BANK OF CANADA

Monetary Policy Report

– November 1996 –

The silver dollar featured on the cover commemorates the Griffon*, the first ship to sail the Great Lakes above Niagara Falls. Built as a commercial vessel by the explorer René-Robert Cavelier, sieur de La Salle, the* Griffon *sailed under his command to Michilimackinac and Green Bay but was lost in a storm on its return voyage.*

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“Credibility takes a long time to establish and precious little time to undo once markets begin to doubt one’s commitment to stated policy goals. While it is true that we have now had four years of good inflation performance, we also have a legacy of some 20 years of high inflation to put behind us. The only way to achieve this is by providing market participants ... with a strong sense of continuity in economic policy.”

— Gordon Thiessen

Speech given to the London Chamber of Commerce, London, Ontario, 27 June 1996

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Canada's Inflation-Control Strategy

The monetary policy instrument

- A wide variety of evidence suggests that, in the longer term, inflation results from excessive monetary expansion. The transmission mechanism is complex and involves long and variable lags. Through its influence on short-term interest rates, the Bank of Canada aims to achieve a rate of monetary expansion consistent with the inflation-control target range.

The targets

- In December 1993, the federal government and the Bank of Canada announced the objective of keeping annual increases in the consumer price index (CPI) inside a range of 1 to 3 per cent.

- By the end of 1998, a decision will be taken on a future inflation-control target range that would be consistent with price stability.

Monitoring inflation

- In the short run, the Bank focusses on the CPI excluding food, energy and the effect of indirect taxes, because there is a good deal of movement in the CPI caused by transitory fluctuations in the prices of food and energy, as well as by changes in indirect taxes. This measure is referred to as the *core* CPI.

- Over longer periods of time, the measures of inflation based on the total CPI and the core CPI tend to follow similar paths. In the event of persistent differences between the trends of the two measures, the Bank would adjust its desired path for core CPI inflation so that total CPI inflation would come within the target range.

1. Introduction

This *Report* outlines recent developments in the Canadian economy that affect the rate of inflation and provides an account of the measures taken by the Bank of Canada to control inflation. It also assesses the background for the conduct of monetary policy in the period ahead.

In response to continued downward pressure on the trend of inflation, the Bank took further action to ease monetary conditions.

Over the past six months, with continued downward pressure on inflation and sluggish aggregate demand, the Bank took further action to ease monetary conditions by reducing the Bank Rate and its operating band for the overnight interest rate. The economy was weaker than expected, particularly in the second quarter, mainly because of a larger-than-anticipated inventory correction. However, recent economic indicators are pointing to a quickening pace of activity through the balance of this year and into 1997 in response to the cumulative amount of monetary ease now in place.

Moreover, Canada's favourable economic fundamentals — low inflation, an improving fiscal position, and a strengthening balance of international payments — have allowed short- and medium-term interest rates to fall substantially below those in the United States and have led to growing confidence among both domestic and foreign investors that negative interest rate differentials can be sustained.

The major uncertainty continues to centre on how rapidly the economy will respond to the past easing in monetary conditions and what implications this response will have for the degree of downward pressure on inflation over the medium term. In any event, there is ample room for economic expansion and employment growth without a resurgence of inflation.

2. Recent Developments in Inflation

Transitory influences on inflation (such as the exchange rate and commodity price movements that pushed inflation up in 1995) have vir-

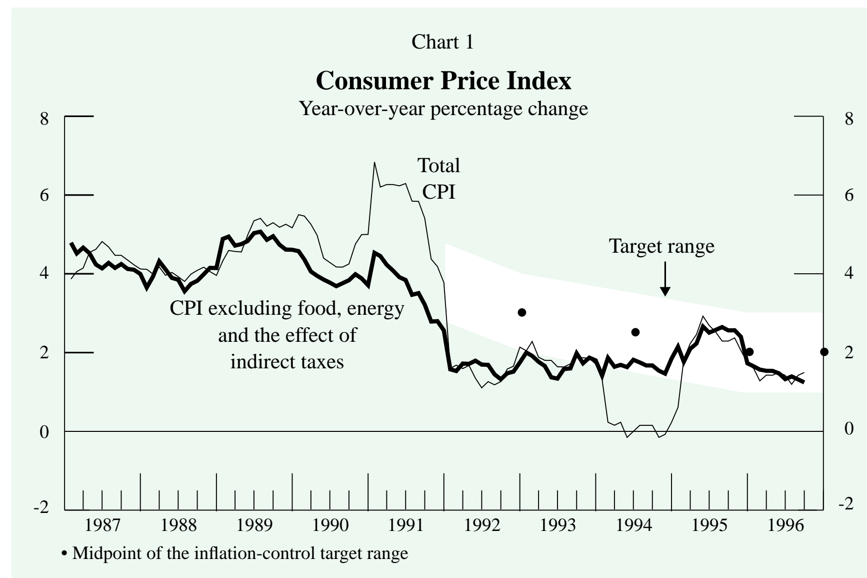
This text includes information received to 22 October 1996.

tually disappeared. Thus, fundamental supply/demand factors are the only major forces affecting inflation at this time.

Inflation and the target range

In recent months, core CPI has remained in the lower half of the inflation-control target range.

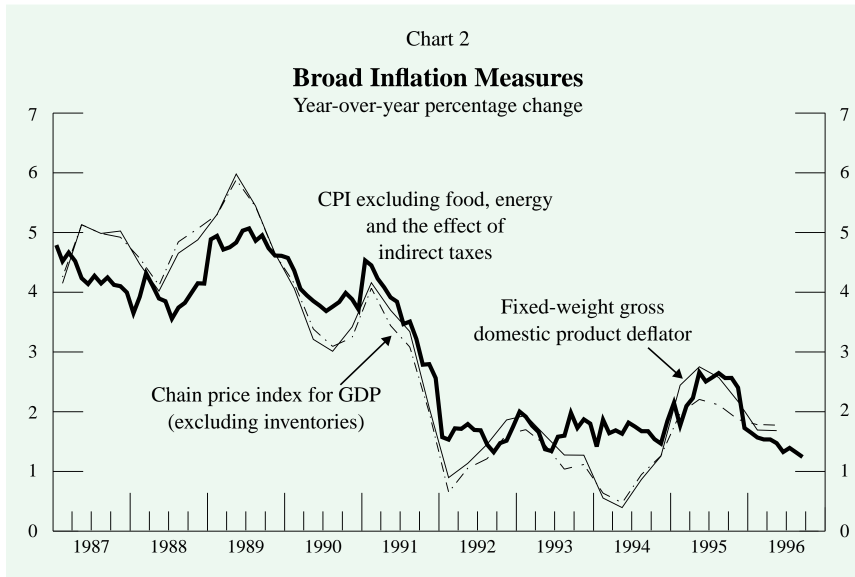
As anticipated at the time of the last *Report*, the 12-month rate of increase in the core CPI has remained in the lower half of the inflation-control target range in recent months. As of September 1996, this measure of inflation was 1.2 per cent, compared with 1.5 per cent in March 1996 and a high of 2.7 per cent reached in May 1995 (Chart 1). The 12-month rate of increase in the total CPI was 1.5 per cent in September, down from a peak of 2.9 per cent in May 1995.



Other broad measures of inflation declined further in the first half of 1996.

