BANK OF CANADA

MONETARY POLICY REPORT

– November 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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B A N K O F C A N A D A

Monetary Policy Report

— November 2001 —

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.

All of us at the Bank of Canada share a deep sorrow at the loss of so many lives in the 11 September terrorist attacks in the United States. Among those who died were innocent citizens of many nationalities, including Canadians. To their families, friends, and colleagues we extend our heartfelt sympathy. As we strive to come to terms with this tragedy and its implications for all of us, we are tremendously encouraged by the co-operation, solidarity, and determination that are abundantly evident both at home and in the international community. Through this time of anxiety and uncertainty, we at the Bank of Canada will continue to fulfill our responsibility to support the economic well-being of Canadians and to promote the stability of the domestic and international financial systems.

David Dodge

Governor, Bank of Canada
24 October 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 output and employment.

The monetary policy instrument

- Announcements regarding the Bank's policy instrument—its operating band for the overnight interest rate—take 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. 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 to the end of 2006. Monetary policy will continue to aim at keeping future inflation at the 2 per cent target midpoint of this 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

The economic outlook is considerably more uncertain than usual.

Two major issues dominate the analysis and policy discussion in this *Monetary Policy Report*: the nature and extent of the global economic slowdown that began late last year and the consequences of the terrorist attacks in the United States. Together, these factors have made the economic outlook considerably more uncertain than usual.

The global nature of the economic slowdown that began in the United States in the second half of last year became increasingly evident through the summer of 2001. Although Japan had already been experiencing a period of protracted weakness, it was only around mid-year that evidence began to indicate that worldwide economic activity was slowing rapidly.

The U.S. slowdown has its roots in several factors. These include the earlier tightening of monetary policy, the sharp rise in world energy prices, and the adjustments resulting from excess production and additions to capacity in the information and telecommunications sectors. This last factor—a classic investment cycle—has been a much stronger force than was initially recognized.

The economic consequences of the 11 September attacks are very difficult to assess.

The economic consequences of the horrific events of 11 September are very difficult to assess. There has been a clear and immediate impact, particularly in North America, on transportation, finance, and tourism. But the size and duration of the effects are hard to gauge accurately. Even more problematic are the implications for consumer and business attitudes. While history offers some benchmarks, these events are unparalleled in North America. Only with additional time and data will the consequences of these events become more fully understood.

In this* Report*, we provide the Bank's first assessment of the potential consequences of the terrorist attacks for the North American economy through 2002.

In this *Report*, we analyze the factors behind the global economic slowdown that was evident prior to 11 September (taking into account the implications of significant revisions to U.S. GDP and productivity data). We also provide the Bank's first assessment of the potential consequences of the terrorist attacks for the North American economy through 2002. While preliminary and subject to a wide band of uncertainty, this analysis will guide our reasoning and our judgment, as more data become available, about the implications for the Canadian economy, inflation, and monetary policy.

This report includes information received up to the fixed announcement date on 23 October 2001.

2. Recent Developments in Inflation

Since last February, core CPI inflation has risen to slightly above the midpoint of the Bank's 1 to 3 per cent inflation-control target range. At the same time, the rate of increase in the total CPI has come down towards core inflation, primarily reflecting reductions in gasoline prices.

Inflation and the target range

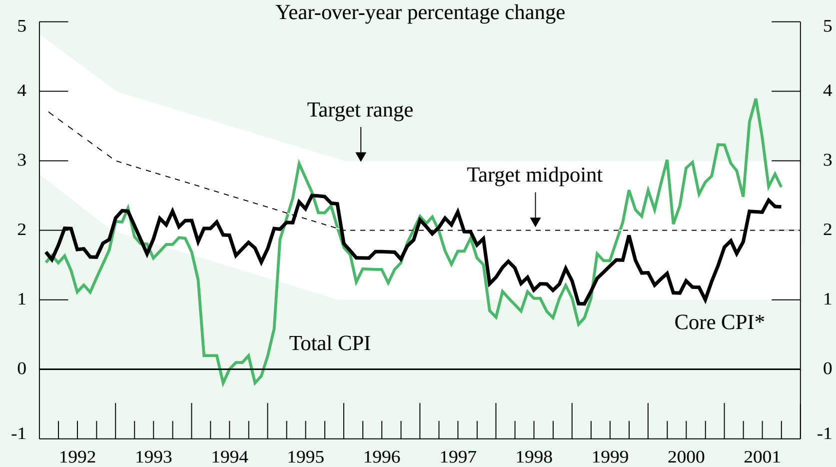
Core inflation has risen to slightly above the midpoint of the target range . . .

Core inflation rose above 2 per cent in April and hovered around 2.3 per cent through the spring and summer, somewhat higher than projected in the May *Report* (Chart 1).[1] Other statistical measures of the trend rate of inflation were either the same or slightly lower than the core rate, suggesting that the underlying trend of inflation is unlikely to be above the core rate (Chart 2).

Chart 1

Consumer Price Index

Year-over-year percentage change



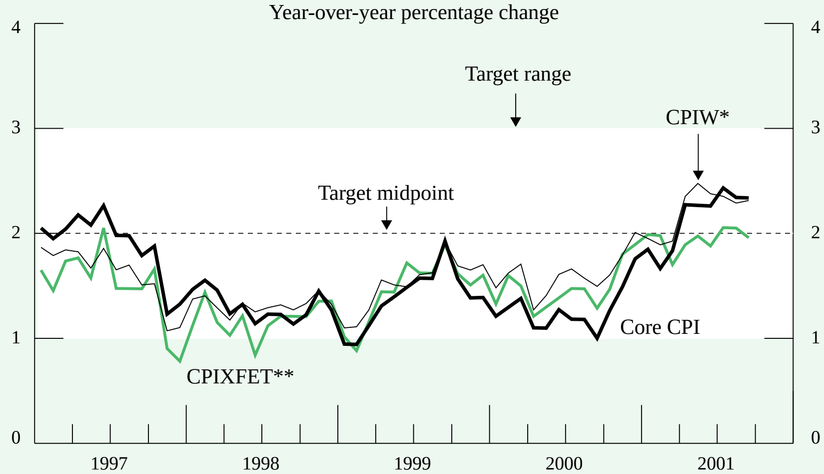
* CPI excluding the eight most volatile components and the effect of changes in indirect taxes on the remaining components

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. Reasons for the Bank's adoption of this measure of core inflation are provided in Bank of Canada (2001) and Macklem (2001).

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.

The rise in core inflation above 2 per cent is consistent with the lagged effects of an economy that was still operating just above capacity earlier this year. The increase in the core rate was also magnified by the fact that the level of core inflation had been held down temporarily early this year as a result of increased price discounting by motor vehicle manufacturers and dealers and by a special provincial credit program for electricity customers in British Columbia.

. . . while the rate of increase in the total CPI has been falling sharply.

The 12-month rate of increase in the total CPI peaked at 3.9 per cent in May, boosted by a jump in natural gas prices (resulting from earlier tight supplies and the end of an Alberta government assistance program) and by a temporary surge in gasoline prices. Since then, the 12-month rate of increase in the total CPI has fallen sharply, moving down towards core inflation. In September, the 12-month rise in the CPI was 2.6 per cent. This marked decline in total CPI inflation towards the core rate reflects the partial reversal of previous energy-price increases. The prices of both fuel oil and gasoline fell over this period, primarily as a result of reductions in crude oil prices. As well, a buildup in natural gas inventories since early 2001 led to a large reduction in prices at the producer level, which contributed to an easing in the year-over-year rate of increase in natural gas prices at the consumer level since mid-year.

