BANK OF CANADA

# MONETARY POLICY REPORT

*– October 2004 –*

# 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 targets

- 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).

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5209
CN ISSN 1201-8783

Printed in Canada on recycled paper

B A N K   O F   C A N A D A

# Monetary Policy Report

## — October 2004 —

*This is a report of the Governing Council of the Bank of Canada:*
*David Dodge, Paul Jenkins, Sheryl Kennedy, Pierre Duguay,*
*David Longworth, and Mark Carney.*

We can be certain that . . . powerful global economic forces . . . will continue to be felt as the world economy continues to evolve. This evolution will lead to challenges that we must face, but it will also lead to opportunities that we must seize.

At the Bank of Canada, we will continue to monitor these global forces closely and assess their impact at home and abroad. This will help us contribute to Canada's future economic prospects through low and stable inflation.

David Dodge

*Governor, Bank of Canada*
*20 September 2004*

# Contents

# 1. Overview

The Canadian economy continues to adjust to major global developments. These include a marked recovery in world economic growth and an associated increase in commodity prices; the growing global presence of major emerging-market economies such as China and India; and a realignment of world currencies, including the Canadian dollar. Canadian monetary policy is facilitating the adjustment by aiming to keep inflation at its 2 per cent target and the economy operating near its production capacity.

Early in the year, with core inflation below target and excess supply in the economy, the Bank lowered its target for the overnight interest rate to 2 per cent to support growth in domestic demand. Given the appreciation of the Canadian dollar in 2003, the Bank did not expect net exports (the difference between exports and imports) to make a material contribution to growth in aggregate demand in 2004 and 2005. But, in fact, in the first half of this year, exports grew much more vigorously than anticipated. As a result, the Canadian economy has moved up near its production capacity sooner than was projected in either the April *Monetary Policy Report* or the July *Update*.

Recent developments have reinforced the continuing need for economic adjustments in Canada. Largely reflecting the strength of global demand, world oil prices have risen well above the Bank's earlier assumptions. The prices of non-energy commodities are at high levels, and the Canadian dollar has strengthened further, which places additional pressure on some sectors that are highly exposed to international trade.

Over the period to the end of 2006, the Bank's base-case projection is for aggregate demand for Canadian goods and services to expand, on average, at about the same rate as potential output, which is estimated at 3 per cent. Given the effects of higher oil prices and the past appreciation of the Canadian dollar, the Bank projects growth to be slightly less than 3 per cent in 2005 and slightly more than 3 per cent in 2006.

With the economy expected to remain near its production capacity throughout the projection period, core inflation is projected to move back up to 2 per cent by the end of 2005.

Against this background, the Bank moved to reduce the amount of monetary stimulus in the economy by raising its target for the overnight rate to 2.25 per cent on 8 September and to 2.50 per cent on 19 October (Chart 1). Further reduction of monetary stimulus will be required over time to keep inflation on target,

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

8 June — no change

20 July — no change

8 September — up 25 basis points to 2.25 per cent

19 October — up 25 basis points to 2.50 per cent

*This report is based on information received up to the fixed announcement date on 19 October 2004.*

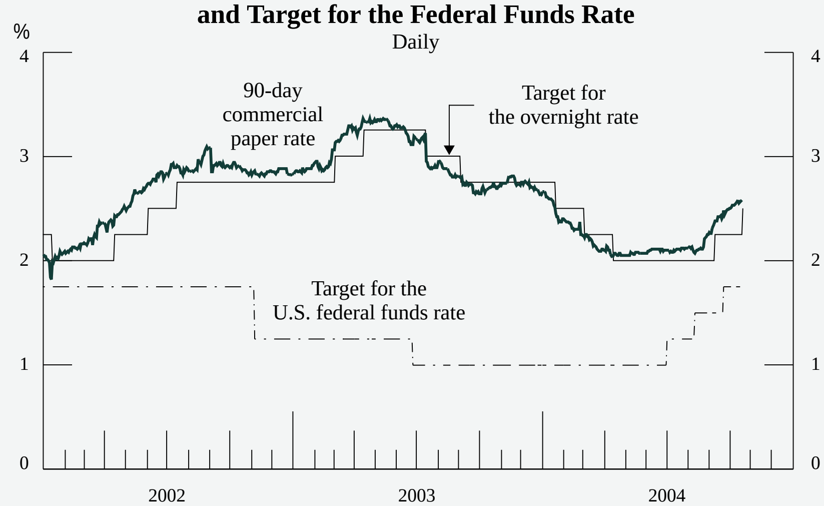
with the pace of interest rate increases depending on the Bank's continuing assessment of the prospects for factors that affect pressures on capacity and, hence, inflation.

The outlook for Canadian exports and imports is of particular significance in this respect, given the uncertainty associated with the ongoing adjustments to changes in the global economy, including changes in commodity prices and exchange rates. The risks surrounding global economic prospects relate primarily to the evolution of oil prices, the pace of expansion in China, the way in which current account imbalances in the United States and East Asia will be resolved, and geopolitical developments.

Chart 1

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

Daily



# 2. Recent Developments in Inflation

Core CPI inflation averaged 1.5 per cent in the first eight months of 2004, below the Bank's 2 per cent inflation-control target. At the same time, unexpectedly high prices for crude oil have contributed to a marked rise in the rate of increase in the total CPI.

## Inflation and the 2 per cent target

*Core inflation remained below the 2 per cent target in August.*

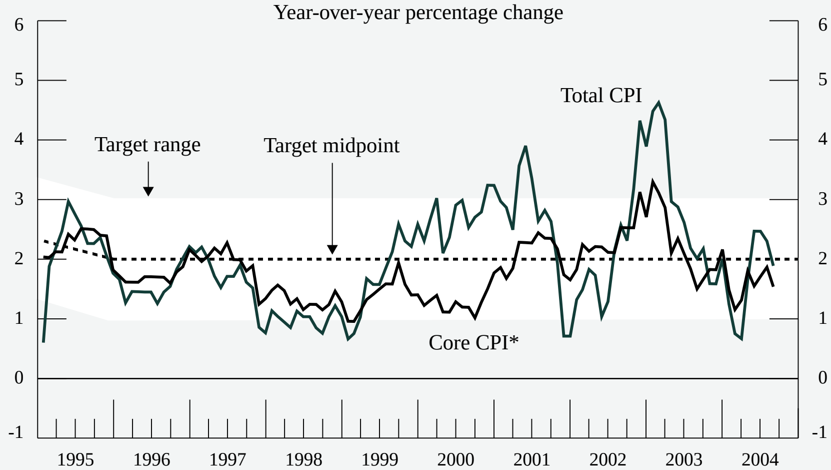
The core rate of inflation was 1.5 per cent in August, up from 1.1 per cent last February (Chart 2).[1] Other measures of the trend rate of inflation that the Bank follows were also below the 2 per cent target (Chart 3).

The slack in product markets, which had been evident through most of 2003 and into early 2004, contributed to keeping the core rate of inflation below the 2 per cent target through the first eight months of this year. The prices of import-intensive goods also continued to decline in the first eight months of 2004 as a result of further reductions in world prices for many consumer goods and the impact of the earlier rise in the Canadian dollar. Despite some volatility in intervening months, the overall rise in the core rate

Chart 2

**Consumer Price Index**

Year-over-year percentage change



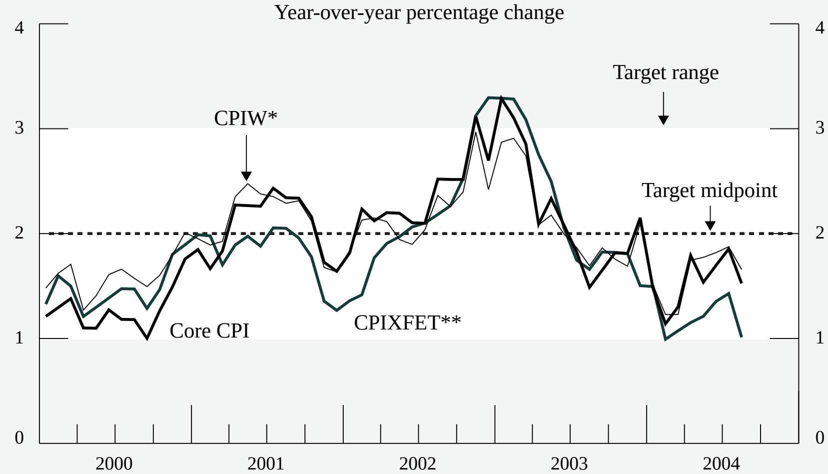

* CPI excluding the eight most volatile components and the effect of changes in indirect taxes on the remaining components

1. The core measure of inflation 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 3

**Core CPI and Other 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.

between February and August was about as projected in both the April *Report* and the July *Update*. With motor vehicle prices higher than expected, core inflation increased somewhat more than anticipated in the period from March to July. But in August, the core rate of inflation moved back into line with expectations, following renewed discounting of automobile prices. The 12-month rate of increase in consumer meat prices has also risen markedly in recent months, partly reflecting a reduced supply of chicken resulting from an outbreak of avian influenza in British Columbia's Fraser Valley.[2]

***The rate of increase in the total CPI has risen markedly since last February.***

The 12-month rate of increase in the total CPI was 1.9 per cent in August, up from 0.7 per cent in February. This larger gain relative to the core rate was caused mainly by substantial increases in the consumer prices of gasoline and fuel oil from their levels a year earlier. The price of crude oil has continued to rise since mid-April, reflecting strong global demand for oil and heightened concerns about the risks of supply disruptions in a number of oil-producing regions (Technical Box 1). Indeed, the price of oil is currently well above the levels in the base-case scenarios of both the April *Report* and the last *Update*.

