



Bank of Canada



Annual report of the Governor
to the Minister of Finance
and statement of accounts for the year

1987





Bank of Canada · Banque du Canada Ottawa K1A 0G9

February 29, 1988

The Hon. Michael H. Wilson, P.C.
Minister of Finance
O t t a w a

Dear Mr. Wilson,

In accordance with the provisions of
the Bank of Canada Act, I am submitting my report for
the year 1987 and a statement of the Bank's accounts
for this period, signed and certified in the manner
prescribed in the by-laws of the Bank.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'J. A. ...', written over a horizontal line.

Governor

BANK OF CANADA

REPORT OF THE GOVERNOR – 1987

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General Observations

The Canadian economy performed rather well in most respects during 1987. Output expanded rapidly, unemployment fell, and as the year progressed the Atlantic and western regions of the country shared more fully in the economic improvement that had earlier been concentrated in central Canada. It has been very satisfying to observe such good performance in the fifth year of an economic expansion. The deeper issue is how it can be sustained. In this regard, I will note that our performance with respect to costs and prices was less satisfactory. No further progress was made in lowering inflation, and in fact there were some signs of pressures on costs intensifying during the year.

Although in 1987 output and employment grew faster in Canada than in our major trading partners, our economy still benefited from the continued expansion of the world economy. Indeed, the opportunities offered by growing access to markets of global size and diversity have made a major contribution to rising living standards worldwide during the past forty years. Since the past year has been particularly eventful with regard to the international economy, and since Canada's performance is particularly strongly influenced by world events, I will turn first to a review of the main developments and issues on the international scene.

The international environment

Over the last five years the economies of the major industrial countries have grown steadily, with marked reductions in inflation. Only recently has there been any evidence of the excessive demand pressures and higher inflation that traditionally signal the end of an economic upturn. This economic progress stands in sharp

contrast to the rather gloomy predictions about the future that were commonplace just a few years ago.

Although the traditional causes of economic downturn are not very apparent at present, large and persistent fiscal and trade imbalances among the major industrial countries do place continued expansion at risk. These imbalances are part of our inheritance from the worldwide inflation of the 1970s and the differing mixes of monetary and fiscal policies used in different countries to combat inflation. The shift in the early 1980s in the United States towards a strongly expansionary fiscal policy added to the burden of restraint being placed on monetary policy. This contributed to a period of unusually high U.S. interest rates with an appreciating U.S. dollar and to an associated buildup of both budgetary and trade deficits in the United States.

The persistence of these fiscal and trade imbalances eventually undermined the strength of the U.S. currency and has led to sustained weakness in the U.S. dollar over the past three years. Much of the increased volatility in the foreign exchange and other financial markets over the last few years is also attributable to these imbalances. These are the developments that have raised concerns about the sustainability of the current economic expansion.

At the same time, the welcome reality is that the world economy did record another advance in 1987. Given the major adjustments to balance of payments and fiscal positions that are taking place, and have to take place, it is an achievement that this rebalancing has been accompanied by generally well-sustained levels of economic activity. This relatively successful outcome so far has been in part the consequence

of some encouraging changes in the policy climate.

Measures aimed at the root causes of the international imbalances were agreed to in the February 1987 Louvre Accord and subsequently followed up at other meetings of the G-7 countries, of which Canada is a member. At the February meeting, ministers of finance and central bank governors emphasized the need to reduce the major imbalances within a medium-term framework of consistent policy adjustments, while at the same time recognizing the need for shorter-term measures to foster more orderly exchange markets.

Of particular help has been the growing consensus in the United States that domestic adjustment is a crucial element in reducing the heavy reliance that has been placed on foreign savings to satisfy domestic demands. In this environment, some reduction was achieved in the U.S. fiscal deficit, and this helped to contain the risks of rising inflation. Conversely, in Japan – and to a lesser degree, Germany – the objective of policy in 1987 was to stimulate domestic demand, and output continued to expand even as overseas orders dropped off in response to exchange rate movements.

But to note with satisfaction that better policies contributed to further economic growth in 1987 is not to say that the problems shared by the industrial nations have been resolved. Certainly, the trade position of the United States showed clear improvement in volume terms, and recently there has been a narrowing in dollar terms. However, the deficit is still very high, and financing the U.S. balance of payments still remains a world problem. Overseas, the trade surpluses in Germany and Japan also remained large, though Japan's did diminish somewhat over the course of the year.

I have noted that this apparent lack of progress was a major source of the concern and uncertainty in financial markets during 1987. Yields on longer-term securities in the United States experienced upward pressure for much of the year, reflecting concern about the extent to which financing would be forthcoming from abroad and the fear that the U.S. dollar would fall further; this in turn would add to inflationary

pressures in an economy that already seemed to be operating close to full stretch.

The October decline in stock market values on most of the world's exchanges was a further concrete demonstration of the extent of these market fears and uncertainties. While other factors were also relevant, the concern that exchange rate and inflationary pressures in the United States would lead to still higher interest rates and worsening economic performance worldwide was an important trigger of the stock market plunge.

The abruptness and the extent of the break in stock market values posed a particular challenge for monetary authorities worldwide. In the immediate aftermath of the crash, it was essential to supply substantial additional liquidity to the financial system. The aim was to ensure that the stock market problem did not become a general financial and economic one, and the operation was a success.

A substantial decline in the U.S. dollar did take place late in 1987. However, that decline occurred in the subdued market conditions that followed the stock market decline and did not generate the kind of inflation concerns that had been upsetting international financial markets previously. As this Report is being written, early in 1988, the international environment is still best characterized as unsettled, but interest rates have come down from their 1987 peaks, and markets seem to reflect a somewhat more positive view of the likely progress towards better balance in the world economy.

Concerns about financial volatility and the economic prospects of the industrial world have also kept another problem in sharp relief – the longstanding difficulties associated with the debt burden of many Third World countries. These countries, their creditor banks, and international agencies have been coping with the problems of debt for over five years. These efforts continued through 1987, with both progress and setbacks.

With continuing world economic expansion, the prices paid for the commodity exports of a number of debtor countries rose, especially in U.S. dollar terms. As well, some innovative additions were made to the menu of debt instru-

ments available to these countries and to their creditors. Consequently, some countries should now have more flexibility in managing their debt service. And, of course, the passage of time has allowed banks to accumulate more capital and reserves as a cushion.

Still, difficulties have been only too apparent. The slowing pace of new money commitments by banks to debtor countries, the unilateral announcement in early 1987 of a debt service moratorium by the Brazilian government, and the delays evident in many countries in adopting realistic demand management policies and in making needed structural reforms all underline the continuing risks in this area.

In recognition of the straits of the very poorest countries, Canada is participating in the special effort to supply them with considerably expanded concessional resources through the International Monetary Fund (IMF) and the World Bank. Canada has also announced its intention to convert some outstanding loans to the poorest countries into aid grants.

The situation of many middle-income developing countries, although of course less severe than for the poorest, also remains difficult, as can be seen in the section of this Report that deals in detail with international developments. Managing their debt problems in a way that will allow continued growth and the servicing of debt will require a renewed sense of co-operation and commitment on the part of all involved. While the diversity of circumstances facing these countries calls for a case-by-case approach to dealing with their problems, a crucial requirement in all cases is the maintenance of an open and expanding trading environment in which countries with debts can earn through exports the foreign exchange needed to service those debts.

It is above all in this last respect that one can find grounds for cautious optimism. Whether because exchange rate changes are at last beginning to affect trade patterns, or because governments now see more clearly the dangers of repeating the policy errors of the 1930s, protectionist sentiments do seem to have become generally less virulent over the past year. We should especially welcome this in Canada.

Allowing protectionism to get the upper hand would strike at the prosperity and prospects of developed and developing countries alike, and as I indicated earlier, Canada is more heavily dependent than most on trade for prosperity.

Developments in Canada

Notwithstanding the uncertain international environment, the Canadian economy expanded very strongly through 1987. Domestic demand was the primary engine. Canadian consumers were strong spenders, cutting back further on the rate at which they accumulate savings. The resurgence of business investment provided the economic expansion with further upward momentum. An especially heartening aspect of the expansion this past year has been the more even distribution of economic activity across Canada. Increases since last spring in the prices of a number of important commodities – from levels that were too low relative to underlying costs – have contributed to marked recoveries in employment, investment and consumer confidence in the Atlantic and western regions of the country.

The monetary policy issue that faced the Bank of Canada in 1987 was how best in these circumstances of strongly rising spending demands to contribute to sustaining and extending good economic performance.

In explaining our monetary policy actions during the past year, let me begin with two observations. The first is that economic prosperity cannot be established through policies that encourage the perpetuation of inflation or, still worse, that do not guard against an increase in inflation. The second observation, to underline what I said earlier, is that our inflation performance did not improve in 1987. Indeed, there was evidence, reviewed in the section of the Report that deals with demand, output and inflation, that pressures on costs and, therefore, prices were in fact beginning to build up again.

During 1987 major sectors of the Canadian economy came to operate at full stretch, and in some cases at more than full stretch, raising the danger that the balance of the forces operating in those markets would become more, rather than less, inflationary.

It is of course always tempting to postpone monetary restraint, either on the grounds that there is only localized evidence of rising inflation or that forecast events will reduce or even reverse those inflationary pressures. In this regard, the experience of the early 1970s is illuminating. Price pressures initially affected only a limited number of sectors, but within two years generalized inflation had almost tripled. And all of this occurred before the sharp rise in world oil prices. We can see now that monetary policy, in Canada and elsewhere, should have responded more vigorously than it did. The ultimate effect was much higher inflation, leading to much higher interest rates, and a decade of economic trouble – the very opposite of the objectives sought in the first place.

It is fair to argue that not all this trouble can be laid at the door of inflation. What is not open to argument is that the uncertainties, strains and distortions provoked by the slide into inflation added enormously to the other economic problems that beset us, and made it all the more difficult to overcome them. Central banks have been congratulated, admittedly with some irony, for having learned something from the aftermath of the stock market crash of 1929. All the more reason, then, why they should have learned from the experience of a period as recent as the early 1970s.

If monetary policy is to make a genuine contribution to preventing inflation, it must respond in a timely manner to pressures that give rise to inflation. To wait for inflation to spiral is to wait too long, and the costs of dealing with inflation at that later date will be much greater. That is the main reason why the Bank began to tighten monetary conditions in the spring of 1987. We had been observing continuing and rapid increases in capacity use and total spending. The growth of the broader monetary aggregates M2 and M2+ had also quickened sharply, as had the growth of personal credit. Long-term interest rates were rising in both the United States and Canada, consistent with growing market fears of a resurgence of inflation. For policy to have ignored so many signals, all pointing to the same conclusion, would have been wholly imprudent.

Indeed, these signals might have justified a more vigorous reaction had it not been for regional differences in economic conditions across the country and, later in the year, the potential for a downward shift in the economy as a result of the stock market decline in October. Both these factors were given very careful attention in decisions on monetary policy.

With respect to regional considerations, I would emphasize that the Bank keeps itself very well informed through many channels about developments in regions and industrial sectors. However, the fact that we are knowledgeable about regional differences does not imply an equal capacity to do something about them. The fundamental point is that monetary policy is by its nature national in scope, and we take monetary policy actions because they are judged to be right given the economic circumstances of the country as a whole – not just one part of it. Because we have a unified, well-functioning financial market in Canada, interest rates will necessarily be practically the same across the country. And from the viewpoint of the efficient functioning of our national economy, we should welcome this fact, even if it also means that we cannot conduct a monetary policy that differs region by region, any more than we can have exchange rates that differ by industry or by region.

In October, the plunge in stock markets became for a time the Bank of Canada's overriding preoccupation. The Bank acted promptly to ensure that the general underlying confidence in our financial markets was not undermined by the turbulence in stock markets. We responded, literally overnight, by adding substantial liquidity to the financial system. Through the period we stayed in constant touch with developments in other countries and maintained close contact on credit developments with stock exchanges, regulators, banks and investment dealers across Canada. When liquidity demands eased and confidence improved, the Bank shifted back to a more normal approach to the provision of liquidity.

While the financial market effects were the main source of the Bank's immediate concern, the likely broad economic effects from the

stock market slide have also, of course, had to be assessed. Although share prices after the October decline were generally no lower than they had been a year earlier, owners of shares have clearly been subject to a very substantial shock, and issuing shares must now seem much less attractive to corporations. These effects would, other things remaining equal, produce some slowing in the advance of demand in Canada. International repercussions needed watching as well. With these considerations in mind, information bearing on the strength of the economy has received even more than the usual careful attention. However, it is noteworthy that spending in Canada was very well maintained in the period just after the stock market decline, and indeed has continued to exhibit considerable momentum.

As my final observation on economic and financial developments in Canada, let me make some comments on the exchange rate. It is understandable that a lot of attention has been directed at the rise of the Canadian dollar against the U.S. dollar in recent months after so many years of decline; given the openness of our economy, the exchange rate is a key price for businesses and consumers. In this regard, it is important to bear in mind that the rise has reflected in large measure a general perception that Canada's economic performance has improved, in particular the prospects for a number of its major exports. Furthermore, in gauging the extent of the exchange rate increase it merits emphasis that, when viewed against the currencies of all our major trading partners combined, the rise of the Canadian dollar over the past year has been appreciably less than on a

bilateral basis against the U.S. dollar. As illustrated in the chart on exchange rate developments in the next section, the rise of the Canadian dollar against the U.S. dollar has been importantly offset by the steep decline against the currencies of our main trading partners overseas.

* * *

At the beginning of these observations I stressed the importance of the international economic environment for Canada's prosperity. Without in any way detracting from that, let me add here by way of conclusion that the reality of this international link should not encourage us to downplay the contribution that can be made through good domestic policies. The world is full of examples of the real difference in economic performance made by domestic policy efforts, whatever the direction taken by the international influence.

It is in this context that I welcome the efforts made in recent years to reduce the federal government deficit, and the commitment, reiterated in the last budget, to work towards further reductions over time. This objective must be pursued steadily if an unchecked buildup in government debt and debt service requirements is to be avoided.

As regards monetary policy there should be little doubt that the fundamental good performance of the Canadian economy is best served by an approach that is anti-inflationary, that enhances confidence in the money we use. We cannot expect the rest of the world to generate that confidence for us.

Economic and Financial Developments

Demand, Output and Inflation

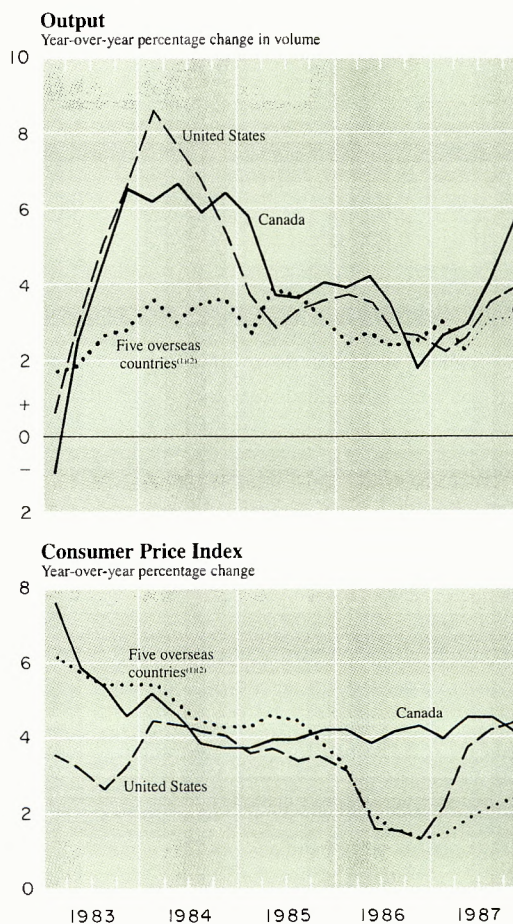
The expansion of the Canadian economy accelerated markedly during 1987. Buoyed by strength in domestic demand and a favourable competitive position in international markets, total dollar spending in the economy rose by over 10 per cent between the fourth quarter of 1986 and the fourth quarter of 1987. The increase in the volume of activity over this period, 5¾ per cent, was the highest among major industrial countries and was spread more evenly among the regions than in 1986, in large part because of the rebound in a number of key commodity prices. The strong pace of expansion continued through the autumn, and by year-end many industries were operating at rates of capacity use well above their historical averages. Similarly, labour markets tightened.

Canada's inflation performance did not improve. For consumer prices, inflation increased during the first half of 1987 before easing back by year-end to about the same rate as at the beginning of the year. During 1987, increases in energy prices and indirect taxes, as well as higher housing costs, tended to offset the impact of a more favourable food price performance and the restraining influence on import prices of a rise in the value of the Canadian dollar. Strong productivity gains moderated increases in unit labour costs but, as the year progressed, evidence began to emerge of upward pressure on both wage costs and producer prices.

Aggregate demand and output

The strength in domestic demand during 1987 touched most major categories of household and business expenditures. All measures of consumer and business confidence were

International Comparisons

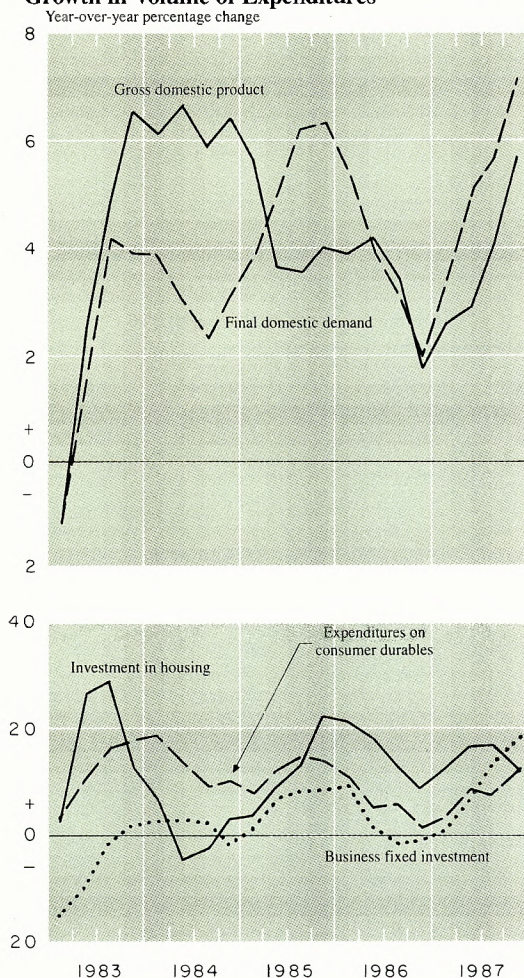


⁽¹⁾Japan, Germany, France, United Kingdom, Italy

⁽²⁾1982 GDP/GNP weights

^(e)Estimate

Growth in Volume of Expenditures



exceptionally high through most of the year. Although surveys suggest some fall-back in confidence when stock market values declined sharply in October, this does not seem to have resulted in weaker demand. Indeed, the evidence suggests that overall economic activity remained robust going into 1988.

