BANK OF CANADA

Monetary Policy Report

April 2006

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 aims to keep 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 eight of the 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 indicator of underlying inflationary pressures than the latest twelve-month rate of increase in the total CPI (Macklem 2001).

Bank of Canada
234 Wellington Street
Ottawa, Ontario
K1A 0G9

5312
CN ISSN 1201-8783

Printed in Canada on recycled paper

BANK OF CANADA

MONETARY POLICY REPORT

— April 2006 —

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

Global imbalances are a global problem, and their resolution requires a global effort . . . . While the specific policy measures will vary from country to country, there are common principles that policy-makers everywhere should follow. These include the adoption of appropriate fiscal policies, the promotion of well-functioning labour and product markets, the provision of a well-functioning social safety net, policies that allow for an efficient and sound financial system, and a monetary policy focused on low, stable, and predictable inflation . . . . An orderly resolution of imbalances is in all of our interests.

David Dodge

Governor, Bank of Canada
6 February 2006

Contents

1. Overview

Developments in the target for the overnight rate since the January *Update*:

7 March 2006—up 25 basis points to 3.75 per cent

25 April 2006— up 25 basis points to 4.00 per cent

The Canadian economy continues to grow at a solid pace, consistent with the Bank's outlook in the January *Monetary Policy Report Update*. The global economy has been robust, showing a little more momentum than had been anticipated. This has led to higher prices for many commodities which, along with strong domestic demand, have supported economic activity in Canada. At the same time, global competition and the past appreciation of the Canadian dollar continue to pose challenges for a number of sectors. All factors considered, the Canadian economy is judged to be operating at, or just above, its production capacity.

High and variable energy prices associated with the strength of global demand have kept total CPI inflation above the Bank's 2 per cent target. Core inflation has remained below 2 per cent, owing to persistent downward pressure from the prices of imported consumer goods.

Against this backdrop, the Bank raised its policy interest rate by one-quarter of one percentage point on 7 March and again on 25 April, bringing it to 4.0 per cent.

Canada's GDP is projected to grow by 3.1 per cent in 2006, in line with expectations in the January *Update*, and by 3.0 per cent in 2007, slightly stronger than previously expected. Growth in 2008 is expected to be 2.9 per cent. The Canadian economy is projected to operate slightly above its capacity through 2006 and to return to capacity by the end of 2008.

Total CPI inflation will continue to be volatile, affected by the evolution of energy prices. Based on prices embedded in energy futures markets, the Bank projects total CPI inflation (excluding any changes in the Goods and Services Tax) to average close to 2 per cent in 2007 and 2008. Upward pressure on inflation from excess demand in the economy is offset by downward pressure from the declining prices of many imported consumer goods. Core inflation is projected to rise to 2 per cent in the second half of this year and remain there through the end of 2008.

There are both upside and downside risks to the Bank's projection for growth and inflation. In the Bank's view, these risks are roughly balanced with a small tilt to the downside later in the projection period.

In line with the Bank's outlook for the Canadian economy, some modest further increase in the policy interest rate may be required to keep aggregate supply and demand in balance and inflation on target over the medium term. The Bank will closely monitor evolving developments in the Canadian economy in light of the cumulative increase in the policy interest rate since last September.

This report includes information received up to the fixed announcement date on 25 April 2006.

2. Recent Developments in Inflation

CPI inflation averaged 2.5 per cent between September and March . . .

The 12-month rate of increase in the total CPI was somewhat higher than the Bank's 2 per cent inflation-control target, averaging 2.5 per cent for the period between September 2005 and March 2006. This chiefly reflected considerable increases in energy prices at the consumer level. On the other hand, the core rate of inflation averaged 1.7 per cent over the same period, reflecting continued downward pressure from import prices.[1]

Inflation and the 2 per cent target

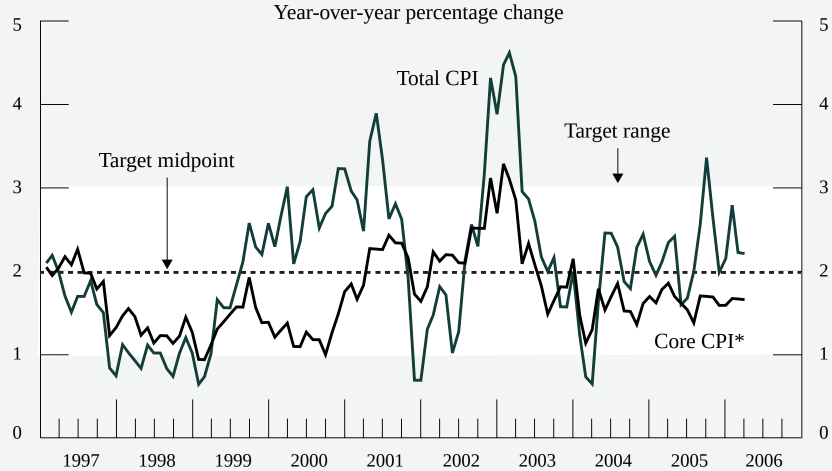
. . . and continued to show considerable volatility.

The inflation rate for the total CPI has been quite volatile, moving in a range between 2.0 and 3.4 per cent since the October *Monetary Policy Report* (Chart 1). This was caused by ongoing fluctuations in gasoline prices and marked increases in consumer prices for natural gas.

Chart 1

Consumer Price Index

Year-over-year percentage change



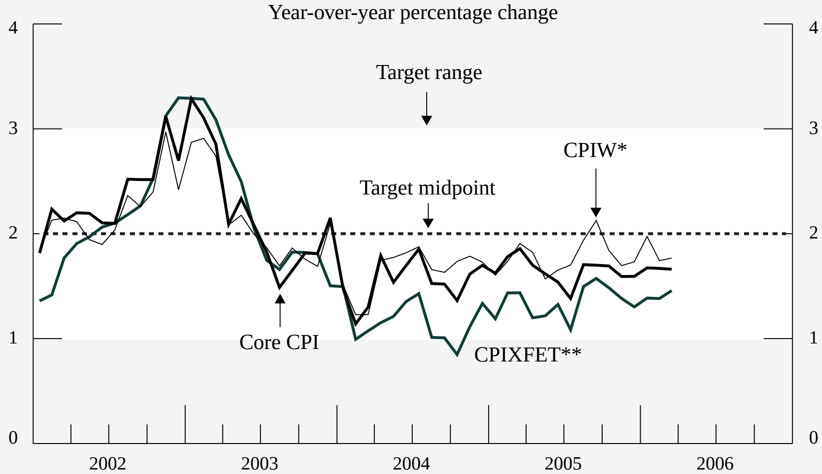
* CPI excluding eight of the most volatile components and the effect of changes in indirect taxes on the remaining components

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

Chart 2

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.

Core inflation and other measures of trend inflation stayed below 2 per cent.

The core rate of inflation has remained very stable in recent months at about 1.7 per cent. Other measures of the trend rate of inflation that the Bank follows have also remained below 2 per cent (Chart 2).

Although the Canadian economy has been operating close to its full production capacity since the second quarter of 2004, the prices of many import-intensive goods have continued to fall, reflecting declines in the world prices of many manufactured goods and the past appreciation of the Canadian dollar. This continued to put downward pressure on core inflation.[2] There has been relatively little evidence that higher energy costs are being passed more generally to the prices of other goods and services.

Factors at work on inflation

Aggregate demand and adjustments to global developments

With much higher energy prices . . .

In the second half of 2005 and into early 2006, the Canadian economy continued to grow steadily, even as it underwent significant adjustments in response to global developments and associated changes in relative prices. These developments included strong world economic growth, high and volatile energy prices, high price levels for many other commodities, declining prices for

2. Over the past year, reductions in the prices of non-auto durable and semi-durable goods (both of which have high import content) took 0.3 percentage points off core inflation.

many manufactured goods, and the appreciation of the Canadian dollar.

