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ECONOMIC SURVEYS

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

CANADA

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

JANUARY 1981

# BASIC STATISTICS OF CANADA

## THE LAND

Area (thousand sq. km.)	9 976	Population of major cities, including their metropolitan areas (1976 census):	
Agricultural area (% of the total area) 1977	6.4	Montreal	2 802 485
		Toronto	2 803 101

## THE PEOPLE

Population (1.1.1980)	23 809 800	Civilian labour force (1979)	11 207 000
Number of inhabitants per sq. km.	2	Employment in agriculture (1979)	483 000
Population, annual net natural increase (average 1975-1979)	191 200	Immigration (annual average 1975-1979)	130 000
Natural increase rate per 1 000 inhabitants (average 1975-1979)	8.2	Average annual increase in civilian labour force (1975-1979, %)	3.0

## PRODUCTION

GNP in 1979 (millions of Canadian dollars)	260 305	Origin of gross domestic product (1979, % of total):	
GNP per head (Canadian dollars)	10 997	Agriculture, forestry and fishing	4.5
Gross fixed investment (private and public) per head (Canadian dollars)	2 509	Mining and quarrying	5.3
Gross fixed investment (private and public) as % of GNP	22.9	Manufacturing	21.6
		Construction	6.1
		Public administration	7.5
		Other	55.0

## THE GOVERNMENT

Government current expenditure on goods and services (average 1975-1979, % of GNP)	20.3	Composition of Parliament (Number of seats):		
Government gross fixed capital formation (average 1975-1979, % of GNP)	3.3		House of Commons	Senate
Federal Government current revenue (average 1975-1979, % of GNP)	17.3	Liberals	147	72
Federal direct and guaranteed debt % of current expenditure (average 1975-1979, %)	124.0	Progressive Conservatives	103	19
		Social Credit	—	1
		New Democratic Independent	32	—
		Liberal	—	1
		Independents	—	2
		Vacant	—	9

Last election: 18.2.1980

## FOREIGN TRADE

Exports:		Imports:	
Exports of goods and services as % of GNP (average 1975-1979)	26.1	Imports of goods and service as % of GNP (average 1975-1979)	28.5
Main exports, 1979		Main imports, 1979	
(% of commodity exports):		(% of commodity imports):	
Wheat	3.4	Industrial materials	22.1
Newsprint	5.0	Motor vehicles and parts	25.0
Lumber	6.1	Producers' equipment	21.2
Woodpulp	4.8	Consumer goods	16.3
Non-ferrous metals and alloys	3.8	Main suppliers, 1979	
Motor vehicles and parts	18.4	(% of commodity imports):	
Other manufactured goods	20.3	United States	72.4
Main customers, 1979		United Kingdom	3.1
(% of commodity exports):		Other EEC	5.8
United States	67.9		
United Kingdom	4.0		
Other EEC	7.1		

## THE CURRENCY

Monetary unit: Canadian dollar		Currency unit per US \$, average of daily figures:	
		Year 1980	1.1693
		December 1980	1.1967

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

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# CANADA

JANUARY 1981

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;
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\* \*

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by the OECD Economic and Development Review Committee  
took place on 8th December 1980.*

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## INTRODUCTION

In common with general OECD experience, economic policies in Canada have had to cope with a much less favourable socio-economic environment in recent years than in the 1960s. Efforts made to sustain output and employment in the face of the first oil shock and the worldwide recession of 1974-1975 met with some success, but at the expense of a marked deterioration in relative price performance and a widening current external deficit. Thanks to price and income controls, a tighter stance of policy and a large downward adjustment of the exchange rate, substantial results were subsequently achieved in correcting underlying imbalances. In the five years to 1979, however, the Canadian economy experienced below-potential output growth and inflation remained persistently high. In spite of buoyant employment growth, reflecting in part poor productivity performance, unemployment was also much higher than in the early 1970s, due to rapid growth of the labour force. Furthermore, since late 1979 the country has been suffering a pronounced cyclical downturn; in 1980, for the first time since 1954, real GNP is estimated to fall.

As a result of discretionary fiscal measures and below-capacity growth of the economy, the general government deficit rose rapidly in the four years to 1978. This trend in fact reflected an even larger increase in the federal deficit, whereas the combined provincial/local budget position improved markedly after 1976. A major source of divergence has been the increasing importance of the energy sector in the economy and the uneven distribution of the benefits and the burden of higher energy prices both between provinces and the various levels of government. It is largely with a view to improving this situation and restoring more flexibility in federal economic management that a series of measures has been announced within the framework of the October 28, 1980 budget and the accompanying National Energy Program. Among other basic issues, the state of the Canadian economic union in terms of barriers to the free circulation of goods, services and production factors between the provinces has also recently attracted considerable attention.

Part I of the present Survey examines economic developments over the past two years against a background of both experience in other OECD countries and of performance in 1974-1975. The structure and evolution of Canadian government finances and issues associated with federal-provincial fiscal relationships are presented in Part II which also alludes to certain developments which have tended over recent years to affect the Canadian economic union. Part III of the Survey is devoted to a short discussion of energy issues and describes the main features of the Government's National Energy Program. Finally, Canada's short-term economic prospects are assessed in Part IV and some policy conclusions drawn.

## I THE CURRENT DOWNTURN IN RELATION TO 1974-1975 EXPERIENCE

While the last OECD *Survey of Canada*, published in mid-1979, had expected growth to be relatively subdued as OECD area activity was forecast to weaken in the wake of the second oil shock and tighter policies, the extent of the slowdown has proved much more severe. Real GNP actually declined in each of the first two quarters of 1980 and, despite some recovery in the third quarter, for the year as a whole the fall may have amounted to about  $\frac{1}{4}$  per cent. Inflation has, nevertheless, been slightly stronger than expected, although wage increases have remained relatively moderate. The current external balance has proved stronger than anticipated owing to favourable terms of trade developments and as the decline in import demand has more than outweighed a weakening of exports. Viewed in a somewhat longer and broader perspective, Canadian experience in the 1970s seems to have differed significantly from developments in the United States. The earlier quite striking similarity between cyclical developments in the two countries appears to have been interrupted in 1974. Whereas activity held up better in 1974-1975 in Canada than over the past two years, an inverse relationship may be observed in the United States and in most other Member countries. This contrast appears *prima facie* puzzling since, as a net energy exporter, Canada has been very largely spared the direct terms of trade effects of escalating world oil prices.

### *The impact of external influences*

The OECD area appears to have "absorbed" the second oil shock more smoothly than the first one. In the light of a less restrictive fiscal policy stance<sup>1</sup> output has not experienced as sharp a dip<sup>2</sup>, and the rapid wage response to consumer price increases on the earlier occasion has so far not materialised. Admittedly, the main effect of the recent tightening in both fiscal and monetary policy stance as well as part of the oil price increases may not yet have fully impacted on the economies. Nevertheless, continued relative buoyancy of business fixed investment (helped by the comparatively favourable profit outcome associated with wage moderation) and absence of a large inventory overhang have so far militated against a sharp fall in output. The more moderate decline of OECD activity after the second oil shock—particularly in the United States where the contrast is even more marked—has implied a less unfavourable external environment for Canada than in 1974-1975.

Table 2, while confirming the relative buoyancy of geographic markets, suggests, however, that the commodity structure of foreign demand may have

1 The impact of fiscal policy in the five largest OECD Member countries (weighted by relative GNP size) is estimated to have reduced average GNP growth by about 0.6 and 2.7 per cent in 1974 and 1975 respectively. In 1979 policy action may have boosted output by some 0.4 per cent, although it is forecast to reduce GNP by about the same amount in 1980.

2 The first oil shock (occurring largely in the final quarter of 1973) attained its maximum impact on OECD activity in the first half of 1975 when "big 7" GNP fell by 3.5 per cent (s.a.a.r.), following declines of 0.3 and 0.8 per cent in the two halves of 1974. The second oil shock spanned a longer period—the bulk of the price increase occurring in the twelve months from March 1979. Following an unexpectedly buoyant 3 per cent growth rate in the second half of 1979, output in the seven largest OECD countries continued to rise modestly in the first half of 1980, but is expected to have fallen by some  $\frac{1}{4}$  per cent in the second half, after which positive growth is forecast to resume.



Table 1 Demand and output  
Percentage volume change

	1979 \$ Bill.	1977	1978	1979	1980 <sup>1</sup>	1978	1979		1980	1980 <sup>1</sup>
						II	I	II	I	II
						Seasonally adjusted <sup>2</sup>				
Private consumption	150.5	2.8	3.0	1.9	0.3	2.5	2.1	1.0	-0.8	1.8
Government consumption	51.2	3.4	0.9	-1.0	-0.2	0.8	-2.1	-0.7	0.5	1.0
Gross fixed investment	59.7	-0.5	0.2	4.3	1.4	3.1	1.4	11.5	-1.8	0.7
Public	7.7	0	-2.1	-0.8	0.5	-5.2	1.2	-0.4	0	-1.0
Private	52.0	-0.6	0.6	5.1	1.5	4.5	1.4	13.4	-2.1	0.9
Residential	14.0	-5.1	-3.8	-7.5	-12.4	-8.1	-10.3	-0.7	-21.7	-12.0
Non-residential construction	17.5	3.0	1.9	9.9	10.4	-0.6	8.2	24.7	9.3	2.0
Machinery and equipment	20.5	-0.4	2.5	9.0	1.6	17.8	3.3	12.6	-0.8	6.0
FINAL DOMESTIC DEMAND	261.4	2.2	2.0	1.9	0.4	2.3	1.2	2.9	-0.8	1.4
Stockbuilding <sup>3</sup>	4.4	-0.7	0	1.4	-1.3	1.7	2.7	-1.3	-1.3	-3.1
TOTAL DOMESTIC DEMAND	265.9	1.4	2.0	3.3	-0.8	4.0	3.8	1.6	-2.1	-1.6
Exports of goods and services	76.6	6.9	9.9	2.6	-2.1	11.5	-2.2	4.0	-4.0	1.5
Imports of goods and services	82.4	2.1	4.4	5.9	-3.3	12.5	5.5	0.6	-4.3	-4.5
Foreign balance <sup>3</sup>	-5.8	1.0	1.1	-1.0	0.4	-0.5	-2.1	0.8	0.2	1.6
Error of estimate <sup>3</sup>	0.2	-0.3	0.2	0.3	0	0.2	0.5	0	0.1	0
GNP	260.3	2.2	3.4	2.7	-0.3	3.8	2.3	2.5	-1.8	0

1 Forecast.

2 Annual rate of change over preceding half-year.

3 Percentage point contribution to GNP growth rate.

Source: Statistics Canada, *National Income and Expenditure Accounts*.

been much less favourable to Canada in 1979-1980 than in 1974-1975. This was largely due to the automobile market where the impact on exports of a general downturn in demand has been compounded by the unfavourable composition of Canadian production which is still oriented to larger units<sup>3</sup>. Furthermore, in 1979 the number of housing starts in the United States, which is of significance for Canadian lumber sales, exceeded the 1975 figure by almost 50 per cent, but then plummeted back to this former level in the first half of 1980. Despite this unfavourable background Canadian exports have on average held up better than in 1974-1975, even though their decline in early 1979 probably imparted an important initial impetus to the downturn. Assuming a 1½ per cent (s.a.a.r.) rise in the second half of the year, the volume of exported goods and services in 1980 should remain somewhat above its 1978 level, whereas in 1975 it had dropped some 8 per cent below the 1973 level. The earlier marked improvement in Canadian external competitiveness has no doubt contributed to the rapid expansion of non-car manufacturing exports<sup>4</sup>, while crude oil shipments have fallen only moderately over the past two years after being cut back sharply in 1974 and 1975 on conservation policy grounds.

Table 2 Factors influencing Canadian growth - 1973-1975 and 1978-1980  
Percentage change

	1973	1974	1975	1978	1979	1980 <sup>1</sup>
Policy and external environment						
Budget balance <sup>2</sup>	0	1.0	-2.0	-2.1	-0.7	0.1
"Real" interest rate <sup>3</sup>	1.3	-4.2	-4.6	0.9	2.1	2.6
Foreign markets <sup>4</sup>	1.4	1.7	-15.1	12.6	-0.1	1.7
Car exports (incl. parts)	12.8	0.2	3.1	8.6	-13.3	-12.4
Exports of manufactures (excl. cars)	12.7	-3.6	-4.7	19.9	25.6	
Total merchandise exports	10.8	-3.8	-6.7	9.5	2.3	-4.0
US housing starts	-13.4	-34.8	-12.9	2.4	-14.3	-53.6
Endogenous factors						
H'hold real disposable income	8.9	6.7	5.8	3.6	2.6	-1.0
Household savings ratio	9.1	10.1	11.0	10.6	10.7	10.4
Housing starts	6.9	-15.2	-1.0	-3.9	-15.4	-35.4
Business fixed investment <sup>5</sup>	15.0	7.7	7.8	2.2	9.4	3.0
of which: Energy related <sup>6</sup>	11.8	5.6	18.7	7.8	4.6	9.8
Inventory change <sup>7</sup>	0.8	1.2	-2.6	0	1.4	-0.7

1 First half only (seasonally-adjusted annual rate of change on 1979 second half), except for budget balance.

2 General government cyclically-adjusted budget balance as percentage of cyclically-adjusted GNP.

3 Yield on 90-day finance company paper adjusted by the national accounts deflator for business non-residential investment.

4 Growth of markets for non-oil manufactures.

5 Excluding housing.

6 Investment in fuel and power (including distribution).

7 Percentage points contribution to GNP growth rate.

Sources: Statistics Canada, *National income and expenditure accounts*; *Private and public investment in Canada*; Secretariat estimates.

3 Autos (incl. parts) account for one-quarter of the value of merchandise shipments to the United States, which absorbs about 70 per cent of all Canadian exports. The United States car market has experienced a marked increase in the import penetration of non-North American vehicles.

4 According to Secretariat estimates, an index of Canada's relative manufacturing unit labour costs measured in U.S. dollars (1970=100) fell from an average of 94 in 1974-1975 to 81 in 1978. Non-car manufactured exports increased in volume by 25 per cent in 1979.

### *The policy environment*

A more restrictive policy stance as well as certain elements of "endogenous" private sector behaviour have been significant factors contributing to the severity of the recent cyclical downturn. Estimates of cyclically-adjusted budget balances suggest that fiscal stance was clearly expansionary in 1975 whereas there has been a net withdrawal of stimulus in each of the past two years. The federal budget for fiscal 1979-1980 presented in November 1978 projected a deficit of some \$12.95 billion (public accounts basis), with a growth rate of expenditure below that of both government revenue and nominal GNP. Indeed, the estimates implied a fall of some 4-5 per cent in the volume of final outlays on goods and services. As noted in the last OECD *Survey of Canada*, general government operations were forecast to be less expansionary than in the preceding year, largely reflecting a tightening in federal stance. In the event, the federal deficit proved smaller than expected (by some \$1 billion) with a higher growth of both income and expenditure<sup>5</sup>. Increases in the former reflected essentially the impact of a faster growth of the tax base (mostly corporate income), whereas outlays were augmented by oil import compensation and fiscal equalisation commitments as well as by higher debt servicing costs.

The fiscal 1980-1981 budget proposal presented in December 1979 by the Progressive Conservative government aimed at a further tightening of stance. The growth of outlays was kept below that of nominal GNP, while revenue was boosted by an increase in the gasoline excise tax rate and a broadening in its coverage in conjunction with a proposed energy policy package. In all, the budget deficit was forecast to decline to some \$10.5 billion. These proposals were, however, rejected by Parliament. Although the new government which assumed office in February 1980 has introduced tax increases, both in an interim package of measures announced in April<sup>6</sup> and in the budget proposal presented in October, the deficit in fiscal 1980-1981 is now forecast to amount to some \$14.2 billion (public accounts basis)<sup>7</sup>. This represents a substantial increase from the original figure, but is in line with projections made at the time the April measures were announced which took account of the impact on federal revenue of the new government's decision not to proceed with the proposed gasoline excise tax measure. Since then, revenue growth has been revised down further owing to the sharper than expected slowdown in overall activity, the impact of which, however, is to some extent offset by the introduction of a natural gas and gas liquids tax. The proposed new energy policy (see Part III) has also led to some reduction in the expenditure forecast.

Both the growth of the nominal money supply (M1) and movements in the "real" interest rate<sup>8</sup> suggest a more restrictive stance of monetary policy in 1979-1980 compared with 1974-1975. Policy has continued to operate primarily via the setting of a narrowly-defined money supply (M1) target growth rate (for a description see the last OECD *Survey of Canada*). While the Bank of Canada

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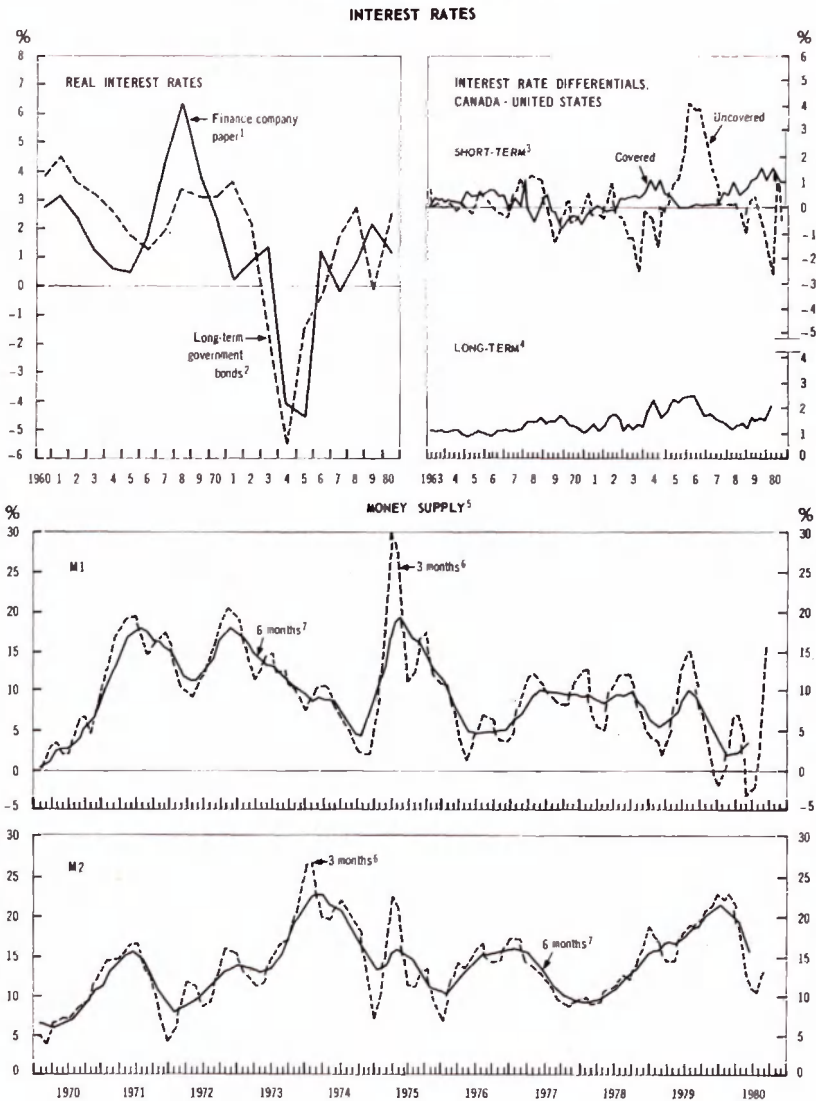
5 As a net result of changes in accounting practices introduced after November 1978, budget expenditure (and the deficit) was reduced by some \$½ billion and the net source of funds from non-budgetary transactions reduced correspondingly, leaving the overall financing requirement unchanged.

6 This comprised an increase in certain excise tax rates and a 5 per cent surtax for 2 years on the federal corporate tax rate.

7 Taking into account non-budgetary transactions, overall financial requirements are estimated to amount to \$12.2 billion.

8 Using the concept of "real" interest rates introduces the problem of distinguishing between ex-ante (intended) and ex-post (actual) policy impact in the face of unanticipated price movements, which, for example, drove the "real" interest rate strongly negative in 1975.

Diagram 1 Monetary indicators



1 Yield on 90-day finance company paper adjusted by the national accounts implicit deflator for business (non-residential) fixed investment.

2 Yield on government long-term bonds (10 years and over) adjusted by the implicit GNP deflator.

3 Difference between yields on Canadian 90-day finance company paper and United States 90-day commercial paper.

4 Difference between yields on Canadian and United States long-term government bonds.

5 M1 refers to the narrowly-defined money supply (currency plus demand deposits) and M2 to a more broad definition (currency plus all chequable notice and personal term deposits). Data for demand deposits interpolated for the periods April-June 1974, October-December 1975, October-December 1978 to purge series of distortions due to postal strikes and 1978 Canada Savings Bond campaign.

6 Compound annual rate of growth of the latest month over 3 months ago calculated using a 3-month centred moving average.

7 Compound annual rate of growth of the latest month over 6 months ago calculated using a 6-month centred moving average.

Sources: Bank of Canada, *Review*; Canadian submission to OECD; Secretariat estimates.

has primarily used short-term interest rates<sup>9</sup> as its instrument for controlling the money supply, it has on occasion also sought to influence long-term rates directly. Policy conduct has been rendered more difficult by the unusual degree of volatility of recent United States interest rate movements, given the degree of integration of capital markets in the two countries and the Canadian authorities' concern to dampen any further substantial decline in the value of the Canadian dollar because of its inflationary consequences.

The narrowly-defined money supply has in fact been kept very largely within the target area, except for a period of some three months around mid-1980 when it dropped below the lower limit. Following introduction of monetary aggregates control in late 1975, M1 growth has on average trended downward in conformity with the policy objective. Development of the broader aggregate (M2) has been somewhat different; indeed, its cyclical behaviour tends to move in an opposite direction to that of M1, though the volatility of its movements is much less pronounced, reflecting a lower degree of interest rate sensitivity<sup>10</sup>. Given the greater responsiveness of Canadian compared to United States M1 to interest rate changes (reflecting institutional differences), Canadian interest rate movements have not needed to be as volatile as those in the United States in order to achieve domestic policy targets. On an uncovered basis, swings in the short-term interest rate differential between the two countries have been unusually large in 1980, moving from strongly negative in March to no less than 4 percentage points positive in May, the largest figure since late 1976.

#### *Main features of developments in 1979-1980*

While its initial impetus may have come from the export sector, the present downturn has in contrast to 1974-1975 been characterised by a sharp weakening in final-domestic demand associated however with less overall inventory overhang. Private consumption has been particularly weak, while energy-related projects have provided less support to business fixed investment than in the earlier period. Residential construction has also been exceptionally depressed.

The growth of households' disposable income has slowed down sharply over the last two years. In spite of this development and in contrast to United States experience, the savings ratio has remained at a comparatively high level<sup>11</sup>. Overall, following a significant deceleration in 1979, private consumption is estimated to have remained virtually flat in 1980. Consumers have cut back on all merchandise purchases and in particular automobiles. The weakness in other durable goods outlays can be associated inter alia with the low level of housebuilding.

