

# Monetary Policy Report

January 2011



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

#### The targets

• In February 1991, the federal government and the Bank of Canada jointly agreed on 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. The inflation target has been extended a number of times. In November 2006, the agreement was renewed for a period of five years to the end of 2011. Under this agreement, the Bank will continue to conduct monetary policy aimed at keeping total CPI inflation at 2 per cent, with a control range of 1 to 3 per cent around the target.

#### 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 uses a core measure of CPI inflation as an indicator of the underlying trend in inflation. This core measure excludes eight of the most volatile components of the CPI and adjusts the remaining components to remove the effect of changes in indirect taxes.

<sup>\*</sup> See "Joint Statement of the Government of Canada and the Bank of Canada on the Renewal of the Inflation-Control Target" and background information. Reprinted in the *Bank of Canada Review* (Winter 2006–2007): 45–59.



# Monetary Policy Report

January 2011

We must improve our competitiveness. Recovery after a recession demands that capital and labour be reallocated. The surge in business investment that began this past summer can only be the start.

-Mark Carney

Governor, Bank of Canada 13 December 2010 Toronto, Ontario

# Contents

<b>Overview</b> 1
The Global Economy
The Canadian Economy15
Recent Developments15Economic Activity15Estimated Pressures on Capacity19Inflation and the 2 Per Cent Target20Canadian Financial Conditions21Exchange Rate23
Outlook for the Canadian Economy
The Projection for Inflation
Risks to the Outlook
Technical Boxes
Recent Developments in U.S. Monetary and Fiscal Policy: Implications for Canada
Inflation in China and the Risks to Global Economic Growth8
The Recent Evolution of Canada's Competitiveness and Trade Performance

### Overview

The global economic recovery is proceeding at a somewhat faster pace than the Bank had anticipated, although risks remain elevated. Private domestic demand in the United States has picked up and will be reinforced by recently announced monetary and fiscal stimulus. European growth has also been slightly stronger than anticipated. Ongoing challenges associated with sovereign and bank balance sheets will limit the pace of the European recovery and are a significant source of uncertainty to the global outlook. In response to overheating, some emerging markets have begun to implement more restrictive policy measures. Their effectiveness will influence the path of commodity prices, which have increased significantly since the October *Monetary Policy Report*, largely reflecting stronger global growth.

The recovery in Canada is proceeding broadly as anticipated, with a period of more modest growth and the beginning of the expected rebalancing of demand. The contribution of government spending is expected to wind down this year, consistent with announced fiscal plans. Stretched household balance sheets are expected to restrain the pace of consumption growth and residential investment. In contrast, business investment will likely continue to rebound strongly, owing to stimulative financial conditions and competitive imperatives. Net exports are projected to contribute more to growth going forward, supported by stronger U.S. activity and global demand for commodities. However, the cumulative effects of the persistent strength in the Canadian dollar and Canada's poor relative productivity performance are restraining this recovery in net exports and contributing to a widening of Canada's current account deficit to a 20-year high.

Overall, the Bank projects the economy will expand by 2.4 per cent in 2011 and 2.8 per cent in 2012—a slightly firmer profile than had been anticipated in October. With a little more excess supply in the near term, the Bank continues to expect that the economy will return to full capacity by the end of 2012.

Underlying pressures affecting prices remain subdued, reflecting the considerable slack in the Canadian economy. Core inflation is projected to edge gradually up to 2 per cent by the end of 2012, as excess supply in the economy is slowly absorbed. Inflation expectations remain well anchored. Total CPI inflation is being boosted temporarily by the effects of provincial indirect taxes, but is expected to converge to the 2 per cent target by the end of 2012.

Despite improvements in the outlook for the global and Canadian economies, risks to inflation remain elevated. There are two main upside risks to inflation, relating to higher commodity prices and the possibility of greater-than-projected momentum in the Canadian household sector.

This report includes data received up to 14 January 2011.

There are two main downside risks to inflation, relating to Canadian competitiveness and the possibility of weaker-than-projected household expenditures in Canada.

In addition, challenges in Europe continue to be a significant source of uncertainty for the global outlook. A comprehensive solution to the sovereign debt and financial stability issues in a number of countries will be required.

The Bank judges that the risks to the inflation outlook are roughly balanced over the projection horizon.

Reflecting all of these factors, on 18 January 2011 the Bank decided to maintain the target for the overnight rate at 1 per cent. The Bank Rate is correspondingly 1 1/4 per cent, and the deposit rate is 3/4 per cent. This leaves considerable monetary stimulus in place, consistent with achieving the 2 per cent inflation target in an environment of significant excess supply in Canada. Any further reduction in monetary policy stimulus would need to be carefully considered.

## The Global Economy

The global economic recovery is proceeding at a somewhat faster pace than anticipated in the October *Monetary Policy Report*. In the United States, private demand has picked up and will be reinforced by recently announced monetary and fiscal stimulus. Momentum in the emerging-market economies has been buoyed by solid increases in consumption and investment, as well as continuing strength in exports. Economic activity in the euro area has also been slightly stronger than expected.

Nonetheless, the global recovery continues to be affected by a number of significant challenges. The broad forces of household, bank and sovereign deleveraging will continue to restrain growth in many advanced economies. Ongoing balance-sheet repair and a weak labour market will dampen the recovery in U.S. household expenditures, while in some European countries, more aggressive fiscal consolidation and renewed concerns about bank balance sheets and the sustainability of public finances are also expected to constrain growth. In contrast, many emerging-market economies are contending with excess demand and rising inflationary pressures. Their

efforts to contain these pressures are being complicated in some cases by

The global economic recovery is proceeding at a somewhat faster pace.

#### **Recent Developments**

a lack of exchange rate flexibility.

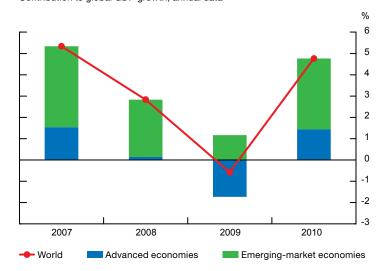
Global economic growth continued at a steady pace during the second half of 2010 and has been somewhat stronger than expected at the time of the October *Report*. In the United States, despite weak labour market conditions, economic activity has gained some momentum, supported by a recovery in consumer and investment spending. Growth in Europe has also held up, in spite of heightened concerns about sovereign debt in several peripheral countries. Growth in Japan, in contrast, slowed sharply toward the end of 2010, following the unwinding of some fiscal support. The pace of economic activity in emerging-market economies also began to ease from high rates toward the end of 2010, reflecting the gradual withdrawal of fiscal and monetary stimulus. Nevertheless, these economies have accounted for the majority of global growth (Chart 1).

Owing to significant excess capacity, policy interest rates in the major advanced economies remain at or near historic lows (**Chart 2**), and underlying inflation pressures are subdued (**Chart 3**). In the United States, core consumer price inflation has reached record lows since the October *Report*. In contrast, inflation pressures in many emerging-market countries are rising in response to excess demand.

In the United States, despite weak labour market conditions, economic activity has gained some momentum.

Chart 1: Emerging-market economies continue to drive global economic growth

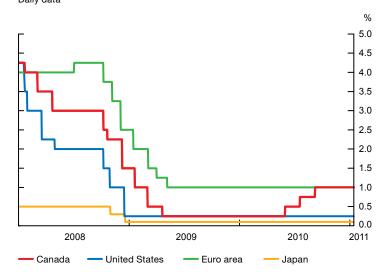
Contribution to global GDP growth, annual data



Note: Growth rates for 2010 are International Monetary Fund estimates. Source: International Monetary Fund

Chart 2: Policy rates remain at historic lows in most advanced economies

Daily data



Note: On 5 October 2010, the Bank of Japan changed the target for its policy rate from 0.1 per cent to a range of 0.0 to 0.1 per cent. The Federal Reserve has been maintaining a target range for its policy rate of 0.0 to 0.25 per cent since 16 December 2008.

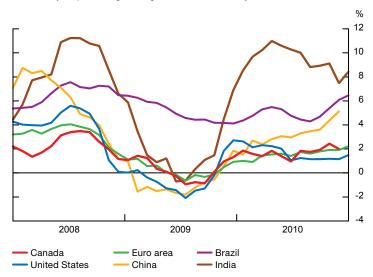
Sources: Bank of Canada, U.S. Federal Reserve, European Central Bank and Bank of Japan

Last observation: 14 January 2011

Real GDP in the United States grew at an annual rate of 2.6 per cent in the third quarter of 2010 and is estimated to have accelerated to 3.7 per cent in the fourth quarter, owing to a pickup in consumer spending and a large, but temporary, drop in oil imports. The strength in consumption in the fourth quarter was led by a surge in spending on durable goods, particularly on motor vehicles. Although the household savings rate has eased somewhat, it nevertheless remains at a level consistent with the rebuilding of household balance sheets over the medium term (Chart 4). Conditions in the U.S. labour market remain challenging, with only one in seven of the jobs lost during the recession recovered so far, and long-term unemployment remaining near postwar highs.