. . . Canada's terms of trade improved considerably in the second half of 2005.

The surge in world energy prices improved Canada's terms of trade (the price of exports relative to the price of imports) considerably in the second half of 2005. With this improvement, real income rose more rapidly than real output (measured by real GDP), as evidenced by substantial gains in corporate profits, labour income, and government revenues.

Canada's real GDP grew as expected . . .

Canada's real GDP grew at an annual rate of 3 per cent in the second half of 2005, as expected at the time of the January *Update*. Consequently, the level of economic activity at the end of last year was very close to what had been anticipated. Based on available indicators, it appears that real GDP grew by about 3.2 per cent in the first quarter of 2006, driven by many of the same factors that were evident through the second half of last year.

. . . with strong gains in final domestic demand.

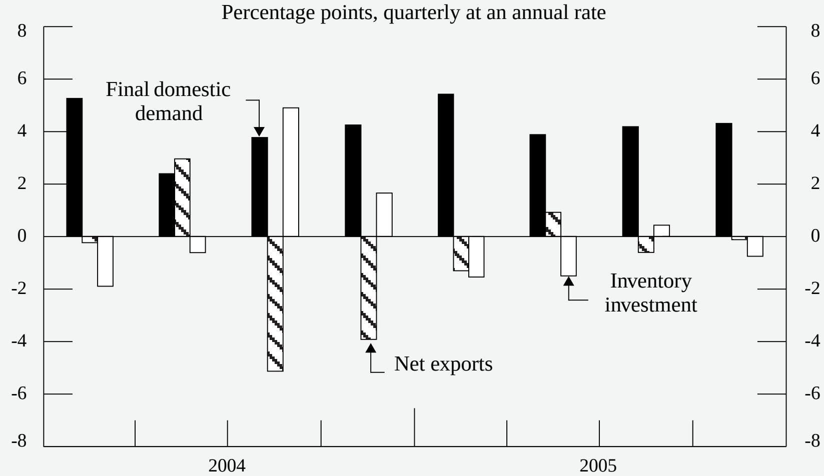
Final domestic demand continued to contribute significantly to GDP growth in the second half of 2005, while net exports were little changed over the period (Chart 3). Businesses, facing competitive pressures to reduce costs and increase productivity in some instances, and capacity constraints in others, undertook further sizable increases in capital spending. These increases were supported by strong overall profitability, ongoing reductions in the prices of imported machinery and equipment, and favourable financing conditions. The growth of household expenditures eased somewhat over this period, following a marked increase in the first half of 2005.

Businesses continued to significantly increase capital spending . . .

Chart 3

Contribution to Real GDP Growth

Percentage points, quarterly at an annual rate



. . . and there was substantial growth in exports and imports.

With continued strong growth in the global economy, Canada's exports rose substantially. Indeed, export growth strengthened appreciably in the second half of 2005, owing largely to a recovery in exports of automotive products. At the same time, import growth also picked up, boosted by the considerable growth in final domestic demand.

Energy-related capital spending has risen very strongly . . .

High global prices for energy commodities and metals helped to maintain very high levels of profitability in oil and gas extraction, mining, and related processing industries during the second half of 2005 and into 2006. Production in these industries also picked up noticeably in the second half of 2005, having been held back earlier in the year by temporary disruptions. As a result, capital spending has strengthened appreciably, and plans indicate further strong gains in investment spending for this year. Expenditures on pipeline infrastructure are also being markedly increased. While the economic impact of higher capital spending by energy-related firms is most apparent in Western energy-producing provinces, some activity in other provinces is also being generated by related purchases of goods and services.

In most sectors with a low exposure to foreign competition, such as construction and wholesale and retail trade, profitability remained strong in the second half of 2005. Output rose solidly, bolstered by strong gains in final domestic demand and, in some cases, lower costs for imported products. Employment in these sectors has risen appreciably since the middle of last year.

. . . while many manufacturing firms continue to restructure their operations.

Over the same period, profitability weakened in many parts of the manufacturing sector because of the continuing impact of the strong Canadian dollar, higher energy costs, and strong competition from emerging economies (especially China). As a result, employment in manufacturing has continued to fall considerably as many firms restructured their operations. To further improve productivity and decrease costs, manufacturers increased capital spending substantially in 2005, and additional investment is expected this year. With these various initiatives, manufacturing productivity rose by some 6.5 per cent at an annual rate between the second and fourth quarters of 2005. Thus, output continued to increase even as employment in the manufacturing sector declined.

Estimated pressures on capacity

Most of the indicators of capacity pressures suggest that the economy was operating at or above its production capacity in the first quarter of 2006.

In the Bank's spring *Business Outlook Survey*, the percentage of firms reporting labour shortages or difficulties meeting an unanticipated increase in demand remained above average, although there was some easing from the preceding survey (Chart 4). The Bank's conventional measure of the output gap also suggests that the economy was operating slightly above its potential in early 2006 (Chart 5). Statistics Canada's measure of capacity utilization in the non-farm, goods-producing sector has been indicating considerable pressure on production capacity for some time.

Labour market indicators suggest, in general, that the economy is operating close to potential. Wage developments and the recent evidence of a pickup in labour productivity growth are discussed in the next section of this report.

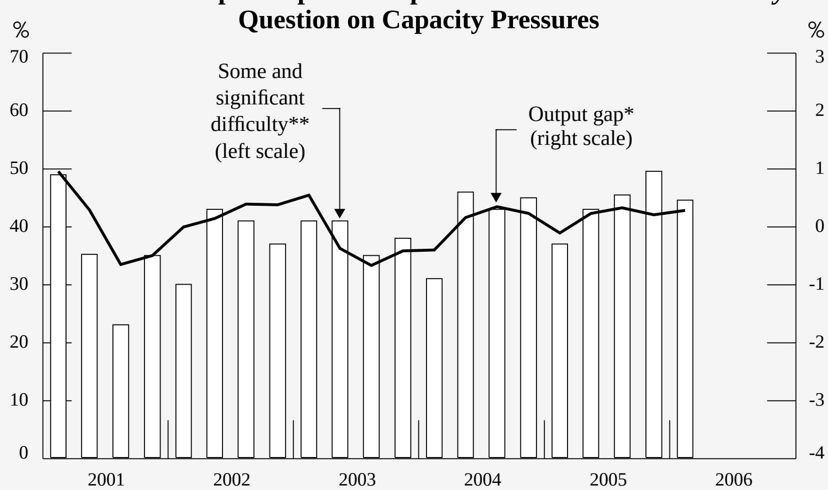
In contrast, core inflation seems to be pointing to less pressure on capacity, having stayed below 2 per cent since the end of 2003. As noted earlier in this report, however, the downward pressure on the core rate has also reflected ongoing reductions in the prices of many finished manufactured goods partly related to new production in Asia. And total CPI inflation has been running above 2 per cent, largely reflecting tightness in global energy markets that is also partly related to the strong economic growth in Asia. On balance, the information from consumer prices does not provide much evidence of excess supply.

The economy was operating at, or just above, its production capacity in early 2006.

Based on a review of all the indicators of capacity pressures, it is the judgment of the Governing Council that the Canadian economy was operating at, or just above, its production capacity in early 2006.