2. It also reflected a recovery in consumer beef prices from the unusually low levels recorded in August 2003, following the closure of international borders to imports of Canadian cattle, beef, and related products as a result of the discovery of an isolated case of bovine spongiform encephalopathy in Alberta.

Technical Box 1

**Recent Movements in Oil Prices**

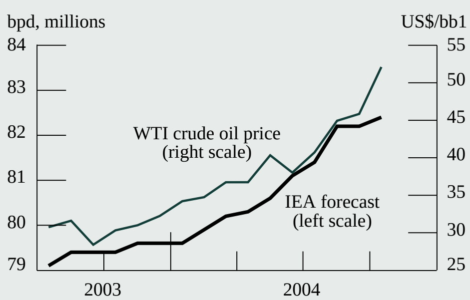
Crude oil prices have increased by more than 50 per cent since the beginning of this year, reaching a record high in October. Nevertheless, the peak oil price, in real terms, was still about 20 per cent below the historical peak reached in the second quarter of 1981. The recent unexpected rise in global oil prices has reflected both a substantial increase in the demand for oil, as world growth strengthened more than anticipated, and heightened uncertainty regarding potential disruptions to oil supplies, at a time of exceptionally low global spare capacity.

A repeated ratcheting up of actual and expected global demand during 2004 has underpinned the perception of a tighter oil market and the subsequent rise in price. The International Energy Agency's (IEA) estimate of world demand for crude oil in 2004, which stood at 80.3 million barrels per day (bpd) in April, has been raised to 82.4 million bpd. Robust economic growth in China and India has contributed to this marked rise in demand.

Spare capacity in OPEC-member countries (excluding Iraq), the only significant source of incremental short-term supply besides commercial oil stocks, is estimated to have touched record lows this year. In these circumstances, supply threats have had a particularly strong impact on prices by boosting the demand for inventories as a precaution against major supply disruptions. Concern about the security of oil production in the Middle East (particularly in Iraq), uncertainty surrounding Yukos Oil Company's production in Russia, recent political instability in Nigeria, and significant damage to oil production facilities in the Gulf of Mexico have all contributed to higher prices.

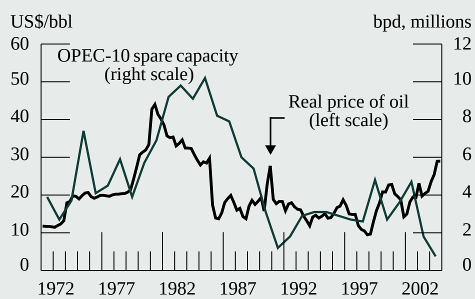
Prices of West Texas Intermediate crude oil futures suggest that prices are likely to remain at high levels in the near term, because of strong demand, low spare capacity, and supply threats. In the medium term, the global supply of crude oil should expand to meet higher demand, bringing prices gradually down. This is reflected in medium-term forward prices. The six-year forward price is currently US$38.30 per barrel.

**2004 Global Demand for Oil vs. Spot Price**




Source: IEA. Graph shows data received up to 13 October.

**Real Oil Price (Constant 1982–90 Dollars) and OPEC-10* Spare Capacity**




* OPEC-10 is all OPEC countries excluding Iraq.
The 2004 value is the level in September.
Source: IEA

# Factors at work on inflation

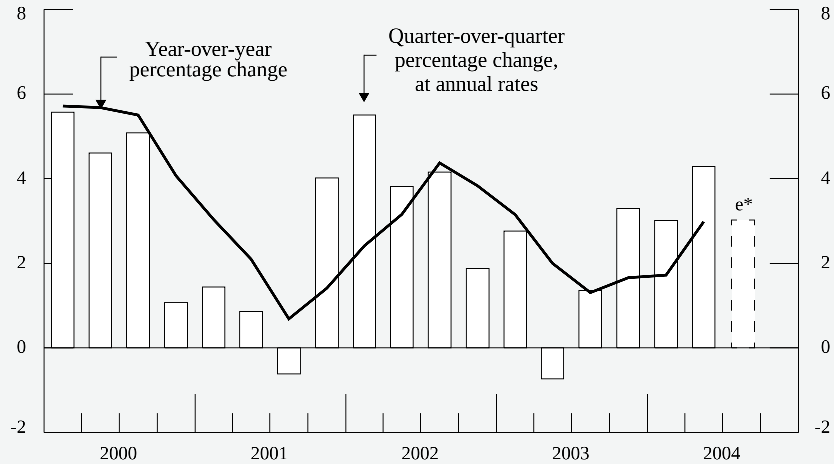
## Aggregate demand

***In the first half of 2004, economic growth in Canada was higher than projected . . .***

Canada's real GDP advanced at an annual rate of 3.7 per cent in the first half of 2004, higher than that projected in the last *Report* (Chart 4). In particular, the increase in exports was significantly stronger than expected. Recent indicators for spending and activity suggest that economic growth was about 3 per cent in the third quarter of 2004, marginally less than anticipated in the July *Update*.

Chart 4

**Real Gross Domestic Product for Canada**




* The letter "e" denotes estimate based on available indicators.

***. . . with exports surging and household spending also rising markedly.***

The broadly based surge in exports reflected continued strong growth in global economic activity, as well as a recovery from the unusually low level in mid-2003. Final domestic demand also rose considerably, especially at the beginning of the year (Chart 5). Household spending continued to increase at a robust pace because of past monetary stimulus and stronger gains in real incomes (Chart 6). Capital expenditures by businesses also rose substantially. Some of this increased demand was met by imports, although imports rose much less than exports. Since part of the increase in sales was likely unexpected by firms, inventories were also reduced.

Growth in the U.S. economy slowed to 3.3 per cent (at annual rates) in the second quarter of 2004 from 4.5 per cent in the first quarter, owing to weaker growth in consumption. Higher oil prices were mainly responsible for dampening consumption,

Chart 5

**Contribution to Real GDP Growth**

Percentage points, quarterly at an annual rate

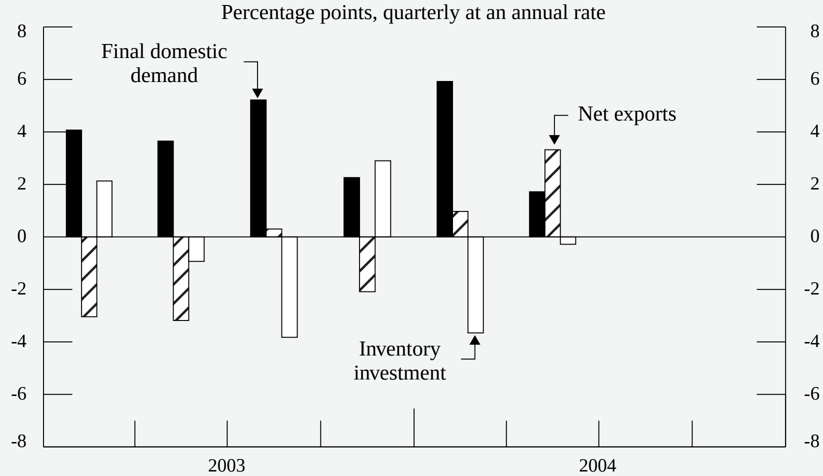
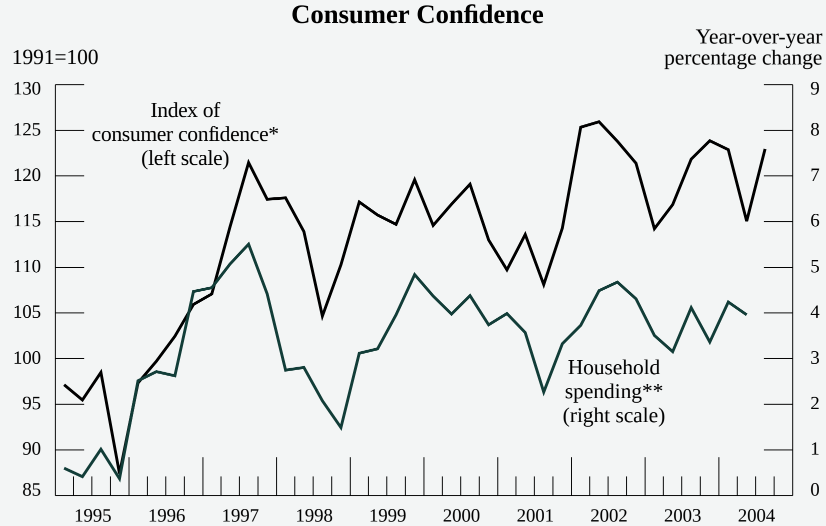



Chart 6

**Consumer Confidence**



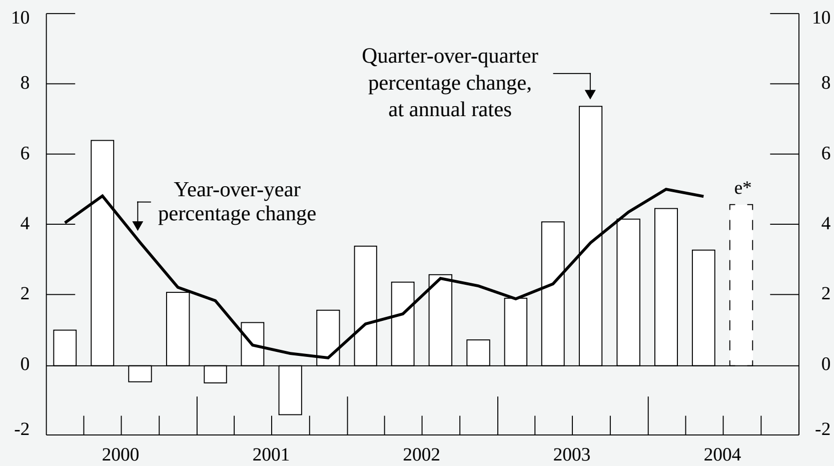

* Source: Conference Board of Canada (last data point 2004Q3)
** Expenditures in constant dollars on consumer goods and services plus housing investment

which is expected to rebound modestly in the third quarter.[3] Evidence to date indicates that growth rose to about 4.5 per cent in the third quarter (Chart 7).

