CIBC PRIVATE WEALTH

NAVIGATING INVESTMENT RETURNS AND RISK IN A RISING INTEREST RATE ENVIRONMENT

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CIBC

MFOA MUNICIPAL FINANCE OFFICERS' ASSOCIATION OF ONTARIO

The Power of Resilience

What we do to help you

We Specialize in Helping Municipalities Manage their Investments in a Prudent, Innovative, Conservative Manner.

How we help you

Expertise

- Fixed income investing is our specialty
- First to market with new ideas
- Municipal Act experts

Education

- Pride ourselves on helping our clients learn about investing
- Makes us and our clients stronger and that helps our Province
- Regularly speak to stakeholders and present at events like these

Relationships

- Many advisors focus on bond expertise, we like to think we focus on you and your organization
- You’re a steward of your Municipalities’ capital – that means we are too.
- The depth of relationships throughout the entire bank – commercial banking, DCM

Who do we work with? Everyone.

Large Ontario Municipality

- Works with several advisors
- Has a relatively sophisticated investment plan and developed their own IPS
- Uses CIBC fixed income and economic research to plan their investments
- Looks to us to for customized investment ideas for them based on their views and internal strategy

Smaller Ontario Municipality

- New to investing
- Looking for straight forward ideas to improve their rate of return over their bank deposit rate
- We assisted in building their IPS and provided them with access to third party GIC investments and improved their investment performance.

Your Support Team

Geoffrey Pennal

Portfolio Manager and Investment Advisor

Lead a team of 4 people and specialize in fixed income investing for municipalities.

Jennifer Parney

Executive Director, Wealth Solutions Group

Fixed income expertise across a wide variety of products.

Matt Wallace

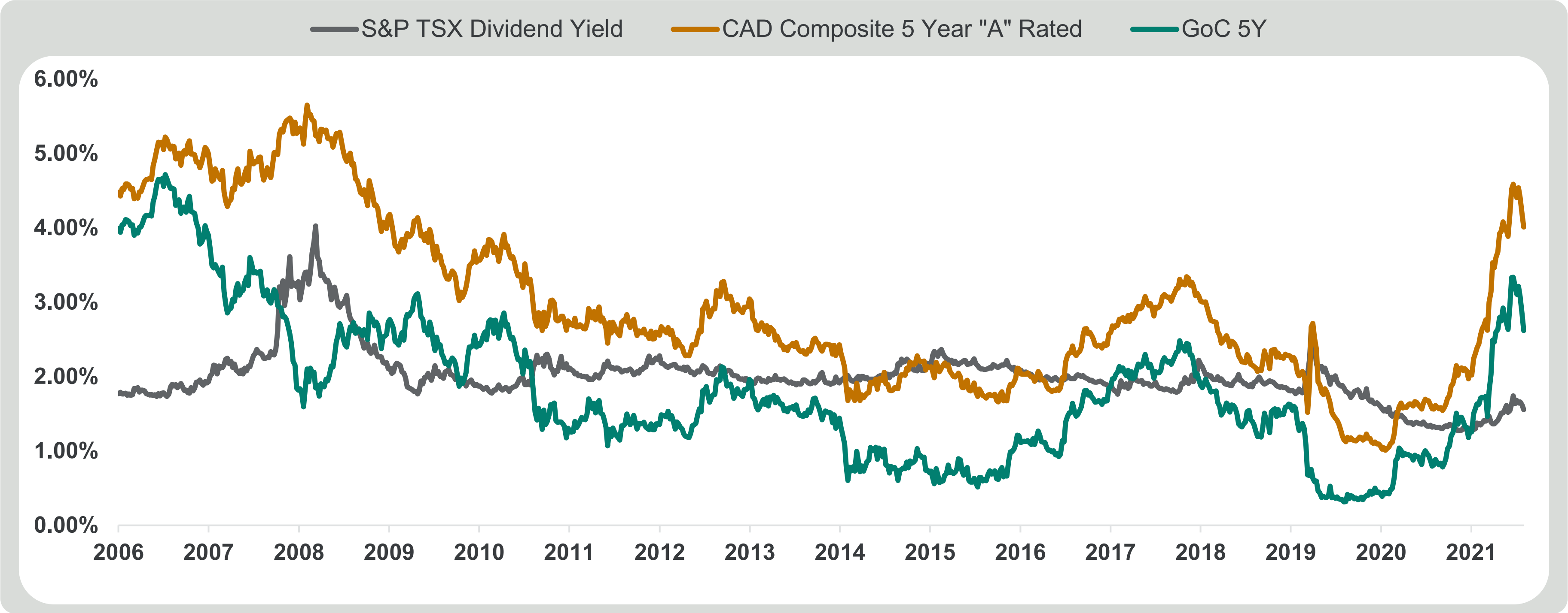
Executive Director, Wealth Solutions Group

Provides customized, structured debt solutions for the firm's clients.

