BANK OF CANADA

MONETARY POLICY REPORT

– April 2002 –

4911

This 1995 $200 gold coin, designed by artist John Mantha, celebrates the Canadian tradition of producing maple syrup. Canada's First Peoples taught the early colonists how to gather the sap from the sugar maple and boil it down to produce syrup and sugar. Sugaring off soon became a Canadian rite of spring, and the traditional family-operated sugar bush is still an important part of this unique agricultural industry.

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MONETARY POLICY REPORT

— April 2002 —

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

Over the past decade, Canada has made major economic strides. We now have a solid anchor for monetary policy, and inflation expectations are well grounded. . . . The inflation target and a floating exchange rate work well together—indeed, they reinforce each other. This approach has worked extraordinarily well for us. . . . And we expect that it will continue to provide the foundation for a prosperous future.

David Dodge

Governor, Bank of Canada
20 February 2002

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 output and employment.

The monetary policy instrument

- Announcements regarding the Bank's policy instrument—the target overnight interest rate—take place, under normal circumstances, on eight prespecified 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. The transmission mechanism is complex and involves long and variable lags—the impact on inflation from changes in policy rates is usually spread over six to eight quarters.

The target

- In February 1991, the federal government and the Bank of Canada jointly announced a series of targets for reducing total CPI inflation to the midpoint of a range of 1 to 3 per cent by the end of 1995. That inflation-control target range was extended a number of times, most recently in May 2001. In this last case, the extension was to the end of 2006. Monetary policy will continue to aim at keeping future inflation at the 2 per cent target midpoint of the range, both to maximize the likelihood that inflation stays within the target range and to increase the predictability of inflation over the longer term (Crawford 2001).

Monitoring inflation

- In the short run, a good deal of movement in the CPI is caused by transitory fluctuations in the prices of such volatile components as fruit and gasoline, as well as by changes in indirect taxes. For this reason, the Bank focuses on a *core* measure of CPI inflation that excludes the eight most volatile components of the CPI and adjusts the remaining components to remove the effect of changes in indirect taxes. Core inflation also tends to be a better predictor of future changes in the total CPI than does the recent history of CPI inflation (Macklem 2001).

1. INTRODUCTION

At the time of last November's *Monetary Policy Report*, two issues dominated the analysis: the global economic slowdown and the fallout from the September terrorist attacks. The Bank's January 2002 *Update* described geopolitical developments as having evolved positively and consumer confidence as having improved. The most likely outlook projected for the Canadian economy in the *Update* was modest growth in the first half of the year, followed by a significant pickup in the pace of activity as the year progressed. The downside risk of sluggish growth persisting throughout 2002 was countered on the upside by the possibility of robust growth early in the year if confidence levels were restored quickly.

Recent information indicates that the recovery in the Canadian economy began sooner and has been considerably stronger than anticipated in January. With confidence returning quickly, stimulus from both monetary and fiscal policy has led to strong growth in consumption expenditures and new residential construction. Canadian exports have also been stronger than anticipated, as a result of greater-than-expected growth in the United States. The growth in final sales in the fourth quarter of last year was met largely out of inventories, a situation that is underpinning production in early 2002.

With stronger aggregate demand growth in the fourth quarter of last year and in the first quarter of 2002, levels of activity are higher than anticipated, implying that the economy is operating with less excess supply than was previously expected. Core inflation in early 2002 is also somewhat above our earlier projections.

While a strong economic recovery appears underway, there are still uncertainties in the outlook, most notably how quickly and strongly business fixed investment will rebound, and how political developments in the Middle East may affect crude oil prices and the global economy.

The challenge for monetary policy over the remainder of this year and through 2003 is to help the economy move back to, and then sustain, levels of production at capacity by taking actions aimed at achieving the Bank's 2 per cent target for inflation control. This means reducing, in a timely and measured manner, the substantial amount of monetary stimulus now in place.

This report includes information received up to the fixed announcement date on 16 April 2002.

2. Recent Developments in Inflation

Since last autumn, core CPI inflation has, on average, been close to the 2 per cent target midpoint of the Bank's 1 to 3 per cent inflation-control range. The rate of increase in the total CPI has fallen sharply to below 2 per cent, reflecting the marked declines in world energy prices over the past year.

Inflation and the target range

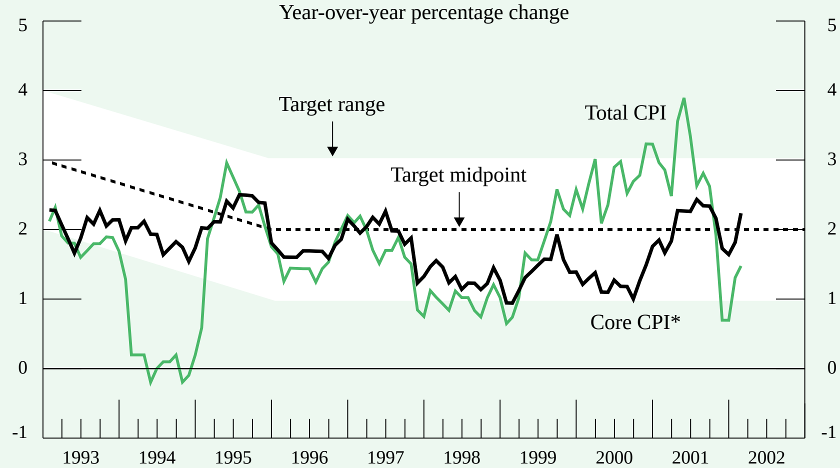
Since last autumn, core inflation has, on average, been close to the 2 per cent midpoint of the Bank's target range . . .

Core inflation, which had hovered around 2.3 per cent from the spring to the autumn of 2001, decreased to around 1.7 per cent, on average, over the November-January period, before rising back to 2.2 per cent in February (Chart 1).[1] Other measures of the trend rate of inflation were lower than or equal to the core rate (Chart 2).

Chart 1

Consumer Price Index

Year-over-year percentage change



* CPI excluding the eight most volatile components and the effect of changes in indirect taxes on the remaining components

The February level of core inflation, at 2.2 per cent, was somewhat higher than expected. Part of this surprise reflected a change in the timing of certain seasonal price increases (for such items as

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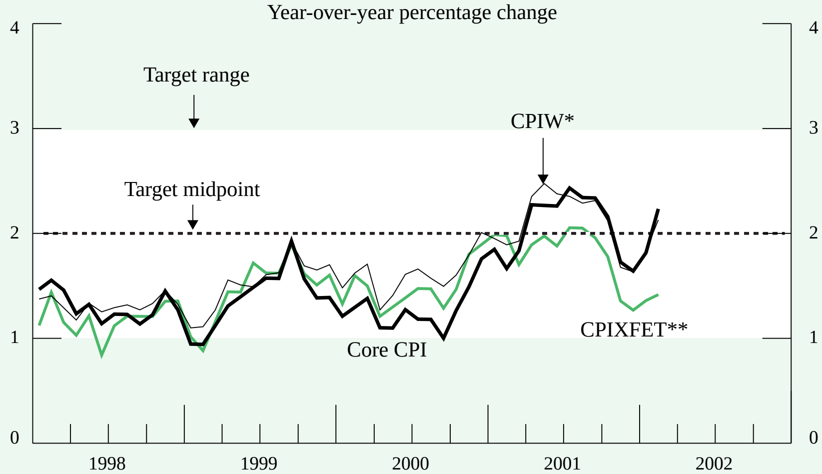
1. The core measure of CPI inflation that the Bank has been using since May 2001 excludes the eight most volatile components of the CPI and adjusts the remaining components to remove the effect of changes in indirect taxes. The eight most volatile components are fruit, vegetables, gasoline, fuel oil, natural gas, intercity transportation, tobacco, and mortgage-interest costs.