Chart 4

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



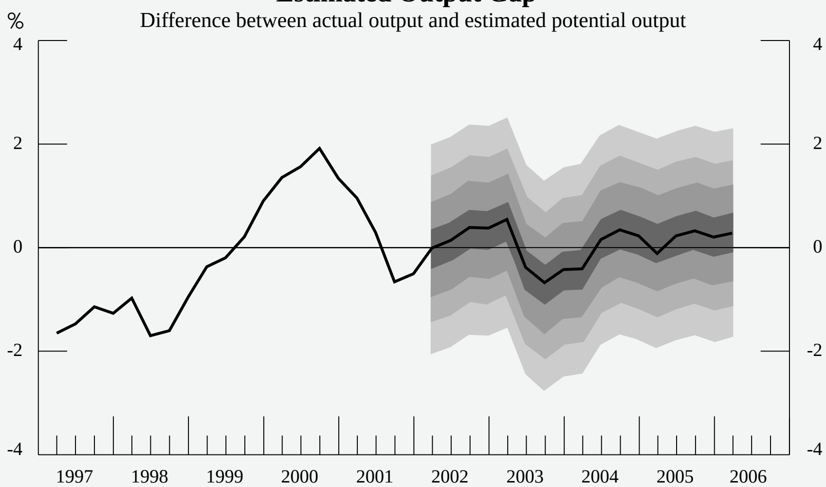
* Difference between actual output and estimated potential output. Note that the estimate for the first quarter of 2006 is based on a projected rise in output of 3.2 per cent (at annual rates) for the quarter.

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

Chart 5

Estimated Output Gap*

Difference between actual output and estimated potential output



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

Note: The estimate for the first quarter of 2006 is based on a projected rise in output of 3.2 per cent (at annual rates) for the quarter.

Wages and productivity

The underlying trend in wages is running between 3 and 3 3/4 per cent . . .

Growth in aggregate wages picked up in the second half of 2005 after several years of subdued gains, although it appears that the rate of increase eased somewhat in early 2006. A good indicator of the underlying trend in wages is the average hourly wages of permanent workers reported in the Labour Force Survey. That measure indicates that the rate of increase in aggregate wages has ranged between 3 and 3 3/4 per cent since mid-2005 (Chart 6).

Wage increases in oil- and gas-producing provinces continue to be conspicuously higher than those in other parts of the country. This reflects the differing pressures in labour markets, which have encouraged workers to move—or commute—to Alberta from other provinces.

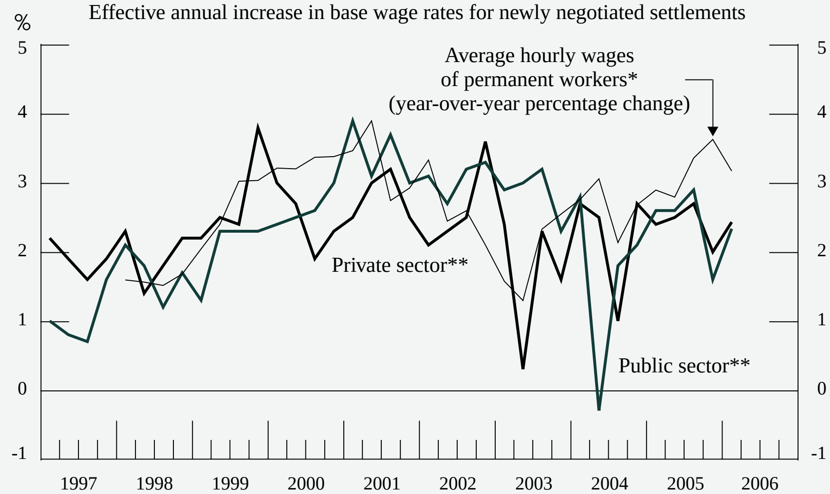
. . . and labour productivity picked up.

After a two-year period of essentially no change, labour productivity growth accelerated in the second half of 2005, with productivity in the fourth quarter up 1 1/2 per cent from a year earlier (Chart 7). This brought it closer to the Bank's assumption for trend labour productivity growth over the longer term of about 1 3/4 per cent. At the sectoral level, strong productivity growth broadened beyond manufacturing and wholesale trade to include transportation and warehousing, information and cultural industries, and accommodation and food services. Together with the recovery in aggregate productivity growth, this evidence of broadening is particularly encouraging.

Chart 6

Wage Settlements and Average Hourly Wages

Effective annual increase in base wage rates for newly negotiated settlements

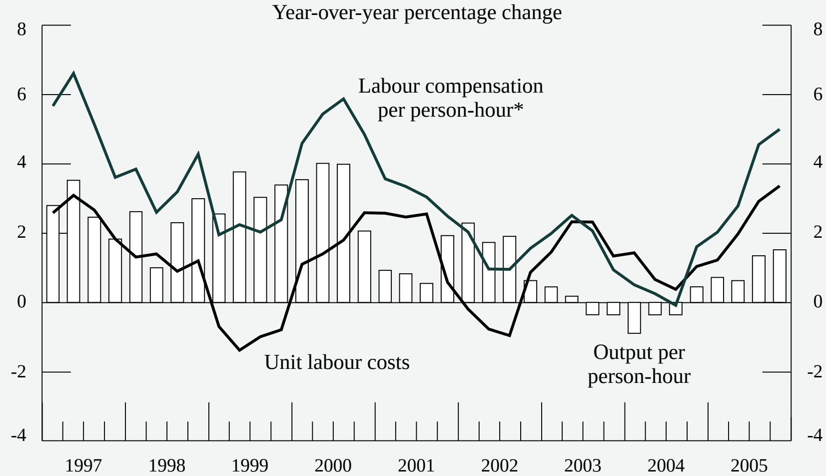


* Source: *Labour Force Information*, last data point plotted, March 2006
** Source: Human Resources Development Canada, last data point plotted, February 2006

Chart 7

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 data also show a rise of 5 per cent in hourly labour compensation over the past year (Chart 7), and—after productivity gains are taken into account—a 3 1/2 per cent rise in unit labour costs in the year ending in the fourth quarter of 2005. This result, however, was boosted by unusually large one-time payments, such as bonuses and commissions. Underlying labour compensation gains of 3 to 3 3/4 per cent and productivity growth of 1 1/2 per cent, are consistent with increases in unit labour costs close to 2 per cent.

Commodity and output prices and the terms of trade

Natural gas prices have fallen back markedly since the fourth quarter of 2005 . . .

The price for light crude oil (West Texas Intermediate), which was US$65 per barrel at the time of the January *Update*, averaged US$70 in the ten days ending on 21 April 2006. Prices for Canadian heavy crude oil, which had been considerably weaker since late 2005, have rebounded markedly so far in April.[3] Over the past three months, natural gas prices have fallen to about $7 per MMBtu, considerably below the levels estimated last autumn. This chiefly reflects the easing of demand caused by unusually mild winter weather conditions in North America.

. . . while the prices of non-energy commodities have risen further.

The prices of non-energy commodities have risen further in recent months (Chart 8). Metals prices, in particular, saw substantial gains, driven by the combination of robust global demand and constrained supply.

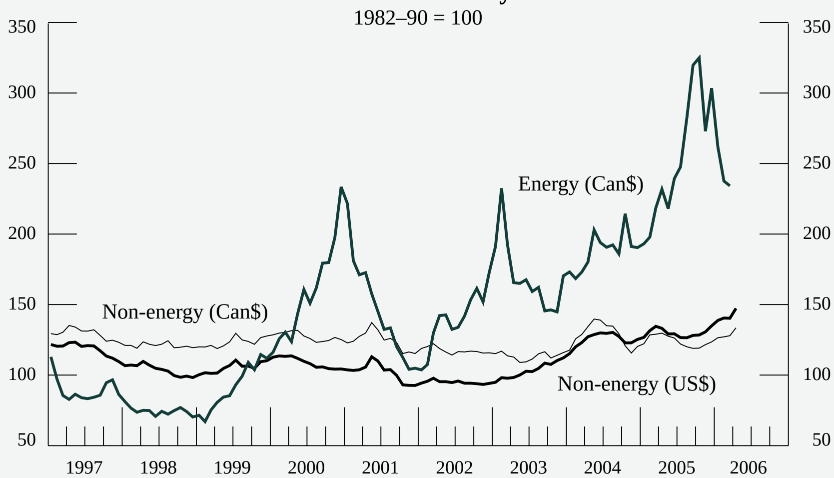
With the significant improvement in Canada's terms of trade in the second half of 2005 (Chart 9), the chain price index for GDP (a broad price measure of the goods and services produced in Canada) rose 4.1 per cent between the fourth quarter of 2004 and the fourth quarter of 2005 (Chart 10). As a result, nominal GDP rose by a marked 7.1 per cent over the same period. The strong growth in real income provided considerable support for the substantial advance in final domestic demand.