CIBC WEALTH SOLUTIONS GROUP

CIBC Capital Markets

Rates Are Back



Source: Bloomberg as of 09/08/2022

Growth, Employment, Inflation

Growth: Cooler Trends in GDP

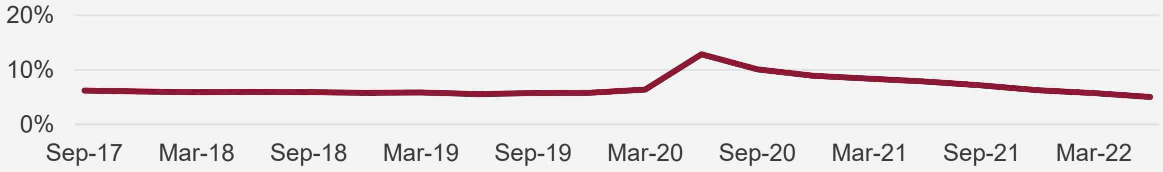
- Q2 growth solid at 3.3% annualized but slower than expectations of 4.4%

Period/Period % chr, AR	2021	21:Q3	21:Q4	22:Q1	22:Q2	Q2:Y/Y
Real GDP (chained 2012$)	4.5	5.3	6.6	3.1	3.3	4.6

Employment: Will the Real Labour Market Please Stand Up?

- Unemployment rate edged up to 5.4% in August (up from a historic low of 4.9%) but wage growth is still well above pre-pandemic norms
- Participation rate decline is ongoing

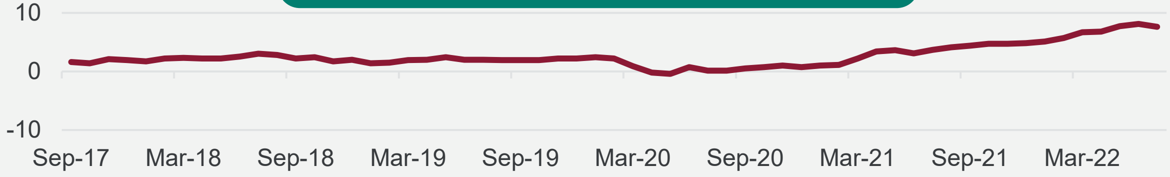
Historical Canadian Unemployment Rates



Inflation: Accelerating Core Spells Trouble

- Headline inflation in July decelerated to 7.6% YoY, 0.1% MoM
- CPI Inflation (excluding food and energy) picked up speed to reach 5.5% YoY

Canadian CPI



Source: Bloomberg as of 09/09/2022

Source: CIBC Economics as of 09/09/2022

Group Poll: When do you think inflation might hit the Bank of Canada’s 2% inflation target?

H2 2023

H1 2024

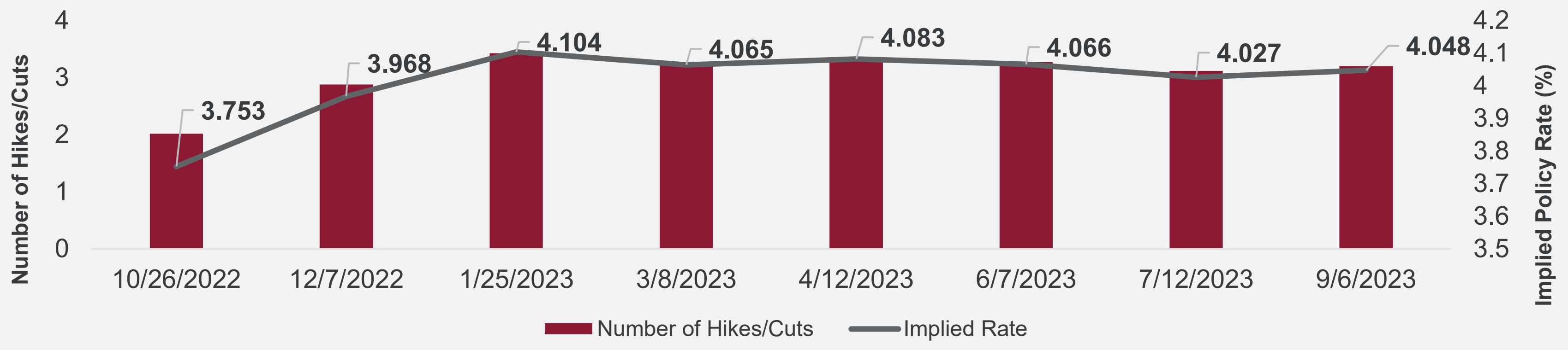
H2 2024

Beyond?

