

# MAXIMIZING INVESTMENT RETURNS IN A LOW INTEREST RATE ENVIRONMENT

Geoffrey Pennal, FCSI  
Investment Advisor



Portfolio Manager  
(416) 594-8686



Geoffrey.Pennal@cibc.ca

## What we do

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



# How do we do it?



We provide customized investment ideas and support - Non-Discretionary



We provide active portfolio management – Discretionary



We help with Investment Policy Statement (IPS) construction, review and updates



We strive to constantly educate ourselves, you and your stakeholders

# Our Story



# Our 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.

# Why do Client's Choose Us



## 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.





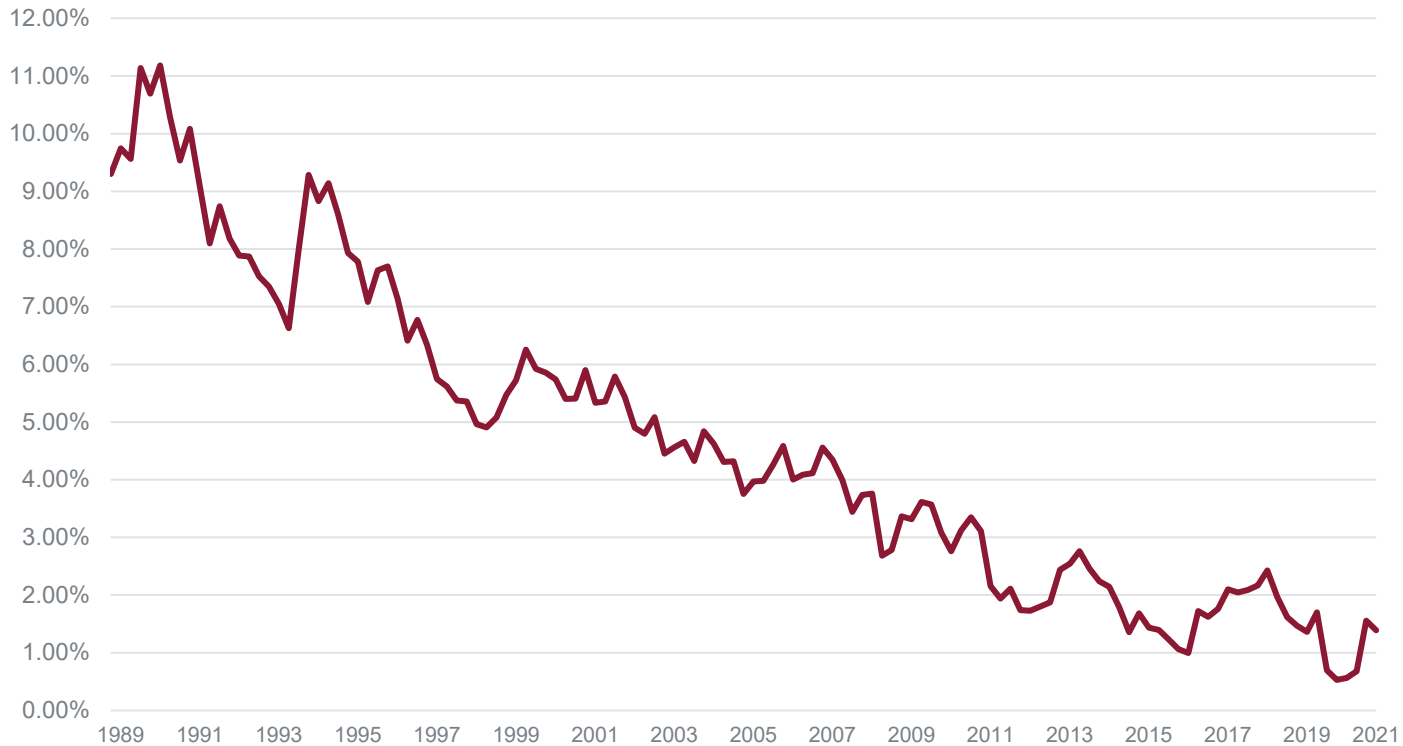
# CIBC WEALTH SOLUTIONS GROUP

CIBC Capital Markets





# 10 Year Government of Canada Historic Yields



# Economic Review: The Data

## Growth

Canadian GDP dipped in Q2 to **1.1% vs. the 2.5%** gain that had been expected



The dip was the first quarterly contraction since the first wave of Covid last year and begins Q3 on soft footing



