BANK OF CANADA

Monetary Policy Report

– May 2001 –

The 1985 silver dollar on the cover was designed by Karel Roblicek and marks the 100th anniversary of Canada's National Parks. The national parks system began in November 1885 when 26 square kilometres on the north slope of Sulphur Mountain were set aside for public use. This was the beginning of what is now Banff National Park. The Dominion Parks Branch, the world's first distinct bureau of national parks, was formed in 1911, and the National Parks Act was passed in 1930. There are currently 39 national parks and national park reserves (areas designated to become parks).

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MONETARY POLICY REPORT

— May 2001 —

This is a report of the Governing Council of the Bank of Canada:
David Dodge, Malcolm Knight, Charles Freedman, Paul Jenkins,
Tim Noël, Sheryl Kennedy, and Pierre Duguay.

As we look ahead through this year and into 2002, the Bank remains positive about Canada's economic prospects . . . . Canada's economic fundamentals are sound—in fact, they are the best they have been in nearly 30 years. Canada continues to benefit from a climate of low, stable, and predictable inflation.

David Dodge
Governor of the Bank of Canada
Opening Statement before the
Standing Senate Committee on Banking,
Trade and Commerce
28 March 2001

CONTENTS

Canada's Inflation-Control Strategy

Inflation control and the economy

- Inflation control is not an end in itself; it is the means whereby monetary policy contributes to solid economic performance.

- Low inflation allows the economy to function more effectively. This contributes to better economic growth over time and works to moderate cyclical fluctuations in income and employment.

The monetary policy instrument

- Since December 2000, announcements regarding the Bank's policy instrument—its operating band for the overnight interest rate—are taking place, under normal circumstances, on eight pre-specified dates during the year.

- In setting a target for the overnight rate, the Bank of Canada influences short-term interest rates to achieve a rate of monetary expansion consistent with the inflation-control target range. The transmission mechanism is complex and involves long and variable lags—the impact on inflation from changes in monetary conditions is usually spread over six to eight quarters.

The targets

- In February 1991, the federal government and the Bank of Canada jointly announced a series of targets for reducing inflation to the midpoint of a range of 1 to 3 per cent by the end of 1995. In December 1993, this target range was extended to the end of 1998. In February 1998, it was extended again to the end of 2001.

- By the end of 2001, the government and the Bank plan to determine the long-run target for monetary policy consistent with price stability.

Monitoring inflation

- In the short run, a good deal of movement in the CPI is caused by transitory fluctuations in the prices of food and energy, as well as by changes in indirect taxes. For this reason, the Bank focuses on the CPI excluding food, energy, and the effect of changes in indirect taxes. This measure is referred to as the *core* CPI.

- Over longer periods, the measures of inflation based on the total CPI and the core CPI tend to follow similar paths. In the event of anticipated persistent differences between the trends of the two measures, the Bank would adjust its desired path for core CPI inflation so that total CPI inflation would come within the target range.

1. Introduction

At the time of the November 2000 *Monetary Policy Report*, although signs of the anticipated slowing of the U.S. economy were becoming apparent, the momentum of the global economy was considered strong.

The slowdown in the U.S. economy has been greater than expected . . .

The U.S. slowdown has, in fact, turned out to be more pronounced than expected, and, largely as a consequence, growth in global demand has been weaker than projected. A weaker global economy, together with declines in energy prices from earlier peaks, has reduced the risk of inflationary pressures worldwide.

. . . contributing to lower economic growth in Canada in the first half of 2001 than was projected last November.

The abrupt easing in the pace of U.S. economic expansion, particularly in the markets for motor vehicles and for information and telecommunications equipment, contributed importantly to a slowing in economic growth in Canada towards the end of last year and into 2001. The pace of expansion in both the U.S. and Canadian economies during the first half of this year is now projected to be much weaker than expected last November, as inventory imbalances in those sectors experiencing weaker demand are corrected. As a result, the Canadian economy will probably be operating somewhat below capacity by mid-2001, suggesting some downward pressure on core CPI inflation over the remainder of the year.

As a result, some downward pressure on core inflation is expected over the remainder of the year.

The Bank has lowered the Bank Rate by a total of 100 basis points, consistent with the policy objective of keeping inflation close to the 2 per cent midpoint.

To support a rebound in the growth of aggregate demand in the second half of this year and in 2002, the Bank of Canada lowered its Bank Rate by 25 basis points on the 23 January announcement date, by 50 basis points on 6 March, and by 25 basis points on 17 April. These actions brought the Bank Rate down to 5.0 per cent and the target for the overnight rate to 4.75 per cent. These moves were consistent with the policy objective of keeping inflation close to the midpoint of the Bank's 1 to 3 per cent target range over the medium term.

The main uncertainty facing the Canadian economy is the timing and strength of the rebound in the U.S. economy. While the Bank expects a significant pickup in U.S. growth in the second half of 2001 and some further strengthening in 2002, the abruptness and extent of the slowdown highlight the downside risk that the rebound in aggregate demand in the United States may take longer to take hold.

This report includes information received up to the fixed announcement date on 17 April 2001.

2. Recent Developments in Inflation

Since last autumn, core CPI inflation has moved up to the midpoint of the Bank's 1 to 3 per cent inflation-control target range slightly faster than expected. The rate of increase in the total CPI has remained close to 3 per cent, reflecting primarily the increases in energy prices over the past year.

Inflation and the target range

Core inflation has moved up to the midpoint of the target range . . .

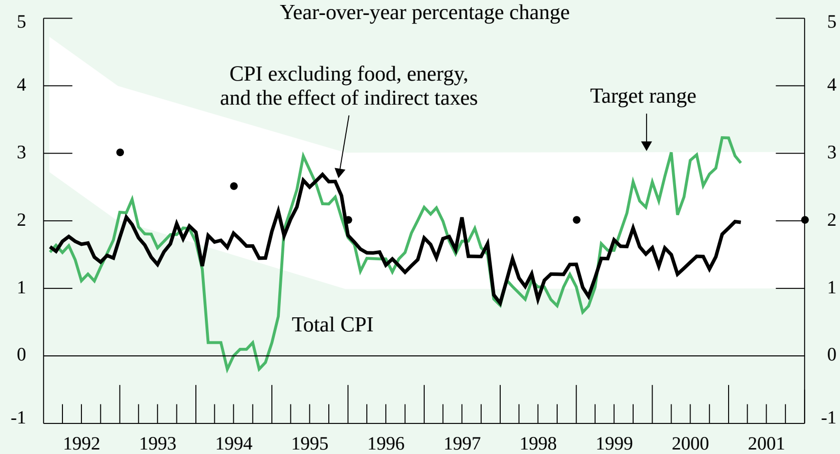
The 12-month rate of increase in the core CPI was 2.0 per cent in February, up from 1.3 per cent last September and marginally higher than projected in the November *Report* (Chart 1). Other statistical measures of the trend rate of inflation were just below the core rate (Chart 2).

The rise in the core rate of inflation over the past six months was broadly based among the major components of the core CPI.

Chart 1

Consumer Price Index

Year-over-year percentage change



• Midpoint of the inflation-control target range

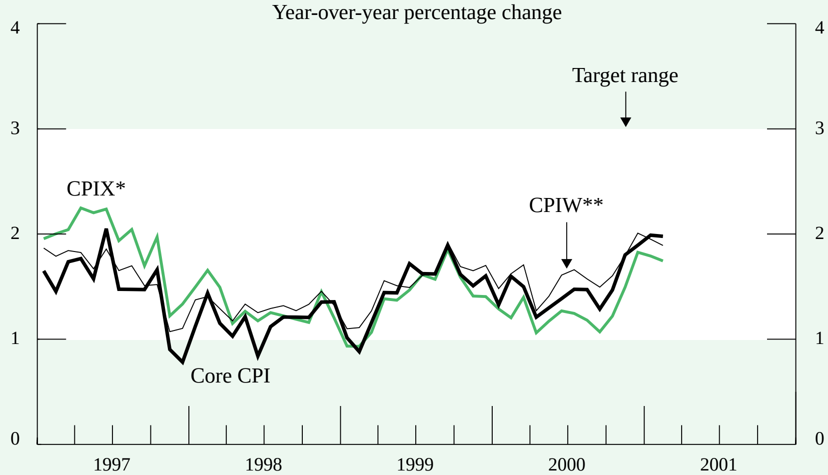
. . . while the total CPI has remained close to 3 per cent.