The recent decline in the price of natural gas is expected to contribute to a modest reduction in early 2006 in Canada's terms of trade and, thus, in the growth of nominal GDP.

Chart 8

Bank of Canada Commodity Price Index

1982–90 = 100



3. Heavy crude oil accounts for close to 40 per cent of total Canadian crude oil production. The substantial easing (over and above normal seasonal fluctuations) in prices for Canadian heavy crude oil in late 2005 and early 2006 chiefly reflected the recent expansion of oil sands production, combined with a lack of sufficient pipeline and upgrading capacity to convert this additional output of heavy crude oil to lighter grades. Additional pipeline capacity has been a major factor in the subsequent rebound in prices.

Chart 9

Terms of Trade

The price of exports relative to the price of imports (1997 = 100)

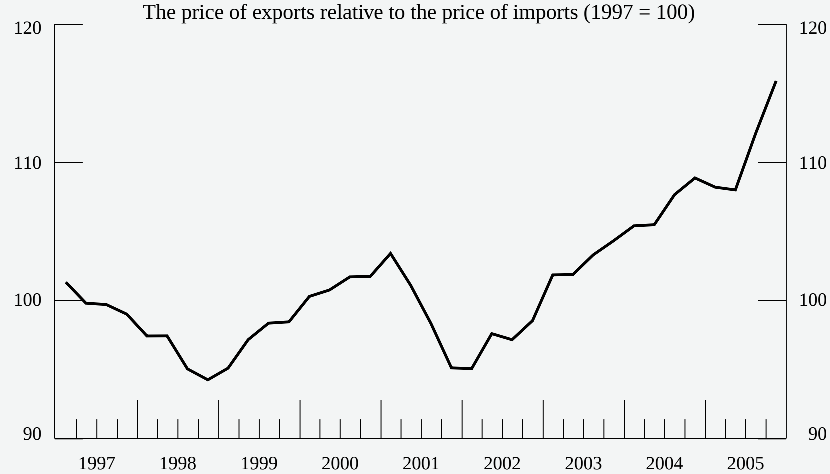
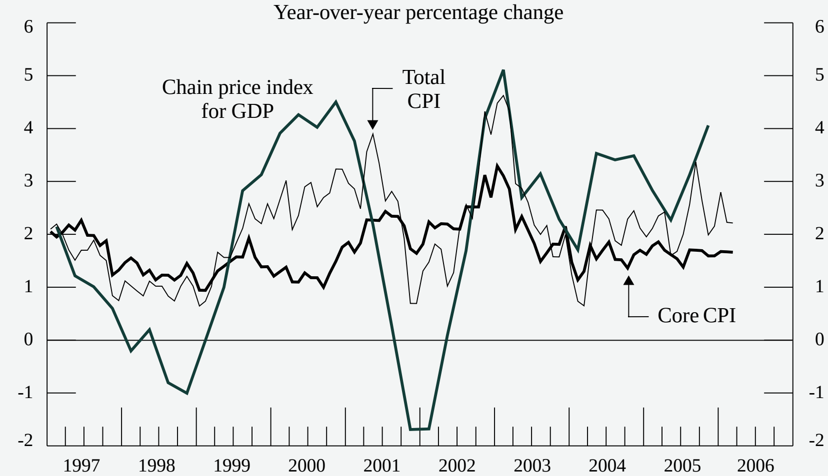


Chart 10

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

Year-over-year percentage change



3. Financial Developments

Interest rates and exchange rates

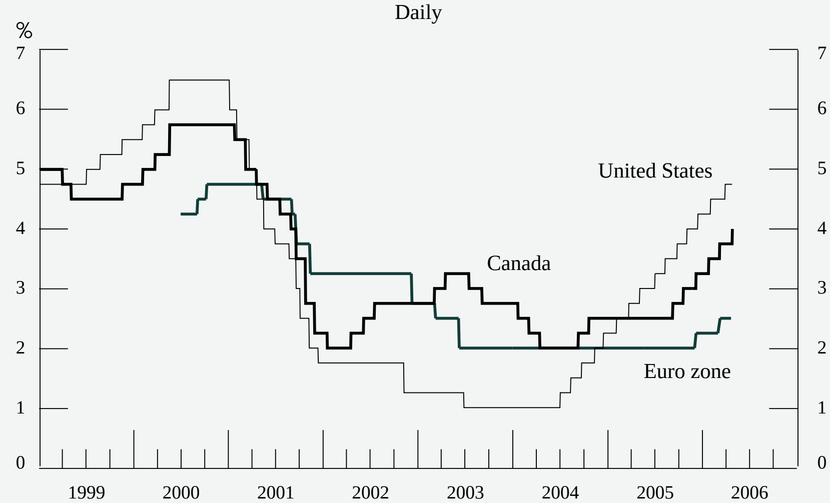
Policy rates in industrialized countries continued to move higher.

Over the past six months, policy rates in a number of the industrialized countries have moved higher, against the background of continued strength in the global economy (Chart 11). The U.S. Federal Reserve, the European Central Bank, and the Bank of Canada have raised their respective policy rates, while the Bank of Japan has recently announced the gradual removal of its policy of quantitative easing. Financial market expectations of short-term interest rates have tended to move up since the *Update*, consistent with favourable economic developments.

Chart 11

Policy Rates in Canada, the United States, and Europe

Daily

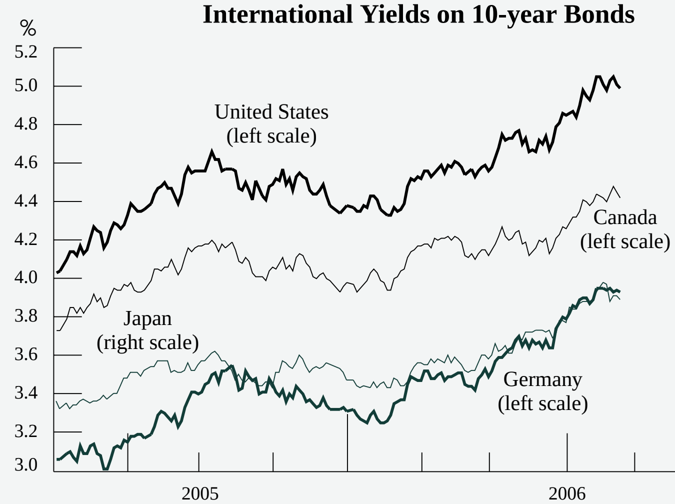


The removal of liquidity helped to push up yields on longer-term bonds.

Higher actual and expected policy rates in most industrial countries helped push up yields on longer-term bonds (Chart 12). Long-term yields had been particularly low, partly because of technical demand factors, as well as the global imbalance between desired savings and desired investment. Yields on Canadian bonds have also trended upwards since the last *Update*. However, the spread between the yields on U.S. and Canadian bonds has widened across all maturities since January, as the yields on U.S. government bonds of comparable maturities moved up by more.