Other broad measures of inflation also fell. The rate of increase in the fixed-weight GDP deflator was 1.7 per cent in the second quarter of 1996 on a year-over-year basis, compared with 2.2 per cent in the fourth quarter of 1995 (Chart 2). The year-over-year rate of increase in the chain price index[1] for GDP excluding inventories — a measure of price changes that adjusts for shifts in the composition of spending — edged down only marginally over the same period to 1.8 per cent.

1. The chain price index for GDP (excluding inventories) weights quarterly price changes by the dollar value of expenditure components in the previous quarter.



Factors at work on inflation

Spare capacity in product markets and slack in labour markets continued to place downward pressure on inflation over the past six months. Meanwhile, the upward pressure on inflation from earlier commodity price increases and from the past depreciation of the Canadian dollar dissipated. However, as household spending began to recover, some of the discounts — notably on clothing — offered by retailers in late 1995 and early 1996 were reversed, pushing up selected consumer prices.

Aggregate demand and supply

Final sales picked up significantly in the first half of 1996, but the overall expansion was slower than expected.

Final sales picked up significantly in the first half of 1996, broadly in line with expectations. However, because of a sharp inventory correction by firms, economic activity edged up at a pace only marginally faster than in the second half of 1995.[2] Thus, the overall pace of economic expansion was somewhat slower than was expected in the last *Report*.

There were a number of indications of gathering momentum in underlying demand in the first half of the year.

External demand bolstered the economy.

2. For an analysis of the role of inventories in economic fluctuations, see H.-H. Lau (1996).

External demand continued to bolster the expansion of the Canadian economy, as growth in the U.S. economy strengthened. This was reinforced by the strong competitive position of Canadian industry, which has favoured both export growth and increased substitution of domestic products for imports (Technical Box 1). Exports would have been even stronger had it not been for sluggish demand in the major European countries, low inventories of grain in Canada, and high foreign inventory levels for some primary commodities.

In the first two quarters of 1996, the volume of exports increased at an average annual rate of 2.4 per cent, while the volume of imports decreased by 0.9 per cent. The overall increase in net exports during the first half of 1996 was the main factor behind the movement of the current account into a surplus position for the first time in over 10 years (Chart 3). The improvement in the current account since the end of 1993 amounts to $37 billion, or 5 percentage points of GDP.

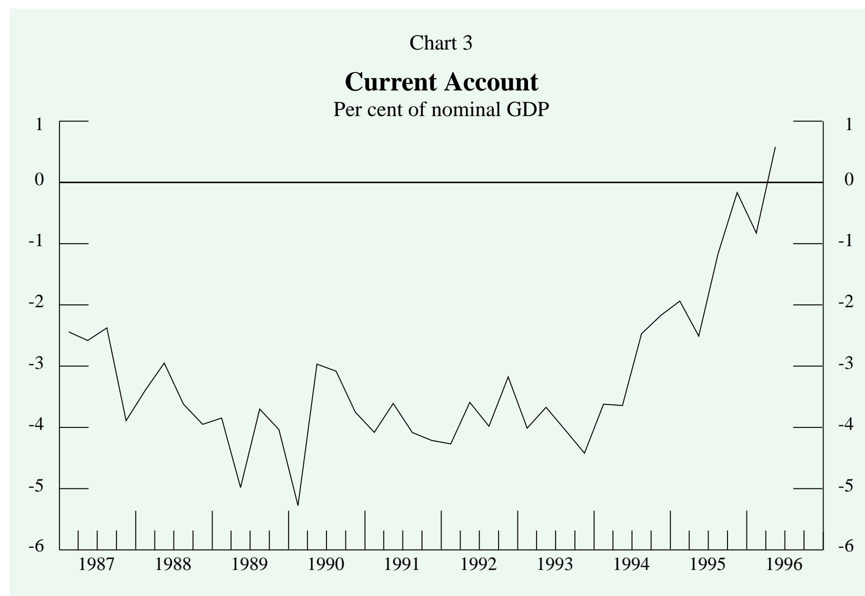


Chart 3

Current Account

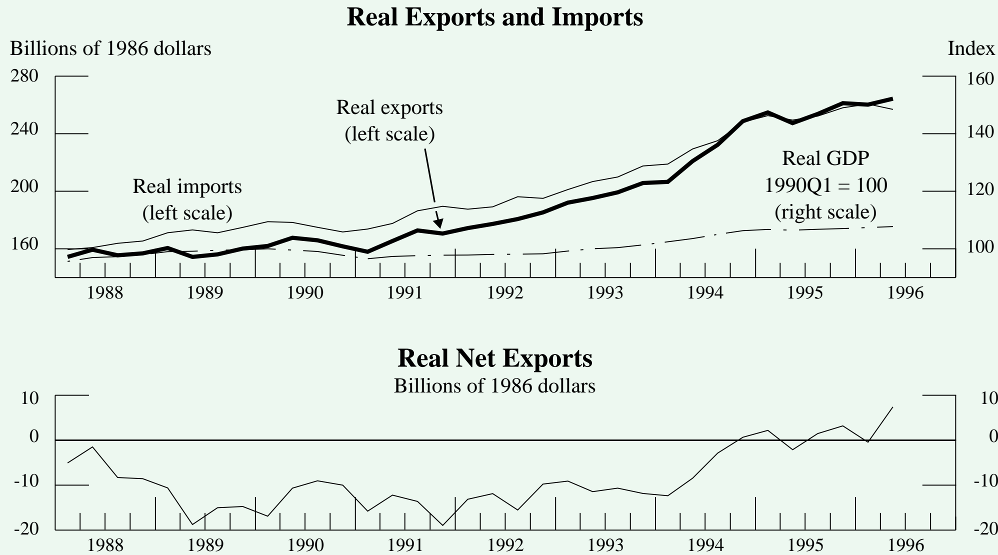
Technical Box 1

Recent Evolution in the Volume of Net Exports

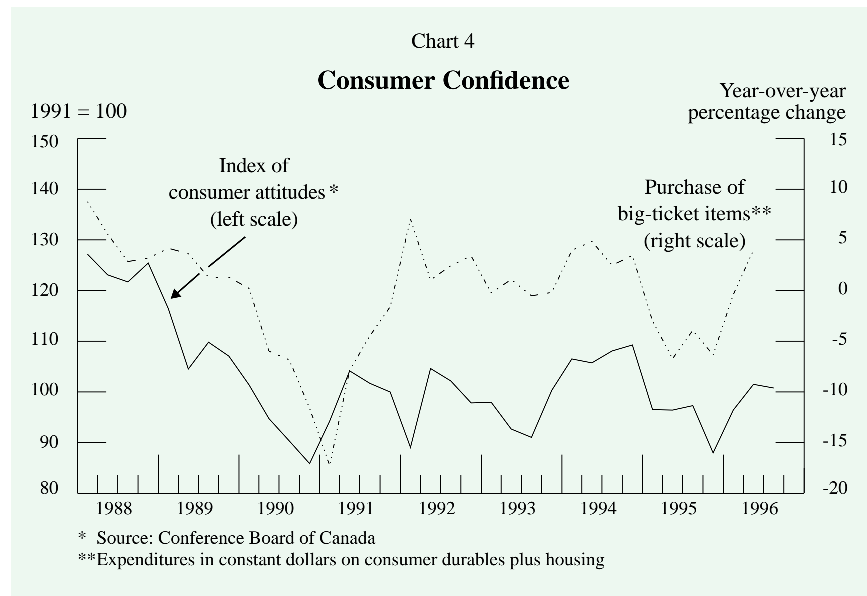
From a deficit of $10.4 billion (at annual rates) in the first half of 1994, net exports* in volume terms moved to a surplus of $3.5 billion (at annual rates) in the first half of 1996. This represents more than half the increase in real GDP over the same period. About 40 per cent of this improvement results from the fact that the growth of consumption and investment spending was stronger abroad than in Canada. The rest is largely explained by the increased competitiveness of Canadian firms, stemming from restructuring, the modernization of equipment, improved cost control and low inflation, as well as from the relatively low exchange value of the Canadian dollar. The strong competitive position of Canadian firms should continue into the medium term.