Chart 3: Inflation pressures remain subdued in the major advanced economies, but are building in many emerging-market countries

Year-over-year percentage change in total CPI, monthly data



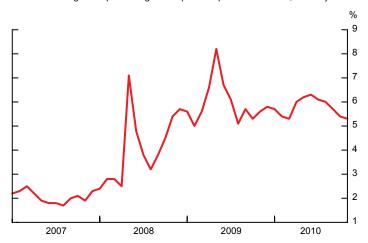
Note: Indian inflation data are represented by the wholesale price index.

Sources: Statistics Canada, U.S. Bureau of Labor Statistics, Eurostat,
the People's Bank of China, Brazilian Institute of Geography and

Statistics, and Office of the Economic Adviser (India) Last observations: November and December 2010

### Chart 4: The U.S. household savings rate remains at a level consistent with a gradual rebuilding of household wealth

Personal savings as a percentage of disposable personal income, monthly data



Source: U.S. Bureau of Economic Analysis

Last observation: November 2010

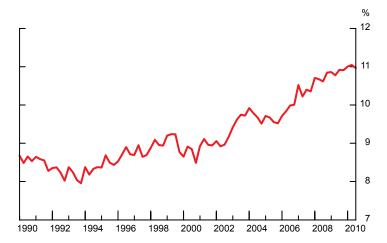
U.S. residential investment fell sharply in the second half of 2010, delaying the expected recovery of the housing sector. A high level of vacant housing units, the recent tightening in bank lending standards for mortgage loans and increases in mortgage interest rates continue to restrain residential investment (Chart 5). Delays in processing foreclosures related to procedural flaws are also likely to slow the adjustment of the housing market.

Although business investment in structures fell further in the third quarter, recent indicators suggest that the trough is close to being reached. In contrast, investment in equipment and software has recovered most of the ground lost through the recession as firms have sought to replace the capital that had depreciated and to improve competitiveness. The growth of exports

U.S. residential investment fell sharply in the second half of 2010.

Chart 5: A high level of vacant housing units in the United States continues to restrain residential investment

Year-round vacant housing units as a percentage of total units, quarterly data



Sources: U.S. Census Bureau and Bank of Canada calculations

Last observation: 2010Q3

U.S. policy-makers introduced additional stimulus measures.

gathered significant momentum during the second half of 2010, supported by strong demand from emerging-market economies, the depreciation of the U.S. dollar over the past year and solid gains in productivity.

Toward year-end, in response to pronounced weakness in the U.S. labour market and record-low core inflation, U.S. policy-makers introduced additional stimulus measures (**Technical Box 1**). As expected at the time of the October *Report*, the Federal Reserve announced a second round of quantitative easing in November. In addition, the U.S. government passed legislation in December to provide significant further fiscal stimulus over the next two years.

In the euro area, real GDP rose by 1.4 per cent in the third quarter of 2010, and available indicators point to fairly robust growth in the fourth quarter, concentrated in the core countries, especially Germany. Growth in the peripheral economies was restrained, however, by fiscal tightening, increased concerns about sovereign debt and the banking sector, and a lack of competitiveness.

In Japan, data released since the October *Report* show that the recession was deeper and the rebound in 2010 was stronger, leaving the recent level of GDP slightly weaker than previously measured. Economic growth in 2010 benefited from both robust external demand and fiscal stimulus programs designed to promote consumption. Growth is estimated to have weakened significantly in the fourth quarter, however, reflecting the removal of certain fiscal incentives supporting household spending and the recent appreciation of the yen.

Real GDP in China grew by slightly less than 10 per cent over the second half of 2010 on a year-over-year basis. Domestic demand remained vigorous, supported by buoyant growth in investment spending and solid increases in consumption, while housing activity continued to rise, despite earlier attempts to cool the sector. In an effort to counteract rising inflationary pressures, the Chinese authorities have tightened monetary policy further, with a combination of interest rate increases and various administrative measures (Technical Box 2).

#### Technical Box 1

### Recent Developments in U.S. Monetary and Fiscal Policy: Implications for Canada

A number of important fiscal and monetary policy measures have been announced in the United States since the release of the October *Monetary Policy Report*.

Following the 3 November meeting of the Federal Open Market Committee, the Federal Reserve announced that it intended to purchase US\$600 billion in U.S. Treasuries at a rate of about US\$75 billion per month.1 This decision was widely expected and had already been incorporated in the Bank's October projection. Since other factors have influenced U.S. Treasury yields over the recent period, it is difficult to quantify the amount of additional easing that these actions are likely to provide (Table 1-A). All else being equal, the Bank estimates that downward pressure on the cost of credit to consumers and businesses, the upward pressure on asset prices, and the decline in the value of the U.S. dollar will raise U.S. GDP growth by 0.2 percentage points in 2011 and 0.1 percentage points in 2012.

In addition to the monetary policy easing announced in November, a new round of U.S. fiscal stimulus was passed into law on 17 December. The package provides approximately US\$850 billion of stimulus through a series of tax relief measures for households, an extension of unemployment benefits for the long-term unemployed and more favourable tax treatment for business investment. Also included in the package is a temporary two-year extension of the tax cuts introduced under President George W. Bush (commonly referred to as the "Bush tax cuts"). About half of this stimulus had been expected at the time of the October Monetary Policy Report. The package is expected to support U.S. consumer spending and to contribute significantly to U.S. GDP growth in the near term. The Bank estimates that the total effect will boost U.S. GDP growth by 0.8 percentage points in 2011 and 0.2 percentage points in 2012. Overall, the monetary and fiscal policy packages should contribute 1.0 percentage points to U.S. GDP growth in 2011 and 0.3 percentage points in 2012.

1 The pace and eventual total amount of asset purchases could be modified, depending on economic developments. The Federal Reserve intends to continue to reinvest principal payments from agency debt and agency mortgage-backed securities into longer-term Treasury securities. Taken together, these measures are expected to lead to purchases in the range of US\$850 billion to US\$900 billion of long-term Treasury securities through to the end of the second quarter of 2011.

For Canada, the impact on growth from the Federal Reserve's Treasury purchases is expected to be somewhat positive, since the support from increased foreign activity and higher commodity prices should more than offset any dampening effects from a lower U.S. dollar. The U.S. fiscal stimulus package should also boost Canada's exports to the United States, although the impact will be attenuated by the package's focus on stimulating consumption.<sup>2</sup>

All else being equal, the Bank estimates that the two stimulus packages should add about 0.2 percentage points to Canada's GDP growth in 2011 and 0.1 percentage points in 2012.

Table 1-A: U.S. financial conditions overall have eased since the anticipation of further monetary policy easing was built into market expectations in late August

Changes	Current level <sup>a</sup>	Since FOMC meeting (3 November)	Since Jackson Hole speech (27 August) <sup>c</sup>	Since 31 July <sup>d</sup>
S&P 500 Index	1293.2	+8.0%	+21.5%	+17.4%
10-year U.S. Treasury yield	3.32%	+75 bps	+68 bps	+42 bps
U.S. investment- grade corporate bond spread	163 bps	-15 bps	-28 bps	-25 bps
U.Sdollar trade- weighted index <sup>b</sup>	99.73	+1.7%	-3.4%	-2.5%
U.S. break-even inflation rate (10-year)	2.35%	+19 bps	+72 bps	+58 bps

- a. As of the close on 14 January 2011, with the exception of the U.S.-dollar trade-weighted index, which is as of 7 January 2011
- b. The weights in the U.S.-dollar trade-weighted index are recalculated annually to reflect U.S. trade figures.
- Speech by Federal Reserve Chairman Bernanke outlining the possibility of additional monetary policy easing
- d. "Undisturbed" level

Sources: Bloomberg, U.S. Federal Reserve and Bank of America Merrill Lynch

<sup>2</sup> Canadian exports are concentrated in non-energy commodities and capital goods. As a result, they are more sensitive to changes in U.S. investment spending than in consumption spending.