3. Consumption in the third quarter is supported by surprisingly strong car sales, fuelled by dealer incentives.

Chart 7

**Real Gross Domestic Product for the United States**




* The letter "e" denotes estimate based on available indicators.

## Adjusting to Global Change

***The marked recovery in the global demand for Canadian goods and services has offset the effect of a stronger Canadian dollar . . .***

Canadian producers continue to adjust to developments in the global economy. These developments include a marked recovery in world economic growth; the associated increase in commodity prices; the growing global presence of major emerging-market economies, such as China and India; and large movements in the U.S. dollar against most other major currencies, including the Canadian dollar. The impact of these developments on the demand for Canadian goods and services is causing changes in the composition of activity, employment, and capital spending among the various sectors of the economy, as well as major adjustments by many firms. Indeed, many companies in industries that are highly exposed to international competition are making significant modifications to their operations.[4]

. . . ***and boosted output in most industries highly exposed to foreign competition.***

Between December 2003 and July 2004, output growth in Canada remained strong in those sectors with low exposure to international trade. Over the same period, however, the strength of global demand for Canadian goods and services has also led to sharply higher output in a number of industries highly exposed to international competition (Technical Box 2).

Business capital spending and intentions have also been importantly affected by key global economic developments.

4. This includes industries that are highly export oriented or highly exposed to import competition.

Technical Box 2

**Adjusting to Global Change: An Update of Sectoral Developments in Canada**[1]

Since the end of 2003, the impact of the global economic recovery on the demand for Canadian goods and services has become much more apparent. The strong recovery in exports in the first half of 2004 appears to have derived mainly from the global economic upswing and the accompanying rise in commodity prices. Exports also benefited from a shift in the composition of foreign activity in favour of components to which Canadian exports are particularly sensitive and from the diminishing effects of earlier unfavourable sectoral shocks.[2] Consequently, output growth in sectors highly exposed to international trade increased strongly, despite the appreciation of the Canadian dollar. In particular, production in industries manufacturing non-electrical machinery, chemical products, and fabricated metal products rose sharply. Continued substantial growth in Canada's final domestic demand during the first half of this year also contributed to further gains in activity in most sectors with a low exposure to international competition, especially in telecommunications services and retail trade.

There have been marked fluctuations in profitability among sectors in Canada since the end of 2002. Although aggregate profitability was high in 2003, the average rate of return on equity in sectors highly exposed to international trade worsened considerably between the first and third quarters of 2003. Companies in sectors where prices are determined in world markets (and denominated in U.S. dollars) quickly experienced the adverse effect of the Canadian dollar's appreciation on their profitability. Subsequently, with stronger output growth and substantial increases in world prices for commodities, profitability in most of these sectors had recovered considerably by mid-2004. The increase in profitability has been especially pronounced for manufacturers of automobiles and parts; chemicals, plastics, and rubber products; and wood and paper products.

Even so, because many companies in industries highly exposed to international trade had experienced weakness in their profitability over most of the period since 2001, they have continued to make adjustments since the end of 2003. For instance, there has been relatively little change in employment in the manufacturing sector since the end of last year, despite a marked rise in production. As well, capital spending in many industries with a high exposure to international competition (other than those producing energy and other commodities) has decreased considerably since 2002.

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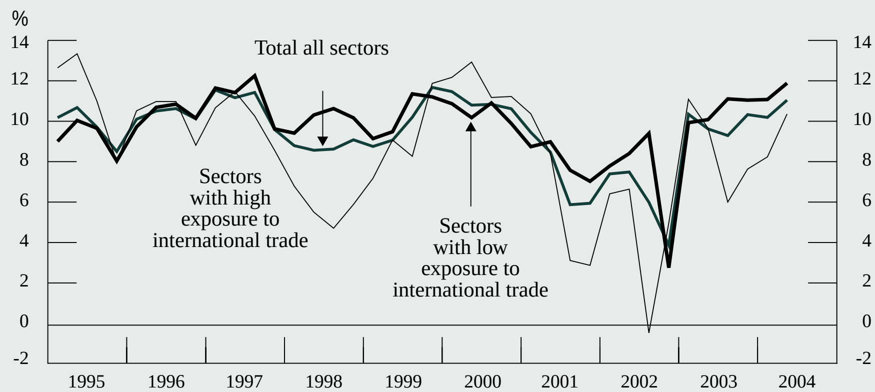
1. This technical box updates Technical Box 2 in the April *Report*.
2. See Technical Box 3 for more details.

| Real GDP by Sector<br>Percentage change | | |
|---|---|---|
| Sector | December 2002 to December 2003 | December 2003 to July 2004 (annual rate) |
| Aggregate business | 2.7 | 3.5 |
| High exposure to international trade or competition | 3.3 | 4.0 |
| Of which: | | |
| Mineral fuels | 2.1 | 0.2 |
| Non-energy, non-farm commodity based | 2.9 | 2.3 |
| Other high-exposure sectors* | 3.8 | 6.5 |
| Low exposure to international trade** | 2.5 | 3.3 |

* Includes selected non-commodity-based manufacturing industries
** Includes sectors that are exposed as net importers

**Rate of Return on Equity for Selected Sectors**



Indeed, the growth of business investment since 2002 has been concentrated in sectors with low exposure to international competition, as well as in industries producing energy and other commodities. In the remaining industries that are highly exposed to international trade and, therefore, to exchange rate fluctuations, capital spending has fallen back, however.

The Bank's autumn *Business Outlook Survey* suggested that, overall, the level of confidence among firms about sales prospects over the next 12 months remains about as high as it was in the summer survey, with firms in the West being significantly more optimistic than those in Central and Eastern Canada. Optimism about prospective capital spending also continues to be fairly high. Firms in most sectors still plan to increase their investment expenditures, with manufacturing continuing to be an exception.

More generally, it appears that many Canadian firms are still adjusting to developments in the global economy. Indeed, with continuing uncertainty attached to the outlook for global demand for Canadian goods and services, the likely path of world prices for energy and non-energy commodities, and the nature and extent of further changes in currencies, the size and timing of further adjustments by Canadian businesses remains uncertain.

## Estimated pressures on capacity

***Activity in the Canadian economy had moved up near its production potential by the second quarter of 2004.***

Canada's economic growth in the first half of 2004 was higher than projected in the April *Report*. This, combined with a small upward revision to real GDP data for 2003,[5] suggests that the Canadian economy has moved up near its production potential somewhat more quickly than was expected in the last *Report*. Indeed, the Bank's conventional measures of potential output and the output gap indicate that the level of economic activity was very close to full capacity by the second quarter of 2004 (Chart 8). While there continues to be a wide confidence interval surrounding any estimate of the output gap, the Bank believes that its conventional measure provides a balanced assessment of how close the economy is to its capacity limits. This is confirmed by the proportion of firms reporting pressures on capacity in the Bank's autumn *Business Outlook Survey* (Chart 9).

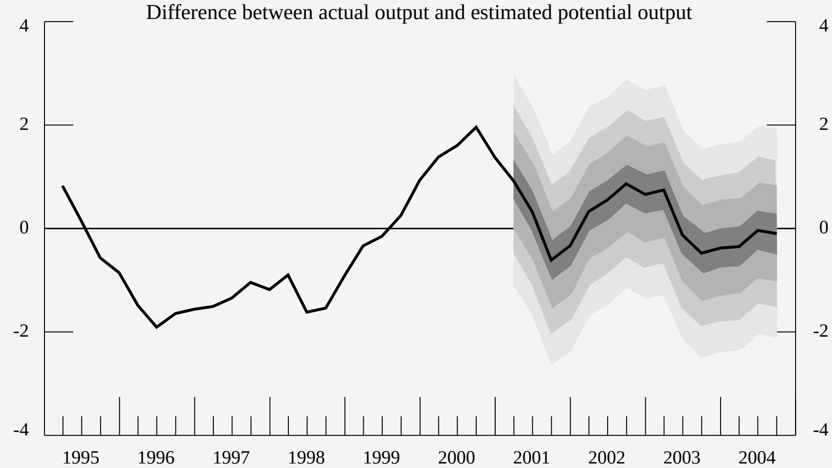
Some indicators currently point to greater pressure on capacity than the conventional measure. For instance, capacity utilization in the non-farm, goods-producing sector was well above the 2000–03 average. As well, the number of companies adversely affected by labour shortages rose from the summer *Business Outlook Survey*. These

5. Statistics Canada's estimate of real growth for 2003, on an average annual basis, was revised up to 2.0 per cent from an initial estimate of 1.7 per cent.