Chart 12

International Yields on 10-year Bonds



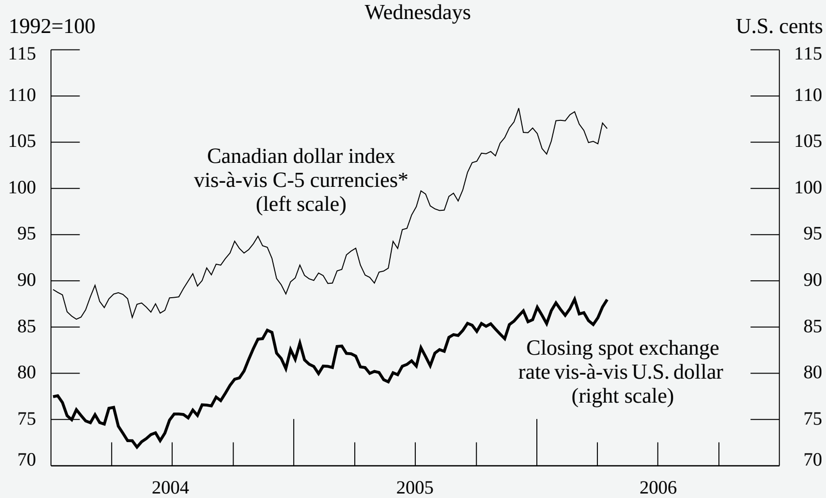
The Canadian dollar is relatively firm against most major currencies.

The Canadian dollar has been relatively firm against most major currencies since the January *Update*, and it has traded in a slightly higher and wider range against the U.S. dollar (roughly 85 1/2 to 88 1/2 cents U.S.) than was noted at that time (Chart 13). Fundamental factors such as rising commodity prices, particularly prices for energy and metals, have continued to support the Canadian dollar over the period, largely offsetting the impact of negative Canada-U.S. interest rate differentials.

Chart 13

Canadian Dollar Exchange Rate

Wednesdays



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

Credit conditions and other financial developments

Favourable credit conditions for businesses and healthy corporate balance sheets . . .

Credit spreads on corporate bonds have remained low in recent months, but because interest rates have been higher on Canadian government bonds, firms generally face modestly higher borrowing costs than at the time of the October *Report*.

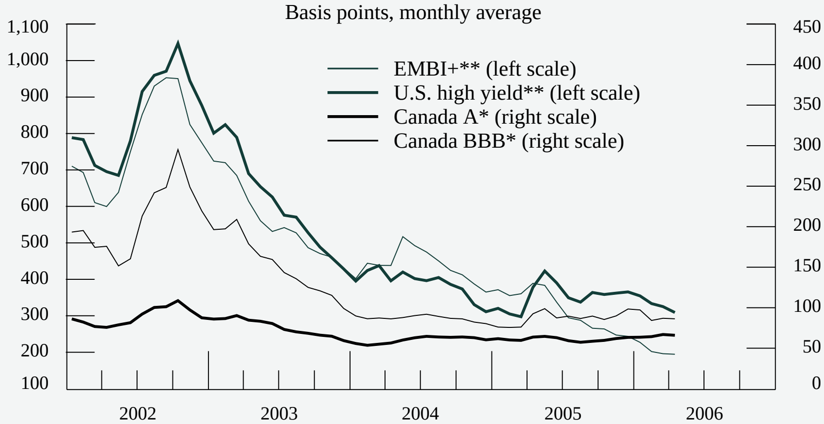
Despite this rise, business credit conditions continue to be very favourable (Chart 14). Supported by record profit margins, corporate balance sheets have continued to improve, with non-financial firms now holding historically high cash balances, particularly those in the resource-related sector concentrated in Western Canada. Reflecting these healthy corporate financial results, the TSX has risen strongly. These robust financial conditions augur well for continued strong investment by businesses.

. . . augur well for business investment.

Chart 14

Selected Credit Spreads for Canadian Corporate and International Bonds

Basis points, monthly average



* Spreads against yields on Canadian government bonds
** Spreads against yields on U.S. government bonds
Source: Merrill Lynch, JPMorgan Chase & Co.

Strong household borrowing continues to support consumer spending . . .

The growth in household borrowing has continued to trend upwards since the October *Report* (Chart 15), largely reflecting strong activity in the housing market. With home resales and housing starts showing renewed vigour, the growth of mortgage credit is accelerating. In addition, rising house prices and financial innovation continue to bolster consumer borrowing secured by home equity, either through mortgage refinancing or through home-equity lines of credit. These home-equity withdrawals have provided support to recent household spending. Strong credit

Chart 15

Household Credit

Year-over-year percentage change

Source: Bank of Canada

growth is expected to continue to support expenditures on housing and consumption through the first half of 2006.

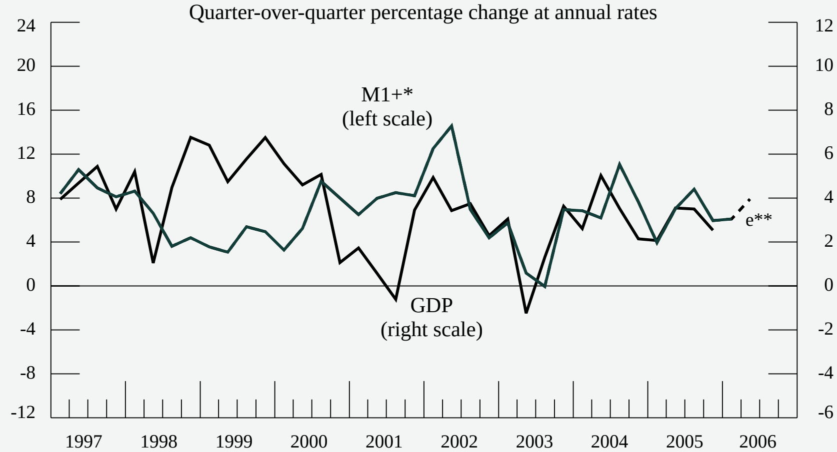
. . . and growth in narrow money points to robust output growth in the first half of 2006.

Since the October *Report*, growth in narrow money (M1+) has picked up, largely owing to stronger business deposits. This stronger growth suggests some pickup in real output growth in the first half of 2006 (Chart 16). Over the same period, growth of broad money (M2++) has also picked up slightly (Chart 17), which is consistent with a modest rise in core inflation through 2006.

Chart 16

Growth of Real GDP and Real M1+

Quarter-over-quarter percentage change at annual rates



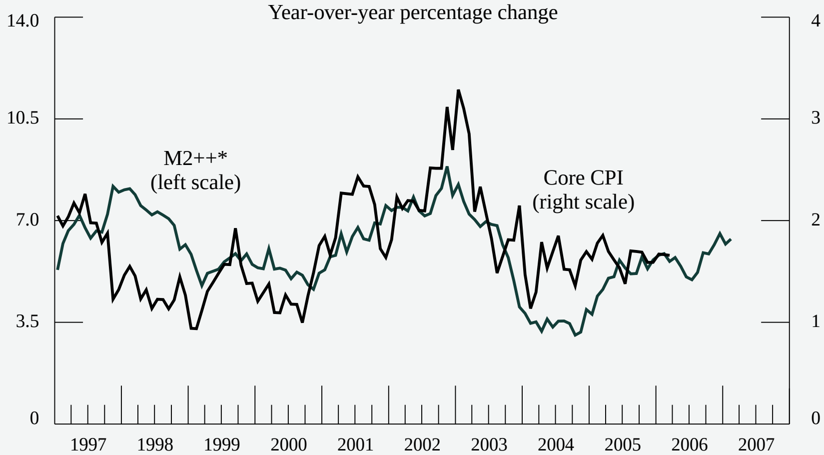
* Two-quarter moving average of growth in M1+ (deflated by the core CPI), one quarter earlier. M1+ has been adjusted to remove the effect of clone funds.

** First-quarter growth in M1+ is estimated based on January and February data.

Chart 17

Core Inflation and Broad Money Growth

Year-over-year percentage change



* Growth in M2++ one year earlier. M2++ has been adjusted to remove the effect of clone funds.