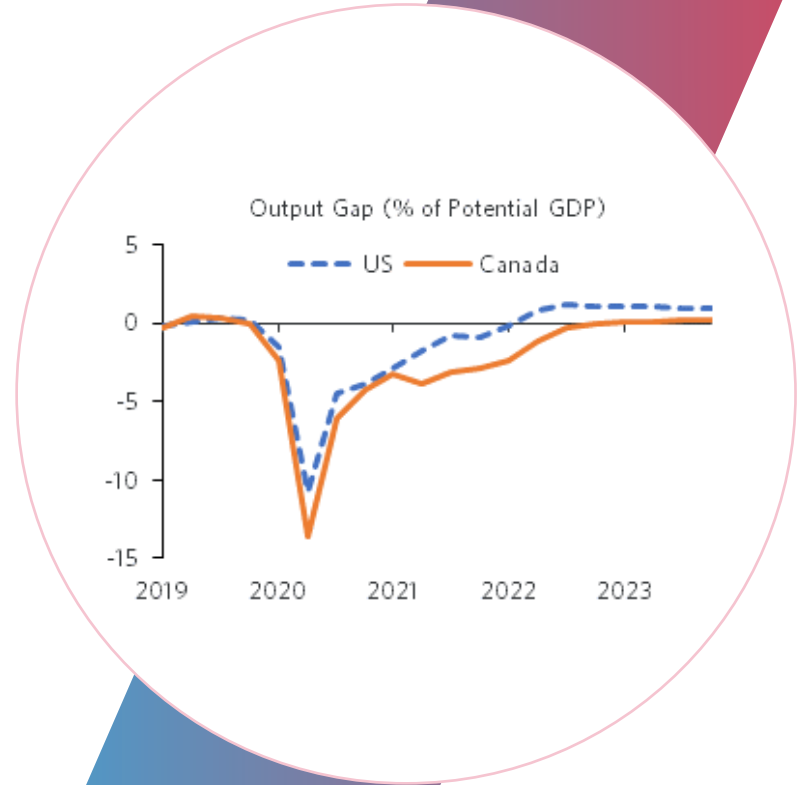
The sizeable decline a surprise driven by contractions in energy and motor vehicle shipments



Revisions were to blame as the economy was weaker than previously suggested by Stats Canada



Despite the rebound in job growth, it seems like GDP hasn't kept up and now we are about to enter a fourth wave that will test the economy again



# Economic Review: The Data

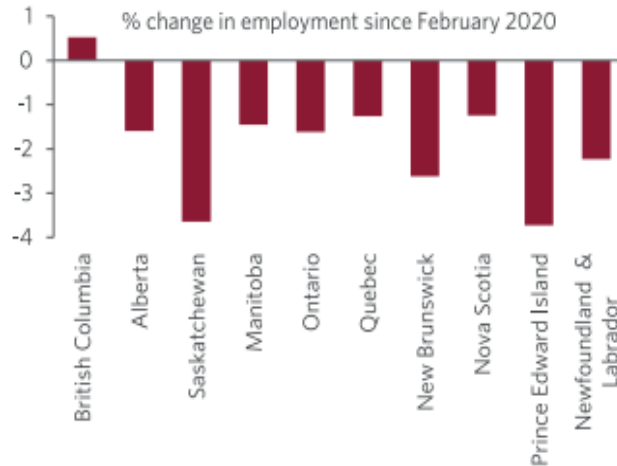
## Employment

Canada saw August employment up **90k**

While just **0.8%** off its pre-pandemic level, Canada remains a long way from fully healed

Hours worked remained **2.6%** below pre-Covid levels

The unemployment rate fell to **7.1%** from **7.5%** which is the lowest level since the pandemic began, however participation declined



# Economic Review: The Data

## Inflation

August CPI headline beat expectations at **+0.2% (4.1% y/y)**



Prices were up in seven of eight categories so massive breadth.



