Uncertainty about the effects of COVID-19 on financial markets led to a dash for cash

COVID-19 was first detected in December 2019. By late February 2020, new cases began to rise around the world, and global financial markets began to price in the risk of a significant reduction in economic activity. Between February 21 and February 28, the S&P 500 declined by around 12%. During this period, the TSX 60 declined by nearly 10%, and liquidity in Canadian fixed-income markets began showing signs of deterioration.

Due to a weakened outlook for the Canadian economy, the Bank eased financial conditions by lowering the policy interest rate from 1.75% to 1.25% on March 4 (Bank of Canada 2020a). Markets were still functioning relatively well, and the Bank was monitoring conditions to ensure that liquidity in the financial system remained sufficient.

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic (WHO 2020). To contain the spread of the virus, Canadian governments imposed physical distancing requirements, declared states of emergency and closed schools and businesses.

Nearly one-third of Canadian businesses reported decreases in revenue of 40% or more in the first three months of 2020, compared with 2019. In March 2020, more than one million jobs were lost, and more than two million people reported working fewer hours compared with February 2020. This reduced household disposable income and, consequently, spending. At the same time, household wealth was declining further because household investment portfolios also lost value due to the uncertainty about the evolving pandemic.

Households and businesses were facing a widening gap between their expenses and incomes as the pandemic intensified. Bridging this gap required drawing down savings, selling assets or borrowing funds. For example, Fontaine et al. (2021) show that bond mutual funds faced their highest redemptions on record in March 2020. Pension funds and insurance companies faced similar pressure to sell assets. These institutional investors often rely on financing arrangements to acquire assets. The acquired assets serve as collateral, and lenders will issue margin calls as asset values deteriorate, essentially requiring more cash to be pledged as collateral to protect lenders from potential losses. If cash balances are insufficient, the investor may be required to sell assets, which can further reduce the asset's value. This self-sustaining spiral of margin calls forcing further sell-offs can destabilize the orderly functioning of financial markets even if the underlying fundamentals remain sound.

Canadian banks and securities dealers normally act as the intermediary for investors who are buying and selling securities. They also provide financing to households and businesses. However, during a crisis, banks and securities dealers face limits to their capacity or willingness to intermediate. When few buyers are in the market, securities need to be held for an extended time. This exposes the balance sheets of banks and dealers to further changes in the value of the securities. Between January and April 2020, banks and dealers increased their intermediation, and their balance sheets expanded through new loans and asset purchases. However, the general level of uncertainty around the economic outlook and one-way direction of trade

The 2015 Paris Agreement identified the need to limit global warming. This call for climate action is echoed in the United Nations' Sustainable Development Goal 13. The goal requires a complex level of coordination, both between and within nations. Historically, governments have played the central role in regulating and promoting climate-related action as well as negotiating multilateral agreements.

Central banks have not historically been directly involved in climate action. Krogstrup and Oman (2019) identify that traditionally there has been a lack of alignment to associate long-term mitigation of climate change and monetary policy implementation. Rather, fiscal authorities have been best suited to address structural and redistributive considerations that can span generations. In theory, the same argument could be made for other kinds of long-run structural changes (e.g., labour productivity or aging populations) that tend to be associated with fiscal policy. However, events driven by climate change, known as physical risks, are beginning to occur, and are expected to escalate (Ens and Johnston 2020). As well, transition risks—the risk of an abrupt repricing of carbon-intensive activities in markets or more broadly in economies in response to changes in sentiment or policy interventions for these activities—are recognized as emerging. Such risks can further turn these climate concerns into financial ones. They can feed through the economy and financial system and create adverse feedback loops of potentially systemic consequences (Network for Greening the Financial System 2021b). Physical risks and transition risks are relevant for economic well-being and financial stability, and this is increasingly being recognized by central banks.

In 2017, a small consortium of central banks and financial supervisors formed the Network for Greening the Financial System (NGFS) to encourage examination of climate change risks to the financial sector. The NGFS has grown to more than 127 members and additional groups of observers, including transnational organizations such as the International Organization of Securities Commissions and the Bank for International Settlements (BIS) (NGFS 2023). The NGFS mission is to enhance management of the financial systems' climate risk, mobilize green and low-carbon investments, and strengthen the global response for meeting the goals of the Paris Agreement (NGFS 2019).