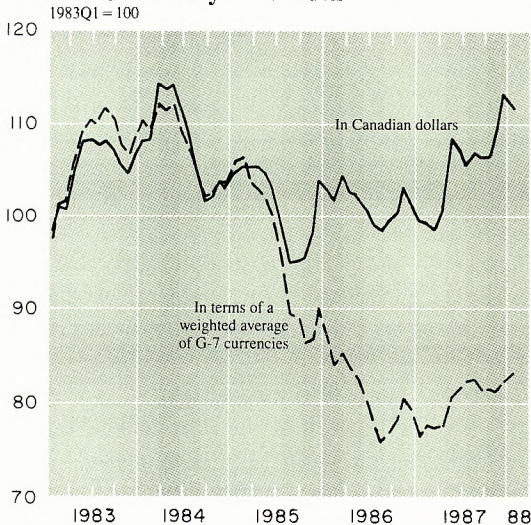
Spurred by marked gains in employment and income, and reinforced by further reductions in personal savings rates, consumer outlays on goods and services rose sharply during 1987. The vigour of household demand was even more apparent in the rapid pace of residential investment. Housing starts reached an 11-year high in 1987 with effects on the level of residential investment likely to carry on well into

1988. In southern Ontario, particularly in the Toronto area, sales of existing and new housing reached boom proportions.

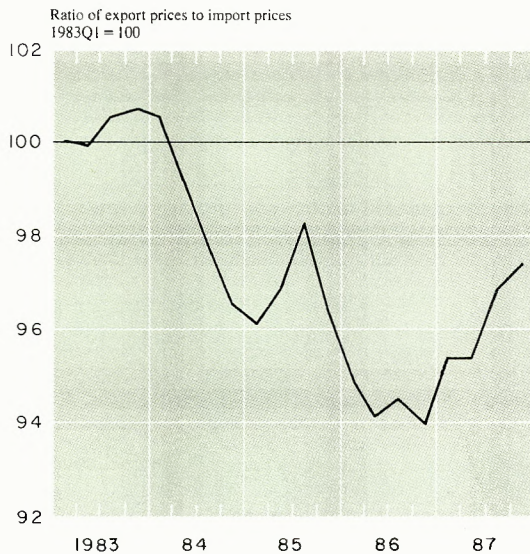
The volume of business spending on plant and equipment gained considerable momentum through 1987, rising by nearly a fifth. The strength of household demand was an important factor, but business capital spending was also encouraged by improved profitability, healthier balance sheets and generally favourable financial conditions. High rates of capacity use and good prospects for export sales encouraged expansions in capacity in some sectors, but much of the spending in 1987 was devoted to modernization and improved productivity. Towards the end of the year, the stock market decline and fluctuations in world oil prices added an element of uncertainty regarding future outlays. Nevertheless, recent information indicates that investment should continue to be strong in 1988.

The strength in business investment was broadly based by sector and by region and was an important factor in the improved economic performance of the Atlantic provinces and western Canada. In 1986, in response to the general weakness of commodity prices, the pace of economic activity in those provinces that rely most heavily on resource-based industries had dropped sharply. But during 1987 prices received by

Bank of Canada Sensitive Commodity Price Index



Canadian International Terms of Trade



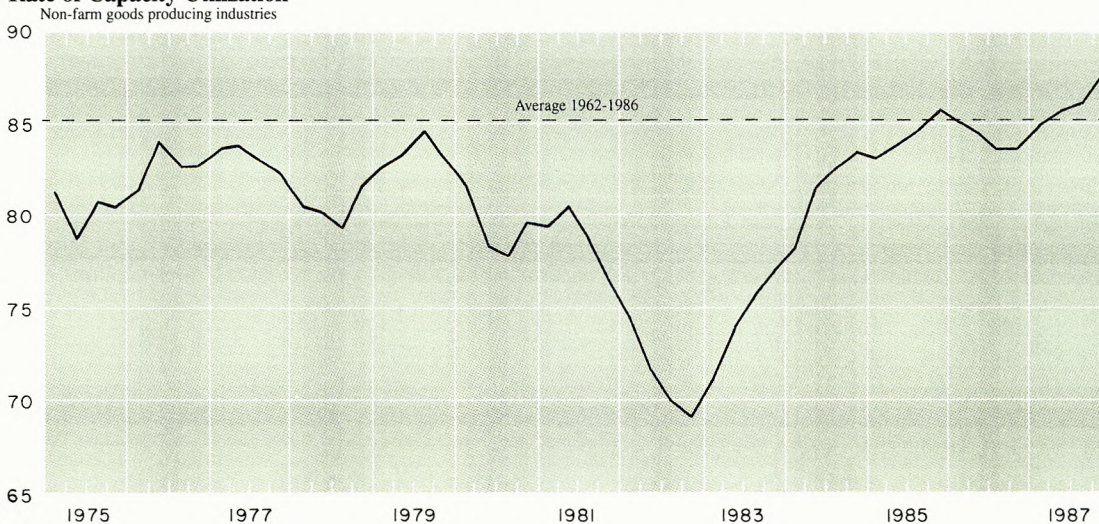
many Canadian commodity producers rebounded significantly. As a result, production, revenues, profits and investment in most resource-based industries rose substantially. However, regional gains were not limited to these sectors. Retail sales grew sharply in all regions, and there was a pickup in residential construction in the West. In Alberta, preparations for the Calgary Olympics stimulated activity further. The Atlantic

provinces benefited from further increases in fish prices.

Despite the general improvement in the economic climate outside central Canada, problems remain. Grain prices, although somewhat higher in recent months, have yet to recover sufficiently to restore normal levels of profitability. Accordingly, western grain producers have continued to receive heavy support from government stabilization programs. Profitability in the oil and gas sector, while up from the very low level of 1986, remains below historical norms and subject to continuing uncertainty because of the volatility in world oil prices.

With the turnaround in commodity prices, Canada's international terms of trade improved during 1987, reversing the previous year's decline. Nevertheless, the current account deficit did not reflect this improvement, increasing to approximately \$10 billion, or 1¾ per cent of gross domestic product (GDP). The effect of the higher prices received for Canadian exports, relative to imports, was offset by the particularly strong increase in the volume of imports in response to the rapid growth in domestic demand. Exports were outpaced by imports despite impressive growth in foreign sales of Canadian products. Although the growth of markets in our major trading partners was gener-

Rate of Capacity Utilization



ally moderate, Canadian producers continued to be highly competitive and gained market share.

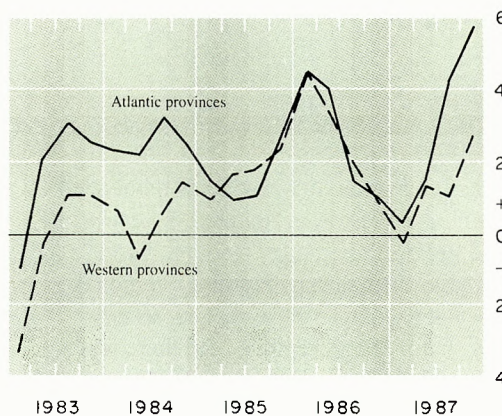
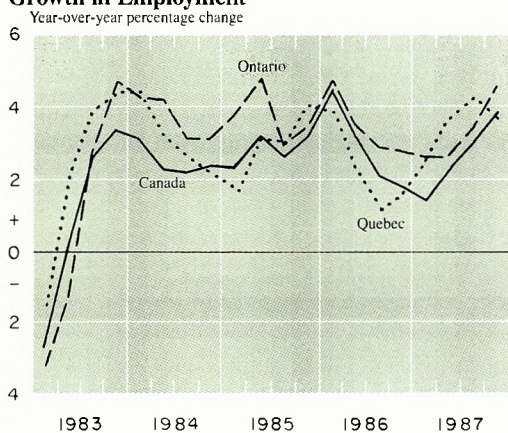
With output expanding to meet rising demand, by year-end a number of industries were operating at rates of capacity use well above historical averages. Among these were many resource industries and manufacturers of construction materials, as well as producers of a range of consumer goods and capital equipment.

The rising level of production was also apparent in the strength of demand for labour. Employment rose by 4.2 per cent during 1987

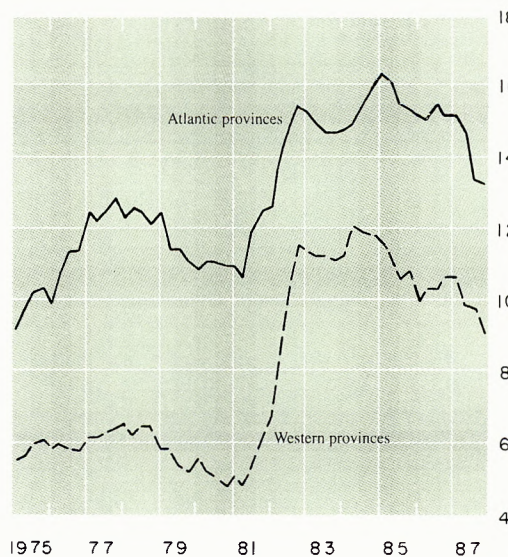
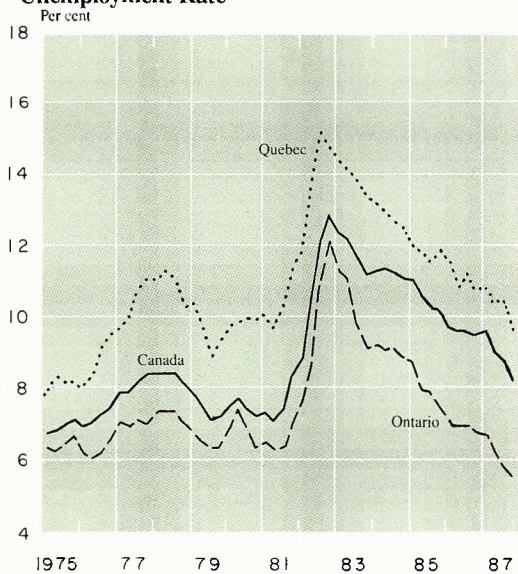
with the national unemployment rate falling steadily through the year to 8.1 per cent in December – the lowest rate since mid-1981. Other indicators of labour market conditions also reveal the extent of the improvement. The employment ratio (employment relative to the working-age population) and the participation rate (proportion of the working-age population employed or seeking work) both reached record highs.

All the major regions experienced a substantial decline in unemployment, with

Growth in Employment



Unemployment Rate



employment gains being proportionately the largest in British Columbia and Atlantic Canada. Nevertheless, in the Atlantic and western provinces unemployment rates remained well above those in central Canada overall, and well above levels experienced in these regions before the 1981-82 recession. This situation gave rise to a considerable movement of Canadians into central Canada. However, notwithstanding this inflow there was further tightening in the Ontario labour market, where unemployment fell sharply.

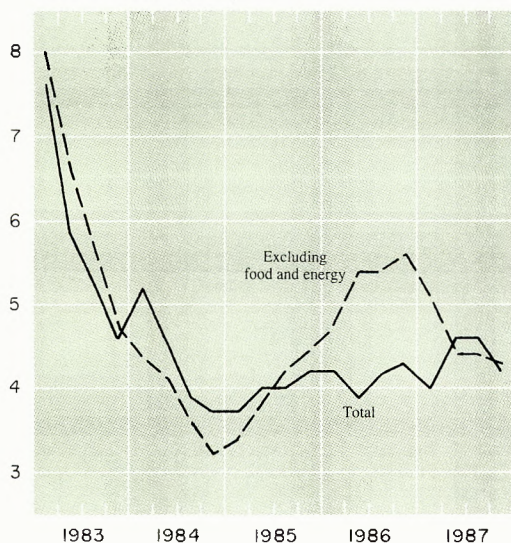
Inflation

On a year-over-year basis the rate of increase of the consumer price index (CPI) rose to over 4¾ per cent at midyear, before dropping back to about 4¼ per cent at the end of the year – the same rate of increase as experienced during 1986. From an international perspective, Canada's rate of inflation remained higher than in most overseas industrialized countries, although late in the year it edged below that of the United States.

The pickup in inflation during the first half of 1987 came from several sources. Demand pressures began to emerge, showing up first in sharply rising house prices, particularly in southern Ontario, but to a lesser extent in other parts

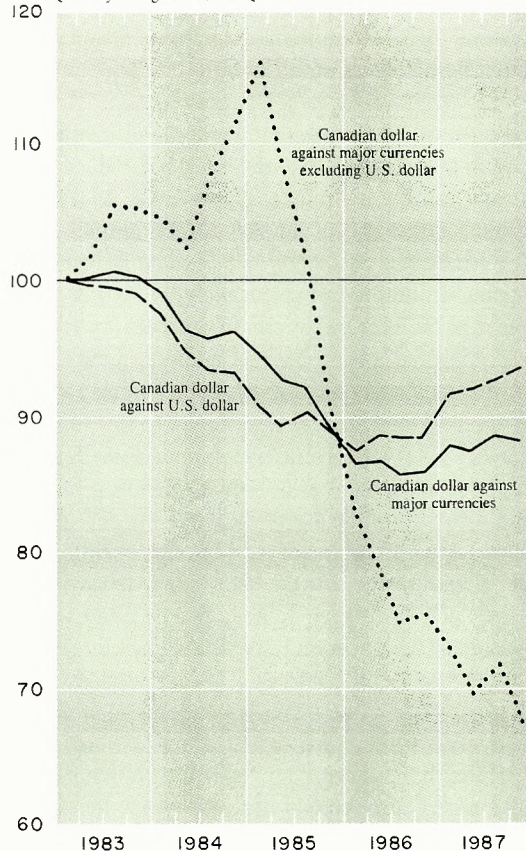
Consumer Price Index

Year-over-year percentage change



Exchange Rates

Quarterly average index, 1983Q1 = 100



of the country as well. Higher energy prices arising from the partial reversal of the decline in world oil prices in 1986 were another key factor. Reduced supplies of certain food items raised consumer prices, as did a series of increases in federal and provincial sales and excise taxes and other charges that came into effect over the first six months of the year. To a large extent, the slowing in consumer price increases in the second half of the year reflected moderation in the influence of most of these factors. House prices in the Toronto region began to rise more slowly as construction added to supply and rising mortgage rates softened demand.

The rate of price increase for consumer items other than food, energy and housing slowed during 1987. The appreciation of the Canadian dollar against major currencies overall (that is, on a weighted average or "effective" basis) contributed to this inasmuch as import

prices for consumer goods were essentially unchanged over the year. The widespread rebates offered by automobile manufacturers also had a moderating effect on inflation.

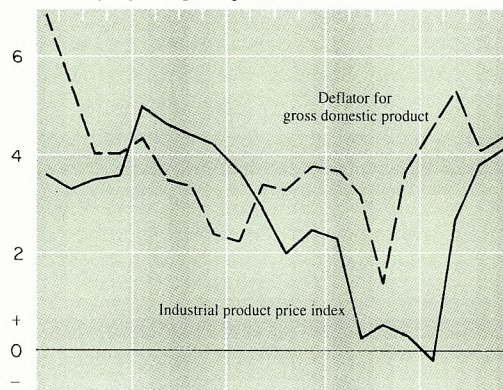
However, as the year progressed, the rising level of demand and resource utilization began increasingly to show itself in product and labour markets. Producer prices began to rise rapidly in the spring, in part reflecting underlying conditions of supply and demand in markets for basic commodities. For many industries these price increases restored profitability to more normal levels, but in a number of cases profit rates rose above historical averages. Moreover, average hourly wages began to rise more rapidly and by year-end were about 4 per cent higher than a year earlier, an acceleration from the 3 per cent increase recorded at the end of 1986. The effect on costs and prices of this acceleration was, for the time being, largely offset by above-average gains in productivity related to the exceptionally sharp spurt in demand in 1987.

Wage rate increases negotiated in major collective agreements, which are a forward-looking indicator of wage cost developments, also picked up. Annual life-of-contract increases in base rates for new settlements negotiated in 1987 amounted on average to about 4 per cent compared with 3.4 per cent in 1986. In the second half of the year a number of major settlements, including those in the automotive and airline industries, increased base wage rates by somewhat more than 4 per cent and provided for considerable increases in non-wage benefits.

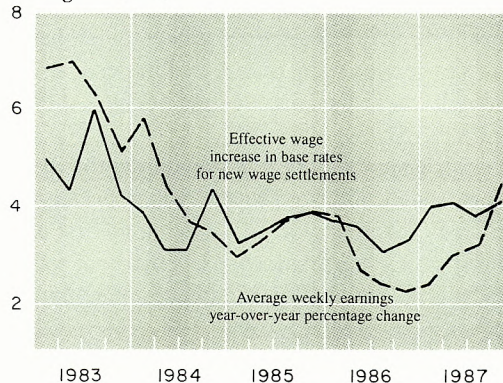
Indicators of Producer Prices and Costs

Industrial product price index and deflator for gross domestic product

Year-over-year percentage change



Wage measures



With expiring contracts covering nearly 1½ million workers, 1988 will be a considerably heavier bargaining year than 1987.