Chart 2

Core CPI and Statistical Measures of the Trend Inflation Rate

Year-over-year percentage change



* CPIW adjusts each CPI basket weight by a factor that is inversely proportional to the component's variability.

** CPIXFET excludes food, energy, and the effect of changes in indirect taxes.

clothing and footwear and certain travel-related services) and is therefore expected to reverse soon.[2] Another factor was the effect on food prices of the depreciation of the Canadian dollar over the past two years. With the economy still estimated to be in a position of modest excess supply, core inflation is expected to decline in coming months to just below 2 per cent.

. . . while the rate of increase in the total CPI has fallen sharply.

The 12-month rate of increase in the total CPI was 1.5 per cent in February, down markedly from 2.6 per cent in September. This drop stemmed mainly from the sizable decline in the prices of oil and natural gas from the high levels of a year ago.

The prices of non-energy commodities, after declining markedly in the second half of 2001 because of weaker global demand, have begun to pick up (Chart 3). Buoyant demand contributed to substantial gains in lumber and cattle prices,[3] while production cutbacks and indications of recovering world demand have led to improved prices for base metals.

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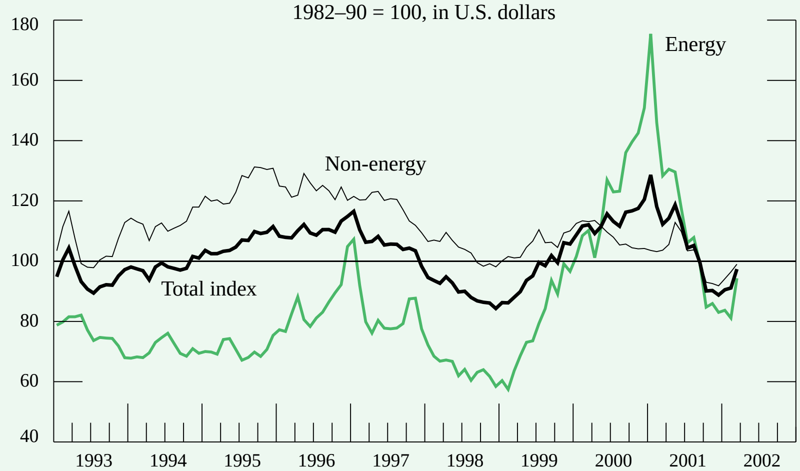
2. An additional, though expected, factor behind the temporary rise in the core rate in February was the unusually low electricity prices of a year ago. These were the result of a temporary provincial government credit program for customers in British Columbia, which had a downward impact on electricity prices in February and March of 2001.

3. Also contributing to upward pressure on lumber prices were production cutbacks resulting from the imposition of duties on exports of softwood lumber to the United States.

Chart 3

Bank of Canada Commodity Price Index

1982–90 = 100, in U.S. dollars



Factors at work on inflation

Aggregate demand

An economic recovery is underway in both the United States and Canada.

During the last quarter of 2001 and the first quarter of 2002, Canada's economy expanded at a considerably brisker pace than was projected in the November *Report*. As a result, the Bank's current estimate of the output gap in the first quarter of 2002 is smaller than had been anticipated.

Following a contraction in the third quarter, U.S. economic activity picked up in the final quarter of 2001 (Chart 4). Towards year-end, U.S. household spending strengthened significantly in response to low interest rates, strong financial incentives on motor vehicle purchases, and a recovery in consumer confidence. At the same time, government spending grew robustly, supported by an acceleration in the pace of military spending. These developments were partly offset by a further decline in business investment and by firms continuing to liquidate inventories rapidly.

Household spending in Canada has strengthened considerably since last autumn . . .

Canada's real GDP, after falling slightly in the third quarter, grew at a 2 per cent annualized rate in the fourth quarter of 2001—in marked contrast to the projection of no change at the time of the last *Report* and in the January 2002 *Update* (Chart 5). The substantial amount of monetary stimulus that has been provided and recent government measures to improve national security have contributed to a restoration of consumer confidence and a strong increase in household spending on goods and services

Chart 4

Real Gross Domestic Product for the United States

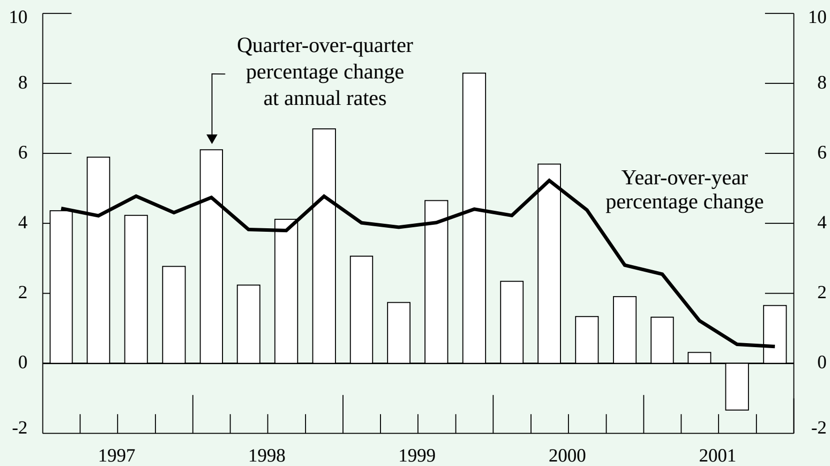
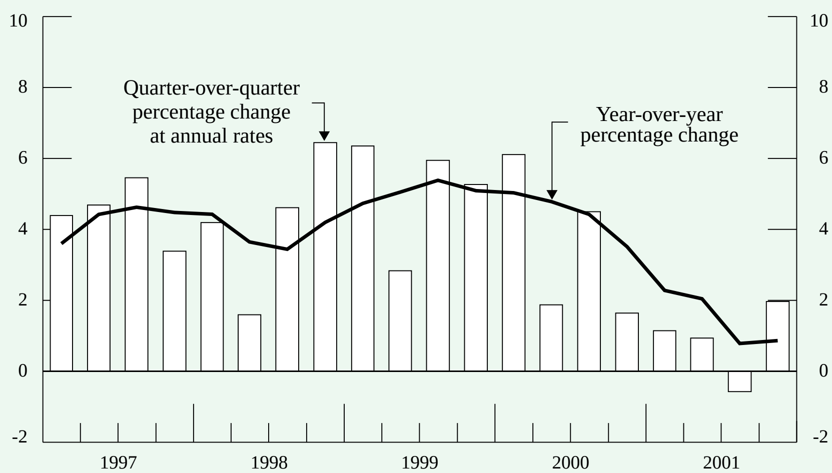