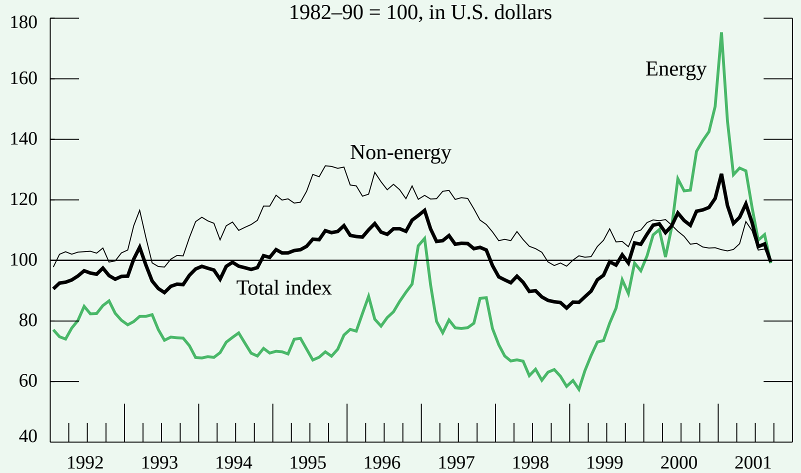
While recent declines in the prices of energy commodities are starting to contribute to a more moderate rate of increase in consumer energy prices, and therefore in the total CPI, the estimated pass-through of higher energy costs to the non-energy components of the total CPI is continuing—about 0.1 per cent over the past year. To date, this effect has been most evident in airfares, local transportation costs, and the prices of fruits and vegetables. Both core and total CPI inflation also appear to have been affected to some degree by the pass-through of increased costs for imported goods and services over the past year, partly resulting from the depreciation of the Canadian dollar during that period.

The prices of non-energy commodities have, on balance, decreased considerably since mid-April (Chart 3). In particular, slowing world economic growth has led to a further reduction in the prices of metals, pulp, newsprint, and livestock. In the case of lumber, the imposition of a countervailing duty on exports of softwood lumber to the United States resulted in a surge in prices paid by U.S. consumers, which has largely been reversed. For exporters of lumber, the price, net of duty, has decreased.

Chart 3

Bank of Canada Commodity Price Index

1982–90 = 100, in U.S. dollars



Factors at work on inflation

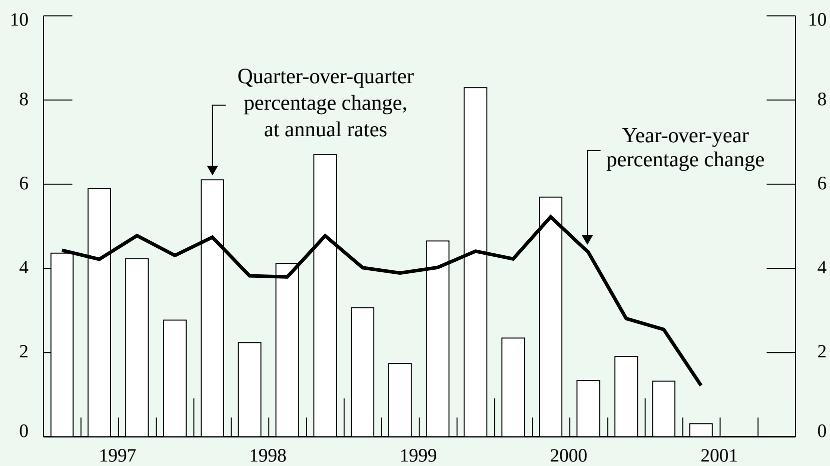
Aggregate demand

Growth of real GDP has eased considerably since the third quarter of 2000 . . .

The slowing in Canada's economic expansion since the third quarter of 2000, to a rate well below the economy's growth potential, largely reflects the marked easing in growth of demand in the U.S. economy. Economic activity in the United States slowed abruptly after mid-2000, with the four-quarter growth of real GDP falling from 5.2 per cent in the second quarter of 2000 to 1.2 per cent in the second quarter of 2001 (Chart 4). In Canada, four-quarter growth in real GDP decreased from 4.8 per cent in the second quarter of 2000 to 2.1 per cent in the second quarter of 2001 (Chart 5).[2] Although economic growth in Canada was somewhat stronger than that in the United States over this period, the reduction in U.S. growth had a substantial adverse effect on the pace of Canada's expansion, given the close trade linkages between the two countries.

Chart 4

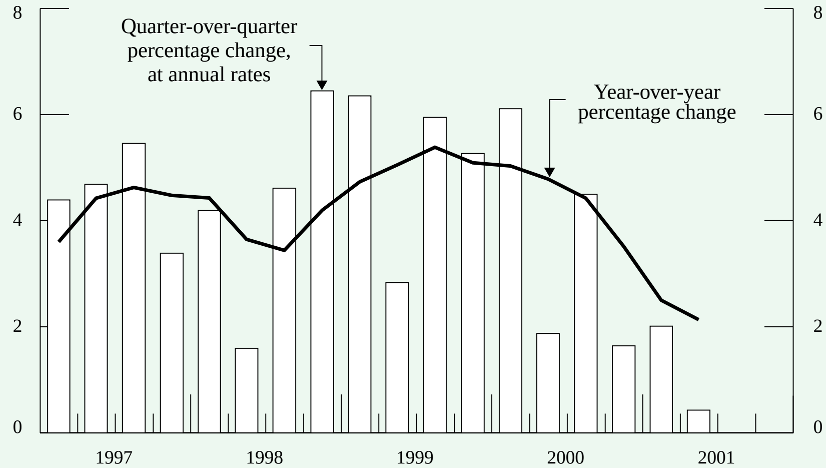
Real Gross Domestic Product for the United States



2. The real GDP measure published by Statistics Canada is now based on estimates using the chain Fisher volume formula and also includes a change in the treatment of software spending by businesses and governments (see Technical Box 3 in the May *Report*). For details, see Statistics Canada's Web site (www.statcan.ca) and the Bank of Canada's Web site (www.bankofcanada.ca). These changes bring Canada's measure of GDP in line with that of the United States. With these and other historical revisions, Statistics Canada estimates that real GDP in 2000 grew by 4.4 per cent on an annual average basis (instead of the previous estimate of 4.7 per cent, which valued output at 1992 prices).

Chart 5

Gross Domestic Product in Constant Dollars for Canada



. . . mainly as a result of a retrenchment in U.S. capital spending.

The slowdown in the pace of U.S. economic activity has continued well into the second half of 2001, with few concrete signs of a rebound. The retrenchment in business investment, especially spending on high-technology equipment, has been particularly pronounced and more protracted than had been anticipated. September's terrorist attacks and their aftermath have had a further significant negative impact on the U.S. economy.

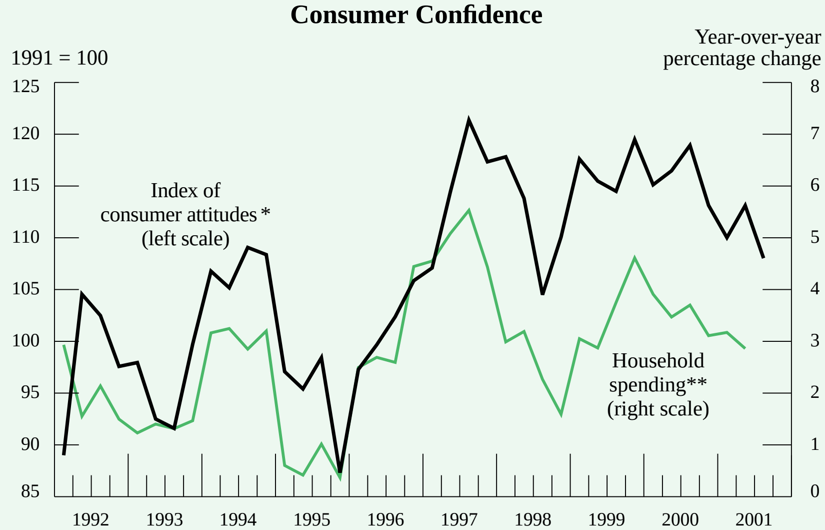
Production of telecommunications products and other electronic equipment has fallen considerably.

Economic growth in Canada in the third quarter of 2001 was also weaker than anticipated. The unexpectedly sharp downturn in U.S. capital expenditures and a significant easing in economic growth outside North America have been key negative factors for the Canadian economy. As a result, Canadian shipments and manufacture of telecommunications products, computers, and other electronic equipment have declined considerably from the very high levels reached at the end of last year. Moreover, despite production cutbacks, inventory levels in these particular manufacturing industries remained much higher than normal at mid-year, and as a result, further reductions are likely over the remainder of the year. Canadian exports and production of automotive products, pulp and paper, and chemical products have also been adversely affected by the U.S. economic slowdown. Inventory imbalances in these last two industries will contribute to additional downward pressure on output over the near term.

