approach gives physicians full discretion over the level and mix of services, referrals and other treatment options and is found to be generally associated with shorter waiting lists (Siciliani and Hurst, 2003). However, doctors face incentives to expand the volumes and prices of services they offer, and the risk of supply-induced demand is particularly strong, for example by increasing services provided "in-house" even if there would be advantage in making more use of secondary suppliers.[13] Introducing some form of capitation in the payment arrangements would mitigate some of these negative effects. Indeed, it would create an incentive for physicians to have more patients, as a greater number of registered patients would also mean higher incomes.[14] Increasing numbers of Canada's doctors are moving away from pure fee-for-service payments to blended payment models including salaried components, capitation or some combination of these options. In the second half of the 1990s, the share of spending on physician services that flowed through alternative payment plans increased in all provinces except Quebec (CIHI, 2003). However, only a small percentage of physicians (less than 10 per cent in most provinces) have alternative payments as their main source of funding. Interestingly, one survey showed that 37 per cent of physicians would prefer to be paid by fee for service, while 27 per cent would prefer to be salaried and 21 per cent to receive a blended option, suggesting that there is room to promote mixed rewards further (Canadian Medical Association, 2003). However, there is a risk that moving towards blended payment might exacerbate the present physician shortage, as it depends on how physicians adjust their treatment style. The present fee-for-service system provides a stronger incentive to maximise the number of consultations made per year, and shifting away from this may make it harder to gain access to a doctor. But capitation can lead to more efficient consultations, making space for the doctor to see more patients. This suggests that contracts for those shifting away from fee for service should be very carefully designed to minimise these risks.

Reconsidering the hospital funding mechanisms could increase incentives to improve productivity. In the current system, provinces use a variety of approaches to finance hospitals. In some cases, they rely on a primary funding method to allocate the majority of their funds for operating costs (Table 4.4) and a number of secondary methods to apportion lesser amounts, while funds for capital purposes are provided using a project-based method in all provinces. Population-based, ministerial discretion and global budget approaches are the most common primary funding methods. With these funding methods, decisions are not usually based on detailed cost information, since funding is either decided politically or based on historical trends, neither of which encourages efficiency. By contrast, in the service-based approach, hospitals are reimbursed for the episode

Table 4.4. **Hospital funding in Canada**[1]

Province	Primary funding approach	Secondary funding approach
British Columbia	Line-by-line and population-based	Policy-based
Alberta	Population-based	Policy-based
Saskatchewan	Population-based	None
Manitoba	Ministerial discretion	None
Ontario	Global budget	Multiple[2]
Quebec	Global budget	Multiple[3]
New Brunswick	Line-by-line and population based	None
Nova Scotia	Ministerial discretion	None
Prince Edward Island	Ministerial discretion	None
Newfoundland and Labrador	Ministerial discretion	None

1. The *line-by-line* method involves negotiating amounts for specific line items. With the *ministerial discretion* method, funding is based on decisions made by the provincial minister of health in response to specific requests by the hospital concerned. The *population based* method uses demographic information such as age, gender, socio-economic status and mortality rates to forecast the demand for hospital services. The *global budget* method adjusts previous spending to derive a proposed funding level for the upcoming year. Adjustment can be made to the base amount using a multiplier or a lump-sum amount. With the *policy-based* approach, funding is distributed to achieve specific policy objectives. The *facility-based* method uses characteristics of the hospital, such as size, amount of teaching activity, occupancy and distance from nearest tertiary facility to estimate costs. The *service-based* method uses the volume and type of cases treated by a hospital to determine funding.
2. Policy-based, Facility-based, Population-based and Service-based.
3. Population-based and Policy-based.

Source: Kirby (2002) based on Mc Killop *et al.* (2001).

of care with which the patient is admitted and with the rate based on the type of service performed and the estimated cost of treatment per diagnosis fixed beforehand. But, so far, the prevalence of this type of funding is only marginal in Canada,[15] despite the recommendation of the Senate report (Kirby, 2002).