The impact of improved competitiveness has been felt throughout the Canadian economy, with improvements in net export balances in volume terms of natural resources, manufactured goods (especially automobiles), and services.

Liberalized international trade, especially through the Free Trade Agreement with the United States and the Uruguay Round of GATT, has been a leading force in the growth of international trade, causing both exports and imports to grow more rapidly than GDP. The expanding international market for computer-related equipment and products has also been a major factor.



* The difference between exports and imports in volume terms (expressed in 1986 prices)



Spurred by lower interest rates, household demand began to improve ...

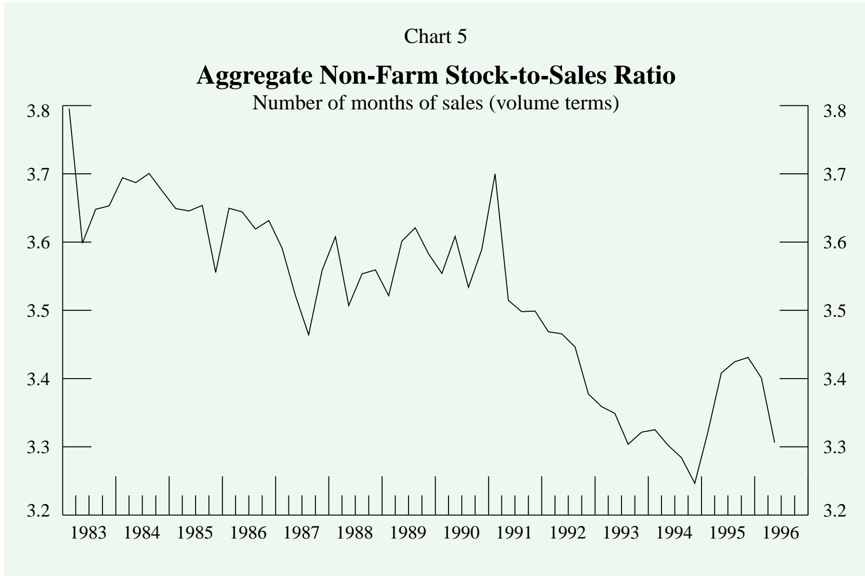
Household spending — especially on housing — began to recover in the first half of 1996. This recovery, which occurred in the face of continued slow growth in total personal disposable income and in total employment, was buoyed by some improvement in consumer confidence (Chart 4). The decline in interest rates since October 1995 has improved how households perceive their near-term financial situations and has made them more inclined to make major purchases. This may also have reflected steady job creation in the private sector as well as some clarification as to which public sector employees would be most affected by restructuring initiatives. Private sector employment grew by 1.5 per cent at an annual rate over the first two quarters of 1996, following a rise of 1.3 per cent in the previous two quarters.

In the first half of 1996, firms worked off the sizable inventory imbalances that had emerged in the first half of 1995, and by the middle of 1996 the aggregate non-farm business stock-to-sales ratio was back down close to a desired level that is trending downwards because of innovations in inventory control (Chart 5). The second quarter of 1996 saw rapid reduction of stocks in both the manufacturing and wholesale trade sectors, to close to — or perhaps slightly below — firms' desired levels. In contrast, retail stocks at midyear continued to exceed desired levels. Now that the overall inventory situation is more balanced, future growth in final sales should feed through into higher production.

... but overall, domestic demand was soft in the first half of 1996.

Notwithstanding the encouraging developments, domestic demand has been soft. To a large extent this reflects corrections to past debt accumulation. The dominant factor here has been the effect of the neces-

sary restraint at both the federal and provincial levels (Technical Box 2). Business fixed investment also remained sluggish in the first half of 1996, after three years of strong growth up to mid-1995.



Since the economy's capacity to produce continued to grow faster than overall demand in the first half of 1996, the Bank estimates that the output gap widened to between 3 and 3 1/2 per cent at midyear, up from between 2 1/2 and 3 per cent at the beginning of the year (Chart 6).[3] This implies continued downward pressure on the trend of inflation.

As a result, the gap between actual and potential output widened further.

3. See the discussion of the Bank's methodology for estimating potential output in the May 1995 *Monetary Policy Report* (Technical Box 1, page 8).

Technical Box 2

Improved Public Sector Finances

The combined deficit of the federal and provincial governments is estimated to have fallen to $40 billion in the 1995/96 fiscal year from $62 billion in the 1993/94 fiscal year. Information in recent budget documents and statements indicates that further deficit reduction, but of a somewhat smaller magnitude, can be expected by the end of the 1997/98 fiscal year (see table).

Total Deficit of the Federal and Provincial Governments (Public Accounts Basis)

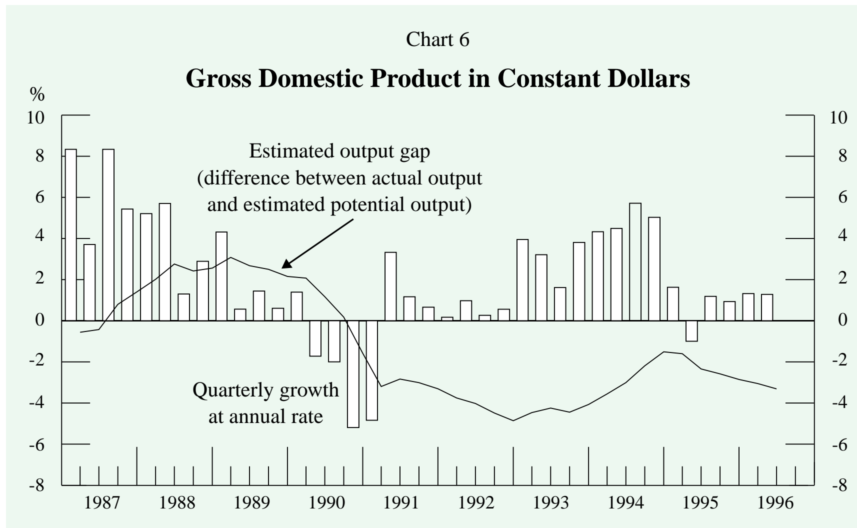
	Fiscal year				
	1993/94	1994/95	1995/96 estimate	1996/97 forecast	1997/98 forecast
Level ($ billions)	62.3	53.2	40.3	35.0	25.1
Percentage of GDP	8.7	7.1	5.2	4.4	3.0
Note: Net debt (percentage of GDP)	99.1	101.7	103.0	104.7	103.4

Fiscal restraint has been necessary for several reasons. With almost continuous fiscal deficits since the mid-1970s, the ratio of public debt to GDP has risen to levels above 100 per cent. As a result, investors have demanded larger risk premiums to hold Canadian dollar debt, and thus Canadian interest rates became increasingly subject to wide swings in investor confidence. Second, high levels of government debt relative to GDP significantly reduce the living standards of future generations. Third, with the rise in the debt ratio, an increasing share of government revenues has been spent on interest payments rather than on government programs.