The 12-month rate of increase in the total CPI has remained close to 3 per cent since last autumn, reflecting large increases in energy prices over the year. While the rate of increase in fuel oil and gasoline prices has eased over this period, tight supplies of natural gas have led to a substantial jump in overall energy

Chart 2

Core CPI and Statistical Measures of the Trend Inflation Rate

Year-over-year percentage change



* CPIX excludes the eight most volatile components from the CPI as well as the effect of indirect taxes on the remaining components.
** CPIW adjusts each CPI basket weight by a factor that is inversely proportional to the component's variability.

prices.[1] Food prices have also risen considerably in recent months, particularly for beef, pork, and vegetables.

To date, the pass-through of first-round effects from higher energy costs to the core CPI have remained small. The estimated effect was less than 0.1 per cent over the past year and was most evident in the prices of both local and air transportation.

The surge in the prices of Canada's energy commodities between the end of 1999 and the end of 2000 helps to account for the substantial rise over that period in the chain price index for GDP relative to the core CPI (Chart 3).

The prices of non-energy commodities, after easing between May and October of last year, have remained steady in recent months (Chart 4). The slowdown in world economic growth contributed to a further decrease in the prices of metals and pulp, but livestock prices have moved up in response to strengthening demand and reduced supplies in Europe (owing to foot-and-mouth disease).

1. In Alberta, consumer costs for natural gas were held down between January and April by a provincial government assistance program. Electricity prices in British Columbia were kept down between February and April by a special provincial government credit, while electricity prices in Alberta will also be lower throughout 2001 as a result of an Alberta government rebate. These credits are estimated to have reduced the year-over-year change in the national CPI by about 0.3 percentage points in the first quarter of 2001.

Chart 3

Chain Price Index for GDP, Core CPI, and Total CPI

Year-over-year percentage change

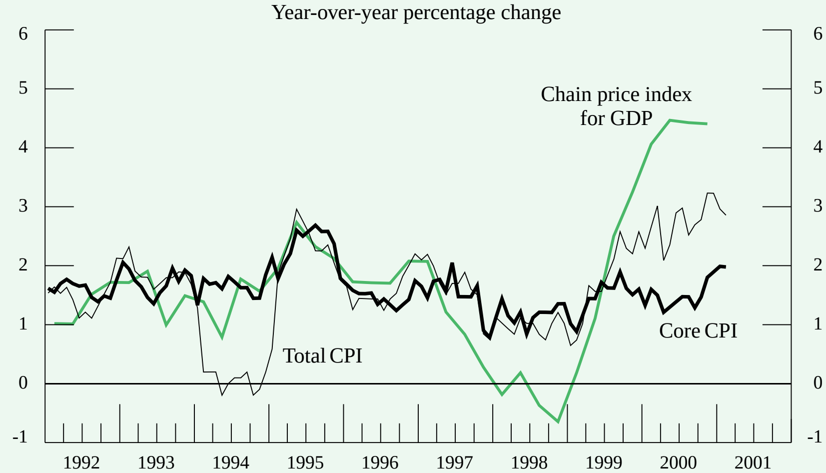
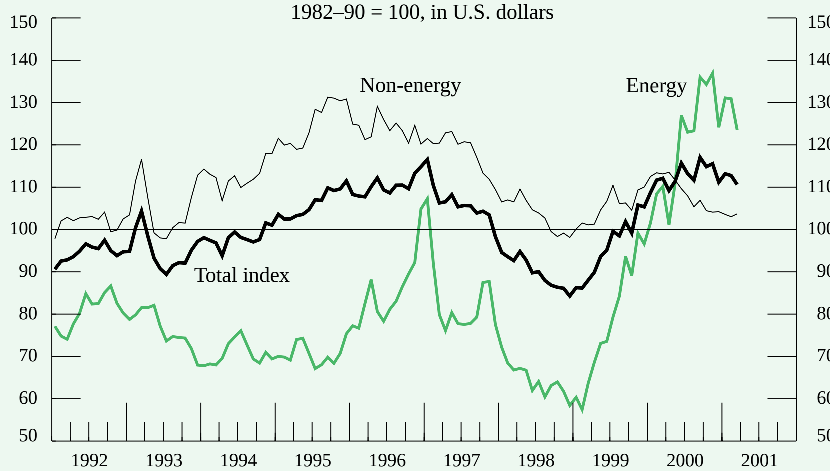


Chart 4

Bank of Canada Commodity Price Index

1982–90 = 100, in U.S. dollars



Factors at work on inflation

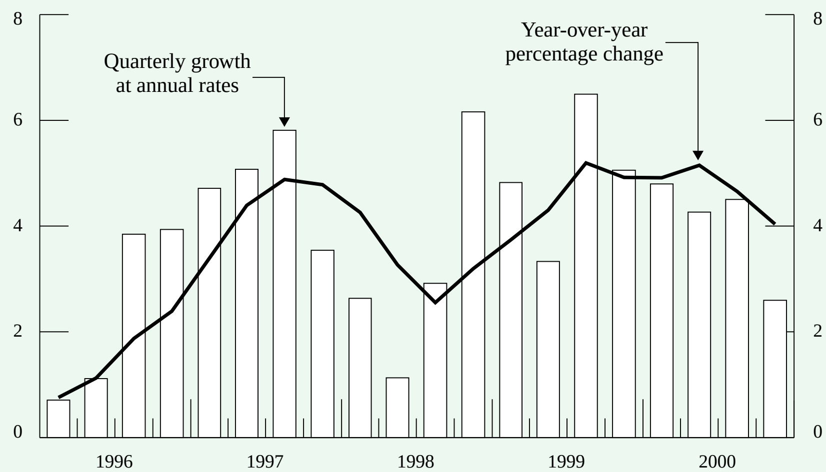
Aggregate demand

Real GDP growth slowed in the fourth quarter of 2000 and remained modest in the first quarter of 2001.

The pace of Canada's economic expansion slowed in the final quarter of 2000, mainly in response to an abrupt slowing in U.S. economic growth. After increasing by 4.5 per cent on average over the first three quarters (Chart 5), real GDP in Canada rose at an annual rate of only 2.6 per cent in the fourth quarter of 2000.[2] With lower-than-anticipated growth in the fourth quarter and downward revisions to real GDP in the first three quarters of the year, economic activity in 2000 rose by 4.7 per cent on an annual average basis—less than the 5 per cent pace expected at the time of the February *Update*. Available information suggests that real GDP growth for the first quarter of 2001 will be in a range of 1.25 to 2.25 per cent, with robust gains in final domestic demand partly offset by sluggish exports and further reductions in inventory investment.

Chart 5

Real Gross Domestic Product in Canada



2. Based on the chain Fisher volume index (see Technical Box 3, p. 24), aggregate output growth fell from 3.7 per cent, on average, in the first three quarters of 2000 to 1.2 per cent in the final quarter.