#### Technical Box 2

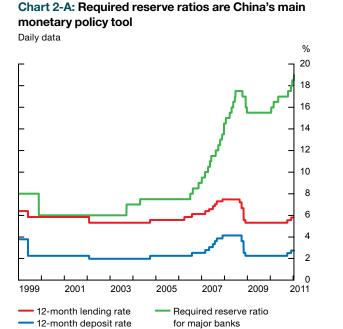
#### Inflation in China and the Risks to Global Economic Growth

Strong growth in China has played an important role in the global economic recovery. For Canada in particular, the robust economic activity in China has been a source of rising demand for Canadian exports, as well as a support to commodity prices. Recent data suggest, however, that the Chinese economy may be at risk of overheating. Stronger-than-expected growth and inflationary pressures in China present both a near-term upside risk to the outlook for global economic growth and commodity prices and a downside risk further out.

Recent indicators suggest that inflationary pressures in China have been rising sharply. Consumer price inflation has been increasing steadily in recent months, with total CPI reaching a 28-month high of 5.1 per cent in November. While increases in food prices of more than 11 per cent account for much of the rise, non-food-related inflation has also been trending upwards.¹ Producer prices and wages have been increasing strongly, while the broad money supply (M2) and overall lending have risen sharply over the past two years, as have real estate activity and property prices.² As a result, higher inflation expectations have become more firmly entrenched.³

China's inflation-control methods are heavily influenced by its exchange rate policy. Maintaining a quasi-fixed exchange rate requires China's central bank to buy the excess U.S. dollars that China earns from its foreign transactions and issue yuan in exchange. To offset the concomitant rise in the volume of yuan in circulation, the authorities generally engage in a variety of sterilization operations. Since higher interest rates would further compound the upward pressure on the currency, as well as increasing the fiscal costs of sterilization, Chinese authorities have relied on higher reserve requirements for banks, the issuance of sterilization bonds, and other administrative measures to contain

- 1 The inflation data on non-food items may understate actual inflation, however, since the CPI basket puts a low weight on shelter costs, which appear to be rising faster than the reported non-food-related rate of inflation.
- 2 The Second-Hand Apartment Price Index, a population-weighted index based on data for 17 cities, shows that existing apartment prices have increased by about 60 per cent since July 2009. The index is constructed by the Canadian embassy in China, with data from Soufun real estate broker.
- 3 The People's Bank of China, in its 2010 fourth-quarter survey of 20,000 households in 50 cities, found that more than 60 per cent of respondents expected prices to increase in the next quarter, up from 43 per cent in the previous quarter.



Source: People's Bank of China

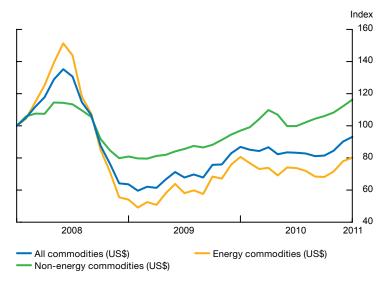
Last observation: January 2011

credit growth and inflation pressures (Chart 2-A). These instruments have not been completely effective at controlling inflation. Moreover, they have inflicted rising costs on the financial sector, since private banks have been forced to place a large share of their assets (about one-quarter in the third quarter of 2010) with the central bank rather than with private borrowers.

The Bank's base-case projection assumes that the Chinese authorities will be able to achieve a "soft landing," with a modest slowdown in growth and a gradual reduction in inflation to its 4 per cent target. However, there is a risk that efforts by the authorities could prove insufficient. As a result, economic growth and inflation in China would remain stronger for a longer period than is currently anticipated, necessitating more aggressive policy actions over the medium term. This could eventually lead to a much sharper correction in China's growth and inflation.

Chart 6: Global commodity prices have risen since the October Report

Bank of Canada commodity price index (rebased to January 2008 = 100), monthly data



Note: Values in January 2011 are estimates based on the average daily spot prices up to 14 January 2011. Source: Bank of Canada Last observation: January 2011

The Bank of Canada's index of global commodity prices has increased by 14 per cent since the October *Report* (Chart 6), primarily reflecting solid demand, especially from Asia. In addition, there may have been some impact from financial flows into commodities. Natural gas prices rose by 26 per cent in response to seasonal factors but, owing to ample supply, remained well below their average level of recent years. Oil prices have increased by about 12 per cent, driven by stronger global demand for crude oil and declining inventories, while non-energy commodity prices have risen by close to 11 per cent since the October *Report*, reflecting solid gains in most components.

The Bank of Canada's index of global commodity prices has increased by 14 per cent since the October Report.

#### **Developments in Global Financial Markets**

Conditions in global financial markets remain generally accommodative, despite heightened concerns over fiscal challenges and vulnerable banking sectors in some European countries.

Government bond yields in the major advanced economies have increased since the October *Report* (Chart 7), but nevertheless remain low by historical standards. The rise in yields appears to largely reflect upward revisions to expectations for global economic growth following the release of positive economic data and, in the case of the United States, additional fiscal stimulus.

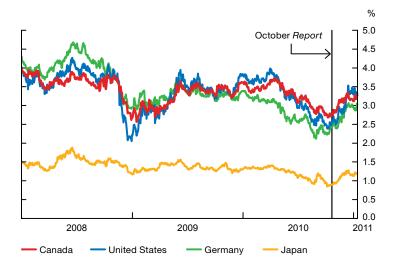
In late October and November, investors became increasingly worried about public finances in the peripheral countries of Europe and, in some cases, the budgetary impact of stresses in the banking sector. Credit spreads for the most affected sovereigns widened sharply (Chart 8), and the turbulence affected several euro-area countries. In response, European policy-makers announced various measures to safeguard financial stability, including a stabilization package for Ireland and more aggressive fiscal consolidation measures in several countries. The European Central Bank also increased the size of its exceptional liquidity support to euro-area banks and purchases of sovereign bonds in the secondary market. Financial market developments since then suggest that additional measures may be required.

The rise in yields appears to largely reflect upward revisions to expectations for global economic growth.

European policy-makers announced various measures to safeguard financial stability.

Chart 7: Yields on government bonds in major advanced economies have increased since the October Report

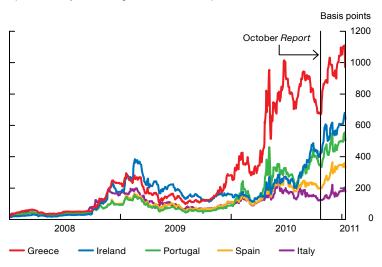
Yields on 10-year government bonds



Source: Bloomberg Last observation: 14 January 2011

Chart 8: Credit spreads for some European countries have continued to rise since the October Report

Spreads on 5-year sovereign credit default swaps



Source: Markit Last observation: 14 January 2011

Notwithstanding these stresses, most global equity and corporate bond markets have continued to perform strongly since the October Report, owing to solid corporate earnings and revenues and generally better-than-expected economic data. Global corporate bond markets continue to see robust issuance and lower spreads, particularly on riskier securities such as high-yield corporate debt, reflecting strong investor demand and increasing risk appetite (Chart 9).

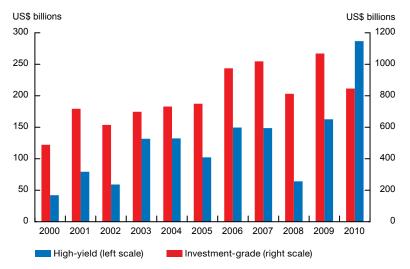
In response to better fundamentals and growing investor interest, the currencies of several emerging-market countries have come under continued upward pressure against the U.S. dollar. Although authorities in these countries have

reduced the frequency and scale of their foreign exchange interventions since October, several have imposed capital controls and other administrative measures. These policy interventions risk inhibiting the process of real exchange rate adjustment required to correct global imbalances and sustain the recovery.

The currencies of several emergingmarket countries have come under continued upward pressure.

Chart 9: Corporate bond issuance has been robust, particularly by high-yield issuers

Global corporate issuance placed in U.S. dollars



Source: Bloomberg

Last observation: 31 December 2010

#### **Outlook for the Global Economy**

The global economic recovery is projected to continue at a solid pace over 2011–12 **(Table 1)** as private domestic demand becomes more firmly entrenched. Global growth is expected to be somewhat stronger over the 2011–12 period than was anticipated in the October *Report*. Although the effects of the debt crisis in peripheral Europe are expected to restrain global economic growth over the projection horizon, these effects are more than offset in 2011 by the impact of stronger momentum in the United States and emerging-market economies.