While the fiscal restraint that has been put in place will correct these problems, it will do so only over time. Initially, it can weaken domestic demand through reductions in government spending and employment and through increased taxes. However, with the greater market confidence resulting from the fiscal improvement, and given the implications for domestic demand, an offsetting easing in monetary conditions has been appropriate.

Ongoing fiscal restraint will likely continue to inhibit demand growth to some degree over the short term. Monetary conditions will thus tend to be easier than they otherwise would have been. However, the future course of monetary conditions will also depend greatly on how external demand for Canadian goods and services evolves, and on the extent to which domestic demand strengthens in response to the substantial decline in interest rates that has taken place.

Deficit reduction has also affected the mix of monetary conditions. With progress on fiscal restraint, investors have been increasingly comfortable about holding Canadian dollar assets. This situation has tended to put downward pressure on interest rates while supporting the exchange value of the Canadian dollar. Although a stronger dollar might slow future export growth somewhat, lower interest rates should support domestic demand and facilitate further deficit reduction.



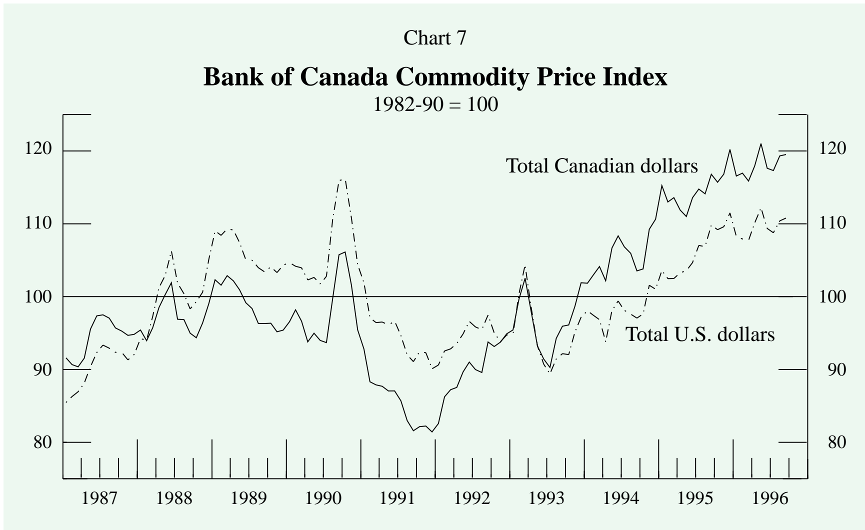
The effects of exchange rate movements on inflation have virtually disappeared.

The exchange rate and commodity prices

Exchange rate movements typically feed through to the core CPI by a factor of about one-fifth over a two-year period. Accordingly, the effect on inflation of the 20 per cent depreciation of the Canadian dollar that ended in mid-1994 has almost disappeared in recent months. This effect was estimated to have accounted for over 1 percentage point of the 2.7 per cent rise in the core CPI at its peak in May 1995. Intense competition, combined with improved productivity in both the retail and the manufacturing sectors, has also continued to put downward pressure on the prices of various imported and import-competing goods.

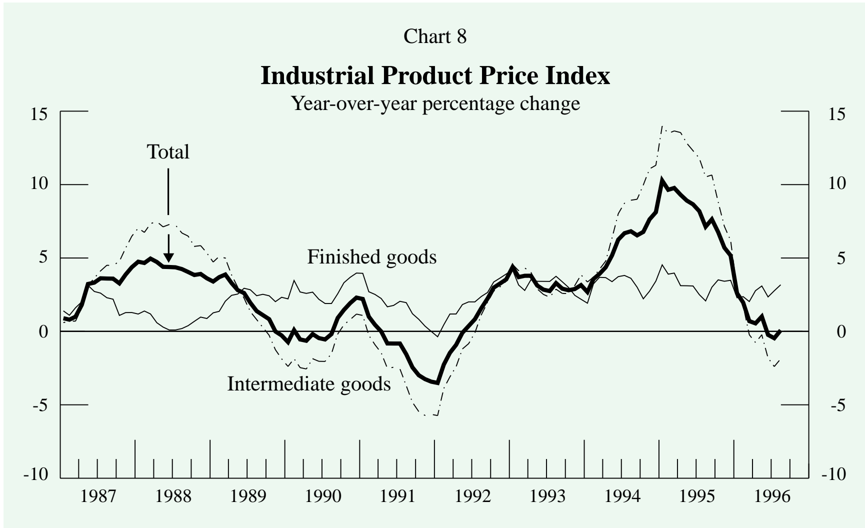
World commodity prices (quoted in U.S. dollars) have on average remained firm since last April (Chart 7). Price increases have been most pronounced for lumber and livestock. Lumber prices have risen considerably on news of continuing high levels of activity in the U.S. housing market. Livestock prices have recovered because of strong demand and reduced supplies, stemming from relatively high feed grain prices earlier in the year.

In contrast, the prices of many industrial materials and grains have declined markedly. Prices for base metals have weakened, and there has been a substantial reduction in newsprint prices. Grain prices have recently fallen back from very high levels as a good crop year improved supply prospects. Crude oil prices surged in early September, following renewed indications of further delays in planned petroleum sales by Iraq (because of the heightened tensions there), after having eased between April and August with the seasonal reduction in demand.



Reductions in prices of industrial materials have lowered inflation at the producer level.

The lower prices received by Canadian producers of many industrial materials are contributing to the easing in the year-over-year increases in the aggregate industrial product price index (Chart 8) and in aggregate export prices. The impact of earlier commodity price increases (such as those for paper) on consumer price inflation has largely disappeared since the spring, and it is far too soon for the recent declines in the prices of many industrial materials to affect inflation at the consumer level.



Cost control and other factors

Wage increases in the first half of 1996 were almost the same as in 1995.

Markets continued to be strongly competitive in the first half of 1996, maintaining the pressure on producers to control costs and to raise productivity. Overall, cost increases have been low.

Wages, the largest component of total costs, continued to rise at a moderate pace during the first half of 1996, with the rate of increase in average compensation per hour worked at 2.4 per cent in the second quarter on a year-over-year basis, unchanged from the fourth quarter of 1995. Underlying wage increases (excluding the effects on aggregate wages of such factors as changes in the composition of employment) are estimated to be between 1.5 and 2 per cent on a year-over-year basis. In many cases, wage increases in the private sector reflected earlier substantial gains in productivity, while restraint measures continued to influence wages in the public sector. Wage growth should remain fairly steady, since wage settlements in the first eight months of 1996 averaged 1.2 per cent in the private sector and 0.5 per cent in the public sector, little changed from 1995.

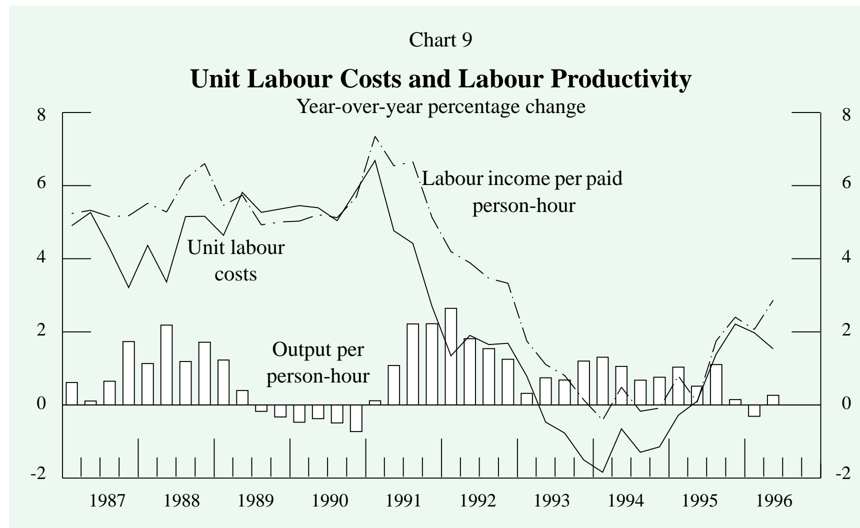
Gains in productivity resumed, and the year-over-year increase in unit labour costs eased.