This paper explores the evolving role of central banks in addressing climate change as part of global, collective action on the goals of the Paris Agreement. It examines climate risk considerations and explains the trade-offs some central banks may be grappling with in the context of adjustments to their frameworks for market operations and collateral policies. The paper explores three key elements:

- **central bank mandates and broader directives**—to gauge alignment with and potential obstacles to climate actions
- **neutrality**—a common thread in central bank market activities—as well as the climate considerations associated with central bank neutrality
- **policy adjustments**—potential options for central banks and their expected influence and outcomes.

Introduction

FP Bonds – Corporate 2024, the ninth edition to be published by Grey House Publishing Canada, lists outstanding publicly and privately held debt securities – together with their features and provisions – issued by Canadian incorporated companies, as well as brand new introductory material related to the corporate bond market. Separate tables list convertible, exchangeable, retractable and extendible debt issues. An additional table lists outstanding asset-backed securities.

Corporate debt issues outstanding as at ***May 9, 2024*** have been included.

An important part of investing in the debt market is determining the quality of a debt issue. Credit ratings are forward looking measures which assess an entity's ability to make timely payments of interest and principal. As such, a credit rating combines both quantitative and qualitative analysis.

FP Bonds – Corporate 2024 includes ratings supplied by **Dominion Bond Rating Service**(DBRS). The DBRS ratings, dated ***May 9, 2024***, are presented in two tables, in addition to being shown with each issue. The first table lists issues by rating, from lowest to highest. Generally, a DBRS rating of BBB is considered to be investment grade and anything below that could be considered as non-investment grade or high-yield debt. As well, unrated securities are also considered to be high-yield if its spread to a comparable Government of Canada issue is substantially higher than the spread between investment-grade corporate bonds and Government of Canada issues. A second table lists all rated issues by company.

Abbreviations

A..........annually
A$..........Australian dollars
B..........bi-monthly
bd..........bond
CCAA..........Companies' Creditors Arrangement Act
Ch¥..........Chinese yuan (offshore)
Cn¥..........Chinese yuan (onshore)
cl. ....class
com. ....common
convert. ....convertible
deb. ....debentures
divd(s). ....dividend(s)
exchange. ....exchangeable
F.R. ....floating rate
HK$..........Hong Kong dollars
ln. ....loan
Jp¥..........Japanese yen
M..........monthly
M.R. ....multiple rate
max. ....maximum
min. ....minimum
mtg(e). ....mortgage
NKr..........Norwegian krone
NZ$..........New Zealand dollars
nt..........note
o/s..........outstanding
P..........private placement
Q..........quarterly
redeem. ....redeemable
reset. ....resettable
retract. ....retractable
S..........semi-annually
S$..........Singapore dollar
S.F. ....sinking fund
SKr..........Swedish Krona
SFr..........Swiss francs
ser. ....series
sh(s). ....share(s)
T..........Toronto Stock Exchange
TSX..........Toronto Stock Exchange
TSX-VEN..........TSX Venture Exchange
US$..........U.S. dollars
V..........TSX Venture Exchange
V.R. ....variable rate
Z.R. ....zero coupon rate
€..........Euros
£..........British pound