Financial Developments

The faster rate of growth of total spending in 1987 prompted some tightening in monetary conditions in Canada. This tightening occurred in the context of a gradual rise in interest rates in the United States and in a climate of renewed confidence in the Canadian dollar such that the very wide differentials observed between Canadian and U.S. short-term interest rates in 1986 narrowed somewhat in 1987. The tightening in monetary conditions contributed to a slackening in the pace of monetary expansion relative to the very high rate recorded in the first half of the year, but credit growth nevertheless remained strong.

Financial developments in 1987 were marked by a sharp decline in stock prices in October after a number of months of rather spectacular growth. This led to a shift in investor preferences towards higher quality instruments and caused corporations to seek out different sources of finance. The upward trend in interest rates was also reversed at that time, partly as a result of an injection of liquidity by the Bank of Canada.

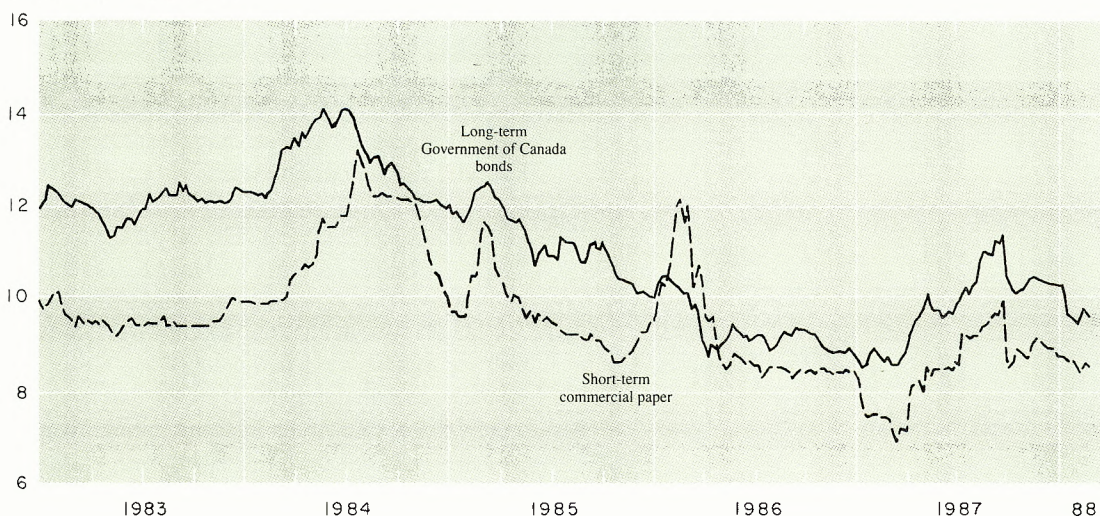
Some fundamental changes to the Canadian financial environment were initiated in

1987. The federal government restructured the supervisory system for financial institutions and released draft legislation on trust and loan companies. The securities industry was opened to banks and non-residents. The recently negotiated Canada-U.S. Free Trade Agreement provides for equivalent treatment of the financial institutions of each country. As a result, Canadian banks operating in the United States will be granted the same powers as U.S. banks when changes are made in the U.S. rules governing financial markets, and Americans will be exempted from certain of the restrictions that apply in Canada to foreign ownership of federally chartered financial institutions.

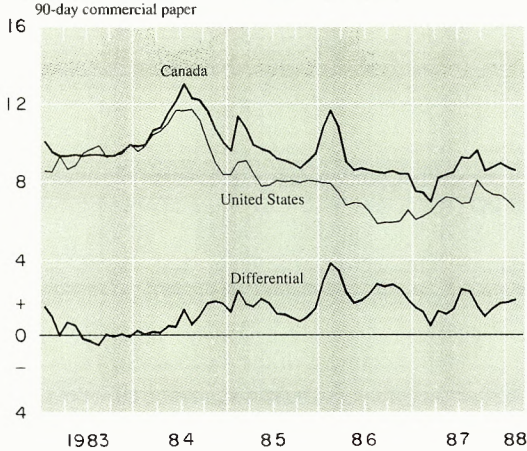
Interest rates and exchange rates

There was a sharp decline in short-term interest rates early in 1987, from 8.25 per cent at the beginning of January to less than 7 per cent at the end of March. During this period, large capital inflows, particularly from Japan, exerted upward pressure on the Canadian dollar and led to a substantial narrowing of the spread between Canadian and U.S. interest rates. Investor interest in Canadian dollar securities reflected the

Canadian Interest Rates



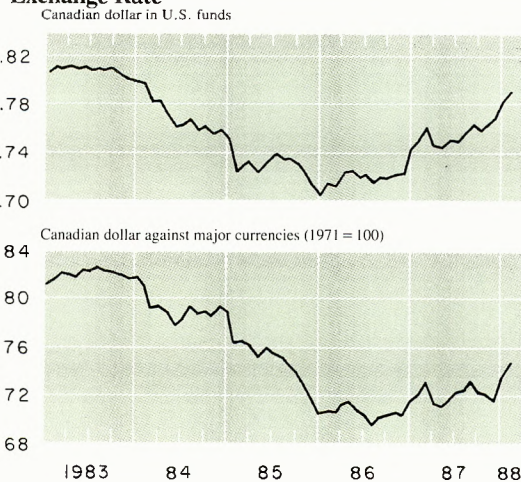
Canada-U.S. Short-term Interest Rates



relatively good performance of the Canadian dollar during 1986 as well as higher prices for a number of primary commodities.

Monetary policy began to tighten in early April in response to the strong growth in aggregate demand in the first quarter. Short-term interest rates picked up immediately and continued to rise until October. Following an initial decline, the exchange rate also strengthened. Just before the plunge in stock prices, short-term interest rates stood roughly 150 basis points above their levels at the start of the year, while the trade-weighted index for the Canadian dollar

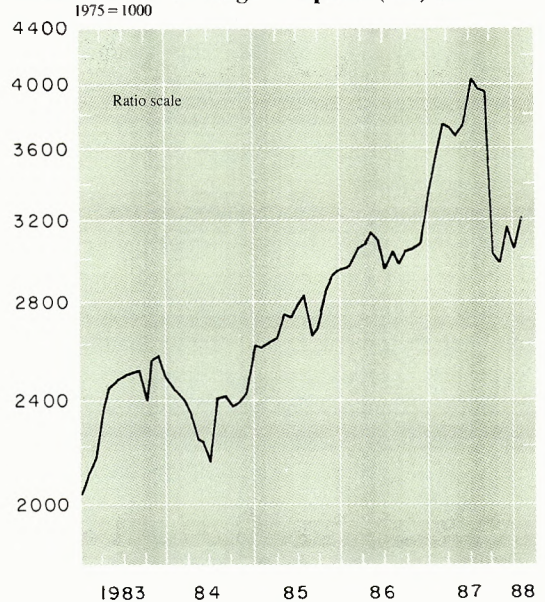
Exchange Rate



relative to the G-10 currencies had risen over the same period by 4 per cent.

On October 19, the Dow Jones index fell by 23 per cent, precipitating a sharp decline in stock prices around the world. In Canada, the Toronto Stock Exchange Composite Index lost roughly 17 per cent in two days. In order to prevent the share price decline from giving rise to more general financing problems, the Bank of Canada promptly injected additional liquidity into the Canadian financial system. Short-term

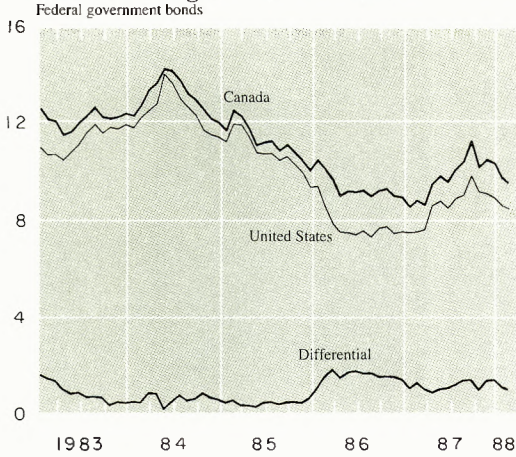
Toronto Stock Exchange Composite (300) Index



interest rates dropped abruptly and the trade-weighted index for the Canadian dollar fell by about 3 per cent in two and a half weeks. However, as initial fears about the potential effects of the stock market crash abated, short-term interest rates recovered somewhat.

Since the beginning of 1988, the Canadian dollar has appreciated by about 4 per cent against a basket of major currencies, reflecting a widespread perception that economic prospects in Canada were continuing to improve. Treasury bill yields have remained more or less unchanged, but commercial paper rates have edged downward as the liquidity premium on treasury bills associated with the stock market plunge has unwound. In general, by the end of

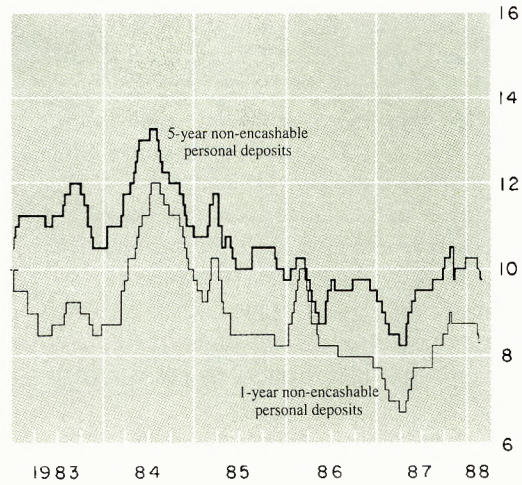
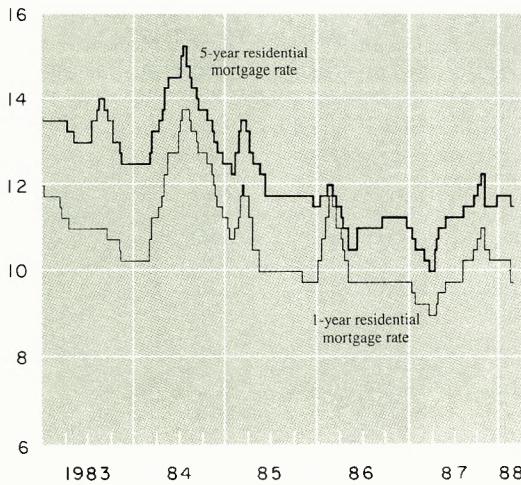
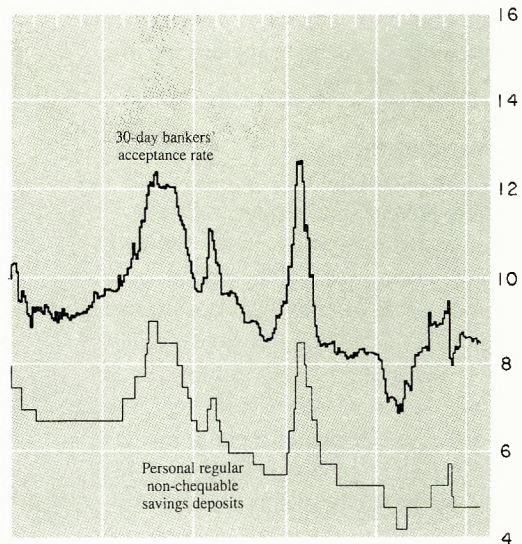
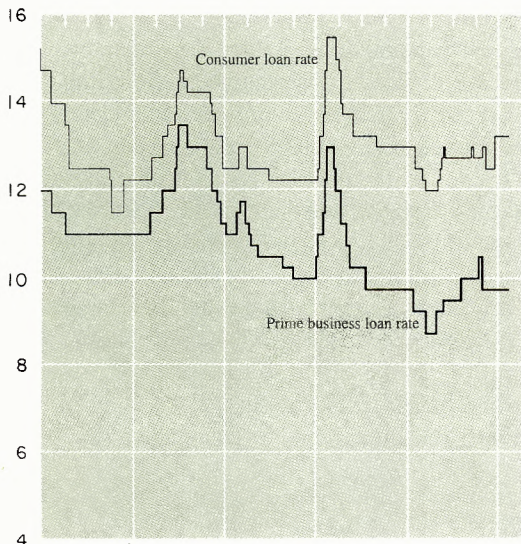
Canada-U.S. Long-term Interest Rates



February short-term interest rates had returned to approximately their levels of early 1987.

Long-term interest rates rose more in 1987 than did short-term rates. Long-term rates were not strongly affected by the decline in short-term rates in the first quarter, but they rose as quickly as short rates from April to October. The increases in long-term rates were in line with similar movements in the United States, where they reflected heightened fears of inflation engendered by the general downward trend in the U.S. dollar. The rise in interest rates in September and October was reversed following the stock market decline but, by year-end, long-term rates were about 150 basis points above

Selected Chartered Bank Interest Rates



the levels prevailing early in the year. Since the beginning of 1988, long-term bond rates have again fallen in the United States, and Canadian rates have declined in their wake.

On the whole, administered interest rates followed fluctuations in market interest rates rather closely. Accordingly, after ranging between 8.75 per cent and 10.5 per cent during the year, the chartered banks' prime lending rate returned to 9.75 per cent by late 1987, the same level as at the beginning of the year. Interest rates on mortgages and personal term deposits rose by $\frac{1}{2}$ to $\frac{3}{4}$ of a percentage point above the levels prevailing at the beginning of 1987. This increase can be attributed to the particularly strong demand for mortgages and to a more marked increase in medium-term bond yields than in short-term interest rates. Mortgage rates fell in early 1988, following the decline in medium-term bond rates.

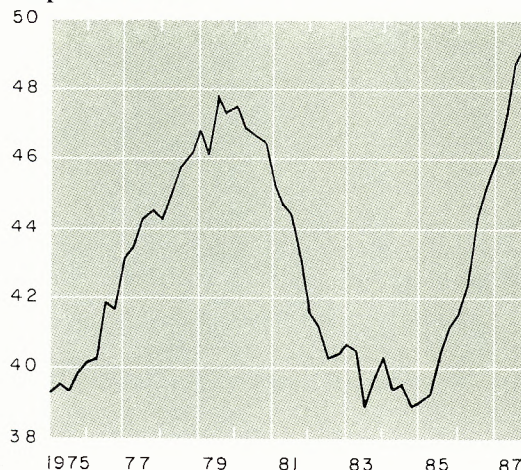
Credit developments

The rate of increase in total credit has remained relatively stable in recent years, despite quite different trends in borrowing by households, businesses and the public sector. The rate of growth of household debt has accelerated strongly since 1984, whereas business debt has grown at a relatively stable pace and growth in government debt has slowed considerably. In 1987, the demand for credit by the private sector again intensified and the rate of growth of public sector debt continued to decline.

The pace of growth of household indebtedness, which has exceeded that of personal income for a number of years, accelerated further in 1987 to a rate of 18 per cent. This acceleration, which was associated with a decline in the savings rate and strong demand for housing, reflected the growing confidence of households in the economic situation. The ratio of household debt to disposable income returned to the peak level it reached in 1979-80 and is continuing to rise rapidly. However, since 1980 households have also substantially increased their financial and non-financial assets relative to income.

After slowing somewhat in 1986, the rate of growth of business credit picked up

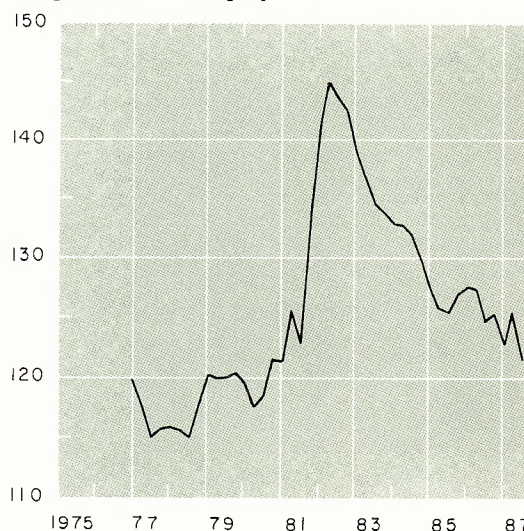
Household Credit as a Ratio of Personal Disposable Income



in 1987, rising to more than 10 per cent by year-end. Equity issues and bond financing – particularly new issues of convertible bonds – continued to grow quite rapidly until mid-October, as firms took advantage of rising stock values to restructure their balance sheets. This type of financing declined substantially after the stock market plunge, and businesses drew on their lines of credit at banks and issued bankers' acceptances to meet their borrowing needs.

