Monetary policy

Canadian economic growth slowed significantly in 2023 as the effects of interest rate increases continued to work their way through the economy. Although inflation was still above the Bank of Canada's 2% inflation-control target at the end of the year, monetary policy tightening in Canada and abroad had slowed demand and started to ease price pressures.

Inflation in the consumer price index declined significantly from its June 2022 peak of 8.1% to reach 3.4% by the end of 2023. Despite substantial monetary policy tightening, progress toward the inflation-control target has been slower than anticipated.

The Bank raised its policy rate three times in 2023 for a total increase of 75 basis points. This brought the policy interest rate to 5% by July. From then on, Governing Council kept rates unchanged as it monitored signs that past rate increases were having the desired effects of bringing demand and supply into better balance and easing inflationary pressures.

https://youtu.be/iyqdnDBcIOY

Monetary policy is one of the Bank's five main areas of responsibility. Learn more about the Bank's **core functions**.

The Bank used a variety of channels to communicate that it:

- would continue to assess whether the current policy interest rate would be sufficient to achieve the 2% inflation-control target
- was prepared to raise the policy interest rate further should inflationary pressures persist
- was carefully weighing the risks associated with both under- and over-tightening of monetary policy

Throughout 2023, the Bank continued its quantitative tightening (QT) as part of normalizing its balance sheet.

Learn more about **inflation** and the Bank's **process for making monetary policy decisions**.

Monitoring inflation in the consumer price index

Over the course of 2023, evidence grew that the Bank's monetary policy was working. Inflation, which had been at 5.9% in January, fell to 2.8% by June. Although it briefly climbed back up to 4% in autumn, it eased to 3.4% by the end of the year. Despite this progress, inflation remained above the Bank's target throughout 2023.

Low energy prices drove much of the easing in inflation during the first half of 2023. Inflation in the prices of food and many other goods and services also showed signs of easing, as input costs decreased and demand began to slow. However, shelter price inflation remained high, mostly due to the rising costs of mortgage interest and rent. Overall, progress toward the Bank's inflation target was slower than expected.

Business and consumer expectations for near-term inflation also continued to ease in 2023, but they remained both higher than before the start of the COVID-19 pandemic and higher than the Bank's forecast for inflation. Bank survey results indicated that consumers and businesses expected inflation to be above the 2% target for the next two years. Expectations for longer-term inflation remained consistent with the 2% target. Results also revealed that businesses have continued to increase prices more than usual, indicating that corporate pricing behaviour has yet to normalize.

1 Introduction

Central bank interventions in a financial crisis can be effective at both maintaining market functioning and implementing unconventional monetary policy. Lending programs by central banks can ensure solvent market participants are able to access liquidity in exchange for good collateral, one of the original recommendations from Bagehot (1873). Asset purchases can both guarantee the liquidity of relevant assets and serve as a key unconventional monetary policy tool. Bernanke (2022) argues that, in the latter case, quantitative easing (QE) can add between 3 and 4 percentage points to the central bank's effective lower bound for interest rates.

Liquid government bond markets are key to well-functioning financial systems. A high level of liquidity in these markets can ensure participants are confident in their ability to access liquidity in exchange for high-quality assets. In turn, there is a lower probability of asset fire sales and contagion between financial institutions. The ability to avoid these negative outcomes means that central bank interventions, which maintain the liquidity of high-quality assets, can create strong benefits for the financial systems.

Despite these benefits, large-scale actions such as asset purchases and lending facilities at central banks are bound to have side effects and unintended consequences. An analysis of central bank interventions requires a proper accounting of not only the benefits but also these costs. Even among central bankers these large-scale asset purchases and lending facilities remain somewhat controversial. A 2017 survey of central bank governors showed a plurality of respondents (38.2%) deemed that it was "too early to judge" whether QE using government debt should remain in central bank tool kits after the 2008–09 global financial crisis (GFC), while 20.6% responded that it should be discontinued (Blinder et al. 2017). An evaluation of costs poses two difficulties: costs may be difficult to measure, and the line between intended and unintended consequences from central bank facilities may be unclear. Despite these

limitations, a growing academic literature addresses the unintended consequences and side effects of central bank crisis actions. In our paper, we review this literature.