Group Poll: When do you think inflation might hit the Bank of Canada’s 2% inflation target?

Market View & Recent Activity

Canada Overnight Interest Rate Forecast



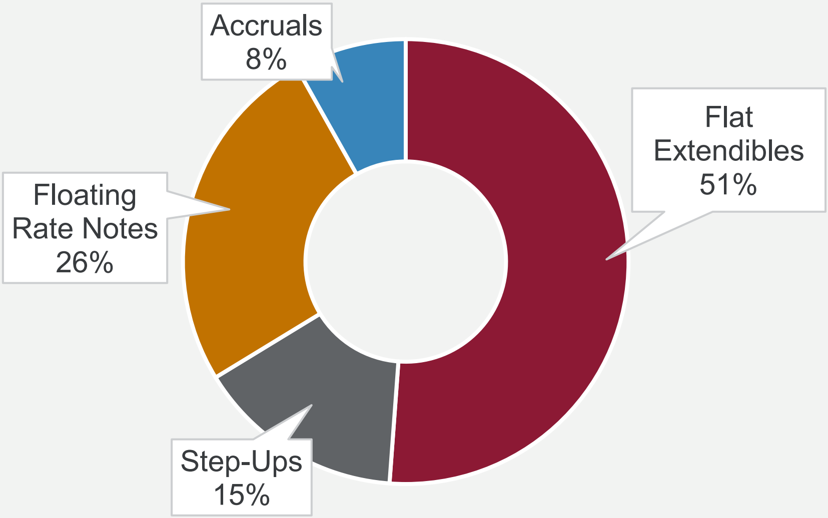
	# of Policy Hikes/Cuts		Implied Overnight Rate (%)	
Meeting	Market	CIBC	Market	CIBC
10/26/2022	**2.061**	2	3.763	**3.75**
12/7/2022	**2.881**	0	3.967	**3.75**
1/25/2023	**3.471**	0	4.115	**3.75**
3/8/2023	**3.217**	0	4.051	**3.75**

Source: Bloomberg as of 09/16/2022

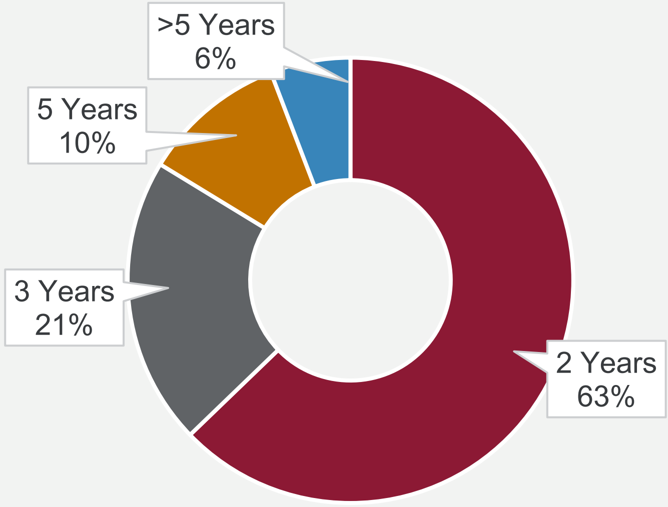
Source: CIBC Economics as of 09/15/2022

Rate-Linked Structured Notes – Recent Activity

Issuance by Type



Issuance by Tenor



Source: Bloomberg as of 09/08/2022

Source: CIBC Economics as of 08/08/2022

Rate Linked Structured Notes – Key Features:

Capital Preservation
100% principal protection at maturity

Diversification
Notes can be linked to a variety of benchmark interest rates to further diversify portfolios and complement long-term plans

Enhanced Income and Growth Potential
Notes can be designed to generate minimum guaranteed returns, enhancing income or long-term growth potential depending on investor needs

Customization
Notes can be tailored to express a view on a particular term, benchmark or shape of the yield curve S&P

Stability
Notes are senior notes that are direct unsecured liabilities of CIBC ranking Pari passu with all other unsecured and unsubordinated debt of CIBC. While the notes are not specifically rated by a rating agency, the class of this debt with a term to maturity of one year or more has been rated AAL by DBRS, A2 by Moody's and BBB+ by S&P

Liquidity
May be liquidated prior to maturity in a daily secondary market

Rate Structured Notes – Flat Extendible Notes:

CIBC Flat Extendible Notes have an initial term to maturity of 1 year and are extendible annually at the option of CIBC to the stated maximum maturity. The Notes provide a guaranteed coupon annually when the Notes are extended.