Shifting the way hospital budgets are allocated toward service-based funding mechanisms is thus likely to be a fruitful avenue. This would change the financing perspective from paying hospitals a specific amount to meet their anticipated needs to paying them according to what they actually do, thereby providing stronger incentives for hospitals to become more efficient as well as pin-pointing where their strengths and weaknesses lie. In addition, it would improve accountability for the use of public funds, as well as the independence of hospitals from local governments. The experience from a number of OECD countries using this approach is that it raises activity, sometimes significantly, and thereby is a key factor for reducing waiting times (Siciliani and Hurst, 2003). A major drawback of service-based funding is that it can lead to over-servicing, especially if hospital-based specialists are paid under a fee-for-service scheme, as is the case in Canada. Nonetheless, this issue could be addressed by having hospital-based specialists paid under a different remuneration scheme, as in Sweden and the United Kingdom. As the final remuneration is linked to the severity of the case and the corresponding resources required, another danger is that hospitals have an incentive to upgrade patients into more costly diagnostic groups or to avoid costly patients by

selection. A system of audits and penalties would need to be put in place to prevent this type of abuse. As the implementation of this funding arrangement cannot be done without reliable measures of the costs of all types of treatment, which are not currently available for all provinces, further work on improving financial management data is necessary, as mentioned above.

Strengthening the role of RHAs

The system could benefit from moving toward more management and governance of health care at the regional level by strengthening the role of Regional Health Authorities (RHAs). In the past two decades all provinces except Ontario have devolved responsibility for the management of parts of the health care system from provincial governments to RHAs. Their responsibilities are generally limited to hospital services, although in some provinces, they also cover laboratory services, long-term care, home care and a variety of other health services. These services are provided by RHAs through contracts with private, not-for-profit and private, for-profit organisations. However, physician services, prescription drugs and cancer care continue to be administrated and funded centrally by provinces. Moreover, a number of barriers prevent RHAs from functioning to their fullest potential. For instance, in some provinces, RHAs' budgets are almost entirely determined by governments, and RHAs have very limited options if they are unable to meet the population's needs with their existing resources other than lobbying the provinces for increased funding.

Giving RHAs responsibility for the full range of health services would enable them to have better control over the allocation of resources and result in a better integrated system. Moreover, a more widespread application of internal market principles based on RHAs acting as purchasing agents with the possibility to buy from for-profit and non-profit institutions would foster effective management of health services and provide the incentives for providers to become more efficient and cost-effective. In addition, this approach would introduce much greater transparency into the system and increase accountability of the different agents (Kirby, 2002). However, one condition for the market-style incentives to work is to change the method of remunerating hospitals by moving to a service-based approach, as argued above.

Increasing the coverage of private insurance

With rising concerns about excessive waiting lists, the question of allowing private insurance to cover core services has been at the centre of the debate. In the current system, private insurance covers only items not explicitly offered by the public scheme. This means that individuals have to pay out of pocket if they want to have a more rapid access to care than provided by the current system.[16] This situation is almost unique in the OECD countries and was motivated by the

belief that insurance that duplicates public coverage enables high-income people to jump the queue at the expense of the poor (Cutler, 2002). There are also concerns that if the rich can opt out of the public system at will, their demand for a high-quality public sector may decline, potentially leading to an unravelling of support for public insurance (Gouveia, 1997).

There could be some potential advantages for the economy as a whole to increase the coverage of private insurance, although these advantages may be limited in a single-insurer model like Canada's where administrative costs are low. Allowing private insurance for services already covered by Medicare could, in theory, attenuate fiscal pressure on public health budgets by bearing costs that would otherwise be borne publicly. But evidence from Australia and Ireland suggests that privately insured persons tend to continue to rely on publicly financed services, resulting in little cost-shifting. More importantly, competition among insurers could encourage them to improve services to the insured and could also create more consumer choice by promoting innovation amongst insurers. It may also improve information for suppliers, as people are able to indicate their personal preferences directly, and increase welfare for those who were previously prohibited from taking out private insurance (see previous S*urvey*). Although private insurance premiums are regressive, increasing the coverage of private insurance would not necessarily lead to a worse situation for those on low incomes. Indeed, if an expansion of private insurance coincided with greater supply capacity,[17] it could also help to shorten waiting times for those without additional private insurance. A multi-payer system can make it difficult to maintain equity of access and financing if private insurers are allowed to "cream-skim". However, government restrictions on risk-based selection could improve the equity of outcomes from private health insurance markets, even though in practice such measures are difficult to implement.