Real GDP in the United States is projected to rise by 3.3 per cent on an average annual basis in 2011 and by 3.2 per cent in 2012. U.S. growth is expected to be stronger in 2011 than anticipated in the October *Report*, owing to the new fiscal stimulus program, combined with a more rapid recovery in consumer spending **(Chart 10)**.

The global economic recovery is projected to continue at a solid pace over 2011–12.

U.S. growth is expected to be stronger in 2011 than anticipated.

Table 1: Projection for global economic growth

	Share of real global GDPa	i i ojootou growtii (poi ooiit)					
	(per cent)	2010	2011	2012			
United States	20	2.9 (2.7)	3.3 <i>(2.3)</i>	3.2 (3.3)			
Euro area	15	1.7 <i>(1.7)</i>	1.5 (1.1)	1.5 <i>(1.7)</i>			
Japan <sup>c</sup>	6	4.3 (2.9)	1.4 (1.3)	2.1 (2.3)			
China	13	10.4 (10.3)	9.3 (9.0)	8.8 (8.9)			
Rest of the world	46	5.7 <i>(5.2)</i>	4.0 (3.6)	3.8 (3.5)			
World	100	5.0 <i>(4.7)</i>	4.0 (3.5)	3.9 (3.8)			

a. GDP shares are based on IMF estimates of the purchasing-power-parity (PPP) valuation of country GDPs for 2009.

Source: IMF, WEO, October 2010

Source: Bank of Canada

b. Numbers in parentheses are projections used for the October 2010 Monetary Policy Report.

Real GDP growth in Japan in 2010 was higher than was expected in the October Report, reflecting
historical revisions to the national accounts data and stronger-than-projected growth in the third quarter.

Growth in U.S. household spending is projected to be supported through 2012 by a measured improvement in the pace of job creation. This is against a backdrop of exceptionally weak labour market conditions at present and a long-term unemployment rate that has reached historic highs. As well, in 2011, the new fiscal measures should provide an additional impetus to household spending through tax reductions that boost disposable income. However, U.S. state and local governments are expected to limit spending and raise taxes to address large budget gaps, partially counteracting the federal government's fiscal stimulus. Consumption will also continue to be affected by the need to repair household balance sheets and by developments in the housing sector, where a large excess supply of unsold houses is projected to have a persistent restraining effect on prices.

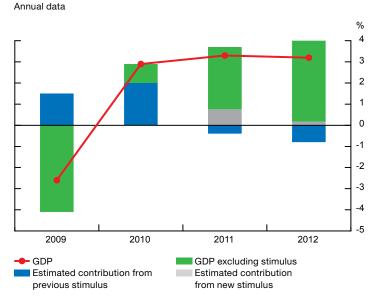
U.S. business investment in equipment and software is expected to strengthen further in response to low financing costs, improved bank lending terms and a more positive growth outlook. However, high vacancy rates in the commercial and retail sectors, combined with tighter credit terms for firms in these sectors, should continue to dampen growth in investment in structures.

Net exports are expected to make an increasingly positive contribution to growth over the projection horizon, aided by a further depreciation of the U.S.-dollar real effective exchange rate and firming external demand for U.S. goods and services.

In the euro area, a modest recovery is projected through 2012. Nevertheless, the region faces considerable risks and challenges. Recent indicators suggest that growth in early 2011 will be somewhat firmer than anticipated in the October *Report*, especially in the core European economies. Economic activity is expected to be somewhat weaker thereafter, reflecting fiscal austerity measures and financial pressures arising from continuing concerns about the sustainability of peripheral-country debt. Growth prospects in heavily indebted peripheral economies are much weaker and more uncertain than those of the core economies. Despite ambitious deficit-cutting plans, the peripheral countries will continue to be vulnerable to shifts in market sentiment because of their

In the euro area, a modest recovery is projected through 2012. Nevertheless, the region faces considerable risks and challenges.

Chart 10: Fiscal stimulus is supporting U.S. growth



Note: Previous stimulus refers to the government stimulus enacted in early 2009 in response to the crisis, while new stimulus refers to the most recent package. The contribution of the stimulus to growth includes both direct government expenditures and the indirect effects of the stimulus on other components of aggregate demand.

Sources: Bank of Canada and U.S. Bureau of Economic Analysis

substantial debt-refinancing requirements and relatively weak financial systems. Moreover, they will remain heavily dependent on the resilience in the core economies, given the large intra-region concentration of their exports.

Economic growth in Japan is projected to slow over 2011–12 in response to the unwinding of fiscal stimulus and the earlier appreciation of the yen. Growth nevertheless remains somewhat above that of potential output, reflecting a gradual broadening of the recovery. An improvement in labour market conditions is expected to provide some support to domestic demand. However, exports are projected to be an important driver of growth through 2012.

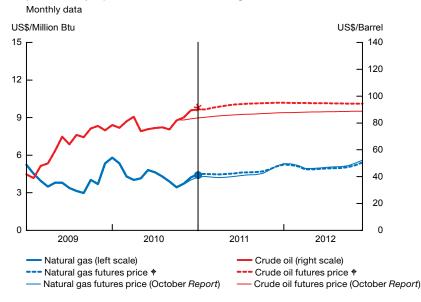
In China, a gradual rotation of demand toward consumption and away from investment and exports is expected to occur over the projection horizon, facilitated by a modest appreciation of China's real effective exchange rate. Growth in China is projected to be somewhat higher in 2011 than was anticipated in the October *Report*, driven by stronger momentum in domestic demand. However, growth in 2012 is expected to be slightly weaker than anticipated, owing to the restraining effects of tighter monetary and credit measures.

Real GDP growth is projected to slow slightly in other emerging-market economies. A removal of the fiscal stimulus introduced during the recession and a tightening in monetary policy in reaction to growing inflationary pressures are expected to moderate the growth of domestic demand. Moreover, a modest appreciation of real exchange rates in these economies is projected to constrain the growth of their net exports.

The Bank's commodity price index is expected to increase over the projection horizon, supported by the global economic recovery. Following recent sharp increases, prices for non-energy commodities are expected to remain relatively steady over the projection horizon as growing demand is largely offset by increases in supply. The latest futures curves suggest that oil prices will average US\$95 in 2012, and that natural gas prices will continue to rise as the excess supply is drawn down (Chart 11).

Growth in China is projected to be somewhat higher in 2011 than was anticipated, driven by stronger momentum in domestic demand.

Chart 11: Oil prices are expected to remain roughly unchanged, but natural gas prices are projected to increase through 2012



- \* Spot price for crude oil (14 January 2011)
- Spot price for natural gas (14 January 2011)
- Based on an average of futures contracts over the two weeks ending 14 January 2011

Note: Values for crude oil and natural gas prices in January 2011 are estimates based on the average daily spot prices up to 14 January 2011.

Source: NYMEX

## The Canadian Economy

The Canadian economy is now in a period of more modest growth, following the strong recovery experienced in late 2009 and early 2010. As in the October *Report*, the Bank projects a moderate pace of overall expansion, with accommodative financial conditions continuing to provide support as fiscal stimulus unwinds. Demand in Canada is expected to rely relatively less on household and government expenditures and more on business investment and net exports. The projected increase in the contribution to growth from net exports is supported by the improved near-term outlook for U.S. and global economic growth. However, the cumulative effects of Canada's poor relative productivity performance and the persistent strength in the Canadian dollar have eroded Canada's competitiveness and are restraining the recovery in net exports.

As projected in the October *Report*, growth is expected to absorb the considerable slack in the economy by the end of 2012. In this context, total and

core inflation are projected to gradually return to 2 per cent over that horizon.

The Bank projects a moderate pace of overall expansion, with accommodative financial conditions continuing to provide support as fiscal stimulus unwinds.

#### **Recent Developments**

#### **Economic Activity**

Real GDP growth in Canada slowed to 1.0 per cent (at an annual rate) in the third quarter. This was a slightly weaker result than had been expected in the October *Report* (Chart 12), as strength in domestic demand in the third quarter was largely offset by a further deterioration in net exports.

Consumer spending continued to grow robustly in the third quarter, while housing investment remained at a high level, despite the passing of several transitory supports to activity. The strength in consumer spending was in line with the growth of personal disposable income through the second and third quarters, leaving the savings rate near its historical low.