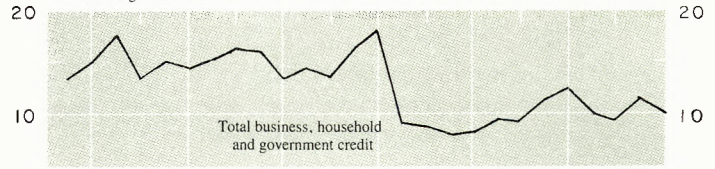
In the public sector, borrowing requirements have been declining steadily in recent years, reflecting rising revenues and a slowing in

Corporate Debt to Equity Ratio

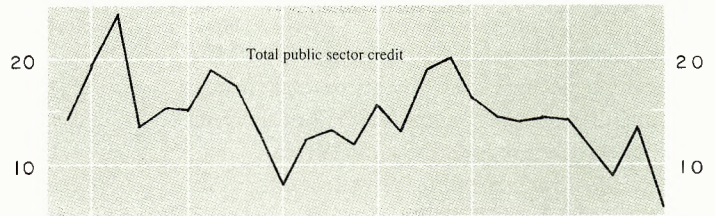


Credit Aggregates: Amounts Outstanding

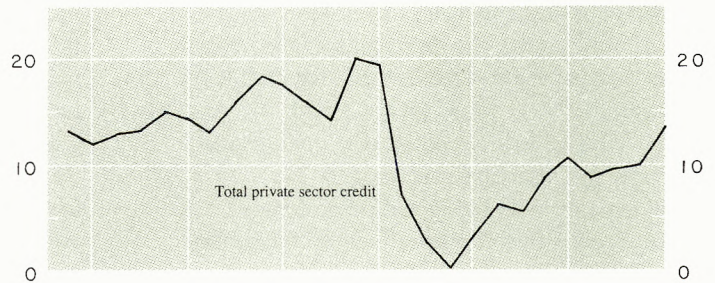
Semi-annual growth rates



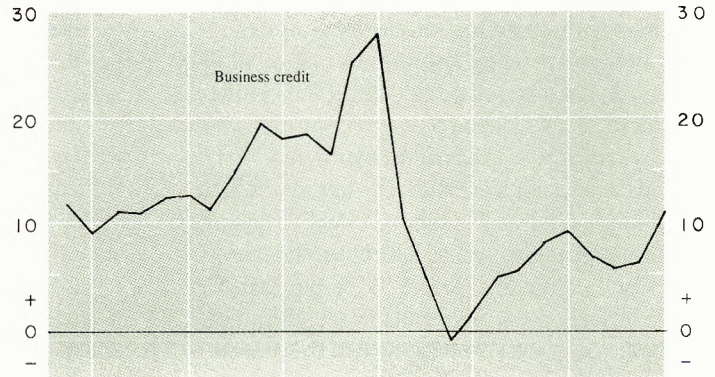
Total public sector credit:
Loans extended to, and bonds and bills issued by, federal, provincial and municipal governments, and guaranteed bonds issued by provincial and municipal government enterprises



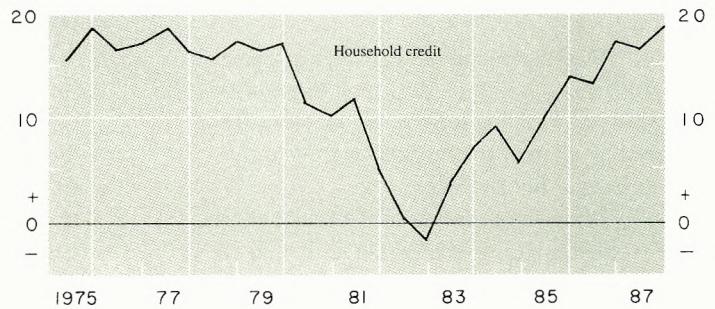
Total private sector credit:
Total of business and household credit



Business credit:
Loans and financial leases extended to, and acceptances, short-term paper, bonds and equities issued by, non-financial businesses



Household credit:
Consumer credit and residential mortgage loans extended by selected lenders



the rate of expenditure growth. However, in 1987 the increase in revenue was absorbed in large part by new spending programs, and public sector debt (including the guaranteed debt of government enterprises) continued to grow on average at a rate of more than 10 per cent.

Monetary aggregates

Continuing the pattern of recent years, movements in the monetary aggregates in 1987 generally reflected developments in total spending and interest rates. In the first half of the year the monetary aggregates grew rapidly, in response to strong spending growth and the decline in short-term interest rates early in the year. However, in the second half of 1987 the growth rates of the monetary aggregates generally declined as the growth of spending slowed somewhat and interest rates rose in the middle of the year.

Nevertheless, movements in the monetary aggregates are not explained by developments in spending and interest rates alone. Special factors also influenced the behaviour of the various aggregates during the year.

Although the rapid rate of growth in M2 and M2+ in the first half of the year resulted mainly from spending and interest rate developments, it was also inflated by the effects of the unusually small Canada Savings Bond campaign in November 1986. Individuals withdrew less money than usual from their savings deposits to purchase bonds, which had the effect of raising the levels of M2 and M2+. Likewise, the slowdown in the growth of M2 and M2+ late in 1987, while reflecting developments in spending and interest rates, was also accentuated by the unusually large sales of savings bonds in November. Personal savings deposits fell sharply during the sales period.

Fluctuations in the narrow aggregate, M1, were much larger in 1987 than those in M2 and M2+. In part this reflects the greater sensitivity of M1 than of the broader aggregates to movements in interest rates.

The rate of growth of the broad aggregate M3 was similar to that of M2, although M3 was more heavily influenced by developments in credit markets. For example, in the period after

the stock market crash, corporate borrowers turned to bank loans and bankers' acceptances rather than the securities market to meet their financing requirements. Faced with this increased demand for loans, the banks relied much more on non-personal term deposits to meet their funding requirements and this development held up the rate of growth of M3 relative to that of M2.

Other financial developments in 1987

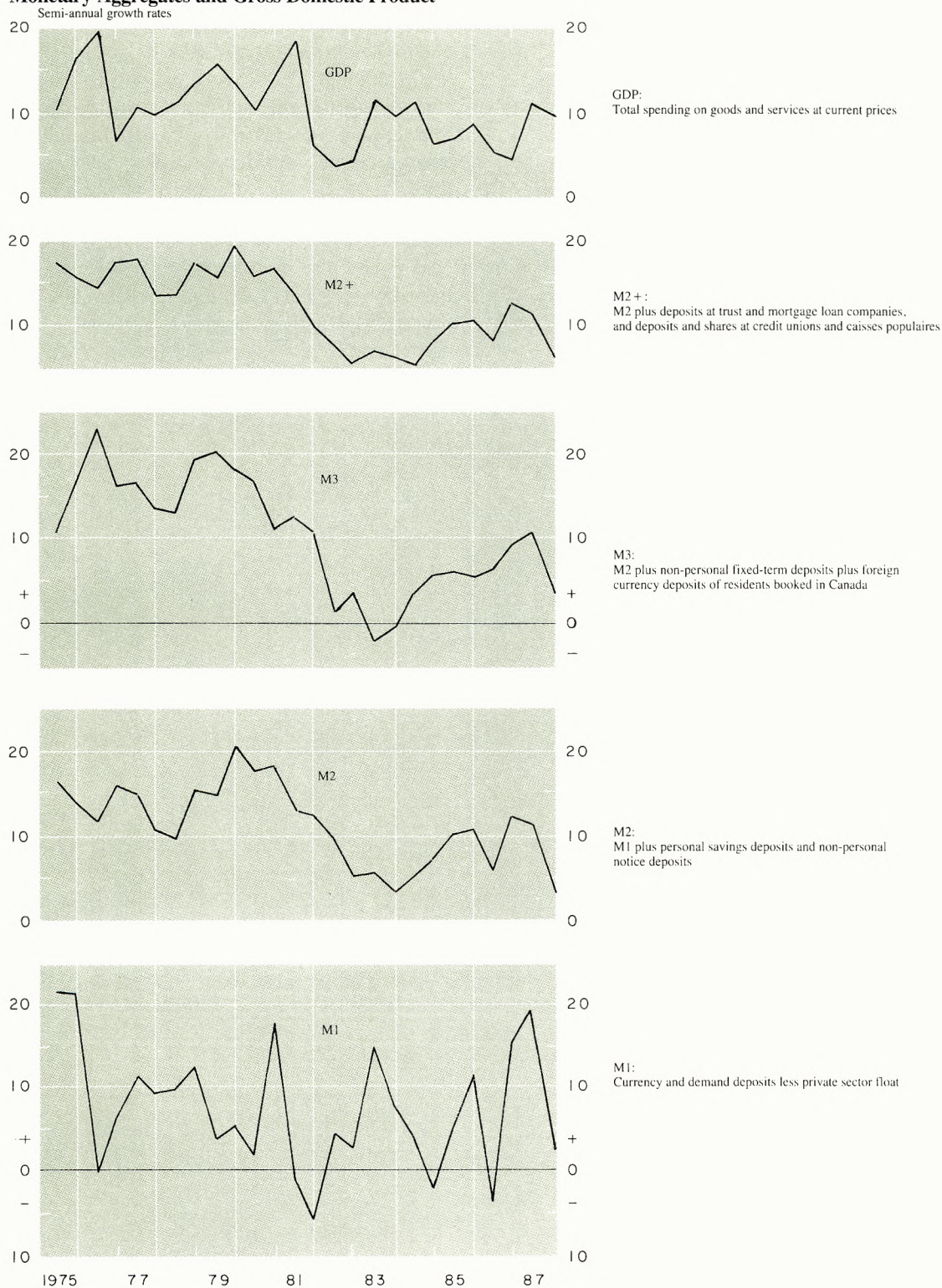
After consultation with the Superintendent of Financial Institutions, the six major Canadian banks in July raised their general provisions for losses on sovereign loans to a group of Third World countries by \$6.1 billion. Overall, those provisions now stand at 37 per cent of their loans outstanding to such countries. As a result, the banks reported an extraordinary after-tax loss of some \$3.4 billion on their third quarter financial statements, a loss which they were largely able to absorb out of other 1987 net income. Some banks took advantage of favourable market conditions to strengthen their capital base through stock issues.

As noted earlier, 1987 marked the beginning of a major transformation of the Canadian financial environment. In December 1986, the Government of Canada had set out the general principles for its revision of statutes governing the powers and ownership of federally chartered financial institutions. In 1987, it began to give concrete form to those principles.

In June, the Government consolidated the various agencies responsible for supervising federally chartered financial institutions under the authority of the Superintendent of Financial Institutions. It also established a supervisory committee composed of the Superintendent of Financial Institutions, the Governor of the Bank of Canada, the Chairman of the Canada Deposit Insurance Corporation and the Deputy Minister of Finance. The committee's role is to ensure that the agencies responsible for supervising financial institutions, acting as lender of last resort, and providing deposit insurance services consult one another and exchange information and points of view.

In December, the Government released

Monetary Aggregates and Gross Domestic Product



draft legislation on trust and loan companies, which will also form the basis for the revision in 1988 of legislation governing banks, insurance companies and co-operative credit associations. The purpose of these revisions is to broaden the powers of financial institutions and the range of institutions with which they might affiliate, while at the same time restricting links to commercial enterprises and maintaining control over self-dealing. The provincial governments have also begun to make legislative amendments in their areas of responsibility.

The Government's proposals for restructuring the financial sector also envisage

the abolition of the statutory requirement on chartered banks to hold reserves against their deposit liabilities. This reform will not alter the ability of the Bank of Canada to implement monetary policy, because the Bank will still be able to determine the availability of settlement balances to financial institutions directly involved in the daily process of clearing payment items. However, the new provisions will require changes in the mechanics of implementing monetary policy. The Bank has been meeting with the major financial institutions to discuss the nature of the mechanisms which might be needed in a system without required reserves.

International Developments

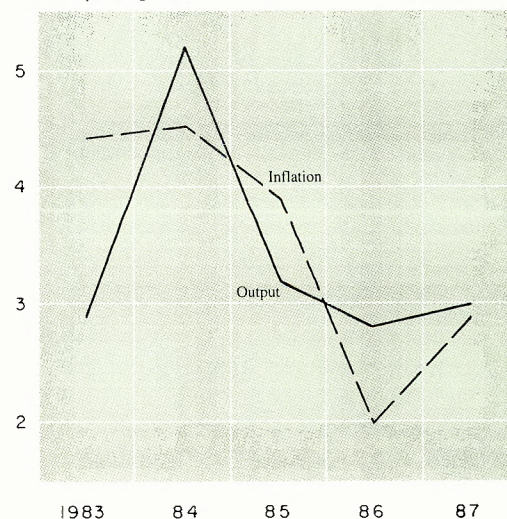
The world economy continued to expand in 1987, despite weaker growth in the developing countries. Among the major industrial countries, an encouraging development was the strong pickup of domestic demand in Japan accompanied by the slower expansion of domestic demand in the United States. These offsetting movements helped to maintain overall output growth in the industrial world while, together with past adjustments in exchange rates, working in the direction of reducing the large international trade imbalances that have been overhanging the world economy in recent years. However, progress in resolving these payments imbalances continued to be slow, and this contributed to volatile financial market conditions, particularly towards the end of the year. More recently, markets have stabilized somewhat in the light of more encouraging U.S. trade figures and actions taken by the G-7 countries.

Although the ratio of external debt to gross national product (GNP) of developing countries as a group increased slightly in 1987, their overall trade and current account positions improved. The performances of individual countries varied widely, however. Efforts to reduce debt burdens and to stimulate growth were made more difficult by the slower growth of world trade. Domestic policy problems in some of the larger indebted countries were also an important factor.

Industrial countries

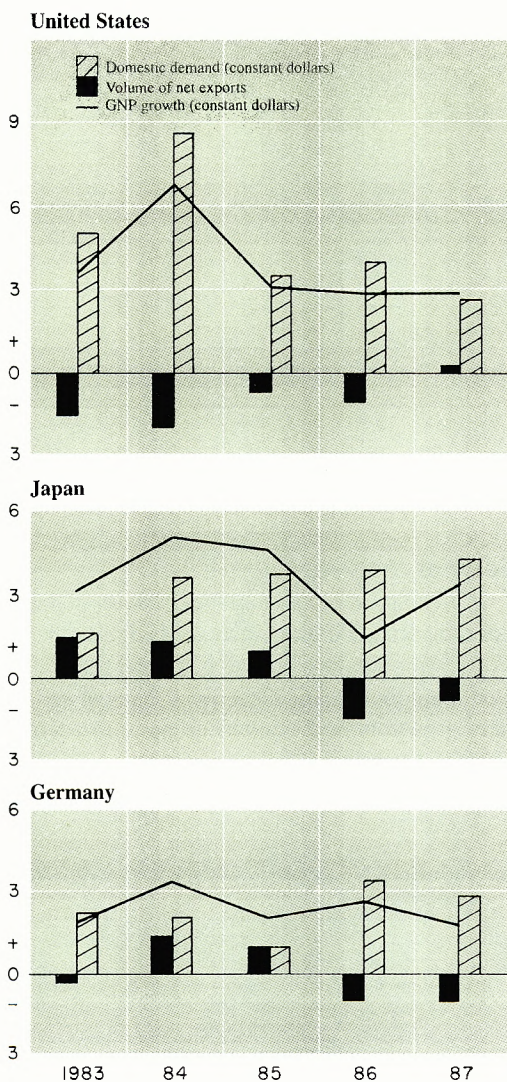
The pace of economic expansion in the major industrial countries increased slightly in 1987, as strong output growth in Japan, the United Kingdom and Canada more than offset weaker growth in continental Europe. Growth in the United States was approximately the same as a year earlier.

Major Industrial Countries⁽¹⁾: Output and Inflation
Annual percentage change



⁽¹⁾United States, Japan, Germany, France, United Kingdom, Italy, Canada

Major Industrial Countries: Contributions⁽¹⁾ to Growth in the Volume of GNP



⁽¹⁾Change in the volume of each component expressed as a percentage of the previous year's volume of GNP

There were significant and welcome changes in the growth rates of domestic demand among the G-7 economies. Domestic demand grew faster in those countries with large external surpluses than it did in the United States. Changes in fiscal policies contributed in an important way to these movements, consistent with the objectives of the Louvre Accord agreed to by finance ministers and central bank governors from the G-7 countries in February 1987.

Inflation rates in the major industrial

countries rose somewhat in 1987, reflecting in part a rebound in energy prices. In the United States the depreciation of the dollar had a direct impact on import prices and put added demand pressures on an economy already operating close to capacity. While there was no clear evidence of any acceleration in the rate of wage increases, rising interest rates on medium and longer-term securities through much of 1987 signalled heightened concerns about inflation on the part of investors. The U.S. monetary authorities reacted to these economic and financial developments, and short-term interest rates rose gradually during the first nine months of the year.

In other major industrial countries exchange rate appreciation helped keep inflation rates low. Nevertheless, policymakers and investors remained concerned about a potential rebound in inflation given the rapid expansion of monetary aggregates in some countries and the effects of higher energy prices. In the circumstances, there was some tightening of monetary policy in the summer and fall.

Current account imbalances among the major industrial countries remained large, but some progress was made towards reducing them. The volume of U.S. exports in particular was up sharply from a year earlier, mainly as a result of the substantial depreciation of the U.S. dollar since 1985. Combined with the effects of slower growth in U.S. domestic demand on imports, this depreciation contributed to an improvement in the U.S. trade balance (expressed in volume terms) as a proportion of GNP. In Japan and Germany the trade balance in volume terms fell both absolutely and as a proportion of GNP, as imports continued to increase at a faster rate than exports.

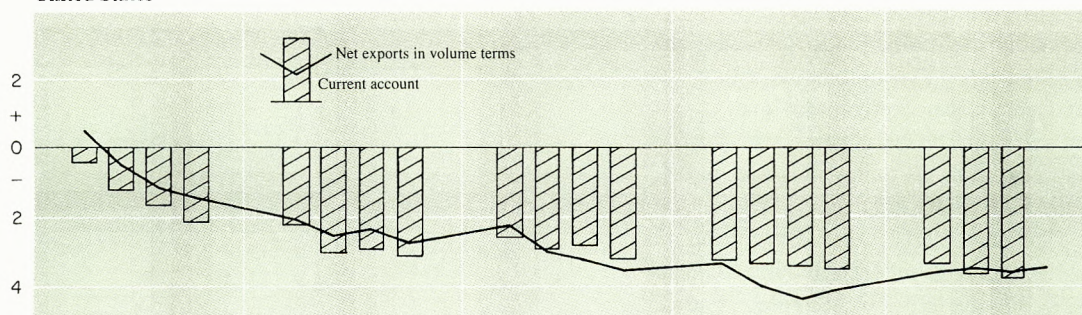
The adjustment of international imbalances was less noticeable when measured in value terms. Although the current account surpluses of Germany and Japan declined modestly in 1987 as a proportion of GNP, the U.S. current account deficit reached record levels. The persistence of the U.S. deficit, in the presence of protracted and substantial declines in the value of the U.S. dollar, reflected two factors.