We focus on two major forms of central bank actions: large-scale asset purchases and large-scale lending facilities. Other central bank activities, such as conventional monetary policy actions, forward guidance or regulatory actions, are outside the scope of this review. We focus on the costs and side effects of these facilities to the financial system, rather than addressing all possible outcomes; for example, we do not address broader macroeconomic costs or accounting issues.

In our literature review we highlight papers that propose mechanisms by which central bank actions may create costs or side effects as well as papers that document the existence and magnitudes of those same effects.[1] We categorize financial system costs into four groups, which the existing literature has provided evidence in favour of:

- impacts on market and funding liquidity (section 2)
- pricing distortions (section 3)
- conflicts between monetary policy and financial stability objectives (section 4)
- rent-seeking and other unproductive uses of central bank liquidity (section 5)

Finally, we discuss actions central banks have taken to mitigate the costs and side effects of their intervention programs (section 6). Table 1 in the appendix provides a summary of papers discussed in each section.

2 Impacts on market and funding liquidity

Central bank interventions, whether in terms of asset purchases or lending programs, are often intended to improve the liquidity of eligible assets during a crisis. A central bank

[1] For additional information, a more focused, policy-oriented review of these costs can be found in Logan and Bindseil (2019), while a high-level discussion of these costs is presented in Bernanke (2022).

Provincial Underwriters

Who takes which province to the market?

Province	Managers ■
Alberta	BMO-NB /CIBC/ /RBC-DS/S/TD (rotating lead managers)
British Columbia	BMO-NB /CIBC/ /RBC-DS/S/TD (rotating lead managers)
Manitoba	CIBC (lead manager)
	BMO-NB/RBC-DS (co-managers)
New Brunswick	BMO-NB/RBC-DS (rotating lead managers)
Newfoundland	RBC-DS/S (rotating lead managers)
	BMO-NB/CIBC/ML (co-managers)
Nova Scotia	BMO-NB/CIBC/RBC-DS/S (rotating lead managers)
Ontario	BMO-NB/CIBC/ML/ RBC-DS/S/TD (rotating lead managers)
P.E.I.	RBC-DS/S (rotating lead managers)
Québec	NBF (lead manager)
	BMO-NB/CIBC/ML/ RBC-DS/S (co-managers)
Saskatchewan	CIBC/RBC-DS (rotating lead managers)
	BMO-NB/S/TD (co-managers)

■ Managers are listed in alphabetical order; that may not be the same as participation in the account. Many of the managers are supported by other houses in underwriting the issues. The abbreviations above stand for:

BMO-NB– BMO Nesbitt Burns; CIBC – CIBC World Markets; ML – Merrill Lynch; NBF – National Bank Financial; RBC-DS – RBC Dominion Securities; S – Scotia Capital; TD – TD Securities.

British Columbia selects a lead for each deal, along with 2 co-leads, from BMO-NB, CIBC, RBC-DS, S and TD.

New Brunswick – One of CIBC, ML, NBF, S or TD is selected to join as a co-manager on each transaction.

Ontario selects a lead for each deal, along with 2 co-leads, from BMO-NB, CIBC, ML, RBC-DS, S and TD

Legend

Currency:

A$	Australian dollars	R	South African Rand
Ch¥	Chinese Yuan (offshore)	SFr	Swiss francs
Cn¥	Chinese Yuan (onshore)	SKr	Swedish Krona
HK$	Hong Kong dollars	US$	United States dollars
Jp¥	Japanese yen	€	Euros
Nkr	Norwegian Krone	£	British pound
NZ$	New Zealand dollars		

Debt Type:

BD	Bonds	MB	Mortgage Bonds
DB	Debentures	MN	Medium Term Notes
DN	Deposit Notes	NT	Notes
EN	Equity-linked Notes	SB	Serial Bonds
LN	Loans	SV	Savings Bonds

Frequency:

A	Annually	S	Semiannually
M	Monthly		
Q	Quarterly		

Rate:

F.R.	Floating Rate	Z.R.	Zero Coupon Rate
V.R.	Variable Rate		
Var	Various		

Call Flag:

A	Annual	D	Discrete
C	Continuous	P	Payment Dates

Canadian Taxation

The following information, compiled from legislation, regulations, Department of Finance announcements and other published sources, is designed to give an outline of the various tax levies in Canada that, as of May 31, 2002 affect investments in debt obligations of or guaranteed by the Canadian Federal or Provincial Governments. Because the statutory provisions relating to the taxation of interest income and capital gains in Canada contain many special rules, all of which cannot be covered in this outline, the publisher and the author make no representation as to the accuracy or completeness of any of the following comments. Taxpayers are urged to consult their own tax advisors for advice relating to their own circumstances.

Government of Canada

Income Tax

(a) Residents of Canada

Under the federal Income Tax Act, in computing income for tax purposes, residents of Canada (individuals and corporations) must include all amounts received or receivable in respect of interest depending on the method regularly used by the taxpayer in calculating profit. Notwithstanding this general rule, taxpayers are required to include accrued interest annually on debt obligations to the extent not otherwise included in income.

Issuers of registered bonds or debentures are required to provide each year to the holders of their debt obligations a form (T-5 Supplementary) reporting the total payments of interest for that year or total interest accrued to the applicable anniversary date, as the case may be.

When a debt obligation is transferred, the transferor is required to include in income the interest accrued to the date of transfer and the transferee is allowed a corresponding deduction to the extent that such interest was otherwise included in the transferee's income.

One-half of capital gains from the sale of property, including securities, must be included in income of Canadian residents. One-half of realized capital losses may be deducted from the taxable portion of capital gains. There is provision for applying allowable capital losses against taxable capital gains of previous and subsequent taxation years. As a general rule, the gain realized by an investor on the maturity of a publicly traded interest bearing debt obligation purchased at a discount is a capital gain.

Investment dealers and financial institutions are required to recognize accrued gains and losses annually on their portfolio investments .

Discounts on interest bearing debt obligations issued by tax exempt entities, governments or other public bodies or non-residents not carrying on business in Canada will be income in the hands of the first Canadian resident non-exempt holder of such obligations if the effective yield exceeds the rate of interest by more than one-third in the case of obligations issued after June 18, 1971 and if the rate of interest is less than 5% in the case of obligations issued after December 20, 1960 and before June 19, 1971.

The Income Tax Regulations deem interest to accrue on non-interest bearing debt obligations (including stripped bonds) based on the yield. Those regulations also

Alberta

Premier: Danielle Smith (United Conservative Party)
Capital City: Edmonton
Area: 661,848 sq. kilometres

Visit these Web sites:
Province of Alberta: www.alberta.ca
Alberta Capital Finance Authority: www.acfa.gov.ab.ca

DBRS Bond Rating at September 14, 2023 ... AA

	2023	2022
Employed	2,502,600	2,409,000
Unemployment rate (%)	6.3	5.6
Average weekly earnings (Dec.)	$1,291.41	$1,268.07
Building permits	$15,772,620,000	$15,367,989,000
Retail sales	$102,122,841,000	$95,074,490,000
Population (est. July 1)	4,695,290	4,543,111
December consumer price index (2002=100)	165.6	160.8
Sales tax (GST)	5%	5%