Key Features

- Provide investors with a guaranteed annual coupon
- Callable annually at the Issuer's option
- Notes offer a yield "pick-up" when compared to bonds of a similar term
- 100% principal protection at maturity

Client Positioning

Suitable for investors looking for the certainty of a fixed coupon but who are willing to potentially extend term in order to achieve a spread over traditional bonds trading in the market

CAD Flat Extendible (NC1)									
Term	2y	3y	4y	5y	6y	7y	8y	9y	10y
Coupon	4.81%	4.95%	5.01%	5.06%	5.07%	5.10%	5.13%	5.15%	5.17%

Rate Structured Notes – *NEW*
Auto-Extendible Floater:

CIBC Auto-Extendible Notes have an initial maturity of 1 year and are auto-extendible annually if the reference rate is above a certain level to a maximum maturity of 5 years. The Notes provide a guaranteed coupon annually over the term of the investment.

Key Features:

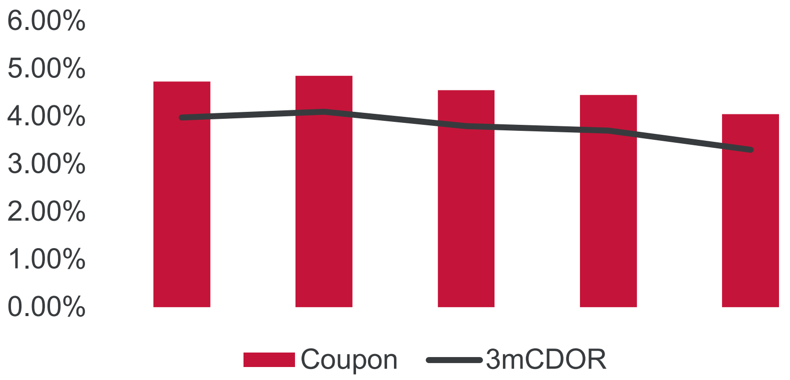
- Provide investors with a guaranteed annual coupon
- Ability to participate in a rising rate environment with a callability feature should rates move lower
- Auto-extendible feature

  The Notes will automatically be extended on an Annual Extension Date (for Principal + Coupon), starting after 1 year if the Reference Rate is greater than 2.00% on the Valuation Date
- 100% principal protection at maturity
- **Non-bail-in-able**

Client Positioning:

- Suitable for investors looking for more transparency in terms of the extendible decision and who are looking to diversify extendible risk.

Illustration and Indicative Pricing:



Issuer	**CIBC**
Currency	CAD
Term	5 Years
Coupon Rate	3m CDOR+0.75%
Coupon Frequency	Quarterly
Auto-Extend Level	Reference Rate > 2.00%
Auto-Extend Frequency	Annually
Benchmark	3m CDOR
3-month CDOR (as of 09/08/2022)	3.98

CIBC

Rate Structured Notes – *NEW* Auto-Extendible Floater:

Reference Asset
3-month CDOR

Current Reference Level:
3-month CDOR (as of 09/08/2022) = 3.98%

Term / Currency:
5 years / CAD

Coupon:
CIBC pays 3mCDOR + 0.75%, quarterly

Auto-Call Level:
The Notes will automatically be extended on an Annual Extension Date (for Principal + Coupon), starting after 1 year if the Reference Rate is greater than 2.00% on the Valuation Date.

Principal Protection
100% principal protection at maturity

Hypothetical Examples:

Note is not Extended After the Second Evaluation Date

Valuation Date	3mCDOR	Coupon	Principal Returned?
1	2.50%	3.25%	
2	**1.98%**	**2.73%**	**YES**

On the second Valuation Date, 3mCDOR is below 2.00%, and the note is not extended. The client will receive their principal plus the final coupon.

Note is Extended on All Evaluation Dates Until the Final Maturity Date

Valuation Date	3mCDOR	Coupon	Principal Returned?
1	4.00%	4.75%	
2	3.95%	4.70%	
3	3.50%	4.25%	
4	3.25%	4.00%	
5	**3.00%**	**3.75%**	**YES**

On all Valuation Dates, 3mCDOR is above 2.00% and so the note is extended until the Final Maturity Date. The client will receive their principal plus the final coupon.

The above example demonstrate how the Contingent Coupons and Note Return will be calculated and are included for illustration purposes only. The performances of the Reference Index used to illustrate the calculation of Contingent Coupons and the Note Return at maturity are hypothetical and are not estimates or forecasts of future performances or the amount payable at maturity. The actual performance of the Reference Index will be different from this example and the differences may be material.

CIBC CUSTOMIZED DEPOSIT NOTE SOLUTIONS

CIBC Capital Markets

CIBC Structured Solutions

CIBC Industry Expertise

CIBC issued its first customized Deposit Note in 1994 and has originated more than $80 billion in Structured Products to date

CIBC has the longest running secondary market for Structured Notes in Canada

Team of industry experts with a global footprint – team of **20+** professionals with strong presence in the U.S. and the U.K.