First, foreign producers and U.S. importers have tried to maintain market share in

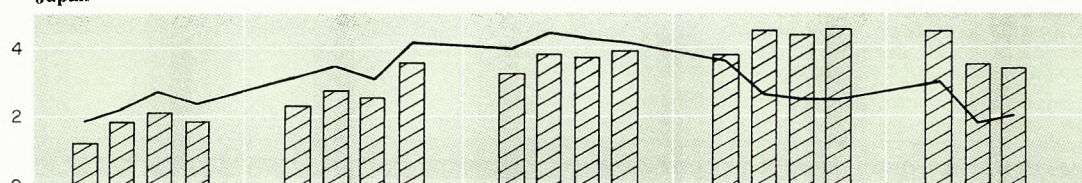
External Balances of United States, Japan and Germany

Expressed as a percentage of GNP

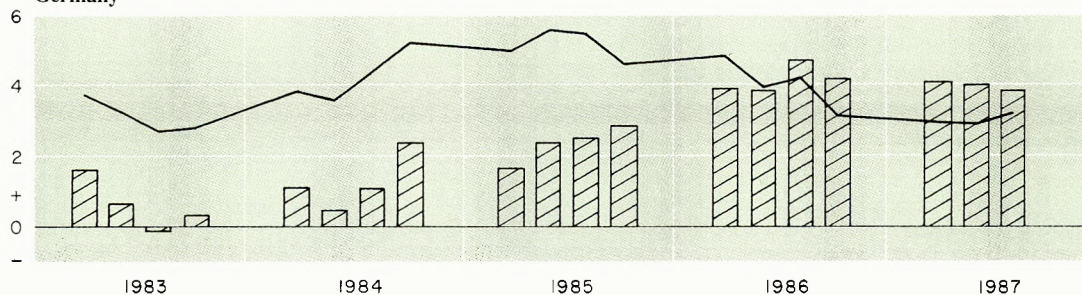
United States



Japan



Germany



the United States during the past three years by absorbing part of the exchange rate changes in the form of lower profit margins. As a result, movements in U.S. import prices have not fully reflected the decline of the U.S. dollar. This has served to lengthen the adjustment period and to increase the exchange rate changes required to put the current account on a sustainable path.

Second, import price increases experienced to date have in themselves contributed to a short-run deterioration in the U.S. trade balance. Although exchange rate depreciations should improve a country's trade position once import and export volumes have responded, these adjustments often take some time. In the interim, the negative effects of higher import prices typically dominate, producing larger trade deficits.

As the year progressed, international financial markets became increasingly unsettled. The U.S. trade deficit was not adjusting as quickly as most observers had expected, and doubts began to emerge about the policy commitments made earlier as part of the Louvre Accord. Investors worried that domestic and international imbalances would lead to a further substantial decline in the U.S. dollar, rising U.S. inflation, higher interest rates and slower growth in the world economy.

In mid-October stock markets around the world experienced a sudden and precipitous decline in prices that erased most or all of the gains registered earlier in the year. In response there was a substantial infusion of liquidity in most industrial countries. Though the stock market decline appears not to have had any

immediate effect on their economies, considerable uncertainty remained at year-end as to the ultimate effect of this shock. In this context, monetary authorities in the industrial countries adopted a somewhat accommodative policy stance and, in a December communiqué, G-7 ministers and central bank governors reaffirmed their commitment to the policy measures outlined in the Louvre Accord.

Exchange market conditions during this period reflected the turbulence in other financial markets. Following the stock market decline in October, the U.S. dollar weakened considerably against most other major currencies. By year-end, the dollar had fallen by 21 per cent against the Japanese yen and 18 per cent against the German mark, relative to its December 1986 levels. On a trade-weighted basis (i.e., measured against the currencies of its largest trading partners), the U.S. dollar depreciated by nearly 16 per cent. The G-7 communiqué, concerted exchange rate intervention and the subsequent release of more favourable U.S. trade statistics helped in early 1988 to reverse partially these exchange rate changes.

Developing countries

Output in the developing countries continued to expand in 1987 but growth was generally lower than in 1986. Moreover, there were marked differences in the pace of economic activity in different countries. Growth rates in many Asian countries, for example, remained relatively high while output in fuel-exporting countries actually fell.

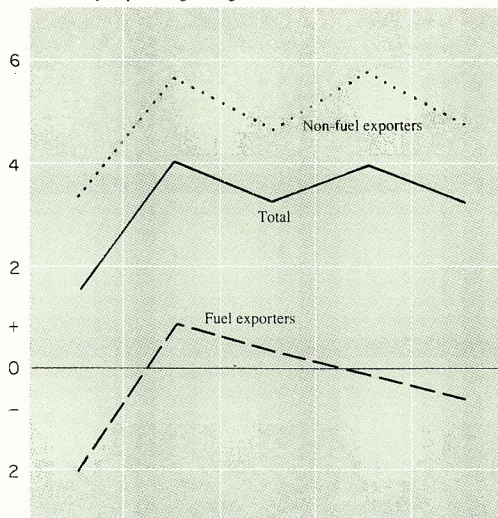
The slower pace of economic activity did not translate into lower inflation for developing countries overall. Their average rate of inflation rose through the year, driven principally by the deteriorating price performance of a number of the larger debtor countries.

Export receipts of the developing countries were much higher in 1987 in U.S. dollar terms. This allowed them to increase imports and still register an improvement in their overall trade and current account positions. However, the improvement was spread unevenly among the different groups of developing countries. The terms of trade for developing countries that are

Developing Countries

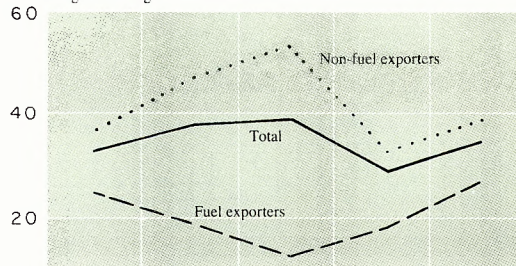
Output

Year-over-year percentage change



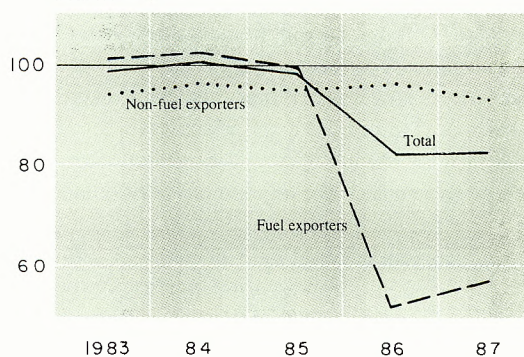
Inflation

Weighted average



Terms of Trade

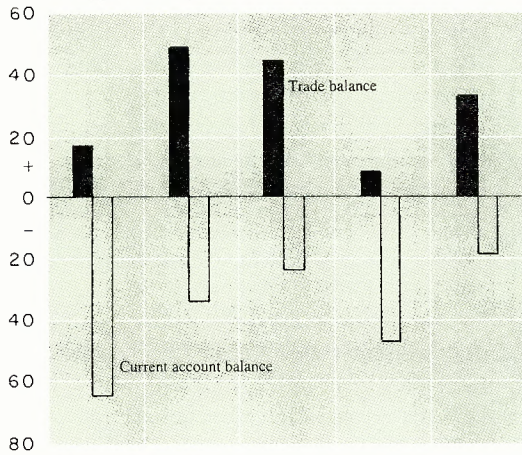
Index 1980 = 100



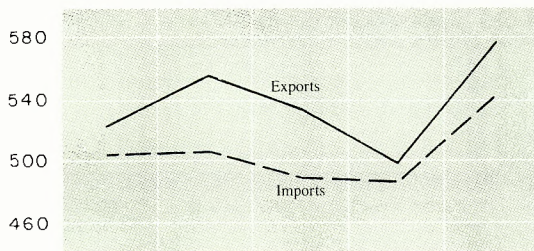
major exporters of fuel products improved in 1987 with some recovery in the price of oil, following its dramatic decline in 1986. Other developing countries experienced a small deterioration in their terms of trade, although there

Developing Countries

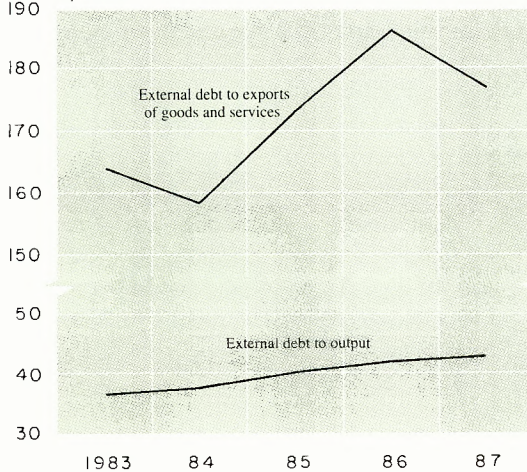
Trade and current account balances
Billions of U.S. dollars



Merchandise trade
Billions of U.S. dollars



External debt ratios⁽¹⁾
In per cent

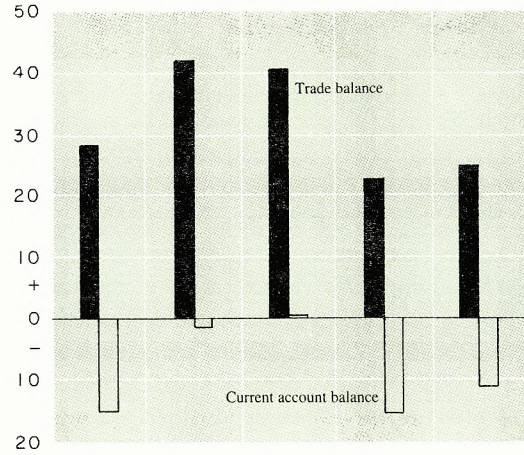


⁽¹⁾Ratios apply to capital-importing developing countries only

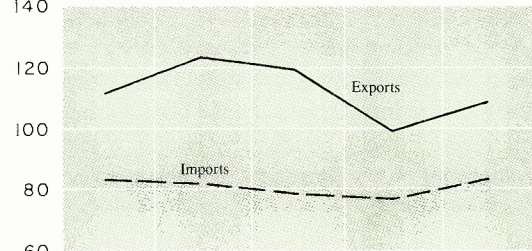
⁽²⁾Argentina, Bolivia, Brazil, Chile, Colombia, Côte d'Ivoire, Ecuador, Mexico, Morocco, Nigeria, Peru, Philippines, Uruguay, Venezuela, Yugoslavia

Fifteen Heavily Indebted Developing Countries⁽²⁾

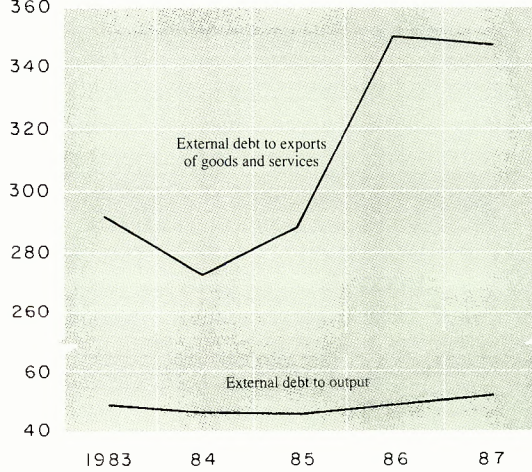
Trade and current account balances
Billions of U.S. dollars



Merchandise trade
Billions of U.S. dollars



External debt ratios
In per cent



was some improvement in the prices of many non-oil commodities during the year. For the developing countries overall, the terms of trade were virtually unchanged over the year.

The adjustments being made by debtor countries require external financial support. A number of the larger debtor countries reached agreements with creditor banks in 1987 to reschedule outstanding debt or to obtain new loans. Considerable effort went into making these packages more attractive to banks through innovations such as fees for early commitments, provision for debt-equity swaps, co-financing with the World Bank, and the use of such alternatives to loans as trade credit and deposit facilities and notes and bonds. Late in the year, Mexico proposed a scheme under which banks could bid at auction to exchange some of their outstanding loans to that country for long-term bonds. These bonds would carry a higher interest rate and have a lower face value than the original loan. Moreover, the principal would be secured with zero-coupon bonds to be issued by the U.S. Treasury and purchased by the Mexican authorities. Finally, the recent decision to seek an increase of almost 80 per cent in the general capital of the World Bank points to further support for debtor countries.

For low-income countries that require assistance on concessional terms, the IMF established a new lending facility in December 1987. Known as the Enhanced Structural Adjustment Facility, it will be financed by loans and contributions from a large number of countries, including Canada. Agreement was also reached to replenish the resources of the International Development Association, the World Bank affiliate which makes concessional loans to these countries.

Despite these encouraging signs, the

financial positions of many heavily indebted countries remain fragile. The sluggish growth of output in these countries and the limited availability of new financing made it difficult to meet scheduled debt-service payments. Many of the developing countries continued their efforts to put in place more appropriate demand management policies as well as various structural adjustments, often with advice and financial support from the IMF and the World Bank. However, all too often there were slippages in the implementation of these programs.

In February 1987 Brazil suspended interest payments on its medium-term and long-term loans outstanding to banks. Towards the end of the year it agreed to pay the interest that fell due during the final quarter of 1987, using funds from its reserves together with a short-term loan by the banks. In early 1988, Brazil and its creditor banks were engaged in negotiating a more comprehensive medium-term financial agreement. Brazil also indicated a willingness to enter into negotiations with the IMF on an economic program.

The Bank of Canada, with the concurrence of the Minister of Finance, participated with other countries in 1987 in two separate short-term bridge financing arrangements for Argentina. In both instances, the financing was related to an economic adjustment program undertaken by Argentina with assistance from the IMF and the World Bank. Canada's share in the first loan of U.S.\$500 million, arranged in March, was U.S.\$30 million. The Canadian share of the second loan, made in November for an amount of up to U.S.\$500 million, was U.S.\$28 million. Argentina had repaid both of these loans by year-end. Earlier in the year, Mexico had repaid a similar bridging loan in which Canada had also participated.

Bank of Canada Operations

Bank of Canada Advances and Securities Market Operations

The assets of the Bank of Canada have traditionally consisted almost entirely of Government of Canada securities. During 1985 and 1986, as a consequence of the difficulties of a number of smaller banks, advances to members of the Canadian Payments Association (CPA) came to represent an unusually large share of the Bank's assets. However, over the past year the proportion of advances relative to holdings of Government securities has declined considerably.

The buildup of advances peaked at over \$5 billion in April 1986. By the beginning of 1987 these advances had declined to \$868 million and consisted mainly of the remaining balance on advances made in 1985 to the Canadian Commercial Bank and the Northland Bank. The continuing liquidation of the assets of these two insolvent banks permitted repayments in 1987, and the level of extraordinary loans had declined to \$362 million by the end of the year.

The Bank of Canada also grants ordinary advances to institutions as overnight loans to cover shortfalls in their reserve deposits or clearing balances at the Bank of Canada that result from unexpected payment flows. Outstanding advances of this type totalled \$436 million at year-end and were repaid on the first

business day of January. A summary of advances to CPA members during the year is presented in Appendix Table III.

The Bank of Canada also extends credit through Purchase and Resale Agreements (PRA) with the investment dealers that are money market jobbers. Appendix Table III provides a summary of these transactions during 1987. Before 1985, loans under PRA were extended only at the initiative of the jobbers, reflecting their use as a safety valve at times when overnight financing of jobbers' inventories of money market securities was viewed as being excessively costly. Since then, the traditional PRA facility has been supplemented with "Special" PRA for which the Bank of Canada, rather than the jobber, initiates the transactions and controls the timing, rate and amount involved.

Special PRA provide the Bank with a means of moderating upward pressure on overnight financing costs in a way that has a more immediate influence than do bank reserve adjustments and can be more directly focussed on overnight rates than is the case with open market operations. The Bank's use of Special PRA expanded over the past year; there were outstanding amounts on 63 days, averaging around \$300 million. Less common have been Special

Sale and Repurchase Agreements; these are transactions to counter downward pressure on overnight financing rates and were first used by the Bank in 1986. Over the past year such transactions were undertaken on two occasions in mid-December, in amounts of \$275 million and \$250 million.

The securities holdings of the Bank grew by about \$2 billion over 1987. This increase occurred principally as an offset to the sizable growth during the year in bank notes in circulation, a liability of the Bank of Canada. Appendix Table IV summarizes the transactions that resulted in the changes in the portfolio holdings of the Bank.

Almost all of the increase in the Bank's securities holdings was in treasury bills. The most concentrated period of treasury bill acquisitions was at the weekly tenders during April,

when money market conditions were quite unsettled and the Canadian dollar declined from the high levels reached earlier in the year. The largest purchases of bills directly from the market were during November, when the banking system reduced its holdings substantially in the aftermath of the Canada Savings Bond campaign. However, the amount of treasury bill dealings by the Bank with the market was considerably less in 1987 than in the previous year. This reflected the increasing use of Special PRA, rather than market transactions in treasury bills, to influence short-term market conditions.

Net changes over the year in the Bank's holdings of Government marketable bonds were modest, consisting of direct acquisitions at the time of new offerings and of redemptions as issues came due.

Management of Government Debt and Cash Balances

In its role as fiscal agent for the Government of Canada, the Bank of Canada acts as adviser and provides administrative services for the debt management operations of the Government. During 1987 the domestic debt of the Government increased by \$24.5 billion, compared with increases of about \$17 billion in 1986 and \$29 billion in 1985. The step-up in 1987 from the previous year occurred despite a continued decline in the Government's budgetary deficit. The higher financing requirement reflected an addition of over \$5 billion to finance the net purchase of foreign currencies in exchange market transactions. In the previous year, sales of U.S. dollars through foreign exchange activity and a rundown of Government cash balances had together lowered borrowing requirements by about \$4½ billion.