Chart 5

Gross Domestic Product in Constant Dollars for Canada



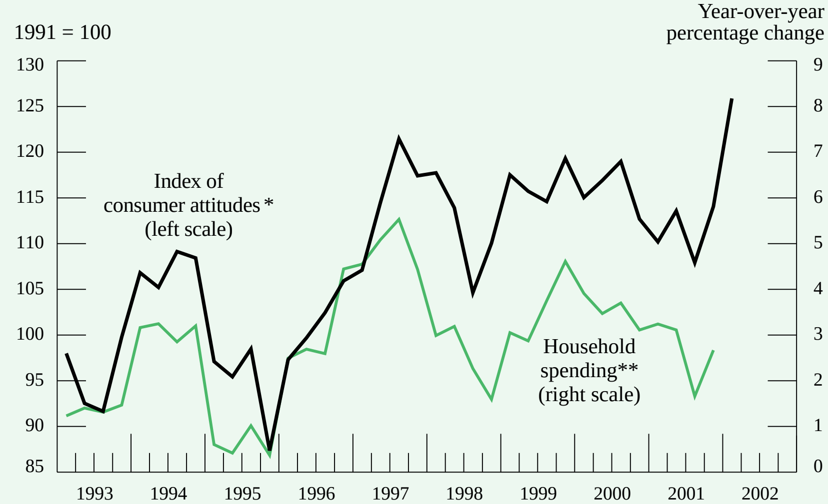
and on new housing since last September's tragic events (Chart 6). Marked gains in real incomes, partly reflecting earlier tax cuts, as well as special financing incentives for motor vehicle purchases, have also boosted household spending.

Moreover, the significant inventory correction in the fourth quarter and the recent resumption of growth in export volumes as a result of renewed economic expansion in the United States point to a recovery that is well underway (Technical Box 1). Together with strong employment gains in the first quarter of 2002, this suggests that Canadian real GDP growth in the first quarter will be

. . . with the recent inventory correction and renewed export growth pointing to continued economic expansion.

Chart 6

Consumer Confidence



* Source: Conference Board of Canada, *Index of Consumer Attitudes* (last data point 2002Q1)
** Expenditures in constant dollars on consumer goods and services plus housing

about 4 1/2 per cent, much stronger than anticipated at the time of the January *Update*.

Estimated pressures on capacity

The Canadian economy was in a position of excess supply going into 2002 . . .

Most indicators confirm that the Canadian economy moved into a position of excess supply during 2001. The marked slowdown in real GDP growth last year was reflected in a rise in the unemployment rate as well as in a substantial drop in the length of the work week. Statistics Canada's measured rate of capacity utilization in the non-farm, goods-producing sector in the fourth quarter of 2001 was well below normal levels. This lack of pressure on capacity, including pressure from labour shortages, was also confirmed by the Bank's most recent survey of firms.

The Bank's current estimate of its conventional measures of potential output and the output gap suggests that the amount of economic slack increased in the fourth quarter of 2001 to about 1 per cent of potential output.[4] It is the Bank's judgment, after considering all the indicators, that the economy was in a position of somewhat greater excess supply than the conventional estimate would suggest.

4. Such estimates are subject to a wide range of uncertainty, as shown by the confidence intervals in Chart 7.

Technical Box 1

The Current Economic Cycle in Canada

Cuts in business spending on fixed capital and inventories were a significant factor in Canada's recent economic slowdown. Expected changes in these spending categories should contribute importantly to the renewed growth in the economy over the near term.

In the rapid expansion that followed the Asian crisis and preceded the recent slowdown, final demand from both domestic and external sources grew strongly. This demand was met by substantial increases in both domestic production and imports. Firms invested heavily in fixed capital at that time, but allowed inventories to fall in relation to sales.

The slowing in economic growth in Canada since the third quarter of 2000 stemmed, to a considerable extent, from the marked easing in demand growth in the U.S. economy, reflecting the close trade linkages between the two countries. The resulting increase in excess capacity and in inventory levels in relation to sales subsequently led firms to cut investment in both inventories and fixed capital—particularly machinery and equipment. Not only was the pace of expansion of Canada's production scaled back over this period, but Canada's demand for foreign products was also curtailed sharply.

These cuts in business spending, while a substantial drag on Canada's economic growth towards the end of 2001, helped to set the stage for a robust pace of expansion. With the recent recovery in U.S. demand for Canadian products and strong growth in household spending in Canada, inventory imbalances are being rapidly corrected. Firms are thus expected to reduce their stocks at a slower pace in the first half of 2002, and this in itself will constitute a significant stimulus to the growth of production over the near term. Reductions in business investment are also likely to be smaller in the first half of 2002, partly reflecting expectations that the amount of excess capacity is beginning to decrease. Cutbacks in capital spending should therefore exert a smaller drag on Canada's economic growth during this period than in the last quarter of 2001.

Contribution to Real GDP Growth in Canada
(Percentage points)

Contributing factor[a]:	Average 1998Q3–2000Q3	Average 2000Q4–2001Q3	2001Q4	Average 2000Q4–2001Q4	2002Q1 (estimate)
Consumption	2.0	0.8	2.4	1.2	2.3
Housing	0.2	0.2	0.9	0.3	1.0
Business fixed investment	0.9	0.2	-3.3	-0.5	-1.2
Government	0.6	0.6	0.7	0.6	1.0
Exports	3.7	-2.4	-0.8	-2.2	3.3
Imports	-2.7	2.7	6.0	3.4	-2.5
Inventory investment	0.2	-1.3	-3.8	-1.8	0.6
Real GDP growth %	4.9	0.8	2.0	1.0	4.5

a. The numbers in the table reflect the percentage-point contribution of the item indicated in the row to the growth rate of real GDP for the period indicated in the column heading. The sum down the columns should equal the growth rate shown at the bottom, subject to a rounding error. Note that an increase in imports constitutes a negative contribution to aggregate growth.