Commitment to provide innovative and customized solutions to provide access to new investment opportunities

- “Goals based” investment approach
- Frequently first to market with new structures

CIBC Industry Achievements

GlobalCapital
2014
Canadian Derivatives House of the Year

GlobalCapital
2015
Canadian Derivatives House of the Year

GlobalCapital
2016
Canadian Derivatives House of the Year

GlobalCapital
2017
Canadian Derivatives House of the Year

mtn-i
2019 and 2020
Canadian Issuer of the Year

Eligible Investments for CIBC Municipal Accounts

- CIBC has extensive experience working with municipalities and other institutional investors, providing customized Deposit Note solutions to meet unique investment goals and objectives

Customized CIBC Deposit Notes Rank Equal to Other CIBC Deposit Liabilities, and are qualified instruments within the Municipal Act*

**While these deposit notes are not automatically rated by any rating agency, individual notes may be assigned a specific rating to ensure eligibility. Municipalities must ensure that any investment in CIBC Deposit Notes has been properly authorized, is consistent with investment policy and is permitted under applicable regulations."*

CIBC

Capital Preservation
100% principal protection at maturity, senior debt obligation of CIBC

Diversification
Can be linked to a variety of asset classes, including equities and equity indices

Enhanced Income and Growth Potential
Can be designed to generate minimum guaranteed returns and/or long-term growth potential

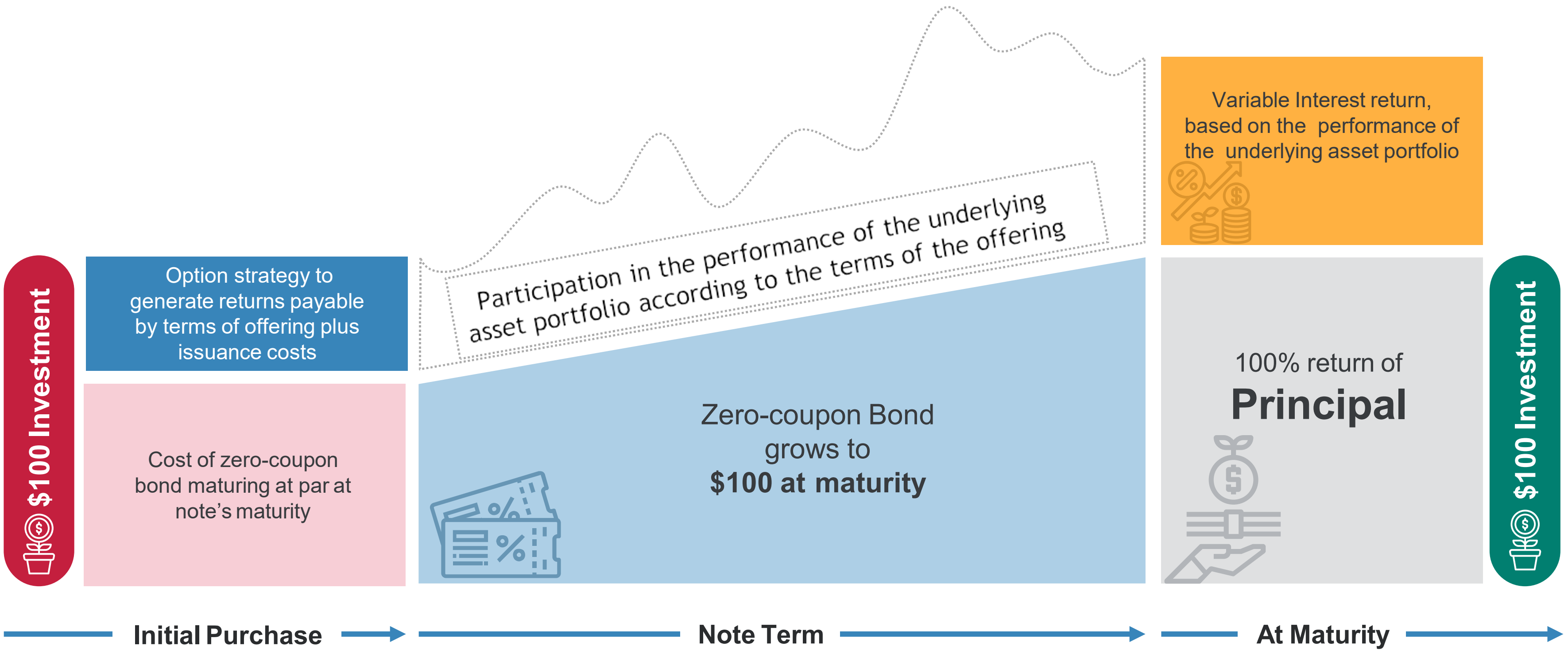
Asset/Liability Matching
Ensure the availability of sufficient capital to meet future funding obligations over defined time horizons