Chart 8

**Estimated Output Gap***

Difference between actual output and estimated potential output



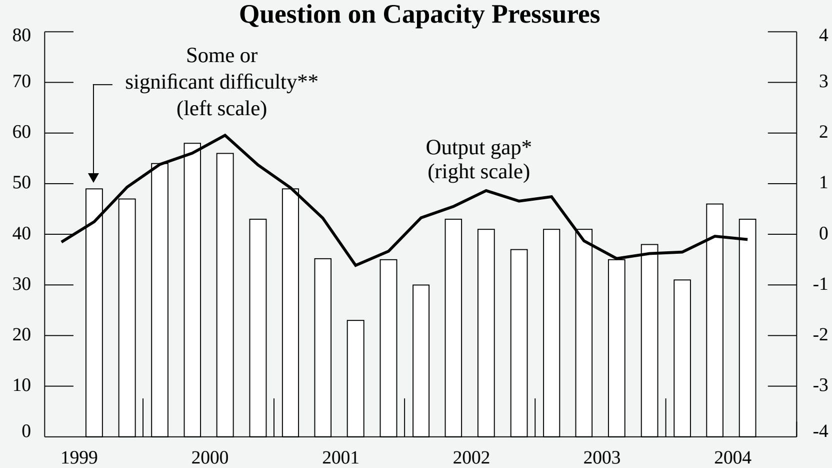

* The shading around the values of the estimated output gap shows (from darkest to lightest) confidence intervals of 25 per cent, 50 per cent, 75 per cent, and 95 per cent.

Note: The estimate for the third quarter of 2004 is based on a projected rise in output of 3 per cent (at annual rates) for the quarter.

labour shortages were widespread in the resource, trucking, business and personal services, manufacturing, and construction sectors. This last shortage is consistent with the capacity pressures that have been evident in the housing market for some time.

Chart 9

**Estimated Output Gap and Response to *Business Outlook Survey* Question on Capacity Pressures**




* Difference between actual output and estimated potential output. Note that the estimate for the third quarter of 2004 is based on a projected rise in output of 3 per cent (at annual rates) for the quarter.

** Percentage of firms indicating that they would have either some or significant difficulty meeting an unanticipated increase in demand/sales.

In contrast, other indicators suggest more slack than implied by the conventional measure of the output gap. Hours worked have been below trend, and wage increases continue to be moderate. The ratio of unfilled orders to shipments in the manufacturing sector (excluding aerospace products and parts) also remains quite low.

There are differences in capacity utilization across industries and regions, and some of these differences may well become more pronounced in the future as a result of the ongoing adjustment process to global changes. However, there is currently little excess supply in the Canadian economy as a whole.

## Cost control and output prices

***Unit labour costs in the second quarter of 2004 were up only modestly from year-earlier levels.***

Unit labour costs in the business sector in the second quarter of 2004 were up modestly from year-earlier levels, even though productivity increased only slightly over the past year (Chart 10). This reflected the fact that hourly labour compensation in the business sector rose by a mere 1 per cent between the second quarter of 2003 and the second quarter of 2004. However, the underlying rate of increase in wages, based on such measures as the average hourly earnings of permanent workers,[6] seems to have been in a range between 2 1/4 and 3 1/4 per cent since the fourth quarter of 2003 (Chart 11).[7]

Further large year-over-year increases in the prices of Canada's commodity exports during the first half of 2004, resulting from strong growth in the world economy, contributed importantly to the pronounced increase in the annual rise in the chain price index for GDP (a broad price measure of goods and services produced in Canada) between the fourth quarter of 2003 and the second quarter of 2004 (Chart 12). However, the prices of non-energy commodities have edged down slightly since mid-2004 (Chart 13). Upward revisions to forecasts for U.S. crop production contributed to a decline in grain prices, and the prices of forest products have also eased as a result of somewhat weaker demand. In contrast, strong world demand has led to firmness in metals prices.

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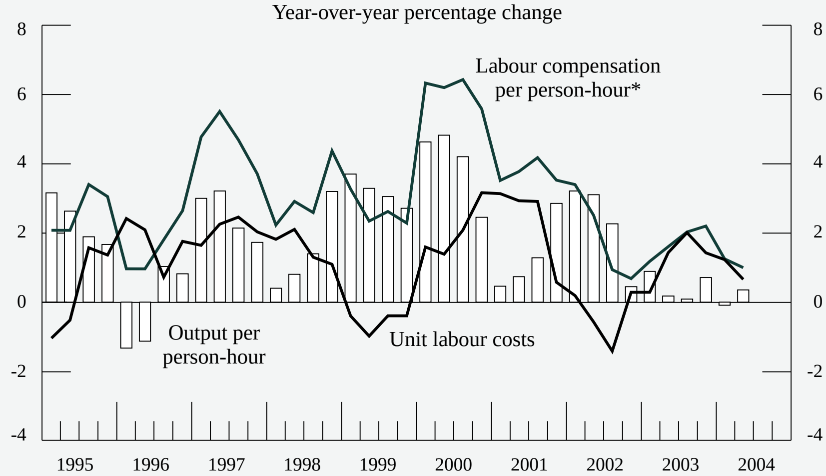
6. The average hourly earnings of permanent workers for the aggregate economy appear to give a better indication of the underlying rate of increase in wages than does labour compensation per person-hour in the business sector, partly because they are considerably less volatile. As well, the labour-compensation measure has, at times, been subject to considerable revision.

7. The drop in the average base-wage rate for contracts negotiated in the public sector in the second quarter of 2004 reflected the impact of a Government of British Columbia contract with health sector workers that contained wage cuts. The decrease in the average base-wage rate for contracts negotiated in the private sector in July 2004 reflected the impact of Air Canada agreements that contained wage freezes and some wage reductions.

Chart 10

**Unit Labour Costs and Labour Productivity: Business Sector**

Year-over-year percentage change

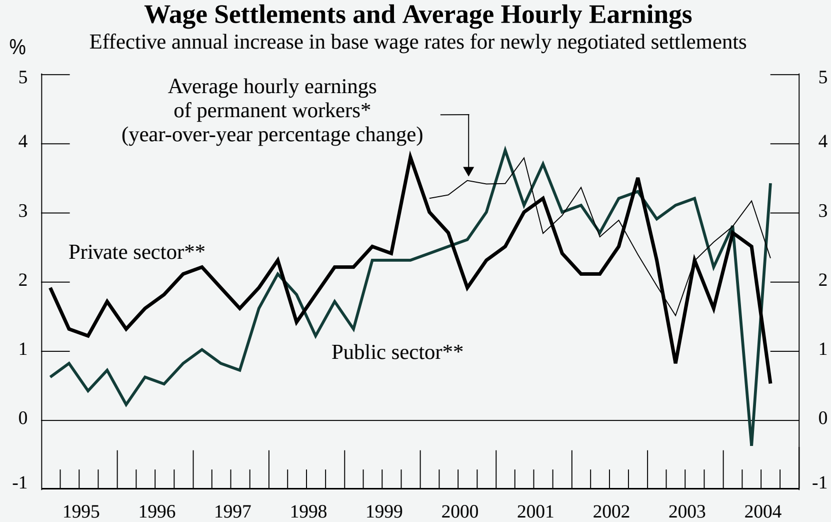



* Labour compensation includes the labour income of paid workers, plus imputed labour income for self-employed workers.
Source: Statistics Canada *Daily*

Chart 11

**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 2004
** Source: Human Resources Development Canada, last data point plotted, August 2004

Chart 12

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

Year-over-year percentage change

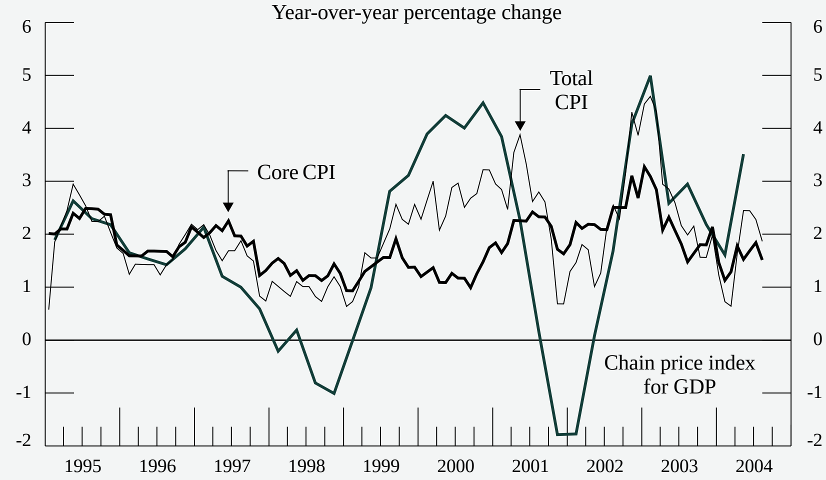
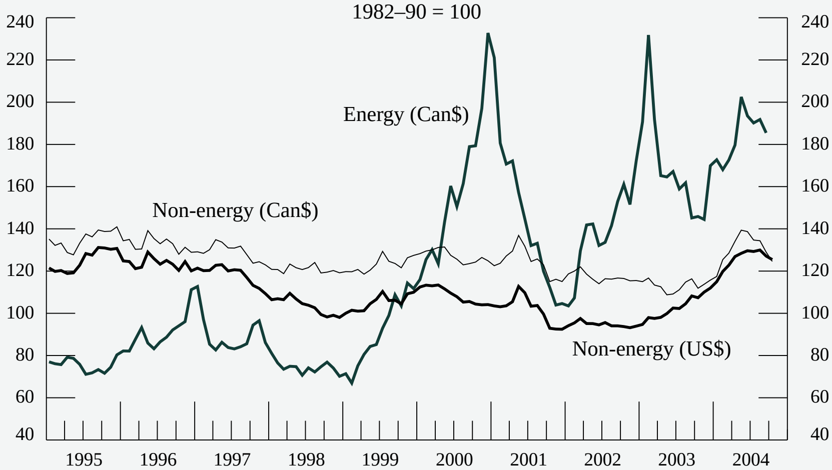