At the same time, growth in final domestic demand in Canada has weakened over the past year. The growth of household spending has been on a softening trend, reflecting the slowing in real income growth, recent job losses, and an associated decline in consumer confidence (Chart 6). In addition, capital spending by Canadian firms

Chart 6

Consumer Confidence



* Source: Conference Board of Canada
** Expenditures in constant dollars on consumer goods and services plus housing

has been edging down since the fourth quarter of 2000 in response to increasing excess production capacity, particularly in the telecommunications area.

The negative effects of the terrorist attacks have exacerbated the weakening trends in the Canadian economy.

The negative effects of the terrorist attacks have exacerbated these weakening trends in the Canadian economy. Our best estimate is that the disruption of activity in various sectors in Canada, particularly finance and transportation, reduced the growth rate of Canadian real GDP in the third quarter of 2001 by about 1 percentage point (Technical Box 1). Combined with an already weak picture, this suggests that growth in the third quarter was probably slightly negative and will likely be near zero in the fourth quarter.

Estimated pressures on capacity

Several indicators suggest that the economy moved into a position of excess supply in the third quarter of 2001.

Several measures indicate that pressures on production capacity eased significantly during the first three quarters of 2001. The Bank's most recent estimates of its conventional measure of potential output and the output gap suggest that the Canadian economy began to operate below its production capacity in the third quarter of 2001 (Chart 7). The unemployment rate has risen somewhat since mid-2000, and the marked reduction in the help-wanted index over this period, together with the reduction in employment since May 2001, points to weaker labour demand as the source of the increase in unemployment. The Bank's most recent survey of firms also suggests that capacity pressures and labour shortages

Technical Box 1

The Near-Term Economic Effects of the Terrorist Attacks

The terrorist attacks on the United States resulted in a horrific loss of human life, as well as enormous physical destruction to the heart of the country's financial centre. While the grim extent of these losses is evident, the economic effects remain uncertain and will undoubtedly extend far beyond the U.S. border. Given our proximity to the United States and the highly integrated nature of our economies, Canada is particularly affected.

On the day of the attacks and in the days immediately following, many activities either ceased or were severely disrupted. Trading was halted on stock exchanges; air travel was suspended; trucking activity was curtailed; and a wide variety of events were cancelled. More intense border inspections resulted in temporary shutdowns of some automobile production plants as "just-in-time" inventories of parts were delayed. While these effects were more pronounced in the United States than in Canada, they were evident on both sides of the border.

Beyond these very immediate effects, the attacks can be expected to influence household and business spending in North America. The air transportation and financial industries have already experienced significant adverse consequences, with substantial repercussions occurring in related sectors such as tourism and aircraft manufacturing. It is more difficult to assess the effects on consumer and business confidence. Initial evidence points to a substantial drop in consumer confidence in the United States but a more muted response in Canada. Nevertheless, business confidence has fallen sharply in Canada. Reduced economic activity in the United States also implies less demand for our exports. The impact of these various negative effects on economic activity in North America will be offset to some degree by higher spending on security by both governments and businesses, some substitution in expenditures by households and firms away from such items as air travel and into other goods and services, and eventually by the rebuilding of infrastructure in the United States.

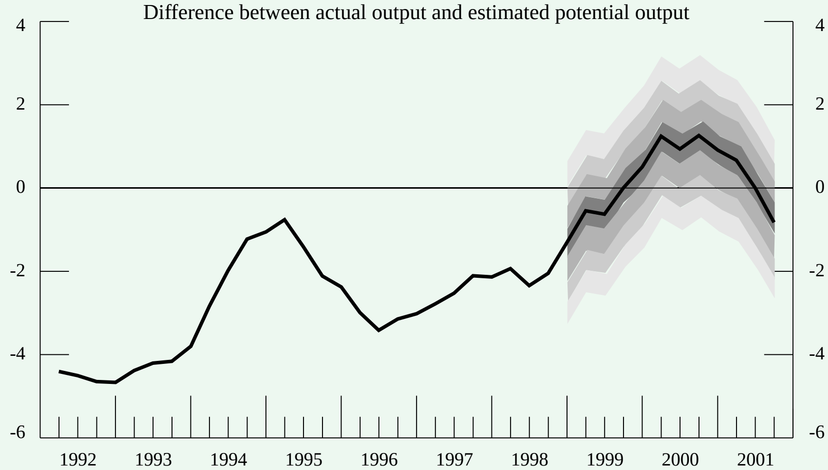
Considering the factors outlined above, our best estimate is that this shock has reduced third-quarter growth (at an annual rate) in output by 1.5 to 2.0 percentage points in the United States, and by about 1 percentage point in Canada. This estimate of the shock implies a decline in U.S. real GDP of 1.0 to 2.0 per cent in the third quarter. In Canada, third-quarter growth is expected to be in a range of zero to -1.0 per cent at annual rates.

In the third quarter, the economic effects of the terrorist attacks will stem mainly from the associated production disruptions in North America. In the fourth quarter, some of these disruptions should unwind, but the adverse effects of declining confidence on household spending and business investment are expected to be more pronounced. As some sectors continue to suffer considerably from the attacks—particularly air travel, tourism, and related industries—workers are being laid off, reducing incomes and increasing economic uncertainty. While the fourth-quarter impact of the attacks on growth is more difficult to assess, it seems likely to be at least as large as the direct effects in the third quarter, suggesting that growth in GDP in the fourth quarter will be near zero.

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 third quarter of 2001 is based on a projected decline in output of 0.50 per cent (at annual rates) for the quarter.

have diminished appreciably since the beginning of the year. This easing in pressures on product and labour markets has been broadly based across the country.

Historical Revisions to Real GDP and the Output Gap

In the May *Report*, it was estimated that the output gap was close to zero in the first quarter of 2001. On 31 May, Statistics Canada replaced the old measure of real GDP, which valued output at 1992 prices, with estimates based on the chain Fisher volume index formula, and began to treat all software purchases by businesses as capital investments (rather than current expenses). As expected, these changes by themselves had little effect on the overall profile of the Bank's estimated output gap. At the same time, Statistics Canada revised up its estimates of average annual growth in real GDP (based on the chain Fisher volume formula) for the 1998–2000 period by nearly 1 percentage point, chiefly as a result of the incorporation of new benchmark data. About three-quarters of this upward revision to real GDP (and labour productivity) was treated as permanent, therefore raising the estimates of potential output. The remaining part of the revision feeds into excess demand, so the estimated level of excess demand in 2000 and the first quarter of 2001 was revised upwards.

Despite this evidence, a number of other indicators suggest that conditions remained tight in certain product and labour markets in the first three quarters of this year. Skilled workers, particularly in the energy and health-care sectors, remained in short supply. Vacancy rates for industrial property were again very low in the third quarter of 2001, and office vacancy rates, while rising, were below average. New, unoccupied housing units were also in very short supply.

Overall, the slowing in economic activity since the last quarter of 2000 has substantially reduced demand pressures. On balance, the available evidence suggests that the economy was in excess supply in the third quarter.

Cost control

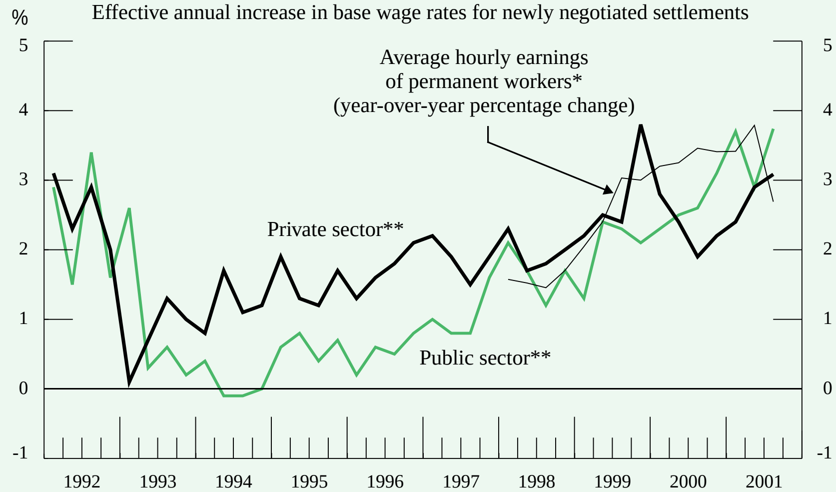
Gains in average hourly earnings have fallen back to about 2.75 per cent.