Technical Box 1

Recent Developments in the North American Automotive Sector

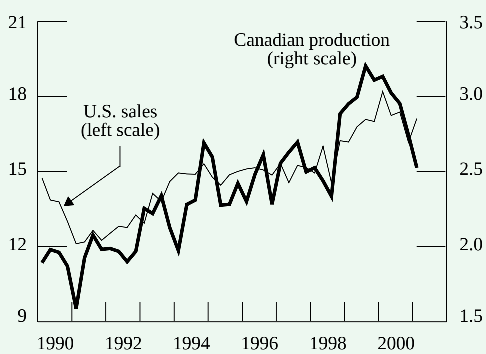
Motor vehicle sales rose sharply in the United States in the late 1990s, fuelled by pent-up demand and rising household incomes. Against this background, favourable relative unit labour costs and earlier production decisions that led to Canadian plants manufacturing vehicles in high demand paved the way for Canadian producers to boost their share of the North American market (excluding Mexico) to about 19 per cent (or over 3 million units) in 2000. This growth has been reflected in a rising trade surplus on automotive products of about $12 billion (in real terms), from less than $6 billion in 1990. At the same time, about 50,000 jobs were created in the automotive sector which, by 2000, employed roughly 164,000 people. Over the same period, the industry's share of Canadian real GDP increased almost 1 percentage point to about 2.5 per cent.

As Canada's share of the North American market rose, the Canadian auto sector became more exposed to a downturn in U.S. sales. Thus, in response to the slowdown in the United States, the industry cut motor vehicle production and announced a series of temporary layoffs in late 2000 and early 2001. These cuts were designed to bring inventories back to normal levels. Canadian output in motor vehicle and parts manufacturing fell about 23 per cent at annual rates in the fourth quarter of 2000, and a further sharp decline occurred in the first quarter of this year. Sales of motor vehicles in the United States were stronger than expected in the first quarter, however, thus lowering the stock-to-sales ratio significantly. Canadian production of vehicles and parts should therefore recover somewhat in the second quarter.

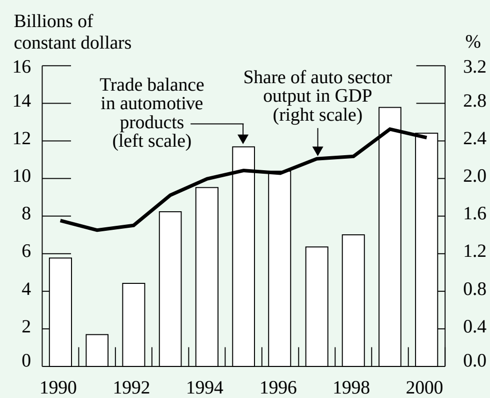
Nonetheless, sales and production are unlikely to return to their previous peak, since it is likely that pent-up U.S. demand has been largely satisfied. Canadian expenditures on motor vehicles should provide some support later in 2001, given the different cyclical positions of the two economies, tax cuts, and a relatively older fleet of cars in Canada. The impact on Canadian production is likely to be small, however, since most of Canada's output of motor vehicles is directed to the U.S. market, while the bulk of Canadian consumption is satisfied by imports.

Motor vehicle production and sales

Millions of units



Output and trade in automotive products



In particular, the output of motor vehicles declined . . .

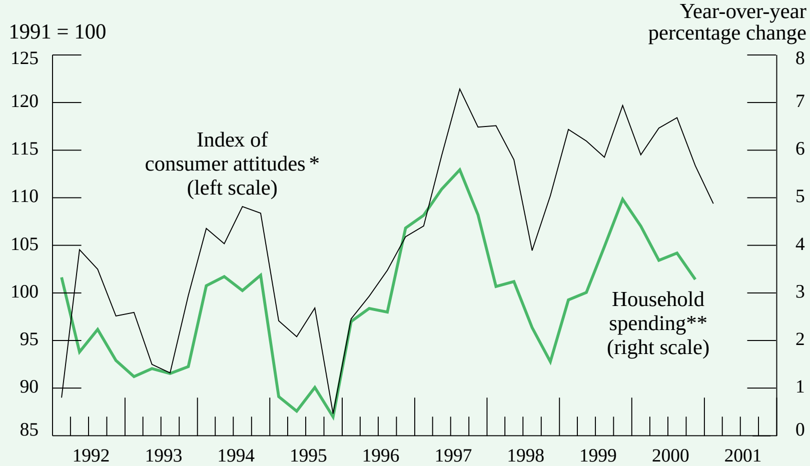
The downturn in the U.S. auto market led to reduced Canadian automotive exports and production in the fourth quarter of 2000 and in early 2001, as manufacturers began to bring inventory levels into balance (Technical Box 1). This contributed to cutbacks in the output of related industries such as primary metals and motor vehicle parts. In addition, as the rate of expansion of spending on machinery and equipment by U.S. businesses fell sharply, the growth in Canadian shipments of electronic products and other machinery and equipment eased considerably from the extremely buoyant pace of the first half of the year (Technical Box 2). Concerned about high inventory levels, Canadian manufacturers of electrical and electronic products have reduced their rates of production.

. . . and production of electrical and electronic products eased.

Investment in capital goods by Canadian business, particularly in highly import-intensive computers and other machinery and equipment, appears to be recovering after falling off in the last three months of 2000. In contrast, household expenditures remained robust through year-end and into 2001, supported by continued high levels of consumer confidence, solid employment growth, and federal and provincial government tax reductions (Chart 6).

Chart 6

Consumer Confidence



* Source: Conference Board of Canada

** Expenditures in constant dollars on consumer goods and services plus housing

Technical Box 2

Electrical and Electronic Products Manufacturing in the United States and Canada

Much of the marked stronger growth in economic activity and productivity in the United States in recent years was generated by unusually rapid progress in information and communications technologies (ICTs). This, in turn, led to very large reductions in the real prices of computers, software, and communications equipment and, hence, to very substantial increases in investments in these high-technology items (Jorgenson and Stiroh 2000).

Canadian manufacturers of electronic products have benefited substantially from booming sales of ICT equipment to the U.S. market during the past decade. For instance, over that period, the share of shipments of ICT equipment in total exports of goods and services rose by two-thirds to nearly 10 per cent. As well, the output share of electrical and electronic manufacturing in Canada's aggregate GDP has more than doubled since 1990 to 2.3 per cent. This expansion of activity in Canada has been boosted by growing two-way trade in office machines and telecommunications equipment, particularly with the United States (Dion 1999–2000). In the year ending in the third quarter of 2000, Canadian output of electrical and electronic products rose by nearly 40 per cent, accounting for close to 16 per cent of the growth in aggregate GDP at factor cost over that period.

The growth of U.S. capital spending on computers and other ICT equipment has eased considerably since mid-2000, however. First, the market for personal computers seems to be maturing, leading to a marked slowdown in growth. Second, many high-technology firms in the United States, especially those providing telecommunications services, have been experiencing financing constraints and have therefore significantly cut their plans for capital spending. These developments contributed to a sharp decrease in the rate of expansion of Canada's output of electrical and electronic products in the last quarter of 2000, followed by a cutback in production in early 2001. Indeed, the growth of demand in the U.S. market and therefore of manufacturing activity in this particular Canadian industry is likely to continue to be much lower in the first half of 2001 than it has been in recent years.

Long-term prospects for a pronounced expansion in U.S. demand for ICT equipment are still good, however, given the strong ongoing pace of technical change in ICTs and the subsequent continuing large reductions in the real prices of these products. Expanding markets for new products such as wireless communications devices should also help sustain robust growth in the market for ICT equipment. The Canadian industry's strong innovative capabilities, especially in the area of telecommunications equipment, should help maintain its competitive position in the U.S. market over the medium term; however, the timing of the recovery in U.S. demand is difficult to predict.

Estimated pressures on capacity

A number of indicators suggest that the economy was in excess demand at the end of 2000 . . .