Somewhat more than half the increase in outstanding debt in 1987 came from short-term treasury bills and Canada Savings Bonds. (The latter now have interest rates set for only one year.) The remainder was accounted for by marketable bonds with fixed interest rates for terms varying from two to over twenty years. A record Canada Savings Bond sales campaign in the fall of 1987 led to an offsetting decline in treasury bill financing and gave savings bonds a larger than usual role in the borrowing program. For the first time in five years, savings bonds increased as a percentage of the total domestic Government debt outstanding, rising from 22 per cent of the total to 23.5 per cent. Treasury bills declined by a corresponding amount to around 32 per cent while marketable bonds remained at just above 44 per cent. During the year the average term of the marketable portion of the domestic Government debt, consisting of treasury bills and marketable bonds, declined from 5 years, 1 month to 4 years, 11 months.

The marketable bond program over the year consisted of 27 new issues, details of which are provided in Appendix Table V. With the maturities of the new bonds spread rather evenly over the two, three, five, seven, ten and twenty year areas, the term of new issues averaged around eight years. The use of auctions for the issue of new bonds, as an alternative to tradi-

tional offerings through a syndicate of investment dealers and banks, continued to be expanded. Almost half the amount of the issues during the year was offered in this way.

Canada Savings Bond sales in 1987 reached the unprecedented level of \$17½ billion. After taking into account redemptions of outstanding series, the increase in the stock of savings bonds over the year was about half of this amount. The details of the 1987-88 Series, including a first-year rate of 9 per cent and a cash purchase limit of \$75,000, were announced at mid-October. At that time interest rates had been rising for some weeks and, against this background, the terms of the bonds were viewed as generally favourable but not overwhelmingly so. However, following the sharp drop in interest rates associated with the October 19 stock market decline, the 9 per cent rate was perceived to be very attractive when the sales campaign began in the last week of October. Sales reached a record high despite a reduction in the initially announced purchase limit from \$75,000 to \$20,000 and the withdrawal of the bonds from cash sale after only one week.

Treasury bills again proved to be a particularly flexible borrowing avenue for the Government. Over the first ten months of the year the outstanding supply of treasury bills increased by over \$15 billion. Then, with Government cash balances at very high levels following the receipt of Canada Savings Bond proceeds, the supply was cut by almost \$11 billion during November and December. Throughout the year the regular weekly offerings of three-month, six-month and one-year bills were adjusted from week to week, often by several hundreds of millions of dollars, as part of the management of Government cash balances. As well, in order to bridge temporary low points in the Government balances, shorter-term bills of ten to thirty-eight day terms were issued on seven occasions in a total amount of \$5 billion, mainly to cover Canada Savings Bond payments in early November.

The following table shows changes in Government of Canada domestic securities outstanding during 1986 and 1987, in total and by

major categories of holders. For the past several years increased holdings by the general public have absorbed all, or the bulk of, the additions made to the Government's debt.

Summary of Changes in Canadian Dollar Government of Canada Securities Outstanding During 1986 and 1987

Billions of dollars (par value)

	1986	1987
Treasury bills.....	+ 10.3	+ 4.5
Marketable bonds.....	+ 11.3	+ 11.2
Canada Savings Bonds....	- 4.3	+ 8.8
Total	<u>+ 17.3</u>	<u>+ 24.5</u>
Held by:		
Bank of Canada		
Treasury bills.....	+ 3.9	+ 1.9
Marketable bonds.....	- 1.3	+ 0.1
Total	<u>+ 2.6</u>	<u>+ 2.0</u>
Chartered Banks		
Treasury bills.....	+ 2.5	- 3.7
Marketable bonds.....	0.0	+ 1.0
Total	<u>+ 2.5</u>	<u>- 2.7</u>
Government Accounts		
Treasury bills.....	- 0.1	0.0
Marketable bonds.....	- 0.6	+ 0.3
Total	<u>- 0.7</u>	<u>+ 0.3</u>
General Public		
Treasury bills.....	+ 4.0	+ 6.3
Marketable bonds.....	+ 13.3	+ 9.7
Canada Savings Bonds....	- 4.3	+ 8.8
Total	<u>+ 13.0</u>	<u>+ 24.8</u>

Reflecting the strength of the Canadian dollar, there was a sizable acquisition of reserves during the year by the Exchange Fund Account and, as a result, the Government repaid a total of about U.S.\$775 million of its foreign debt in 1987. Two note maturities, SFR.400 million in March and SFR.300 million in November, were paid off, and a U.S.\$750 million bond maturity

in June was partially offset by a new yen bond issue in Europe. This new financing, the only foreign issue undertaken by the Government during the year, consisted of yen 80 billion (equivalent to about U.S.\$550 million) five-year 4 $\frac{3}{8}$ per cent bonds. The fixed-rate Euro-yen liability was swapped into a floating-rate U.S. dollar liability.

In the fall of 1986, the Government began to issue short-term notes, known as Canada Bills, in the U.S. money market. At the beginning of 1987 U.S.\$934 million of these notes were outstanding. While there was no pressing need during the past year to raise additional foreign exchange reserves through this source, the program was maintained to ensure continuity of access to the low-cost U.S. funds that the issue of Canada Bills can provide. Accordingly, the amount of notes outstanding was maintained at around U.S.\$1 billion, ending the year at U.S.\$1,070 million.

No drawings were made on the U.S. dollar standby credit agreements that the Government has outstanding with Canadian banks and with a consortium of international banks. The former agreement was renegotiated during the first half of 1987; the amendments included a reduced size of the facility from U.S.\$3.5 billion to U.S.\$3 billion, a reduced commitment fee and lower-cost borrowing options, and a maturity date of June 1992.

Since April 1986, the Government of Canada has regularly offered a portion of its cash balances for specified terms through competitive tender. As fiscal agent, the Bank of Canada is involved in this process and advises the Government on the size, term and frequency of the auctions, based on the availability of surplus funds. The eligible bidders are the directly clearing members of the Canadian Payments Association. During 1987 the auctions were typically held twice a week, and tender amounts ranged from \$100 million to \$4.9 billion. At times, more than one maturity was offered at tender, and terms of the offerings over the year varied from 2 to 24 days. During November, when Government cash balances rose sharply after the Canada Savings Bond campaign, the amount of outstanding term deposits reached a high of \$12.3 billion.

Foreign Exchange Operations

During 1987 the Canadian dollar appreciated by 1.9 per cent on a trade-weighted basis against the G-10 currencies, and by 6.2 per cent against the U.S. dollar. The difference reflects the substantial weakening of the Canadian and the U.S. dollars against the currencies of major overseas countries, particularly in the latter part of the year. In 1987 the Canadian dollar depreciated by 15.3 per cent against such overseas currencies with most of the decline occurring in the fourth quarter.

Much of the upward movement in the Canadian dollar against the U.S. dollar occurred in the first three and a half months of 1987, when the Canadian dollar increased in value from a closing level of U.S.\$0.7244 at the end of 1986 to U.S.\$0.7688 in mid-April. After coming under some downward pressure in the second half of April and much of May, the Canadian dollar generally firmed over the next five months to reach a high for 1987 of U.S.\$0.7721 on October 19. Following the stock market decline, it experienced another brief period of weakness but then strengthened through most of November and December, closing the year at U.S.\$0.7696.

The Canadian dollar continued to rise early in 1988, trading around the U.S.\$0.79 level at the end of February. On a trade-weighted basis, it increased by about 4 per cent through

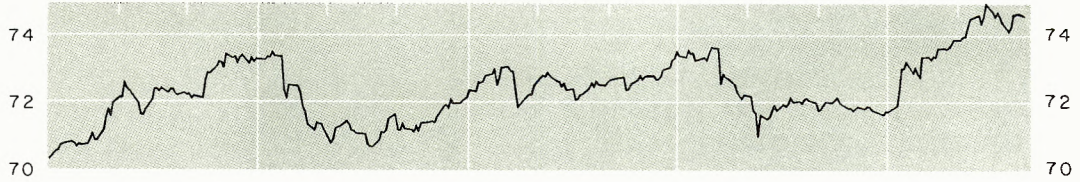
January and February, reflecting also the appreciation of the U.S. dollar against the major overseas currencies.

Foreign exchange market operations by the Bank of Canada, as agent for the Exchange Fund Account of the Minister of Finance, continued to be oriented towards promoting orderly conditions in the Canadian dollar exchange market. Given the generally strong upward pressure on the exchange rate during the year, official purchases of foreign exchange greatly exceeded official sales. Canada's holdings of official international reserves, which were the equivalent of U.S.\$4,095.6 million at the end of 1986, increased to U.S.\$8,203.2 million by the end of 1987, partly offsetting net reserve losses from the previous years. In January 1988, the reserves increased by an additional U.S.\$1,330.0 million.

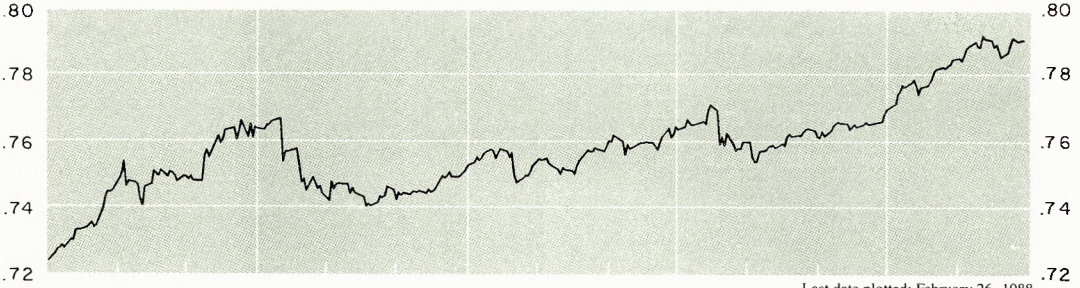
During the year Canada joined other members of the G-7 on several occasions in coordinated intervention in the German mark/U.S. dollar and yen/U.S. dollar markets. This intervention was undertaken as part of Canada's commitment to the policy initiatives outlined in the Louvre Accord. For Canada, these actions resulted in a shift in the composition of reserves rather than any change in their overall level.

Exchange Rates

Canadian dollar against major currencies (index 1971 = 100)



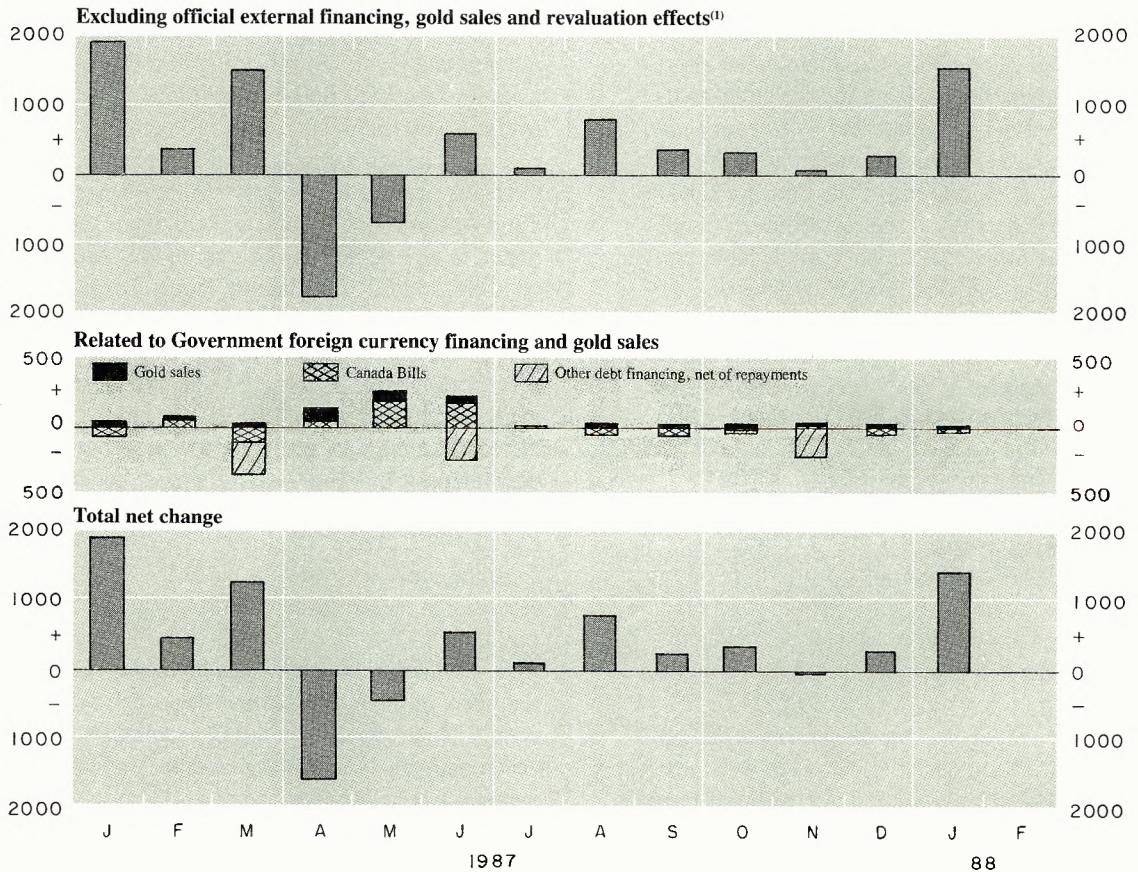
Canadian dollar in U.S. funds (spot closing rates, daily)



Last date plotted: February 26, 1988

Changes in Official Reserves

Millions of U.S. dollars, monthly



⁽¹⁾The U.S. dollar value of SDR-denominated assets (gold, the IMF position and SDRs) rises when the exchange rate of the U.S. dollar declines in terms of SDRs and decreases when the opposite occurs.

Currency, Debt Service and Banking Operations

In addition to the activities discussed in previous sections of this Report, the Bank of Canada is responsible for the issue of bank notes and acts as fiscal agent for the Government of Canada in servicing its debt. The Bank also provides banking services to the Government and operates deposit accounts for members of the Canadian Payments Association, foreign central banks and international institutions. As well, the Bank is the custodian of unclaimed chartered bank balances, which are transferred to the Bank after they have been inactive for ten years. Records of all unclaimed bank balances held by the Bank can be reviewed, free of charge, at any Bank of Canada Agency.

These operational responsibilities involve the processing of large volumes of material and data. Although increasing reliance is being placed on automated processing systems to support the workload, about one half of the Bank's staff remains directly involved in carrying out these functions.

Note issue

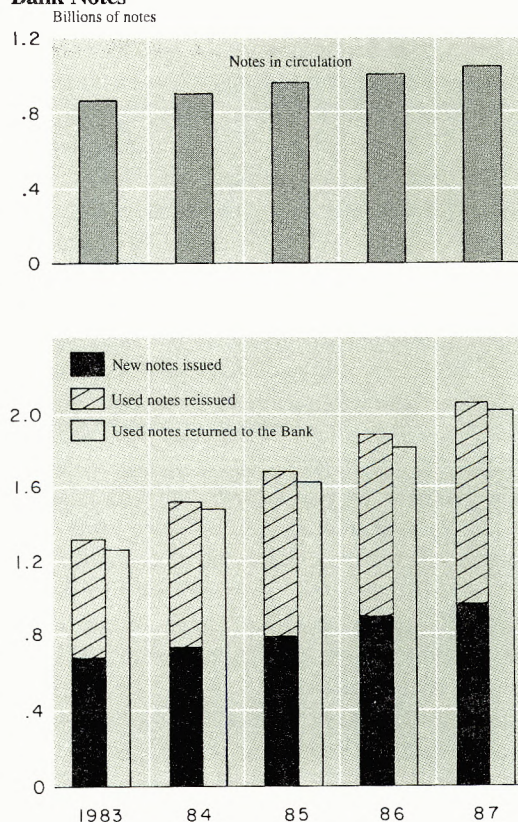
The number of bank notes in circulation has been rising by about 5 per cent a year in recent years. However, growth slowed in the second half of 1987 after the Government introduced into circulation a new one dollar coin. The coin is estimated to have displaced about 20 million notes since its introduction, but 330 million one dollar notes were still in circulation at the end of 1987. Under current plans the one dollar note will cease to be issued in 1989. However, like all Bank of Canada notes, the one dollar note will remain legal tender for its full face value even when it is no longer in general circulation.

The volume of bank notes processed by the Bank of Canada has been rising much more rapidly than the stock of notes in circulation. The number of used notes returned to the Bank by financial institutions for processing increased by over 10 per cent in both 1986 and 1987. Over

half of these notes were reissued, while the remainder were destroyed by the Bank as unsuitable for further circulation. New notes are issued to replace notes withdrawn from circulation and to meet the net increase in demand for notes.

The increasing volume of notes exchanged between the Bank and financial institutions has resulted in part from an expanding number of automatic banking machines. Over 800 machines have been installed in each of the past five years, bringing the total in use in Canada to over 5,000. Easier access to bank notes appears to have led to greater public reliance on cash as a means of payment. In turn this has increased both the demand for notes by

Bank Notes



financial institutions to stock their machines and the volume of notes returned to the Bank by those institutions that tend to receive more notes from their customers than they require. The turnover of notes has also tended to increase because of the higher quality of note required for use in automatic banking machines. This has resulted in more notes being withdrawn from circulation as unsuitable and more new notes being issued by the Bank.

In 1987 the Bank completed a multi-year program to install high-speed note handling equipment in all Agencies. This equipment is required to process the increased volumes of used bank notes and to maintain standards for the quality of notes reissued. It counts, authenticates and verifies denominations of used notes, sorts those to be reissued and shreds those no longer suitable for circulation.

Debt service

In 1987 the total volume of work involved in servicing the Government debt registered a decline. Decreases in the number of certificates redeemed and in the number of interest payments made more than offset an increase in work related to new issues of debt.

Canada Savings Bonds make up over 80 per cent of the total number of certificates processed and interest payments made. Regular-interest Canada Savings Bond certificates, which are prepared and registered by the Bank of Canada in the year of issue, increased dramatically in 1987 in line with the record sales of the 1987-88 Series of Canada Savings Bonds. In contrast, there was a decrease in processing associated with sales of compound-interest Canada Savings Bonds. This work largely takes place early in the year following the sales campaign; the reduction in 1987 reflected lower sales in 1986 than in the previous year.