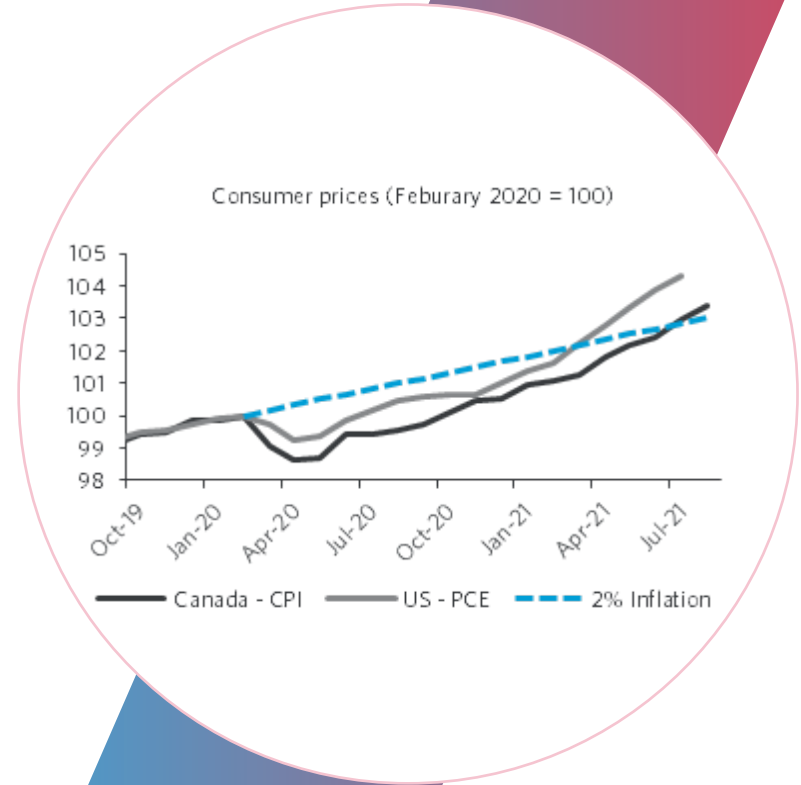
Homeowner replacement rose at the fastest pace in **30 years**



The BoC Core Common rose one tick to **1.8%**



These numbers will matter to the Bank as they work to determine if inflationary pressures are transitory



# Economic Review

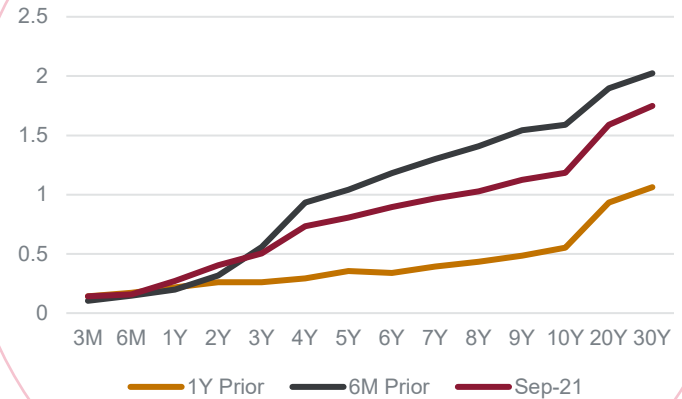
## The Bank of Canada

The Bank of Canada kept the overnight interest rate at **0.25%** at its September 8th meeting

The Bank acknowledged that growth appears weaker than it had previously assumed although it noted that the contraction in Q2 was “largely” due to weakness in exports stemming from supply chain disruptions

The BOC continued to assess recent strength in inflation as “transitory” and noted that medium term inflation expectations remain “well anchored”