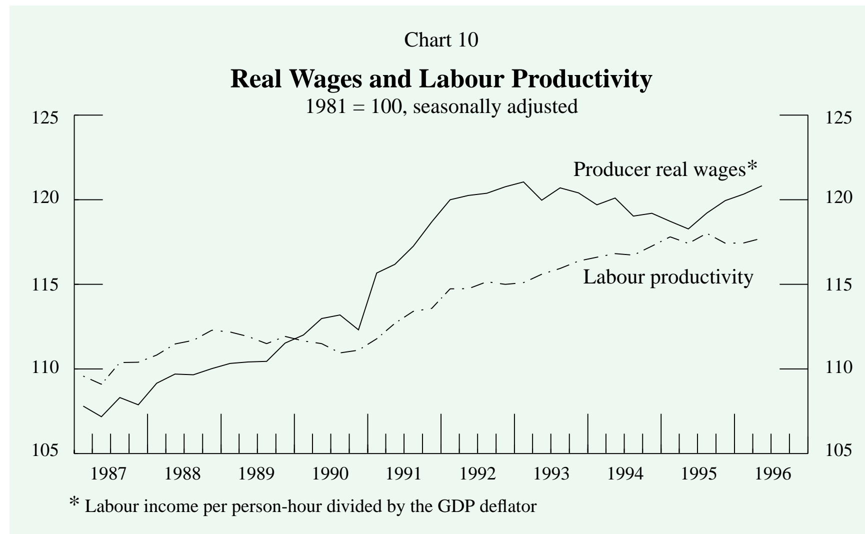
Productivity growth (output per person-hour) resumed in the first half of 1996, although at a very modest pace. This contributed to an easing in the year-over-year rise in unit labour costs in the first half of 1996 (Chart 9). Firms in some sectors, such as construction, appear to have adjusted their workforces to the unanticipated slowing in demand that occurred towards the end of 1995.

Chart 9

Unit Labour Costs and Labour Productivity

Year-over-year percentage change





The gap between productivity and the real wages paid by producers continued to widen in the first half of 1996 (Chart 10). This mainly reflected the impact on broad measures of producer prices, resulting from the marked reduction in the rate of growth of aggregate commodity prices. To close the gap, the economy would have to experience faster labour productivity growth than real wage growth for a period of time.

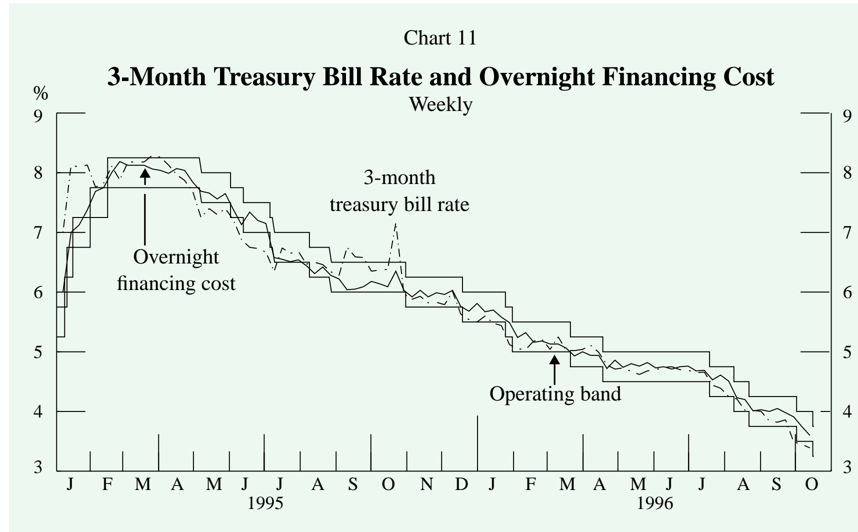
3. Achieving the Inflation-Control Targets

In response to continued downward pressure on inflation, the Bank has reduced its operating band for the overnight interest rate by 125 basis points over the past six months.

In response to weak aggregate demand, which increased the risk that inflation might fall below the target range, the Bank has been providing more monetary stimulus to the economy. Since May, there have been five reductions of a quarter point each in the Bank Rate and in the operating band for the overnight interest rate (Chart 11). On the first three occasions, the Bank issued a press release stressing that the rate cuts were needed because of persistent disinflationary pressures. The two most recent reductions represented a response to the stronger currency, and were designed to keep overall monetary conditions from tightening.

As has occurred regularly in the recent past, the money market anticipated the Bank's actions, and 3-month rates led the decline in the

overnight rate. Other financial markets, including that for foreign exchange, reacted positively to the rate cuts, with participants recognizing that lower interest rates were consistent with Canada's economic fundamentals.



With financial markets increasingly focussed on Canada's economic fundamentals ...

Indeed, over the past six months, financial markets have increasingly focussed on underlying factors that favour the Canadian economy. These include success in maintaining a low rate of inflation, improved public sector finances (although the high levels of debt remain a concern), and the improvement in the current account of the balance of payments. As financial markets set aside concerns about the immediate political situation in Quebec, these fundamentals came to the fore.

Internationally, the publication of data suggesting that interest rates in the United States might have to rise caused occasional weakness in U.S. bond markets. Otherwise, the external environment has been conducive to the easing of monetary conditions in Canada. There have been widespread declines in interest rates in Europe, and international financial markets have been quite orderly.

Strong fundamentals have underpinned the exchange value of the Canadian dollar (Chart 12) and, at the same time, facilitated the decline in Canadian interest rates. The 90-day differential vis-à-vis the United States has dropped to about -200 basis points. A negative spread for more than a brief period was last seen in the early 1970s (Technical Box 3).

Technical Box 3

Canada-U.S. Interest Rate Spreads — A Longer-Run Perspective

Interest rates in the United States are a key determinant of rates in Canada. At any time, however, rates in the two countries may differ, reflecting such factors as relative rates of inflation, differing cyclical positions, and perceptions of risk.

Short-term interest rates in Canada have been below those in the United States since the start of 1996, and interest rates in Canada are currently lower for terms of up to 10 years. Nominal interest rate differentials for long-term instruments are also below historical norms. This reflects sound fundamentals in Canada, which raise the probability of a future appreciation of the Canadian dollar and, from the viewpoint of investors, offset the negative interest rate spread.

The only previous occasion in recent history when Canadian interest rates were below those in the United States for an extended period was from 1969 to 1973. During the first half of this period, inflation in Canada was below that in the United States, and later the current account benefited from a steep rise in commodity prices. Reflecting these factors, the exchange rate rose after it was allowed to float in May 1970. Given the subsequent stronger acceleration of inflation in Canada than in the United States, negative differentials were not sustainable. In contrast, the current relatively low rates should be more durable, in view of Canada's superior inflation performance and the explicit, ongoing commitment of Canadian monetary policy to the inflation-control targets, as well as the improving fiscal position.