Based on the average hourly earnings of permanent workers, the underlying rate of increase in average labour compensation appears to have moved down to about 2.75 per cent in the third quarter of 2001, from about 3.5 per cent in the second half of 2000 (Chart 8).

Chart 8

Wage Settlements and Average Hourly Earnings

Effective annual increase in base wage rates for newly negotiated settlements

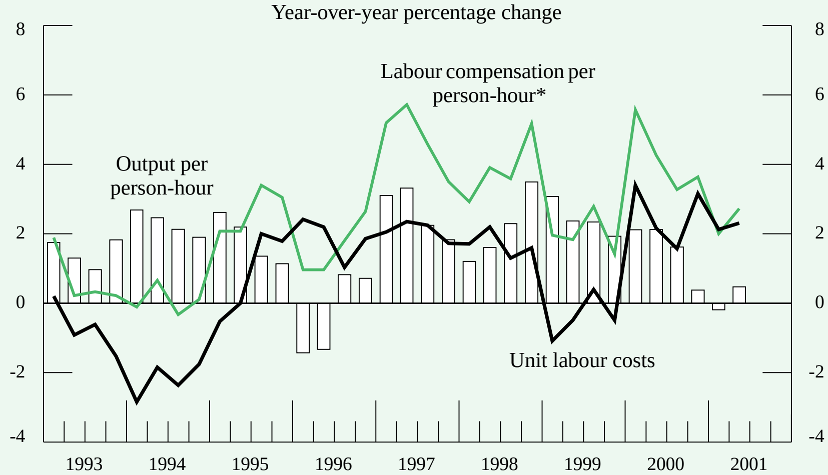


* Source: *Labour Force Information*, last data point plotted = September 2001
** Source: Human Resources Development Canada, last data point plotted = August 2001

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*

The year-over-year rise in labour compensation in the business sector eased between the second quarter of 2000 and the second quarter of 2001. Meanwhile, growth in labour productivity remained modest in the first half of 2001 because of the slowdown in economic growth. With these rates of increase of compensation and productivity, the year-over-year increase in unit labour costs in the business sector was 2.3 per cent in the second quarter of 2001 (Chart 9).

With only modest growth in productivity, the rise in unit labour costs was just over 2 per cent at mid-year.

3. Financial Developments

Policy actions

Changes in the target for the overnight rate announced since the May *Report*:

29 May—down 25 basis points to 4.5 per cent

17 July—down 25 basis points

28 August—down 25 basis points

17 September—down 50 basis points

23 October—down 75 basis points to 2.75 per cent

The Bank of Canada has lowered its target for the overnight rate by 300 basis points since the beginning of the year (Chart 10). This includes five cuts totalling 200 basis points since the May *Report* (on 29 May, 17 July, 28 August, 17 September, and 23 October). The first two cuts, of 25 basis points each, were made in the context of a gradual slowing in economic growth in Canada that resulted from declining U.S. growth. With the subsequent recognition that the slowdown in both external and domestic aggregate demand was likely to be deeper and more protracted than earlier anticipated, especially following the terrorist attacks of 11 September, the pace of interest rate reductions picked up. The last three interest rate reductions—of 25, 50, and 75 basis points, respectively—brought the target for the overnight rate down to 2.75 per cent. The objective of these actions was to buttress demand and to bolster business and household confidence, as economic prospects weakened and the outlook for the future rate of inflation eased.

All of the interest rate changes, except that of 17 September, were made on the pre-announced dates. The 17 September action, between scheduled dates, was an extraordinary measure taken in the wake of the terrorist attacks in the United States. It, like similar actions in other countries, was aimed at underpinning consumer and business confidence in the aftermath of the attacks. The Bank of Canada also provided additional liquidity to the banking system immediately after the 11 September attacks to ensure the orderly functioning of financial markets (Technical Box 2).

In the United States, the Federal Reserve has lowered its target for the federal funds rate by 400 basis points in total since the beginning of the year, 250 basis points of which have been the result of actions taken since the completion of the May *Report*. The latter included two recent 50-basis-point cuts, one announced on 17 September, subsequent to the terrorist attacks, and one on 2 October in recognition of the continued weak trends in the U.S. economy. With these moves, the federal funds target has been lowered to 2.5 per cent.

Technical Box 2

Actions Taken in Canada to Deal with Possible Disruptions to the Financial System

Following the attacks on the United States on 11 September, central banks worldwide moved quickly to support the financial system. This primarily involved helping clearing and settlement systems to remain operational by providing participants in the financial system with ready access to adequate liquidity for their short-term financing needs. In the aftermath of the attacks, major Canadian clearing and settlement systems functioned well, with transactions in the Large Value Transfer System (LVTS) and the Debt Clearing Service of the Canadian Depository for Securities clearing and settling within normal time frames.

Right after the attacks, Canadian financial institutions became concerned that the ability of some entities to complete payments might be impaired. Fearing a shortfall of incoming cash payments, participants in clearing and settlement systems became reluctant to send payments over these systems. More generally, participants increased their demand for settlement balance holdings. As a result, payment flows in the LVTS slowed soon after the attacks, and there were concerns about gridlock in payments processing in the LVTS.

The Bank of Canada responded promptly on 11 September, indicating that it would add liquidity to the system by bringing the level of excess settlement balances in the LVTS up to $1 billion from the typical $50 million. This reassured financial institutions that even if they did not receive their expected payment inflows, they would still have access to needed funds. As part of this action, the Bank also offered to carry out Special Purchase and Resale Agreements with primary dealers at the overnight rate. The additional $950 million in liquidity was provided through 17 September and, subsequently, was gradually reduced, so that by 4 October, excess settlement balances in the LVTS were back down to $50 million. It is important to note that these liquidity injections were in response to a temporary increase in the demand for settlement-balance holdings, and that by accommodating this temporary shift, the Bank avoided an inappropriate increase in the overnight rate of interest.

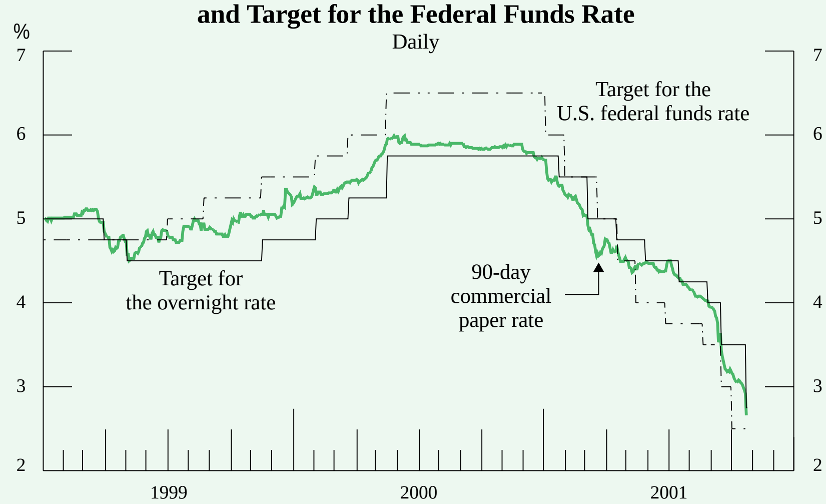
As well, in the days after the attacks, direct participants in the Automated Clearing Settlement System (ACSS), which clears and settles mainly paper-based (cheque) transactions, were given an additional daily opportunity to trade and so reduce their payment imbalances. This provision, which ended on 18 September, allowed participants to reduce any unusual need for liquidity and collateral in order to settle ACSS transactions.

With the impact of the attack on Lower Manhattan, there were temporary disruptions in payments and securities settlements in U.S. markets. For example, one major custodial bank (a bank that clears and settles securities-related transactions on behalf of other banks) experienced processing problems. This raised concerns that some banks, including Canadian institutions, might not be able to access their securities to pledge against needed loans. More generally, there was concern that banks might have difficulty raising funds in the market to finance U.S.-dollar loans. In response, the Bank arranged for a temporary (30-day) increase in its swap facility with the U.S. Federal Reserve to US$10 billion (from US$2 billion) to increase its capacity to provide short-term U.S.-dollar liquidity to Canadian banks. This temporary facility expired on 14 October. It did not prove necessary to draw upon it.