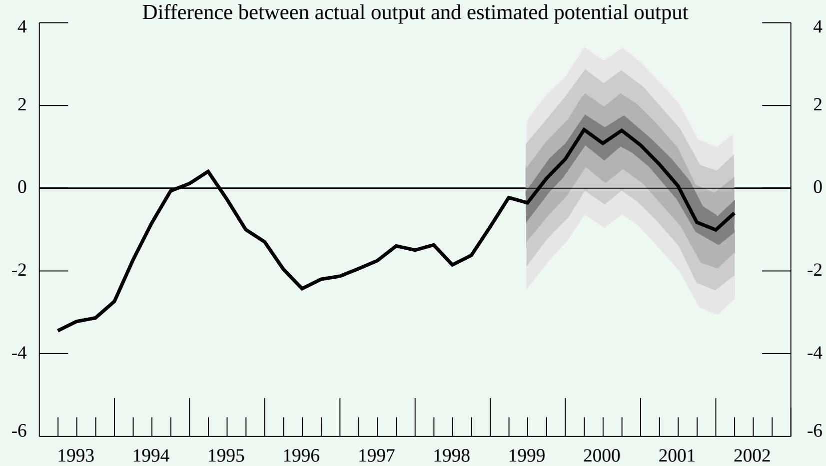
. . . but the amount of slack has begun to diminish.

In the first quarter of 2002, with economic growth now estimated to be above the economy's potential growth rate, the amount of slack diminished somewhat (Chart 7). This contrasts with earlier projections of a further increase in excess supply in the first half of 2002.

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: The estimate for the first quarter of 2002 is based on a projected rise in output of 4.5 per cent (at annual rates) for the quarter.

Cost control

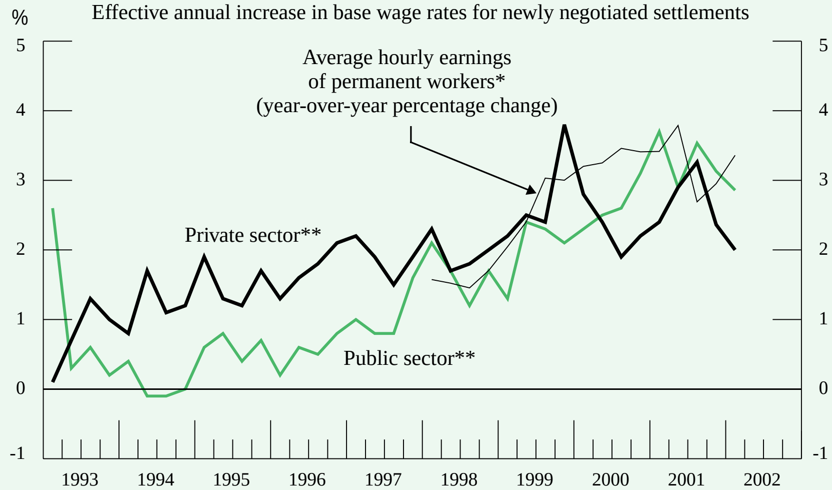
The rise in both labour productivity and unit labour costs was 2 per cent at year-end.

The underlying rate of increase in average labour compensation has been in the 3.5 to 4 per cent range recently, based on both the average hourly earnings of permanent workers and labour compensation per person-hour in the business sector (Charts 8 and 9). On a year-over-year basis, labour-productivity growth in the business sector increased to 2 per cent in the final quarter of 2001, as hours worked adjusted markedly to the slowdown in economic growth. As a result, the year-over-year increase in unit labour costs in the business sector was 2 per cent at the end of 2001 (Chart 9). Year-over-year growth in labour productivity is expected to remain near 2 per cent in the first quarter of 2002.

Chart 8

Wage Settlements and Average Hourly Earnings

Effective annual increase in base wage rates for newly negotiated settlements

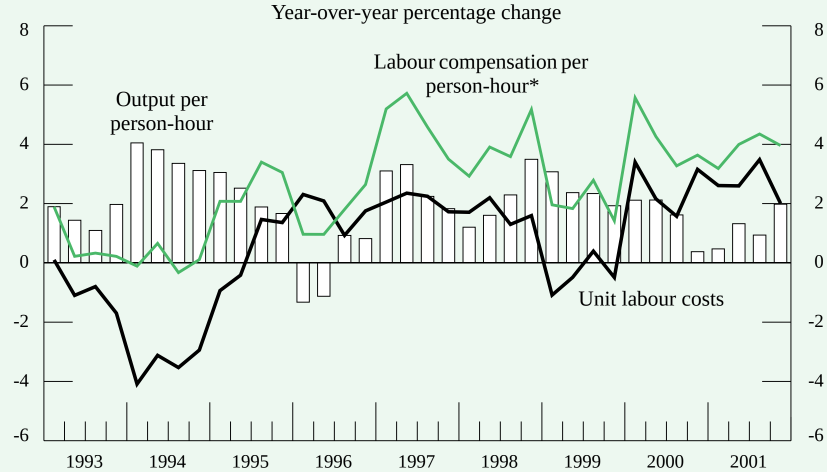


* Source: *Labour Force Information*, last data point plotted = March 2002
** Source: Human Resources Development Canada, last data point plotted = February 2002

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

Developments in the target for the overnight rate since the November *Report*:

27 November—down 50 basis points to 2.25 per cent

15 January—down 25 basis points to 2.00 per cent

5 March—no change

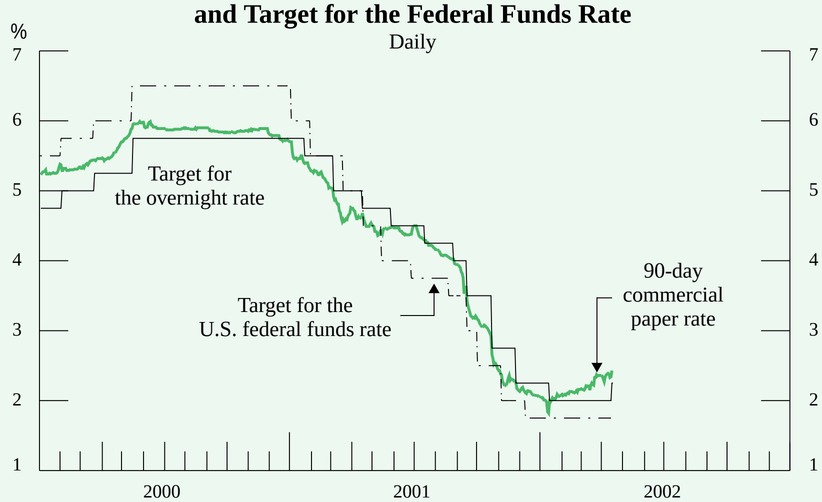
16 April—up 25 basis points to 2.25 per cent

The Bank of Canada reduced the target for the overnight rate by 50 basis points on 27 November 2001 and by 25 basis points on 15 January 2002, bringing the cumulative reduction since January 2001 to 375 basis points (Chart 10). These policy actions came in response to weak current and expected domestic activity and the consequent downward pressures on future inflation.

Chart 10

90-Day Commercial Paper Rate, Target for the Overnight Rate, and Target for the Federal Funds Rate

Daily



Financial markets have broadly anticipated recent central bank policy decisions.