Other countries with better inflation performance than the United States also tend to have lower interest rates. For example, interest rates in Japan, Germany and France are below those in the United States.

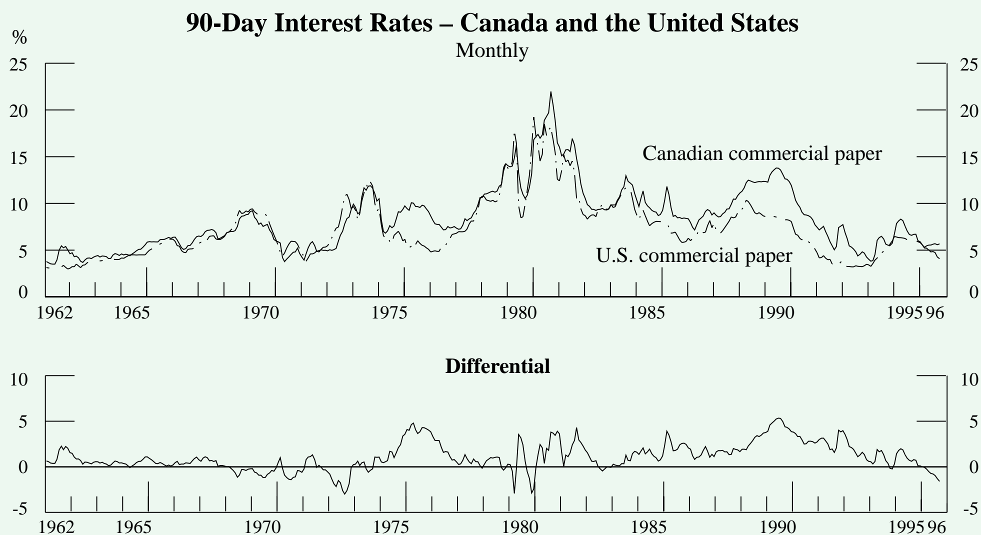
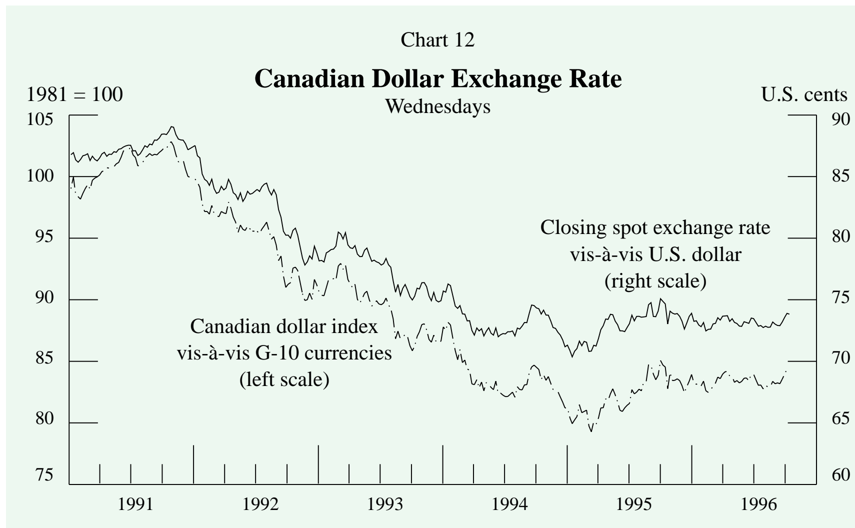


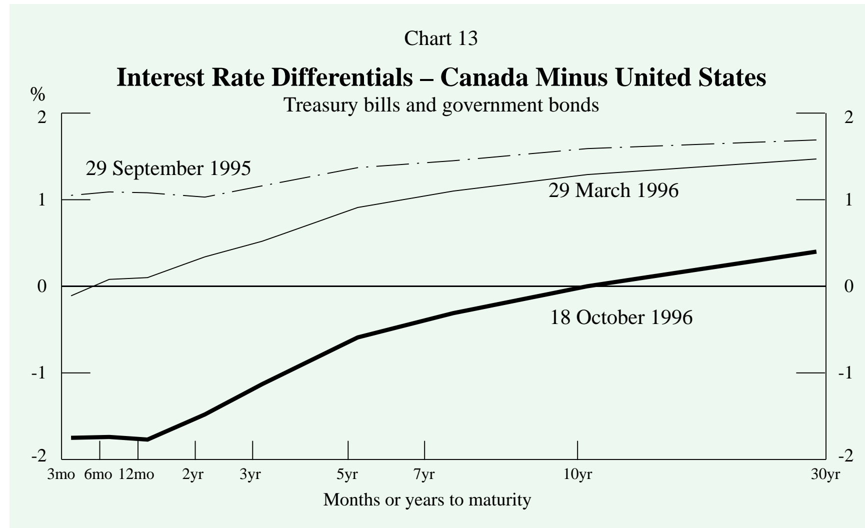
Chart 12



The yield differential is now also negative for short- and medium-term bonds (Chart 13). Long-term spreads remain positive, but somewhat below historical averages, following the decline in Canadian bond yields since the spring. This suggests that investors have revised downwards their assessments for inflation or for other risks in Canada relative to the United States. A recognized commitment to a sound monetary policy and the determined action on budget deficits of the last couple of years have provided the conditions essential for this decline.

... monetary conditions have eased with the decline in interest rates.

Since the exchange rate varied within a narrow range for most of the past year, the monetary conditions index (MCI) declined more or less in step with short-term interest rates. Following a rise in the Canadian dollar, the two reductions in the Bank Rate and the operating band for the overnight rate in October rebalanced the mix of monetary conditions at the easier level. The real MCI now stands at its lowest value for the post-1970 floating exchange rate regime, indicating that the cumulative easing of monetary conditions amounts to a very significant stimulus to economic activity in Canada (Technical Box 4). This works towards counteracting sluggish household spending and the short-run impact of fiscal restraint.



4. The Outlook for Inflation

In assessing the possible future course of inflation, the Bank considers mainly the factors affecting the balance between aggregate demand and aggregate supply over the next four to six quarters. It also examines measures of inflation expectations and the pace of monetary expansion when formulating its views on the future path of output, inflation and desired monetary conditions.

External demand should continue to contribute to Canada's output growth ...

Aggregate demand and supply

Growth in the U.S. economy strengthened during the first half of 1996. Indeed, the U.S. economy probably moved back into a state of slight excess demand at midyear, although there is no evidence of increased inflationary pressures in broad measures of prices and production costs. The combined effects of a rise in long-term interest rates and a trade-weighted appreciation of the U.S. dollar may return the U.S. economy to a path of sustainable growth in the next few quarters, although one should not rule out the need for some monetary tightening by the Federal Reserve.

While economic expansion in the major European countries was modest during early 1996, the Japanese economy, on balance, experienced more robust growth. Moderate growth is anticipated among the overseas countries during the second half of 1996, sustained in many cases by past easing in monetary conditions in these economies.