A number of indicators support the view that pressures in product and labour markets intensified during the first three quarters of last year, and that the Canadian economy was operating in excess demand during the second half of last year. The increases in core inflation and in wage rates over the past six months are consistent with this view. The Bank's conventional measures of potential output and the output gap also suggest that the Canadian economy was operating slightly above potential output at the end of 2000 (Chart 7).[3] Statistics Canada's measured rate of capacity utilization in the non-farm, goods-producing sector in the fourth quarter of 2000 was only slightly below the level reached in the late 1980s, when pressures on capacity were high. Vacancy rates in the apartment and commercial real estate markets are also below previous lows reached in the late 1980s.

. . . while more recent indicators point to an easing in capacity pressures in early 2001.

More recent indicators, however, point to capacity pressures easing in early 2001. Consistent with the slowing we have seen in the pace of activity to below the economy's growth potential, the estimated output gap would be approaching zero in the first quarter of 2001. The ratio of unfilled orders to shipments in the manufacturing sector has fallen in recent months. Purchasing managers have reported reductions in delivery time, and the level of inventories relative to sales has risen. Finally, anecdotal reports of labour shortages have diminished since December, although upward wage pressures persist in certain sectors and professions.

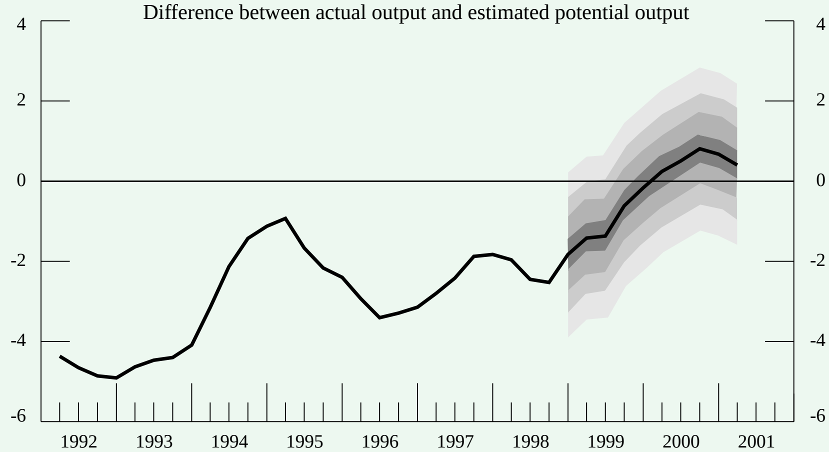
Overall, the full range of indicators suggests that the economy was operating at, or slightly above, full capacity at the end of last year, but that these pressures have eased through the first half of 2001.

3. It must be recognized that there is always considerable uncertainty around estimates of the output gap using the Bank's conventional techniques. This is particularly true in a period of rapid technological and structural change.

Chart 7

Estimated Output Gap*

Difference between actual output and estimated potential output



* The shading around the values of the estimated output gap shows (from darkest to lightest) confidence intervals of 25 per cent, 50 per cent, 75 per cent, and 95 per cent.

Note: Estimate for the first quarter of 2001 is based on projected output growth of 1.75 per cent for that quarter.

Cost pressures

Gains in labour compensation have moved up significantly into a range of 3.25 to 3.75 per cent.

Based on both the average hourly earnings of permanent workers and labour compensation per person-hour in the business sector, it appears that the underlying rate of increase in average labour compensation moved up into a range between 3.25 and 3.75 per cent in the second half of 2000 and into the early part of 2001 (Charts 8 and 9). The rise in labour compensation per person-hour in the business sector last year was boosted by unusually large bonus payments. Labour productivity growth eased considerably in the second half of 2000 as a result of the slowdown in economic expansion, with output per person-hour in the business sector increasing by only 0.7 per cent between the fourth quarter of 1999 and the fourth quarter of 2000 (Chart 9). As a result, the year-over-year rise in unit labour costs in the business sector was 3.1 per cent in the fourth quarter of 2000.

With only modest growth in labour productivity, the rise in unit labour costs, measured on a year-over-year basis, was about 3 per cent at year-end.

Other indicators of inflation pressures

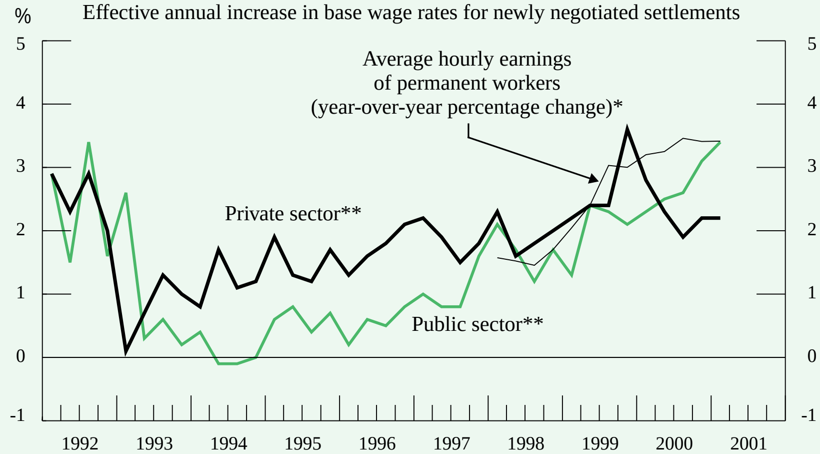
It is often the case that large movements in real estate prices, which typically reflect shifts in both inflation expectations and economic growth, precede substantial changes in core inflation. No such large movements have been observed recently. The year-over-year increase in the selling price of existing housing (based on the Royal LePage index) was 4.4 per cent in the fourth quarter of 2000, down somewhat from the rate seen at the end of 1999.

The 12-month rise in new-home prices remained steady at 2.4 per cent in February. Gains in the prices of non-residential commercial properties last year were moderate and slightly higher than in 1999.

Chart 8

Wage Settlements and Average Hourly Earnings

Effective annual increase in base wage rates for newly negotiated settlements



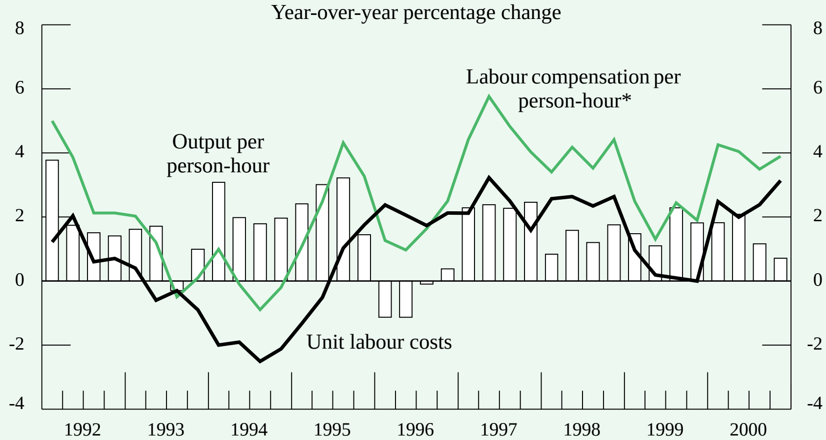
* Source: *Labour Force Information*

** Source: Human Resources Development Canada, last data point plotted = January 2001

Chart 9

Unit Labour Costs and Labour Productivity: Business Sector

Year-over-year percentage change



* Labour compensation includes the labour income of paid workers plus imputed labour income for self-employed workers.