Subject to the combined depressive influence of demographic factors, the

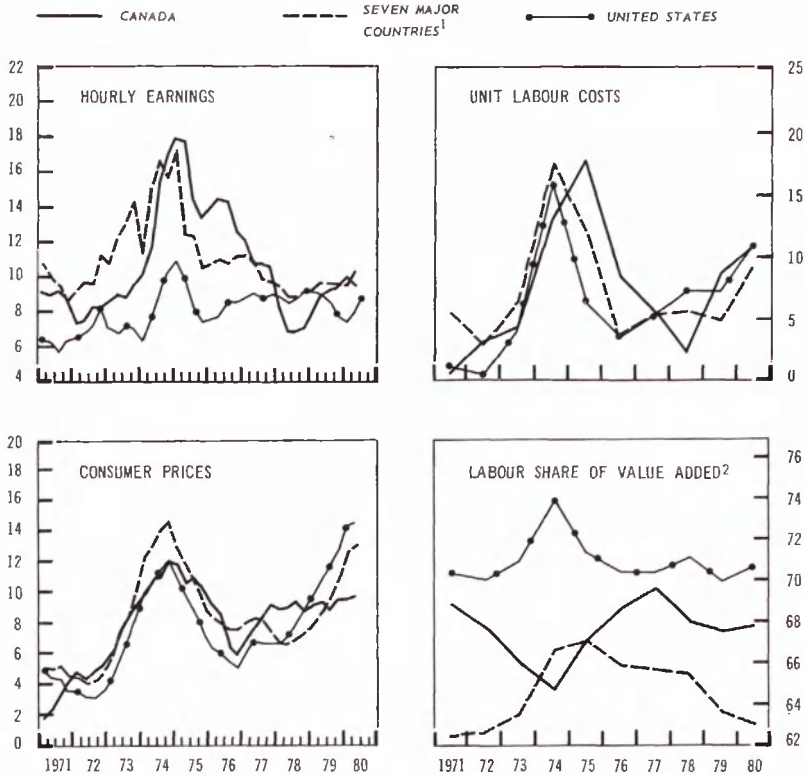
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9 In March 1980, Bank Rate was "floated" by being set  $\frac{1}{4}$  percentage above the yield on 91-day Treasury Bills determined at the weekly auction.

10 This has provoked considerable debate in Canada about the relative merits of M1 and M2 as intermediate target variables. For a discussion of this and related issues (including the use of interest rates vs cash reserves as the main instrument variable) see *The Canadian Journal of Economics*, November 1979.

11 It should be noted that the savings ratio has shifted upwards during the 1970s. For further discussion of this phenomenon see Department of Finance, *The Recent Behaviour of the Personal Savings Rate*, Ottawa, April 1980. The study concludes that slightly over one-half of the measured increase in the average household savings ratio between the 1960s and 1970s can be attributed to the effect of accelerating inflation on nominal interest income. Cyclical factors as well as differences in fiscal and institutional arrangements were cited in explaining the contrast between Canadian and United States savings behaviour (for a discussion of the latter, see OECD Economic Survey of the United States, Annex C, August 1980). Among the major OECD Member countries the United Kingdom and Japan also experienced sharp increases in the ratio about the same time as Canada.

Diagram 2 Manufacturing labour costs and consumer prices  
Year on year percentage change



1 Weighted by share in manufacturing output except for consumer prices which are weighted by shares in private consumption.

2 Per cent.

Source: Secretariat estimates.

winding down of certain federal fiscal incentives designed to promote housing, the squeeze on incomes and the rise in interest rates, housing starts in the first half of 1980 dropped back to their lowest level for a decade<sup>12</sup>. Business non-residential fixed investment revived in 1979, reacting to the rise in manufacturing capacity utilisation rates, the favourable development of profits and various fiscal incentives<sup>13</sup>. By mid-1980, however, the growth of investment was slowing down.

12 Some econometric estimates suggest that a sustained 1 percentage point increase in the mortgage lending rate will reduce starts by some 3 thousand (or about 2 per cent from current levels) in the first year and by a further 7 thousand over the following two years. The interest rate on conventional mortgages rose on average by 1½ percentage points between the second half of 1979 and the first half of 1980. In addition to the demand effect, and probably more importantly over the recent past, movements in short-term interest rates have a notable effect on the supply side through their impact on builders' construction financing costs.

13 Other sectors of the goods-producing industries—mining, energy and particularly the construction industry—have been operating below capacity. Within manufacturing, capacity utilisation rates do not appear to have reached the 1973-1974 peak levels even excluding the automobile industry. It should be noted, however, that the recent sharp swings in relative prices and demand patterns have created problems for the measurement of capacity levels (see Bank of Canada, *Review*, May 1980).

Energy-related projects, which are much less responsive to cyclical influences, have retained some buoyancy as in 1975. On the other hand and in common with most other Member countries, the inventory cycle has in general been less pronounced than in 1974-1975 when holdings had been inflated by speculative purchases. Nevertheless, there has been a considerable accumulation (probably with an important unintended element) within manufacturing where the ratio of holdings to sales has virtually reached the 1975 peak.

While output growth has been weaker than expected, indeed GNP declined in the first half of 1980, employment has remained buoyant. The 4 per cent increase in numbers employed in 1979 was again the fastest recorded in the OECD area. However, net recruitment slackened in the first half of 1980 to some 2.8 per cent. Manufacturing industry employment matched the overall rate of increase in 1979—the first substantial rise for 5 years—but has fallen back again in 1980. The seasonally-adjusted unemployment rate, after reaching a peak in the third quarter of 1978, drifted downward in the ensuing twelve months but then fluctuated around an upward trend till mid-1980. The average annual rate thus dropped by 1 percentage point between 1978 and 1979 even though participation rates for young people, and to a lesser extent for women, rose.

Productivity developments have necessarily reflected the simultaneous buoyancy of employment and poor output performance. The decline in overall productivity (GNP per employed) amounted to no less than  $4\frac{1}{2}$  per cent (s.a.a.r.) in the first half of 1980, after decreasing by some 1 per cent in 1979. This performance is considerably worse than the average decline of 0.6 per cent experienced in 1974 and 1975. A recent study by the Department of Finance suggests that perhaps one-half of the average slowdown evident since 1973 can be attributed to a sharp decline in oil and gas production as well as to a slowdown in the capital intensity of a number of industries<sup>14</sup>. Nevertheless, Canadian manufacturing's investment ratio (the ratio of gross fixed capital formation to value added within the sector) has been above the OECD average. The gap was somewhat larger in the 1960s than in the 1970s, although Canadian developments since 1974 have been quite favourable<sup>15</sup>. On the other hand, Canadian manufacturing's share of total business investment (excluding residential) has been below the average for other OECD countries—reflecting the relatively smaller size of the manufacturing sector<sup>16</sup>.

Inflation, as measured by consumer prices, is currently running at a rate of around 11 per cent (year on year), or some 2 percentage points below the OECD average. This favourable margin is clearly greater than in 1974-1975 when it was minimal. However, the fact that, as indicated in Diagram 2, Canada has not experienced the acceleration in inflation evident in the OECD area since early 1978, does not necessarily imply a better underlying performance.

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14 Department of Finance, *Recent Changes in Patterns of Productivity Growth in Canada*, Ottawa, April 1980. Output per employed person in oil and natural gas production fell by 10 per cent a year between 1974 and 1978 after having risen by an average of about 7 per cent during 1967-1973.

15 That is, compared with the mean value for the 12 other countries for which data are available (Belgium, France, Finland, Germany, Greece, Japan, Netherlands, Norway, Portugal, Sweden, United Kingdom and the United States). The Canadian manufacturing investment ratio averaged some 14.7 per cent during the period 1960-1978, being about  $\frac{1}{2}$  percentage point higher in the 1970s (at 15.0 per cent) than in the 1960s. For the other countries the ratio increased in the 1970s more markedly (from 12.9 to 14.4 per cent), but still remained below the Canadian figure. Such gross figures may not, however, provide an accurate guide to capacity movements.

16 Over the period 1960-1978 Canadian manufacturing accounted on average for 14 per cent of total business (non-residential) fixed investment. The figure was higher during the 1960s than in the 1970s (14.7 vs. 13.0 per cent). In the other OECD countries the ratio remained unchanged between these two periods at around 17.6 per cent.

Controls on domestic energy pricing have resulted in this element of the CPI rising by "only" 15.7 per cent over the year to mid-1980 compared with some 38.6 and 27.8 per cent in the United States and OECD-Europe respectively. Excluding both food and energy from the index, which gives a better measure of "underlying" inflationary pressures, the Canadian rate has also experienced a clear acceleration since 1978<sup>17</sup>.

Settlements under major new collective wage agreements have been rising since late 1978 when direct wage and price controls were phased out. There has also been an increasing tendency for agreements to incorporate cost-of-living adjustment (COLA) clauses, which is probably related to the shift back toward longer agreements<sup>18</sup>. Nevertheless, the size of both new settlements and increases in earnings has remained surprisingly moderate. In common with OECD experience in general, Canada has not experienced a wage explosion of the type which had accompanied the first oil price inflationary burst<sup>19</sup>. Admittedly hourly earnings in manufacturing have broadly managed to keep pace with the inflation rate over the past two years whereas they have been falling in real terms in the United States, but the increase has been much smaller than suggested by past econometric relationships<sup>20</sup>. The fact that the construction industry, which acts somewhat as a wage leader, has been in a slump while demand growth has centered more on the services sector, where wage rates are both at a relatively low level and less responsive to demand fluctuations, may help explain this development. At the same time settlements in the public sector have been relatively restrained, in keeping with both federal and other governments' policy of budgetary restraint. Furthermore, the strength of actual price pressures may well have exceeded expectations held at the time contract settlements were reached<sup>21</sup>.

The poor productivity performance has, nevertheless, entailed an acceleration in unit labour costs which has been somewhat faster than in the other major

17 When comparing CPI movements with those in the United States the different procedures for taking account of mortgage interest rates in the two countries should be borne in mind. In the United States current rates enter more directly into the index than in Canada where a moving average is used.

18 In 1974 some 36 per cent of major agreements incorporated such clauses. After falling during the controls period (the three years to late 1978), which had also witnessed a shift toward shorter agreements, this figure has now risen to over 40 per cent. The number of persons covered by COLAs has increased more markedly—from 40 to almost 60 per cent, but still accounts for only about one-eighth of all employed persons. Although the compensation for actual price rises provided by such clauses has also risen, their impact on overall average earnings has been minor; it is estimated that a 1 per cent increase in the CPI would with COLA compensation raise average earnings by around 0.05 percentage point. During the first half of 1980 88 per cent of 3-year agreements, but only 10 per cent of 1-year agreements, contained COLA clauses.

19 During 1974 and 1975 the average growth rate of hourly earnings in manufacturing amounted to 14.7 per cent, compared with an estimated average of about 9 per cent in 1979-1980. Deflated by the CPI this implied real gains of some 3.5 per cent a year in the earlier period and perhaps a marginal decline in 1979-1980. For the OECD area as a whole the real increase amounted to about 2 per cent and probably also a small fall during the two respective periods.

20 A priori, underprediction might have been expected. Given the demographic changes and policy measures which have affected the labour market over the past decade, the variable used to measure labour demand pressures (the unemployment rate for prime-age males) probably underestimates such pressures. It has been suggested that vacancy rates would be a more appropriate measure (see Bank of Canada, *The Process of Wage Determination: a Survey of some Recent Work*, Technical Report 19). Furthermore, it may be noted that the equation shown in Diagram 3 does not include a variable to capture the effect of any catch-up after the termination of direct wage controls under the Anti-Inflation Program.

21 The equation reported in Diagram 3 suggests that earnings are indeed strongly influenced by price movements.





countries on average (Diagram 2) and the "real wage gap" has increased over the past two years<sup>22</sup>. However, Secretariat estimates suggest that over the past two years Canadian manufacturing industry's international competitiveness has not been significantly affected. After a 35½ per cent increase in 1979, which benefited particularly the natural resource sector, overall before-tax profits fell in the second quarter of 1980, but their share of national income still remains above trend.

Merchandise export volume rose by only around 2 per cent in 1979. Excluding autos, however, performance was much better, reflecting substantial gains of market shares by Canadian manufacturers. Import demand remained relatively strong, deriving essentially from purchases of machinery and equipment as well as of crude and semi-processed materials. In certain industrial sectors capacity constraints were encountered, which may also have contributed to the growth of imports. Canada's position as a net energy exporter as well as substantial price increases for the country's other resource exports contributed to an estimated 6 per cent gain in the merchandise terms of trade, whereas the OECD area as a whole experienced a loss of some 2½ per cent. This helped offset the impact on the trade balance of unfavourable volume developments. With the earlier rapid deterioration in the services account largely arrested, as the travel balance strengthened sufficiently to offset the continued growth of net interest and dividend payments, the current account deficit amounted to US\$ 4½ billion, the same as in 1978. This deficit was largely matched by capital movements, the composition of which was, however, significantly different from that in the previous year. Whereas the net inflow of long-term private capital into Canada was of the same order of magnitude as in 1978<sup>23</sup> (US\$ 3.9 billion), official long-term capital movements resulted in a net outflow of US\$ 3.5 billion, largely due to repayments of drawings under two revolving standby credit facilities<sup>24</sup>. The net outflow of short-term non-monetary capital was substantially reduced. Excluding net errors and omissions, a significant inflow was even recorded, possibly reflecting an improvement in investor attitudes towards Canadian dollar assets in the wake of the earlier strengthening in the country's international competitiveness and its relatively favourable energy position.

The trade balance strengthened appreciably during the first half of 1980, reflecting both volume movements and continued improvement in the terms of trade. Merchandise export volumes fell at a s.a.a.r. of around 7 per cent, but the decline in real import demand was even greater, influenced primarily by developments in the domestic automobile and construction industries. The current account deficit shrank to US\$ 3¼ billion (s.a.a.r.), while substantial capital inflows

22 The "real wage gap" represents the difference between movements in overall labour productivity adjusted for the terms of trade and real average earnings. The real wage gap increased also in 1972-1975 in Canada, whereas on both occasions it has narrowed in the United States. For developments in the other major countries, see *Economic Outlook*, No. 28, December 1980, Table 20.

23 In 1979 the net outflow from direct investment transactions moderated substantially from its record 1978 level, but the inflow from issues of long-term securities by Canadian public authorities decreased significantly. In the IMF/OECD definitions these flows are classified as private capital movements.

24 According to IMF/OECD definitions, drawings on such credit facilities with Canadian and/or foreign banks in order to bolster Canada's foreign exchange reserves are classified as official long-term capital movements. The first facility arranged with Canadian chartered banks in 1978 amounted initially to US\$ 1.5 billion and was subsequently increased to US\$ 2.5 billion. The second, arranged with United States and other foreign banks in June of the same year, amounted to US\$ 3 billion. Net drawings under these facilities amounted to \$ 2.7 billion at end-December 1978. In March and April 1979 US\$ 2.2 billion was repaid, leaving only US\$ 500 million outstanding with Canadian banks, of which US\$ 200 million was repaid in November and the rest in January 1980.

Table 3 **Balance of payments<sup>1</sup>**  
U.S. \$ billion

	1977	1978	1979	1980	1979		1980	1980	
					I	II	I	Q1	Q2
<i>Seasonally adjusted</i>									
Exports (fob)	42.9	47.7	57.3	65.7	26.8	30.4	32.2	16.5	15.7
Imports (fob)	40.0	44.1	53.5	59.0	25.4	28.0	29.3	14.8	14.6
Trade balance	2.9	3.6	3.8	6.7	1.4	2.4	2.9	1.7	1.2
Invisibles, net	-6.9	-8.0	-8.2	-9.0	-4.0	-4.2	-4.5	-2.3	-2.3
CURRENT BALANCE	-4.0	-4.4	-4.4	-2.2	-2.6	-1.8	-1.6	-0.6	-1.1
<i>Non seasonally adjusted</i>									
Current balance	-4.0	-4.4	-4.4	-2.2	-3.3	-1.1	-2.4	-1.1	-1.3
Long-term capital (excluding special transactions)	4.1	5.6	0.4		-0.1	0.4	1.3	0.9	0.4
Private	5.1	3.9	3.9		2.6	1.3	2.2	1.1	1.1
Official <sup>2</sup>	-1.0	1.7	-3.5		-2.7	-0.9	-0.9	-0.2	-0.7
Basic balance	0.1	1.2	-4.0		-3.3	-0.7	-1.1	-0.3	-0.9
Non-monetary short-term capital <sup>4</sup>	-3.0	-3.8	-1.0		0.6	-1.6	1.4	0.4	1.0
Balance on non-monetary transactions	-2.9	-2.6	-5.0		-2.7	-2.3	0.3	0.2	0.1
Private monetary institutions short-term capital	1.6	2.5	4.0		2.2	1.8	-0.5	-0.7	0.2
Balance on official settlements	-1.3	-0.1	-1.0		-0.5	-0.5	-0.2	-0.5	0.3
Miscellaneous assets and liabilities	0.1	-0.1	0.3		0.1	0.2	0.1	0.1	0
CHANGE IN RESERVES (+ = increase)	-1.2	-0.2	-0.7		-0.4	-0.3	-0.1	-0.4	0.3
<i>Memorandum items:</i>									
Trade balance	2.9	3.6	3.8		1.4	2.4	2.9	1.7	1.2
Automobile trade	-1.1	-0.7	-2.9		-1.3	-1.6	-1.7		
Other manufactures	0.4	0.1	1.9		0.3	-0.6			
Invisibles, net (n.s.a.)	-6.9	-8.0	-8.2		-4.2	-3.9	-4.8	-2.7	-2.1
Travel	-1.5	-1.5	-0.9		-0.9	0	-1.0	-0.8	-0.2
Interest and dividends	-3.4	-3.9	-4.5		-2.0	-2.5	-2.3	-1.1	-1.2

1 OECD/IMF definitions.

2 Secretariat forecast.

3 Including utilisation of revolving standby credit facilities with domestic and foreign banks by the Canadian government.

4 Including errors and omissions.

Sources: Statistics Canada, *Quarterly Estimates of the Canadian Balance of International Payments*; OECD Secretariat.

Table 4 Changes in current external balance  
U.S. \$ million

	1973-1974	1974-1975	1978-1979	1979-1980 <sup>1</sup>
Exports (fob)	7 968	-416	9 606	8 447
Imports (fob)	9 023	2 252	9 352	5 500
Trade balance	-1 055	-2 668	254	2 947
Volume effect	-800	-3 404	-3 994	2 032
Terms-of-trade effect	-255	736	4 248	915
Net invisibles	-331	-516	-183	-837
<b>CURRENT BALANCE</b>	<b>-1 385</b>	<b>-3 184</b>	<b>70</b>	<b>964</b>
Energy trade balance	588	-456	1 437	275
Non-energy trade balance	-1 643	-2 212	-1 183	2 672

<sup>1</sup> Secretariat forecast.  
Source: OECD Secretariat.

were recorded. With the second half expected to witness a continued strengthening, the current account may close the year with a deficit of around US\$ 2½ billion, or about 1 per cent of GNP. The Canadian dollar's effective exchange rate has remained relatively stable over the past two years after the earlier sustained decline of altogether 25 per cent from late 1976<sup>25</sup>. In "real" terms (that is, adjusted for relative movements in consumer prices) developments have followed a closely similar pattern, but with the decline slightly less pronounced. Against the United States dollar the rate has varied within a rather narrow band since late 1978.

## II FEDERALISM AND ECONOMIC POLICY

Canada is one of five federally-structured members of the OECD<sup>26</sup>. Relationships between the central and the ten provincial governments are basically determined by the British North America Act (BNA) of 1867 which, while specifying both exclusive and shared areas of competence, leaves residual powers to the federal government<sup>27</sup>. The latter was accorded specific authority over *inter alia* the regulation of trade and commerce as well as banking and the currency (including note issue), and given power to impose taxation in any form. Provinces were given specific authority over *inter alia* public lands belonging to the province (natural resources), education, hospitals, municipal institutions and property and civil rights. Their taxing powers were limited to direct taxation within the province<sup>28</sup>.

<sup>25</sup> There was, however, some strengthening in early 1979, followed by a slight downward drift thereafter.

<sup>26</sup> The others are Australia, Germany, Switzerland and the United States.

<sup>27</sup> In, for example, Australia, Switzerland and the United States the residual powers rest with the States; this is of significance in respect to deciding competence in cases not covered explicitly in the Constitution.

<sup>28</sup> It will be noted that in the area of direct taxation, for example, the powers are overlapping.

Although the Act was centralising both in letter and spirit, its implementation and impact on power-sharing has been strongly influenced by judicial interpretation as well as by social and industrial developments which could not have been foreseen in the mid-19th century. The latter have, on balance, been favourable to the provinces. The emergency conditions created by the two World Wars, with the attendant massive increase in central government commitments, led to the latter's significantly increasing its powers over revenue flows. During the Second World War the provinces conceded the central government exclusive right over personal and corporate income taxes for the duration of the conflict in return for compensatory transfers. Since 1947 fiscal relations between the federal and provincial governments have been determined primarily by a series of 5-year agreements which have successively incorporated significant on-going modifications. In the early postwar period agreement was reached (not without difficulty) with all provinces (except Quebec and, in the case of corporate income tax, Ontario) confirming Ottawa's virtual monopoly over direct personal and corporate taxes in return for agreed-upon rental payments which were escalated originally according to the growth rate of the economy. In 1957 the basis of escalation was changed to the rate of growth of certain specified "standard" tax yields. At the same time a system of equalization was introduced which compensated provinces for revenues foregone as a result of having tax bases whose productivity was below a specified standard. In 1962 the tax rental agreements were terminated and replaced by a system of tax collection agreements pursuant to which the federal government collected income taxes imposed by provinces at rates of their own choosing provided that these rates be applied to federally-determined tax bases. In 1967 a comprehensive system of equalization was introduced and in 1977 three of the most important shared-cost programs were replaced by the present Established Programs Financing arrangement.

Recently, within a context of reduced medium-term growth, higher inflation and growing revenue from non-renewable resources as well as its uneven distribution between provinces, there have been substantial shifts in the relative fiscal positions of the various levels of government. The need to reduce the large deficit that has built up over the period has led the federal authorities to announce a series of measures within the framework of the October 28, 1980 budget and the accompanying National Energy Program. Among other basic issues associated with the federal structure of the country, the condition of the Canadian economic union has recently been receiving increased attention in the economic debate in Canada. The following paragraphs are devoted to a brief presentation of some key issues concerning government finance and to a description of various trends affecting the Canadian economic union.

### *Problems concerning government finance*

#### *Shifts in structure of the government sector*

In Canada, as in most other Member countries, the public sector has grown faster during the postwar period than the rest of the economy. The trend has been relatively steep, although somewhat less pronounced on average than elsewhere, with the share of general government total expenditure<sup>29</sup> rising from around 25 per cent of GNP in the early 1950s to a current level of some 40 per cent. This development has been accompanied by a shift in the relative size, role and functions of the different levels of government, with the provincial-local sector progressively assuming more importance. This trend has not, however,

29 Final expenditure plus transfers.

Table 5 **International comparison of central and general government expenditure<sup>1</sup>**  
Per cent of GDP/GNP

	General government			Central government <sup>2</sup>		
	1960	1965	1978	1960	1965	1978
Australia	22.8	26.1	..	11.4	13.2	..
CANADA	29.3	29.9	41.7	15.0	12.9	16.6
Finland	26.7	31.3	46.5	14.8	16.7	16.5
France	33.8	38.0	45.4	21.5	22.7	18.6
Germany	30.9	35.0	44.9	8.1	9.9	10.7
Italy	31.0	34.8	45.7	..	..	20.5
Japan	..	..	30.0	..	..	7.1
Norway	..	..	52.7	..	..	36.4
Sweden	31.3	35.7	61.5	23.3	14.1	18.7
Switzerland <sup>3</sup>	17.2	19.7	30.3	..	..	14.0
United Kingdom	33.2	35.2	43.3	20.4	18.9	24.2
United States	28.1	28.5	33.8	14.2	13.4	11.8

1 Current and capital outlays, including purchases of land and intangible assets.

2 Excluding transfers to other levels of government.

3 Current outlays only.

Source: OECD, *National accounts of OECD countries*.

been more marked than in other federal states. Among other noteworthy features, the general government account has shifted into deficit since 1975, with this more than accounted for by the swing in the federal balance.