DIRECT DEBT

March 31, 2024

						Issued		Outstanding	Ref.
Cpn %	Maturity	Freq	Series	CUSIP	Type	Year	Amount (000)	Amount (000)	Note
PROVINCE OF ALBERTA									
3.100	2024.06.01	S		013051DM6	NT	'14-'21	$2,833,000	$2,833,000	
1.875	2024.11.13	S		013051EH6	BD	2019	US$2,250,000	US$2,250,000	
0.500	2025.04.16	A			NT	2020	€1,100,000	€1,100,000	
0.625	2025.04.18	A			NT	2018	€1,500,000	€1,500,000	
1.000	2025.05.20	S		013051EK9	BD	2020	US$2,250,000	US$2,250,000	
2.350	2025.06.01	S	DJ	013051DQ7	DB	'15-'20	$3,700,000	$3,700,000	
0.625	2026.01.16	A			NT	2019	€1,250,000	€1,250,000	
4.300	2026.06.01	S		01306ZCP4	NT	2011	$30,000	$30,000	
2.200	2026.06.01	S		013051DT1	NT	'16-'20	$3,700,000	$3,700,000	
2.050	2026.08.17	S	PAGM06	01306GAC7	NT	2016	US$1,000,000	US$1,000,000	
3.100	2026.12.14	S			NT	'16-'18	A$505,000	A$505,000	
2.550	2027.06.01	S		013051DW4	NT	'17-'20	$5,700,000	$5,700,000	
3.300	2028.03.15	S		013051EA1	BD	2018	US$1,250,000	US$1,250,000	
3.600	2028.04.11	S			NT	'17-'19	A$460,000	A$460,000	
0.250	2028.04.20	A			NT	2020	SFr260,000	SFr260,000	
2.900	2028.12.01	S		013051EB9	DB	'18-'19	$3,300,000	$3,300,000	
0.375	2029.02.07	A			MN	2019	SFr325,000	SFr325,000	
1.403	2029.02.20	A			NT	2019	SKr2,500,000	SKr2,500,000	
2.900	2029.09.20	S		01306ZCV1	NT	'12-'20	$2,062,700	$2,062,700	
2.050	2030.06.01	S		013051EG8	DB	'19-'20	$8,100,000	$8,100,000	
1.300	2030.07.22	S		013051EM5	DB	2020	US$2,000,000	US$2,000,000	
2.400	2030.10.02	S			MN	2020	A$170,000	A$170,000	
3.500	2031.06.01	S		01306ZDF5	NT	2014	$1,230,000	$1,230,000	
1.650	2031.06.01	S		013051EP8	BD	2021	$3,500,000	$3,500,000	
4.150	2033.06.01	S		013051ER4	BD	'22-'24	$2,750,000	$2,750,000	
3.900	2033.12.01	S		01306ZDC2	NT	'13-'21	$1,815,000	$1,815,000	
4.500	2034.01.24	S		013051ET0	BD	2024	US$1,250,000	US$1,250,000	
2.010	2036.02.19	S			MN	2021	A$200,000	A$200,000	
4.500	2040.12.01	S		013051DB0	BD	2010	$600,000	$600,000	
1.782	2040.12.03	A			NT	'15-'16	€202,000	€202,000	
3.225	2041.09.16	S			NT	2021	NZ$128,000	NZ$128,000	
3.450	2043.12.01	S		013051DK0	NT	'13-'15	$2,500,000	$2,500,000	
1.150	2043.12.01	A			NT	'16-'17	€435,000	€435,000	
0.925	2045.05.08	A			NT	2020	€70,000	€70,000	
2.473	2046.02.16	S			MN	2021	A$100,000	A$100,000	
3.300	2046.12.01	S		013051DS3	BD	'15-'17	$5,200,000	$5,200,000	
3.050	2048.12.01	S		013051DY0	NT	'17-'18	$6,900,000	$6,900,000	
1.413	2050.03.31	A			MN	2020	€30,000	€30,000	
1.500	2050.04.07	A			MN	2020	€90,000	€90,000	
3.100	2050.06.01	S		013051ED5	NT	'18-'21	$8,920,000	$8,920,000	
2.070	2050.12.09	S		013051EN3	NT	2020	US$39,650	US$39,650	
2.950	2052.06.01	S		013051EQ6	BD	'21-'22	$3,500,000	$3,500,000	
4.450	2054.12.01	S		013051ES2	DB	'23-'24	$1,350,000	$1,350,000	
2.400	2060.06.01	S		01306ZDJ7	MN	2020	$200,000	$200,000	
2.850	2071.06.01	S		01306ZDK4	MN	2021	$125,000	$125,000	
3.060	2120.06.01	S		013051EJ2	MN	2020	$700,000	$700,000	