Source: Statistics Canada *Daily*

3. Financial Developments

Policy actions and financial market developments

Bank Rate announcements since the November *Report*:

5 December—unchanged at 6.0 per cent

23 January—down 25 basis points

6 March—down 50 basis points

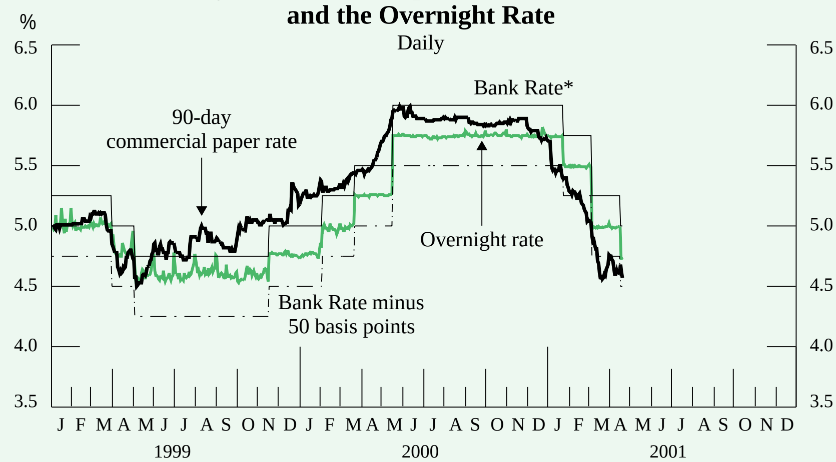
17 April—down 25 basis points to 5.0 per cent

Since the November *Report*, the Bank Rate has been lowered on three occasions by a total of 100 basis points. The timing and magnitude of the policy-rate declines had been largely anticipated in financial markets. Indeed, reductions in the 90-day commercial paper rate occurred prior to the central bank actions (Chart 10). Since November, the 90-day paper rate has declined by about 125 basis points to around 4.65 per cent and embodies expectations of further Bank Rate reductions of about 25 basis points by the end of the second quarter. In the United States, financial market participants expect the Federal Reserve Board to lower the federal funds target rate by about an additional 50 basis points by the end of the second quarter in addition to the 150 basis points of cuts so far this year.

Chart 10

90-Day Commercial Paper Rate, the Bank Rate, and the Overnight Rate

Daily



* The Bank Rate is the upper limit of the 50-basis-point operating band for the overnight rate.

Yield spreads between Canadian and U.S. government securities turned positive for maturities of 2 to 30 years in late 2000, and subsequently widened out. This is consistent with market expectations of a sharper slowdown in the United States than in Canada, but it also reflects an increased preference for U.S.-dollar assets, as global investors have sought the safety and liquidity of U.S. financial markets at a time of uncertainty.

The U.S. dollar has been strong against all major currencies, reflecting market uncertainties.

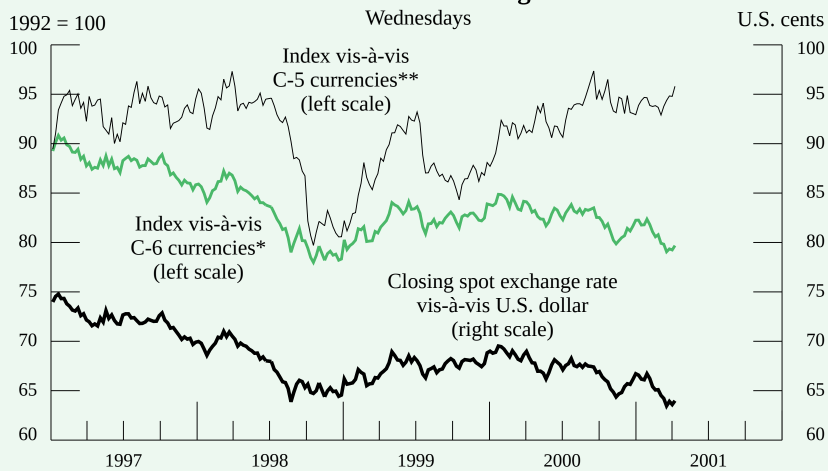
This shift in investor sentiment has also been reflected in the strength of the U.S. dollar against all major currencies. A number of recent developments have been behind this change in sentiment: volatility in global equity markets; the slowdown in the global economy; the situation in several emerging-market economies; and concern about the direction of macroeconomic and structural policies in certain industrial countries.

Primarily reflecting these market swings, the Canadian dollar has declined from about 67 cents (U.S.) at the turn of the year to around 64 cents more recently. Compared with other major currencies, however, the Canadian dollar has remained quite firm (Chart 11).

Chart 11

Canadian Dollar Exchange Rate

Wednesdays



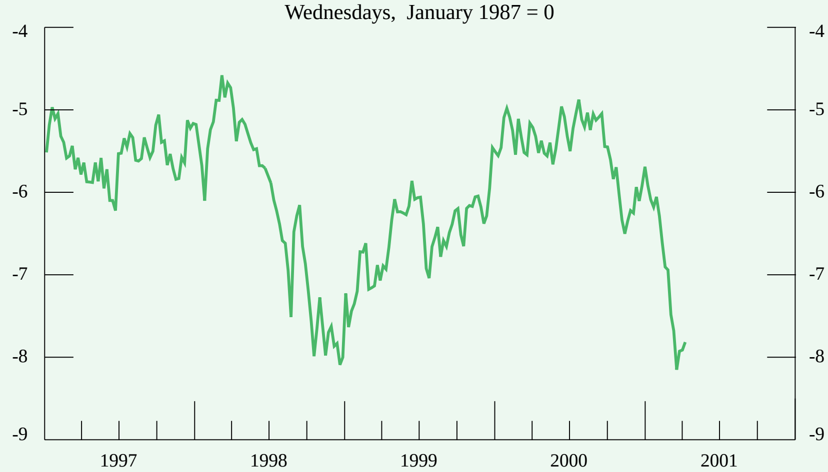
* C-6 currencies: U.S. dollar, euro, yen, U.K. pound, Swedish krona, and Swiss franc
** C-5 currencies: excludes U.S. dollar

With declining short-term interest rates and a lower Canadian dollar, monetary conditions have eased substantially since the November *Report* (Chart 12).

Chart 12

Monetary Conditions Index

Wednesdays, January 1987 = 0



Other financial developments

While financial conditions tightened in late 2000 . . .

The end of 2000 also saw a general tightening in North American financial conditions. As investors became more concerned about prospects for economic growth, risk premiums rose and credit standards tightened, particularly in the United States. Yields on corporate bonds climbed, not only for lower-quality bonds, but also for blue-chip issues. The stock market was also affected as the correction in technology stocks continued.

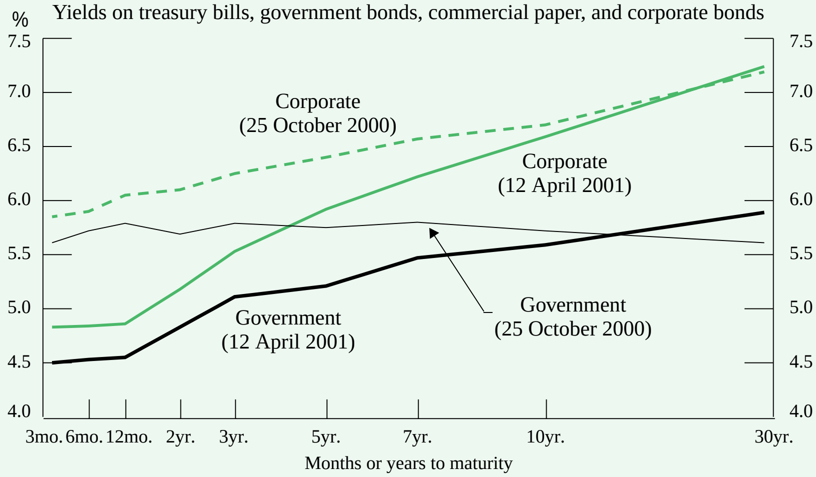
. . . there have been signs of improvement more recently.