During 1987, the Bank took further steps to improve the administration of the debt by the introduction of additional automated systems. These systems permit more economical and faster processing of redeemed bond certificates and of returned interest payments. In addition, in 1987 the printing and mailing of interest payments and statements for Canada

Savings Bonds was transferred from the Bank to Supply and Services Canada. This move takes advantage of economies inherent in the processing operations at Supply and Services, which take place on a larger scale, are year-round, and are distributed across the country.

In recent years additional efficiencies have been achieved as a result of the increased quantity and precision of information provided by financial institutions to the Bank in machine-readable form. As well, efficiency has been enhanced by the elimination of most old-style Canada Savings Bond certificates and interest coupons, which did not lend themselves to automated handling; the last of the old-style issues matured in November 1985.

The combination of lower work volumes and increased efficiencies led to a decrease in the number of staff required by the Bank in 1987 to administer Government debt. This decrease accounted for a decline of almost 2 per cent in the total number of employee-years worked by Bank staff, as noted on the Statement of Revenue and Expense. Most of the decline occurred among temporary staff who are employed by the Bank to meet the annual peaks in work related to Canada Savings Bonds. These peaks result from the autumn Canada Savings Bond sales campaign and from the payments in November related to interest and to the redemption of maturing bonds.

The Canadian Depository for Securities

The Bank of Canada has been co-operating with the Canadian Depository for Securities Limited (CDS) in support of its efforts to bring further efficiencies to the clearing and settlement of securities transactions. In this regard, arrangements were completed in 1987 which will allow new Government of Canada domestic bond issues to be processed through the CDS New Issue Distribution Service for Canada Bonds. This service permits transactions in a new issue occurring before delivery to be settled among participants in the service. The first new issue of Government of Canada bonds to be processed through the service was the February 23, 1988 auction. The purpose of this issue was to refund the March 6 maturity.

Appendix Tables

APPENDIX TABLE I

Bank of Canada Assets and Liabilities

Monthly changes, millions of dollars*

	Government of Canada securities at book value	Net foreign currency assets	Advances to CPA members	All other assets (net)	Note circulation	Canadian dollar deposit liabilities			
						Chartered banks	Other CPA members	Government of Canada	Other
1987									
January	+ 780	-1,055	+320	-110	-1,878	+401	-239	+1,629	+ 21
February	-1,001	- 32	-152	-165	+ 8	-451	+173	-1,086	+ 6
March	- 734	+1,050	-120	-135	+ 136	+613	- 88	- 582	- 19
April	+1,519	-1,054	-125	+ 87	+ 262	-234	+275	+ 104	+ 21
May	+ 273	+ 1	+215	+ 10	+ 293	+ 64	-354	+ 500	- 3
June	+ 838	- 4	-399	+ 14	+ 939	- 70	- 8	- 389	- 22
July	+ 291	- 1	+328	- 2	- 163	+131	+ 70	+ 544	+ 33
August	- 710	+ 298	-364	- 88	- 83	-108	+ 98	- 754	- 18
September	- 358	+ 323	-120	- 20	+ 101	-398	+138	- 7	- 10
October	+1,299	- 619	+141	+ 66	- 85	+326	-287	+ 482	+449
November	- 487	- 1	-171	+ 48	+ 209	-418	+254	- 436	-219
December	+ 274	+1,197	+377	+305	+1,797	+345	+ 13	- 31	+ 29
Annual change	+1,984	+ 103	- 69	+ 11	+1,536	+203	+ 46	- 25	+270
1988									
January	- 514	-1,200	- 56	-123	-2,155	-435	-191	+ 932	- 45

* Components may not add to totals because of rounding.

APPENDIX TABLE II

Chartered Bank Cash Reserves and Clearing Balances of Other Directly Clearing Members of the Canadian Payments Association

Millions of dollars unless otherwise indicated

		Chartered bank cash reserves			
		Total minimum cash requirements	Average holdings of statutory coin and Bank of Canada notes	Required minimum Bank of Canada deposits	Average holdings of Bank of Canada deposits
1987					
January	1-15				2,305
	16-31	5,437	3,156	2,281	2,388
February	1-15	5,589	3,512	2,076	2,204
	16-28				2,177
March	1-15	5,329	3,057	2,272	2,319
	16-31				2,342
April	1-15	5,417	3,043	2,373	2,437
	16-30				2,457
May	1-15	5,499	3,000	2,499	2,572
	16-31				2,628
June	1-15	5,632	3,118	2,514	2,547
	16-30				2,611
July	1-15	5,613	3,106	2,507	2,563
	16-31				2,664
August	1-15	5,642	3,246	2,396	2,506
	16-31				2,483
September	1-15	5,581	3,353	2,229	2,264
	16-30*	5,668	3,396	2,272	2,346
October	1-15	5,678	3,420	2,258	2,363
	16-31				2,470
November	1-15	5,601	3,385	2,216	2,386
	16-30				2,284
December	1-15	5,838	3,407	2,431	2,463
	16-31				2,545
1988					
January	1-15				1,987
	16-31	5,385	3,483	1,902	2,023
February	1-15	5,563	4,021	1,542	1,606

*Data reflect the conversion of Montreal City and District Savings Bank to a chartered bank - Laurentian Bank of Canada - effective September 28, 1987.

Chartered bank cash reserves			Clearing balances of other directly clearing members of the Canadian Payments Association	
Sum of reservable day weights in period	Cumulative excess reserves at end of period	Average excess reserve ratios	Average holdings of Bank of Canada deposits	Number of clearing days in month
14	331	.017		
17	1,812	.076	80	21
14	1,782	.089		
14	1,414	.071	114	20
14	654	.034		
16	1,106	.050	86	22
15	959	.046		
15	1,251	.059	105	21
18	1,307	.052		
13	1,677	.091	87	20
15	495	.023		
16	1,557	.068	101	22
14	785	.039		
18	2,821	.110	119	22
14	1,545	.077		
15	1,309	.061	97	21
15	527	.025		
15	1,093	.051	120	21
15	1,581	.073		
17	3,598	.147	175	21
14	2,373	.120		
15	1,024	.048	211	20
15	477	.022		
19	2,155	.079	157	21
14	1,196	.062		
14	1,692	.087	165	20
15	952	.046		

APPENDIX TABLE III

Bank of Canada Advances to Members of the Canadian Payments Association and PRA Outstanding

Millions of dollars unless otherwise indicated

		Advances to chartered banks		Purchase and Resale Agreements		Advances to directly clearing non-bank members of the CPA	
		Number of days outstanding	Average amount outstanding ⁽¹⁾	Number of days outstanding	Average amount outstanding ⁽¹⁾	Number of days outstanding	Average amount outstanding ⁽²⁾
1987							
January	1-15	10	815.3	4	34.1		
	16-31	11	785.6	10	529.1	9	16.0
February	1-15	10	758.5	8	219.8		
	16-28	10	748.5	1	90.3	8	12.9
March	1-15	10	700.9	4	97.9		
	16-31	12	700.0	10	294.9	12	18.9
April	1-15	11	691.6	5	54.2		
	16-30	10	678.4	6	81.6	8	14.8
May	1-15	11	643.9	2	14.6		
	16-31	9	648.9	5	109.5	10	22.1
June	1-15	11	621.9	4	74.3		
	16-30	11	595.0	8	274.8	11	26.2
July	1-15	10	574.5	6	183.2		
	16-31	12	577.9	6	260.3	9	16.5
August	1-15	10	553.0	4	155.5		
	16-31	11	516.3	2	30.0	8	12.6
September	1-15	10	499.1	1	2.6		
	16-30	11	460.6	6	145.8	10	22.4
October	1-15	10	445.0	5	96.3		
	16-31	11	455.0	7	218.7	7	19.7
November	1-15	9	431.1	7	470.3		
	16-30	11	386.1	7	68.1	8	28.7
December	1-15	11	395.6	6	120.4		
	16-31	10	420.8	4	117.4	11	11.7
1988							
January	1-15	10	389.5	5	148.8		
	16-31	10	379.6	5	283.2	9	19.2
February	1-15	11	346.1	10	287.6		

⁽¹⁾ Advances to chartered banks and Purchase and Resale Agreements summed and divided by number of reservable days in the averaging period

⁽²⁾ Advances to non-bank members of the Canadian Payments Association summed and divided by number of clearing days in the month

APPENDIX TABLE IV

Bank of Canada Net Transactions in Government of Canada Securities and Bankers' Acceptances

Delivered basis, par value in millions of dollars

	Net purchases from (+) or net sales to (-) investment dealers and banks					Bankers' acceptances	Total of bills, bonds and bankers' acceptances	Securities under PRA
	Treasury bills	Bonds 3 years and under	3-5 years	5-10 years	Over 10 years			
1987								
January	-2,299.0	-	-	-	-	-	-2,299.0	+1,710.3
February	+ 0.0	-	-	-	-	-	+ 0.0	- 807.3
March	- 645.0	-	-	-	-	-	- 645.0	- 239.3
April	+ 210.0	-	-	-	-	-	+ 210.0	- 663.7
May	- 475.0	-	-	-	-	-	- 475.0	+ 207.0
June	+ 0.0	-	-	-	-	-	+ 0.0	+ 487.0
July	+ 63.0	-	-	-	-	-	+ 63.0	+ 118.8
August	+ 55.0	-	-0.2	-	+0.2	-	+ 55.0	- 812.8
September	- 154.3	-	-	-	-	-	- 154.3	+ 0.0
October	+ 432.0	-	-	-	-	-	+ 432.0	+1,160.7
November	+ 911.0	-	-	-	-	-	+ 911.0	-1,160.7
December	+ 218.0	-	-	-	-	-	+ 218.0	+ 171.0
Total	<u>-1,684.3</u>	<u>-</u>	<u>-0.2</u>	<u>-</u>	<u>+0.2</u>	<u>-</u>	<u>-1,684.3</u>	<u>+ 171.0</u>
1988								
January	- 145.0	-	-	-	-	-	- 145.0	+1,139.6

(Continued)

APPENDIX TABLE IV (Continued)

Bank of Canada Net Transactions in Government of Canada Securities and Bankers' Acceptances

Delivered basis, par value in millions of dollars

Net transactions with government and other client accounts				Net change in holdings of Government of Canada securities and bankers' acceptances			
Purchases (+) of new issues less matured holdings		Net purchases from (+) or net sales to (-) government accounts and client accounts		Bills	Bonds	Bankers' acceptances	Total
Bills	Bonds	Bills	Bonds				
+1,378.9	+ 85.0	- 81.3	+0.5	+ 700.9	+ 93.5	-	+ 794.4
- 53.7	+100.0	- 266.9	-1.5	-1,119.9	+ 90.5	-	-1,029.4
+ 678.2	- 87.1	- 455.4	+0.9	- 665.5	- 82.2	-	- 747.7
+2,353.2	+ 20.0	- 394.1	-	+1,509.4	+ 16.0	-	+1,525.4
+ 537.4	+ 47.6	- 34.4	-2.0	+ 235.0	+ 45.6	-	+ 280.6
+ 643.1	- 46.4	- 246.0	+1.5	+ 866.0	- 26.8	-	+ 839.2
+ 759.4	-149.4	- 454.4	-	+ 474.9	-137.5	-	+ 337.4
+ 303.0	+ 50.0	- 342.2	-	- 767.0	+ 20.0	-	- 747.0
+ 6.3	+ 63.5	- 292.4	-	- 440.4	+ 63.5	-	- 376.9
+ 236.1	+ 30.4	- 487.1	+1.0	+1,338.7	+ 34.4	-	+1,373.1
- 306.4	- 11.8	+ 55.3	-	- 497.8	- 14.8	-	- 512.6
<u>+ 366.9</u>	<u>+ 9.8</u>	<u>- 510.6</u>	<u>+0.7</u>	<u>+ 245.3</u>	<u>+ 10.5</u>	<u>-</u>	<u>+ 255.8</u>
<u>+6,902.4</u>	<u>+111.6</u>	<u>-3,509.5</u>	<u>+1.1</u>	<u>+1,879.6</u>	<u>+112.7</u>	<u>-</u>	<u>+1,992.3</u>
+ 614.0	+ 5.0	- 861.9	+2.8	- 481.3	+ 7.8	-	- 473.5

APPENDIX TABLE V

Government of Canada Marketable Securities: New Issues and Retirements

Date in 1987	Issues offered/ retired	Term to maturity	Yield to maturity	Millions of dollars par value		
				Amount delivered	Amount retired	
Issues payable in Canadian dollars						
Jan.	6	8½% March 1, 1992	5 yrs. 1 mo. 26 days	8.65	550	
Jan.	29	8% July 1, 1990	3 yrs. 5 mos. 3 days	8.17	150	
		8¼% March 1, 1994	7 yrs. 1 mo. 3 days	8.30	400	
		8¼% March 1, 1997	10 yrs. 1 mo. 3 days	8.40	425	
					<u>975</u>	
Feb.	1	15½% February 1, 1987				4 ⁽¹⁾
Feb.	19	8% July 1, 1990	3 yrs. 4 mos. 10 days	7.74	175 ⁽²⁾	
		8¼% March 1, 1994	7 yrs. 10 days	8.18	175 ⁽³⁾	
		8¼% March 1, 1997	10 yrs. 10 days	8.32	375 ⁽⁴⁾	
		8½% June 1, 2011	24 yrs. 3 mos. 10 days	8.53	375	
					<u>1,100</u>	
Mar.	5	12% March 5, 1987				400 ⁽⁵⁾
		8% March 5, 1989	2 yrs.	8.03	600	
Mar.	12	7¾% April 1, 1992	5 yrs. 20 days	7.95	600	
Mar.	15	15% March 15, 1987				800 ⁽⁶⁾
		8% July 1, 1990	3 yrs. 3 mos. 17 days	7.89	275 ⁽⁷⁾	
		8¼% March 1, 1994	6 yrs. 11 mos. 17 days	8.20	225 ⁽⁸⁾	
		8¼% March 1, 1997	9 yrs. 11 mos. 17 days	8.32	325 ⁽⁹⁾	
		8½% June 1, 2011	24 yrs. 2 mos. 17 days	8.63	375 ⁽¹⁰⁾	
					<u>1,200</u>	
Mar.	18					14 ⁽¹¹⁾
						11 ⁽¹²⁾
						7 ⁽¹³⁾
						18 ⁽¹⁴⁾
						5 ⁽¹⁵⁾
Apr.	16	7½% August 1, 1990	3 yrs. 3 mos. 15 days	7.73	500	
		7¾% July 15, 1994	7 yrs. 2 mos. 29 days	7.97	400	
					<u>900</u>	
May	1	12¼% May 1, 1987				650 ⁽¹⁶⁾
		8½% March 1, 1992	4 yrs. 10 mos.	8.82	475 ⁽¹⁷⁾	
		8¼% June 1, 1996	9 yrs. 1 mo.	9.03	200 ⁽¹⁸⁾	
		9% March 1, 2011	23 yrs. 10 mos.	9.23	325 ⁽¹⁹⁾	
					<u>1,000</u>	
May	21	9¼% July 1, 1992	5 yrs. 1 mo. 11 days	9.34	500	
June	1	13% June 1, 1987				375 ⁽²⁰⁾
		14¾% June 1, 1987				250 ⁽²¹⁾
		9% August 1, 1990	3 yrs. 2 mos.	9.27	225 ⁽²²⁾	
		9¼% May 1, 1996	8 yrs. 11 mos.	9.50	650 ⁽²³⁾	
					<u>875</u>	

(Continued)

APPENDIX TABLE V (Continued)

Government of Canada Marketable Securities: New Issues and Retirements

Date in 1987	Issues offered/ retired	Term to maturity	Yield to maturity	Millions of dollars par value		
				Amount delivered	Amount retired	
Issues payable in Canadian dollars						
June	6	10% June 6, 1987				450 ⁽²⁴⁾
		9% June 6, 1989	2 yrs.	9.16	550	
June	18	9¼% October 1, 1994	7 yrs. 3 mos. 13 days	9.40	450	
July	1	8¼% July 1, 1987				525 ⁽²⁵⁾
		15% July 1, 1987				1 ⁽²⁶⁾
		8¾% December 15, 1991	4 yrs. 5 mos. 14 days	9.10	250 ⁽²⁷⁾	
		9¼% May 1, 1996	8 yrs. 10 mos.	9.20	425 ⁽²⁸⁾	
		9½% June 1, 2010	22 yrs. 11 mos.	9.50	325 ⁽²⁹⁾	
					1,000	
July	23	9% September 1, 1991	4 yrs. 1 mo. 9 days	9.13	500	
July	30	9¼% October 1, 1994	7 yrs. 2 mos. 2 days	9.57	450 ⁽³⁰⁾	
Aug.	13	9¼% July 1, 1992	4 yrs. 10 mos. 19 days	9.70	275 ⁽³¹⁾	
		9¼% October 1, 1997	10 yrs. 1 mo. 19 days	9.90	475	
					750	
Sept.	1	13½% September 1, 1987				150 ⁽³²⁾
		14¼% September 1, 1987				1 ⁽³³⁾
		9% August 1, 1990	2 yrs. 11 mos.	9.56	300 ⁽³⁴⁾	
		9¼% July 1, 1992	4 yrs. 10 mos.	9.67	350 ⁽³⁵⁾	
		9¾% October 1, 1997	10 yrs. 1 mo.	9.97	225 ⁽³⁶⁾	
		10% June 1, 2008	20 yrs. 9 mos.	10.20	225 ⁽³⁷⁾	
					1,100	
Sept.	6	9¾% September 6, 1987				500 ⁽³⁸⁾
		9¾% September 6, 1989	2 yrs.	9.86	550	
Sept.	24	10¼% June 1, 1992	4 yrs. 8 mos. 7 days	10.68	500 ⁽³⁹⁾	
Oct.	1	5% October 1, 1987				94 ⁽⁴⁰⁾
Oct.	15	13% October 15, 1987				450 ⁽⁴¹⁾
		10¼% December 15, 1990	3 yrs. 2 mos.	10.62	200 ⁽⁴²⁾	
		10¼% June 1, 1992	4 yrs. 7 mos. 17 days	10.70	350 ⁽⁴³⁾	
		10¾% March 15, 1998	10 yrs. 5 mos.	10.95	250	
		11% June 1, 2009	21 yrs. 7 mos. 17 days	11.17	300 ⁽⁴⁴⁾	
					1,100	
Nov.	5	10¾% May 1, 1993	5 yrs. 5 mos. 26 days	10.34	500 ⁽⁴⁵⁾	
Nov.	15	12% November 15, 1987				475 ⁽⁴⁶⁾
		9¾% October 1, 1997	9 yrs. 10 mos. 16 days	9.89	450 ⁽⁴⁷⁾	
Dec.	1	8% December 1, 1987				0 ⁽⁴⁸⁾

Date in 1987	Issues offered/ retired	Term to maturity	Yield to maturity	Millions of dollars par value	
				Amount delivered	Amount retired
Issues payable in Canadian dollars					
Dec. 6	9¼% December 6, 1987				500 ⁽⁴⁹⁾
	9¼% December 6, 1989	2 yrs.	9.34	500	
Dec. 15	11% December 15, 1987				900 ⁽⁵⁰⁾
	9¼% May 1, 1991	3 yrs. 4 mos. 17 days	10.10	200 ⁽⁵¹⁾	
	10¼% March 1, 1996	8 yrs. 2 mos. 17 days	10.36	475 ⁽⁵²⁾	
	10½% October 1, 2004	16 yrs. 9 mos. 17 days	10.53	275 ⁽⁵³⁾	
				950	
	Total bonds payable in Canadian dollars			17,650	6,580
	Total treasury bills			200,950	196,450
Issues payable in foreign currencies					
Mar. 8	SFr 400 million 7¼% notes due March 8, 1987				341 ⁽⁵⁴⁾
Mar. 20					10 ⁽⁵⁵⁾
Apr. 15					1 ⁽⁵⁶⁾
June 1	US \$50 million 16¾% notes due June 1, 1987				67 ⁽⁵⁷⁾
June 16	US \$750 million 14¾% notes due June 16, 1987				1,006 ⁽⁵⁸⁾
June 25	Yen 80,000 million 4¾% bonds due June 25, 1992	5 yrs.		727 ⁽⁵⁹⁾	
Oct. 15	US \$44 million 5% bonds due October 15, 1987				57 ⁽⁶⁰⁾
Nov. 15	SFr 300 million 47/8% notes due November 15, 1987				282 ⁽⁶¹⁾
	Total notes and bonds payable in foreign currencies			727	1,764
	Total Canada Bills*			7,949	7,837

* Canada Bills are short-term U.S.-dollar-denominated notes issued for terms not exceeding 270 days.