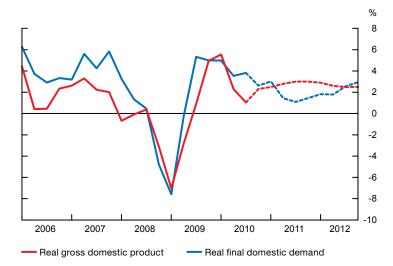
Business investment continued to grow vigorously in the third quarter. Despite the strong increase in business investment since the end of 2009, however, less than half of the unusually large decline that occurred during the recession has been recovered **(Chart 13)**.

Net exports exerted a more significant than expected drag on growth in the third quarter, as exports declined despite the further recovery in foreign activity and imports continued to be boosted by strong domestic demand. Poor relative productivity and the persistent strength in the Canadian dollar have accounted for continued weakness in net exports (**Technical Box 3**). However, the softness in exports in the third quarter was also attributable to such temporary factors as the idling of oil pipelines.

Consumer spending continued to grow robustly, while housing investment remained at a high level.

Chart 12: While growth in real final domestic demand remained robust in 2010Q3, growth in real GDP slowed significantly

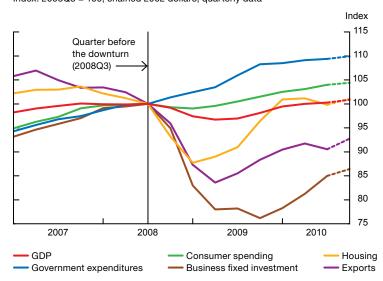
Quarterly growth at annual rates



Sources: Statistics Canada and Bank of Canada projections

Chart 13: Business investment and exports remain well below their pre-recession levels

Index: 2008Q3 = 100, chained 2002 dollars, quarterly data



Note: Numbers for 2010Q4 are Bank of Canada estimates. Sources: Statistics Canada and Bank of Canada calculations

The Bank estimates that economic growth picked up to 2.3 per cent in the fourth quarter, reflecting a rebound in net exports and a deceleration in household expenditures and business investment from their recent rapid pace of growth. Following large contributions in previous quarters, inventories likely subtracted from GDP growth in the fourth quarter, consistent with stabilizing the trend in the stock-to-sales ratio.

#### Technical Box 3

### The Recent Evolution of Canada's Competitiveness and Trade Performance

Canada's current account balance has declined substantially in recent years, reaching a deficit of 4.3 per cent of GDP in the third quarter, the largest such shortfall in 20 years (Chart 3-A). This decline reflects strong domestic demand, as well as a deterioration in the competitiveness of Canadian producers relative to that of foreign producers, which is demonstrated by higher import penetration into Canada and declining market share among Canadian exporters abroad (Chart 3-B). The decline in Canadian exporters' share of the U.S. market, by far Canada's largest export market, is evident across a wide range of goods, including machinery and equipment, consumer goods, and non-energy commodities (Chart 3-C).

Over the past several years, Canada's competitiveness has declined with the sharp rise in the labour

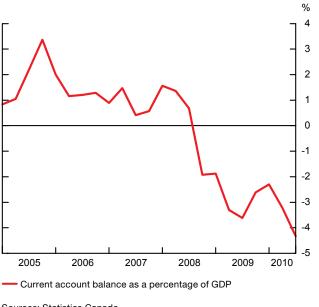
cost of producing a unit of output in Canada compared with other countries, adjusted for exchange rate movements. The Organisation for Economic Co-operation and Development (OECD) calculates that the Canadian real effective exchange rate measure incorporating unit labour costs has appreciated by about 17 per cent since the beginning of

(continued)

1 It has been shown that measures of competitiveness that are computed using labour costs explain movements in Canadian net exports and real output significantly better than those based on consumer price indexes (see R. Lafrance, P. Osakwe, and P. St-Amant, "Evaluating Alternative Measures of the Real Effective Exchange Rate," Bank of Canada Working Paper No. 98-20). In addition, the choice of a country-weighting scheme does not, in general, significantly affect Canada's competitiveness measures.

### Chart 3-A: Canada's current account balance has declined substantially in recent years

Quarterly data

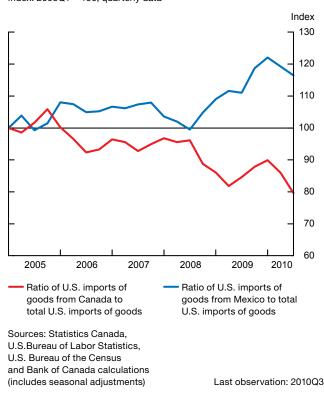


Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2010Q3

#### Chart 3-B: Canadian producers have lost market share

Index: 2005Q1 = 100, quarterly data



Technical Box 3 (continued)

### The Recent Evolution of Canada's Competitiveness and Trade Performance

2005.<sup>2</sup> The bilateral Canada-U.S. measure shows a 31 per cent increase in relative Canadian unit labour costs over the same period **(Chart 3-D)**.

Relative unit labour costs can be broken down into three components: the nominal exchange rate, relative hourly compensation and relative labour productivity. Since the beginning of 2005, the sizable appreciation of the Canadian dollar explains about two-thirds of the increase in unit labour costs in Canada vis-à-vis the United States. Wage growth in the two countries has been broadly similar over the period, leaving Canada's productivity underperformance to account for the remaining deterioration in this

The OECD measure of the real effective exchange rate is based on unit labour costs in the manufacturing sectors of 42 countries, thus captur-

ing competitiveness relative to a broad range of direct and indirect

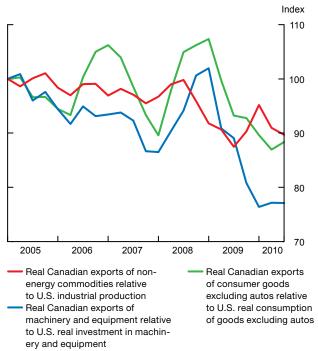
measure of competitiveness: labour productivity in Canada has grown at an average annual rate of just 0.5 per cent since the first quarter of 2005, compared with 2.1 per cent in the United States.

The divergence in productivity growth between Canada and the United States has become even more pronounced in recent years, as has the deterioration in the market share of Canadian producers. This underlines the risk that a combination of disappointing productivity performance and persistent strength in the Canadian dollar could dampen the expected recovery of net exports.

### Chart 3-C: The loss of U.S. market share among Canadian exporters has been notable across a range of goods

Index: 2005Q1 = 100, quarterly data

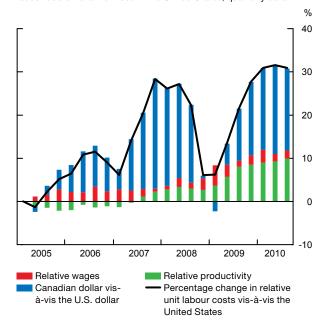
competitors.



Sources: Statistics Canada, U.S. Bureau of Economic
Analysis and Bank of Canada calculations Last observation: 2010Q3

### Chart 3-D: Canada's loss of competitiveness reflects the strong Canadian dollar and poor relative productivity performance

Contribution of various factors to the change in Canada's relative unit labour costs vis-à-vis those in the United States, quarterly data



Sources: Statistics Canada, U.S. Bureau of Economic

Analysis and Bank of Canada calculations

Last observation: 2010Q3

#### **Estimated Pressures on Capacity**

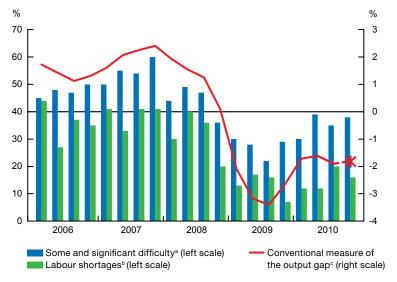
Various indicators of capacity suggest that considerable slack remains in the Canadian economy.

The Bank's conventional measure of the output gap indicates that excess capacity in the economy was relatively stable in the fourth quarter, at about -1.8 per cent (Chart 14). The Bank's winter *Business Outlook Survey* (available on the Bank's website under Publications and Research > Periodicals) reported that the proportion of firms that would have difficulty responding to an unexpected increase in demand remains below its historical average, as does the proportion of firms facing labour shortages. The still-elevated unemployment rate and the weakness in average weekly hours worked also point to the persistence of slack in the labour market (Chart 15).

On balance, the Bank judges that the economy was operating at about 1 3/4 per cent below its production capacity in the fourth quarter of 2010, a slightly greater degree of slack than the Bank had projected in October.

On balance, the Bank judges that the economy was operating at about 1 3/4 per cent below its production capacity in the fourth quarter of 2010.