Chart 13

**Bank of Canada Commodity Price Index**

1982–90 = 100



# 3. Financial Developments

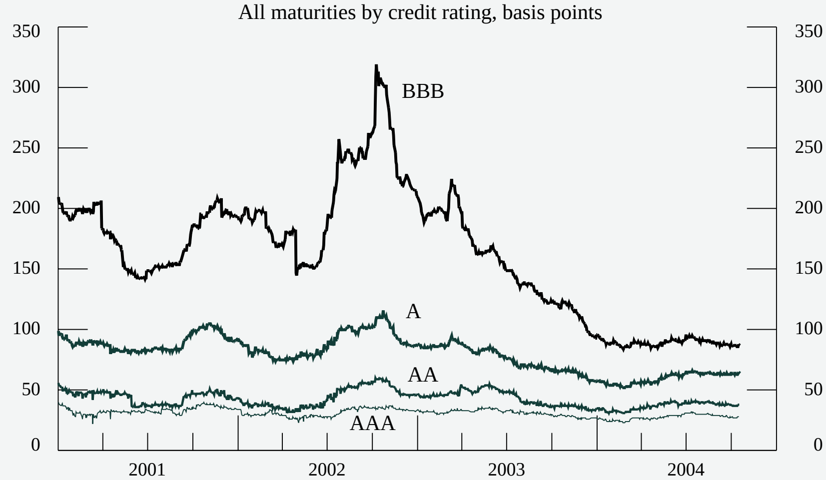
***Financial conditions have been very favourable.***

Financial conditions in Canada have been very favourable since the April *Report*. The yields and spreads on corporate bonds are broadly unchanged and remain below their historical averages, as strong profitability offsets concerns about the possible impact of higher interest rates in the future (Chart 14). Canadian equity markets have moved higher since the time of the last *Report*, and remain well above the levels seen a year ago. The solid earnings performance of Canadian banks, together with increased competition among financial institutions and between financial institutions and capital markets for business lending, has contributed to easier bank-lending conditions.

Chart 14

**Yield on Canadian Corporate Bonds Minus Yield on Government Bonds**

All maturities by credit rating, basis points




Source: Merrill Lynch

Favourable financial conditions and ongoing improvements in business balance sheets have led to a strengthening of total business credit growth, which is approaching a level in line with its historical averages (Chart 15). There has been a particularly brisk pickup in short-term business credit over the past few months—largely in the form of loans from chartered banks. This increase was due to lower borrowing costs, easier terms and conditions, and a slight increase in the demand for credit. Long-term business credit continued to grow solidly, supported by healthy issuance of bonds and equities in capital markets. However, most of the increase in business credit seems to have been directed towards general business operations rather than increased investment.

Household credit advanced at an accelerated pace, with both consumer credit and residential mortgage credit contributing to the rise. This pickup suggests that low interest rates and solid income growth are still bolstering consumption and housing investment.

Chart 15

**Business and Household Credit**

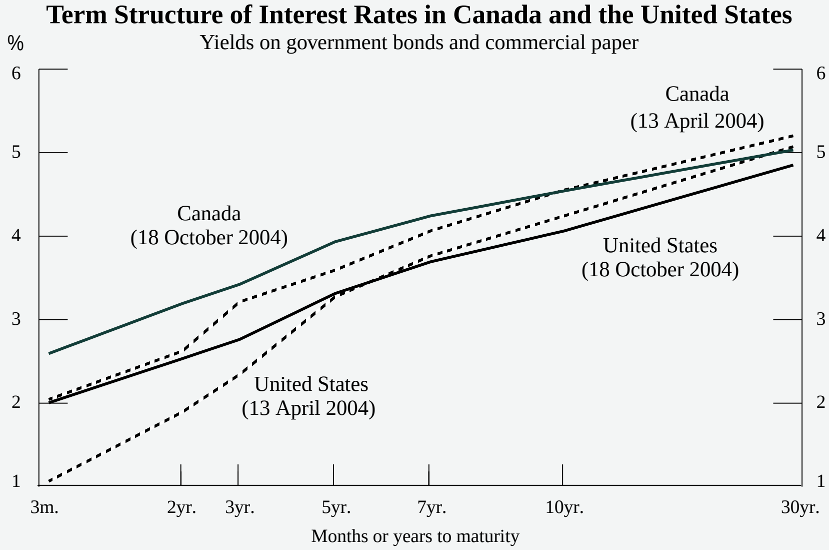
Year-over-year percentage change


Yields on shorter-term bonds in both Canada and the United States have risen since the last *Report*, driven by higher policy rates and expectations of further increases. Yields on longer-term bonds, in contrast, have shifted down slightly (Chart 16). Furthermore, bond yields are generally well below the peaks reached in May and June of this year. The early summer peak in yields

Chart 16

**Term Structure of Interest Rates in Canada and the United States**

Yields on government bonds and commercial paper



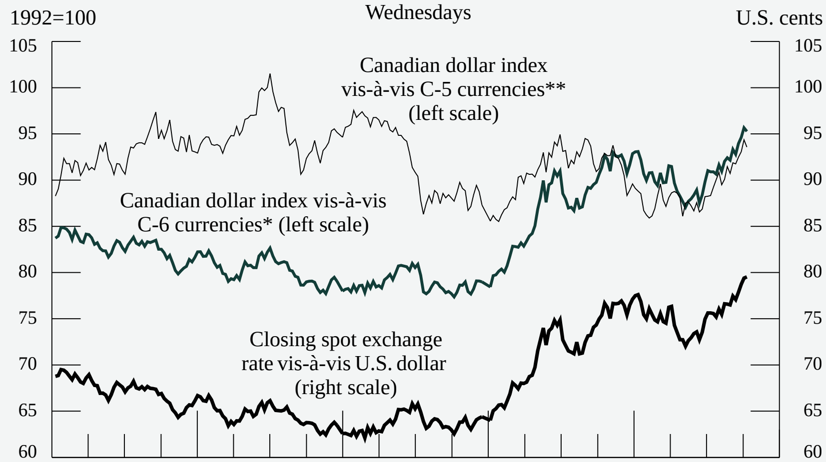
reflected both the perceived beginning of the tightening phase in the U.S. interest rate cycle and growing optimism about the strength of the U.S. and global recoveries. Subsequent concerns over the summer months about a U.S. slowdown, combined with record high oil prices and the dampening effect that they could have on consumption in several countries, have led to a sharp drop in yields from those earlier levels. Spreads between the yields on Canadian and U.S. government bonds have generally widened over the period, largely as a result of movements in U.S. yields.

Although the Canadian dollar also exhibited significant movements over the period, it is broadly stronger since the time of the last *Report*, having appreciated by slightly over 7 per cent relative to both the U.S. dollar and the C-5 index of currencies (Chart 17). By mid-May, when the growth outlook in the United States was at its most optimistic, the Canadian dollar had fallen to approximately 71.5 cents U.S. Following this, however, a combination of weaker-than-expected U.S. growth, stronger Canadian growth, and firming commodity prices contributed to the appreciation of the Canadian dollar, which is currently trading at close to 80 cents U.S.

Chart 17

**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

# 4. The Outlook

## International background

The global economy is expected to continue to expand over the next two years, fuelled by robust growth in Asia, somewhat above potential growth in the United States, and moderate growth in Europe and Japan (Table 1). The pace of expansion will be dampened by the recent sharp increase in oil prices, however, and by a move to higher interest rates as economies currently experiencing excess supply conditions move closer to full production capacity. The Bank's base-case projection calls for world economic growth to moderate from about 4 3/4 per cent in 2004 to about 4 per cent in 2005, and to pick up to about 4 1/4 per cent in 2006.

**Table 1**
**Global Growth Projections[a]**

| | Share of real global GDP[b] (per cent) | Expected growth (per cent) and percentage point contribution to global economic growth[c] | | |
|---|---|---|---|---|
| | | 2004 | 2005 | 2006 |
| United States | 21 | 4.6 [0.97] | 3.7 [0.78] | 4.1 [0.86] |
| European Union | 20 | 2.1 [0.42] | 1.9 [0.38] | 2.6 [0.52] |
| Japan | 7 | 4.1 [0.29] | 1.5 [0.11] | 2.1 [0.15] |
| China and Asian NIEs[d] | 16 | 8.2 [1.31] | 7.1 [1.14] | 6.5 [1.04] |
| Others | 36 | 4.6 [1.66] | 4.1 [1.48] | 4.8 [1.73] |
| World | 100 | 4.7 | 3.9 | 4.3 |

a. Source: Bank of Canada
b. GDP shares are based on the purchasing-power-parity (PPP) valuation of country GDPs for 2002. Source: IMF, WEO Database, September 2003.
c. Numbers in square brackets represent the contribution of each region to the global economic growth rate in percentage points.
d. NIEs are newly industrialized economies. These include Hong Kong (Special Administrative Region), Korea, Taiwan (Province of China), and Singapore.