Chart 10

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

Daily



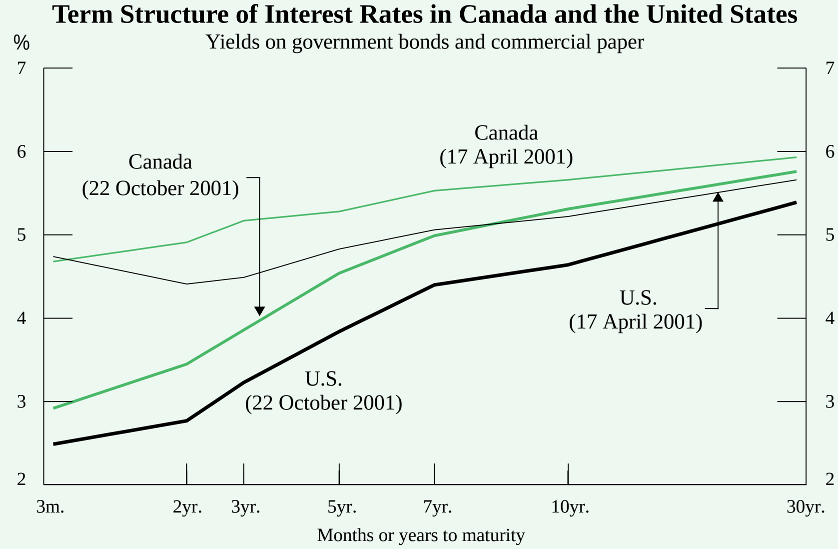
The yield curve in Canada has steepened and shifted downward since midsummer.

The more pessimistic economic outlook since midsummer has contributed to a downward shift and steepening in the yield curve in Canada and in the United States (Chart 11). The view that the North American economic recovery was delayed generated expectations of more policy easing, which are embodied in short-term interest rates. It may also have reduced the inflation component incorporated in long-term rates, since long-term bond yields have fallen in both Canada and the United States.

Chart 11

Term Structure of Interest Rates in Canada and the United States

Yields on government bonds and commercial paper



The positive interest rate differential between yields on Canadian and U.S. government bonds decreased through the summer months amid growing signs that the economic slowdown would affect Canada more than the market had previously expected. Since 11 September, however, the differential has widened again, as investor preference for U.S. government securities in times of global uncertainty has led to lower yields on longer-term U.S. Treasury bonds compared with the yields on the longer-term bonds of other countries.

Exchange rate

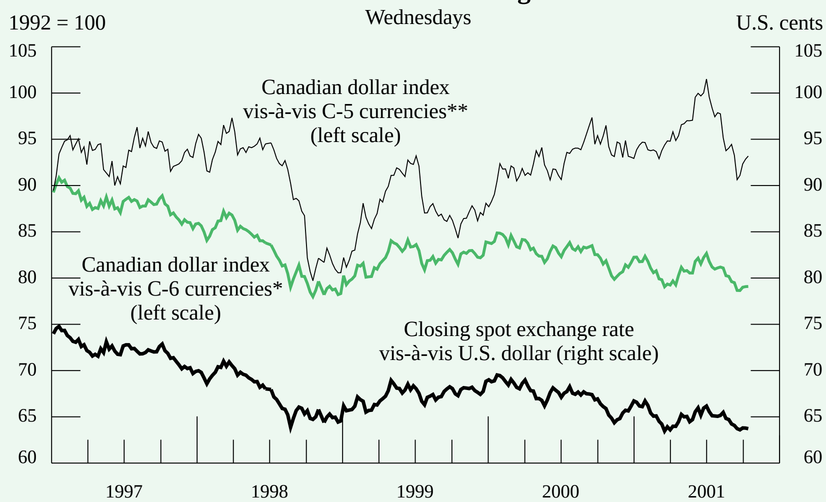
Since the May *Report*, the Canadian dollar has fluctuated between US$0.6324 and US$0.6636 (Chart 12). In the spring and early summer, support for the Canadian dollar came in part from market expectations that the economic slowdown would be relatively less pronounced in Canada than in the United States. More recently, the weaker state of the world economy and the resulting reduction in commodity prices, the deceleration in Canadian economic activity, and the global economic uncertainty caused by the terrorist attacks have contributed to weakness in the Canadian dollar.

In response to the events of 11 September, the U.S. dollar initially weakened against major world currencies, continuing the depreciating trend that had begun in June. However, as markets

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

re-evaluated the relative cyclical positions of the world's major economies, the U.S. dollar subsequently recovered beyond its pre-attack level.

Monetary conditions

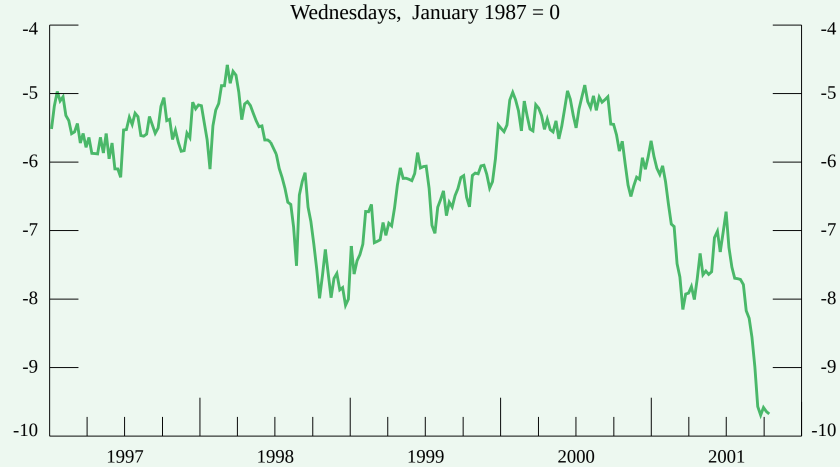
Monetary conditions have eased considerably.

Monetary conditions have eased considerably since the May *Report*—the combined result of interest rate declines and depreciation of the exchange rate. The index reached -9.91 on 22 October, down from -8.0 in the last *Report* (Chart 13).

Chart 13

Monetary Conditions Index

Wednesdays, January 1987 = 0



Other financial developments

Since the May *Report*, credit conditions have tightened for businesses because of the deterioration in the economic outlook and the increase in uncertainty, particularly after the 11 September attacks. In the bond market, this tightening has been reflected in the increase in spreads between the interest rates on corporate debt and those on government debt. Moreover, whereas earlier in the year, only a few sectors, such as telecommunications and automotive manufacturing, had been affected, more industries are now feeling the effects of the tighter credit conditions.

In spite of tighter credit conditions, the growth of business credit has picked up since the May Report*.*

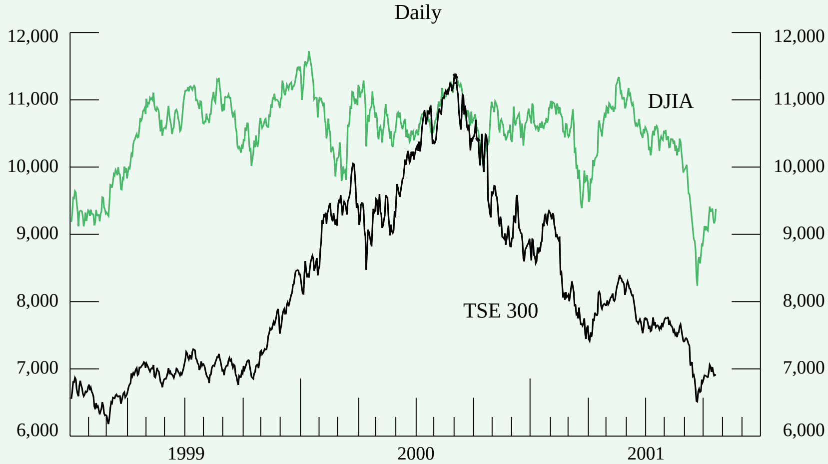
In spite of this tightening, the growth of business credit has picked up since the May *Report* because of the increased demand for funds. This increase is related to the desire of firms to hold additional liquidity in the context of heightened economic uncertainty. Household credit continues to show solid growth.

Between late May and early September, the Toronto Stock Exchange (TSE) experienced a sizable decline, falling by over 12 per cent (Chart 14). This slide mirrored the downturn of the Dow Jones Industrial Average (DJIA), which fell about 15 per cent over the same period. These drops reflected the deterioration of the profit outlook as the global economic slowdown became more evident. Both of these stock markets fell more than 10 per cent in the 10 days following 11 September but subsequently recovered by a substantial amount.