There have, however, been signs of improvement in financial conditions more recently, partly because of interest rate cuts by both the U.S. Federal Reserve and the Bank of Canada. There appears to be underlying confidence that policy actions will limit the extent of the economic slowdown as evidenced by the yields on medium- and longer-term Canadian government bonds, which have fallen less than yields on short-term bonds (and, in some cases, have even increased) (Chart 13).

Chart 13

Term Structure of Interest Rates in Canada

Yields on treasury bills, government bonds, commercial paper, and corporate bonds



Reflecting the past tightening in financial conditions, growth in Canadian business credit has slowed in recent months. Moreover, with increased uncertainty over the economic outlook, firms are favouring longer-term financing. As a result, growth in short-term business credit was quite weak in January and February, but growth in bonds has been picking up. Investors have also shifted funds from equity markets into bonds, leading to a decline in bond rates. Weakness in short-term business credit may also reflect lower demand for financing, stemming from a slower pace of inventory investment and a decline in the number of mergers and acquisitions.

4. The Outlook for Inflation

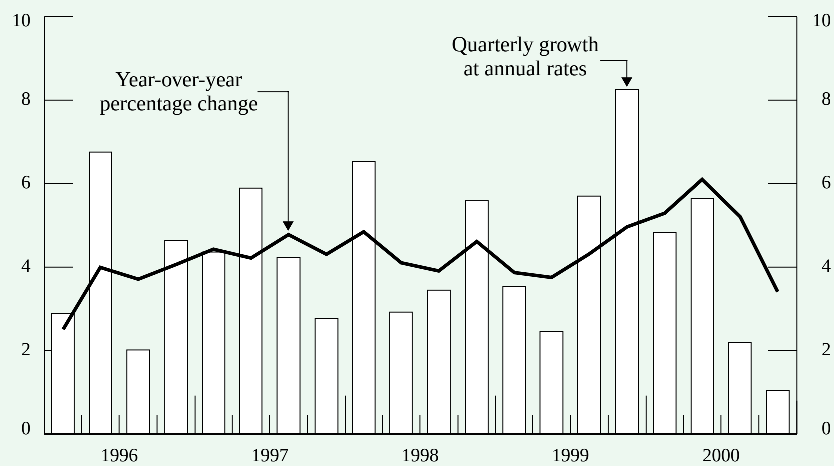
International background

Projections of world economic growth have been revised down.

Projections of world economic growth for 2001 have been revised down in recent months, reflecting a slower pace of growth not only in the United States but in most other parts of the world as well. For example, the International Monetary Fund now projects world output to expand by just over 3.0 per cent this year—down a full percentage point from its outlook last autumn. Its current projection for 2001 compares with actual world economic growth of 4.8 per cent in 2000, 3.4 per cent in 1999, and 2.6 per cent in 1998 (at the height of the Asian crisis).

Chart 14

U.S. Real Gross Domestic Product



The U.S. slowdown has turned out to be greater than expected.

Last November, the anticipated slowing in U.S. economic growth in response to earlier increases in interest rates and persistently higher energy prices appeared to be underway. In fact, the slowdown has turned out to be greater than expected. Average growth in the last two quarters of 2000 was only 1.6 per cent (Chart 14), less than one-third of the pace recorded in the first two quarters of the year. Business investment has weakened, following reductions in corporate profits, tightening in business credit conditions,[4] and substantial declines in equity markets. Falling equity

4. A U.S. survey of senior loan officers regarding bank lending practices carried out in early March shows that business lending conditions have tightened further since early January. Yield spreads on riskier corporate bonds remain high, but the level of corporate bond yields has declined since the November *Report*.

prices, lower employment growth, and high energy prices have also caused sharp declines in consumer confidence and reduced consumption growth. This weakness in demand has led to product cutbacks in the manufacturing sector, primarily in automobiles and electronics (telecommunications and computer equipment) to correct inventory imbalances.

A number of factors are expected to contribute to a pickup in U.S. activity in the second half of the year.

While new inventory-management techniques have resulted in lower general inventory levels in recent years, they have also allowed firms to quickly adjust production when excess inventories become apparent. The current slowdown in manufacturing production is thus expected to be relatively short, with stronger growth projected for the second half of the year and into 2002. Indeed, the inventory correction in the automobile sector was well advanced by the end of the first quarter. Other factors that are expected to contribute to a pickup in the second half include lower energy prices and the decline in interest rates, both of which should help to restore consumer and business confidence. If, however, there was continued weakness in consumer and business confidence, this could translate into lower spending and delayed recovery.

Overall, it is the Bank's assessment that the U.S. economy will grow by between 1.0 to 2.0 per cent on an annual average basis this year, with growth in the second half of the year averaging 2.0 to 3.0 per cent. In 2002, the Bank projects U.S. economic growth of 2.5 to 3.5 per cent.[5]

While economic recovery in Japan appears to have faltered . . .

In Japan, economic recovery continues to be restrained primarily by ongoing problems associated with financial sector restructuring. These problems, together with the impact of the slowdown in the United States, brought growth in the second half of 2000 down near zero, and only a small positive growth rate is projected for 2001. The major European economies, by contrast, continue to exhibit positive momentum although at a somewhat slower pace, with growth in 2001 expected to centre on 2.5 per cent. Growth in the emerging-market economies, particularly in Latin America and in those Asian economies that are heavily dependent on the manufacture of electronics, has been adversely affected by the U.S. slowdown. As well, both Turkey and Argentina face financial difficulties and are working with the IMF on new policy initiatives.

. . . the euro area and the United Kingdom continue to exhibit positive momentum.

Crude oil prices are likely to ease further through 2001, as inventories are rebuilt and demand softens with the recent slowdown in the pace of world economic activity. Natural gas prices are also expected to fall from their current high levels in coming

5. The midpoint of the Bank's projection range for 2001 is slightly below the latest consensus U.S. forecast. For 2002, it is very close to the consensus.

months, given the expected replenishment of stocks. With some lessening in the growth of global demand, prices for non-energy commodities are unlikely to rise appreciably through the remainder of 2001.

Aggregate demand and supply in Canada

The Bank continues to project a strengthening of Canadian economic growth in the second half of this year and in 2002. This view reflects a number of factors: a second-half rebound in the U.S. economy; the completion of the inventory correction; continued investment in new technology by businesses; recent tax cuts; and the easing in domestic monetary conditions.

Household spending is expected to be robust . . .

Reductions in personal income taxes, which took effect at the beginning of this year, as well as recent decreases in interest rates, should both contribute to fairly robust growth in household spending. There is some risk that slower employment growth and recent drops in equity prices could weaken consumer confidence, tempering increases in household expenditures. In the early part of 2001, however, the pace of household spending remained strong.

. . . while the pace of business investment is likely to moderate.

The pace of business investment is projected to moderate in 2001. Firms are expected to focus on capital projects that help reduce costs, although investments to raise Canada's future capacity to supply energy should grow strongly during the year. Further reductions in inventory investment to bring stock levels into balance are likely in the first half of this year. Import growth is also expected to ease during this period, chiefly reflecting limited gains in both aggregate exports and investment in machinery and equipment.

Canadian export growth should improve after mid-year.

Canadian export growth is expected to be modest in the first half of 2001, in line with the anticipated sluggishness of the U.S. economy and the continued weak prices projected for non-energy commodities. In particular, automotive shipments to the United States are likely to fall further during the period, while the growth in exports of information and communications equipment is expected to ease considerably. Canadian export growth should improve, after mid-year, with the projected recovery in the U.S. economy.

The latest consensus among private sector forecasters for real GDP growth this year (on an annual average basis) has been revised down to 2.4 per cent, considerably lower than the 3.5 per cent recorded at the time of the November *Report*.[6] For 2002, the most recent consensus forecast calls for real GDP growth of 3.3 per cent.