While the outlook is favourable, there are a number of uncertainties, especially beyond mid-2005. The timing and extent of fiscal consolidation in most major economies is unclear at this time. More broadly, the form of the resolution of current account imbalances, notably those in the United States and East Asia, is difficult to ascertain. And there remain ongoing geopolitical concerns.

Over the next two and a half years, the Bank's base-case projection for the U.S. economy is for growth at a rate slightly faster than that of its production capacity. The key economic driver in the United States is expected to be strong growth in business investment, responding to underinvestment in recent years and to very favourable financing conditions. Productivity gains from past and future investments and capital deepening are expected to maintain the growth of potential output at about 3 1/2 per cent. The past depreciation of the U.S. dollar should boost net exports, while the recent sharp increase in oil prices, together with a reduction in monetary stimulus, and some assumed fiscal consolidation, will dampen growth in household spending. The output gap, estimated at 1 per cent in the third quarter of 2004, is projected to narrow further during 2006.

In Europe, the recovery, although uneven, is now somewhat more firmly anchored. Robust growth in some countries, such as the United Kingdom, is counterbalanced by less-favourable prospects in Germany and Italy. The recovery in Japan is expected to be sustained, albeit at a slower pace than recorded at the end of 2003 and early 2004. Emerging-market countries in Asia should continue to contribute positively to world growth if China successfully moves towards a more sustainable growth path.

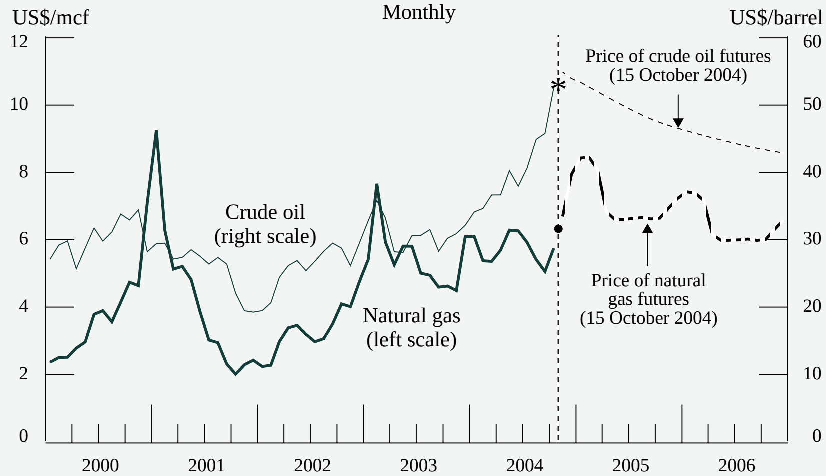
There are risks to the outlook for 2005. On the downside, the U.S. economy may slow more than expected, and the Chinese economy may slow more abruptly than projected. On the upside, investment growth and inventory rebuilding in the United States may be stronger than expected, and the Chinese economy may not slow as much as projected.

The U.S.-dollar prices of non-energy commodities are expected to remain at a relatively high level over the next two years as a result of the global economic expansion, although they are likely to ease over time as new supplies come on stream. The price of crude oil is assumed to remain above US$50 per barrel in the first half of 2005 and to ease to about US$43 per barrel by the second half of 2006. Natural gas prices, which will likely move up with the onset of the winter heating season, are expected to remain at relatively high levels through 2006. These assumptions are consistent with the current market expectations embodied in futures prices (Chart 18). The Bank's base-case scenario for oil prices is well above that used in both the last *Report* and *Update*.

Chart 18

**Crude Oil and Natural Gas: Spot and Futures Prices**

Monthly




* Spot price for crude oil (15 October 2004)

• Spot price for natural gas (15 October 2004)

Source: Canadian Enerdata Ltd., *Canadian Gas Price Reporter*

## Aggregate demand and supply in Canada

***Continued strong growth in final domestic demand is expected to contribute importantly to economic expansion in Canada through to 2006.***

Continued strong growth of final domestic demand is expected to contribute importantly to economic expansion in Canada through to 2006 (Table 2). Business investment is projected to strengthen further as a result of strong growth in the global economy and the resulting high level of commodity prices, very favourable financial conditions, and reductions in the prices of imported machinery and equipment. Solid growth in consumer spending should be sustained by further gains in real incomes. Housing investment is expected to stabilize at current high levels, as supply catches up with demand. And spending by all levels of government is projected to rise broadly in line with revenues as governments strive to maintain fiscal balance.

While continued global economic expansion implies further gains for Canadian exports, this is projected to be more than offset by faster growth in imports. The past appreciation of the Canadian dollar is expected to continue to dampen the growth of Canada’s exports and to boost that of imports through 2005.

However, it remains difficult to analyze Canada’s international trade volumes in terms of the underlying fundamentals (Technical Box 3). At mid-2003, the levels of both exports and imports seemed well below those indicated by their historical relationships with measures of real income and relative prices. Since then, exports have moved back up near their predicted long-run levels, while imports continue to be much lower than expected. These

**Table 2**
**Contributions to Average Annual Real GDP Growth**
Percentage points*

| | 2004 | 2005 | 2006 |
|---|---|---|---|
| Consumption | 1.8 (1.8) | 1.7 (1.8) | 1.7 |
| Housing | 0.4 (0.5) | 0 (0) | 0 |
| Government | 0.6 (0.5) | 0.7 (0.7) | 0.8 |
| Business fixed investment | 0.6 (0.7) | 0.8 (0.9) | 0.9 |
| *Subtotal: Final domestic demand* | *3.4 (3.5)* | *3.2 (3.4)* | *3.4* |
| Exports | 3.0 (2.3) | 2.0 (1.6) | 1.7 |
| Imports | -2.8 (-2.4) | -2.5 (-1.9) | -1.9 |
| *Subtotal: Net exports* | *0.2 (-0.1)* | *-0.5 (-0.3)* | *-0.2* |
| Inventories | -0.7 (-0.7) | 0.2 (0.4) | 0 |
| GDP | 2.9 (2.7) | 2.9 (3.5) | 3.2 |

* Figures in parentheses are estimates used for the scenario in the July *Update*.

puzzling developments, together with substantial and ongoing revisions to the trade data, make the projection of the future contribution of net exports to GDP growth particularly uncertain. More generally, given the various forces at play in the global economy, there are risks around our projections for imports and exports, and for business investment.

Higher-than-expected oil prices, both actual and prospective, should tend to reduce demand for Canadian exports, raise production costs for Canadian firms, and dampen household spending, all else being equal. Over time, they should also lead to higher capital spending and output by energy-producing firms. However, given the time necessary for regulatory approvals before major new projects can proceed, and given tight markets for many inputs, including skilled labour, the impact of higher oil prices on the capital expenditures of energy-producing companies is expected to be limited in the short term. Thus, higher energy prices are likely to have a small negative effect on Canadian GDP in the near term, before the positive impact on capital spending and energy output in Canada becomes more pronounced.

***Growth is expected to remain close to 3 per cent through 2006 . . .***

The Bank's base-case projection for Canada calls for real GDP growth to average about 3 per cent (the estimated growth rate of production capacity), at an annual rate, over the period from the second half of 2004 to the end of 2006. Given the effects of higher oil prices, including a slowing in U.S. economic expansion, and the anticipated further dampening of net exports arising from the

Technical Box 3

**The Dynamics of Exports and Imports**

Large changes in macroeconomic variables and significant disturbances to trade from unusual shocks, combined with ongoing high volatility and substantial revisions to trade data, have made the interpretation of export and import movements difficult over the last few years. Nevertheless, an analysis of recent trade data and macroeconomic developments within a framework of error-correction models of exports and imports suggests the following picture of trade adjustment.

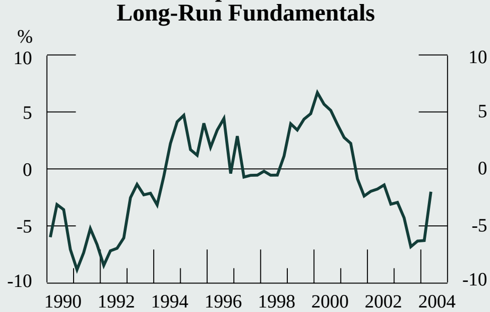
Exports have sprung up in recent quarters after a period of trend decline that had brought them well below the estimated long-run "fundamental" values suggested by an econometric model based on the observed levels of foreign output, the relative price of exports, and global openness to trade, as captured by the ratio of exports to GDP in OECD countries. This shortfall seems ascribable, at least in part, to increasing slack in the world economy and to a number of unfavourable sector-specific developments.[1] The recent resurgence of exports appears to have arisen mostly from the global economic upswing and the accompanying rise in commodity prices. Exports have also probably been boosted by a shift in the composition of foreign activity in favour of components to which Canadian exports are particularly sensitive,[2] the diminishing effects of earlier unfavourable sectoral shocks, and to a smaller degree, a decline over the past year in manufacturing unit labour costs relative to the export price of end products. As a result, exports had climbed back closer to their predicted long-run value by the second quarter of this year.