Chart 14

TSE 300 and Dow Jones Industrial Averages

Daily



4. The Outlook for Inflation

Uncertainty in the current environment

Current economic projections are subject to an unusually high degree of uncertainty.

Beyond their immediate tragic consequences, the terrorist attacks in the United States have introduced a great deal of uncertainty into the world economy. Prior to the attacks, the slowdown in global economic growth had already become quite pronounced, as other industrialized and emerging-market economies increasingly began to show more clearly the effects of weaker growth in the United States and the global contraction in the telecommunications and information technology sectors. While the terrorist actions have accentuated the slowing in global activity in the very near term, it is very difficult to assess how long-lasting the negative effects will be.

This uncertainty is critical to the assessment of the economic outlook. The performance of the global economy will depend importantly on geopolitical developments and on the effects that the attacks have on confidence. Economic forecasts in this environment are subject to a much higher degree of uncertainty than usual. Rather than presenting a conventional forecast in these circumstances, we will present the Bank's working assumptions and the economic scenario that they generate. These assumptions will be updated as new information becomes available.

The Bank's two working assumptions are
- ***no further major escalation of terrorism***
- ***consumer and business confidence recover to normal levels in the second half of 2002.***

The Bank's first working assumption is that there will be no further major escalation of terrorism. Against this background, consumer and business confidence can reasonably be expected to recover, although the timing and pace of this recovery are highly uncertain. The Bank's second working assumption is that the lingering sense of insecurity will continue to weigh on consumer and business confidence in North America through the first half of next year, but that confidence will then stabilize and recover to normal levels in the second half of 2002.

International background

In the United States, economic growth had come to a standstill during the first half of 2001. Although some slowing to a more sustainable pace had been desirable, the slowdown was deeper and more prolonged than initially expected. To an important extent, this deceleration reflected the sharp turnaround in the growth of investment spending (which had been a key element in the U.S. expansion). Investment in the technology sector was hit particularly hard. Industrial production also fell as firms strove to bring stock levels into line with demand. At the same time, consumer spending and housing expenditures continued to advance, albeit at a slower pace.

The terrorist attacks in the United States have exacerbated an already weak outlook for 2001.

Deteriorating conditions in the U.S. labour market during the summer, together with other indicators, suggested that the pickup in growth in the second half of the year would be more gradual than earlier expected. Against an already weak outlook for the second half of 2001, the near-term disruptions created by the terrorist attacks have led the Bank to expect U.S. economic growth to be negative in both the third and fourth quarters. With growth in the first half of 2001 averaging only 1.2 per cent, this implies growth on an annual average basis for 2001 of only about 1 per cent (about 0 per cent for the four quarters to 2001Q4)—close to the consensus forecast.

As uncertainty dissipates next year, the significant amount of monetary and fiscal stimulus should support a relatively strong rebound in activity.

When we look ahead to 2002, there are several factors, including significant declines in interest rates, that should help to underpin growth. The U.S. Federal Reserve moved quickly to reduce official interest rates in the aftermath of the terrorist attacks. In addition, the stimulative fiscal measures introduced earlier this year, as well as increased government expenditures and proposed tax reductions following the attacks, will boost personal incomes and demand in the United States. And, prior to 11 September, the inventory correction had progressed considerably and was nearing completion in some areas, such as the automotive sector. With the assumption that confidence recovers to normal levels in the second half of 2002, the significant amount of monetary and fiscal stimulus that has been provided over the past year is expected to support a relatively strong rebound in economic activity. Hence, following weak growth in the first half of 2002, growth in the second half is projected to move up above the growth rate of potential output (of about 3 per cent, Technical Box 3). On an annual average basis, this scenario implies a growth rate in 2002 of just about 1 per cent, which is also close to the consensus forecast. This weak annual growth rate is heavily influenced by the expected contraction in economic activity in the second half of 2001. Indeed, on a fourth-quarter-over-fourth-quarter basis, growth in 2002 would be much stronger, at 2.7 per cent.[3]

3. Given the high degree of uncertainty and its unique nature, we have departed from our usual practice of presenting a likely range of outcomes. Instead, the economic scenario is presented as a point outcome. One can think of this forecast outcome as the midpoint of a range of 1 percentage point if the working assumptions hold true. But the full range of uncertainty is wider, since it must encompass uncertainty about the working assumptions themselves.

Technical Box 3

The Outlook for Business Investment and Potential Output in the United States

Investment expenditures played a key role in the recent evolution of the U.S. economy. Most analysts expected the current U.S. slowdown to be fairly short-lived, with economic activity recovering quickly as inventory imbalances were corrected, aided by lower interest rates and the decline in energy prices. By August, however, it was clear that the U.S. slowdown was more acute than expected and that the weakness in investment had been significantly underestimated. It appears that expectations regarding returns on investment, especially in the area of information and communication technologies (ICTs), had escalated beyond sustainable levels. The reversal in this situation and the related decline in equity prices contributed to a sharp retrenchment in investment spending. This classic investment cycle has been a much stronger force than was initially recognized.

The earlier rapid pace of growth in investment spending had important implications for the growth of productivity and potential output in the United States. There is growing evidence that the investment boom during the second half of the 1990s, which centred on new technologies, led to an increase in productivity growth and to a resulting rise in the rate of growth in potential output. This has important implications for policy-makers, who must consider potential output and the uncertainty that surrounds it when determining the appropriate stance of policy.

Assessing the future trend rate of growth in productivity and potential output is, however, very difficult, not only because of the sharp cycle in investment, but also because of recent revisions to the U.S. National Accounts. These revisions lowered estimates of the pace of investment spending and the growth rate of productivity in recent years. Nevertheless, growth in U.S. labour productivity over the second half of the 1990s was close to 2.5 per cent, substantially higher than the average growth over the two previous decades (of close to 1.5 per cent).

More recently, measured growth in labour productivity has fallen to around 1.5 per cent on a year-over-year basis (to the second quarter). This mainly reflects the cyclical slowdown in economic activity. Long-term prospects for an elevated rate of increase in productivity and in economic activity remain favourable, because the strong underlying rate of progress in ICTs should support solid increases in investment spending over time. Based on the available information, the Bank believes that a trend annual increase in productivity of about 2 per cent is likely over the medium term. This is lower than in recent years but above average growth over the 1973–95 period. Potential output is expected to increase by close to an average annual rate of 3 per cent in coming years.

The physical destruction and the disruption created by the attacks on 11 September undoubtedly had a short-term negative impact on productivity and potential output. This adverse effect may be more persistent if the current higher levels of uncertainty lead to a slower recovery in investment, but the impact on longer-term growth trends is likely to be very small.

Growth in the major European economies is expected to slow . . .

Weaker growth in the United States relative to earlier expectations, together with heightened levels of uncertainty in global markets, will also adversely affect other industrialized economies. In that context, all major central banks have lowered interest rates to support demand. In Europe, the spillover effects from the U.S. slowdown in investment spending, along with the effects of weaker domestic demand, were already being increasingly felt prior to the attacks in September. The technology sectors were experiencing a particularly severe adjustment. In Japan, economic problems have continued unabated since the May *Report*, largely because efforts to revive the economy are constrained by underlying structural difficulties, including ongoing problems in the financial sector. In view of recent developments, growth in the major European economies in 2001 is expected to slow to around 1.5 per cent on an average annual basis, while economic activity in Japan is expected to decline by about 0.5 per cent. Growth prospects have also deteriorated further in the economies of emerging-market countries, although contagion from the financial difficulties in Argentina and Turkey has remained relatively limited.

. . . and economic activity in Japan is likely to decline.

In line with the global economic slowdown, the U.S.-dollar price of non-energy commodities is projected to decline somewhat further over the next few months. Thereafter, non-energy commodity prices are expected to recover gradually.

Crude oil prices are likely to be volatile but, on balance, they are expected to remain below US$25 per barrel in coming months. Natural gas prices, having fallen considerably since early 2001, are likely to recover somewhat through the winter heating season. These assumptions for crude oil and natural gas prices are consistent with current expectations in futures markets.

Aggregate demand and supply in Canada

Canadian economic growth will likely be close to zero or slightly negative for the second half of 2001.