The areas of primary provincial responsibility (social security, health, education, welfare, housing and community services) have, in common with experience in other OECD countries, been those where public expenditure commitments have grown extremely rapidly during the post World War II period<sup>30</sup>. Local government expenditure on goods and services has also expanded markedly. As a result, outlays of the combined provincial/local sector in relation to those of the central government have increased by over one-half since 1960. A similar development is also evident in the other federal states for which data are available (Australia, Germany and the United States). Nor have the unitary countries been spared either from a rapid growth in the relative size of both the local government and social security sectors<sup>31</sup>. Since the mid-1970s there has been an increasing divergence in revenue trends, with provincial/local government income boosted by revenue flowing from exploitation of the country's natural resources<sup>32</sup> and federal income growth reduced by discretionary tax measures. By 1977 provincial/local government "own-source" revenue<sup>33</sup> had overtaken that of the federal government.

Table 6 summarises the development of the structure of income and outlays by level of government. In 1978 Ottawa received over one-half (56.4 per cent)

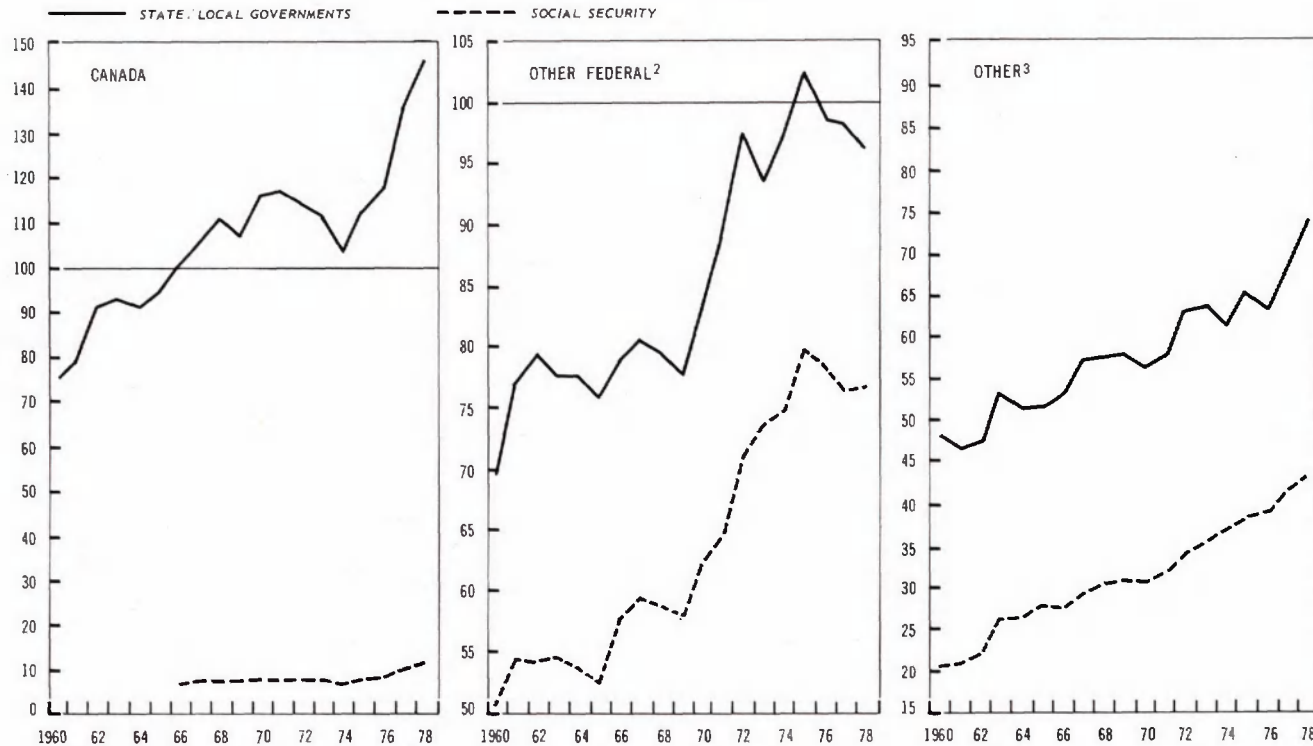
30 It should be noted, however, that while these areas are primarily provincial, the federal government also has certain direct responsibilities, particularly in the social security and housing fields and has made large contributions to the provinces in respect of the other functions through shared-cost programmes.

31 For a list of the unitary countries covered see note to Diagram 4. Developments in individual countries (except Canada) have not been taken into account, but rather simple averages of the relevant country groupings.

32 During the 1970s provincial/local revenues grew at an average rate of 15.0 per cent or somewhat faster than either federal revenue (11.8 per cent) or nominal GNP (12.6 per cent).

33 "Own source" revenue excludes transfers received from other levels of government. In 1977 there was a further transfer of tax points to the provinces under the new Established Programs Financing arrangement referred to above.

**Diagram 4 Relative size of junior governments**  
 Central government income = 100<sup>1</sup>



<sup>1</sup> Income is defined as current receipts plus net capital transfers. Current transfers received from other levels of government are thus included.

<sup>2</sup> Australia, Germany and United States.

<sup>3</sup> Finland, Sweden and United Kingdom.

Source: OECD, *National Accounts of OECD Countries*.

Table 6 Income and expenditure by level of government

	Federal			Provincial			Local <sup>1</sup>			Social security <sup>2</sup>		Total	
	1978		1961	1978		1961	1978		1961	1978		1978	
	\$ Bill.	Per cent	Per cent	\$ Bill.	Per cent	Per cent	\$ Bill.	Per cent	Per cent	\$ Bill.	Per cent	\$ Bill.	Per cent
Direct taxes	23.8	56.9	86.9	15.3	36.6	13.1	—	—	—	2.7	6.5	41.8	100.0
Indirect taxes	9.7	33.0	42.4	10.6	36.0	24.6	9.1	31.0	33.0	—	—	29.3	100.0
Investment income	3.9	32.2	53.8	6.3	52.1	42.0	0.4	3.3	4.2	1.5	12.4	12.1	100.0
Other <sup>3</sup>	0.6	11.1	15.1	3.0	55.6	46.6	1.8	33.3	38.2	—	—	5.5	100.0
Total "own source" income	38.0	42.8	59.6	35.2	39.7	22.5	11.3	12.7	17.9	4.7	4.8	88.7	100.0
Consumption	12.0	25.3	41.6	13.6	28.6	16.8	21.8	45.9	41.6	0.1	0.2	47.5	100.0
Gross investment	1.2	16.7	18.2	2.7	37.5	32.5	3.3	45.8	49.3	—	—	7.2	100.0
Transfers to households, subsidies	17.5	60.6	75.6	9.4	32.5	21.8	0.3	1.0	2.6	1.7	5.9	28.9	100.0
Other transfers <sup>4</sup>	7.4	60.7	68.4	3.1	25.4	12.7	1.7	13.9	18.9	—	—	12.2	100.0
Total expenditure	38.1	39.8	49.6	28.8	30.0	19.8	27.1	28.3	30.6	1.8	1.9	95.8	100.0
	1978	1961 <sup>5</sup>		1978	1961 <sup>5</sup>		1978	1961 <sup>5</sup>					
"Own income" minus expenditure	-0.1	0.7		6.4	0.1		-15.8	-1.7		2.4		-7.1	
Net intergovt. transfers	-10.9	-1.1		-5.2	-0.4		16.1	1.6		—		0	
NET LENDING	-11.0	-0.4		1.2	-0.3		0.3	-0.1		2.4		-7.1	

1 Including hospitals.

2 The social security sector consists of the Canada and Quebec Pension Plans which were set up in 1966.

3 Other transfers from households plus capital consumption allowances.

4 Very largely interest on public debt.

5 \$ billion.

Source: Statistics Canada, *National Income and Expenditure Accounts*.



of the total yield from direct taxes but only one-third of indirect taxes<sup>34</sup>. On the other hand, federal government expenditure on goods and services amounted to only around 24 per cent of total government expenditure of this type, while its transfers to individuals and subsidies accounted for about 60 per cent of total public transfers. The provinces' outlays on goods and services were somewhat greater than those of the central government and their "own source" income smaller, but their transfer payments were much lower. Local governments (including hospitals) were responsible for almost one-half of public sector goods and services expenditure, although they received only about one-eighth of the sector's income, thus being extremely dependent on transfers chiefly from provincial governments. Overall, outlays of the combined provincial/local government sector were almost 1½ times as large as those of the central government. In summary and as noted in the 1979 Annual Report of the Economic Council of Canada<sup>35</sup>: "The federal government's role as a direct purchaser of goods and services in the economy is now relatively minor, at least in comparison with provincial and local governments. But it has become the driving force of a massive income transfer mechanism, with respect both to other levels of government and to individuals."

As noted above, whereas in the early 1970s the fiscal position of general government tended to be in surplus, significant deficits have opened up since the mid-1970s. This development is not very different from that witnessed in most other Member countries. Indeed, in relation to GNP the Canadian deficit is somewhat smaller on average than in the United Kingdom, Germany, Italy and Japan but higher than in France<sup>36</sup>. The budget positions of the various government levels have not, however, moved in parallel. When, for the first time in over a decade, an overall government deficit emerged in 1975 in the wake of the economic slowdown and large discretionary fiscal concessions, the federal government accounted for the largest part (\$3.8 billion), even though

Table 7 Budget balances by level of government  
National accounts basis

	Federal		Provincial and local <sup>1</sup>		Social security <sup>2</sup>		Total government	
	\$ Mill.	% of GNP	\$ Mill.	% of GNP	\$ Mill.	% of GNP	\$ Mill.	% of GNP
1970	266	0.3	-653	-0.8	1 193	1.4	806	0.9
1971	-145	-0.2	-1 003	-1.1	1 278	1.4	130	0.1
1972	-566	-0.5	-726	-0.7	1 373	1.3	81	0.1
1973	387	0.3	-604	-0.5	1 469	1.2	1 252	1.0
1974	1 109	0.8	-85	-0.1	1 771	1.2	2 795	1.9
1975	-3 805	-2.3	-2 247	-1.4	2 003	1.2	-4 049	-2.5
1976	-3 391	-1.8	-2 014	-1.1	2 183	1.1	-3 222	-1.7
1977	-7 593	-3.6	-61	0	2 238	1.1	-5 416	-2.6
1978	-10 955	-4.8	1 404	0.6	2 449	1.1	-7 102	-3.1
1979	-9 131	-3.5	1 857	0.7	2 734	1.1	-4 540	-1.7

1 Including hospitals.

2 Canada and Quebec Pension Plans.

Source: Statistics Canada, *National Income and Expenditure Accounts*.

34 It may be noted that rates of both income and sales tax vary by province. The main federal indirect tax is a sales tax levied at the manufacturing stage.

35 Economic Council of Canada, *Two Cheers for the Eighties*, Sixteenth Annual Review, 1979.

36 The United States was in balance in 1978 and registered a small surplus in 1979.

the provincial/local balance, already in deficit in the early 1970s, also deteriorated markedly. In the following years the junior government overall budget balance improved significantly, shifting into a small surplus by 1979. The position varied considerably, however, between provinces since the strengthening was largely due to rising surpluses in the major oil- and gas-producing province of Alberta<sup>37</sup>. During the same period the federal government deficit remained substantial in historical perspective (3.5 per cent of GNP in 1979), with the federal government assuming responsibility for the management and financing of the major part of the public sector deficit. Admittedly, part of the deficit may be considered as cyclical, reflecting the automatic response of revenues and unemployment insurance benefit payments to the below-average level of activity at which the economy has been operating<sup>38</sup>.

### *Inter-governmental fiscal relationships*

The imbalances which have emerged in the course of the 1970s in the fiscal structure stem from a variety of developments. The indexation of personal income tax rates has reduced the elasticity of federal revenue, while expenditure commitments which are determined by statute and/or federal-provincial agreement are effectively in large part indexed upward. In addition, discretionary measures have further reduced actual revenue growth<sup>39</sup> and very high rates of increase in oil import subsidies and public debt charges have boosted expenditure. At the same time, the geographic concentration of Canada's non-renewable energy resources has contributed, on the one hand, to divergences in the fiscal positions of the various governments within the provincial sector and, on the other, to increases in federal equalization payments despite modifications to the formula designed to limit the amount of equalization in respect of provincial natural resource revenues.

As in other countries, the Canadian tax system contains a number of provisions that give preferential treatment to certain groups of individuals, businesses or other levels of government. These so-called "tax expenditures"<sup>40</sup> take the form of tax exemptions, deductions, reduced tax rates, tax credits or even elimination of tax in respect of certain activities carried out by junior governments<sup>41</sup>. Whatever the desirability of the goals of these various provisions or their effectiveness in achieving policy objectives, they have resulted in substantial forgone revenue. More importantly, however, the indexation of personal income tax brackets and exemptions to the CPI since 1974 has been a major

37 In 1979 the provincial/local government sectors in the three westernmost provinces, British Columbia, Alberta and Saskatchewan had an estimated combined surplus of \$3.7 billion, while the remaining seven provinces were running a deficit of \$1.8 billion.

38 Comparison of the actual and cyclically-adjusted federal budget balances in 1979 suggests that about one-fifth of the deficit was of a cyclical nature.

39 The cumulative effect of discretionary tax measures taken between 1972 and 1979 has been estimated to reduce federal revenue by \$16½ billion in fiscal 1980-1981, of which indexation of personal income tax brackets accounts for \$7½ billion. See *Budget Speech* Ottawa, December 1979.

40 For a tentative accounting of tax expenditures see Department of Finance, *Government of Canada Tax Expenditure Account*, paper presented with the December 1979 budget. Similar calculations have been made for the United States, West Germany and the United Kingdom.

41 In the area of personal income tax, these provisions include age and disability exemptions, marital and child exemptions, a \$1 000 investment income deduction, and a dividend tax credit. With regard to corporate tax, they include accelerated capital cost allowances and the depletion allowance, with faster write off for development expenses in the resource sector. A range of municipal purchases are exempted from sales tax, while provincial and municipal corporations are exempted from income tax.

factor in restraining the elasticity of the personal tax system<sup>42</sup>. Indexing has also been applied to the refundable child tax credit since its introduction in 1978.

At the same time, the present structure of federal expenditure makes it difficult to achieve a low growth rate of outlays in an inflationary context. Most expenditures are effectively linked to the rate of inflation directly or indirectly. This is notably the case of social welfare programmes<sup>43</sup> and of transfers to provinces in relation to post-secondary education, hospital insurance and Medicare. On the other hand, government purchases of goods and services (wage and non-wage spending) are also influenced by general price movements, although possibly with a lag. In addition, various fiscal arrangements result in automatic increases in the subsidies and transfers paid to other levels of government. With regard to subsidies, the significant rise from 0.7 per cent of GNP in 1970 to 1.1 per cent by 1979 is largely due to the Oil Import Compensation Program<sup>44</sup> whereby any growth in net imports or in the gap between domestic and international oil prices has led to automatic increases in payments by the federal government. As already noted, an expenditure category which has grown particularly rapidly since 1977 has been interest on the public debt.

Rising transfers to other levels of government have mainly stemmed from the shared cost (and more recently blockgrant) programmes and the system of equalization payments<sup>45</sup>. More recently, rapidly expanding revenues from non-renewable resources have put growing pressures on the equalization programme. The underlying philosophy behind these equalization flows is to allow "have-not" provinces to provide reasonably comparable levels of public services without resorting to unduly high levels of taxation. The equalization programme does not, however, redistribute existing provincial revenues from the rich to the poorer provinces but is financed from federal revenue. As a result, the accumulation of revenue in the energy-producing provinces, to take the most obvious example, is generating equalization payments that have to be funded by Ottawa<sup>46</sup>. Various

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42 It should be noted that since the income tax base is indexed to the previous year's rate of price inflation (ending in September), the growth of personal income tax revenues tends to exceed that of nominal GNP when the rate of inflation is accelerating and to lag behind when it is decelerating.

43 The federal government carries major de facto responsibility for social security transfers for the elderly and unemployed.

44 Since 1975 the domestic price of oil in Canada has been held below world market prices by means of a federal import subsidy financed by an oil export charge. To the extent the Canada is a net importer of oil the scheme results in a net charge on federal finances. For more details see Part III below.

45 Revenues are currently equalized over 29 provincial revenue sources, which means practically all except local property taxes. For each source a uniform tax base is defined and calculated for each province. If a province's share of a given tax base is less than its share of the total Canadian population, it has a positive entitlement equal to the percentage shortfall multiplied by the total provincial revenues for this specific source. Should the province's share of a tax exceed its population share, it is allocated a negative equalization entitlement. These negative and/or positive entitlements are summed over the 29 revenue sources and the total, if positive, represents the province's equalization entitlement. If negative, the entitlement is set to zero. It should be noted that whereas only one-half of provincial revenues from non-renewable resources enters the formula, for all other sources total provincial revenues are taken into consideration. According to the 1977 Fiscal Arrangements Act, there is also a limit of 33 per cent on the amount of total equalization that can be generated from resource revenues in general. The legislation will come up for renewal in early-1982. For more detail on the mechanisms of equalization, see Thomas J. Courchene, "Equalization and Energy" in *Energy Policies for the 1980s*, Ontario Economic Council, Toronto 1979. See also by the same author "Equalization Payments and Regional Imbalance", *Canadian Review*, Data Resources of Canada, August 1980.

46 In fiscal 1979-1980 provincial energy revenue amounted to about \$5.6 billion, giving rise to equalization payments of around \$940 million out of total payments of about \$3.2 billion.

steps have been taken in recent years to control the growth of federal transfer payments to other governments. Most notably, these have included a movement away from shared-cost programmes and various restraints upon the fast-growing natural resource revenue component of equalization. As a consequence, transfers have remained at a relatively constant share of total federal expenditures during the past ten years.

More generally, the arrangements governing finances pertaining to non-renewable resources have led to imbalances in the sense that the federal government has up to the present received only around 10 per cent of the energy sector's net operating income<sup>47</sup>, but has borne a disproportionate share of the burden of higher oil and gas prices, including oil import subsidies and the energy component of equalization. Finally, the federal government deficit has self-perpetuating properties through rising interest payments on the public debt. Thus, interest costs, which had accounted for 10.4 per cent of federal expenditure in 1974, rose to 15.4 per cent in 1979, reflecting the large increase in outstanding debt and higher interest rates.

Table 8 Sharing of petroleum net revenue

	Net operating income	Federal government	Provincial governments	Producers
	\$ Mill.	Per cent		
1966	868	3.2	39.5	57.3
1967	985	3.5	35.9	60.6
1968	1 072	3.3	35.7	61.0
1969	1 133	2.6	35.7	61.7
1970	1 277	3.6	27.1	69.3
1971	1 467	4.7	27.7	67.6
1972	1 725	5.2	25.6	69.2
1973	2 495	7.3	27.3	65.4
1974	4 194	9.9	38.2	51.9
1975	5 270	10.4	36.6	53.0
1976	6 311	10.4	40.8	48.8
1977	8 081	11.6	47.1	41.3
1978	9 189	9.5	46.3	44.2

Source: Department of Energy, Mines and Resources, *Taxation and Revenue Sharing*, Ottawa, Nov. 1979.

Macro-economic projections carried out in Canada with the help of econometric models confirm, as could normally be expected, that medium-term forecasts of fiscal balances are very sensitive to the projected growth path of the economy and to assumptions about the external environment and international oil prices, as well as to domestic policy measures notably in the field of energy pricing and revenue sharing. These projections, made before presentation of the October 1980 budget proposals did, however, tend to suggest that on the

47 As can be seen from Table 8, the provincial and producer shares each equal around 45 per cent. Each time the domestic price of oil increases by one dollar a barrel and the associated change is made in the natural gas price, federal equalization commitments rise by approximately \$70 million. It should be noted, however, that this relationship holds only until the ceiling set on the proportion of total equalization which may be paid in respect of natural resource revenues is reached.

basis of existing fiscal arrangements large imbalances between the federal government and the provinces would have persisted<sup>48</sup>.

### *The new medium-term strategy*

The strongly-perceived need to strengthen the federal government fiscal position has clearly influenced the formulation of the government's new and comprehensive medium-term strategy as reflected in the proposals contained in the October, 1980 budget presented to Parliament together with a National Energy Program. Implementation of these plans is officially expected to result in

Table 9 Medium-term fiscal projections

	1979-1980	1980-1981	Fiscal year 1981-1982	1982-1983	1983-1984
	\$ million and per cent change				
<b>Revenue<sup>1</sup></b>					
Budget revenue (p.a.)	40 159 (14.0)	45 200 (12.6)	52 935 (17.1)	61 600 (16.4)	69 420 (12.7)
Total revenue (n.a.)	45 187 (14.3)	51 630 (14.3)	63 590 (23.2)	74 105 (16.5)	84 125 (13.5)
<b>Expenditure<sup>1</sup></b>					
Budget expenditure (p.a.)	51 534 (8.6)	59 350 (15.2)	66 640 (12.3)	73 725 (10.6)	81 215 (10.2)
Total outlays (p.a.) <sup>2</sup>	52 962 (9.1)	59 950 (13.2)	67 625 (12.8)	74 725 (10.5)	82 275 (10.1)
Total expenditure (n.a.)	54 412 (10.3)	63 550 (16.8)	73 650 (15.9)	82 600 (12.2)	91 625 (10.9)
<b>Net position</b>					
Budget balance (p.a.)	-11 375	-14 150	-13 705	-12 125	-11 795
Balance (n.a.)	-9 225	-11 920	-10 060	-8 495	-7 500
	Per cent of GNP				
Budget balance (p.a.)	-4.4	-5.0	-4.4	-3.4	-2.9
Balance (n.a.)	-3.5	-4.2	-3.2	-2.4	-1.9
<b>Memorandum item:</b>					
Financial requirements					
\$ million	-10 445	-12 155	-10 980	-8 415	-7 155
Per cent of GNP	-4.1	-4.3	-3.5	-2.3	-1.8

1 Public accounts (p.a.) and national accounts (n.a.) estimates are based on slightly different accounting concepts.

2 Including non-budgetary transactions.

Source: Department of Finance, *The Budget*, Ottawa, October, 1980.