Convertible Debt

Issuer	Description	Conversion Basis (per $1,000)	Conversion Price (per Share)	Exchanges	Symbol
Ag Growth Intl Inc	deb 5% 2027/06/30	22.153 com. sh(s). to Jun 29, 2027	$45.14	T	AFN.DB.I
Ag Growth Intl Inc	deb 5.2% 2027/12/31	14.184 com. sh(s). to Dec 30, 2027	$70.50	T	AFN.DB.J
Air Canada	nt 4% 2025/07/01	65.114 vtg & var vtg to Jun 30, 2025	US$15.35		
Alaris Eqty Ptnrs Incm Tr	deb 5.50% 2024/06/30	41.237 tr. unit to Jun 29, 2024	$24.25	T	AD.DB
Algoma Central Corp	deb 5.25% 2024/06/30	68.540 com. sh(s). to Jun 30, 2024	$14.59	T	ALC.DB.A
Aphria Inc	nt 5.25% 2024/06/01	89.312 Tilray Brands Inc com. sh(s). to May 31, 2024	US$11.20		
Argonaut Gold Inc	deb 4.625% 2025/11/30	350.116 com. sh(s). to Nov 29, 2025	US$2.86	T	AR.DB.U
Atrium Mortgage Invt Corp	deb 5.3% 2024/06/30	66.934 com. sh(s). to Jun 29, 2024	$14.94	T	AI.DB.C
Atrium Mortgage Invt Corp	deb 5.6% 2025/03/31	67.797 com. sh(s). to Mar 30, 2025	$14.75	T	AI.DB.E
Atrium Mortgage Invt Corp	deb 5.5% 2025/12/31	64.103 com. sh(s). to Dec 30, 2025	$15.60	T	AI.DB.D
Atrium Mortgage Invt Corp	deb 5% 2028/12/31	57.143 com. sh(s). to Dec 30, 2028	$17.50	T	AI.DB.F
Atrium Mortgage Invt Corp	deb 5.1% 2029/03/31	59.702 com. sh(s). to Mar 30, 2029	$16.75	T	AI.DB.G
BSR Real Estate Invt Tr	deb 5% 2025/09/30	69.444 unit to Sep 29, 2025	US$14.40	T	HOM.DB.U
BTB REIT	deb 6% 2024/10/31	184.502 tr. unit to Oct 31, 2024	$5.42	T	BTB.DB.G
BTB REIT	deb 7% 2025/10/31	274.725 tr. unit to Oct 31, 2025	$3.64	T	BTB.DB.H
Baylin Technologies Inc	deb 8.5% 2026/06/30	1000.000 com. sh(s). to Jun 30, 2026	$1.00	T	BYL.DB
BlackBerry Ltd	nt 3% 2029/02/15	257.583 com. sh(s). to Feb 13, 2029	US$3.88		
Canadian Solar Inc	nt 2.5% 2025/10/01	27.271 com. sh(s). to Sep 29, 2025	US$36.67		
Cannabist Co Holdings Inc	deb 6% 2025/06/29	154.000 com. sh(s). to Jun 29, 2025	US$6.49		
Chemtrade Logistics Incm	deb 8.5% 2025/09/30	136.054 tr. unit to Sep 30, 2025	$7.35	T	CHE.DB.F
Chemtrade Logistics Incm	deb 6.5% 2026/10/31	63.291 tr. unit to Oct 31, 2026	$15.80	T	CHE.DB.E
Chemtrade Logistics Incm	deb 6.25% 2027/08/31	100.000 tr. unit to Aug 30, 2027	$10.00	T	CHE.DB.G
Chemtrade Logistics Incm	deb 7% 2028/06/30	77.821 tr. unit to Jun 29, 2028	$12.85	T	CHE.DB.H
Chorus Aviation Inc	deb 6% 2026/06/30	157.480 vtg & var vtg to Jun 29, 2026	$6.35	T	CHR.DB.B
Cineplex Inc	deb 7.75% 2030/03/01	97.182 com. sh(s). to Mar 01, 2030	$10.29	T	CGX.DB.B
DIRTT Envrnmtl Solutions	deb 6% 2026/01/31	215.054 com. sh(s). to Jan 30, 2026	$4.65	T	DRT.DB

DBRS Rating Scale: Corporate Bonds

The following tables itemize the latest ratings as provided by Dominion Bond Rating Service Limited.