In Canada, economic growth in the second half of 2001 is expected to be close to zero or slightly negative. Canadian exports likely declined still further in the second half of 2001, primarily as a result of the expected reduction in U.S. aggregate economic activity. The growth of household expenditures in the second half of 2001 will no doubt be held back by recent and prospective job losses, the substantial reduction in equity prices, and the increased uncertainty resulting from the terrorist attacks. In the current highly uncertain world economic and political climate, Canadian businesses are also expected to remain cautious. Capital spending is likely to be substantially cut in those industries where a significant amount of excess capacity has emerged or where the medium-term outlook for demand has been revised down as a result of the terrorist attacks. Further growth in energy investment over this period will also likely be tempered by the impact on cash flow of the recent sharp reduction in natural gas prices.

Since growth is expected to be close to zero or slightly negative in the second half of 2001, annual average growth for 2001 would be about 1.5 per cent. This is down from the range of 2 to 3 per cent projected in both the May 2001 *Report* and the August *Update*. The average private sector forecast is for growth in Canada's real GDP of 1.4 per cent for 2001 (Consensus Economics 2001). At the time of the May *Report*, the consensus outlook called for growth of 2.4 per cent in 2001.

Canada's economic performance in 2002 depends critically on the timing and strength of the U.S. recovery.

The performance of the Canadian economy in 2002 will depend critically on the global environment in general and on the timing and strength of the U.S. recovery in particular. The Bank's working assumption is that household and business confidence in the United States and Canada will recover to normal levels in the second half of next year in the absence of further major geopolitical shocks. In this scenario, a second-half U.S. recovery will increase demand for Canadian exports. As confidence rebuilds, the considerable amount of monetary stimulus in place, together with recently announced increases in government spending and previously announced tax cuts, is expected to support strong growth in domestic spending. Rebounds in domestic and foreign demand should support a recovery in business investment with a lag. The Bank's survey of businesses carried out in September suggested, however, that investment spending would likely edge down over the next year, reflecting the high level of uncertainty regarding the outlook for sales. In this scenario, growth is expected to remain relatively weak in the first half of 2002—about 2 per cent at an annual rate—before rising to about 4 per cent in the second half of 2002 (above the estimated growth rate of potential output of about 3 per cent). On an annual average basis, this implies growth for 2002 of about 1.5 per cent. This is comparable to the average private sector forecast of 1.7 per cent growth for 2002, down from 3.3 per cent at the time of the May *Report*.

The Bank's current working assumptions imply economic growth picking up to above that of potential in the second half of 2002.

Measures of inflation expectations

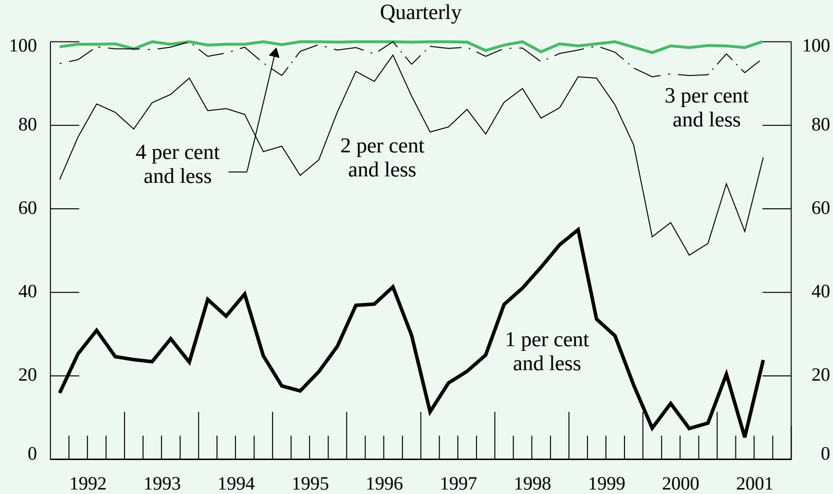
Longer-term inflation expectations remain very close to the midpoint of the inflation-control target range.

In the regular survey reported in the Conference Board of Canada's autumn *Index of Business Confidence*, 72 per cent of respondents expected prices, in general, to rise over the next 6 months at a rate of 2 per cent or less, and 96 per cent expected a rate of 3 per cent or less (Chart 15). The latest survey of firms conducted by the Bank's regional offices also confirms that inflation expectations are firmly anchored inside the Bank's inflation-control target range. The average private sector forecast for the rate of increase in the total CPI is 2.0 per cent in 2002 (slightly lower than last spring). As well, the differential between 30-year conventional and Real Return bonds is close to 2 per cent (Chart 16). Typical forecasts of longer-term inflation are 2.0 to 2.1 per cent, depending on the time horizon.

Chart 15

Percentage Distribution of Expected Price Increases Over the Next Six Months

Quarterly

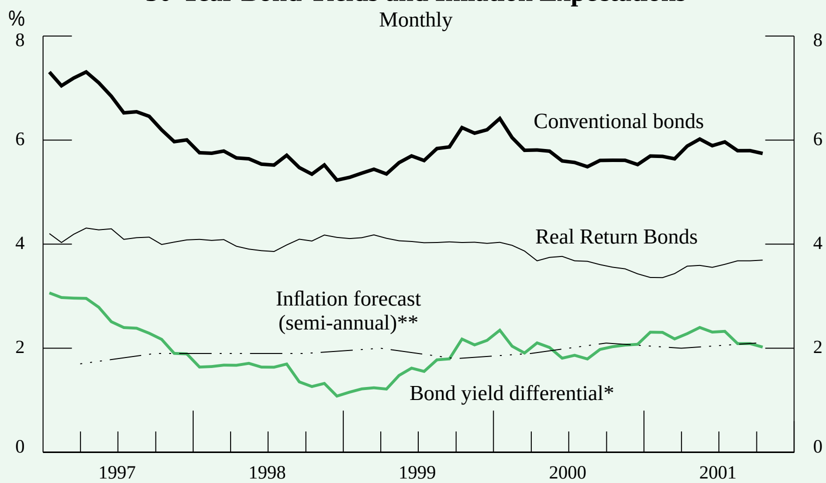


Source: Conference Board of Canada, *Index of Business Confidence*

Chart 16

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

The effect of past large increases in energy costs on the non-energy components of the CPI should remain small.

The pass-through of increased energy costs to the non-energy components of the CPI is likely to continue, although this effect is expected to be modest and to be spread over several years.

Assumptions about the prices of crude oil and natural gas will, however, continue to significantly affect the near-term outlook for consumer energy prices and therefore for the total CPI. If crude oil prices remain below their early–September price of US$27 per barrel for the remainder of this year, gasoline and fuel oil prices will likely remain below year-earlier levels. In addition, the 12-month rate of increase in natural gas prices at the consumer level is expected to ease further over the next 6 months.

The increase in costs arising from the depreciation of the Canadian dollar since the beginning of 2000 may continue to put some upward pressure on inflation over the next year and a half. Earlier episodes of large changes in the exchange rate during the 1990s, characterized by low exchange rate pass-through to the CPI in Canada and in many other industrial countries, suggest that these effects should be limited.

With the recent easing in labour market pressures, wage gains are expected to slow through 2002. Indeed, the Bank's latest survey of businesses shows that significantly fewer firms are expecting wage increases to rise than was the case at the end of 2000.

With stronger productivity gains anticipated after the start of the economic recovery, increases in overall unit labour costs should be moderate.

Projections from the monetary aggregates

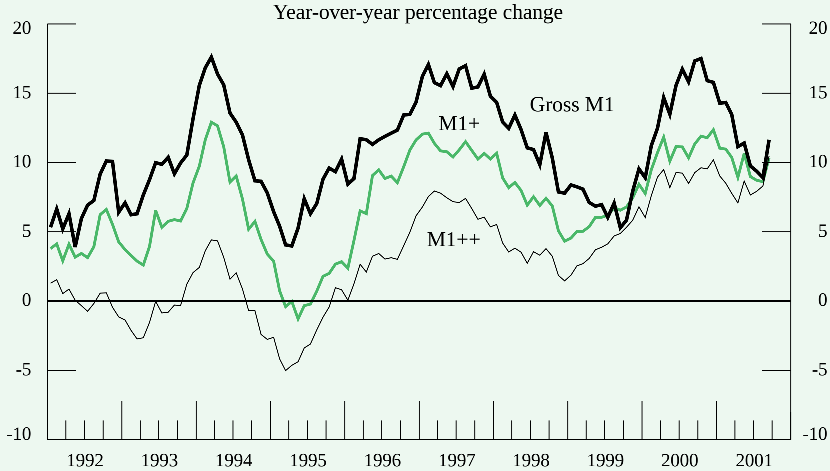
The rates of growth of the three narrow money aggregates have slowed significantly from the beginning of the year, but remain relatively strong.