Making more use of new technologies

A central element in enhancing the efficiency of health care services is the development of electronic health records, which is currently underway in most provinces. The objective is to provide each individual with a secure and private lifetime record of his or her key health history and care stored within the health system. In theory, if fully implemented[18] and fully interchangeable between provinces, this database could improve the quality and the responsiveness of the health care delivery system. However, in practice, a lack of co-ordination between provinces, leading to the creation of different systems, has increased the technical problems, rendered the process longer and more expensive, and carried the risk that the end result is less useful. The setting of electronic health records was given explicit support in the 2003 Accord on Health Care Renewal, and further efforts by the federal government or provinces to accelerate the process would be welcome.

Federal-provincial funding arrangements

Most of the changes suggested above are likely to increase health care productivity and help to keep costs under control, thereby freeing up more resources to be re-allocated to address the issues of medical staff shortages or under-investment in high-tech equipment. Given the lack of reliable information on financial performance in the sector, it nonetheless remains unclear whether these efficiency gains will be realised and if they will be sufficient to obviate the need for additional funding.[19] Even if they are, many of the proposed reforms will take time to fully implement, and some measures such as the extension of Medicare to catastrophic pharmaceutical coverage and home care have led to calls for more funding from the federal government, which the 10-year Action Plan now provides.

The past experience of *ad hoc* increases in federal funds for health care has not been satisfactory. F*irst*, these injections of funds were irregular and unpredictable and made it more difficult for provinces to manage an efficient resource allocation strategy. S*econd*, they did not incite the provinces to make the appropriate reforms to improve efficiency in the health sector (or in other sectors they are responsible for), as long as they believed that they could eventually count on additional federal government funds. T*hird*, to the extent that the general government balance is worsened, they shifted costs onto subsequent generations (Robson, 2001).

The 10-year Action Plan for Health Care recently signed by the First Ministers, which, *inter alia*, establishes a medium-term federal health funding formula, is a welcome step. With this approach, federal funds are being earmarked for health care, facilitating efficient multi-year planning for allocating resources to health care at the provincial and territorial level. However, the value of this agreement would be seriously undermined if provinces continued their past practice of seeking to renegotiate for further funds on an *ad hoc* basis. Instead it needs to be clearly understood that these funding arrangements would remain impervious to any renegotiation efforts by provinces. Provincial authorities should now focus their full attention on reforming the identified weaknesses in the health care sector's institutional structures and achieving efficiency gains so as to minimise the upward pressure on overall health spending levels that are expected to persist as the population ages.

Concluding remarks and priorities for policies

This chapter has reviewed two areas where adjustments could be made to more pro-actively prepare the economy to face future ageing pressures and ensure that general government's public finances will stay on a sustainable path. Given the sharing of responsibility between the federal government and provinces in Canada, these changes will have to be made both at the federal and the provincial and territorial levels.

To adapt the fiscal framework in light of the economy's long-term challenges, the following changes could be made:

- Introduce more medium-term elements in the current framework. While keeping the present fiscal planning horizon for budget management purposes, this could be done by regularly publishing a report which would present a range of long-term fiscal indicators and assess whether current policy adequately addresses future needs. Ideally, an independent institution should be responsible for the production of this analysis, which should complement existing budget documents.

- Focus on the fiscal situation of the general government. This could be achieved by setting a policy objective in terms of the net debt-to-GDP ratio for the general government level or by co-ordinating or harmonising federal, provincial and territorial debt objectives.

To improve efficiency of the health care sector, priority should be given to:

- Making further progress on data coverage and reliability to pinpoint the weak spots of the sector. In particular, indicators of productivity in the hospital sector are missing and prevent the implementation of reforms to funding arrangements.

- Increasing incentives for physicians and hospitals to enhance their efficiency by modifying funding mechanisms. Some combination of capitation with fee-for-service funding could be used more extensively for physicians, although contracts would need to be carefully designed to ensure that access problems were not exacerbated. A service-based approach could be adopted for hospitals, with adequate measures to prevent over-servicing and "cream-skimming".

- Strengthening the role of Regional Health Authorities by extending their responsibilities and developing the use of internal market principles.

- Re-balancing the present all-or-nothing co-payments system, in the context of extending the coverage of Medicare to home care and catastrophic drug costs, by applying modest user changes across a range of services, with suitable safeguards against inequitable outcomes.

- Limiting federal transfers for health care to the funding arrangements set out in the 10-year Action Plan for Health.

In addition, standardising the drug coverage for people facing significant pharmaceutical costs and integrating home care in the list of insured services covered by Medicare would reduce inequities and inefficiencies, and lead to better health outcomes.