48 Simulations carried out by the Economic Council of Canada with its *Candide 2.0* model pointed to continued large federal deficits and provincial surpluses over the medium-term. The base case projection, which incorporated the last increase in domestic oil prices in August 1980, assumed an annual increase of \$4 per barrel in the wellhead price from 1981 onward, but maintenance of the existing revenue split between the producing provinces, producers and the federal government as well as prolongation of the federal oil import subsidy programme. These base case projections are summarized below:

	1980	1981	1982	1983	1984	1985
<b>Federal deficit</b>						
\$ billion	-10.8	-12.5	-12.8	-13.3	-11.4	-12.5
% of GNE	-3.8	-4.0	-3.6	-3.3	-2.5	-2.5
<b>Provincial surplus</b>						
\$ billion	2.7	4.5	6.1	7.3	8.7	10.0
% of GNE	1.0	1.4	1.7	1.8	1.9	2.0

a significant decline in the federal government deficit (national accounts basis) from around \$ 12 billion in fiscal 1980-1981 to about \$ 7 billion in fiscal 1983-1984. In relation to GNP, the reduction would be rather substantial over the period, from -4.2 to -1.9 per cent (cf. Table 9). Besides the specific assumptions in the field of energy pricing, revenue sharing and expenditure growth which reflect the recently-announced measures, the forecast fiscal position is also based on a medium-term macro-economic scenario, the main features of which are summarized in Table 10. Sluggish growth in the short term is anticipated to be followed by a rebound in real GNP growth to some 4 per cent by 1982, followed by a gradual, albeit limited, deceleration thereafter. In the five years to 1985 real output growth is thus forecast to be moderate, of the order of 2½ per cent a year on average, or somewhat less than in the second half of the 1970s. In spite of some decline in 1981, both the inflation and unemployment rates are expected to remain relatively high by historical standards with continuing poor productivity performance. The GNP deflator is projected to gradually decline from 10.0 per cent in both 1980 and 1981 to 7.7 per cent by 1985. In nominal terms the growth rate of total spending (current price GNP) would thus remain clearly above the Bank of Canada's present monetary growth rate target range of 5-9 per cent; it would peak at some 14 per cent in 1982 to decline to around 11 per cent by 1985.

With regard to budgetary revenues, government proposals for a new oil and gas pricing regime coupled with certain tax measures are expected to produce a revenue-sharing pattern more favourable to the federal government. This shift would take place at the expense of the oil and gas industry but without much change for the producing provinces<sup>49</sup>. As a result of discretionary tax measures

Table 10 Medium-term macro-economic projections<sup>1</sup>  
Volume percentage change

	1980-85	1982-85	1980	1981	1982	1983	1984	1985
Private consumption	2.8	3.8	0.2	1.3	3.9	3.8	4.0	3.6
Government outlays <sup>2</sup>	1.0	1.6	-0.6	0	1.9	1.6	1.4	1.4
Private non-residential investment	4.1	4.4	6.4	0.7	7.2	5.8	2.8	2.0
Residential investment	-0.9	1.3	-13.8	4.6	0	1.7	1.7	1.7
Total exports	3.1	4.7	-2.4	2.4	4.8	4.7	4.6	4.7
Total imports	2.9	4.5	-2.4	2.0	4.8	5.2	4.1	3.9
GNE	2.4	3.6	-1.0	1.0	4.0	3.7	3.6	3.3
Employment	2.2	2.4	2.4	0.8	2.5	2.5	2.5	2.3
Productivity	0.2	1.2	-3.3	0.2	1.5	1.2	1.1	1.0
Unemployment rate	8.1	8.0	7.7	8.7	8.4	8.1	7.8	7.7
Consumer price index	9.2	8.7	9.7	10.2	9.4	8.8	8.6	8.2
GNE deflator	9.0	8.5	10.0	10.0	9.7	8.6	8.1	7.7
Current account balance								
\$ Can. billion	-5.1	-4.8	-6.2	-5.5	-4.0	-4.9	-5.1	-5.0
Per cent of GNE	-1.4	-1.1	-2.2	-1.7	-1.1	-1.2	-1.1	-1.0

<sup>1</sup> The projections are based on the following average annual real growth rate assumptions during 1980-1985:

United States GNE 2.5 per cent

OECD-Europe industrial production 2.8 per cent

Japan industrial production 5.2 per cent

International oil price

(marker crude) 2.0 per cent (i.e. in excess of United States wholesale prices from 1981)

<sup>2</sup> Current and capital final expenditure.

Source: Department of Finance, *The Medium-Term Prospects for the Canadian Economy 1980-1985*, Ottawa, October 1980.

<sup>49</sup> The federal government's share of net revenues is estimated to increase from its current level of around 10 per cent to about 24 per cent over the four years to 1983. Provinces would receive about 43 per cent, or slightly less than their current share of around 45 per cent, while industry's share would decline from 45 to about 33 per cent.

Table 11 **Impact of new tax measures on federal revenue**  
\$ million

	Fiscal year			
	1980-1981	1981-1982	1982-1983	1983-1984
<b>Energy</b>				
Direct taxes				
Personal income tax <sup>1</sup>				-125
Corporate income tax				
Petroleum and gas revenue tax		1 410	1 745	1 965
Modifications to depletion allowance, etc.		260	445	545
Indirect taxes				
Natural gas and gas liquids tax	255	1 285	2 220	2 880
Extension of oil export charge <sup>2</sup>		330	450	525
Oil export charge rebate to provinces	-70	-380	-420	-420
Net petroleum compensation receipts			225	660
<b>Non-Energy</b>				
Personal income tax		-15	-15	-15
Corporate income tax		-50	-50	-50
Indirect taxes	-5	115	310	500
Other	5	10	10	10
<b>TOTAL</b>	<b>185</b>	<b>2 965</b>	<b>4 920</b>	<b>6 475</b>

1 Indefinite extension of exploration expenses write-off by individuals and non-resource companies.

2 Extension to marine and aviation fuels.

Source: Department of Finance, *The Budget*, Ottawa, October 1980.

reflecting essentially increased energy taxation, fiscal receipts are expected to be substantially strengthened in coming years, with their share in relation to GNP rising from 15.4 per cent in fiscal 1979-1980 to 17.2 per cent in 1983-1984. The detailed measures concerning energy pricing and taxation are presented in Part III of this Survey. As can be seen from Table 11, the major impact on revenue growth would stem mainly from the new petroleum and gas revenue tax, effective 1st January, 1981 at a rate of 8 per cent, and from the imposition of a tax on all natural gas sales (including those to the export market) as from 1st November, 1980<sup>50</sup>. Other measures will on balance have a much smaller effect.

The government's expenditure plan, which constitutes the second basic element of the authorities' overall strategy, calls for a progressive reduction in the rate of growth of total outlays from 13.2 per cent in fiscal year 1980-1981 to 10.1 per cent by 1983-1984, a trend growth approximately in line with that of GNP. With the new Petroleum Compensation Program<sup>51</sup> and given the

50 See footnote 77.

51 This new Program replaces the former Oil Import Compensation Program and the Petroleum Compensation Revolving Fund. The following balances have been projected (\$ millions):

Fiscal year	Gross Petroleum Compensation Payments	Petroleum Compensation Charge	Net payments (-) or receipts (+)
1980-1981	-3 950	1 215	-2 735
1981-1982	-3 820	3 470	-350
1982-1983	-4 795	5 020	225
1983-1984	-5 780	6 440	660

For more details on these various schemes see Part III below.

profile announced for the blended oil price over the next three years, net petroleum compensation payments are projected to give way to small net receipts as from fiscal 1982-1983. As a result, in spite of a marked increase in funding for new and existing exploration and development programmes, total outlays on energy are actually expected to fall in 1981-1982, but to resume rapid expansion as from 1983-1984. It is also planned to keep the growth rate of expenditure on social affairs below that of total outlays. As noted, a large proportion of social spending is accounted for by major transfer programmes to persons and to provincial governments. Because of the statutory nature of such programmes, savings are not assumed to take place until 1982-1983, but are nevertheless expected to include reductions in federal transfers to provinces relating to areas coming under provincial jurisdiction. At the same time, federal-provincial arrangements governing Established Programs Financing will be subject to renegotiation shortly<sup>52</sup>. Projections shown in Table 9 assume, however, continuation of current arrangements

Measures have been taken to restrict the growth of fiscal transfers to provinces. To curb the expansion of equalization payments<sup>53</sup>, which account for an appreciable part of total fiscal transfers, a bill at present before Parliament amends the current formula to exclude from equalization any province with per-capita personal income regularly above the national average. This legislation, which was introduced in 1978 and which will take effect as from that year, affects a province like Ontario which otherwise would have been eligible to receive such payments. As already noted, this legislation also has the effect of phasing out equalization in respect of provincial revenues from oil and gas land sales. Most other spending categories will also be affected by fiscal restraint with a view to maintaining the growth rate of total outlays below that of nominal GNP. Public debt charges are expected to continue to increase, albeit at a decelerating rate, and their share in total outlays is projected to rise from 17.3 per cent in 1980-1981 to 19.7 per cent by 1983-1984.

Needless to say, considerable uncertainty attaches to these medium-term fiscal projections. In the field of energy-related receipts and expenditure much will depend on international oil price developments as well as on domestic output and consumption of oil and gas. Public debt charges will also be significantly affected by interest rate movements. Equally, the trend of fiscal revenues and outlays will be considerably influenced by the future course of the Canadian economy. The terms under which federal-provincial fiscal arrangements are renegotiated in 1982 may also have important consequences. Irrespective of the outcome, the discretionary measures already contained in the medium-term fiscal programme attest to the federal government's determination to reduce fiscal imbalances in order to restore more flexibility in economic management.

52 Under Established Programs Financing arrangements the federal government contributes to the costs of hospital insurance, Medicare and post-secondary education and under the Canada Assistance Plan it shares one-half of the costs of provincial outlays on public assistance and welfare services.

53 The following equalization payments are projected:

	1980-1981	1981-1982	1982-1983	1983-1984
\$ millions	3 481	3 855	4 331	4 819
Percentage change	4.8	10.7	12.3	11.3

In fiscal 1980-1981 equalization payments are estimated to amount to some 27 per cent of cash transfers to the provinces and to just under 20 per cent of total transfers (that is, including tax transfers).



### *Federalism and demand management*

Given that "leakages" over provincial borders may seriously dilute the impact of local policy initiatives<sup>54</sup>, co-ordination of demand management policy would seem desirable in a federal country such as Canada. In practice, the size of the provincial governments and their relatively large degree of autonomy does pose problems for the co-ordination of economic policy objectives between the various levels of government. Since the central authorities are alone responsible for monetary policy, the problem is essentially concentrated to the fiscal sphere including debt management.

While the income and expenditure flows shown in Table 6 give an indication of the relative volume of resources at the disposal of governments, it is relevant to consider the flexibility with which these flows may be varied for policy purposes. Besides the overriding constraint stemming from the overall fiscal position, flexibility also depends on the nature of the various instruments at the disposal of government. It has been argued in this latter respect that the federal government is at a distinct disadvantage as not only may reactions to changes in both personal and corporate direct tax rates be so lagged that their efficacy is doubtful, but also those expenditures traditionally used for stabilization purposes fall largely within provincial or municipal jurisdiction<sup>55</sup>. These considerations suggest a potential need for co-ordinating mechanisms if the consistency and efficiency of overall general government policy are to be assured.

### *Trends in the Canadian economic union*

Maintenance of an economic union implies broad acceptance by its individual members of economic specialisation according to their respective comparative advantages as dictated by resource endowments. On the other hand, however, acceptance of a narrow economic base can involve constraints on governments' ability to reduce the amplitude of economic fluctuations for social and economic reasons. Accordingly, some provinces have been pursuing policies designed to foster industrial diversification and increase local decision-making (policies not precluded by constitutional prerogatives). Thus, in the area of domestic commerce the BNA Act has in practice been largely limited to preventing the imposition of customs duties on goods, but has not prevented the introduction of various non-tariff barriers<sup>56</sup>. The federal powers over money and banking have paved the way for a national banking system and a relatively freely-operating capital market. But, even in this latter area there are examples of impediments developing.

Certain measures taken by the provinces have had an impact on the free circulation of goods, services and production factors. With regard to goods and

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54 See, for example, C. Pestieau and J. Maxwell, *Economic Realities of Contemporary Confederation*, C.D. Howe Research Institute, 1980.

55 The exact degree of fiscal leverage at the disposal of the different governments remains open to debate. Thus, among the more extreme views, Y. Rabeau and R. Lacroix claim that the federal government is virtually restricted to its fixed investment outlays as a stabilization instrument, as transfers and the wage element of current expenditure are essentially of a recurring nature. As against about 4 per cent for the central government, some 10 and 30 per cent of provincial and municipal outlays respectively are considered as potentially variable for counter-cyclical purposes. In absolute terms the volume of such expenditure at the provincial/local level would be some five times the federal figure. For more details see by these authors: "Economic Stabilisation and the Regions: the Dilemma in Canada", *Proceedings of the Workshop on the Political Economy of Confederation* held jointly by Queen's University and the Economic Council of Canada, November 1978.

56 Furthermore, services are not referred to in the Act.

services, provincial governments generally accord preference to local suppliers in their procurement policies and may also encourage local authorities as well as public utilities (which are relatively important in Canada) to do likewise. Of more recent date some provinces have moved to increase the degree of local processing of natural resources. Provincial control over the trucking industry<sup>57</sup> has resulted in a variety of regulations and rates, while the setting of product standards may (as in international trade) act as a non-tariff barrier. In this context it may also be noted that the numerous agricultural marketing boards, which account for the sale of the great bulk of Canadian primary produce, set geographic supply quotas. In the labour market there has been some increase in preferential recruitment of local labour, while varying licensing requirements for professional and skilled people reduce manpower mobility<sup>58</sup>. A number of measures have been taken to attract capital inflows, including direct tax concessions, grants and subsidies, while control over provincial investment funds and of pension funds has discouraged outflows. In addition, eligibility for tax credits may be restricted to local companies and curbs have been placed on the ownership of land by non-residents. More recently, there have been instances of take-over bids for local enterprises by extra-provincial companies being blocked<sup>59</sup>.

It is impossible to quantify the impact of these actions, some of which (e.g. public procurement policies) are much more prevalent than others (e.g. blocking of take-overs). However, the incidence of such interventionary practice seems to have been on the increase. Indeed, as at the international level, there may be a risk of a competitive escalation, particularly as the pressures for such action may well intensify during a period of relatively slow economic growth. Fragmentation of a national market already limited to 24 million people into even smaller segments would lead to an erosion of existing economies of scale and specialisation, with corresponding adverse effects on Canadian trade, capital flows and growth prospects.

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57 The transportation industry is characterised by a high degree of regulation at both the federal and provincial levels. Each province has developed its own separate set of rules and regulations, complicating the conditions under which the industry is obliged to operate.

58 Canada is the only federal state in the OECD which does not guarantee freedom of labour mobility within its borders.

59 Among specific examples of the various measures listed in this paragraph it may be mentioned that *Alberta* requires authorisation of oil and gas sales for use outside the province and companies using oil and gas must favour local suppliers of goods and services. Special investment tax credits favour locally-headquartered companies, at least one-half of whose board members must in turn be Alberta residents. In *British Columbia* mines may be required to deliver up to one-half of their output to local refiners and the province recently effectively discouraged an outside take-over bid for a local company. *New Brunswick*, like most other provinces, favours local sources in its procurement policy and also actively employs cost-plus contracts to foster local suppliers. *Newfoundland* requires offshore drillers to give preference to hiring local residents, while *Nova Scotia* relies exclusively on local businesses for its government purchasing provided at least three such suppliers are available. *Prince Edward Island* restricts land ownership by outside companies and individuals. *Quebec* construction companies must give preference to local workers and the government accords up to a 15 per cent price advantage to local suppliers and special investment tax credits to locally-headquartered companies. The government pension fund is used to maintain control of Quebec companies and recently an extra-provincial take-over bid for a local company was blocked. *Saskatchewan* requires minerals to be mostly processed locally. For further details see, for example, the discussion paper published by the Canadian government, *Securing the Canadian economic union in the Constitution*, July 1980.

### III ENERGY PROBLEMS AND POLICY

As a net exporter of energy, Canada was favourably placed to meet the shocks imparted by the upsurge in world energy prices as from late 1973<sup>60</sup>. The country was indeed spared the most direct effect of the rise in world oil prices—namely the terms-of-trade loss. However, indirect repercussions associated with the international adjustment to higher energy prices have had relatively strong adverse effects on the Canadian economy:

- Canada is the largest consumer of energy per capita and per unit of output in the OECD area, implying for a given price increase a correspondingly severe real income loss for the non-energy sector, thereby exacerbating existing regional and structural problems.
- The indirect impact via international trade flows appears to have been relatively strong; this reflects the deflationary impact of higher oil prices on other OECD economies, in particular the United States.
- In addition, given its trade structure, Canada has benefited relatively less from OPEC responding than most other Member countries<sup>61</sup>.

In the somewhat longer term the Canadian oil supply outlook is not as favourable as it appeared during the 1960s. Already before the first oil crisis it had become evident that special conservation measures were warranted as gross additions to proven reserves of “cheap” conventional oil fell short of production. Canada has since reverted to being a net oil importer, and although the picture has brightened noticeably over the recent past, the new hydrocarbon discoveries are much less accessible than earlier finds. In the seven years to 1980 domestic prices for crude petroleum and natural gas have been kept below world market prices, and the rise in energy prices to final users has in general been less pronounced during the period than in other countries. Unlike in the United States, the authorities have not opted for a strategy to adjust domestic prices to international levels. Indeed, in the National Energy Program presented in October 1980 along with the budget, the federal government has announced its intention to keep Canadian prices below international levels throughout this decade with, however, a reduction in the present gap. The uneven geographic distribution of the country’s energy resources which, allied to the difficulties of policy-making within the framework of the constitutional division of power between the federal and provincial authorities<sup>62</sup>, has hampered decision making also in this field. The following paragraphs examine the present and prospective energy situation in Canada, describe energy policies including the proposed National Energy Program and look at some of the macro-economic implications of energy policy.

#### *Energy balance and potential resources*

Canada is richly endowed with a wide range of energy resources. While reserves of natural gas, coal and uranium should last at least into the next century, tar sands represent the country’s most prolific indigenous energy source.

60 Canada’s overall surplus in international trade in energy was equal to 1.0 per cent of GNP in 1979. For Norway and Australia, the only other such surplus countries in that year, the corresponding figures amounted to 5.8 and 0.4 per cent respectively. The United Kingdom has also since moved into surplus.

61 Canada’s exports to OPEC represent around 2½-3 per cent of its total exports, compared to a figure of around 8-9 per cent for the average of the OECD area.

62 See Part II above for a discussion of these issues.

Table 12 **Geographic distribution of Canadian energy supply and demand, 1979<sup>1</sup>**

Per cent

	Supply Demand			Supply Demand	
	Supply	Demand		Supply	Demand
Alberta	78.3	15.4	Prince Edward Island	—	0.3
British Columbia	9.5	8.6	Quebec	—	17.6
Manitoba	0.3	3.2	Saskatchewan	6.3	5.3
Atlantic provinces	0.9	8.1	Yukon and N.W. Terr.	0.1	0.3
Ontario	4.6	41.2	Total	100.0	100.0

1 Data are based on production and consumption of energy (excluding hydropower) measured in petajoules. Electricity is converted at 10.5 Mj/kWh.

Source: Statistics Canada, *Detailed Energy Supply and Demand in Canada, 1979*.

However, exploitation of the latter continues to encounter severe technical and institutional problems. On the other hand, despite conservation measures, which have contributed to a substantial reduction in output, proven reserves of "conventional" crude oil are estimated at the equivalent of only around 10 years' production<sup>63</sup>. Apart from these non-renewable resources, Canada also possesses ample hydro-power, prospects for the exploitation of which appear relatively favourable.

Reflecting these resource endowments, but also taking into account net international trade movements in which Canadian deficits on crude oil and coal are more than offset by surpluses on natural gas, uranium and electricity, the structure of domestic demand contrasts with the pattern typical for the OECD area. The difference is most marked in respect to the large share of hydropower which accounts for over one-quarter of total requirements compared with only 6 per cent on average for OECD-Europe<sup>64</sup>. This is counterbalanced by a much smaller contribution from solid fuels and less dependence on oil. Variations in the sectoral pattern of use compared with the average OECD picture are much less marked. The main difference lies in the larger share absorbed by transportation, counterbalanced by a lower share going to industry.

While the Canadian supply structure is particularly favourable in view of the importance of renewable energy sources, the country's *overall* energy intensity is such that per-capita consumption of non-renewable energy is substantially above the OECD-Europe average (Diagram 5). In fact, Canada is the largest consumer of energy<sup>65</sup> per unit of output in the OECD area by a clear margin. While the country's severe climatic conditions, industrial structure and low population density contribute to this situation, the pricing policy pursued by the public authorities has also played a role. Since 1973 Canada's relative situation has deteriorated, as average input requirements have even risen slightly compared with reductions of about 6 and 7 per cent for the United States and other OECD countries respectively<sup>66</sup>. In terms of oil usage alone, however, Canadian performance, thanks to substitution, has been somewhat better than

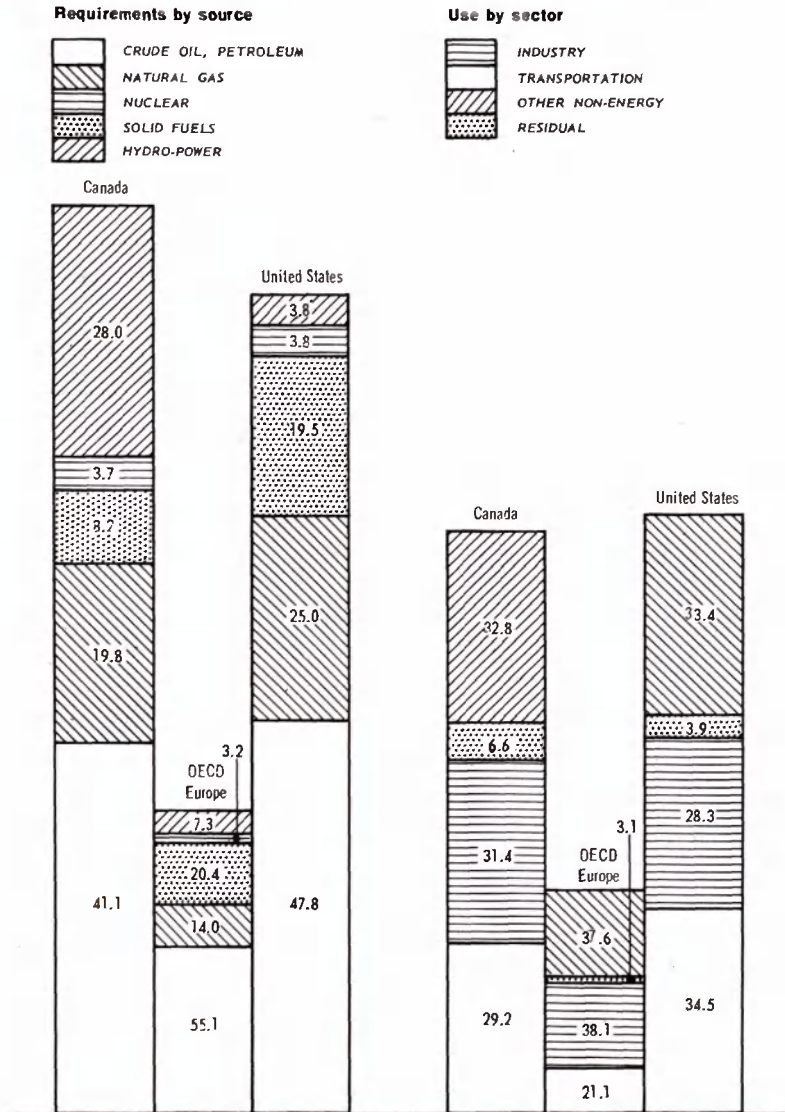
63 This estimate does not take account of recent discoveries off the Newfoundland coast (Hibernia field) which have yet to be evaluated but which reportedly may prove to be very substantial—though costly to exploit.