While remaining relatively high, the rates of growth of the three narrow money aggregates, M1, M1+, and M1++, have slowed significantly from the beginning of the year (Chart 17). Much of the decline, particularly in the case of gross M1, was due to the decreasing importance of special factors such as an earlier jump in the deposits of financial institutions held at banks, which had boosted the growth of the narrow aggregates relative to that of underlying transactions balances.

Chart 17

Narrow Money Growth

Year-over-year percentage change



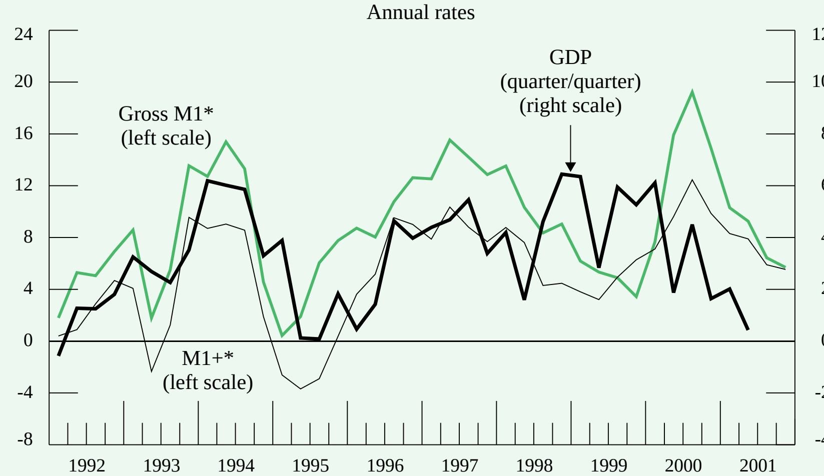
Part of the reason why growth in the narrow aggregates remained relatively strong over the period has been increased demand for money for precautionary purposes. In the face of heightened stock market uncertainty and concerns over future income, firms and individuals may be choosing to hold a higher level of liquid deposits for precautionary purposes. Tighter credit conditions in some sectors may also increase the desire for higher levels of liquidity. To the extent that these balances are used to purchase financial assets rather than goods and services once uncertainty is reduced, they are not an indication of immediate inflationary pressures.

In September, growth in narrow money increased sharply largely because of temporary factors associated with the terrorist attacks, which induced a large number of businesses and households to increase their liquidity and delay reinvestment of funds.

Chart 18

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

Annual rates



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

The Bank's model based on narrow money predicts that core inflation will fall to about 2 per cent over the next 6 months.

The forecast for real GDP growth in 2002, based on narrow money growth, is between 2 and 2.5 per cent (Chart 18). And the Bank's model based on narrow money predicts that core inflation will fall to near the midpoint of the inflation-control target range over the next 6 months.

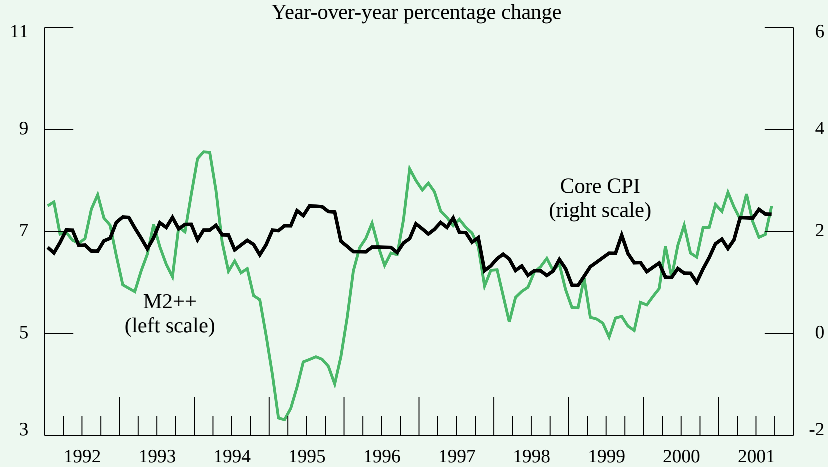
Growth in M2++ has also slowed since the beginning of the year, in line with falling contributions to mutual funds. The growth rate of M2++ increased in September, due primarily to a sharp rise in narrow money and increased interest in money-market mutual funds. Historical data for M2++ have been revised, owing to the adoption of a more reliable data source for contributions to mutual funds.[4] The new data result in a more moderate rate of growth in 2001 and early 2002 than was previously estimated. M2++ is currently growing at a rate that is broadly consistent with inflation of around 2 per cent (Chart 19).

4. Mutual funds data are now provided by the Investment Funds Institute of Canada.

Chart 19

Core Inflation and Broad Money Growth

Year-over-year percentage change



Inflation projection

The Canadian economy is judged to have moved into excess supply in the third quarter of 2001. In the scenario based on the Bank's working assumption, real output growth is not projected to exceed potential growth until the second half of 2002. Therefore, excess supply continues to build through to mid-2002, putting downward pressure on core inflation over this period. This influence is expected to be tempered by longer-term inflation expectations that remain close to 2 per cent and by current and projected increases in unit labour costs that are also in this range.

Excess supply in the economy continues to build through to mid-2002.

Under the working assumptions, the Bank would expect core inflation to move below 2 per cent in early 2002 and to fall to about 1 1/2 per cent in the second half of the year. The degree of economic slack is expected to start shrinking in the second half of 2002 and to disappear through 2003. Thus, by the end of 2003, core inflation should move back close to the 2 per cent midpoint of the target range.

Both core and total inflation are expected to move below 2 per cent in 2002.

If world energy prices remain at or below their early-September levels, the rate of increase in the total CPI is projected to fall to close to 2 per cent by the end of this year and to move below the midpoint of the target range in 2002. Under this assumption for energy prices, total CPI inflation would be below core inflation in 2002. Total CPI inflation is also expected to move back up towards the 2 per cent midpoint in late 2003.

By the end of 2003, both core and total inflation should move back close to the 2 per cent midpoint of the target range.

5. Conclusions

During this past summer, evidence had begun to accumulate that the economic slowdown in North America would be deeper and last longer than had previously been expected. In particular, the effects from the ongoing global retrenchment in the information and telecommunications sectors had become a much stronger force than was initially recognized.

The events of 11 September and their fallout around the world have added a further major element of weakness and uncertainty to the near-term prospects for the global economy and for Canada. How quickly levels of activity recover and economic growth resumes will depend crucially on geopolitical developments and on how soon consumer and business confidence in the United States and Canada return to normal.

One can construct a scenario where confidence is restored quickly and, given the amount of monetary and fiscal stimulus that has been provided, robust growth resumes early in 2002. On the other hand, consumer and business confidence in North America could stay weak for quite some time, in which case growth would remain sluggish through most of 2002.

In coming to its decision to further reduce the target for the overnight interest rate on 23 October, the Bank operated on the basis of the working assumptions presented in this *Report*. These assumptions are that there will be no further major escalation of terrorism and that confidence will recover to normal levels in the second half of 2002.

Based on this analysis, the Bank now expects downward pressure on inflation to persist through much of next year, with core inflation falling to about 1 1/2 per cent in the second half of 2002. The 75-basis-point cut in the Bank's key policy rate on 23 October, which, together with previous declines, has brought the target overnight rate down to 2.75 per cent, aims to support economic growth and keep inflation close to our 2 per cent target over the medium term.

While subject to an unusually wide band of uncertainty, the outlook presented in this *Report* will guide the Bank's judgment about the appropriate course for monetary policy as more information on the economy becomes available.

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In 2002, the Bank of Canada's *Monetary Policy Report* will be published in April and October. Regular *Updates* will be published in January and July. Copies of the full *Report*, the *Summary*, and the *Update* may be obtained by contacting: Publications Distribution, Communications Department, Bank of Canada, Ottawa, Ontario, Canada K1A 0G9.

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