Since the February *Update*, the economic information on the first half of 2001 has been mixed, with both positive and negative indicators. On balance, the data confirm the slowdown in the first half of the year anticipated in the *Update*. It now looks as if growth over the first six months will average between 1.25 and 2.25 per cent. For the second half of the year, we see growth picking up significantly to between 2.5 and 3.5 per cent.

Output growth of between 2 and 3 per cent is expected in 2001, with stronger growth in the second half of the year.

Based on this first-half/second-half profile, together with the downward revision to GDP in 2000, the Bank's projection for economic growth in 2001 (on an annual average basis) has been revised down to between 2 and 3 per cent. The pace of activity in 2002 is expected to be somewhat stronger than in the second half of 2001, with the economy expanding at a rate slightly above the Bank's estimate of potential output growth of 3 per cent. This outlook is not expected to be materially affected by forthcoming changes in the measurement of GDP (Technical Box 3).

Measures of inflation expectations

Longer-term inflation expectations are still focused on the midpoint of the inflation-control target range.

In the regular survey reported in the Conference Board of Canada's winter *Index of Business Confidence*, 52 per cent of respondents expected prices, in general, to rise over the next six months at a rate of 2 per cent or less, and 92 per cent expected a rate of 3 per cent or less (Chart 15). The average private sector forecast for the rate of increase in the total CPI is 2.4 per cent in 2001 (the same as last autumn) and 2.1 per cent in 2002. Typical forecasts of longer-term inflation are between 1.9 and 2.1 per cent, depending on the horizon.

6. The range of forecasts for real GDP growth in 2001 in the latest survey conducted by *Consensus Economics* is 1.5 to 2.8 per cent. The width of this range, an indicator of forecast uncertainty, has risen considerably since last autumn.

Technical Box 3

Changes in the Measurement of GDP and their Implications

As of 31 May, Statistics Canada will replace the current measure of real GDP, which values output at 1992 prices, with estimates based on the chain Fisher volume index formula. With this formula, output growth is measured each quarter using weights based on prices from the current and previous quarters. This change is particularly important at this time, since the prices of information and communications equipment have been falling rapidly at the same time that output has been expanding vigorously, causing the current measure of GDP to overstate the contribution of these high-technology items to GDP growth. The change to the new formula will result in more accurate measures of real GDP growth from quarter to quarter.

As of 31 May, Statistics Canada will also treat all software purchases by businesses as capital investments, rather than current expenses, as is now the case. In itself, this move should lead to small upward revisions to the measures of real GDP growth since growth in software purchases has generally been faster than growth in real GDP.

Together, these changes will bring Canada's measure of GDP in line with that of the United States, where the chain Fisher volume index has been in use since 1996, and software has been considered as investment since 1999.

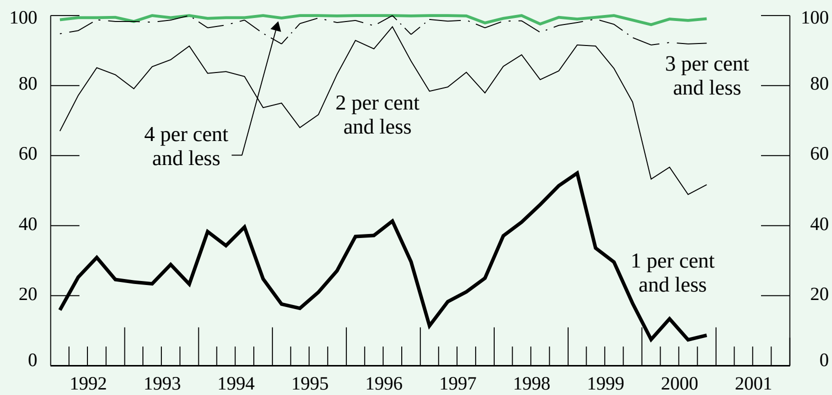
Statistics Canada has been producing chain Fisher volume indexes (without software included as investment) for some time. Based on that measure, Canada's annual average aggregate output growth for 2000 was 4.1 per cent compared with 4.7 per cent based on the current measure. This difference was unusually large, reflecting the very strong growth of activity in the high-technology sector last year. With the current softening in this sector in response to slowing U.S. demand, the Bank would not expect to see such a large differential for 2001. Rather, we would expect the chain Fisher index measure of annual average GDP growth for 2001 to be 0.2 to 0.3 percentage points lower than the current measure. The inclusion of software as investment, however, is expected to provide some offset, with the net result that the Bank's projection of economic growth for this year is unlikely to be materially affected.

The historical revisions to Canada's measure of aggregate output that will result from these adjustments should have little effect on the overall profile of the Bank's estimated output gap, since changes in actual output will be broadly offset by corresponding changes in productivity and in potential output.

Chart 15

Percentage Distribution of Expected Price Increases Over the Next Six Months

Quarterly



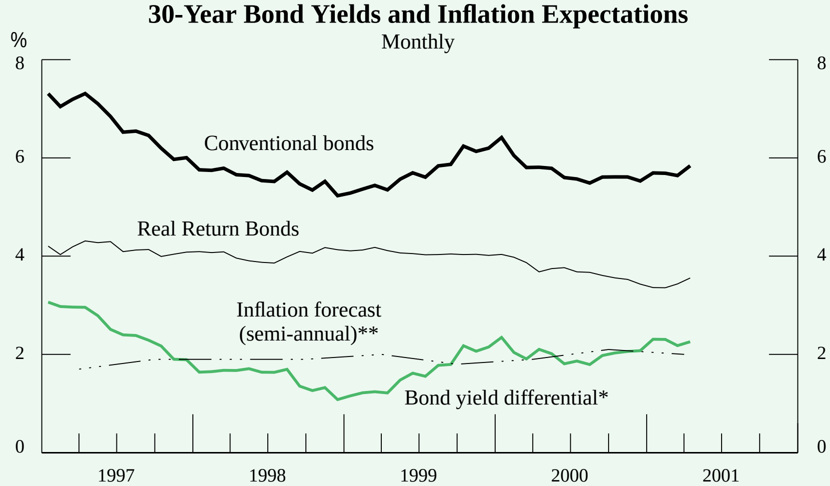
Source: Conference Board of Canada, *Index of Business Confidence*

The differential between conventional bonds and Real Return Bonds has widened to slightly above 2 per cent in recent months (Chart 16). The supply factors affecting government bond markets continue to make it difficult to extract precise information from this measure. Nevertheless, the differential does not suggest any marked change in long-run inflation expectations since the November *Report*.

Chart 16

30-Year Bond Yields and Inflation Expectations

Monthly



* The differential is calculated using the compound interest formula.
** Source: Consensus Economics Inc.

Other factors affecting inflation

The effect of past large increases in energy prices on core inflation should remain small.

The pass-through to the core CPI of the substantial increases in the prices of crude oil and natural gas over the past two years is expected to exert some upward pressure on inflation, although this effect is expected to be modest and spread over several years. To date, the price effects have been most evident in airfares and local transportation costs.

Movements in the prices of crude oil and natural gas will, however, continue to substantially affect the near-term outlook for energy prices at the consumer level and therefore for the total CPI. If crude oil prices remain below US$30 per barrel this year, gasoline and fuel oil prices are likely to fall below year-earlier levels during the second half of the year. On the other hand, both natural gas and electricity prices at the consumer level are expected to be much higher this year than in 2000.

The depreciation of the Canadian dollar since the beginning of last year is also a potential source of upward pressure on inflation over the next year and a half. It is unclear, however, how important this risk to inflation might be, since earlier episodes of large changes in the exchange rate during the 1990s were characterized by low exchange rate pass-through to the CPI in Canada and in many other industrial countries.