64 Hydroelectric power is relied on to the greatest extent by Norway and Iceland within the OECD area, followed by Sweden and Canada. While Canada appears to have considerable scope for further developing these resources, this does not appear to be the case in the other countries except Iceland (on account, inter alia, of environmental opposition).

65 See Table 13.

66 It should be noted that differences in cyclical movements and in industrial structure might have contributed to the relatively unfavourable development of the Canadian energy intensity.

Diagram 5 Structure of energy supply and use, 1978<sup>1</sup>  
Per cent



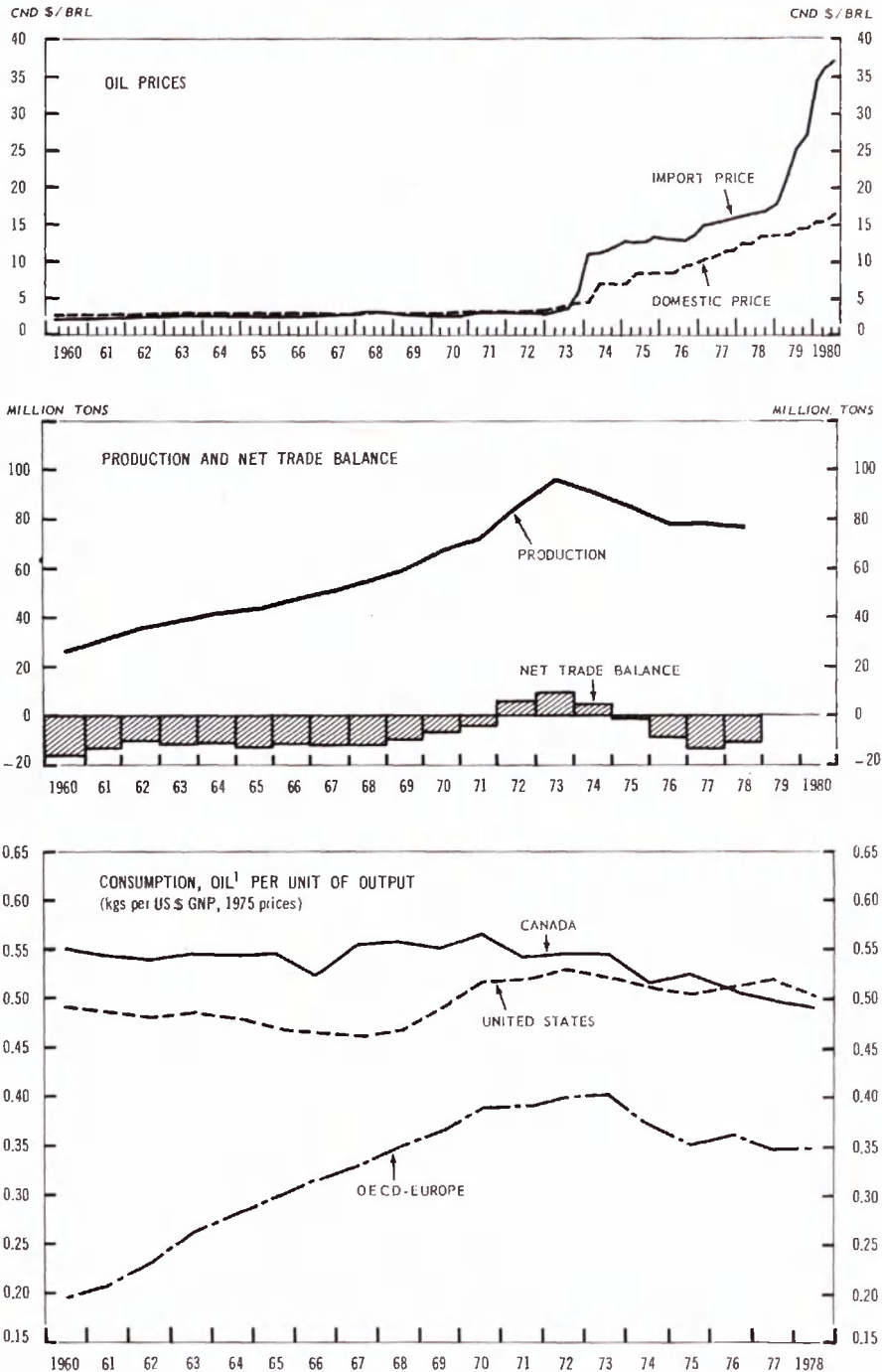
1 The height of columns reflect relative per-capita energy use.

Source: IEA, *Energy balances of OECD countries, 1974-78*.

that of the United States, but has still lagged behind that of OECD-Europe (see Table 13). Between 1973 and 1978 crude oil requirements per unit of output fell on average by some 2 per cent a year, compared with 3 per cent for the United States and 3 per cent in Western Europe<sup>67</sup>.

67 It is interesting to note that while oil intensity remained largely stable in Canada during the 1960s, it virtually doubled in Europe where real oil prices declined more rapidly.

Diagram 6 Oil prices, production and consumption



1 Including petroleum products.

Source: OECD.

Table 13 Oil and total energy intensity of output<sup>1</sup>

	1960	1970	1973	1978	Average percentage change		
					1960-70	1970-73	1973-78
Canada							
Energy intensity <sup>2</sup>	1.24	1.20	1.19	1.19	-0.5	-0.5	0.1
Oil intensity	0.55	0.56	0.54	0.49	0.3	-1.2	-2.1
USA							
Energy intensity	1.09	1.15	1.11	1.05	0.6	-1.1	-1.3
Oil intensity	0.49	0.52	0.52	0.50	0.5	0.3	-0.7
OECD Europe							
Energy intensity	0.66	0.68	0.68	0.63	0.3	-0.1	-1.5
Oil intensity	0.19	0.39	0.40	0.35	7.1	1.3	-2.9

1 Total primary energy requirements and total oil and petroleum product requirements divided by GNP/GDP at constant 1975 prices and exchange rates in terms of U.S. dollars.

2 It should be noted that, given the high share of energy requirements furnished by hydropower, Canada's total energy use assessed on an oil-equivalent basis may be biased upward due to the high thermal content of hydropower.

Sources: IEA, *Energy Balances of OECD countries*; OECD, *National Accounts of OECD Countries*.

Available data suggest that Canadian energy prices are among the lowest in the OECD area<sup>68</sup>. For instance, the price of gasoline is only about one-third of the average price in the four major European countries and only about 75 per cent of the U.S. price<sup>69</sup>. Prices of electricity are also much lower than in most other OECD countries, being (in 1977) about half the level of the United States and the United Kingdom and only about one-fourth of the French and German levels. The relatively low Canadian prices mostly reflect the low cost of domestic energy production (incl. transportation) and, equally important, lower taxation than in European countries. In addition, effective subsidization in various forms such as price controls on oil and natural gas, and direct government price support for oil imports has dampened the rate of increase in Canadian prices. It is interesting to note, however, that up to 1978 the rise in relative energy prices to consumers was faster in Canada than in the rest of the OECD area and that the movement was only reversed after the sharp increases recorded in other OECD countries in the wake of the second oil shock<sup>70</sup>. International comparisons of energy price responsiveness have generally found Canadian elasticities to be in the middle of the range, with perhaps a tendency for lower elasticities in the transportation sector due to the sparse population density.

### Energy policies

#### *Policies up to 1980<sup>71</sup>*

The basic aim of Canadian energy policy between 1973 and presentation of the National Energy Program in conjunction with the October 1980 budget has been to adapt to the profound changes in both external and domestic

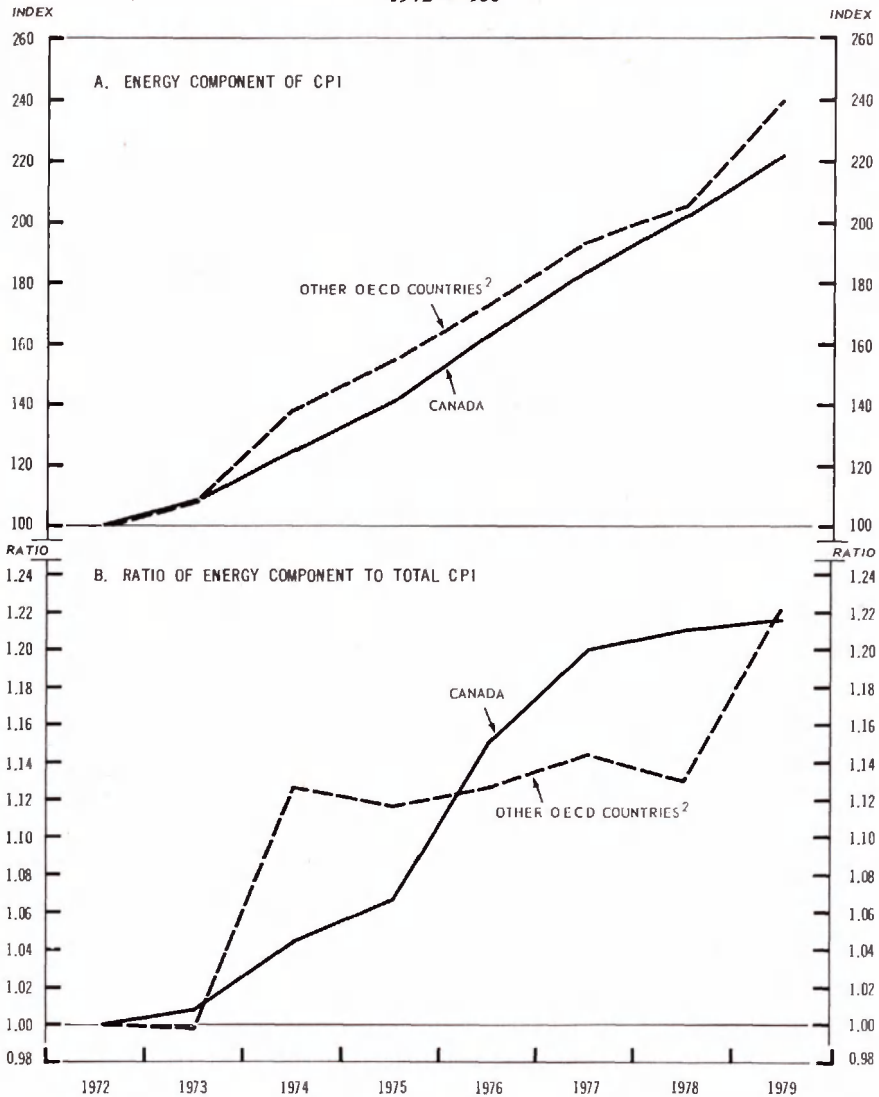
68 Precise international comparisons are difficult due to price differences for the various energy sources both within regions and sectors in the same country.

69 See Appendix D to the December 1979 *Budget Speech*. Within Canada gasoline prices also differ substantially mainly on account of differences in taxation; for example, in Alberta (the lowest) it is only about 75 per cent of the average in other provinces.

70 Comparisons are affected by the low initial level of Canada's energy prices and its slower rate of inflation.

71 Energy policies up to 1980 are described in detail in Annex I. It should be noted that the following discussion concentrates on the petroleum sector of the energy industry, although the hydro-electric and nuclear programmes are important elements of energy supply and investment.

Diagram 7 Energy consumer prices<sup>1</sup>  
1972 = 100



1 Covers fuel, light and gasoline except for Austria, Ireland, Luxembourg, New Zealand, Norway and Sweden (fuel and light only).

2 Simple average for Australia, Austria, Denmark, Finland, Germany, France, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom and United States.

Source: Secretariat estimates.

conditions while maintaining the degree of autonomy permitted by the country's resource endowments. Under the National Energy Policy, introduced in 1961 at a time when domestic oil was more expensive than imports, a dual pricing system prevailed; west of the "Ottawa Valley Line" was supplied by domestic production and the eastern part by cheaper imports. By early 1973, however,



Table 14 Federal oil revenue and expenditure  
\$ million

	1973	1974	1975	1976	1977	1978	1979
<b>Revenue</b>							
Share of oil/gas operating income	182	417	528	632	922	850	987
Net oil export charge <sup>1</sup>	13	1 423	1 242	828	488	317	599
Petroleum Compensation Revolving Fund <sup>2</sup>	—	—	—	—	—	20	208
<b>TOTAL REVENUE</b>	<b>195</b>	<b>1 840</b>	<b>1 770</b>	<b>860</b>	<b>1 410</b>	<b>1 187</b>	<b>1 794</b>
<b>Expenditure</b>							
Oil import compensation	—	885	1 692	1 048	923	644	1 084
Petroleum Compensation Revolving Fund <sup>2</sup>	—	—	—	—	—	30 <sup>3</sup>	275 <sup>3</sup>
<b>TOTAL EXPENDITURE</b>	<b>—</b>	<b>885</b>	<b>1 692</b>	<b>1 048</b>	<b>923</b>	<b>674<sup>2</sup></b>	<b>1 359<sup>3</sup></b>
<b>Balance</b>	<b>195</b>	<b>955</b>	<b>78</b>	<b>-188</b>	<b>487</b>	<b>513</b>	<b>435</b>
<i>Memorandum items:</i>							
Net oil export charge less oil import compensation	13	538	-450	-220	-435	-327	-485
Net Petroleum Compensation Revolving Fund	—	—	—	—	—	-10 <sup>3</sup>	-67 <sup>3</sup>

1 During 1973 and 1974 proceeds of the export charge, which equals the difference between the domestic wellhead price and the cost to refiners in the Minneapolis-St. Paul's area of the United States, were shared equally with the provinces.

2 The income of this Fund, derived from an excise tax (the "Syn crude levy") on all petroleum products refined in Canada, is used to compensate synthetic oil (tar sands) producers for the difference between the world and domestic wellhead prices.

3 Estimated.

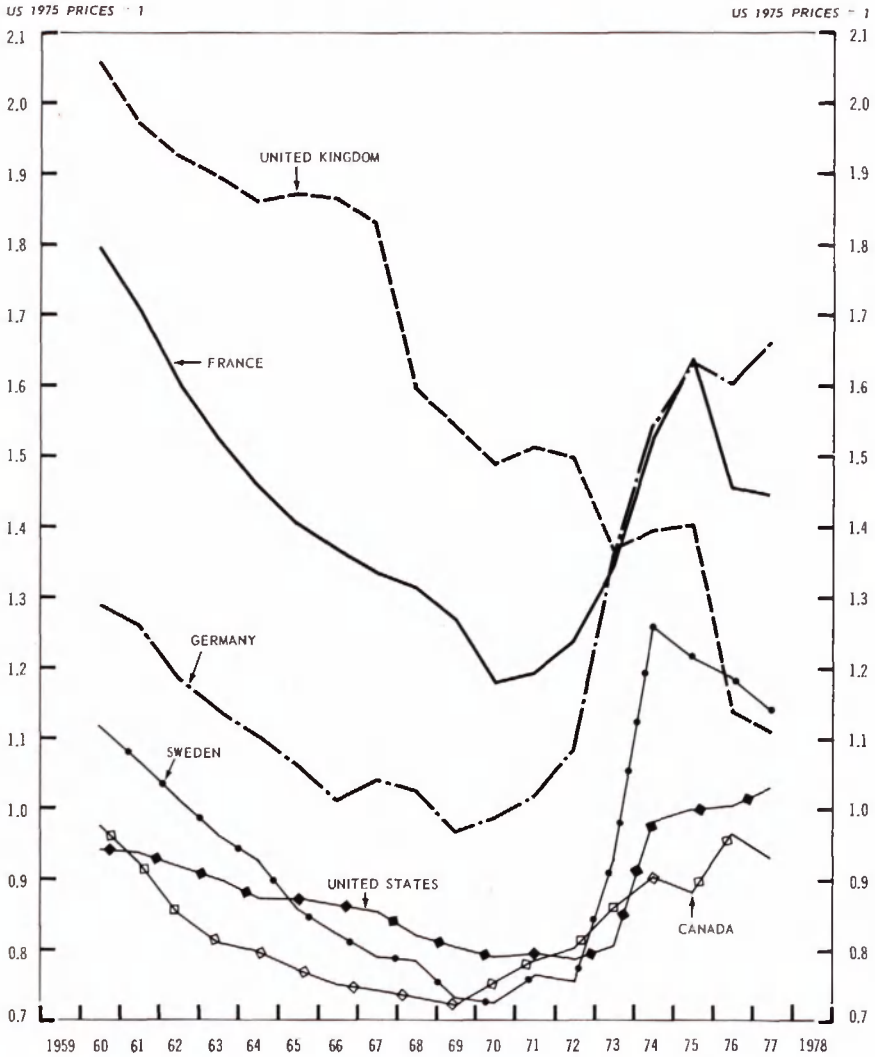
Source: Canadian submission to OECD.

the upward pressure on prices exerted by burgeoning United States demand led to Canada's freezing its domestic price and introducing both volume controls and a levy on exports. In response to the subsequent first oil shock, part of the increased cost of imports was allowed to be passed through while the price for domestic output remained frozen. A uniform price for all domestic sales (subject to transportation differentials) was established in 1974 when the effective cost to refiners of the more expensive imports was aligned to the domestic wellhead price through payment of a subsidy from the proceeds of the export levy<sup>72</sup>.

In 1977, in the light of a rapid depletion of conventional oil reserves, an energy programme was launched, based on the recommendations of a federal government report issued the preceding year. Having as its overriding objective energy self-reliance, the programme centred on pricing policy as well as specific measures to promote conservation and supply. A schedule of 6-monthly \$1 per barrel increases in the wellhead price was instituted with a view to moving the latter towards the Chicago level<sup>73</sup>. This timetable, which up to the second oil shock had significantly reduced the gap between world and domestic prices,

72 The federal government agreed that production from oil sands be paid the world price, with refiners being subsidized for the cost differential from the "Syn crude levy". However, in early 1980 the federal government repudiated this agreement with producers by invoking its "force majeure" clause in the light of the rapidly-escalating world price. The price for synthetic oil has now been set at a level approximately equal to the 1980 international price, and is to be escalated by the CPI (see footnote 75).

73 However, the eventual relationship to the Chicago price was not made precise. Furthermore, as it represents the weighted average of domestic and import prices, the Chicago price remains below world parity.

Diagram 8 Real energy prices to final users<sup>1</sup>

1 The levels of real energy prices to final users were derived in two steps: first, an absolute energy price to final users for each of the three sectors in 1975 was computed by weighting fuel prices according to the share of the different energy forms in the total of sectoral energy use. Second, the absolute energy prices for the United States in 1975 were set equal to 100 and indices for real energy prices to final users adjusted for changes in exchange rates were then applied to reconstitute a series of internationally-comparable price data.

Source: OECD Secretariat.

was adhered to until the beginning of 1980. Following failure to reach broad agreement between the interested parties, Alberta unilaterally raised the price by \$ 2 in August 1980. In the area of conservation, comprehensive programmes were launched covering *inter alia* home insulation, informational campaigns directed toward industry, and support to research and development. To boost

supply fiscal incentives were accorded to promote exploitation of non-conventional oil. Canada has, at the same time, been party to combined international efforts to reduce overall OECD oil dependence. Natural gas export prices and volumes have also been subject to federal control. Since mid-1975 domestic pricing policy has been aimed at maintaining the cost at 85 per cent of the oil energy equivalent<sup>74</sup>.

### *The National Energy Program*

The National Energy Program presented to Parliament together with the October budget proposals, aims at achieving security of supply and ultimate independence from the world oil market by 1990. It provides for a different sharing of energy benefits and burdens between the various interested parties and envisages substantially increased Canadian ownership and control of the petroleum sector, as well as an expanded role for the public sector. The package, which aims at ensuring greater industrial benefits from energy development, includes a new pricing regime, fiscal initiatives and an expenditure programme, as well as more direct federal action to achieve the above-mentioned aims.

A new pricing schedule for domestic oil production has been established together with a formula for blending the costs of domestic and imported oil into a single weighted-average price to consumers. As from 1st January 1981 the domestic per-barrel wellhead price of conventional oil is to be raised stepwise every six months by \$ 1 up to end-1983, thereafter by \$ 2.25 to end-1985 and subsequently by \$ 3.50 until it reaches "its appropriate quality-determined level relative to the oil sands 'reference price' "<sup>75</sup>. Should there still be a shortfall by 1990 a more rapid rate of escalation is to be considered. The "blended price" is arrived at by adding to this wellhead price a Petroleum Compensation Charge which is designed to defray the costs of subsidizing higher-price domestic non-conventional oil and imports. Thus, the price to oil consumers will rise significantly faster than the wellhead price; by \$ 3.80 in 1980 and by \$ 4½ in each of the following three years. At the end of 1980 this new Compensation Charge imposed on domestic refiners will amount to \$ 2.55 per barrel, consisting of the existing \$ 1.75 "Syn crude levy" plus 80 cents to finance part of oil import compensation costs. A \$ 2.50 a barrel increase is scheduled to take place at the beginning of each of the next three years<sup>76</sup>. Compared to the previous system, the new formula will shift the burden of imported oil prices from the taxpayer to the oil consumer. In order to maintain a competitive advantage for Canadian industry it is, however, planned that the blended price should not exceed 85 per cent of the international price or the average price in the United States, whichever is the lower.

With a view to providing adequate incentive for users to substitute natural gas for oil, it is planned to raise the natural gas price less rapidly than that of oil. The Toronto city gate price will increase by 30 cents per Tcf (thousand cubic feet) on 1st November 1980, by 15 cents in 1981 and by 45 cents in 1982 and 1983. This pricing schedule will result from the imposition of a new federal natural gas and gas liquids tax and relatively moderate increases in

<sup>74</sup> In fact, the price has varied between 80 and 83 per cent of the oil energy equivalent during 1976-1980.

<sup>75</sup> The "reference price" is a special incentive price offered for synthetic crude oil from tar sands. Effective from the beginning of 1981, the price will be set at \$ 38 per barrel escalated annually by the consumer price index subject to a ceiling equal to the international oil price. Different incentive schedules are to apply to other oil categories (tertiary enhanced, upgraded heavy oil, etc.).

<sup>76</sup> For a discussion of the impact of energy pricing on government finances see Part II above.

producer prices. Initially the tax will be set at 30 cents per Tcf on 1st November 1980<sup>77</sup>; with a further increase of 15 cents on 1st July 1981, 1st January 1982 and 1st January 1983. This implies that the field price of natural gas will not increase in 1981, the rise thereafter being limited to 15 cents per Tcf for every \$ 1 per-barrel rise in the wellhead price of conventional oil<sup>78</sup>.

With regard to taxation and revenue sharing, besides the Petroleum Compensation Charge and the natural gas tax referred to above, the revised fiscal regime also includes a new 8 per cent federal tax on net revenue from oil and gas production in Canada. At the same time, many of the income tax concessions hitherto granted to stimulate drilling and exploration activity are to be replaced by new expenditure initiatives and production incentives. The tax incentives have largely benefited large established corporations—mostly foreign-owned or controlled<sup>79</sup>. A Petroleum Incentives Program is to be established to provide grants<sup>80</sup> that vary according to the level of Canadian ownership and control of the enterprise. The impact of these various measures on the federal government's fiscal position has been reported in Part II of the Survey. It may be recalled that its share of oil and gas revenue is expected to increase from a present 10 to an estimated 24 per cent by 1983. This increase is almost entirely at the expense of the oil and gas producing companies whose share is estimated to fall from 45 to about 33 per cent. Hence, the provincial governments' estimated share of 43 per cent would be only marginally below the present 45 per cent.