4. The Outlook

This section sets out the base-case projection for the global economy through to the end of 2008, followed by the corresponding base-case projection for the Canadian economy. The base-case projection has been developed assuming a smooth and orderly resolution of global imbalances involving supportive policy actions to rebalance global demand and a gradual real effective depreciation of the U.S. dollar. Energy prices are assumed to be consistent with current futures prices. A discussion of the risks to the base-case projection concludes the section.

International

The global economy continues to expand at a robust pace.

Global output rose 4.7 per cent in 2005, which was somewhat higher than expected, with most major overseas economies participating in the expansion. After another strong year in 2006, growth in the global economy is expected to ease somewhat in 2007 and 2008 as excess capacity becomes more fully utilized. (See Table 1.) Despite the robust global economic expansion and higher energy prices, there are, as yet, few signs of a buildup of underlying inflationary pressures at the consumer level. Monetary authorities in many countries have already taken policy actions to promote sustainable, non-inflationary growth.

GDP growth in China has continued to surprise on the upside . . .

Growth in newly industrialized Asian economies advanced rapidly, with GDP growth in the region averaging 9.0 per cent in 2005, somewhat stronger than anticipated. China's economy expanded by 9.9 per cent, boosted mainly by robust investment and exports. Revisions to the Chinese national accounts suggest that growth in the service sector in China has been substantially higher than earlier reported. Over the projection horizon, economic growth in China is expected to continue at a strong though slightly more moderate pace, with a shift in the composition of demand towards private consumption.

. . . and growth has picked up in Japan.

Economic growth in Japan has also been stronger and more broadly based than anticipated in earlier *Reports*. The Japanese economy advanced 2.7 per cent in 2005, led by growth in investment and household spending, although export growth also remains robust. In 2006, economic growth in Japan is expected to strengthen further, driven largely by domestic demand, before easing to a rate consistent with the growth of production capacity in subsequent years.

The European Union is recovering.

Economic growth in the European Union continues to be modest, although somewhat better than anticipated in the October *Report*, at 1.5 per cent for 2005. Growth has been supported by relatively solid exports and investment. Business surveys point to further improvement ahead, and accommodative monetary conditions should continue to support a gradual expansion going forward.

In the United States, real GDP expanded by 3.5 per cent in 2005, with economic activity slowing more than expected towards the end of the year. Monthly indicators suggest that the economy has picked up markedly in early 2006, led primarily by strong domestic demand. Partly related to post-hurricane rebuilding, business investment remains supportive of growth in 2006. Overall, inflationary pressures have remained relatively contained in the United States, despite high and volatile energy prices. The U.S. economy is expected to continue to expand strongly in 2006, with real GDP growth of 3.5 per cent. Growth is then expected to moderate to 3.2 per cent in 2007 and to 3.1 per cent in 2008. This is largely due to a levelling off in the housing market, higher interest rates, and some fiscal consolidation, all of which should contribute to a slowing in consumer spending.

Growth in the U.S. economy is projected to continue at 3.5 per cent in 2006 before moderating gradually.

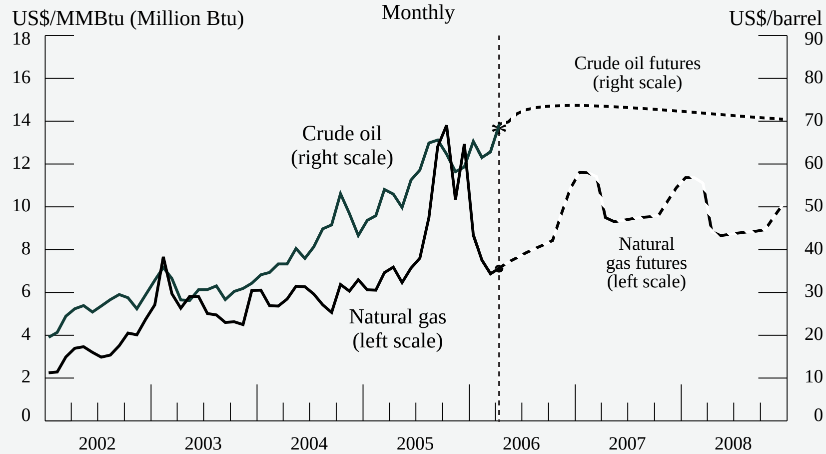
The continued strength in commodity prices since the January *Update* has reflected the robust global economy. Futures prices for crude oil for the remainder of 2006 and through 2007 are higher than those in the January *Update*, while those for natural gas are slightly lower (ranging from US$8 to US$11.50 per MMBtu) over the remainder of this year and largely unchanged for 2007 (Chart 18). The Bank incorporates these futures prices for energy as the assumptions underlying its base-case projection. Prices for non-energy commodities are generally assumed to remain firm, consistent with sustained global growth.

The base-case projection involves a gradual rebalancing of global demand.

The global outlook in this base-case projection involves an orderly resolution of global imbalances stemming from policies to rebalance global demand and market-led adjustments, including a gradual real effective depreciation of the U.S. dollar. The rebalancing is supported by a reduction in the U.S. fiscal deficit and policies that support domestic demand growth elsewhere, including ongoing structural reform in Europe and Asia. The weaker U.S. dollar, combined with a rise in U.S. long-term interest rates, is expected to lend support to the rotation in the composition of U.S. aggregate demand growth away from domestic sources to external ones.

Chart 18

Crude Oil and Natural Gas: Spot and Futures Prices†



* Spot price for crude oil (21 April 2006)
• Spot price for natural gas (21 April 2006)
† Based on an average of futures contracts over the ten business days ending 21 April 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]			
			Projection		
		2005	2006	2007	2008
United States	20	3.5 [0.70]	3.5 [0.70]	3.2 [0.64]	3.1 [0.62]
European Union	19	1.5 [0.28]	1.8 [0.33]	2.0 [0.37]	2.3 [0.43]
Japan	6	2.7 [0.17]	2.9 [0.19]	2.1 [0.13]	1.9 [0.12]
China and Asian NIEs[d]	19	9.0 [1.67]	8.7 [1.63]	8.2 [1.53]	7.7 [1.44]
Others	36	5.3 [1.92]	5.4 [1.96]	5.4 [1.94]	5.1 [1.85]
World	100	4.7	4.8	4.6	4.4

a. Note that the growth rates for "China and Asian NIEs," "Others," and, hence, "World" are not directly comparable with those in previous *Monetary Policy Reports* and *Updates*, owing to a change in methodology. This change reflects the adoption of a more detailed country breakdown and an updated weighting scheme, which is closer to the methodology used in the IMF *World Economic Outlook*.

b. GDP shares are based on the purchasing-power-parity (PPP) valuation of country GDPs for 2005. Source: IMF, WEO Database, April 2006

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.

The exchange rate adjustment envisaged in the base-case projection involves a depreciation of the U.S. real effective exchange rate of about 7 per cent by the end of the projection horizon. At the same time, the currencies of emerging Asia, Japan, and some of the oil-exporting countries, which did not experience a significant real appreciation in 2002 to 2004, are expected to appreciate the most against the U.S. dollar. It is assumed in the base-case projection that only a small fraction of this U.S.-dollar depreciation will be against the Canadian dollar, and will occur late in the projection period.

Aggregate demand and supply in Canada

Growth in final domestic demand is expected to remain the key driver of economic expansion in Canada through 2008.

This scenario of strong global growth with a gradual rebalancing of demand is broadly supportive of continued economic expansion in Canada, but the primary engine of growth in Canada is expected to continue to be growth in final domestic demand (Table 2).

Business investment is expected to remain strong . . .