Imports have been trending up in 2003 and 2004 relative to a measure of import-intensive activity. At the same time, however, they have fallen increasingly below the values suggested by an econometric model based on the observed levels of import-intensive activity, the relative price of imports, and global openness to trade. Work at a disaggregated level suggests that this shortfall originates largely in machinery and equipment imports and that, to a small extent, it may have arisen from attempts by industries with high propensities to import equipment parts and components to reduce excessive stocks relative to sales. Uncertainty about the estimated parameters of the import model allows for a range of probable values for the shortfall of imports. Thus, the relatively large size of the estimate shown below must be interpreted with caution.

Although it remains very hard to project with confidence how trade adjustment will evolve in the future, it seems likely that net exports will make a negative contribution to growth in the short term as exports slow more than imports. Exports might receive less support from the factors that have counteracted exchange rate effects recently, while imports would likely tend to catch up to higher long-run "fundamental" levels.

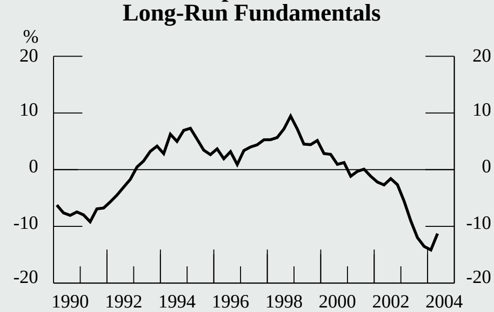
1. For a review of these shocks, see "Recent Trends in Export Volumes," Technical Box 1, *Monetary Policy Report*, April 2004.
2. For instance, a measure that weights indexes of U.S. industrial production and various components of U.S. GDP by the relative proportions in total Canadian exports of the export categories to which they relate shows significantly more growth from the third quarter of 2003 onwards than does U.S. GDP.

**Deviation of Exports from Estimated Long-Run Fundamentals**




Last date plotted: 2004Q2

**Deviation of Imports from Estimated Long-Run Fundamentals**




Last date plotted: 2004Q2

**Estimated Long-Run Elasticities**

| | Exports[a] | Imports[a] |
|---|---|---|
| Activity (foreign or domestic)[b] | 1.0[c] | 1.0[c] |
| Relative prices (of exports or imports) | -0.4 | -0.9 |
| Export intensity in OECD countries | 0.6 | 0.4 |

a. Model estimated over the period 1973Q1 to 2004Q1.

b. Foreign activity: Canadian-trade-weighted average of GDP indexes for the G-6 countries. Domestic activity: Canadian GDP less government expenditures and the statistical discrepancy, plus imports.

c. Imposed elasticity, not statistically different from an estimated unconstrained elasticity.

past appreciation of the Canadian dollar, growth is expected to be slightly less than 3 per cent during 2005 and slightly more in 2006. This implies growth, on an annual average basis, of just under 3 per cent in 2004 and 2005, and about 3 1/4 per cent in 2006.

The projection for growth in 2004 is a little higher than in the April *Report* and the July *Update*, whereas the projection for 2005 is lower. This growth projection for 2005 is also lower than the latest *Consensus* outlook.

This growth scenario implies that the Canadian economy may experience some small renewed excess supply in 2005 before returning close to its production capacity by mid-2006. The base-case scenario assumes further withdrawal of monetary stimulus over time to keep the economy near its production capacity and achieve the inflation target.

***. . . with the economy staying close to its production capacity.***

## Measures of inflation expectations

While most indicators of short-term inflation expectations that the Bank follows have moved up modestly since mid-April, many of the key medium- and longer-term measures remain close to 2 per cent. In the regular survey reported in the autumn issue of the Conference Board of Canada's *Index of Business Confidence*, 72 per cent of respondents expected prices, in general, to rise over the next six months at a rate of 2 per cent or less. This is a lower percentage than reported nine months earlier. As well, while just under 90 per cent of firms in the Bank's autumn *Business Outlook Survey* expected CPI inflation to be within a range of 1 to 3 per cent, on average, over the next two years, 54 per cent of respondents expected inflation to be in the upper part of the range. On the other hand, the average private sector forecast for total CPI inflation in both 2004 and 2005 is around 2 per cent. Consensus forecasts of inflation for 2006 and beyond also continue to be very close to 2 per cent.

***While indicators of near-term inflation expectations have moved up, many longer-term measures remain close to 2 per cent.***

## Other factors affecting inflation

There is a heightened risk that the recent surge in the global prices of energy may pass through to the prices of non-energy goods and services. Recent experience suggests that this pass-through effect is likely to be relatively small and spread out over a period of about two years. However, this experience may understate the pass-through of the recent increase in energy prices owing to its expected persistence.

On the other hand, the appreciation of the Canadian dollar since early 2003 is expected to continue to exert some slight downward pressure on core inflation.

Increases in average hourly earnings of permanent workers are expected to rise somewhat between now and 2006. At the same time, with growth in labour productivity expected to pick up over this period, the projected year-to-year increase in unit labour costs, while rising, should be at or below 2 per cent through the projection horizon.

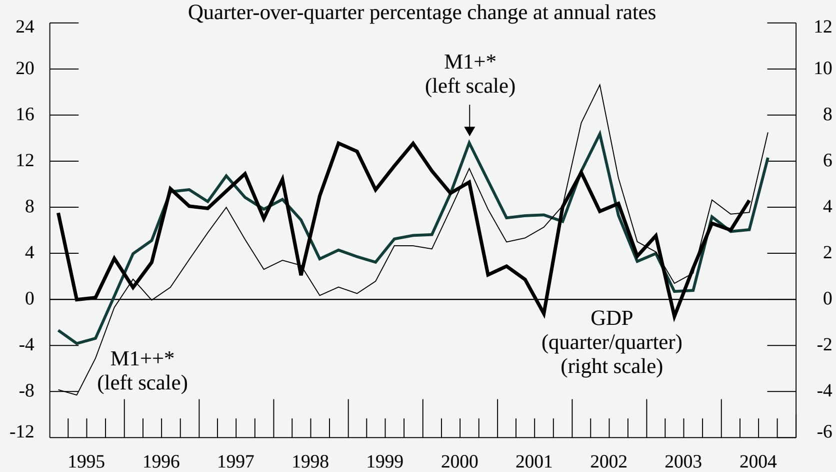
## Implications of money growth

Growth in the narrow money aggregates—M1+ and M1++—has continued its upward trend since the last *Report*. Although the pace moderated somewhat in July and August, it remains strong on a year-over-year basis. This strength is broadly consistent with the low interest rate environment and suggests strong output growth in coming quarters (Chart 19).

Chart 19

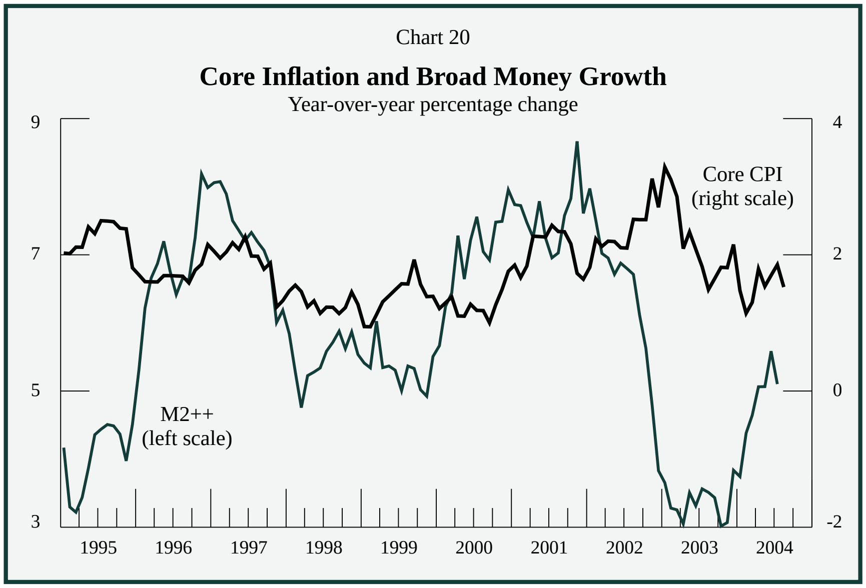
**Growth of Real GDP and M1+ and M1++**

Quarter-over-quarter percentage change at annual rates




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

Since the last *Report*, the growth of broad money—M2++— has continued to recover from the low levels of 2003. This recovery is attributed to the faster growth of the narrow money aggregates and, to a lesser extent, faster growth in non-money-market mutual funds. The stronger growth in M2++ points to a reduction in the risk of disinflationary pressure (Chart 20).




## Inflation projection

The excess supply in the Canadian economy, which was evident through most of 2003 and into early 2004, should keep core inflation slightly below longer-run expectations over the next few quarters. The past appreciation of the Canadian dollar is also expected to exert a little downward pressure on the core rate through 2005.

***Core inflation is expected to be about 1.5 per cent for the rest of 2004 . . .***

The year-over-year rate of increase in the core CPI is projected to remain at about 1.5 per cent for the rest of this year. This outlook incorporates larger monthly increases in the seasonally adjusted core CPI relative to those experienced in the first eight months of 2004, because recent price discounting for such items as clothing and non-shelter services is expected to moderate, and annual increases for tuition fees and property taxes are anticipated. In view of the volatility in the core rate observed in 2004 to date, the level of uncertainty surrounding the near-term monitoring of core inflation is somewhat higher than normal.