Liquidity
Can be liquidated prior to maturity in a daily secondary market

Highlighted Recent Transactions

Municipality (Ontario) **C$10,000,000** Principal Protected Notes June 2022	**Municipality (Ontario)** **C$50,000,000** Principal Protected Notes May 2022	**Municipality (Nunavut)** **C$4,000,000** Principal Protected Notes October 2021	**Municipality (Alberta)** **C$30,000,000** Principal Protected Notes August 2021	**Municipality (Ontario)** **C$25,000,000** Principal Protected Notes April 2021	**Not-for-Profit Education (Ontario)** **C$15,000,000** Principal Protected Notes 2021
Municipality (Ontario) **C$25,000,000** Principal Protected Notes 2018	**Family Office (British Columbia)** **C$10,000,000** PPN + Discount Note 2018	**Municipality (Ontario)** **C$7,000,000** Principal Protected Notes 2018	**Municipality (Ontario)** **C$127,000,000** Principal Protected Notes 2017	**Family Office (Alberta)** **C$15,000,000** Equity Monetization 2017	**Municipality (Ontario)** **C$10,000,000** Principal Protected Notes 2017
Not-for-Profit (Ontario) **C$450,000,000** PPNs and Fixed Income 2016	**Trust (Alberta)** **C$55,900,000** Term Stock Loan 2016	**Family Office (Ontario)** **US$25,000,000** Term Stock Loan 2016	**Not-for-Profit Education (Ontario)** **US$12,000,000** Principal at Risk Notes 2016	**Municipality (Quebec)** **C$1,000,000** Principal Protected Notes 2016	**Not-for-Profit Healthcare (Ontario)** **C$20,000,000** Principal Protected Notes November 2015

How PPNs Are Structured



Laddered Strategy Involving Principal Protected Deposit Notes – Indicative Pricing

Term	Reference Asset	Principal Protection	Participation Rate	Maximum Return
3 years	Canadian Large Cap Equity Basket**	100%	200%	33%
3 years	Canadian Large Cap Equity Basket**	100%	110%	No Maximum
5 years	Canadian Large Cap Equity Basket**	100%	300%	70%
5 years	Canadian Large Cap Equity Basket**	100%	165%	No Maximum
7 years	Canadian Large Cap Equity Basket**	100%	400%	105%
7 years	Canadian Large Cap Equity Basket**	100%	200%	No Maximum

**The Reference Asset in the indicative pricings above consists of an equal weight basket of the following Canadian large-cap equities:

BCE	Telus	Rogers Communications	Enbridge	Pembina Pipeline	TC Energy
Manulife Financial	Sunlife Financial	Power Corp	Royal Bank of Canada	Toronto Dominion Bank	Bank of Nova Scotia

CIBC Principal Protected Notes

Reference Asset
Equally weighted basket: BCE Inc, Telus, Rogers Communications, Enbridge, Pembina Pipeline, TC Energy, Manulife, Sunlife , Power Corporation, Royal Bank of Canada, Toronto-Dominion Bank, Bank of Nova Scotia

Term / Currency
7 years / CAD

Variable Return at Maturity
200.00% participation in the positive price return of the Reference Asset over the term of the Notes

Principal Protection
100% principal protection at maturity

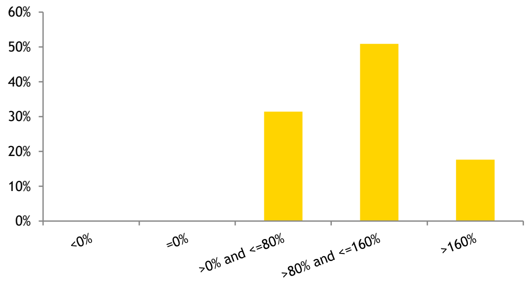
Hypothetical Examples

	Underlying Return	Note Return at Maturity
Bullish Example	+70.00%	+140.00%
Moderate Example	+25.00%	+50.00%
Bearish Example	-35.00%	0.00%

Historical Note Returns (January 2, 2001 – September 6, 2022)[1]

- The 7.0-year historical average note return was **+112.47%** representing a compounded annual return of **+11.37%**
- Historically, investor capital was always preserved, and they would have achieved positive returns **99.95%** of the time

Historical Hypothetical Note Return Distribution



[1]The Historical Note Returns were calculated by CIBC Capital Markets using daily closing prices for the Reference Asset available on Bloomberg. Hypothetical 7.0-year Notes were issued daily from January 2, 2001 until September 6, 2022 such that the last Note would have matured September 6, 2022. Historical price performance of the Reference Asset does not predict future price performance of the Reference Asset or the amount of interest, if any, that may be payable on the Notes. The historical price performance was measured over defined periods and performance over other periods would have produced different results.