(1) Maturity of 15½% bonds issued February 1, 1982, August 1, 1982

(2) In addition to \$150 million of 8% bonds due July 1, 1990 already outstanding

(3) In addition to \$400 million of 8¼% bonds due March 1, 1994 already outstanding

(4) In addition to \$425 million of 8¼% bonds due March 1, 1997 already outstanding

(5) Maturity of 12% bonds issued March 26, 1985

(6) Maturity of 15% bonds issued March 31, 1982, May 1, 1982

(7) In addition to \$325 million of 8% bonds due July 1, 1990 already outstanding

(Continued)

APPENDIX TABLE V (Continued)

- (8) In addition to \$575 million of 8¼% bonds due March 1, 1994 already outstanding
- (9) In addition to \$800 million of 8¼% bonds due March 1, 1997 already outstanding
- (10) In addition to \$375 million of 8½% bonds due June 1, 2011 already outstanding
- (11) Cancellation of \$13.5 million of 9½% October 1, 2003 bonds
- (12) Cancellation of \$10.9 million of 9% October 15, 1999 bonds
- (13) Cancellation of \$7.3 million of 9½% June 15, 1994 bonds
- (14) Cancellation of \$18.0 million of 9¼% May 15, 1997 bonds
- (15) Cancellation of \$4.5 million of 8¾% February 1, 2002 bonds
- (16) Maturity of 12¼% bonds issued May 8, 1984, August 22, 1984, September 12, 1984, October 1, 1984
- (17) In addition to \$550 million of 8½% bonds due March 1, 1992 already outstanding
- (18) In addition to \$1,975 million of 8¾% bonds due June 1, 1996 already outstanding
- (19) In addition to \$1,300 million of 9% bonds due March 1, 2011 already outstanding
- (20) Maturity of 13% bonds issued June 1, 1984, June 19, 1984, July 11, 1984
- (21) Maturity of 14¾% bonds issued June 1, 1982
- (22) In addition to \$500 million of 9% bonds due August 1, 1990 already outstanding
- (23) In addition to \$475 million of 9¼% bonds due May 1, 1996 already outstanding
- (24) Maturity of 10% bonds issued June 6, 1985
- (25) Maturity of 8¼% bonds issued July 1, 1977, September 1, 1977, December 15, 1977
- (26) Maturity of 15% bonds issued July 1, 1982
- (27) In addition to \$1,600 million of 8¾% bonds due December 15, 1991 already outstanding
- (28) In addition to \$1,125 million of 9¼% bonds due May 1, 1996 already outstanding
- (29) In addition to \$325 million of 9½% bonds due June 1, 2010 already outstanding
- (30) In addition to \$450 million of 9¼% bonds due October 1, 1994 already outstanding
- (31) In addition to \$500 million of 9¼% bonds due July 1, 1992 already outstanding
- (32) Maturity of 13½% bonds issued August 1, 1984
- (33) Maturity of 14¼% bonds issued September 1, 1982
- (34) In addition to \$725 million of 9% bonds due August 1, 1990 already outstanding
- (35) In addition to \$775 million of 9¼% bonds due July 1, 1992 already outstanding
- (36) In addition to \$475 million of 9¾% bonds due October 1, 1997 already outstanding
- (37) In addition to \$325 million of 10% bonds due June 1, 2008 already outstanding
- (38) Maturity of 9¾% bonds issued September 6, 1985
- (39) In addition to \$750 million of 10¼% bonds due June 1, 1992 already outstanding
- (40) Maturity of 5% CNR bonds issued October 1, 1960
- (41) Maturity of 13% bonds issued October 15, 1982
- (42) In addition to \$375 million of 10¼% bonds due December 15, 1990 already outstanding
- (43) In addition to \$1,250 million of 10¼% bonds due June 1, 1992 already outstanding
- (44) In addition to \$625 million of 11% bonds due June 1, 2009 already outstanding
- (45) In addition to \$1,050 million of 10¾% bonds due May 1, 1993 already outstanding
- (46) Maturity of 12% bonds issued November 1, 1982, April 1, 1984, October 24, 1984
- (47) In addition to \$700 million of 9¾% bonds due October 1, 1997 already outstanding
- (48) Maturity of 8% bonds issued December 1, 1980
- (49) Maturity of 9¼% bonds issued December 6, 1985
- (50) Maturity of 11% bonds issued December 15, 1982, August 1, 1983, September 1, 1983, December 15, 1984
- (51) In addition to \$625 million of 9¾% bonds due May 1, 1991 already outstanding
- (52) In addition to \$350 million of 10¼% bonds due March 1, 1996 already outstanding
- (53) In addition to \$600 million of 10½% bonds due October 1, 2004 already outstanding
- (54) Maturity of SFr 400 million of 7¼% notes issued March 8, 1982
- (55) Cancellation of SFr 12 million of 3½% bonds due March 20, 1989 for purchase fund
- (56) Partial redemption at par of US \$0.8 million of 5% bonds due October 15, 1987 for sinking fund
- (57) Maturity of US \$50 million of 16¾% notes assumed by Canada on February 12, 1986. Originally issued by Canadair on June 1, 1982
- (58) Maturity of US \$750 million of 14¾% notes issued June 16, 1982
- (59) Issued in the Euro-Yen market. Proceeds were swapped into a variable rate U.S. dollar liability based on 6-month LIBOR minus about 50 basis points
- (60) Maturity of US \$44 million of 5% bonds issued October 15, 1962
- (61) Maturity of SFr 300 million of 4¾% notes issued May 15, 1984

BANK OF CANADA Statement of Revenue and Expense

Year Ended December 31, 1987
(with comparative figures for 1986)

	<u>1987</u>	<u>1986</u>
	(thousands of dollars)	
REVENUE		
Revenue from investments and other sources, net of interest paid on deposits of \$11,378 (\$6,601 in 1986)	<u>\$2,007,604</u>	<u>\$2,092,189</u>
EXPENSE		
Salaries ⁽¹⁾	\$ 64,668	\$ 62,234
Contributions to pension and insurance funds ⁽²⁾	7,640	7,040
Other staff expenses ⁽³⁾	1,741	1,411
Directors' fees	114	109
Auditors' fees and expenses	495	740
Taxes – municipal and business	8,100	8,161
Banknote costs	35,713	32,561
Data processing and computer costs	6,005	5,745
Premises maintenance – net of rental income ⁽⁴⁾	16,810	14,805
Printing of publications	582	541
Other printing and stationery	2,031	2,119
Postage and express	1,572	2,158
Telecommunications	1,545	1,574
Travel and staff transfers	2,063	2,009
Other expenses	<u>2,126</u>	<u>2,067</u>
	151,205	143,274
Depreciation on buildings and equipment	<u>12,502</u>	<u>12,449</u>
	163,707	155,723
NET REVENUE PAID TO RECEIVER GENERAL FOR CANADA	<u>\$1,843,897</u>	<u>\$1,936,466</u>

(1) Salaries include overtime and are for Bank staff other than those engaged in premises maintenance. The number of employee years worked by such staff (including temporary, part-time and overtime work) was 2,246 in 1987 compared with 2,289 in 1986.

(2) Contributions to pension and insurance funds for Bank staff other than those engaged in premises maintenance.

(3) Other staff expenses include retirement allowances and educational training costs.

(4) Premises maintenance comprises building and equipment maintenance expenses including related staff costs.

(See accompanying notes to the financial statements)

BANK OF CANADA Statement of Assets and Liabilities

as at December 31, 1987
(with comparative figures for 1986)

ASSETS	1987	1986
	(thousands of dollars)	
Deposits payable in foreign currencies:		
U.S.A. dollars	\$ 305,819	\$ 314,896
Other currencies	<u>4,877</u>	<u>8,159</u>
	310,696	323,055
Advances to members of the Canadian Payments Association (note 2)	798,251	867,531
Investments — at amortized values (note 3):		
Treasury bills of Canada	9,676,651	7,803,859
Other securities issued or guaranteed by		
Canada maturing within three years	2,603,372	2,969,430
Other securities issued or guaranteed by		
Canada not maturing within three years	7,915,185	7,437,840
Other investments	<u>1,187,027</u>	<u>1,024,157</u>
	21,382,235	19,235,286
Bank premises (note 4)	141,290	138,472
Accrued interest on investments	320,732	323,363
Other assets	<u>69,995</u>	<u>57,008</u>
	<u>\$23,023,199</u>	<u>\$20,944,715</u>

(See accompanying notes to the financial statements)

LIABILITIES

	<u>1987</u>	<u>1986</u>
	(thousands of dollars)	
Capital paid up (note 5)	\$ 5,000	\$ 5,000
Rest fund (note 6)	25,000	25,000
Notes in circulation	19,447,407	17,911,360
Deposits:		
Government of Canada	23,330	48,647
Chartered banks	2,648,949	2,446,039
Other members of the Canadian Payments Association	287,129	241,211
Other deposits	<u>428,656</u>	<u>159,132</u>
	3,388,064	2,895,029
Liabilities payable in foreign currencies:		
Government of Canada	134,409	86,992
Other	<u>12</u>	<u>27</u>
	134,421	87,019
Bank of Canada cheques outstanding	16,448	11,351
Other liabilities	<u>6,859</u>	<u>9,956</u>
	<u>\$23,023,199</u>	<u>\$20,944,715</u>

Governor, **J. W. CROW**Chief Accountant, **J. E. H. CONDER**

Auditors' Report We have examined the statement of assets and liabilities of the Bank of Canada as at December 31, 1987 and the statement of revenue and expense for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Bank as at December 31, 1987 and the results of its operations for the year then ended in accordance with the accompanying summary of significant accounting policies, applied on a basis consistent with that of the preceding year.

ARTHUR ANDERSEN & CO.**ERNST & WHINNEY**

Ottawa, Canada, January 27, 1988.

BANK OF CANADA Notes to the Financial Statements

December 31, 1987

1. Significant Accounting Policies

The financial statements of the Bank conform to the disclosure and accounting requirements of the Bank of Canada Act and the Bank's by-laws. The significant accounting policies of the Bank are:

a. Revenues and Expenses

Revenues and expenses are accounted for on the accrual basis except for interest on advances to a bank ordered to be wound up where interest is recorded as received.

b. Investments

Investments, consisting mainly of Government of Canada treasury bills and bonds, are recorded at cost adjusted for amortization of purchase discounts and premiums. The amortization as well as gains and losses on disposition are included in revenue.

c. Translation of Foreign Currencies

Assets and liabilities in foreign currencies are translated to Canadian dollars at the rates of exchange prevailing at the year-end. Gains and losses from translation of, and transactions in, foreign currencies are included in revenue.

d. Bank Premises

Bank premises, consisting of land, buildings and equipment, are recorded at cost less accumulated depreciation. Depreciation is calculated on the declining balance method using the following annual rates:

Buildings	5%
Computer equipment	35%
Other equipment	20%

e. Pension plan

The Bank's contributions to the Pension Fund are recorded as expenses at the time they are made. Actuarial surpluses or deficiencies, if any, are amortized over periods not exceeding those provided for by the Pension Benefits Standards Act, 1985, and the regular contributions are adjusted accordingly.

2. Advances to Members of the Canadian Payments Association

Advances include a total of \$362,151,392 (\$790,831,007 in 1986) provided to the Canadian Commercial Bank and the Northland Bank for which winding-up orders have been issued by the courts. The liquidators appointed by the courts were also appointed as agents of the Bank of Canada for the purpose of realizing on the loan portfolios held as security against the respective advances. On the basis of the information available at December 31, 1987, it is the opinion of the Bank of Canada that its advances will be fully repaid from the proceeds of the liquidations.

3. Investments

Investments include securities of the Government of Canada totalling \$164,942,690 (nil in 1986) held under Purchase and Resale Agreements.

4. Bank Premises

	(thousands of dollars)			1986
	1987			
	Cost	Accumulated depreciation	Net	Net
Land and buildings	\$169,262	\$58,557	\$110,705	\$ 84,752
Computer equipment	29,331	21,755	7,576	8,758
Other equipment	38,909	23,964	14,945	14,553
	<u>237,502</u>	<u>104,276</u>	<u>133,226</u>	<u>108,063</u>
Projects in progress	8,064	—	8,064	30,409
	<u>\$245,566</u>	<u>\$104,276</u>	<u>\$141,290</u>	<u>\$138,472</u>

5. Capital

The authorized capital of the Bank is \$5,000,000 divided into 100,000 shares of the par value of \$50 each. The shares are fully paid and in accordance with the Bank of Canada Act have been issued to the Minister of Finance, who is holding them on behalf of Canada.

6. Rest Fund

The rest fund was established by the Bank of Canada Act and represents the general reserve of the Bank. In accordance with the Act, the rest fund was accumulated out of net revenue until it reached the stipulated maximum amount of \$25,000,000 in 1955. Subsequently all net revenues have been paid to the Receiver General for Canada.

7. Contingent Liability

The Bank has agreed with the Bank for International Settlements to participate in an international initiative to provide credit facilities to the International Monetary Fund. The Bank's potential liability under this agreement, which expires in June 1988, is limited to the placing of deposits with the Bank for International Settlements, if required, to finance loans made under the facility. Pursuant to the agreement, as at December 31, 1987, the Bank was contingently liable in the amount of SDR 87,140,443 (\$160,622,816).

Board of Directors

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SUSAN H. PATTEN	ST. JOHN'S, NFLD.
ERNEST G. PENNER	STEINBACH, MAN.
JOHN F. ROBINSON	LONDON, ONT.
GUYLAINE SAUCIER	MONTREAL, QUE.
Ex-officio	
STANLEY H. HARTT	OTTAWA Deputy Minister of Finance <i>Member of the Executive Committee</i>

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W. A. MCKAY, *Director of Administration*
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W. R. WHITE, *Adviser*
J. S. ROBERTS, *Associate Adviser*⁽²⁾

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F. FAURE, *Adviser*
T. E. NOËL, *Adviser and Secretary*
A. C. LAMB, *Adviser*
J. CLÉMENT, *Associate Adviser*

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L. T. REQUARD, *Deputy Chief*
I. D. CLUNIE, *Chief, Market Analysis
and Open Market Operations*
S. L. HARRIS, *Securities Adviser*
J. F. DINGLE, *Securities Adviser*⁽³⁾
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D. R. CAMERON, *Chief, Toronto Division*

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H. A. D. SCOTT, *Special Adviser*
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Toronto*

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C. A. ST. LOUIS, *Banking Operations Adviser*
C. R. TOUSAW, *Agent, Toronto
and Banking Operations Adviser*
A. G. KEITH, *Agent, Calgary
and Regional Financial Representative*

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Chief Accountant*
J. COSIER, *Deputy Comptroller*

Audit Department

J. M. E. MORIN, *Auditor*
M. MUZYKA, *Deputy Auditor*

⁽¹⁾ Also Chairman of the Board of Directors of the Canadian Payments Association

⁽²⁾ On leave of absence as Interim General Manager of the Canadian Payments Association

⁽³⁾ Also Alternate Chairman of the Board of Directors of the Canadian Payments Association

Regional Representatives and Agencies

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VANCOUVER L.-R. LAFLEUR, *Representative*

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CALGARY A. G. KEITH, *Agent and*
Regional Financial Representative
C. P. DESAUTELS, *Deputy Agent*
VANCOUVER G. H. SMITH, *Agent*