The new Energy Program also contains a number of measures designed to increase Canadian ownership of the oil and gas industry to at least 50 per cent by 1990. This will imply "Canadianization" of a significant number of the major foreign-owned and/or controlled firms and an early acquisition by the Canadian government of several foreign companies. As noted, the new Petroleum Incentives Program will be geared to Canadian ownership and control. The National Energy Board will also be asked to take Canadian ownership into account<sup>81</sup> when considering export applications. In addition, new legislation covering the Canada Lands<sup>82</sup> will require a minimum of 50 per cent Canadian ownership—private or public—for any production in these areas. The State-owned enterprise Petro-Canada will act as agent for the federal government to acquire the Canadian operations of one or more multinational oil companies if these are willing to sell. Initially, the financing of such operations is to be largely ensured by foreign borrowing, but a domestic "Canadian Ownership Account" will also be established to this end, financed by special charges on oil and gas consumption in Canada.

### *Some macro-economic implications of energy price increases*

Being one of the few net energy exporters in the OECD area, Canada can be expected to be affected differently by increases in world energy prices than the bulk of OECD Member countries. However, it is difficult to quantify these

77 It should be noted that all natural gas sales are subject to the tax, including exports. In the latter case, however, the tax will be imposed only as from 1st February 1981.

78 Producers' returns from natural gas have risen faster since the mid-1970s than those from oil, in large part because of faster growth in net export receipts to producers and in spite of excess production capacity.

79 About two-thirds of the 25 largest oil and gas companies in Canada accounting for about 72 per cent of total sales are foreign-owned or controlled.

80 Details of these grants are described in the National Energy Program, pp. 38 to 42.

81 In granting licences, preference would be given to Canadian-owned and controlled firms.

82 Under the BNA Act large areas of Canada are under federal jurisdiction. These include the area off Canada's coasts, the Yukon and Northwest Territories and certain other smaller areas.

effects with a reasonable degree of reliability. Among the major factors having a bearing on the net impact of an energy price rise are the scope for factor substitution in the production process, inter-sector resource shifts, the income redistribution effects on savings, initial levels of resource utilisation and the openness of the economy to capital flows<sup>83</sup>.

In the simplest case assuming full employment, no factor substitution, maintenance of a zero balance on the current account of the balance of payments and no capital movements, a pure energy importer having no domestic energy sector will suffer a loss in real income owing to the terms of trade deterioration, but no decline in real output to the extent that production is shifted from domestic demand to the external sector to pay for the increased cost of imports. The reduced real income implies lower total savings and subsequently a decrease in the capital/labour ratio. Where factor substitution is possible, real output will tend to fall since the incentive to substitute a fixed supply of capital and labour for energy leads to a reduction in energy usage and so of output, but this alleviates the extent of the terms of trade loss and of the real income decline. A pure energy exporter would correspondingly enjoy a real income gain, high savings and an increase in the capital/labour ratio. The result for the intermediate case of a country with both energy and non-energy sectors will, of course, depend on the size and sign of its net energy trade balance. Some resource shift into the energy sector can be expected, which will raise real income. The increase savings resulting from higher real income should boost real output in the longer run. Of course, in practice, at least in the short run, both a pure energy importer and a country with a domestic energy sector can both suffer a deflationary demand impact to the extent that:

- In the first case the impact of the real income loss stemming from the terms of trade deterioration is not offset by a real transfer of resources abroad.
- In the second case the transfer of income from the consuming sectors to the energy sector results in higher saving.

It is not possible to assess precisely the macro-economic impact of the new energy package since econometric simulations carried out by a number of institutions<sup>84</sup> before the announcement of the Program were based on assumptions not exactly similar to the measures actually taken. Technical shortcomings also limit the validity of the results. Indeed, several factors make the tracing of the macro-economic effects of an oil price increase difficult. Firstly, the various models used are of a macro-economic type without a distinct energy sector block, with the result that the supply and demand response of the energy sector per se cannot be captured directly. Simulations have either been coupled to an energy

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83 A further important consideration for an energy producer is whether the price rise results from exploitation of market power to increase the producer's rent or whether it follows an increase in costs of production. The following discussion is limited to the first alternative.

84 These include, for example:

- Data Resources of Canada, using the DRI model, "Five Year Control with Oil Price Shocks", *Canadian Review*, September 1979.
- Economic Council of Canada, using the CANDIDE model, "Two Cheers for the Eighties", Sixteenth Annual Review, August 1979 and "Canada—the medium-term Performance and Issues", October 1980.
- Statistics Canada, using an input/output model, "Calculating the Cost-Push Effects of Increasing the Domestic Price of Crude Oil towards the International Price using the Statistics Canada Price Model", *Canadian Statistical Review*, July 1980.
- The Department of Finance has also carried out unpublished simulations using the Bank of Canada RDX2 model.

Table 15 Energy price simulations<sup>1</sup>

	1980	1981	1982	1983	1984	1985
	Per cent change					
Consumer price index						
Former policy	9.8	9.7	8.9	7.9	7.8	8.0
Blended price	9.9	10.0	9.4	8.9	8.9	9.4
Real GNE						
Former policy	-0.4	1.6	3.5	3.9	3.8	2.7
Blended price	-0.4	1.6	3.4	3.5	3.2	2.0
	Per cent					
Unemployment rate						
Former policy	7.9	8.1	7.6	7.1	6.6	6.3
Blended price	7.9	8.0	7.5	7.0	6.7	6.6
	\$ billion					
Federal government deficit						
Former policy	-10.8	-12.9	-13.4	-14.3	-13.6	-14.4
Blended price	-10.8	-11.6	-11.6	-10.9	-8.0	-6.1
Provincial government surplus						
Former policy	2.7	3.9	5.2	6.2	7.4	8.4
Blended price	2.7	3.9	4.9	5.5	6.1	6.5

1 The simulations illustrate the difference between raising the domestic price of oil by \$2 per year ("former policy") on the one hand and by an average of \$4.8 per year ("blended price") on the other. In both cases the wellhead price rises by \$2 per year, with the balance in the blended price simulation accruing to the federal government. This latter case corresponds most closely to the provisions of the National Energy Program according to which the average increase amounts to \$4.5 per year. The gas price increase is about 30 cents per Tcf a year in each simulation.

Source: Economic Council of Canada, *Canada - The Medium-Term Performance and Issues*.

price model (e.g. in the Ministry of Finance's and the Economic Council's simulations) and/or various ad-hoc assumptions made regarding the price and income elasticities of energy demand and supply. However, considerable uncertainty attaches to the values of these elasticities<sup>85</sup> as well as to the response of such economic variables as wages and investment outside the energy sector to an increase in oil prices.

However, some of the assumptions retained in the simulations performed by the Economic Council of Canada were close enough to the pricing decisions announced in the energy package to provide a rough estimate of the impact of the recent programme. Compared to the case where oil prices to users would have been increased by around \$2 per barrel a year<sup>86</sup>, a rise of about \$5 under a blending formula<sup>87</sup> would result in a level of real GNP around 1.7 per cent lower after 5 years. The cumulative differential price effect, as measured by the

85 The own-price elasticity of oil demand in the above-mentioned models has in most cases been set at zero and at most -0.5. However, recent empirical studies have generally found higher values (-1 to -1.5) and the significant reduction in Canada's oil intensity of production lends support to these findings. This reflects in particular the potential for interfuel substitution—especially in favour of natural gas. For more details see R.K. Sahi and R.W. Erdmann, *Energy Policy Modelling, United States and Canadian Experiences*, Department of Energy, Mines and Resources, Ottawa; *Interfuel Substitution and the Industrial Demand for Energy; An International Comparison*, Massachusetts Institute of Technology, Working Paper MIT EL 77-026 WP, August 1977.

86 From increases in the wellhead price paid to producers.

87 This case assumes the same increase in the wellhead price (i.e. \$2 per barrel a year), with the balance accruing to the government sector.

consumer price index, would amount to around 3½ per cent by the end of the period. The net effect on the unemployment rate during the period would be very small. As could be expected, the federal government emerges as the main beneficiary of the blended price scenario, with its budget deficit reduced by nearly 60 per cent compared to the case where the \$2 schedule is maintained. It should be noted that the Council's simulations assumed a significantly smaller increase in the natural gas price than provided for in the new energy programme.

Even though the results should be treated with great caution, they do illustrate that in the case of a country with a large energy sector like Canada the detrimental effects of a rise in domestic oil prices on growth and inflation can be important in the medium-term depending, however, on the speed and form of recycling of oil revenues. It is not possible to measure directly the longer-term beneficial effects of the upward adjustment of Canadian oil prices. Evidently it would not be in the country's long-term interest to develop an industrial structure and a consumption pattern significantly more energy-intensive than in other countries. This would only increase the adjustment burden upon depletion of conventional resources since alternative energy sources are only available at much higher costs in line with world market prices. Canada's present position as a net energy exporter gives, however, the authorities greater scope for controlling the deflationary impact of oil price increases than in other Member countries but does not make it any less urgent to adjust its economic structure to higher energy prices.

#### IV SHORT-TERM PROSPECTS AND POLICY CONCLUSIONS

##### *Policy and external environment assumptions*

The October budget proposals imply a further tightening of stance as measures announced in conjunction with the new Energy Program should have a significant impact on federal finances. Revenue is estimated to increase by some 23 per cent in fiscal 1981-1982, with the two major new energy taxes (the petroleum and gas revenue tax and natural gas and gas liquids tax) accounting for 90 per cent of the impact of discretionary tax increases<sup>88</sup>. However, indexation of personal income tax scales has been retained for the 1981 tax year<sup>89</sup>. With expenditure projected to rise by around 16 per cent<sup>90</sup>, the federal deficit on a national accounts basis is forecast to fall by almost \$2 billion to \$10.1 billion or around 3.2 per cent of GNP in 1981-1982. In summary, the federal budget is likely to have a perceptible restrictive impact over the forecast period. However, the operations of provincial/local governments may have an offsetting effect, the extent of which is difficult to assess. The provincial budgets presented in the spring of 1980 imply an easing in the earlier restraint on expenditure growth, but their budgetary stance for 1981-1982 remains as yet largely unknown.

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88 Receipts under the new Petroleum Compensation Charge are estimated to fall short of Petroleum Compensation Payments during the year, but could subsequently yield a surplus (see footnote 51).

89 Indexation is estimated to "cost" some \$1½ billion next year; that is, more than the receipts from either of the two major energy taxes.

90 This compares with a 12.8 per cent increase shown for total outlays on a public accounts basis which is consistent with the government expenditure planning framework. Expenditures on a national accounts basis do not incorporate the saving resulting from the reduction in the net cost to the federal government of the net oil import subsidy.

As usual, the outlook for the United States will be of considerable importance from the viewpoint not only of export prospects but also of the influence which conditions in that country's financial markets will have on the Canadian monetary policy setting. United States import volumes, which are forecast to continue declining during the second half of 1980, are expected to recover in the course of 1981. However, there seems to be considerable uncertainty about the likely strength of demand in two major segments of the United States market of particular importance to Canada. Firstly, the forecast recovery of auto sales may not benefit the Canadian industry fully since the latter is not expected to make significant progress toward restructuring production in favour of smaller cars before late 1981 at the earliest. Secondly, the turn-around in United States interest rates following their sharp fall in the second quarter of 1980, apart from the possible implications for the recovery in general, could have a serious impact on the revival of housing investment which is of particular interest for Canadian lumber exports.

In spite of an anticipated strengthening of the current external balance in 1981, which will reduce the need for capital inflows, some positive margin of Canadian interest rates above United States levels is assumed. *Prima facie*, some upward pressure on rates may not be in conflict with maintenance of the 5-9 per cent growth rate target for the money supply since this range is below the projected growth rate of nominal GNP. In sum, while domestic policy is expected to remain restrictive, the growth of foreign markets may prove somewhat more favourable. However, the stimulus to domestic activity will probably not prove substantial.

#### *Short-term prospects*

Leading indicators tend to confirm a picture of very modest growth of the Canadian economy in the short term. The latest consumer and business sentiment surveys conducted by the Conference Board of Canada reveal a quite pessimistic assessment by the private sector. The business survey conducted in the third quarter of 1980 revealed a continued depressed view on the overall economic outlook following the earlier sharp deterioration and pointed to a weakness in capital expenditure plans. More generally, a composite index of leading indicators compiled by a Canadian private bank also points to a period of weak growth in the short-term at least.

Assuming that the minor acceleration in wage settlements continues to mid-1981, after which the influence of weakening labour demand increases, real average compensation will barely advance and indeed could even decline again towards the end of the forecast period. In the absence of fiscal initiatives household disposable income is likely to increase only very modestly and, in the absence of much change in the savings ratio, real private consumption may grow by around 1½ per cent. In the light of revealed business sentiment and a prospective less favourable development of profits, the volume of business non-residential fixed investment, apart from energy-related projects, is likely to experience little, if any, growth. Housing could enjoy some revival in 1981 as vacancy rates and unsold stocks fall, but activity will be heavily influenced by the course of interest rates. A modest increase in the volume of public sector outlays on goods and services (which account for about one-quarter of GNP) is forecast in the light of the easing in provincial budgetary stance. On the other hand, some adjustment to inventories should follow the recent build-up at the manufacturing and wholesale levels, thus exerting a dampening impact on the economy in coming months.

In all, the level of GNP is estimated to remain roughly unchanged during the second half of 1980 but to have fallen slightly for the year as a whole.



Table 16 **Short-term prospects**  
Volume percentage change

	1979 Per cent of GNP	1979	1980	1981	1980		1981		1982
					I	II	I	II	II
Seasonally adjusted <sup>1</sup>									
Private consumption	57.8	1.9	1 $\frac{1}{4}$	1 $\frac{3}{4}$	-0.8	1 $\frac{3}{4}$	1 $\frac{3}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$
Government consumption	19.7	-1.0	-1 $\frac{1}{4}$	1	0.5	1	1	1 $\frac{1}{4}$	1 $\frac{1}{4}$
Gross fixed investment	22.9	4.3	1 $\frac{1}{2}$	1 $\frac{3}{4}$	-1.8	1 $\frac{3}{4}$	2 $\frac{1}{2}$	3	4 $\frac{1}{2}$
Public	3.0	-0.8	1 $\frac{1}{2}$	2 $\frac{3}{4}$	0	-1	3	2 $\frac{3}{4}$	2 $\frac{1}{2}$
Private	20.0	5.1	1 $\frac{1}{2}$	1 $\frac{3}{4}$	-2.1	1	2 $\frac{1}{2}$	3	4 $\frac{1}{2}$
Residential	5.4	-7.5	-12 $\frac{1}{2}$	4	-21.7	-12	7	8	8
Non-residential construction	6.7	9.9	10 $\frac{1}{2}$	2	9.3	2	3	2	4
Machinery and equipment	7.9	9.0	1 $\frac{1}{2}$	1 $\frac{1}{4}$	-0.8	6	0	2	4
Final domestic demand	100.4	1.9	1 $\frac{1}{2}$	1 $\frac{1}{2}$	-0.8	1 $\frac{1}{2}$	1 $\frac{3}{4}$	1 $\frac{3}{4}$	2 $\frac{1}{2}$
Change in stockbuilding <sup>2</sup>	1.7	1.4	-1 $\frac{1}{4}$	-1 $\frac{1}{4}$	-1.3	-3	1 $\frac{1}{2}$	1 $\frac{1}{2}$	3 $\frac{1}{4}$
Total domestic demand	102.1	3.3	-1 $\frac{1}{4}$	1 $\frac{1}{2}$	-2.1	-1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
Exports of goods and services	29.4	2.6	-2	2	-4.0	1 $\frac{1}{2}$	4	5 $\frac{1}{2}$	6 $\frac{1}{2}$
Imports of goods and services	31.0	5.9	-3 $\frac{1}{4}$	2 $\frac{1}{4}$	-4.3	-4 $\frac{1}{2}$	4 $\frac{1}{2}$	5	5
Change in foreign balance <sup>2</sup>	-2.2	-1.0	1 $\frac{1}{4}$	0	0.2	1 $\frac{1}{2}$	-1 $\frac{1}{4}$	0	0
Error of estimate <sup>2</sup>	0.1	0.3	0	0	-0.1	0	0	0	0
GNP		2.7	-1 $\frac{1}{4}$	1 $\frac{1}{4}$	-1.8	0	2	2 $\frac{1}{4}$	3 $\frac{1}{4}$
GNP deflator		10.5	10 $\frac{1}{2}$	9 $\frac{1}{2}$	11.0	11 $\frac{1}{2}$	11 $\frac{1}{2}$	10 $\frac{1}{2}$	9 $\frac{1}{2}$
GNP at current prices	100.0	13.5	10	11	9.1	11 $\frac{1}{2}$	14	13	13
<i>Memorandum items:</i>									
Consumer prices <sup>3</sup>		9.1	10 $\frac{1}{4}$	11 $\frac{1}{4}$	9.6	11 $\frac{1}{2}$	11 $\frac{1}{2}$	10 $\frac{1}{2}$	9 $\frac{3}{4}$
Industrial production		4.7	-2	1	-3.8	-3 $\frac{1}{4}$	2	3	5
Total employment		4.0	2 $\frac{3}{4}$	1	2.8	1 $\frac{1}{4}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
Unemployment rate <sup>4</sup>		7.5	7 $\frac{1}{2}$	8	7.6	7 $\frac{1}{2}$	8	8 $\frac{1}{2}$	8 $\frac{1}{2}$

1 Annual rate of change over preceding period.

2 Percentage point contribution to GNP growth rate.

3 National accounts deflator for private consumption.

4 Per cent of labour force.

Source: OECD Secretariat.

A modest recovery may take place in 1981, but at a rate below potential. Accordingly, capacity utilisation rates may fall and unemployment edge upward, despite some slowing down in the growth of the labour force. Although the outcome of wage bargaining must be considered one of the most uncertain elements of the forecast, labour cost pressures may ease. However, since productivity performance is expected to remain weak, profit margins are forecast to come under pressure. External cost influences (operating through both the import and export sides) could diminish quite noticeably. However, food prices are likely to accelerate while implementation of the recent budget proposals will boost domestic energy prices. Overall, the rise in domestic prices, as measured by the private consumption deflator, is likely to be higher than in 1980.

The relative weakness of domestic activity will continue to be reflected in import demand. Overall, the impact of the real foreign balance on GNP growth may be approximately neutral. Export price movements are likely to be more subdued than in 1980, as world raw material prices respond to the weakness in industrial demand. On balance, the terms of trade could, if anything, continue to develop favourably for Canada, leading to further strengthening of the trade account. Although dividend payments abroad may slow down, the rising deficit on net interest and dividends account is expected to remain the major factor

behind the further, albeit moderate, deterioration in the invisibles account. Overall, the current account is expected to strengthen further over the forecast period.

### *Policy conclusions*

Canada is currently facing a difficult situation. The country may only now be emerging from its worst recession since the early 1950s. Apart from depressed levels of activity and poor productivity performance, there are also other disquieting elements in the situation. The underlying rate of inflation remains persistently high, even though the current unemployment rate is around 7½ per cent. Despite relative moderation of wage developments, labour cost pressures have shown a tendency to build up. In addition, the federal government's room for manoeuvre is relatively limited in view of its already large deficit which partly reflects the automatic response of budgetary flows to the below-average level of activity at which the economy has been operating in recent years.

The scope for rapid improvement of the situation would seem limited in the short run. Given the relatively small and open nature of the Canadian economy, prospects in coming months will continue to be significantly influenced by developments abroad, in particular in the United States. Demand from that country is expected to recover as from early 1981, but in the absence of significant policy stimulus the outlook over the next eighteen months or so would seem to be for a relatively sluggish recovery of the Canadian economy accompanied by poor productivity performance and some increase in the rate of unemployment. Moreover, inflation is likely to remain high, but the current external balance may strengthen somewhat.

In such circumstances the task of restoring greater price stability, reducing unemployment and achieving other major economic goals while correcting structural imbalances, poses major challenges. The authorities seem to have opted for continuation of a medium-term approach designed to bring about gradual adjustment over a period of several years. This is notably reflected in the government's endorsement of the Bank of Canada's policy of holding down the rate of monetary expansion as well as in the strategy announced in the recent budget proposals put forward to Parliament together with the National Energy Program. However, as noted in Part II, the growth rate of nominal expenditure is projected to remain above the present monetary growth rate target. Given the nature of the various constraints, notably the continuing high rate of inflation, there does not seem to be much alternative to pursuing the present cautious policy line. Indeed, as far as short-term demand management is concerned, this approach would seem to be in conformity with the recommendations made by OECD Ministers at their June 1980 meeting. But a protracted period of adjustment will make it all the more necessary to promote supply-side policies with a view notably to removing or attenuating rigidities in labour and capital markets, reducing restrictive business practices and maintaining an open system of international trade.

In the field of monetary management the present target range of 5 to 9 per cent for the growth of the narrowly-defined money supply (M1) should imply continuation of a relatively tight monetary stance. However, interest rate developments abroad could well compound the difficulties of finding a suitable mix between domestic interest rate adjustment and exchange rate movements. While the choice of the most appropriate targets and instruments has been the subject of debate, the techniques of monetary management should of course be reviewed should there be significant changes in financial institutions and practices.

With regard to fiscal policy, the medium-term strategy announced within

the framework of the recent budget proposals aims at a steady reduction in the federal government deficit over the period to fiscal 1983-1984. The moderateness of the reduction planned for fiscal year 1981-1982 would seem broadly appropriate, given the need to avoid excessive restraint in a period of weak autonomous recovery of private sector demand. In this connection and in spite of the uncertainties associated with such an exercise, presentation of a medium-term fiscal outlook based on a comprehensive set of macro-economic projections should constitute a useful guide for policy making. The new provisions concerning revenue sharing from oil and gas income contained in the National Energy Program constitute an important step in strengthening federal government finances, thereby enhancing the scope for greater flexibility of demand management policy in the future. The results reported in Part II of the Survey indeed suggest that in a context of rising domestic oil prices earlier arrangements would have led to continued large federal deficits. Renegotiation of the main federal/provincial fiscal arrangements in 1982 may provide the opportunity for some further reduction in the imbalances that have developed between the various levels of government. In any case, irrespective of any re-alignment of powers and responsibilities between the federal government and the provinces, co-ordinating mechanisms may need to be strengthened if the consistency and efficiency of overall general government fiscal policy are to be assured.

The new pricing and revenue-sharing regime proposed in the recently announced Energy Program aims at promoting energy conservation and supply as well as improving resource allocation and providing a different distribution of energy benefits and burdens between the various interested parties. The decision to raise domestic oil prices progressively towards world market levels is indeed welcome both from the viewpoint of the international community and that of the country. Indeed it would not be in Canada's long-term interest to develop an industrial structure and a consumption and trade pattern significantly more energy-intensive than in other countries. Since present domestic prices of energy are far below world market levels the pace of their adjustment inevitably creates difficult problems of transition, but the broad policy objective of an economically optimal price structure needs to be pursued with sufficient determination.

Although Canada's present position as a net energy exporter gives the authorities greater scope for controlling the size of the shock than in other Member countries, the task of adjusting its economic structure to higher energy prices remains no less urgent. It remains to be seen whether the measures contained in the National Energy Program which are aimed at facilitating this adjustment will prove adequate. Labour market and manpower programmes together with industrial and regional policies will also have to be geared to promoting the required adjustment process.