CIBC PPN – 6.9% Annual Step-Up Autocallable

Reference Asset
Equally weighted basket: Manulife, Power Corporation, BCE Inc, Enbridge, Bank of Nova Scotia

Term / Currency
7 years / CAD

Step-Up Coupon
Contingent coupon received if the index is ≥ 0.00% on an anniversary date.

1st:	2nd:	3rd:	4th:	5th:	6th:	7th:
6.90	**13.80**	**20.70**	**27.60**	**34.50**	**41.40**	**48.30**

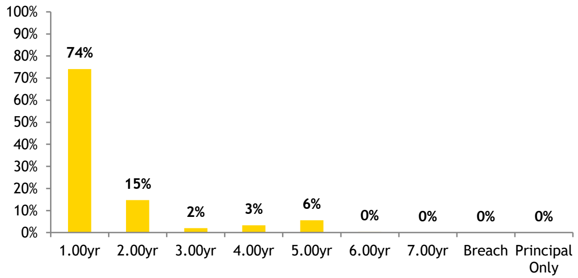
Auto-Call Level
CIBC will automatically call the Notes on each anniversary date if the Reference Index Return is greater than or equal to 0%, returning 100% of principal in addition to the step-up coupon.

Principal Protection
100% principal protection at maturity

Historical Note Returns (January 1, 2000 – September 6, 2022)[1]

- Since inception, the Note was called **74.05% of the time** on the first call date
- Since inception, the average duration of the note was **1.5 years**
- Since inception, investors would have only received their Principal back (with no return) 0.00% of the time

Historical Call Distribution



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CIBC Principal Protected Lookback Notes

Guarantees best strike price over a pre-defined window

Issuer:
CIBC

Legal status
Deposit Notes rank equally with all other direct, unsubordinated and unsecured indebtedness of CIBC

Reference asset:
Canadian Banks Index

Term / currency:
7 years / CAD

Lookback Feature:
The Initial Index Value is determined by the **lowest daily Closing Value observed during the first 6 months**

Variable Return at Maturity:
125% Participation in the positive price return of the Index

Principal Protection:
100% principal protection at maturity

Hypothetical Examples		Result
Index Closing Level on Issue Date:	2600	
Lowest Closing Level over a 6-month daily observation period:	**2300**	Initial Index Value is set at **2300**. In other words - investor gets to measure the reference return from a starting point 11.5% lower than non-lookback PPNs purchased on the same day
% Difference:	**11.5%**	

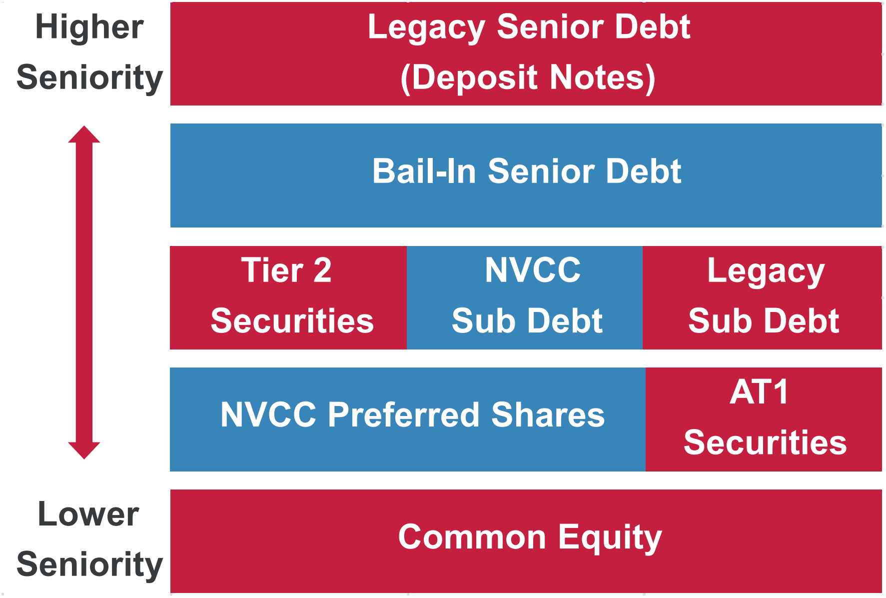
The above example demonstrate how the Variable Return and Note Return will be calculated and are included for illustration purposes only. The performances of the Reference Index used to illustrate the calculation of Variable Return and the Note Return at maturity are hypothetical and are not estimates or forecasts of future performances or the amount payable at maturity. The actual performance of the Reference Index will be different from this example and the differences may be material.