Despite slower output growth in some sectors, labour markets remain tight and profitability was very high at the end of last year, suggesting that wages will continue to grow at, or slightly above, current rates. Moreover, feedback from businesses contacted by the Bank's regional offices indicates that wage increases are expected to rise over the next 12 months. Productivity gains over the current period of economic slowdown may also be modest, implying that increases in unit labour costs are likely to stay relatively high in the first half of the year.

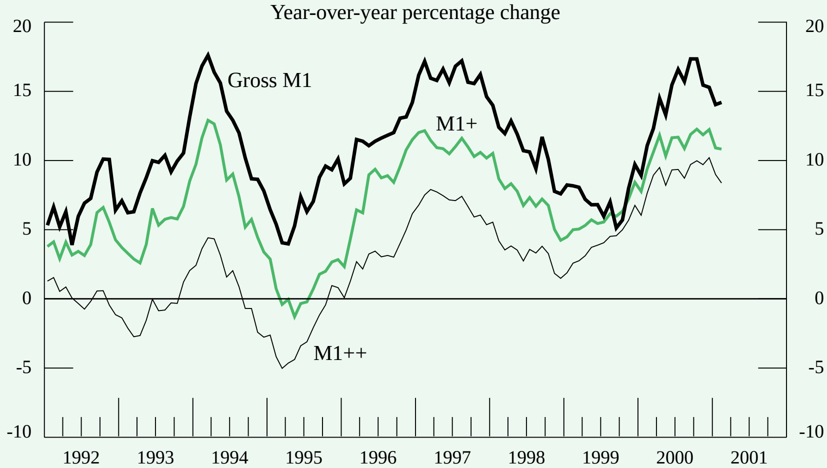
Projections from monetary aggregates

The money aggregates suggest a somewhat stronger outlook for output and inflation than the Bank's overall projection. Although there has been some slowdown in the narrow aggregates in recent months, growth remains strong (Chart 17). On a year-over-year basis, growth in gross M1 was about 14 per cent in February, while growth in M1+ and M1++ was 11 and 8 per cent, respectively. A number of special factors continue to raise the growth of M1 relative to that of transactions balances. Our current assessment of underlying growth is between 6 and 8 per cent.

Chart 17

Narrow Money Growth

Year-over-year percentage change

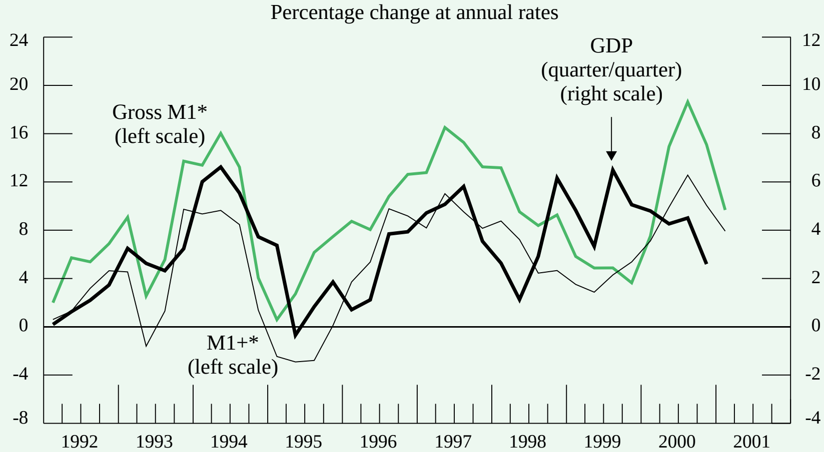


When judgment is applied to take into account various data distortions and the slowing in the U.S. economy, the indicator models based on narrow aggregates would suggest real GDP growth of about 3 per cent in 2001 (Chart 18).

Chart 18

Real GDP Growth and Growth of Real Gross M1 and M1+

Percentage change at annual rates



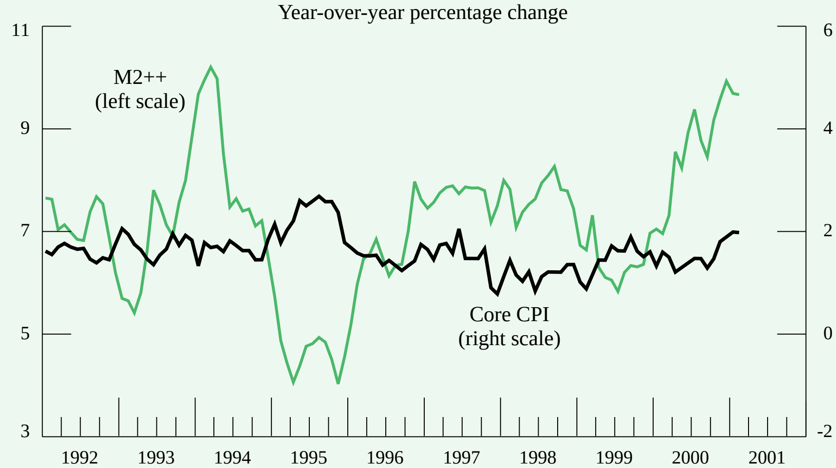
* Two-quarter moving average of growth in gross M1, M1+ (deflated by the core CPI), one quarter earlier

The model based on narrow money currently forecasts core inflation to rise above 2 per cent in 2001. Forecasts based on the broader aggregate M2++ give a similar profile. Growth in M2++

Chart 19

Core Inflation and Broad Money Growth

Year-over-year percentage change



has continued to be boosted by net contributions to mutual funds. Year-over-year growth in M2++ is about 10 per cent (Chart 19).

Inflation projection

The expected re-emergence of a modest degree of excess supply in the economy this year should contribute to some downward pressure on core inflation over the remainder of 2001. Two factors, however, are expected to limit the impact of excess supply on the core rate this year. First, longer-term inflation expectations are still very close to 2 per cent—about the same as the current level of core inflation. Second, wage increases are expected to remain steady, or possibly even edge up if current pressures in some sectors and professions become more widespread, while productivity growth may ease, thus putting upward pressure on unit labour costs.

Core inflation is expected to average slightly below 2 per cent over the remainder of 2001.

On balance, it seems likely that core inflation over the remainder of this year will average somewhat below 2 per cent. In 2002, with the economy projected to grow above potential, these pressures should reverse, with core inflation moving back to 2 per cent towards the end of the year.

The rate of increase in the total CPI, currently close to 3 per cent, is expected to move down to 2 per cent by the end of 2001, on the assumption that world energy prices remain close to current levels.

5. Conclusions

At this time, the key issue in the conduct of monetary policy in Canada is the extent of the current slowdown in the pace of economic activity stemming primarily from developments in the United States.

The slowdown in economic growth in Canada late last year and in the first half of 2001 has been greater than expected, and the automotive, electrical, and electronic manufacturing sectors in particular, have had to make significant adjustments. It remains the Bank's view that after a first-half slowdown, economic growth will pick up in the second half of the year and in 2002.

The latest economic and financial developments support this view. Recent data point to continued growth in overall activity. In addition, current developments are consistent with the view that weakness associated with inventory adjustment will be concentrated in the first half, that business investment in new technology will continue, and that the easing in monetary conditions will support growth.

Consistent with this projection for output growth, the Bank sees the development of some downward pressure on core inflation, which will likely average somewhat below 2 per cent over the remainder of this year. If recent large wage increases in some sectors and professions became more widespread, however, they could work to offset this tendency. The anticipated downward pressure on core inflation this year should reverse through 2002 as the economy expands at a rate above its growth potential.

The main risk to this outlook for the Canadian economy is the possibility that the U.S. slowdown could be more protracted than anticipated. For example, if consumer and business confidence in the United States does not improve, this could lead to weaker consumption and investment spending. The Bank will have to monitor developments in this area closely.

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