Increases in business investment are expected to remain strong over the projection horizon. Factors contributing to further substantial gains in capital spending this year and next include the ongoing global economic expansion, expectations of relatively high levels for commodity prices, continued strong profits overall,

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

	2006	2007	2008
Consumption	1.8 (1.7)	1.6 (1.6)	1.6
Housing	0.1 (-0.2)	-0.1 (0)	-0.1
Government spending	0.9 (1.0)	0.9 (0.9)	0.6
Business fixed investment	1.0 (0.9)	0.8 (0.7)	0.7
Subtotal: Final domestic demand	3.8 (3.4)	3.2 (3.2)	2.8
Exports	1.7 (2.1)	1.4 (1.6)	1.2
Imports	-2.1 (-2.4)	-1.6 (-1.9)	-1.1
Subtotal: Net exports	-0.4 (-0.3)	-0.2 (-0.3)	0.1
Inventories	-0.3 (0)	0 (0)	0
GDP	3.1 (3.1)	3.0 (2.9)	2.9

* Figures in parentheses are from the base case in the January *Update*.

very solid balance sheets, and declining prices for imported machinery and equipment.

. . . and consumer spending is projected to rise solidly.

Consumer spending is expected to rise solidly over the projection period, reflecting further substantial gains in real disposable incomes. After considerable increases in recent years, housing investment is expected to rise a little further this year, and is, indeed, somewhat stronger than projected in the January *Update*. Investment in housing is then expected to ease slightly through 2007 and 2008.

Overall, government spending on goods, services, and transfers is assumed to increase at about the same rate as revenues over the projection period. Accordingly, growth in expenditures by all levels of government combined is projected to be quite strong in 2006 and 2007, before easing somewhat in 2008.

Net exports are expected to exert a small drag on growth for some time.

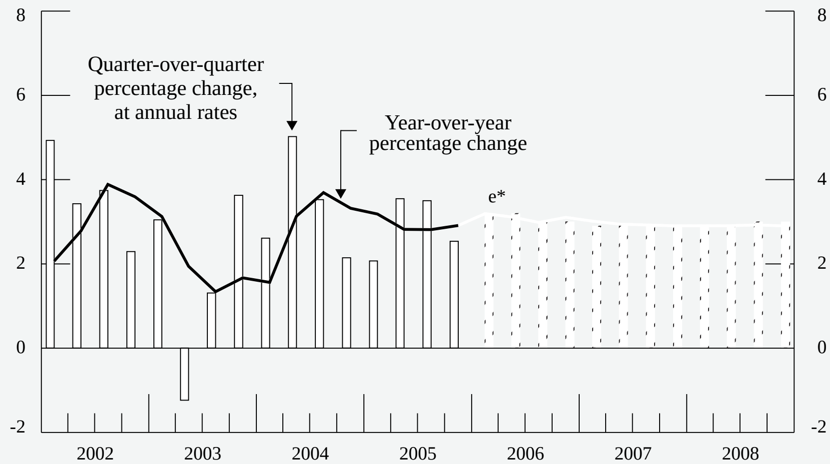
Exports are projected to rise further as a result of the continued global economic expansion and significant additions to the production capacity for commodities in Canada. At the same time, further increases in investment in machinery and equipment should boost imports. Accordingly, net exports are still expected to exert a small drag on overall growth for some time, with the effect diminishing over the projection horizon.

GDP growth in Canada is projected to moderate from just above 3 per cent in 2006 to just below 3 per cent in 2008.

The Bank's base-case projection calls for annual average GDP growth to be 3.1 per cent in 2006, 3 per cent in 2007, and 2.9 per cent in 2008 (Chart 19, Table 3). The assumption for potential output growth is 2.9 per cent in 2006 and 3.0 per cent in 2007 and 2008. This implies that the economy would be in slight excess demand in 2006, before returning to potential output by the end of the projection period. In the base-case projection, the slowing in U.S. economic growth, combined with the lagged effects of past interest rate increases, as well as some modest further increase in interest rates across the yield curve, will bring aggregate demand and supply back into balance.

Chart 19

Real Gross Domestic Product for Canada



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

Inflation

After edging up at the time of the October *Report*, most indicators of near-term inflation expectations that the Bank follows have eased back recently. As well, key medium- and longer-term measures continue to be well anchored to the 2 per cent target. In the Bank's spring *Business Outlook Survey,* 78 per cent of firms expected total CPI inflation to be within a range of 1 to 3 per cent, on average, over the next two years, and the percentage of respondents expecting inflation to be above 3 per cent has decreased from the autumn survey. Moreover, the average private sector forecast for total CPI inflation in both 2006 and 2007 is just under 2 per cent, while consensus forecasts of inflation over the longer term continue to be near 2 per cent.

Indicators of near-term inflation expectations have eased back, and longer-term measures continue to be well anchored to 2 per cent.

Total CPI inflation is projected to average about 2.5 per cent in the first half of 2006 and to average close to 2.0 per cent through 2007 and 2008 (excluding the effect of any changes in the GST). Movements in the 12-month rate of increase in the total CPI will be importantly affected by developments in the markets for crude oil and natural gas (Chart 18). Consumer prices for natural gas are projected to decrease substantially over the remainder of 2006, as the recent downturn in wholesale prices becomes more fully reflected in regulated prices and contracts. Note also that, total CPI inflation may fall temporarily well below 2 per cent in September 2006, since there was a surge in energy prices a year earlier, following disruptions to U.S. production from hurricane damage.

Total CPI inflation is projected to average about 2.0 per cent in 2007 and 2008.

This outlook does not include a cut in the GST.

This outlook for inflation does not take into account the federal government's announced intention to cut the Goods and Services Tax (GST) this year from 7 per cent to 6 per cent. The Bank estimates that this one-percentage-point cut in the GST will result in a direct reduction of about 0.6 per cent in the CPI in the month of its implementation. This will cause a reduction of 0.6 percentage points in the year-over-year rate of change in the CPI for the 12 months following implementation. With inflation expectations well anchored, the Bank does not expect second-round effects on inflation from the change. (A fuller description of the expected impact of a GST cut appears in Technical Box 1.)

The core rate of inflation should return to the 2 per cent target in the second half of 2006 and remain there over the rest of the projection period.

Core inflation should remain below 2 per cent through the first half of 2006, but rise to 2 per cent in the second half of this year, earlier than expected in the January *Update*, owing to increases in electricity prices. Ongoing downward pressure on core inflation from reductions in the prices of manufactured goods should be offset by the upward pressure on inflation coming from the economy operating with slight excess demand. These offsetting factors are projected to diminish in tandem over the projection period, leaving core inflation at 2 per cent.

Increases in labour compensation are expected to move up close to 4 per cent over the projection period. At the same time, with a further modest gain in the growth of labour productivity, the projected year-to-year increase in unit labour costs should be close to 2 per cent.

Table 3
Summary of the Base-Case Projection*

	2006				2007		2008
	Q1	Q2	Q3	Q4	H1	H2	
Real GDP (quarter-to-quarter percentage change at annual rates)	**3.2** *(3.2)*	**3.2** *(3.1)*	**3.0** *(3.0)*	**3.0** *(3.0)*	**2.9** *(2.9)*	**2.9** *(2.8)*	**2.9**
Real GDP (year-over-year percentage change)	**3.2** *(3.2)*	**3.1** *(3.1)*	**3.0** *(3.0)*	**3.1** *(3.1)*	**3.0** *(3.0)*	**2.9** *(2.9)*	**2.9**
Core inflation (year-over-year percentage change)	**1.7** *(1.7)*	**1.8** *(1.8)*	**2.0** *(1.9)*	**2.0** *(1.9)*	**2.0** *(2.0)*	**2.0** *(2.0)*	**2.0**
Total CPI** (year-over-year percentage change)	**2.4** *(2.5)*	**2.6** *(2.4)*	**1.9** *(1.9)*	**2.3** *(2.3)*	**2.1** *(2.0)*	**2.0** *(2.0)*	**2.0**
WTI† (level)	**63** *(65)*	**70** *(66)*	**73** *(67)*	**74** *(67)*	**74** *(67)*	**73** *(67)*	**71**

* Figures in parentheses are from the January *Monetary Policy Report Update*.
** Excluding the effect of any changes in the Goods and Services Tax
† Assumption for the price of West Texas Intermediate crude oil (US$ per barrel), based on an average of futures contracts over the two weeks ending 21 April 2006

Technical Box 1

Changing the GST: Inflation Impact and Monetary Policy Implications

The federal government has announced its intention to cut the Goods and Services Tax (GST) from 7 per cent to 6 per cent in the near future, and to 5 per cent within five years. Such reductions would be expected to directly lower the year-over-year change in the total CPI in the first 12 months after the GST is reduced.