Notes

1. There is no universally accepted definition of sustainability. In the analysis presented in Chapter 1, the ratio of health spending to GDP is used to assess sustainability, and projection of this ratio is compared to the historical average.
2. Balanced budget acts were in most cases adopted in the mid-1990s, except in British Columbia (2002), Nova Scotia (2000) and Ontario (1999).
3. Alberta and Manitoba have already enacted detailed timetables for the repayment of outstanding debt. Indeed, in July 2004 Alberta announced that it had achieved debt-free status. In Saskatchewan, the Balanced Budget Act requires that budget surpluses be applied to debt reduction. In 2004, the commitment to reduce debt was legislated in Nova Scotia. Ontario's most recent Budget Plan proposes a fiscal principle and the objective "to maintain a prudent debt to GDP ratio".
4. Uncertainties have been used by Canadian policy makers to downplay the role of projections of fiscal gaps. However, calculations of confidence intervals based on making explicit the stochastic nature of the projections could help to increase the usefulness of these indicators.
5. This high expenditure level may to some extent reflect the need to pay high wages for professional staff to compete with the United States, especially in certain border areas where health and other workers may cross the border daily.
6. One-third of the Canadian respondents indicated that patients often, or very often, wait six months or more for elective surgery (compared to 57 per cent in the United Kingdom, 42 per cent in New Zealand, 26 per cent in Australia and 1 per cent in the United States).
7. Indeed, progress in medical technology is estimated to have been responsible for more than half of the cost increases in the United States (Newhouse, 1992; Cutler and McClellan, 1996). But lower estimates of the contribution of technical changes to health expenditure growth can be also found in the literature (Lewin Group, 2002).
8. The response rate now exceeds 90 per cent of all hospitals.
9. All OECD countries have public reimbursement systems except Turkey, the United States and Canada (Docteur and Oxley, 2003).
10. For example, Sweden operates a sliding scale of coverage for pharmaceuticals. Each year the patient pays the entire cost up to the equivalent of the first C$160 and then there is a rising scale of subsidy so that no person pays more than C$320 in any 12-month period. New Zealand reduces co-payments to a nominal amount after the first 20 prescription items in any year, as well as operating separate schemes for low-income groups and seniors.

11. In January 2004, Germany, which also used to have consultations without patient charges, introduced a fee of 10 euros for initial consultations. Preliminary results suggest that this change was followed by a 10 per cent fall in visits to doctors in the first quarter of 2004. However, it is unclear what percentage of this fall was for unnecessary consultations (Lauterbach, 2004).
12. Access to specialists *i.e.* whether patients have indirect access through a gatekeeper (as in Canada) or direct access, could also impact the overall system performance (Levaggi and Rochaix, 2004). Predominance of one model over the other will depend *inter alia* on the patient's preferences, physicians' payment arrangements and the presence of information asymmetry.
13. This risk is diminished by the presence of regulations regarding self-referral by physicians in most provinces (except Nova Scotia, Prince Edward Island, Newfoundland and Labrador). However, whether these regulations provide sufficient protection to consumers can be questioned (Choudhry *et al.*, 2004).
14. Theoretical arguments also suggest that mixed rewards outperform a pure fee-for-service system in an environment of information asymmetry, by reducing the welfare losses that arise when, under administrative price arrangements, fees are set at the "wrong" level, *i.e.* away from the level where marginal costs and benefits of services are equal (Newhouse, 1996).
15. Service-based funding was introduced in 2001 in Ontario with a plan for it to be progressively extended. So far, only a small proportion of hospitals have the financial management systems in place to make service-based allocations possible.
16. The current court case Chaoulli *versus* Quebec provides an interesting illustration of this. The plaintiff had to wait close to a year before having hip surgery. His legal action is based on his desire to pay a private provider for surgery to shorten the wait and to purchase private insurance in the future. The Supreme Court will determine whether an individual may purchase care that is available in the public system but not provided in a timely fashion.
17. An imponderable issue affecting capacity is the extent to which private insurers might be willing to cover treatment by US health care providers, thereby sidestepping the shortage of Canadian medical personnel.
18. The Romanow report (2002) recommended that all provinces and territories move to electronic forms with full inter-operability by 2010.
19. The Kirby, Mazankowski and Romanow reports on health care all recommended increasing funding, in addition to measures to make the system more efficient.

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