Technical Box 4

Nominal and Real Monetary Conditions Indexes

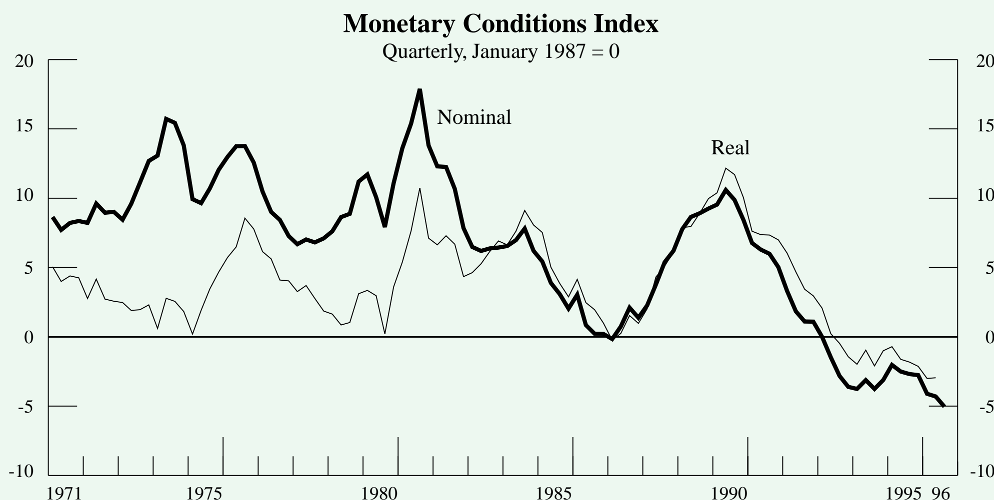
For several years, the Bank has used its monetary conditions index (MCI) — a combination of the short-term interest rate and the exchange rate — as a short-run operational target.* The Bank has found it to be most useful over a one- to two-quarter horizon. Between the quarterly staff projections, the MCI provides the Bank with a continuous reminder that exchange rate changes must be considered when making decisions about interest rate adjustments.

The level of monetary conditions required to keep inflation within the inflation-control target range changes as the forces affecting aggregate demand and supply evolve. Theoretically, since it is changes in real variables that influence real output, the relevant measure is the *real* MCI, derived from the interest rate less expected inflation and the exchange rate adjusted for relative movements in the price level in Canada and abroad.** However, for convenience, the Bank focusses on the nominal MCI because it can be updated daily, whereas the price measures needed to calculate the real MCI are available only quarterly and with a lag. Use of the nominal index is unlikely to lead to a misreading of monetary conditions, because the nominal measure has followed the real index quite closely from quarter to quarter, with movements in nominal rates in financial markets dominating both series.

However, to compare monetary conditions over longer periods, it is more appropriate to examine the index in real terms. That said, both have declined substantially since the early 1990s and are now at their lowest levels in 25 years.

Monetary Conditions Index

Quarterly, January 1987 = 0



* For information on the construction of the MCI and the rationale behind it, see C. Freedman (1994, 1996).

** The measure of expected inflation used in the chart is the four-quarter growth rate of the GDP deflator. GDP deflators are also used to calculate the real trade-weighted exchange rate.

Although the prices of certain commodities will likely come under downward pressure in the near term, a modest upward trend in the overall commodity price index

should begin sometime in early 1997. The price of crude oil should fall as supplies from non-OPEC sources increase, although any forecast is subject to considerable uncertainty because of current political and military developments in the Middle East. Grain prices may continue to decline with favourable news about this year's crops worldwide. As users continue to reduce stocks, newsprint prices could keep declining over the near term. Nonetheless, on average, the prices of other industrial commodities are expected to strengthen as the pace of expansion among the major industrial countries reduces the world's excess capacity.

On balance, external demand should continue to contribute to the expansion of the Canadian economy in the second half of 1996, reinforced by the strong competitive position of Canadian industry.

... and a pickup in domestic demand is likely.

There are also indications of a pickup in domestic demand. Recent surveys of investment intentions and business confidence suggest a rebound in capital spending during the second half of 1996. In addition, the recent sharp inventory correction, which took stocks back down close to desired levels, should set the stage for the growth in final sales to feed directly into stronger growth in production. Although fiscal restraint will continue and the current low personal savings rate will tend to moderate household spending, the effect on overall domestic demand growth should be outweighed by the past easing in interest rates and by higher private sector employment. Despite some weakness in overall employment, private sector employment increased by a further 2.4 per cent at annual rates in the third quarter. These influences have been reflected in the more positive tone of many indicators of both consumer and housing activity early in the third quarter of 1996.

Overall, the pace of economic expansion in Canada should pick up in the second half of 1996.

Both external and domestic factors suggest that economic activity should expand faster in the second half of 1996 than was the case between mid-1995 and mid-1996. While the General Motors strike will have a noticeable impact on the average level of activity in the fourth quarter, if this effect is excluded, the Bank would expect a pickup to above-potential growth rates in both the third and fourth quarters. On the same basis, private sector forecasters would be looking for an average growth rate of 3 1/2 to 4 per cent at annual rates for this period.[4] In our view, the economy would have significant momentum well beyond this year, sustained by the significant amount of monetary easing that has already taken place. The Bank would thus expect average growth of over 4 per cent through the four quarters ending in the fourth quarter of 1997, which contrasts with the 3 per cent expected by private sector forecasters.

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4. Private sector forecasts through the last half of 1996 and through the four quarters of 1997 are derived from annual average forecasts of 1.5 per cent for 1996 and 3.1 per cent for 1997 (Department of Finance, *The Economic and Fiscal Update*, 9 October 1996).

The above projections indicate that the downward pressure on core inflation coming from slack in product markets will remain an important factor in coming quarters. Similarly, labour market conditions will continue to restrain any significant upward wage pressures. It is also expected that a pickup in the pace of economic expansion in the second half of 1996 will lead to stronger productivity growth, which would also limit overall cost increases.

Nonetheless, the downward pressure on inflation coming from excess supply will continue.

Temporary factors affecting inflation

Since the Canadian dollar has been stable over the past two years, little or no pressure on inflation should come from past exchange rate movements. Nor would one expect downward pressure arising from the recent marked declines in the prices of many industrial materials over the next few months, since there tend to be fairly long lags in the pass-through to consumer prices.

There should be little or no upward pressure on inflation from past exchange rate and commodity price movements.

Furthermore, a wide range of evidence continues to suggest that competition in the Canadian retail marketplace remains intense, with strong consumer resistance to most price increases. Nonetheless, some of the discounting offered by retailers earlier in the year seems to have been reversed after unwanted stocks, especially seasonal items, were cleared out. If household demand continues to recover and if retail stocks come into better balance in the second half of 1996, more of this discounting may end, leading to some increase in prices. However, on balance, transitory factors should have little effect on the core CPI.

Measures of inflation expectations

Expectations, an important factor in the outlook for inflation, are affected by current inflation and by the credibility of the Bank's inflation-control targets. As credibility grows, expectations may increasingly reflect the midpoint of the inflation-control target range. Over the last six months, short-term inflation expectations have declined further. In the September quarterly survey of Canadian business confidence conducted by the Conference Board, 97 per cent of respondents (compared with 83 per cent in the December 1995 survey) expected inflation to be 2 per cent or less over the near term. In the Conference Board's June quarterly *Survey of Forecasters*, it was anticipated that CPI inflation would average about 1.5 per cent in 1996, slightly lower than the survey forecast three months earlier, and would edge up to about 1.7 per cent in 1997.

Expectations of inflation have declined.