In setting monetary policy, the Bank's approach continues to be to look through any direct impact on inflation from changes in indirect taxes and to respond only to second-round, or spillover, effects on the evolution of wages and prices. With inflation expectations well anchored, the Bank assesses the risks of second-round effects from changes in the GST as minimal.

The Bank estimates that the direct effect of a reduction in the GST from 7 per cent to 6 per cent would be a reduction of about 0.6 percentage points in the year-over-year increase in the total CPI for a period of one year following its implementation. This estimate is based on assumptions about the taxable proportion of each CPI component derived from data on the tax revenue generated by the GST.[1] Among the components of the CPI most affected by this change to the GST are services other than shelter, as well as semi-durable and durable goods.[2] The core CPI should not be affected by any direct effects of changes in the GST since, by definition, it excludes the estimated impact of changes in indirect taxes.

It should be pointed out that these estimates capture only the direct effects and assume that a change in the GST is fully incorporated into consumer prices during the month in which it comes into effect. The actual incidence of a change in the GST on overall prices depends on market conditions, the structure of costs, and the elasticity of demand and supply for various goods and services.

1. The specific formula for estimating the initial impact of the GST reduction on the CPI is as follows:

$$\text{Per cent change in the level of the CPI} = \begin{matrix}\text{change in GST}\\ \text{rate}\end{matrix} \times \sum_{i=1}^{n} \left[\begin{matrix}\text{taxable proportion}\\ \text{of CPI}\\ \text{component } i\end{matrix} \times \begin{matrix}\text{weight of CPI}\\ \text{component } i\\ \text{in the CPI}\end{matrix} \right]$$

2. Some components of the CPI, including food at home, rent, and mortgage interest are exempt from the GST.

Risks to the base-case projection

There are both upside and downside risks to the Bank's base-case projection. In the main, the Bank judges that the risks are roughly balanced. However, there remains a small risk of a disorderly correction of global imbalances, which tilts the risks to the downside later in the projection period. This risk appears to have lower probability than previously judged, given the tentative signs of policy adjustments and of rotation in global demand. (See Technical Box 2.)

The upside risks for economic growth and inflation in Canada relate largely to the momentum of the global economy and the associated future path of commodity prices. The global outlook has surprised on the upside and may continue to be stronger than predicted. This risk, together with geopolitical tensions and possible delays in bringing new supplies online, could push commodity prices still higher. For Canada, this would imply stronger export demand and higher prices for our commodity exports, stronger income growth, and upward pressure on the Canadian dollar. Stronger global growth could also put pressure on global production capacity. This could reduce the pace of price declines for many tradable manufactured goods, thereby adding upward pressure to the base-case projection of inflation in Canada.

The possibility that the U.S. economy could slow more abruptly than anticipated represents an important downside risk for the Canadian economy. This risk could materialize in several ways. U.S. households could reduce their demand for housing and motor vehicles and attempt to rebuild savings more quickly than projected. This would negatively affect Canadian exports. A weaker U.S. economy could also come about as part of an adjustment to global imbalances that entailed weaker growth in the rest of the world and an associated decline in commodity prices. This would have additional negative consequences for Canada. More generally, linked to global imbalances is the risk that the real effective depreciation of the U.S. dollar may come more against the Canadian dollar than assumed, exerting renewed drag on net exports and dampening growth in Canada.

There also continues to be uncertainty about the level and growth of potential output in Canada. There is a possibility that productivity growth will be higher than assumed in the base-case projection, given the productivity-enhancing investments being made by firms and changes in work processes to deal with labour shortages. At the same time, the large sectoral and regional adjustments still under way in response to key relative price movements continue to make assessments about the level of capacity particularly difficult.

Technical Box 2

Adjustment of Global Savings and Current Account Imbalances over the Long Term

The U.S. current account deficit was 6.4 per cent of GDP in 2005, having increased fairly steadily from only 1.5 per cent of GDP in 1995. This deficit has been mirrored by a similar increase in current account surpluses elsewhere, most notably in emerging Asia, in the oil-exporting countries and, to a lesser extent, in some of the industrialized countries, including Japan and Germany. In recent years, the major causes of these current account imbalances have been significant differences between domestic expenditure and domestic output resulting from low private and public savings in the United States and relatively high private and public savings elsewhere.

Most observers believe that such a large U.S. current account deficit cannot be sustained indefinitely, since this would imply sizable increases in the net external liability position of the United States and much higher debt-service payments. Historically, countries have adjusted to current account deficits by rebuilding their domestic savings through a slowing of domestic demand, which has typically been accompanied by a weaker currency. Although most observers agree that the United States will follow a similar path, and that the adjustment will be long and gradual, risks have been identified concerning the extent of the slowing in the U.S. economy and its impact on global economic growth. The most likely scenario, which is assumed in the Bank's base-case projection presented in this report, is one of smooth adjustment.

There are reasons to believe that global imbalances can be resolved in an orderly way. To the extent that global imbalances reflect private sector decisions to save, consume, and invest, market forces should be able to reduce them to a sustainable level. Global financial markets have become more complete and therefore more efficient in allocating savings across countries, and large financial institutions appear to be adequately capitalized and not unduly exposed to risk. Governments continue to say that they will implement the policy measures necessary to support a market-based adjustment that will reduce these imbalances over the medium term and sustain growth.

Nevertheless, the risk of a disorderly adjustment increases the longer these imbalances go unresolved. While there are signs that some of the policy actions necessary to facilitate an orderly adjustment are being undertaken to varying degrees, further policy action would be helpful to anchor market expectations and encourage an orderly market-driven adjustment. The failure to implement such policies would increase the risk of an alternative scenario with disorderly adjustment; that is, one likely involving serious financial market disruptions (i.e., sharp movements in the U.S. exchange rate and interest rates) that spill over to the real economy, partly through weaker consumer and investor confidence and, perhaps, through reactive protectionist measures.[1] In this scenario, there would be a pronounced decline in world output and reduced demand for Canadian-produced goods and services.

1. Most observers have focused on two adjustment scenarios—orderly and disorderly—for the purpose of analyzing two distinct outcomes. It is important to note, however, that intermediate adjustment scenarios are possible.

Bibliography

Bank of Canada. 1991. "Targets for reducing inflation: Announcements and background material." *Bank of Canada Review* (March): 3–21.

__________. 1991. "Targets for reducing inflation: Further operational and measurement considerations." *Bank of Canada Review* (September): 3–23.

__________. 2001. "Joint Statement of the Government of Canada and the Bank of Canada on the Renewal of the Inflation-Control Target." Press Release (17 May 2001) and Background Information. Reprinted in *Bank of Canada Review* (Summer): 57–67.

Canada. Statistics Canada. *Labour Force Information*. Statistics Canada Catalogue No. 71-001-PPB (monthly). Ottawa.

Consensus Economics Inc. 2006. *Consensus Forecasts*. Various issues.

Crawford, A. 2001. "Predictability of Average Inflation over Long Time Horizons." *Bank of Canada Review* (Autumn): 13–20.

Macklem, T. 2001. "A New Measure of Core Inflation." *Bank of Canada Review* (Autumn): 3–12.

The Bank of Canada's *Monetary Policy Report* is published semi-annually in April and October. Regular *Updates* are published in July and January. 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.

Telephone: 1-877-782-8248; email: publications@bankofcanada.ca;
website: www.bankofcanada.ca