The last OECD *Survey of Canada* considered certain aspects of the country's industrial policy in the light of the adjustments which would be required following tariff reductions agreed during the latest round of multilateral trade negotiations and which would in any case appear desirable from the viewpoint of improving Canada's productivity performance. The problems stemming from the duality of federal and provincial responsibilities in this area and from the regional implications of such adjustment were recognised, but it was noted that the establishment of industry consultative task forces appeared to mark a fresh departure in efforts to achieve the degree of consensus needed to hammer out a coherent set of policies. The recent Budget reiterated the authorities' commitment to industrial adjustment and manpower retraining and provided for a specific allocation for new initiatives in this area over the next four years. New concrete measures would indeed seem to be called for, as pointed out by OECD Ministers

last June in their recommendations concerning suitable policies to ease supply constraints in OECD countries.

In Canada's case the contrast is particularly striking between the present difficulties and the relatively strong potential of the country in the medium and longer run. In view of their structural nature, many of the adjustments required are not amenable to short-term demand management policy and their successful attainment will require more time. But, given its favourable endowments both in terms of skilled manpower and abundant natural resources, the country would seem to be particularly well placed to meet the challenges of the 1980s. This presupposes, however, that a consistent medium-term strategy can be adhered to and that a sufficient degree of cohesion can be maintained within the Canadian economic union.

## Annex I

## ENERGY POLICIES UP TO 1980

In 1961, at a time when domestic crude oil was more expensive than imported supplies, Canada introduced a National Oil Policy which divided the country into two parts. The area to the east of the "Ottawa Valley line" was to be served by imports while that to the west was reserved for domestic production<sup>1</sup>. After 1970 exports to the United States rose so rapidly as tariff and quota restrictions on imports to that country were abolished, that the Canadian authorities were moved to introduce controls on the volume of crude exports as early as March 1973. In September of that year domestic prices were frozen and a special charge levied on exports in response to the upward pressure on prices exerted by the strength of U.S. demand<sup>2</sup>.

The initial Canadian response to the first oil shock which followed shortly thereafter was to let part of the increased cost of imports pass through to (eastern) refiners while maintaining the freeze on domestic prices. As a result, the earlier dual pricing relationship was reversed. In March 1974 the federal and provincial governments agreed to raise the "wellhead" price of domestic crude from \$3.80 to \$6.50 per barrel as from the beginning of April. A uniform price system was also introduced by aligning the cost of imports to this domestic wellhead price<sup>3</sup> through the paying of subsidies from the proceeds of the export levy. Canadian domestic production continued to far outstrip additions to reserves, while the costs of exploiting non-conventional deposits (oil sands and heavy oil) escalated rapidly. In addition, Canada began to lose its oil self-sufficiency status as imports started to overtake exports. Consequently, the wellhead price was set as \$8 per barrel from mid-1975 for a period of 12 months<sup>4</sup>.

In a report issued in 1976 the Department of Energy, Mines and Resources (EMR) estimated that if domestic energy prices were kept at their end-1975 levels Canada would suffer a rapidly-growing oil/gas and overall energy trade deficit<sup>5</sup>. Even if prices were gradually raised to world levels by the late 1970s, a deficit would still open up on oil/gas trade (albeit of much reduced size), but by the late 1980s a surplus could be re-established on overall trade. On the basis of this report and given the overall policy objective of energy self-reliance, a 5-point programme was set up which formed the basis of Canadian energy policy until the announcement of the National Energy Program in October 1980. This aimed at:

- Raising domestic oil prices toward international parity and setting gas prices at an appropriate competitive relationship with oil;
- Restricting the growth of overall energy use to below 3.5 per cent a year<sup>6</sup>;
- Reducing dependence on net imported oil to no more than one-third of total requirements by 1985;
- Maintaining self-sufficiency in natural gas;
- Increasing exploration and development in frontier areas.

Action taken in pursuit of these five objectives, which were plainly not independent, can be divided into three broad categories: direct measures of conservation, promotion of supply,

1 Covering the eastern part of Ontario, Quebec and the Atlantic provinces.

2 It is interesting to note that plans to expand pipeline facilities during this period were resisted by the eastern provinces due to their access to cheaper imported oil.

3 The United States is the only market to which Canada exports hydrocarbons. There was no levy on gas shipments.

4 The imported price at that time amounted to \$10.50 per barrel. As oil exports exceeded imports this policy did not require a net contribution from the Treasury. Actual crude prices at refineries varied according to transportation costs; e.g. at Toronto it was about \$7.20 per barrel.

5 This followed from an informal agreement between the federal government and the producing provinces (Alberta and Saskatchewan) as it proved impossible to reach a consensus with the energy-consuming provinces. Under Canadian constitutional arrangements the exploitation of natural resources and their intra-provincial pricing fall within the competence of the provinces while inter-provincial and international movements as well as export pricing are subject to federal control.

6 Department of Energy, Mines and Resources, *An Energy Strategy for Canada*, Ottawa, 1976.

7 Since a 3.9 per cent annual GNP growth rate was assumed this implied a marginal elasticity of below 0.9.

and pricing policy. A comprehensive conservation policy was elaborated, the main elements of which comprised home insulation (the HIP and CHIP programmes), the revision of building codes in the residential/commercial sectors, fuel efficiency norms in transportation and an Energy Bus Program<sup>8</sup> directed toward industry. Strong emphasis was put on voluntarism (for example, car emissions standards were not compulsory and industry measures relied heavily on information campaigns<sup>9</sup>). In addition, support has been given to research and development and the regulation of oil and gas exports has continued. On the supply side special fiscal incentives have been granted to promote development of energy resources other than conventional oil<sup>10</sup>, while tar sands producers were guaranteed world-parity prices for their output<sup>11</sup>. In July 1978 a 5-year Renewable Energy Program was launched as a joint federal/provincial undertaking aimed mainly at exploiting solar and biomass energy<sup>12</sup>.

In fiscal 1978-1979 total public sector outlays for conservation purposes amounted to \$96 million—equivalent to some 0.04 per cent of GNP and 0.4 per cent of total outlays on energy—of which the federal government accounted for 86 per cent. Of the federal share just over one-half was directed to the residential/commercial sector, while publicity campaigns and research/development accounted for the bulk of the remainder. Only 2 per cent was devoted directly to the industrial and transport sectors. The results appear to contrast with the structure of the effort made. Achievements in the residential sector have been rather modest, whereas the response in the industrial sector appears to have been very satisfactory<sup>13</sup>. The direct restrictions on oil exports has led to light grade shipments abroad dwindling to almost nothing by end-1979<sup>14</sup>. While deliveries to eastern Canada have been stepped up with extension of the Inter-provincial Pipeline to Montreal in 1976, production of conventional crude had by 1978 been reduced to three-quarters of its 1973 peak level partly reflecting the natural decline from mature wells. Although output was boosted by some 13 per cent in 1979, it was still clearly below the 1973 level. Natural gas exports have also been tightly controlled and it is only with the recent large increases in proven reserves that substantial new export licences were issued in 1979 for the first time in the 1970s.

As indicated earlier, most of the administrative arrangements governing energy pricing policy had already been put in place prior to the first oil price shock in October 1973. The only major missing element—establishment of a uniform Canadian wellhead price—was added in early 1974. In implementing the 1976 Energy Strategy report's recommendations, the Canadian authorities adopted the Chicago crude oil price as the international level toward which domestic prices were to be raised<sup>15</sup>. A schedule was accordingly agreed to in May, 1977 between the federal and provincial governments calling for regular \$1 per barrel increases in the domestic price every six months. However, no commitment was made as to the final relationship between the domestic and Chicago prices. The timetable was pursued up to mid-1980 except for the increase due at the beginning of 1979 which was suspended in conjunction with the final phasing-out of wage and price controls under the Anti-inflation Program<sup>16</sup>. Following failure to reach a new multilateral agreement, the Alberta Government raised the wellhead price unilaterally by \$2 per barrel from the beginning of August, 1980. Between early 1974 and late 1978 when the international (cif Montreal import) price rose by 51 per cent, the gap between this and the domestic wellhead price narrowed from \$4.10 to \$3.25 per barrel<sup>17</sup>. Subsequently, however, the gap opened up extremely rapidly to average no less than \$20.18 by the second quarter of 1980, implying a domestic wellhead price equal to only 42 per cent of the cost of imported oil.

8 The Program has been carried out by mobile task forces which provide on-site energy audits. These latter have indicated potential energy savings of around 20 per cent in industry through more efficient heating, cooling and lighting.

9 However, given the integration of the United States and Canadian car industries, the existence of compulsory United States emission standards probably dispenses with the need for Canadian norms.

10 For example, the rate of write-off of development costs for oil sands, coal and uranium mining was raised to 100 per cent. In addition, oil sands producers could deduct provincial royalty payments from federal income tax liabilities.

11 In early 1980 the federal government repudiated this agreement with producers by invoking its "force majeure" clause in the light of the rapidly-escalating world price. The difference between the world and domestic prices was reimbursed to purchasers of tar sands oil from the proceeds of a charge (the "Syncrude levy") on crude oil purchases by domestic refiners.

12 The Canadian forest industry is reckoned to produce waste wood with an energy potential equal to the country's total coal output.

13 See International Energy Agency, *Energy Policies and Programmes of IEA Countries*, 1978 Review.

14 Excluding "swap" arrangements with United States Mid-west refineries, where exports are compensated by imports to Atlantic coast refiners. At present, Canadian producers of heavy crude oil are allowed to export all output in excess of domestic requirements.

15 In adopting the Chicago price, which is a weighted average of imported and United States domestically produced regulated and unregulated oil prices, the Canadian ceiling was conceived from the start as remaining below the world-parity level. With the subsequent decision of the United States authorities to deregulate (due to be completed in late 1981), the Chicago price can be expected to rise to world parity.

16 In its December 1979 Budget Bill, the Conservative Government had proposed a new timetable aimed at accelerating the rate of adjustment such that the domestic price would have been at least 75 per cent of the lower of the Chicago or international price by the beginning of 1983 and at least 85 per cent one year later. The Budget was, however, defeated in Parliament.

17 More precisely, between 1974:Q2 and 1978:Q4, after which the second oil shock began to be reflected in the Canadian import price. The ratio of the domestic to the import price thus rose from 0.62 to 0.80 during this period.

With regard to natural gas, prices remained very low in the 1960s and early 1970s due to new discoveries and a relatively narrow market resulting from the lack of pipeline facilities to eastern markets. Following the establishment of a uniform wellhead price for oil, it also became necessary to control gas prices. In an agreement concluded in July 1975 (between the federal government and Alberta) the price was set at about 85 per cent of that of its oil-energy equivalent, the intention being to close the gap over a period of three to five years. In March 1977 when the schedule of semi-annual increases in the wellhead price for oil was agreed upon it was also decided to increase gas prices by 15 cents per Tcf (thousand cubic feet) for every \$1 per barrel increase in oil prices and hence maintain an incentive to switch to gas use. As part of the agreement made with the producing provinces in June 1975 the federal government had refrained from introducing an export tax on gas<sup>18</sup> but continued through the National Energy Board<sup>19</sup> to regulate export prices and quantities. The Board's policy of setting the export price at the energy equivalent of imported oil, together with the economic slowdown in the United States and increased gas production in that country, contributed to sharp falls in export volumes during 1980. Prices were consequently adjusted to a more competitive level.

Canadian participation in international co-operative efforts to reduce energy dependence has entailed certain commitments accepted under the aegis of the International Energy Agency (IEA) and at the Tokyo Summit in mid-1978. In common with other IEA members Canada undertook in March 1979 to reduce oil consumption in 1979 by 5 per cent and in June of the same year in Tokyo confirmed its intention to reduce net oil imports by about 0.1 Mbd (from 0.25 to 0.15 Mbd) by the final quarter of that year and to hold that level during 1980. In a somewhat longer-term context, Canada agreed at the same time to restrain net oil imports in 1985 to at most 0.6 Mbd by reducing the annual growth rate of consumption to 1 per cent. Like certain other countries, Canada failed to reach the 1979 consumption target, but it seems likely that the 1980 import goal will have been achieved.

18 It should be noted that provincial tax rules for exported gas vary. In British Columbia the government receives the total difference between the producer and export prices. Alberta, on the other hand, distributes the revenue from export sales to producers according to the increase in their production (not according to export sales). Both provinces have, therefore, a strong incentive to promote exports at the cost of domestic sales.

19 The National Energy Board was set up as early as 1959 to study, and make recommendations regarding, energy policy. It also regulates energy exports.

*Annex II*

## CHRONOLOGY OF MAIN ECONOMIC POLICY EVENTS

1979

*1st January*

Indexing factor of 9.0 per cent applied to personal income tax scales and allowances.

*4th January*

Bank Rate raised from 10 $\frac{1}{2}$  to 11 $\frac{1}{2}$  per cent.

*1st February*

Government floats \$800 million non-callable bond issue of which Bank of Canada to acquire at least \$200 million.

*2nd March*

New arrangements for monitoring of prices, profits, compensation and costs announced, involving replacement of Centre for the Study of Inflation and Productivity by National Commission on Inflation.

*15th March*

Government floats \$1 250 million non-callable bond issue of which Bank of Canada to acquire at least \$450 million.

*15th June*

Federal government institutes staffing moratorium for two months.

*23rd July*

Bank Rate raised from 11 $\frac{1}{2}$  to 11 $\frac{3}{4}$  per cent.

*25th July*

National Commission on Inflation disbanded.

*15th August*

Government announces phased reduction of 60 thousand in numbers of federal employees, including 20 thousand to be affected by privatization of Crown corporations.

*31st August*

Sale of 1978-1979 Series Canada Savings Bonds terminated.

*10th September*

Bank Rate raised from 11 $\frac{3}{4}$  to 12 $\frac{1}{4}$  per cent.

*17th September*

Details announced of federal personal income tax credit plan for residential mortgage interest payments and homeowners' property taxes, to be phased in over four years beginning 1979.

*1st October*

Government floats \$1.3 billion non-callable bond issue of which Bank of Canada to acquire at least \$400 million.

*9th October*

Bank Rate raised from 12 $\frac{1}{4}$  to 13.0 per cent.



*25th October*

Bank Rate raised from 13.0 to 14.0 per cent.

*5th November*

Yield on 1979-1980 Series Canada Savings Bonds increased to 12.0 per cent (from originally announced 10.25 per cent) for 12 months beginning 1st November, 1979; thereafter, rate to be 10.5 per cent, giving average 10.78 per cent over seven years to maturity in 1986.

*11th December*

Federal budget for fiscal 1980-1981 presented, providing for increase in revenue of 17.2 per cent (national accounts basis) and in expenditure of 11.3 per cent. Overall deficit budgeted to fall to \$7.8 billion from forecast \$9.4 billion for fiscal 1979-1980. Main features include energy policy package designed to bring domestic oil wellhead price to ceiling of 85 per cent of the lesser of United States "Chicago" price or international price by beginning of 1984. Natural gas price to continue at 85 per cent of oil-energy equivalent. New producer tax to ensure roughly one-half of price rises above \$2 per barrel for oil and 30 cents per Tcf for gas accrues to federal government. Also 25 cents per gallon excise tax to be levied on all transportation fuels. Medium-term projections of macro-economic and federal fiscal developments presented as well as estimates of "tax expenditures" and a paper explaining the New Expenditure Management System. Budget proposal was, however, defeated in Parliament.

*15th December*

Government floats \$1.5 billion non-callable bond issue of which Bank of Canada to acquire at least \$600 million.

*28th December*

Bank of Canada lowers target range for annual growth rate of money supply (M1) from 6-10 to 5-9 per cent measured from average 1979 Q2 level.

**1980***1st January*

Indexing factor of 8.9 per cent applied to personal income tax brackets, tax exemptions and to refundable child tax credit.

Tariff reductions agreed by Canada under Multilateral Trade Negotiations come into effect.

*1st February*

Government floats \$1.6 billion non-callable bond issue of which Bank of Canada to acquire at least \$650 million.

*13th March*

Bank Rate to be set in future at  $\frac{1}{4}$  percentage point above latest average yield in weekly tender for 91-day Government Treasury Bills.

*21st April*

Increase to 25 cents per gallon in excise tax on gasoline and its extension to other transportation fuels proposed in defeated December 1979 budget not to be implemented by the new government. At same time following measures announced:

- provision for small business development bond;
- specific taxes on alcohol and tobacco increased;
- surcharge of 5 per cent on federal corporate taxes (effective beginning 1980).

Total outlays in fiscal 1980-1981 projected to increase by 13.7 per cent (increased commitments due to public debt charges, oil import compensation payments and Guaranteed Income Supplement).

*1st October*

Government floats \$1.3 billion non-callable bond issue of which the Bank of Canada to acquire at least \$350 million.

*28th October*

Federal budget for fiscal 1981-1982 presented, providing for increase in revenue of 23.2 per cent (national accounts basis) and in expenditure of 15.9 per cent (see footnote 90

of main text). Overall deficit projected to decline to \$10.1 billion from forecast \$11.9 billion for fiscal 1980-1981. Main features include a National Energy Program and medium-term projections for macro-economic and federal fiscal developments (for further details of these features see Parts II and III of present Survey).

*13th November*

Ontario presents "mini" budget.

*1st December*

Government floats \$1.4 billion non-callable bond issue of which Bank of Canada to acquire at least \$400 million.

*STATISTICAL ANNEX*

Table A Gross national  
Annual figures and annual  
C \$

	Personal consumption expenditure	Government current expenditure on goods and services	Government fixed capital formation	Business fixed	
				Total	Residential construction
<i>Current</i>					
1972	62 208	20 291	3 968	19 083	5 820
1973	71 278	23 037	4 305	23 543	7 387
1974	83 388	27 816	5 462	28 798	8 776
1975	96 995	33 380	6 323	33 721	9 232
1976	110 886	38 325	6 318	38 577	12 321
1977	122 471	43 398	6 790	41 403	12 806
1978	135 359	47 492	7 140	45 074	13 476
1979	150 489	51 215	7 739	51 991	14 007
1977: 3rd quarter	123 544	44 112	6 936	42 168	12 996
4th quarter	126 752	44 708	7 084	41 848	12 736
1978: 1st quarter	130 220	45 868	6 988	42 704	13 180
2nd quarter	133 664	46 968	7 200	44 716	13 596
3rd quarter	137 252	47 880	7 120	45 680	13 520
4th quarter	140 300	49 252	7 252	47 196	13 608
1979: 1st quarter	145 088	49 780	7 520	48 384	13 556
2nd quarter	148 004	50 476	7 672	50 108	13 728
3rd quarter	153 056	51 996	7 864	54 124	14 356
4th quarter	155 808	52 608	7 900	55 348	14 388
1980: 1st quarter	159 484	54 276	8 048	57 156	14 088
2nd quarter	162 488	56 136	8 172	56 580	12 780
<i>1971</i>					
1972	59 841	18 930	3 772	18 183	5 432
1973	63 879	19 795	3 751	20 633	5 966
1974	67 160	20 584	3 957	21 737	5 935
1975	70 645	21 399	4 127	22 534	5 503
1976	75 251	21 689	3 860	23 537	6 564
1977	77 346	22 424	3 860	23 390	6 229
1978	79 628	22 631	3 780	23 534	5 991
1979	81 140	22 404	3 748	24 740	5 544
1977: 3rd quarter	77 240	22 504	3 884	23 512	6 236
4th quarter	77 880	22 408	3 924	23 032	6 028
1978: 1st quarter	78 744	22 512	3 828	22 988	6 104
2nd quarter	79 540	22 660	3 832	23 560	6 132
3rd quarter	80 192	22 652	3 716	23 688	5 932
4th quarter	80 036	22 700	3 744	23 900	5 796
1979: 1st quarter	81 048	22 448	3 756	23 812	5 604
2nd quarter	80 836	22 436	3 748	24 112	5 504
3rd quarter	81 600	22 436	3 760	25 572	5 612
4th quarter	81 076	22 296	3 728	25 464	5 456
1980: 1st quarter	81 284	22 264	3 752	25 500	5 164
2nd quarter	80 704	22 352	3 732	24 856	4 624

Source: National Accounts, Income and Expenditure (Statistics Canada).

**product and expenditure  
rates, seasonally adjusted  
million**

capital formation		Value of physical change in inventories	Exports of goods and services	Imports of goods and services	Residual error	Gross national product at market prices
Non- residential construction	Machinery and equipment					
<i>prices</i>						
6 205	7 058	544	24 580	25 250	-190	105 234
7 327	8 829	1 588	30 718	30 954	45	123 560
9 178	10 844	3 451	38 992	41 009	630	147 528
11 691	12 798	-239	40 452	45 589	300	165 343
12 105	14 151	1 563	45 601	49 973	-266	191 031
13 472	15 125	360	52 548	57 262	-902	208 806
14 590	17 008	222	62 753	67 842	-500	229 698
17 501	20 483	4 444	76 624	82 384	187	260 305
13 832	15 340	212	52 364	58 064	-852	210 420
14 096	15 016	-668	56 116	58 928	-1 036	215 876
14 100	15 424	-416	56 812	60 216	-908	221 052
14 576	16 544	-556	61 700	66 768	-352	226 572
14 676	17 484	1 228	63 480	68 740	-700	233 200
15 008	18 580	632	69 020	75 644	-40	237 968
15 584	19 244	3 624	71 788	78 748	60	247 496
16 804	19 576	6 052	72 072	78 392	264	256 256
18 476	21 292	3 144	79 308	84 948	168	264 712
19 140	21 820	4 956	83 328	87 448	256	272 756
20 376	22 692	3 488	87 148	90 972	72	278 700
20 572	23 228	4 120	84 264	90 600	224	281 384
<i>prices</i>						
5 869	6 882	515	23 655	24 489	-159	100 248
6 411	8 256	1 346	26 156	27 824	76	107 812
6 898	8 904	2 642	25 620	30 538	516	111 678
7 822	9 209	-252	23 993	29 684	243	113 005
7 422	9 551	988	26 225	32 166	-135	119 249
7 646	9 515	188	28 045	32 844	-516	121 823
7 794	9 749	166	30 817	34 298	-263	125 995
8 569	10 627	1 984	31 622	36 319	120	129 439
7 732	9 544	212	27 440	32 604	-480	121 708
7 844	9 160	-204	29 208	32 400	-580	123 268
7 744	9 140	-308	28 900	31 864	-500	124 300
7 868	9 560	-436	31 060	34 716	-180	125 320
7 776	9 980	644	30 804	34 404	-368	126 924
7 788	10 316	764	32 504	36 208	-4	127 436
7 892	10 316	2 076	31 900	36 324	60	128 776
8 300	10 308	2 708	30 720	36 208	160	128 512
8 984	10 976	1 340	31 740	36 616	108	129 940
9 100	10 908	1 812	32 128	36 128	152	130 528
9 488	10 848	1 076	31 556	35 772	36	129 696
9 428	10 804	1 124	30 720	35 308	100	128 280

Table B Industrial production,  
Seasonally

	1974	1975	1976	1977	1978
1 <i>Indices of industrial production (1975=100):</i>					
Total	105.7	100.0	105.5	107.9	112.4
Durable manufactures	106.6	100.0	105.0	106.5	112.6
Non-durable manufactures	105.1	100.0	105.9	107.5	113.6
2 <i>New residential construction (thousands, annual rates):</i>					
Starts	222.1	231.5	273.2	245.7	227.7
Completions	257.2	217.0	236.2	251.8	246.5
Under construction <sup>1</sup>	168.4	176.6	204.3	185.6	164.7
3 <i>Employment and unemployment:</i>					
Civilian labour force (thousands, monthly averages)	9 639	9 976	10 210	10 500	10 882
Non-agricultural employment (thousands, monthly averages)	8 651	8 802	9 009	9 185	9 498
Employment indices (1961=100):					
Mining	115.5	114.1	118.3	122.6	119.0
Manufacturing	133.8	126.3	128.1	126.3	127.6
Durables	149.4	139.7	140.3	137.1	140.1
Non-durables	121.1	115.5	118.2	116.9	117.5
Public utilities	124.6	125.7	128.8	130.0	132.5
Unemployment (thousands)	514	691	728	852	912
Unemployment (percentage of civilian labour force)	5.3	6.9	7.1	8.1	8.4
Average weekly hours worked in manufacturing	38.8	38.6	38.7	38.7	38.8
4 <i>Retail sales (\$ million, monthly averages)</i>	3 728	4 270	4 730	5 127	5 728
5 <i>Orders and inventories in manufacturing (\$ million):</i>					
New orders (monthly averages)	7 119	7 303	8 096	9 211	11 049
Unfilled orders (end of period <sup>2</sup> )	11 206	10 440	9 645	11 269	14 497
Total inventories (end of period)	15 714	16 791	18 033	19 775	21 986

1 Not seasonally adjusted, end of period.

2 3-month averages for quarters.