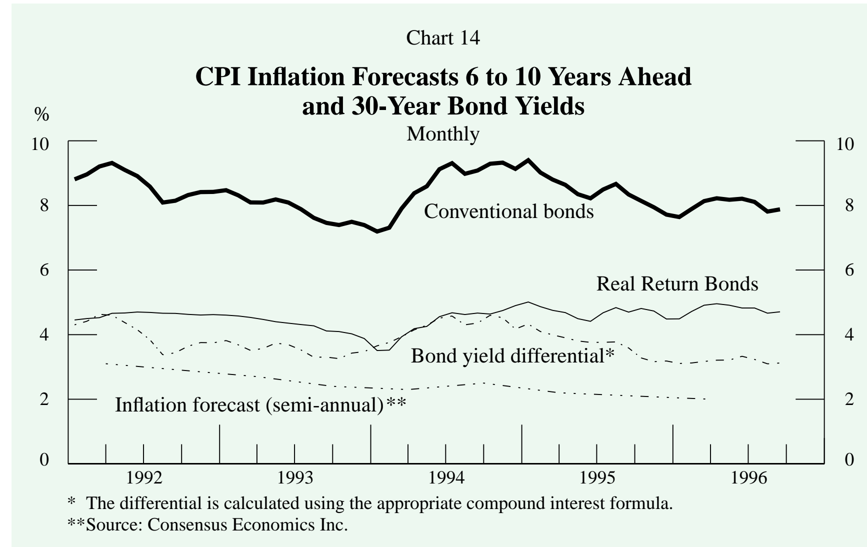
Since the difference between the yield on nominal long-term bonds and that on Real Return Bonds is based largely on the expectations of investors about inflation over the long run, movement in the differential can be used to gauge the trend of expectations.[5] This differential has

remained roughly constant for the past year, after having declined in 1995 (Chart 14).

Chart 14

CPI Inflation Forecasts 6 to 10 Years Ahead and 30-Year Bond Yields

Monthly



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

Monetary indicators

Monetary aggregates indicate low inflation and an acceleration in output.

Broad definitions of money based on M2+ decelerated in the second quarter (Chart 15). Simply on the basis of the historical correlation between broad money and prices, this slowing would suggest that inflation could fall close to the bottom of the target range by the end of the year.

Expansion of narrow money, M1, has been maintained at about 10 per cent year-over-year (Chart 16). Since an increase in the real value of transactions balances has, in the past, been a valuable predictor of growth in GDP, this would indicate that activity should accelerate strongly in the second half of 1996. However, a sizable part of the increase in M1 results from the introduction of attractive interest rates on corporate current accounts. Moreover, predictions from real M1 have shown a distinct upward bias in recent years.

Forecasts from a longer-run model of inflation using M1 currently suggest a rate of between 1 and 1 1/2 per cent over the next two years.

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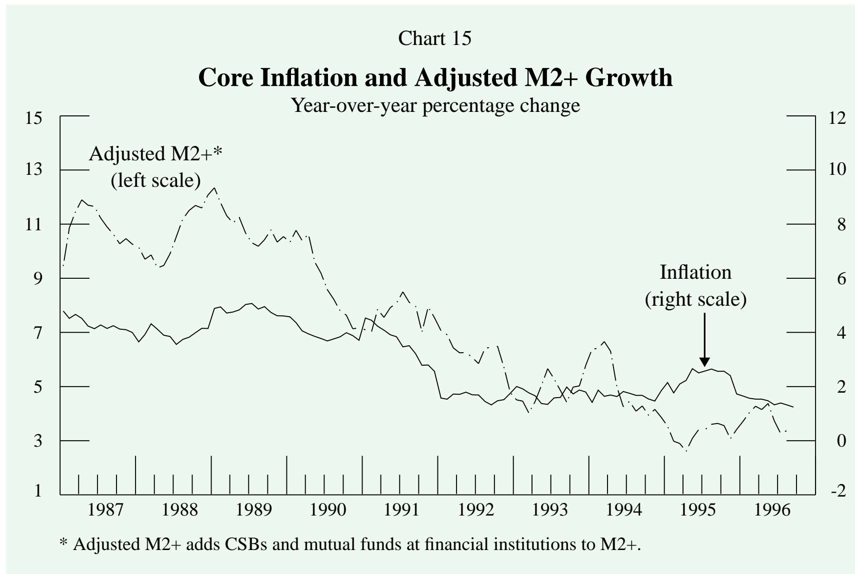
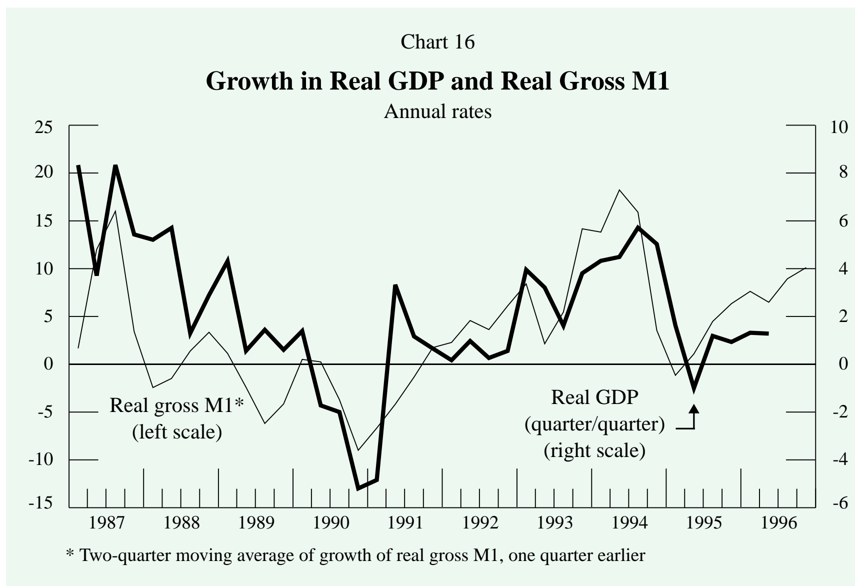
5. Côté et al. (1996) outline both the advantages and disadvantages of this measure of expectations. The presence of unobservable premiums for inflation risk and liquidity are the major difficulty in interpreting the level of this measure.





5. Conclusions

Inflation has remained essentially unchanged since the last *Report*. With the continuing large amount of excess supply in the Canadian

economy, the outlook for the next half year is for inflation to remain in the lower part of the inflation-control target range.

For the medium term, the key issue remains whether the trend of inflation might move below the 1 to 3 per cent target range. The substantial monetary easing over the past 12 months increases the probability of a solid pickup in the pace of activity in the second half of 1996 and into 1997. How strong this pickup will be is hard to foresee but, as noted earlier, it is expected to be appreciable. Since this scenario could still carry a margin of excess supply through 1997, it points to the possibility of inflation drifting below 1 per cent by the end of 1997. This would suggest the possible need for further easing in monetary conditions over the *medium term*. However, depending on the future course of inflation expectations and on whether the economy turns out to be particularly strong — for example, if there were to be a strong rebound in consumer confidence — any decline in the core CPI inflation rate may be quite small and short-lived.

The momentum of the economic expansion in Canada is not yet established firmly enough to allow us to be confident about the balance of risks for the trend of inflation. Thus, continued close monitoring of the economic situation will be needed in order to judge the appropriate level of monetary conditions. It is clear, however, that the Canadian economy has room for strong expansion and employment growth without a resurgence of inflation.

This is a report of the Governing Council of the Bank of Canada: Gordon Thiessen, Bernard Bonin, Charles Freedman, Paul Jenkins, Tim Noël and Sheryl Kennedy.

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