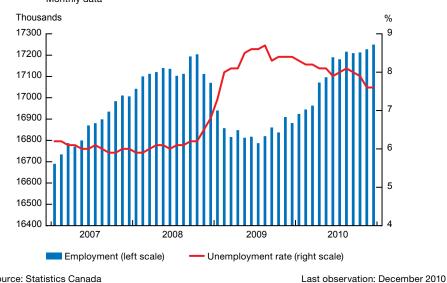
Chart 14: Excess supply in the Canadian economy remains significant



- a. Response to Business Outlook Survey question on capacity pressures. Percentage of firms indicating that they would have either some or significant difficulty meeting an unanticipated increase in demand/sales.
- b. Response to *Business Outlook Survey* question on labour shortages. Percentage of firms reporting labour shortages that restrict their ability to meet demand.
- c. Difference between actual output and estimated potential output from the Bank of Canada's conventional measure. The estimate for the fourth quarter of 2010 (indicated by ★) is based on a projected increase in output of 2.3 per cent (at annual rates) for the quarter.

Source: Bank of Canada Last observation: 2010Q4

Chart 15: Despite growth in employment, the unemployment rate remains elevated Monthly data



Source: Statistics Canada

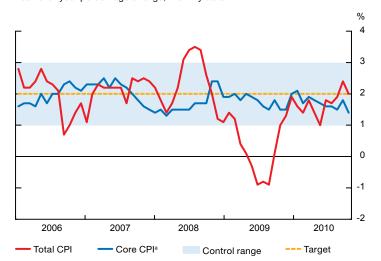
#### Inflation and the 2 Per Cent Target

Core inflation has remained below 2 per cent in recent months (Chart 16), consistent with considerable excess supply in the economy, as well as the moderation in the growth of unit labour costs (Chart 17). There is some evidence that HST-related tax refunds to businesses may also have been passed through, dampening core inflation in line with the Bank's expectations. The 1.6 per cent average rate for core inflation in October and November was consistent with the Bank's projection at the time of the October Report.

Core inflation has remained below 2 per cent in recent months, consistent with considerable excess supply in the economy.

Chart 16: Core inflation remains subdued, while total CPI inflation is slightly above target owing mainly to temporary factors

Year-over-year percentage change, monthly data

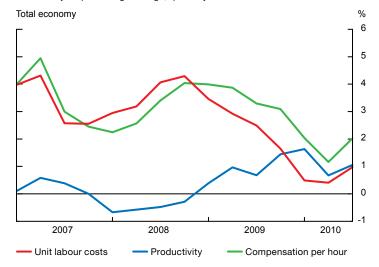


a. CPI excluding eight of the most volatile components and the effect of changes in indirect taxes on the remaining components

Last observation: November 2010 Source: Statistics Canada

Chart 17: The growth of unit labour costs has been moderate since the beginning of 2010

Year-over-year percentage change, quarterly data



Source: Statistics Canada Last observation: 2010Q3

Total CPI inflation has risen in recent quarters, mainly reflecting the impact of the HST and other changes in provincial indirect taxes that took effect in July, as well as higher energy prices. Total CPI inflation in October and November averaged 2.2 per cent, slightly above the Bank's expectations in the October *Report*.

Recent survey measures continue to indicate that inflation expectations are well anchored at the 2 per cent target. As reported in the Bank's winter *Business Outlook Survey*, 91 per cent of firms expect average inflation over the next two years to remain within the 1 to 3 per cent control range. The January Consensus Economics forecast for total CPI inflation was 2.2 per cent in 2011 and 2.1 per cent in 2012. Market-based measures of longer-term inflation expectations also continue to be consistent with the 2 per cent inflation-control target.

Recent survey measures continue to indicate that inflation expectations are well anchored at the 2 per cent target.

#### **Canadian Financial Conditions**

Financial conditions in Canada remain exceptionally stimulative, providing important ongoing support to the economic recovery.

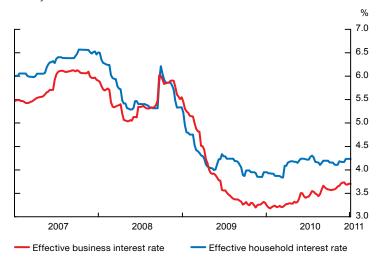
Effective borrowing costs for households remain very low by historical standards, consistent with the low level of bank funding costs (**Chart 18**). Nonetheless, borrowing costs have risen over the past year, including a marginal increase in the period since the October *Report* that reflects higher yields on Canadian government bonds, in line with global developments. In this context, the growth of household credit has eased modestly relative to the rapid pace seen earlier in 2010 (**Chart 19**).

Effective borrowing costs for Canadian businesses have also stayed very low despite some increase in 2010. As well, in recent months, access to financing has continued to improve for Canadian firms, according to both the Bank's *Senior Loan Officer Survey* (available on the Bank's website under Publications and Research > Periodicals) and the *Business Outlook Survey* (Chart 20). The *Senior Loan Officer Survey* suggests that heightened competition among lenders and more favourable economic conditions have driven an overall easing in lending conditions, which has increasingly spread to smaller businesses. The improved global economic outlook and the still-low level of government bond yields have underpinned strong investor demand for

In recent months, access to financing has continued to improve for Canadian firms.

Chart 18: Borrowing costs for households and businesses remain at exceptionally low levels

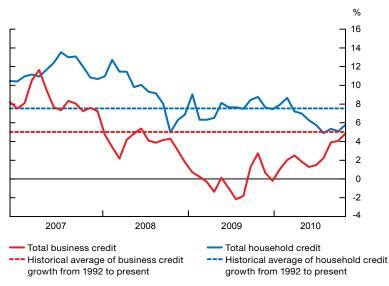
Weekly data



Note: For more information on these series, see <a href="http://credit.bankofcanada.ca/financialconditions">http://credit.bankofcanada.ca/financialconditions</a>>. Source: Bank of Canada calculations Last observation: 14 January 2011

Chart 19: The growth rate of business credit is picking up, while the expansion of household credit has eased slightly

3-month percentage change (at annual rates)



Source: Bank of Canada

Last observation: November 2010

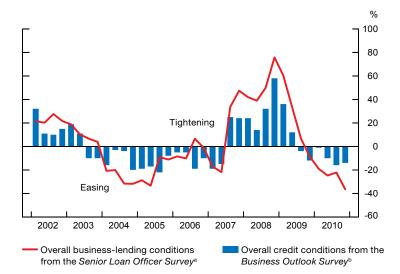
Favourable financing conditions have contributed to the observed pickup in the overall growth of business credit.

corporate bonds and equities, reflected in the persistence of narrow credit spreads despite elevated corporate bond issuance and further recovery in the S&P/TSX Composite Index. Favourable financing conditions, as well as the ongoing recovery in business investment and increased activity in mergers and acquisitions, have contributed to the observed pickup in the overall growth of business credit (Chart 19).

Growth in the narrow monetary aggregates has continued to slow in recent months from the unusually rapid pace set earlier in 2010, consistent with reduced liquidity preference among households and firms. Growth in the broader M2++ aggregate remains below its historical average, suggesting subdued inflation pressures ahead.

Chart 20: Survey results suggest that credit conditions for Canadian non-financial firms eased further in 2010Q4

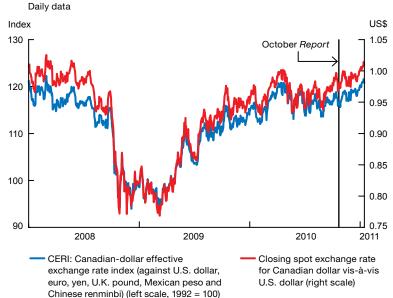
Balance of opinion



- a. Weighted percentage of surveyed financial institutions reporting tightened credit conditions minus the weighted percentage reporting eased credit conditions
- b. Percentage of firms reporting tightened credit conditions minus percentage reporting eased credit conditions

Source: Bank of Canada Last observation: 2010Q4

Chart 21: The Canadian dollar has appreciated since the October Report



Note: A rise in the index indicates an appreciation of the Canadian dollar. Source: Bank of Canada Last observation: 14 January 2011

#### **Exchange Rate**

The Canadian dollar has averaged 100 cents U.S. since the December fixed announcement date, compared with the 98 cents assumed in the October Report (Chart 21). It appreciated relative to other currencies, with the Canadian-dollar effective exchange rate index (CERI) rising by about 4 per cent since the October Report.

The Canadian dollar has averaged 100 cents U.S. since the December fixed announcement date.