On 5 March, the Bank held the target for the overnight rate at 2.0 per cent, a decision consistent with the release of data indicating that economic conditions in Canada were improving.

On 16 April, the Bank raised the target to 2.25 per cent, modestly reducing the amount of monetary stimulus in the economy, in the light of information that a robust recovery appears to be underway.

These policy decisions had been broadly anticipated by financial markets.

In the United States, the Federal Reserve lowered its target for the federal funds rate by 50 basis points on 6 November 2001 and by 25 basis points on 11 December 2001, bringing the total reduction since January 2001 to 475 basis points. On 30 January 2002 and 19 March, the Federal Reserve decided to leave the target rate unchanged at 1.75 per cent. At its 19 March meeting, the Fed also altered its assessment of the risks to the outlook, stating that they were now balanced with respect to the prospects of price stability and sustainable economic growth.

Financial markets are now pricing in a rise in short-term interest rates.

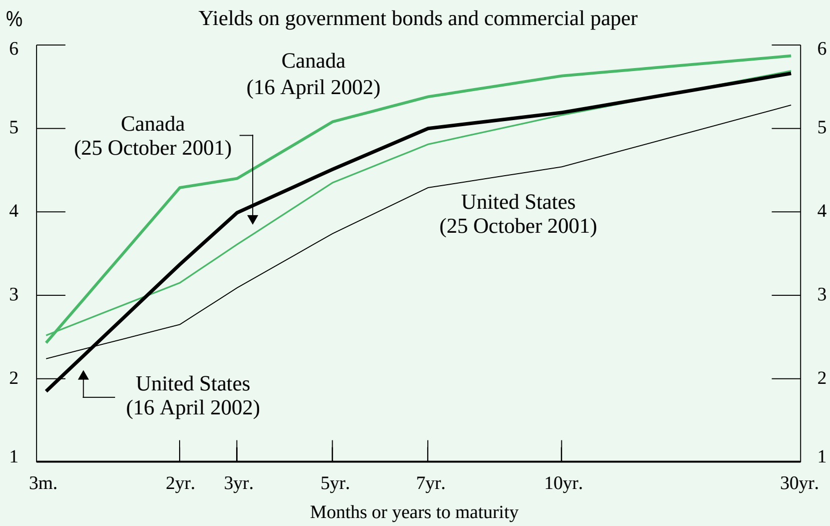
Yield curves in Canada and the United States have shifted upwards compared with last October (Chart 11). With economic activity firming, current levels of futures contracts indicate that financial market participants expect the Federal Reserve and the Bank to raise their respective target rates in coming months. Since the long-term rate reflects the average of expected future short-term rates, the current slope of the yield curve, with the short-term rate well below the long-term rate, also incorporates an expectation of rising short-term rates. Shifts in the slope of the yield curve since 1999 have largely reflected the upward and downward movements in short-term rates, since long-term rates have been much more stable than in the past, largely owing to well-anchored inflation expectations (Technical Box 2).

Long-term rates have been relatively stable because of well-anchored inflation expectations.

Chart 11

Term Structure of Interest Rates in Canada and the United States

Yields on government bonds and commercial paper



Technical Box 2

Long-Term Interest Rate Volatility and Inflation Expectations

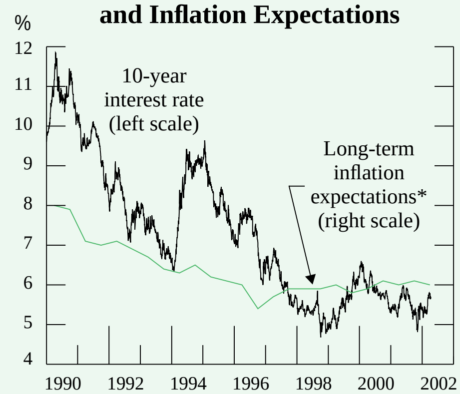
In recent years, the interest rate on long-term government bonds in Canada has shown relatively little sensitivity to variations in short-term interest rates. Despite substantial changes to the target for the overnight rate since the middle of 1997, long-term interest rates have been relatively steady, in a range of about 2 percentage points. This is a sharp contrast to the situation that prevailed in the early 1990s, when short- and long-term rates were more closely linked.

The decline in the volatility of long-term rates is partly attributable to the stability of long-term inflation expectations.[1] A comparison of expectations of long-term inflation in recent years with those of the first half of the 1990s reveals that they are now far more stable. Expectations regarding long-term inflation gradually adjusted to the inflation-targeting regime adopted in February 1991, and they are now solidly anchored at the 2 per cent target. This partly reflects the credibility of the Bank of Canada's commitment to ensuring that inflation is low, stable, and predictable.

From a macroeconomic perspective, the declining volatility in long-term interest rates in Canada has many benefits.[2] It reduces uncertainty, simplifies long-term financial planning, and facilitates investment by households and businesses.

Short- and Long-Term Interest Rates

Long-Term Interest Rate and Inflation Expectations



* Source: Consensus Economics Inc.

1. Canada's improved fiscal situation has also contributed to stability in long-term interest rates.
2. This issue is examined in Stuber (2001).

Exchange rate and monetary conditions

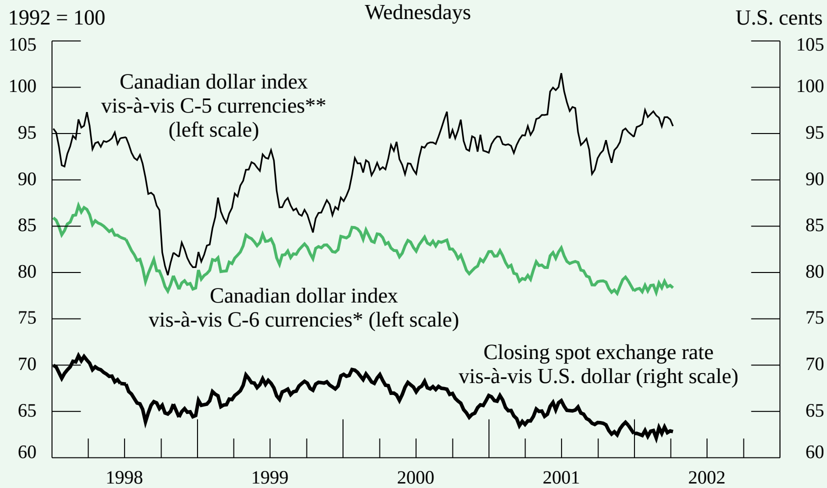
On a trade-weighted basis, the Canadian dollar is broadly unchanged since last November. Through late December and January, the Canadian dollar depreciated against the U.S. dollar, and it has been relatively stable since then. It has appreciated against other currencies over the period (Chart 12).

Since November 2001, the Bank's monetary conditions index has fluctuated in a range between -11.38 and -10.30. The index is currently at a level similar to that of last November (Chart 13).