The Corporate Bond Rating Scale is as follows:

AAA	Highest Bonds rated **AAA**are of the highest credit quality. The degree of protection afforded principal and interest is of the highest order. Earnings are considered stable, the structure of the industry in which the Company operates is very strong, and the outlook for future profitability is extremely favourable. There are few qualifying factors present which would detract from the performance of the Company, and the strength of liquidity ratios is unquestioned.
AA	Superior Bonds rated **AA** are of superior credit quality, and protection of interest and principal is considered high. In many cases, they differ from bonds rated **AAA** only to a small degree.
A	Satisfactory Bonds rated **A** are of satisfactory credit quality. Protection of interest and principal is still substantial, but the degree of strength is less than with **AA** rated companies. Companies in this category may be more susceptible to adverse economic conditions.
BBB	Adequate Bonds rated **BBB** are of adequate credit quality. Protection of interest and principal is considered acceptable, but the Company is fairly susceptible to economic cycles, or there may be other adversities present which reduce the strength of these bonds.
BB	Speculative Bonds rated **BB** are defined to be speculative. The degree of protection afforded interest and principal is uncertain, particularly during periods of economic recession. Companies typically have limited access to capital markets.
B	Highly Speculative Bonds rated **B** are highly speculative. There is a reasonably high level of uncertainty as to the ability of the Company to pay interest and principal on a continuing basis in the future, especially in periods of economic recession.
CCC, CC, C	Very Highly Speculative Bonds rated in any of these categories are very highly speculative and are in danger of default of interest and principal. The degree of adverse elements present is more severe than with bonds rated B. In practice, there is little difference between these three categories, with, with **CC** and **C**normally used for lower ranking debt of companies for which the senior debt is rated in the **CCC** to **B** range.
D	Default Bonds rated **D** are in default of either interest or principal.
High or Low	In addition to the above, the ratings may be modified by the quotation "high" or "low" to indicate the relative standing within a rating classification.

DBRS Corporate Debt Ratings, by Issuer

Issuer	Description	DBRS Rating	Last Update
AIMCo Realty Investors LP	Senior Unsecured Debt	AA low	May 26, 2023
ARC Resources Ltd	Senior Unsecured Notes	BBB	Feb 23, 2024
ATCO Ltd	Fixed-to-Floating Rate Subordinated Notes	BBB	Aug 29, 2023
Acces Recherche Montreal	Senior Bonds	A	Oct 5, 2023
Aeroports de Montreal	Revenue Bonds	A high	Aug 18, 2023
Alberta Powerline LP	Senior Bonds	A low	Oct 13, 2023
Alectra Inc	Senior Unsecured Debentures	A	Jun 21, 2023
Algonquin Power Co	Senior Debentures	BBB	Feb 2, 2024
Allied Properties REIT	Senior Unsecured Debentures	BBB	Aug 16, 2023
AltaLink LP	Senior Secured Bonds and Medium Term Notes	A	Jul 21, 2023
Arrow Lakes Power Corp	Project Bonds	A high	Apr 12, 2024
Artis REIT	Senior Unsecured Debentures	BBB low	Feb 2, 2024
BCI QuadReal Realty	Senior Debentures	AA low	May 3, 2024
Bank of Montreal	Covered Bonds	AAA	Jun 2, 2023
Bank of Montreal	Deposits & Senior Debt	AA	Jun 2, 2023
Bank of Montreal	Bail-inable Senior Debt	AA low	Jun 2, 2023
Bank of Montreal	NVCC Subordinated Debt	A low	Jun 2, 2023
Bank of Montreal	NVCC Additional Tier 1 (AT1) Limited Recourse Capital Notes	BBB high	Jun 2, 2023
Bank of Nova Scotia	Covered Bonds	AAA	Apr 18, 2024
Bank of Nova Scotia	Deposits & Senior Debt	AA	Apr 18, 2024
Bank of Nova Scotia	Bail-inable Senior Debt	AA low	Apr 18, 2024
Bank of Nova Scotia	Subordinated Debt	A high	Apr 18, 2024
Bank of Nova Scotia	NVCC Subordinated Debt	A low	Apr 18, 2024
Bank of Nova Scotia	NVCC Additional Tier 1 (AT1) Limited Recourse Capital Notes	BBB high	Apr 18, 2024
bcIMC Realty Corp	Medium Term Notes	AA low	Apr 26, 2024
Bell Canada	Debentures and MTN Debentures	BBB high	Mar 28, 2024
Bell Canada	Subordinated Debentures	BBB low	Mar 28, 2024
Bell MTS Inc	Medium Term Notes	BBB high	Mar 28, 2024