***. . . before moving up to the 2 per cent target by the end of 2005.***

With the economy operating near its potential over the projection period, the effects of other factors roughly cancelling each other, and inflation expectations remaining well anchored, the core rate of inflation is projected to move up to the 2 per cent target by the end of 2005 and to remain at 2 per cent through 2006 (Table 3).

**Table 3**
**Projection for Core and Total CPI Inflation**
Year-over-year percentage change*

| | 2004 | | 2005 | | | 2006 | |
|---|---|---|---|---|---|---|---|
| | Q3 | Q4 | Q1 | Q2 | H2 | H1 | H2 |
| Core inflation | **1.6** *(1.7)* | **1.5** *(1.6)* | **1.7** *(1.8)* | **1.8** *(1.8)* | **1.9** *(1.9)* | **2.0** *(2.0)* | **2.0** |
| Total CPI | **2.0** *(2.2)* | **2.8** *(2.2)* | **3.1** *(1.8)* | **3.0** *(1.8)* | **1.9** *(1.6)* | **1.5** *(1.7)* | **1.7** |
| Assumption for the Price of West Texas Intermediate Crude Oil (US$ per barrel) | | | | | | | |
| WTI (level) | **44** *(38)* | **54** *(38)* | **53** *(36)* | **51** *(36)* | **48** *(35)* | **45** *(33)* | **43** |

* Figures in parentheses are from the July *Monetary Policy Report Update*.

***Total CPI inflation is likely to move well above the core rate and remain there until mid-2005.***

Developments in the markets for crude oil will continue to have a crucial impact on the outlook for the 12-month rate of increase in the total CPI (Chart 18). Based on the assumption that the price of crude oil will remain above US$50 per barrel through to mid-2005, total CPI inflation is likely to rise near the top of the target range and stay there until the middle of next year. With the WTI price of oil assumed to ease below US$50 per barrel in the second half of 2005 and then to decrease further to US$43 per barrel by the second half of 2006, total CPI inflation should fall sharply in the second half of next year and stay below the core rate of inflation through 2006.

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# APPENDIX

## Inflation Performance since May 2001

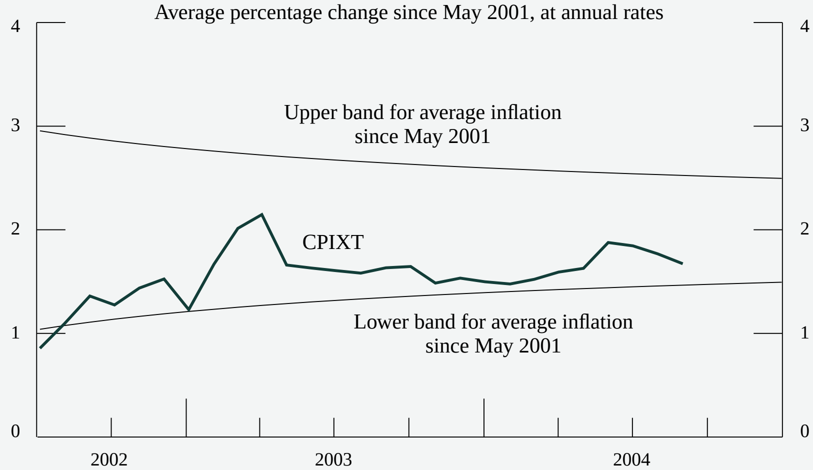
In May 2001, the Government of Canada and the Bank announced the renewal of the inflation-control target for a period of five years to the end of 2006. The Bank announced its intention to strengthen the way in which the target arrangements would be implemented in order to increase the predictability of inflation over longer time horizons. Inflation performance since May 2001 is reviewed here to assess how well this commitment has been met.

The Bank's commitment to keep future inflation at the 2 per cent target midpoint implies that inflation should be expected to average 2 per cent over extended periods. Indeed, the average annualized rate of inflation for the CPI excluding the effect of changes in indirect taxes (CPIXT)[1] has been 1.7 per cent since May 2001 (Chart A1).

Chart A1

**CPI Excluding the Effect of Changes in Indirect Taxes**

Average percentage change since May 2001, at annual rates




With monetary policy systematically directed to moving inflation to 2 per cent over a six-to-eight-quarter horizon, most outcomes for 12-month inflation will be contained within a range of +/-1 per cent around this target midpoint. Therefore, in Chart A1,

1. This measure is the focus here because the Bank's policy actions do not try to offset the first-round effects of changes in indirect taxes. Because of increases in tobacco taxes, the average rate of inflation for the total CPI was 1.9 per cent for the same period.

the range shown for May 2002 is +/-1 per cent around 2 per cent. However, the width of the range containing the same frequency of inflation outcomes would decline over time when the average inflation rate is calculated over a longer period if there is no correlation between non-overlapping 12-month inflation rates (i.e., if deviations from target are truly random). In Chart A1, this characteristic is shown by the diminishing distance over time between the upper and lower bands. For more details, see Crawford (2001).

Other approaches can be used to assess the predictability of inflation over horizons longer than one year. For instance, the annualized rate of CPIXT inflation over a two-year horizon has been within 1 per cent of the target 95 per cent of the time since May 2001 (Table A1). It has also been more tightly centred around the target midpoint than in the preceding period (from December 1996 to April 2001). As a result, the average annual rates of change measured from December 1994 for CPIXT have been very close to 2 per cent over most of the period from May 2001 to August 2004 (Chart A2).[2] Correspondingly, measures of inflation expectations over horizons of two years have remained tightly clustered around the target midpoint.

**Table A1**
**Annualized Inflation over Two-Year Horizons**
CPI excluding the effect of changes in indirect taxes (CPIXT)

| | Percentage of time within a range around the target midpoint | | |
|---|---|---|---|
| | Range | | |
| | +/-0.7% | +/-0.8% | +/-1.0% |
| December 1996 to April 2001 | 62 | 81 | 91 |
| May 2001 to August 2004 | 90 | 95 | 95 |
| May 2002 to August 2004 | 96 | 100 | 100 |

Monetary policy cannot keep inflation at exactly 2 per cent each month. Factors such as unexpected disturbances in aggregate demand and supply and large changes in the prices of volatile CPI components, such as energy, can move observed inflation above or below the target midpoint. Nonetheless, if the conduct of monetary policy is systematically focused on moving inflation towards

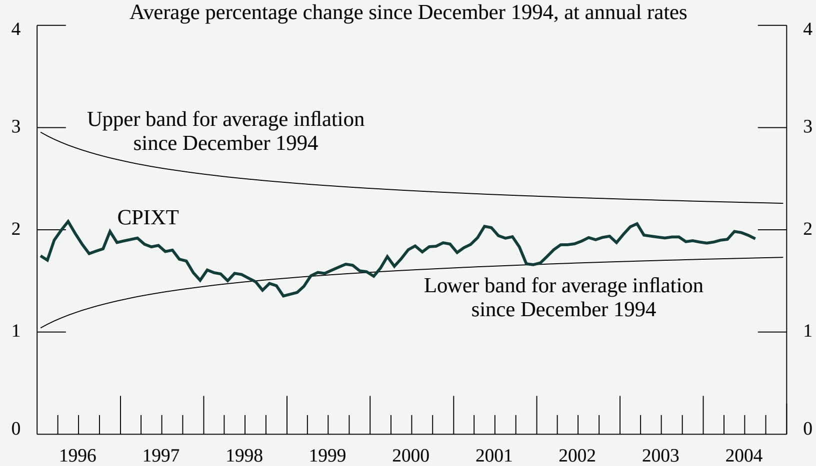
2. December 1995 was the first month in which monetary policy had a target range with a midpoint of 2 per cent for the 12-month inflation rate.

the target midpoint, actual outcomes should be within the target range a high percentage of the time. Indeed, the 12-month rate of change of the CPIXT has been within the target range just under 70 per cent of the time for the period under review, very close to the outcome for the preceding period from December 1995 to April 2001 (Table A2). Moreover, transitory price movements in the volatile components of CPIXT have been mainly responsible for the movements of the 12-month inflation rate that were outside the target range over this period, since the core rate of inflation has been within 1 per cent of the target midpoint only marginally less often than in the preceding period (Table A3).[3] Indeed, unusually large fluctuations in the prices of energy commodities since May 2001 have contributed to somewhat more frequent, although temporary, movements in the 12-month inflation rate for the CPIXT outside the target range than was the case in the preceding period from December 1995 to April 2001.

Chart A2

**CPI Excluding the Effect of Changes in Indirect Taxes**

Average percentage change since December 1994, at annual rates




3. This was due to a large increase in insurance premiums between the end of 2001 and early 2003, which pushed the core rate of inflation temporarily above the upper limit of the target range at the end of 2002 and early 2003.

**Table A2**
**Percentage of Time 12-Month Inflation Was Within a Range Around the Target Midpoint**
CPI excluding the effect of changes in indirect taxes (CPIXT)

| | Range | | |
|---|---|---|---|
| | +/-1% | +/-1.2% | +/-1.5% |
| December 1995 to April 2001 | 74 | 85 | 100 |
| May 2001 to August 2004 | 68 | 70 | 83 |

**Table A3**
**Percentage of Time Core Inflation (CPIX) Was Within a Range Around the Target Midpoint**

| | Range | | |
|---|---|---|---|
| | +/-0.7% | +/-0.8% | +/-1.0% |
| December 1995 to April 2001 | 69 | 85 | 97 |
| May 2001 to August 2004 | 88 | 88 | 93 |