Chart 12

Canadian Dollar Exchange Rate

Wednesdays

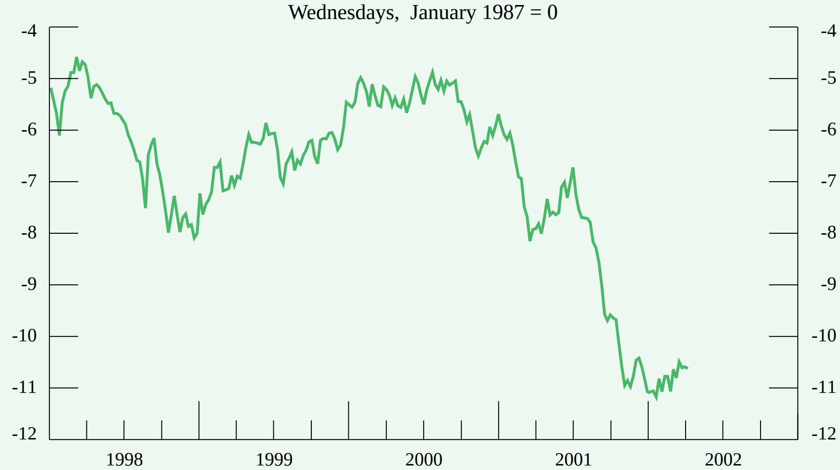


* C-6 currencies: U.S. dollar, euro, yen, U.K. pound, Swedish krona, and Swiss franc
** C-5 currencies: excludes U.S. dollar

Chart 13

Monetary Conditions Index

Wednesdays, January 1987 = 0



Other financial developments

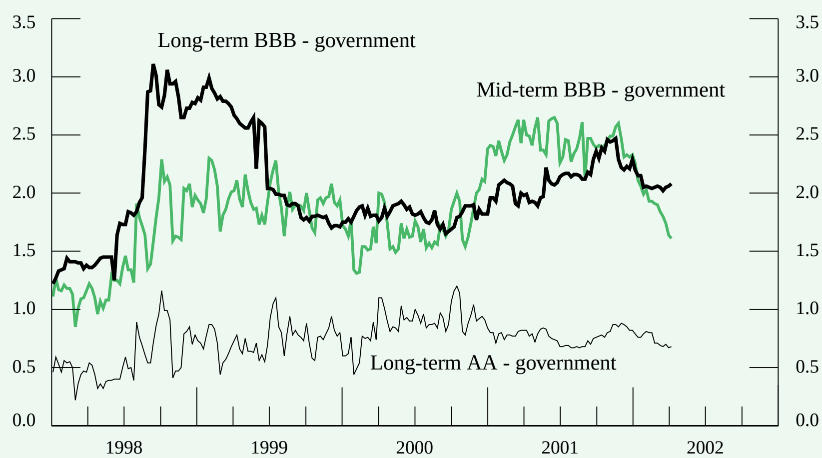
Other financial developments are consistent with signs of economic recovery.

Overall, business-credit conditions have improved since last autumn.

Overall, business-credit conditions have become more favourable since last autumn despite some adverse financial developments, including high-profile corporate bankruptcies in North America. In the bond market, this improvement has been reflected in a decline in the spreads between interest rates on corporate bonds and those on government bonds from their peaks in November (Chart 14). Conditions in Canadian markets for commercial paper remain relatively stable, while banks have become somewhat more cautious since last November in their lending practices with riskier borrowers.

Chart 14

Yield on Corporate Bonds Minus Yield on Government Bonds



The Toronto Stock Exchange, which posted a sizable decline after 11 September, is now about 20 per cent higher than the trough recorded last September. These gains reflect less uncertainty and brighter expectations for the economy among investors.

Business credit growth has been slow . . .

Growth of business credit has slowed further since the last *Report* (Chart 15), with short-term business credit, especially bank loans, down over the period. Bonds and, to a lesser extent, equities have been the main sources of new business financing. Slow growth in business borrowing is consistent with reduced financing needs for inventory and other business investment, as well as with firms paying down their short-term debts. It is also consistent with tighter conditions on bank lending, as would be expected at this point in the business cycle.

Chart 15

Business and Household Credit

Year-over-year percentage change

In contrast, growth in household credit has been robust and higher than growth in personal disposable income. This reflects the strength in household spending, most notably on housing and consumer durables. As a result, continued borrowing has led to a further rise in the ratio of household debt to personal income, although at a slower pace than in the past. Furthermore, this rise has been largely matched by increases in assets, and with the current low level of interest rates, the share of personal income allotted to debt service is well below historical averages.

. . . while growth in household sector credit has been relatively robust.

4. The Outlook for Inflation

International background

The U.S. economy has rebounded faster than had been expected last autumn.

In the United States, economic conditions are improving at a significantly faster pace than was expected in the November *Report*. Several developments suggest that a recovery is underway. Spending on information technology has stabilized after about a year of decline, and production is recovering, aided by the near completion of the inventory correction. Overall, consumption spending and housing investment have been robust, supported by significant amounts of fiscal and monetary stimulus (Technical Box 3).

U.S. real GDP growth in the first half of this year is thus expected to average about 4 per cent, which is significantly stronger than projected in the November *Report*. Given the strength in consumption, housing, and inventory investment early in the year, GDP growth in the second half of 2002 is likely to slow to about 3 1/4 per cent.

On an annual average basis in 2002, U.S. economic growth would thus be about 2 1/2 per cent, compared with the projection of 1 per cent in the November *Report*. In 2003, economic growth is expected to average about 3 1/2 per cent.

Prospects for economic expansion have also strengthened in other industrialized countries.

Prospects for economic expansion have also strengthened in other industrialized countries. In Europe, production indicators point to a turnaround in economic activity, supported by the earlier easing in monetary conditions and the strengthening U.S. economy. Growth in the major European economies is expected to be close to 1 1/4 per cent on an average annual basis in 2002, and to rise to about 3 per cent in 2003, as activity gathers momentum. In Japan, ongoing structural difficulties could lead to a further economic contraction in 2002 of about 1 1/2 per cent. However, economic activity in Japan could pick up modestly by about 1 per cent in 2003, aided by the U.S. recovery and easier monetary conditions.

Growth prospects for emerging-market economies should improve as global demand picks up. Indeed, a recovery appears to have already started in the Southeast Asian countries. In addition, the impact of the Argentine default on other emerging-market economies has been limited.

Prices for non-energy commodities are projected to increase further.

The projected recovery in world economic growth should contribute to substantial increases in the U.S.-dollar price of non-energy commodities through the next two years. This strengthening demand is expected to underpin the prices of crude oil and

Technical Box 3

The Current Economic Cycle in the United States

By the standards of the past 25 years, the most recent recession in the United States was quite mild. The slowdown was so moderate that there has been some debate among economists as to whether it qualifies as a recession.[1]

The U.S. recession in 2001 bore some similarities to past recessions, but there were also marked differences. Rapid growth in the late 1990s and 2000 and a testing of capacity limits led the Federal Reserve to increase interest rates to counter potential inflationary pressures and put the economy on a more sustainable growth path. In addition, rising oil prices were a drag on economic activity. These factors, in conjunction with the bursting of the information technology bubble and lower equity prices, led to a sharp reduction in investment and a substantial inventory correction. While the retrenchment of investment and inventories in this recession was typical of past experience, the driving factors were somewhat different.