Sources: OECD, Main Economic Indicators; Canadian Statistical Review and Bank of Canada Review.

**employment and other business indicators**  
adjusted

1979	1978				1979				1980	
	I	II	III	IV	I	II	III	IV	I	II
117.5	109.6	111.3	112.7	115.6	116.8	116.6	118.8	118.1	117.5	114.4
115.4	107.5	112.3	114.3	116.5	116.8	114.4	115.4	115.1	113.7	107.3
119.4	110.5	112.2	114.5	117.1	118.2	118.8	120.3	120.7	120.0	118.1
197.0	294.4	201.8	218.3	220.0	208.8	193.5	186.1	204.6	173.0	140.8
226.5	243.7	251.3	258.7	233.0	238.6	214.1	228.2	226.0	205.4	178.3
128.6	180.7	177.0	171.6	164.7	143.0	147.0	138.4	128.6	110.4	105.8
11 204	10 715	10 850	10 959	11 002	11 114	11 141	11 206	11 356	11 465	11 499
9 885	9 356	9 473	9 539	9 622	9 742	9 806	9 932	10 059	10 114	10 132
128.0	119.7	116.8	122.8	117.0	120.9	124.3	124.2	121.2	137.1	143.9
131.4	126.3	126.7	128.4	129.3	126.3	126.4	126.8	125.7	131.0	128.7
145.7	138.0	139.3	140.8	142.5	144.6	145.3	146.6	146.0	145.0	140.7
119.9	116.8	116.8	117.7	118.8	119.3	119.5	120.4	120.5	119.8	119.2
134.8	130.6	131.9	133.2	134.1	134.6	134.4	134.0	136.1	138.1	139.4
837	899	921	930	896	872	847	801	827	853	886
7.5	8.4	8.5	8.5	8.2	7.9	7.6	7.1	7.3	7.4	7.7
38.8	38.4	38.8	38.9	39.0	39.0	38.9	38.8	38.6	38.8	38.4
6 413	5 460	5 661	5 860	5 932	6 189	6 328	6 549	6 585	6 696	6 679
12 908	10 090	10 786	11 211	12 111	12 443	12 677	13 014	13 500	13 904	12 805
17 848	11 632	12 323	12 939	14 109	15 063	16 224	16 899	17 545	18 788	18 490
27 601	20 308	20 758	21 214	21 986	23 245	24 587	26 016	27 601	28 294	29 430

Table C Prices,

	1974	1975	1976	1977	1978
1 <i>Prices (1975=100):</i>					
Consumer prices, all items	90.3	100.0	107.5	116.1	126.5
<i>of which:</i> Food	88.6	100.0	102.7	111.2	128.5
Non-food	90.9	100.0	109.4	118.0	125.6
Producer prices, manufactured goods	89.9	100.0	105.1	113.4	123.8
Wholesale prices, farm products	100.9	100.0	96.0	94.1	106.9
2 <i>Wages and profits (seasonally adjusted):</i>					
Hourly earnings in manufacturing (1975=100)	86	100	114	126	135
Corporate profits before tax (\$ million, annual rates)	20 062	19 663	19 985	21 090	25 360
3 <i>Banking (\$ million, end of period):</i>					
Chartered bank:					
Canadian dollar deposits	58 797	66 873	76 773	88 670	103 144
<i>of which:</i> Personal savings deposits	29 789	33 237	40 478	44 948	51 528
Liquid assets	12 729	12 736	14 057	15 924	17 134
Holdings of Govt. of Canada direct and guaranteed securities	4 358	4 297	4 444	4 652	4 358
Total loans	39 283	43 742	54 249	60 225	67 794
Currency outside banks	5 791	6 748	7 241	7 970	8 755
4 <i>Interest rates (per cent, end of period):</i>					
3-month Treasury bill yield	7.12	8.64	8.14	7.17	10.46
Yield of long-term Govt. bonds	8.77	9.49	8.47	8.77	9.68
5 <i>Miscellaneous:</i>					
National Housing Act Mortgage Loans (\$ million)	3 316	4 178	5 218	7 059	9 005
Share prices Toronto stock exchange (1975=100)	102	100	104	101	116

Sources: OECD, Main Economic Indicators; Canadian Statistical Review and Bank of Canada Review.



## wages and finance

1979	1978				1979				1980	
	I	II	III	IV	I	II	III	IV	I	II
138.1	122.1	125.1	128.3	130.3	133.3	136.8	139.4	142.6	145.8	149.9
145.4	120.3	127.4	133.4	132.8	139.4	145.0	147.7	149.4	153.2	157.5
135.6	122.9	124.2	126.2	129.2	131.1	134.0	136.7	140.3	143.3	147.3
141.8	119.0	122.4	124.9	129.2	135.3	139.5	143.5	148.8	156.0	157.7
122.2	96.8	103.8	110.1	116.9	123.0	123.1	121.7	121.0	122.2	119.1
147	132	133	136	139	142	145	149	152	156	159
34 338	23 152	23 792	25 912	28 584	31 360	32 144	36 372	37 476	38 220	35 968
120 580	90 572	94 073	97 187	103 144	105 391	111 062	115 607	120 580	123 519	130 206
44 216	46 538	48 106	50 033	51 528	54 560	57 609	60 934	64 216	68 196	71 001
17 742	15 435	16 271	16 567	17 134	16 998	17 187	17 712	17 742	17 318	17 168
3 445	4 649	4 666	4 836	4 358	4 320	3 927	3 806	3 445	3 096	2 823
84 489	61 999	64 580	65 986	67 794	71 604	77 653	80 681	84 489	87 690	93 903
9 460	7 735	8 072	8 369	8 755	8 365	8 844	9 102	9 460	8 970	9 313
13.66	7.73	8.26	9.17	10.46	10.92	10.78	11.64	13.66	15.24	10.38
11.32	9.17	9.23	9.15	9.68	9.91	9.73	10.38	11.32	13.45	11.29
10 156	7 350	7 852	8 440	9 005	9 192	9 540	10 083	10 156	10 177	9 996
158	102	111	124	127	140	154	167	170	201	197

Table D Balance of payments  
C \$ million

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
<i>Current account:</i>										
Merchandise exports	16 921	17 877	20 129	25 461	32 591	33 511	37 995	44 253	52 752	65 170
Merchandise imports	13 869	15 314	18 272	22 726	30 902	33 962	36 607	41 523	49 151	61 198
Trade balance	3 052	2 563	1 857	2 735	1 689	-451	1 388	2 730	3 601	3 972
Services, net	-2 099	-2 398	-2 527	-2 971	-3 706	-4 686	-5 760	-7 444	-8 690	-9 732
Travel, net	-216	-202	-234	-296	-284	-727	-1 191	-1 641	-1 706	-1 068
Interest and dividends, net	-1 022	-1 141	-1 048	-1 260	-1 553	-1 953	-2 498	-3 658	-4 499	-5 299
Other services, net	-861	-1 055	-1 245	-1 415	-1 869	-2 006	-2 071	-2 145	-2 485	-3 365
Transfers, net	153	266	284	344	557	380	530	413	43	662
Private, net	-48	65	57	91	225	-133	75	-130	-867	17
Official, net	201	201	227	253	332	513	455	543	910	645
Current account balance	1 106	431	-386	108	-1 460	-4 757	-3 842	-4 301	-5 046	-5 098
<i>Capital account:</i>										
Direct investment	590	695	220	60	35	-190	-890	-265	-1 925	-1 270
In Canada	905	925	620	830	845	725	-300	475	85	675
Abroad	-315	-230	-400	-770	-810	-915	-590	-740	-2 010	-1 945
Loans and subscriptions Government of Canada	-109	-154	-212	-226	-311	-339	-417	-504	-247	-521
Miscellaneous long-term capital movements	-37	-181	-16	135	-455	-13	576	-302	565	1 007
Long-term capital, net	1 007	664	1 588	628	1 041	3 935	7 929	4 265	3 362	2 838
Short-term capital, net	-196	1 030	472	-553	1 310	1 620	99	650	1 152	7 846
Errors and omissions	-387	-1 348	-1 455	-650	-867	-1 203	-3 679	-2 746	-2 767	-3 897
Allocations of SDR	133	119	117	—	—	—	—	—	—	219
Net official monetary movements	1 663	896	336	-467	24	-405	522	-1 421	-3 299	1 908

Source: Statistics Canada.

*BASIC STATISTICS :*  
*INTERNATIONAL COMPARISONS*

BASIC STATISTICS: INTERNATIONAL COMPARISONS

	Reference period	Units	Australia	Austria	Belgium	Canada	Denmark	Finland	France	Germany	Greece	Iceland	Ireland	Italy	Japan	Luxembour	Netherlands	New Zealand	Norway	Portugal	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States	Yugoslavia <sup>1</sup>	
<b>POPULATION</b>	Mid-1978	Thousands	14 248	7 508	9 841	23 499	5 105	4 752	53 278	61 327	9 360	223	3 221	56 697 <sup>2</sup>	114 920	358	13 937	3 129	4 060	9 820	36 778	8 278	6 337	42 738	55 902	218 717	21 968	
Inhabitants per sq. km	"	Number	2	89	323	2	119	16	97	247	71	2	46	188	309	138	412	12	13	107	73	18	153	55	229	23	86	
Net average annual increase	Mid-1968 to Mid-1978	%	1.7	0.2	0.2	1.3	0.5	0.3	0.7	0.3	0.7	1.0	1.0	0.7	1.3	0.6	0.9	1.3	0.6	0.7	1.1	0.5	0.4	2.4	0.1	0.9	0.9	
<b>EMPLOYMENT</b>	1978	Thousands	5 975	3 015	3 711	9 972	2 473	2 074	20 921	24 679	(3 189)	(99)	1 033	19 932	54 080	150	4 569	(1 204)	1 854	3 772	12 091	4 115	2 839	14 907	24 610	94 373	9 276 <sup>3</sup>	
Total civilian	"	% of total	6.4	10.9	3.2	5.7	8.7	12.3	9.1	6.5	(27.3)	(13.3)	22.2	15.5	11.7	5.7	6.2	(11.8)	8.7	31.3	20.2	6.1	8.4	60.9	2.7	3.7	36.8	
of which: Agriculture, forestry, fishing	"	"	31.6	40.6	36.6	28.7	30.3	34.4	37.1	45.1	(30.7)	(37.9)	30.9	38.3	35.0	43.1	32.5	(34.1)	31.6	34.8	37.3	33.0	42.7	16.5	39.7	31.2	21.8	
Industry <sup>4</sup>	"	"	62.0	48.5	60.2	65.6	61.0	53.3	53.8	48.4	(42.0)	(48.8)	46.9	46.2	53.3	51.2	61.3	(54.1)	59.7	33.9	42.5	60.9	48.9	22.6	57.6	65.1	41.4	
Other	"	"																										
<b>GROSS DOMESTIC PRODUCT at market prices</b>	1978	US \$ billion <sup>11</sup>	109.1	58.1	96.9	205.3	55.9	33.9	471.6	638.9	31.6	2.2	12.2	260.1	973.9	3.5	130.8	18.4	40.0	17.8	147.1	87.3	84.6	52.5	309.2	2 112.4	47.1 <sup>5</sup>	
Average annual volume growth <sup>6</sup>	1973 to 1978	%	2.5	2.8	2.3	3.3	1.9	2.2	3.0	1.9	3.6	3.8	3.5	4.0	3.7	0.6	2.6	1.1	4.6	2.3	3.2	1.3	-1.0	6.6	1.1	2.5	6.1	
Per capita	1978	US \$ <sup>11</sup>	7 660	7 730	9 850	8 740	10 950	7 130	8 850	10 420	3 370	9 770	3 780	4 590	8 480	9 800	9 380	5 880	9 850	1 820	3 960	10 550	13 340	1 160	5 530	9 660	2 140	
<b>GROSS FIXED CAPITAL FORMATION</b>	1978	% of GDP	22.7 <sup>10</sup>	26.3	21.2	22.2	22.3	23.3	21.5	21.5	23.8 <sup>8</sup>	25.5	26.7	18.8	30.2	25.8	21.2	20.5 <sup>9</sup>	31.1	20.7	18.4	19.3	21.1	20.5	18.1	18.1	35.6	
of which: Transport, machinery and equipment	"	"	10.0	9.7	6.5	7.6	7.4	7.8	9.1	8.9	8.1	6.8	(12.4)	7.8	10.9	9.2 <sup>22</sup>	8.2	11.0	7.0	7.0	7.2	7.0	7.2	3.8	9.2	7.3	..	
Residential construction	"	"	4.0	16.5	7.3	5.7	7.5	7.0	6.9	6.0	8.4	5.8	..	5.0	7.3	6.6 <sup>22</sup>	5.9	..	5.1	3.6	..	5.0	..	3.8	3.2	5.0	..	
Average annual volume growth <sup>6</sup>	1973 to 1978	%	0.4	1.7	2.1	2.2	-1.8	-3.1	0.4	0.0	-2.1	0.4	2.0	-1.7	1.2	-1.8	0.4	..	2.7	-2.9	-0.8	-1.5	-4.7	5.7	-0.7	0.5	9.8	
<b>NATIONAL SAVINGS RATIO<sup>12</sup></b>	1978	% of GNP	23.1 <sup>10</sup>	26.7	20.3	20.6	19.0	23.9	23.7	25.1	21.1	26.6	17.7	22.2	32.6	36.2	22.5	24.3	25.1	11.5	20.8	17.4	26.8	19.8	21.1	18.5	17.3	
<b>GENERAL GOVERNMENT</b>	1978	% of GDP	16.8 <sup>10</sup>	17.8	17.9	20.5	23.7	19.0	15.1	20.0	16.0	11.6	18.3	16.4	9.6	15.5	18.3	16.3	18.5	14.7	10.5	28.9	12.9	12.7	20.3	18.2	25.1	
Current expenditure on goods and services	"	"	10.6 <sup>10</sup>	19.1	22.5	12.6	16.3	16.1	25.6	19.6	12.3	..	..	17.0	11.1	29.3 <sup>22</sup>	31.7	..	25.9	9.1	12.7 <sup>22</sup>	29.2	15.4	10.5	15.5	11.2	..	
Current transfer payments	"	"	31.9 <sup>10</sup>	44.5	42.7	35.8	49.0	40.2	42.3	43.3	30.2	..	..	37.0	24.3	37.9	54.4	..	52.1	27.1	26.6 <sup>22</sup>	60.3	34.0	25.9	38.8	32.6	44.0	
Current revenue	"	"																										
<b>NET OFFICIAL DEVELOPMENT ASSISTANCE</b>	1978	% of GNP	0.5	0.3	0.6	0.5	0.7	0.2	0.6	0.4	..	..	..	0.1	0.2	..	0.8	0.3	0.9	..	..	0.9	0.2	..	0.5	0.3	..	
<b>INDICATORS OF LIVING STANDARDS</b>	1978	US \$ <sup>11</sup>	4 600	4 230	6 120	4 980	6 080	3 970	5 440	5 750	2 200	5 860	2 430	2 810	4 900	5 770	5 550	3 490 <sup>9</sup>	5 300	1 350	2 700	5 580	8 420	950	3 270	6 200	1 230	
Private consumption per capita	1977	Number	392	248	292	389 <sup>14</sup>	271	227	314	326	66	315	180	289	173	398	277	385	273	107 <sup>14</sup>	161	350 <sup>14</sup>	307	11 <sup>14</sup>	255 <sup>14</sup>	505 <sup>14</sup>	88	
Passenger cars, per 1 000 inhabitants	1977	"	404	325	315	618	493	429	329	374	250	429	161	285	424	523	418	533	386	120	261	717	657	28 <sup>14</sup>	415	744	71	
Telephones, per 1 000 inhabitants	1977	"	351 <sup>14</sup>	247 <sup>16</sup>	286	428 <sup>14</sup>	338	363 <sup>14</sup>	274 <sup>14</sup>	308	127 <sup>14</sup>	214 <sup>14</sup>	193	224	239 <sup>20</sup>	293 <sup>14</sup>	279	259 <sup>14</sup>	270 <sup>14</sup>	76 <sup>14</sup>	185 <sup>14</sup>	363 <sup>14</sup>	285 <sup>14</sup>	44 <sup>14</sup>	324	571 <sup>20</sup>	161 <sup>14</sup>	
Television sets, per 1 000 inhabitants	1976	"	1.4 <sup>13</sup>	2.3	2.0	1.7	1.9	1.5	2.0	2.1	1.7 <sup>16</sup>	1.2	1.2	2.2	1.2	1.1	1.7	1.3 <sup>14</sup>	1.8	1.2	1.8	1.7 <sup>20</sup>	1.9	0.6	1.3	1.6	1.4	
Doctors, per 1 000 inhabitants	1977	% of age group	45.0	32.0	61.3 <sup>20</sup>	64.9	57.4	60.8 <sup>20</sup>	54.6	41.5	45.4 <sup>20</sup>	..	50.0 <sup>14</sup>	43.9 <sup>14</sup>	70.9	33.5 <sup>20</sup>	62.7	44.8	63.6	33.4 <sup>14</sup>	35.5 <sup>14</sup>	56.3 <sup>14</sup>	70.1	12.7 <sup>20</sup>	44.6 <sup>20</sup>	73.7	..	
Full-time school enrolment <sup>15</sup>	1978	Number	14.3	16.9	14.0	14.3	8.9	12.0	11.4	15.5	20.3	10.1	15.7	17.6	8.9	10.6	9.5	13.9	10.5	38.9 <sup>14</sup>	15.6	8.0	10.7 <sup>14</sup>	..	14.0	14.0	36.7 <sup>14</sup>	
Infant mortality <sup>17</sup>																												
<b>WAGES AND PRICES</b>	Average annual increase	%																										
Hourly earnings in industry <sup>18</sup>	1974 to 1979	%	11.9	8.5	10.9	11.2	12.7	14.7 <sup>21</sup>	14.0	6.5	23.6	36.7	17.7	22.0	9.1	..	7.8	14.8	11.4	20.1	26.5 <sup>21</sup>	11.1	3.2	27.5 <sup>23</sup>	16.6	8.6	19.6	
Consumer prices	"	%	11.5	5.7	7.5	8.9	9.8	11.9	10.1	4.2	14.1	40.0	14.5	15.8	7.3	6.9	6.7	14.3	8.5	20.0	18.9	9.7	2.9	36.6	15.5	8.1	16.7	
<b>FOREIGN TRADE</b>	1979	US \$ million <sup>11</sup>	18 636	15 432	55 428 <sup>7</sup>	55 932	14 616	11 148	97 980	171 516	3 852	792	7 164	72 120	103 032	—	63 624	4 709	13 452	3 480	18 192	27 528	26 472	2 472	90 816	181 800	6 240	
Exports of goods, fob	"	%	15.5	22.4	49.7	25.1	22.3	26.8	17.3	22.7	10.3	33.0	48.1	22.6	10.1	—	41.9	22.3	29.7	17.2	9.2	26.6	28.1	3.7	23.2	7.7	..	
As percentage of GDP	"	%	4.7	6.5	3.5	4.9	4.1	4.5	5.1	3.0	8.4	10.6	9.7	8.1	5.9	—	3.6	5.1	8.5	6.8	10.3 <sup>21</sup>	0.0	4.2	-2.7	4.4	4.1	3.8	
Average annual volume increase	1974 to 1979	%																										
Imports of goods, cif	1979	US \$ million <sup>11</sup>	16 536	20 184	60 348 <sup>7</sup>	53 520	18 456	11 304	106 872	157 752	9 624	828	9 864	77 808	110 672	—	67 212	4 566	13 728	6 540	25 380	28 536	29 304	5 688	102 828	207 132	12 360	
As percentage of GDP	"	%	13.7	29.3	54.1	24.0	28.1	27.2	18.9	20.9	25.7	34.5	66.2	24.4	10.8	—	44.3	21.6	30.3	32.4	12.9	27.6	31.1	8.6	26.3	8.8	..	
Average annual volume increase	1974 to 1979	%	1.7	6.6	3.2	3.2	3.6	-0.2	5.8	7.0	4.9	0.7	8.4	4.7	3.1	—	4.4	-3.2	2.3	0.8	0.5 <sup>21</sup>	0.2	4.4	-2.8	3.6	5.8	2.1	
<b>TOTAL OFFICIAL RESERVES<sup>24</sup></b>	End-1979	US \$ million	1 790	5 048	6 991 <sup>7</sup>	3 887	3 312	1 586	21 357	56 940	1 126	165	2 230	21 239	20 327	—	9 619	453	4 269	1 962	13 898	3 583	20 275	941	20 694	19 956	1 336	
As percentage of imports of goods	In 1979	%	10.8	25.0	11.6	7.3	17.9	14.0	20.0	36.1	11.7	19.9	22.6	27.3	18.4	—	14.3	9.9	31.1	30.0	54.8	12.6	69.2	16.5	20.1	9.6	10.8	

1 Partly from national sources.  
2 Total resident population.  
3 Private and socialised sector.  
4 According to the definition used in OECD: Labour Force Statistics: mining, manufacturing, construction and utilities (electricity, gas and water).  
5 Social product.  
6 At constant prices.  
7 Including Luxembourg.

8 Excluding ships operating overseas.  
9 Fiscal year beginning April 1st.  
10 Year ended 30th June.  
11 At current prices and exchange rates.  
12  $\frac{GNP - (Priv. cons. + Pub. cons.)}{GNP} \times 100$ .  
13 1972.  
14 1976.

15 Children aged 15-19.  
16 1974.  
17 Deaths in first year per 1 000 live births.  
18 Figures are not strictly comparable due to differences in coverage.  
19 1973.  
20 1975.  
21 1973 to 1978.  
22 1977.  
23 1972 to 1977.

24 Gold included in reserves is valued at 35 SDR per ounce (see IMF, International Financial Statistics, series Total Reserves).

NOTE: Figures within brackets are estimates by the OECD Secretariat.

Sources: Common to all subjects and countries: OECD: Labour Force Statistics, Main Economic Indicators, National Accounts, Observer, Statistics of Foreign Trade (Series A); Office Statistique des Communautés Européennes, Statistiques de base de la Communauté; IMF, International Financial Statistics; UN, Statistical Yearbook.

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