#### **Outlook for the Canadian Economy**

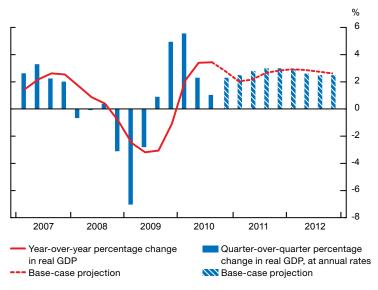
The Bank's base-case projection incorporates the following key assumptions: a Canada/U.S. exchange rate averaging 100 cents U.S.; energy prices in line with recent futures prices; relatively steady prices for non-energy commodities; and supportive global credit conditions.

#### **Aggregate Demand and Supply**

The Bank continues to expect moderate economic growth through 2011 and 2012 **(Chart 22)**. As the expansion progresses, demand in Canada is projected to rely increasingly on business investment and net exports, and less on government and household expenditures **(Table 2** and **Chart 23)**. On an average annual basis, real GDP is projected to grow by 2.4 per cent

The Bank continues to expect moderate economic growth through 2011 and 2012.

Chart 22: Real GDP is expected to grow at a rate consistent with the gradual absorption of excess supply



Sources: Statistics Canada and Bank of Canada projections

Table 2: Contributions to average annual real GDP growth

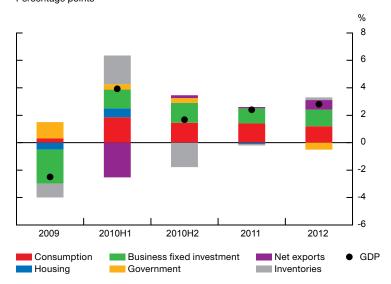
Percentage points<sup>a</sup>

	2009	2010	2011	2012
Consumption	0.2 (0.2)	1.9 (1.9)	1.4 (1.2)	1.2 (1.2)
Housing	-0.6 (-0.6)	0.7 (0.6)	-0.1 (-0.2)	0.0 (0.1)
Government	1.2 (1.2)	1.0 (1.1)	0.0 (0.0)	-0.5 <i>(-0.4)</i>
Business fixed investment	-2.6 (-2.6)	0.6 (0.3)	1.1 (0.9)	1.2 (1.1)
Subtotal: Final domestic demand	-1.8 <i>(-1.8)</i>	4.2 (3.9)	2.4 (1.9)	1.9 (2.0)
Exports	-4.7 (-4.7)	1.9 (2.3)	1.8 (1.5)	1.9 (1.6)
Imports	4.9 (4.9)	-4.2 (-4.2)	-1.7 (-1.2)	-1.2 (-1.1)
Subtotal: Net exports	0.2 (0.2)	-2.3 (-1.9)	0.1 (0.3)	0.7 (0.5)
Inventories	-0.9 (-0.9)	1.0 (1.0)	-0.1 <i>(0.1)</i>	0.2 (0.1)
GDP	<b>-2.5</b> (-2.5)	<b>2.9</b> (3.0)	<b>2.4</b> (2.3)	2.8 (2.6)
Memo items:				
Potential output	1.2 <i>(1.2)</i>	1.6 (1.6)	1.8 (1.8)	2.0 (2.0)
Real gross domestic income (GDI)	-5.8 <i>(-5.8)</i>	4.8 (5.0)	3.4 (2.9)	3.2 (2.9)

a. Figures in parentheses are from the base-case projection in the October 2010 Monetary Policy Report. Those for potential output are from Technical Box 2 in the October 2010 Report.

Chart 23: Demand in Canada is projected to rely increasingly on business investment and net exports, and less on government and household expenditures

Contributions to real GDP growth Percentage points



Note: Contributions for 2010H1 and 2010H2 are proxied by the average quarterly contributions. Sources: Statistics Canada and Bank of Canada calculations and projections

in 2011 and 2.8 per cent in 2012, a slightly stronger growth profile than had been anticipated at the time of the October *Report*. More robust growth in business investment, as well as heightened near-term momentum in household expenditures and U.S. and global demand, account for the modestly improved outlook. Nonetheless, weaker growth in the second half of 2010 implies somewhat greater excess capacity in the near term. Thus, the Bank continues to expect the economy to return to full capacity only by the end of 2012.

Growth in consumer spending is expected to evolve broadly in line with that of personal disposable income over the projection horizon. The government's recently announced mortgage insurance measures will contribute to a more balanced path for household expenditures.

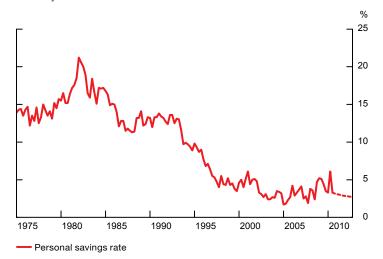
As in the October *Report*, growth in disposable income is expected to moderate from its recent trend as a result of the withdrawal of fiscal stimulus, announced compensation restraints by governments and a slow recovery in average hours worked. With Canadian household balance sheets becoming increasingly stretched and consumption unlikely to be bolstered by gains in house prices, growth in household spending is expected to moderate in line with income growth. This means that the savings rate is projected to remain near historic lows and household debt near historic highs (Chart 24). These factors, taken together with reduced affordability, point to a weakening in residential investment over the projection horizon. The Bank expects the share of the economy accounted for by residential investment, and by household expenditures more broadly, to decline gradually but remain well above historical averages (Chart 25).

The Bank's base-case scenario, which takes into account the federal government's recent announcement that stimulus measures will be extended through October, continues to assume that the contribution of government spending to real GDP growth will turn negative over the projection horizon.

The savings rate is projected to remain near historic lows and household debt near historic highs.

Chart 24: The Canadian personal savings rate is projected to remain near historic lows

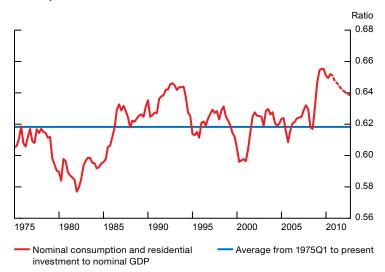
Quarterly data



Sources: Statistics Canada and Bank of Canada calculations and projections

Chart 25: The share of household expenditures in GDP is expected to decline somewhat from elevated levels

Quarterly data

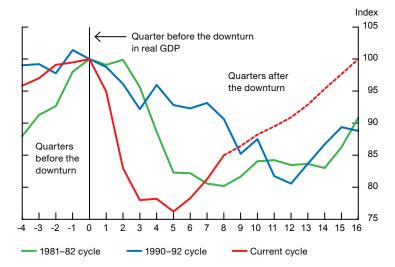


Sources: Statistics Canada and Bank of Canada calculations and projections

The rapid increase in business investment is expected to continue over the projection horizon. The rapid increase in business investment is expected to continue over the projection horizon as the unusually sharp decline experienced during the recession is unwound **(Chart 26)**. This reflects the solid financial positions of Canadian firms **(Chart 27)**, favourable credit conditions, higher commodity prices, the stronger Canadian dollar, and the impetus to improve productivity amid heightened pressures to become more competitive as the global economy recovers. The Bank's *Business Outlook Survey* has also indicated a consistently high level of investment intentions in recent quarters. Reflecting all of these factors, the Bank expects a somewhat more robust recovery in capital spending than previously projected.

Chart 26: The projected recovery in Canadian business fixed investment underpins the expected pickup in productivity

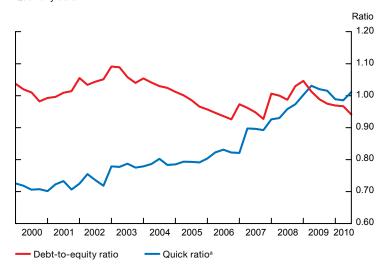
Comparison of Canadian real business investment across economic cycles; quarter before the downturn in real GDP = 100, quarterly data



Sources: Statistics Canada and Bank of Canada calculations and projections

Chart 27: With liquidity high and leverage low, non-financial firms are well positioned to invest

Quarterly data



a. The quick ratio is defined as short-term assets (less inventories) over short-term liabilities. Source: Statistics Canada Last observation: 2010Q3

Consistent with the October Report, the Bank expects an improvement in net exports over the projection horizon as external demand recovers and growth in Canadian domestic demand moderates from its previous rapid pace. While near-term growth prospects in the United States and other foreign economies have significantly improved of late, competitiveness challenges are expected to leave the projected profile of Canadian export growth only slightly stronger than previously anticipated. The rebalancing of domestic demand toward business investment and pressures on Canadian competitiveness also imply higher imports relative to the profile of overall domestic demand. The strength of net exports will continue to be sensitive to currency movements and the expected recovery in productivity growth, in addition to prospects for external demand.