The latest U.S. recession was the mildest on record. One important reason for this was the Federal Reserve's response in an environment of relatively low and stable inflation. In the past, when inflation was high, the Fed generally waited for clear signs that inflation pressures were abating before lowering interest rates. This time, the Fed began lowering its policy rate as signs of the slowdown emerged, and reduced its target rate more rapidly than usual throughout its duration. With inflation expectations well anchored, bond markets priced in a slowdown well before the Federal Reserve began lowering its policy rate.

The decline in long-term interest rates led to a significant decrease in mortgage rates. Home sales remained strong through 2001, and house prices continued to rise. This allowed households to refinance and increase their mortgages at lower rates. The strength of housing prices also mitigated the impact of the sharp fall in equity prices on household wealth.

Households relied on lower mortgage payments and home-equity loans to maintain their consumption expenditures. A further boost to consumption came from fiscal stimulus and from aggressive sales incentives in the auto sector. These developments contributed to remarkably resilient household consumption—consumer spending actually rose throughout this recession, in sharp contrast to previous recessions.

Owing to the strength of consumption, real output declined only marginally despite the rapid and pronounced reduction in investment and the sharp inventory correction. Hours worked, on the other hand, declined in line with historical experience. As a result, productivity increased throughout the recession, although at a slower pace than in the late 1990s. This is perhaps the most striking aspect of this recession, since productivity growth fell sharply in past recessions.

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1. The National Bureau of Economic Research (NBER), which is the arbiter of business cycles in the United States, declared that a recession began in March 2001. The NBER defines a recession as "a significant decline in activity spread across the economy, lasting more than a few months, visible in industrial production, employment, real income, and wholesale-retail sales."

natural gas over the remainder of this year. Additional uncertainty about the path of energy prices over the near term has resulted from recent political developments in the Middle East.

Aggregate demand and supply in Canada

The Canadian economy is likely to record solid growth this year and in 2003.

In Canada, economic growth in the first half of 2002 is expected to average between 3 1/2 and 4 1/2 per cent on an annualized basis, markedly higher than was projected in the last *Report* and the last *Update*. Growth in household expenditures, especially on housing and related durable goods such as furniture and appliances, will continue to contribute to economic expansion. Exports are expected to recover substantially in light of the anticipated growth of the U.S. economy. A slowing in the pace of inventory liquidation should also support real GDP growth over this period (Technical Box 1). Reductions in business investment in the first half are also likely to be smaller than in the last quarter of 2001, given that the amount of excess capacity is projected to decrease.

With further strong expansion of the U.S. economy projected for the second half of 2002 and through 2003, robust growth in the demand for Canadian exports should continue. As well, the combination of the earlier easing in domestic monetary conditions and past initiatives to cut taxes and enhance national security should continue to support household spending. These developments have contributed to a recovery in business confidence and should prompt a pickup in business investment. Capital expenditures in the oil and gas sector should also start to recover, owing to the recent pickup in the prices of oil and natural gas.

Real GDP in the second half of 2002 is projected to grow between 3 and 4 per cent, above the economy's growth potential of about 3 per cent. This would produce annual average growth for 2002 of 2 1/4 to 3 1/4 per cent, almost 2 percentage points higher than projected in January. For 2003, growth on an annual average basis is expected to be between 3 and 4 per cent.

Excess supply is expected to be eliminated in the second half of 2003.

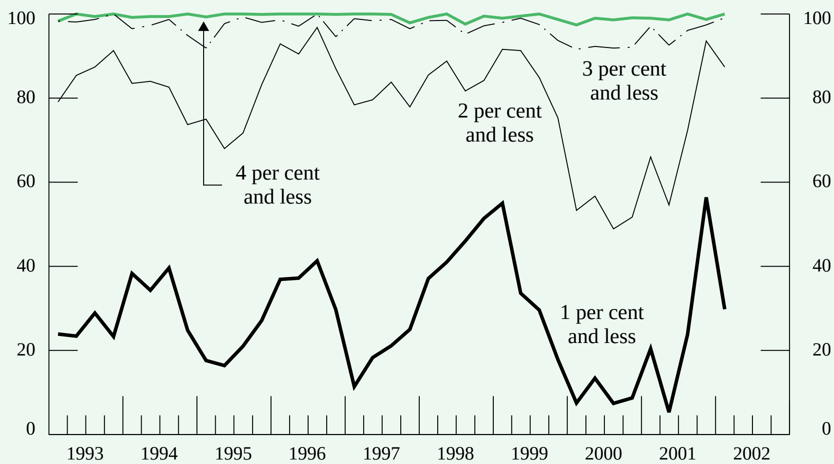
Indeed, the Bank's outlook for growth through 2002 and 2003, combined with the unexpected strength of real GDP at the end of last year, implies that the amount of economic slack should be absorbed faster than was anticipated at the time of the last *Report*. The amount of excess supply is therefore expected to decrease through 2002 and to be eliminated in the second half of 2003.

These projections for growth in 2002 and 2003 are broadly in line with the latest private sector forecasts.

Chart 16

Percentage Distribution of Expected Price Increases Over the Next Six Months

Quarterly



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

Measures of inflation expectations

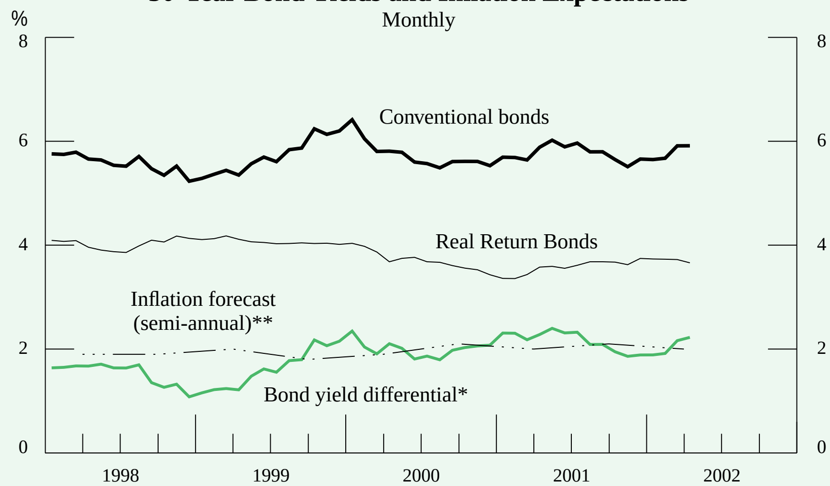
Longer-term inflation expectations remain very close to 2 per cent.