Conclusion

- We are Municipal investment specialists providing conservative, innovative and prudent investment solutions and support
- Industry leading ideas and research to improve your investment returns
- Education of our clients, their stakeholders and ourselves is paramount
- We are a teammate to help you and your organization navigate the investment world

Appendix 1: Introduction Of New Debt Structures – NVCC & Bail-In

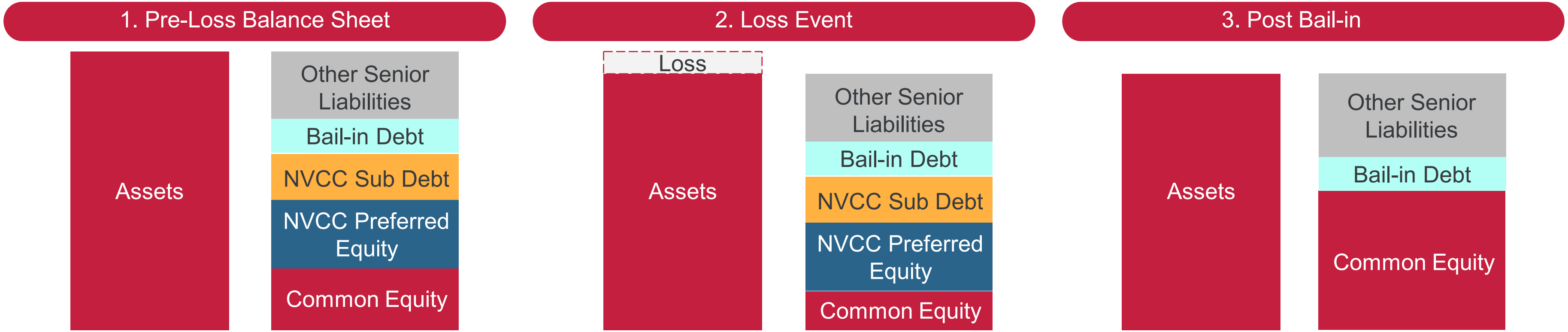
- The Department of Finance Canada introduced new debt structures for financial institutions, two of which have replaced typical Canadian bank debt instruments – Non-Viable Contingent Capital (NVCC) and the more recent introduction of Bail-in bonds
- The main attribute of these two types of securities is that they contain a contractual clause in which they can be converted into common equity in a scenario where a bank is determined by The Office of the Superintendent of Financial Institutions (OSFI) to be non-viable and in need of additional capital
- In addition, bail-in bonds will replace existing unsecured senior debt (often referred to as deposit notes), which currently rank senior to other forms of bank debt and are some of the most widely held bonds by Canadian investors



Appendix 1: How Bail-In Is Expected To Work

When OSFI deems a bank has ceased to or may be about to cease to continue to be viable, it may trigger temporary takeover of the bank and carry out the bail-in conversion of NVCC capital and bail-in debt to common equity

- At bail-in, all NVCC instruments would be fully converted to common equity based on pre-determined conversion ratios
- Portion of the bail-in debt that would be converted to common equity as well as the conversion ratio would be determined by the authorities on a case-by-case basis



Appendix 2: The Municipal Act

- **Deposit receipts, deposit notes, certificates of deposit**, if issued, guaranteed or endorsed by a bank or loan or trust corporation with terms **> 2 years**
- **Bonds, debentures, promissory notes or other evidence** of indebtedness if issued or guaranteed by a bank or loan or trust corporation with terms **> 2 years**
- Canadian corporate bonds with terms **> 1 year < 5 years**
  - “A (low)” or higher by DBRS
  - “A-” or higher by Fitch
  - “A3” or higher by Moody’s
  - “A-” or higher by S&P

- **Bonds, debentures, promissory notes** or other evidence of indebtedness if issued or guaranteed by a bank or loan or trust corporation with terms < **2 years**
  - “AA (low)” or higher by DBRS
  - “AA-” or higher by Fitch
  - “Aa3” or higher by Moody’s
  - “AA-” or higher by S&P

  Note – no change, but no rating requirement for deposit receipts, deposit notes, certificates of deposit, principal and interest fully repaid **< 2 years** after investment made, if receipt, note, certificate or instrument was issued, guaranteed or endorsed by a bank or loan or trust corporation

Appendix 3: Our Story

I've been in the investment field for 20 years at CIBC Wood Gundy for 15

I was actively involved in charitable work when I was growing up, loved helping people

When I started my career moving to the Not for Profit and Public Sector space was natural

CIBC is a market leader in providing investment support to Municipalities across Ontario

Live in Toronto with my wife and 2 kids, love travelling and camping all over the province with my Family

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