The Bank expects an improvement in net exports over the projection horizon.

#### The Projection for Inflation

Core inflation is projected to gradually edge up to 2 per cent by the end of 2012.

The outlook for core inflation is broadly unchanged from the October *Report*. Core inflation is projected to gradually edge up to 2 per cent by the end of 2012 **(Table 3** and **Chart 28)**, as excess supply in the economy is slowly absorbed. Inflation expectations remain well anchored. As well, ongoing modest growth in labour compensation, combined with an anticipated pickup in productivity, is expected to restrain growth in unit labour costs and, in turn, dampen inflation pressures.

Table 3: Summary of the base-case projection for Canada<sup>a</sup>

	2009	2010			2011			2012					
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP (quarter-over-quarter percentage change at annual rates)	4.9 <i>(4.9)</i>	5.6 <i>(5.8)</i>	2.3 (2.0)	1.0 <i>(1.6)</i>	2.3 (2.6)	2.5 (2.6)	2.8 <i>(2.3)</i>	3.0 (2.3)	3.0 <i>(2.6)</i>	2.9 <i>(2.7)</i>	2.6 (2.8)	2.5 (2.8)	2.5 (2.8)
Real GDP (year-over-year percentage change)	-1.1 (-1.1)	2.1 <i>(2.2)</i>	3.4 <i>(3.4)</i>	3.4 (3.6)	2.8 (3.0)	2.0 (2.2)	2.2 (2.3)	2.6 (2.4)	2.8 (2.4)	2.9 <i>(2.5)</i>	2.9 (2.6)	2.7 (2.7)	2.6 (2.8)
Core inflation (year-over-year percentage change)	1.6 <i>(1.6)</i>	2.0 (2.0)	1.8 <i>(1.8)</i>	1.5 <i>(1.6)</i>	1.6 <i>(1.6)</i>	1.4 <i>(1.5)</i>	1.5 <i>(1.6)</i>	1.6 <i>(1.7)</i>	1.7 <i>(1.7)</i>	1.8 <i>(1.8)</i>	1.9 <i>(1.9)</i>	1.9 <i>(1.9)</i>	2.0 (2.0)
Total CPI (year-over-year percentage change)	0.8 (0.8)	1.6 <i>(1.6)</i>	1.4 <i>(1.4)</i>	1.8 <i>(1.8)</i>	2.3 (2.1)	2.2 (2.0)	2.3 (2.2)	1.9 <i>(1.8)</i>	2.0 (1.9)	1.8 <i>(1.8)</i>	1.9 <i>(1.9)</i>	1.9 <i>(1.9)</i>	2.0 (2.0)
Total CPI excluding the effect of the HST and changes in other indirect taxes (year-over-year percentage change)	0.8 (0.8)	1.6 (1.6)	1.4 (1.4)	1.3 (1.3)	1.9 (1.7)	1.7 (1.5)	1.8 (1.7)	1.9 (1.8)	1.9 (1.8)	1.8 (1.8)	1.9 <i>(1.9)</i>	1.9 (1.9)	2.0 (2.0)
WTI <sup>b</sup> (level)	76 <i>(76)</i>	79 <i>(79)</i>	78 <i>(78)</i>	76 <i>(76)</i>	85 <i>(82)</i>	91 <i>(84)</i>	93 <i>(86)</i>	95 <i>(87</i> )	95 <i>(87)</i>	95 <i>(88)</i>	95 <i>(88)</i>	95 <i>(88)</i>	95 <i>(89)</i>

- a. Figures in parentheses are from the base-case projection in the October Monetary Policy Report.
- Assumptions for the price of West Texas Intermediate crude oil (US\$ per barrel), based on an average of futures contracts over the two weeks ending 14 January 2011

The near-term profile for core inflation is slightly more subdued than previously anticipated, consistent with slightly greater excess supply in the near term. In the first quarter, the 12-month rate of core inflation will also be dampened by the unusual price increases for motor vehicles and hotel accommodation that occurred in early 2010.

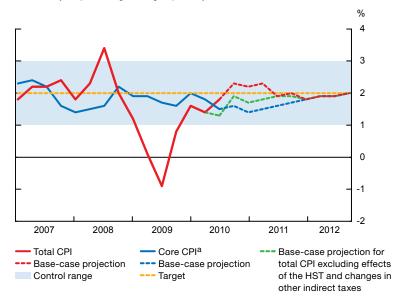
Total CPI inflation is projected to remain slightly higher than the 2 per cent target over the first half of 2011, as the HST and other changes in provincial indirect taxes continue to boost the 12-month rate of change in consumer prices. As with previous changes in indirect taxes, for the purposes of monetary policy, the Bank is looking through the first-round effect on prices of these changes. Excluding the impact of changes in indirect taxes, total CPI inflation is expected to gradually converge to the 2 per cent target, broadly in line with the projected profile for core inflation.

This projection includes a gradual reduction in monetary stimulus over the projection horizon, consistent with achieving the inflation target.

<sup>1</sup> The direct impact of changes in consumption taxes in Ontario, British Columbia and Nova Scotia is a temporary rise of 0.7 percentage points in the year-over-year rate of increase in the total CPI from July 2010 to June 2011. The increase in the provincial sales tax in Quebec in January 2011 is expected to add about 0.1 percentage points to total CPI inflation over 2011.

Chart 28: Total CPI and core inflation in Canada are projected to converge to 2 per cent over the projection horizon

Year-over-year percentage change, quarterly data



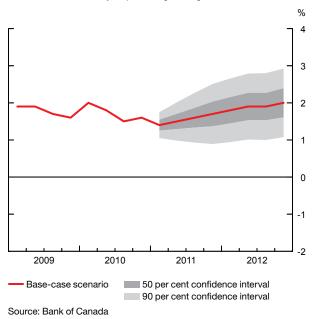
a. CPI excluding eight of the most volatile components and the effect of changes in indirect taxes on the remaining components

Sources: Statistics Canada and Bank of Canada calculations and projections

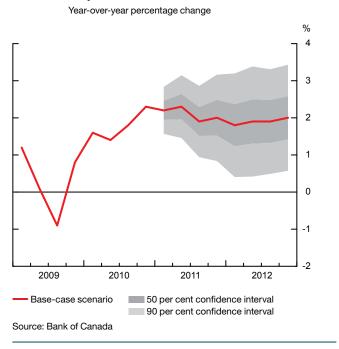
The uncertainty surrounding the Bank's inflation projection is illustrated using fan charts. Chart 29 and Chart 30 depict the 50 per cent and 90 per cent confidence bands for year-over-year core inflation and total CPI inflation from the first quarter of 2011 to the end of 2012.2

Chart 29: Projection for core CPI inflation

Year-over-year percentage change



#### Chart 30: Projection for total CPI inflation



<sup>2</sup> Technical details on the construction of the fan charts are available on the Bank's website; keyword search: Fan charts.

### Risks to the Outloo

Despite improvements in the outlook for the global and Canadian economies, risks remain elevated.

There are two main upside risks to inflation, relating to higher commodity prices and the possibility of greater-than-projected momentum in the Canadian household sector:

- The global economy could be stronger than currently anticipated, particularly if measures to moderate demand in emerging-market economies prove insufficient. This could boost commodity prices, which would increase incomes in Canada and support stronger investment activity and household spending.
- There could be stronger-than-expected momentum in household expenditures in Canada. With exceptionally stimulative financing conditions, borrowing could continue to grow faster than income.

There are two main downside risks to inflation, relating to Canadian competitiveness and the possibility of weaker-than-projected household expenditures:

- The Bank expects net exports to provide greater support to the Canadian economic expansion over the projection horizon. However, with ongoing productivity challenges and the persistent strength of the Canadian dollar, the anticipated recovery in net exports may not fully materialize. Moreover, renewed tensions in foreign exchange markets could inhibit the necessary global adjustment and put additional pressure on freely floating currencies.
- With household expenditures in Canada significantly above their historical average as a share of GDP, growth in household spending might decelerate more rapidly than is currently anticipated. Relatedly, if there were a sudden weakening in the Canadian housing sector, it could have sizable spillover effects on other areas of the economy, such as consumption, given the high debt loads of some Canadians.

In addition, challenges in Europe continue to be a significant source of uncertainty for the global outlook. A comprehensive solution to the sovereign debt and financial stability issues in a number of countries will be required.

Overall, the Bank judges that the risks to the inflation outlook are roughly balanced over the projection horizon.