In the regular survey reported in the Conference Board of Canada's spring *Index of Business Confidence*, 30 per cent of respondents expected prices, in general, to rise over the next six months at an annual rate of 1 per cent or less, and 87 per cent expected a rate of 2 per cent or less (Chart 16). Indeed, the average private sector forecast for the rate of increase in the total CPI is now 1.4 per cent in 2002 (markedly lower than last autumn). In both cases, short-term expectations for the rise in the total CPI are being influenced by recent reductions in energy prices at the consumer level. Inflation expectations over a two-year horizon, however, continue to be firmly anchored well inside the Bank's inflation-control target range. This has been confirmed by the latest survey of firms conducted by the Bank's regional offices and by the average private sector forecast for total CPI inflation for 2003 (currently at 2.0 per cent). Typical forecasts of longer-term inflation are also clustered around 2 per cent. As well, the differential between 30-year conventional and Real Return bonds is now just above 2 per cent (Chart 17).

Chart 17

30-Year Bond Yields and Inflation Expectations

Monthly



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

Other factors affecting inflation

In addition to the factors discussed above, higher import costs arising from the depreciation of the Canadian dollar over the past two years may continue to put some modest upward pressure on prices through 2003. The effects of higher insurance and other security costs following the 11 September terrorist attacks may be another source of modest upward pressure on prices over the next two years.

Given current and anticipated conditions in labour markets, wage gains are expected to hold relatively steady over the next two years. The Bank's latest survey of firms is consistent with this outlook. With productivity growth expected to remain around 2 per cent, growth in unit labour costs should be little changed through 2003.

Implications of money growth for inflation

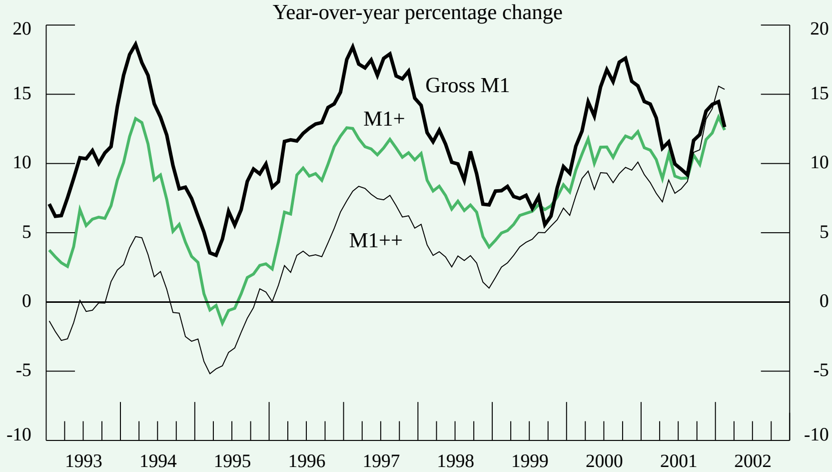
The growth of narrow money has remained strong, but signs of slowing have emerged.

The growth rates of the three narrow money aggregates, M1, M1+, and M1++, have trended up since the November *Report* (Chart 18), but eased off somewhat in February. This increase has been relatively widespread across households, businesses, and account types. Strong money growth over this period is largely due to the easing in monetary conditions. Low rates of return on

Chart 18

Narrow Money Growth

Year-over-year percentage change



other assets, such as term deposits and GICs, have reduced the opportunity cost of holding liquid balances and have therefore contributed to very strong growth in the narrow money aggregates. Also contributing to strong year-over-year growth rates in narrow money are the high precautionary balances accumulated last autumn in the face of uncertainty about future income and stock market returns. With uncertainty diminishing, there are early signs that businesses and, to a lesser extent, households have begun to unwind these balances. To the extent that they are used in the future to purchase financial assets rather than goods and services, they are not an indication of immediate inflation pressure.

Inflation forecasts based on money growth are more uncertain than usual . . .

The difficulties of distinguishing between the effects of lower interest rates and an increased appetite for liquidity have significantly increased the uncertainty surrounding forecasts of output and inflation based on the narrow money aggregates. As uncertainty dissipates and rates of return on other assets recover, growth of the narrow money aggregates will likely decline further. The possibility that more of the liquid balances than expected will be spent on goods and services, rather than reinvested in savings instruments, represents an upside risk to inflation.

. . . but growth of broader aggregates remains consistent with inflation of around 2 per cent.

Growth in M2++ has been much slower and more stable than growth in the narrow aggregates since the last *Report* (Chart 19). This is consistent with the portfolio shifts mentioned earlier, since the strong growth that was seen in the transactions components of M2++ has been offset by declines in savings instruments such as term deposits and Canada Savings Bonds. Broad money is

Chart 19

Core Inflation and Broad Money Growth

Year-over-year percentage change

currently growing at a rate that is roughly consistent with inflation of 2 per cent.

Inflation projection

With some excess supply in the economy, core inflation is expected to average just under 2 per cent in the second half of 2002 and the first half of 2003.

With the economy expected to remain in a position of modest excess supply through 2002, some downward pressure on core inflation should persist over the remainder of the year. Several factors will likely limit this influence, however. First, longer-term inflation expectations are still very close to 2 per cent. Second, current and projected increases in unit labour costs are also in this range. Finally, higher import costs arising from the past depreciation of the Canadian dollar may put some further temporary upward pressure on inflation.

With less economic slack than was expected in the last *Report*, the core rate is now projected to average just under 2 per cent in the second half of this year and the first half of 2003, before moving back to 2 per cent by about the end of 2003. This would be consistent with the economy projected to be back to potential output in the second half of 2003.

Both total and core CPI inflation are expected to be at 2 per cent by about the end of 2003.

If crude oil prices continue to average between US$22 and US$26 per barrel, total consumer price inflation should stay below the core rate through mid-year. The Bank is projecting that total inflation, like core inflation, will be at 2 per cent by about the end of 2003.

5. Conclusions

In the past several months, it has become increasingly apparent that robust economic growth is resuming in North America. For Canada, the outlook presented in this *Report* shows the economy moving back to potential output in the second half of 2003, with inflation at the Bank's 2 per cent target by the end of 2003.

There are both upside and downside risks to this outlook. Given the amount of monetary and fiscal stimulus that has been provided, growth could be stronger than projected. It is also possible that the growth of household spending may not be as strong as anticipated, to the extent that even more of the recent strength in spending than assumed was, in fact, borrowed from future expenditures. There is continuing uncertainty regarding the timing and strength of the pickup in business investment and exports, mainly because of the fragility of global business confidence. And political developments in the Middle East may continue to affect crude oil prices, with possible repercussions for the global economy.

Given these factors, the task for monetary policy will be to gauge the strength of the economy as it approaches its capacity to produce, and the implications for future inflation. This means reducing the amount of monetary stimulus in a timely and measured manner in order to keep inflation close to its 2 per cent target, thereby helping to sustain economic growth at full capacity over the medium term.

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