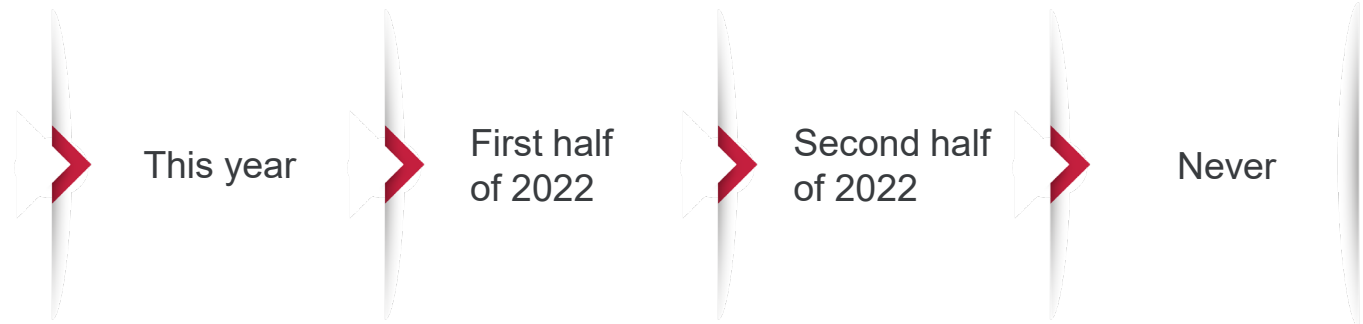
### Canadian Historical Yield Curves



Source: Bloomberg, as of 14-September-2021



## Group Poll: When is the BOC going to increase interest rates?



# CIBC Economics: Interest Rate Forecasts

## Canadian interest rates (end of period)

Variable (%)	2021 8-Sep	2021 Dec	2022 Mar	2022 Jun	2022 Sep	2022 Dec	2023 Jun	2023 Dec
Overnight Target Rate	0.25	0.25	0.25	0.25	0.25	0.50	1.00	1.25
98-Day Treasury Bills	0.15	0.20	0.25	0.25	0.25	0.50	0.90	1.15
2-Year Gov't Bonds	0.40	0.50	0.55	0.60	0.75	1.00	1.25	1.65
10-Year Gov't Bonds	1.23	1.50	1.60	1.70	1.75	2.00	2.15	2.50
30-Year Gov't Bonds	1.78	2.00	1.90	1.95	2.10	2.25	2.50	2.50
Canada - US T-Bill Spread	0.11	0.10	0.10	0.10	-0.10	0.15	0.00	-0.30
Canada - US 10-Year Bond Spread	-0.14	-0.05	-0.10	-0.10	-0.25	-0.15	-0.20	0.00
Canada Yield Curve (10-Year - 2-Year)	0.82	1.00	1.05	1.10	1.00	1.00	0.90	0.85

## US interest rates (end of period)

Variable (%)	2021 8-Sep	2021 Dec	2022 Mar	2022 Jun	2022 Sep	2022 Dec	2023 Jun	2023 Dec
Federal Funds Rate	0.125	0.125	0.125	0.125	0.375	0.375	0.875	1.375
91-Day Treasury Bills	0.04	0.10	0.15	0.15	0.35	0.35	0.90	1.45
2-Year Gov't Note	0.22	0.30	0.40	0.50	0.80	1.00	1.45	1.80
10-Year Gov't Note	1.37	1.55	1.70	1.80	2.00	2.15	2.35	2.50
30-Year Gov't Note	1.99	2.10	2.30	2.45	2.55	2.60	2.70	2.75
US Yield Curve (10-Year - 2 Year)	1.15	1.25	1.30	1.30	1.20	1.15	0.90	0.70

Source: CIBC Economics, as of 08-September-2021



# Rate Linked Structured Notes – Key Features:

## Capital Preservation

100% principal protection at maturity



## 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



## 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



## Diversification

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

## Customization

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

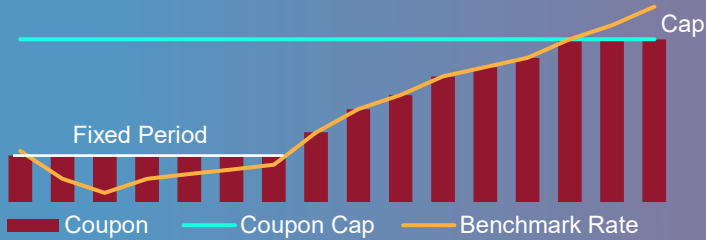
## Liquidity






May be liquidated prior to maturity in a daily secondary market



# Rate Structured Notes: Common Structures

**CIBC Fixed to Float Notes** provide a fixed coupon in the first year. For all subsequent years, the coupon would be equal to a benchmark interest rate subject to a maximum coupon rate.








 Issuer	 Currency	 Term	 Fixed Term	 Fixed Coupon
CIBC	CAD	5 years	-1 Year, 1.82%	-2-5 years, 3m BA Rate subject to 2.00% cap

**CIBC Accrual Notes** have an initial term to maturity of 1 year and are extendible annually at the option of CIBC to a maximum term to maturity of 10 years. The Notes provide a guaranteed coupon that accrues annually and is paid out once when the Notes are called or are matured. Investors are compensated for the lack of cash flow during the term of the Notes through a higher coupon rate.

**Compounding Accrual Note:** guaranteed coupon that compounds annually and is paid out once when the Notes are called or are matured.

**Linear Accrual Note:** guaranteed coupon that increases linearly every year and is paid out once when the Notes are called or are matured.

 Issuer	 Currency	 Term	 Coupon Frequency	 Callable
CIBC	CAD	10 years	Semi-Annually	Annually

All pricing indicative. Clients must ensure that any investment in CIBC Notes has been properly authorized and is consistent with investment policy and permitted under applicable regulations



# Rate Structured Notes: StepUp Callable Notes

**CIBC Fixed to Float Notes** have an initial term to maturity of 1 year and are extendible annually at the option of CIBC to a maximum term to maturity of 10 years. The Notes provide a guaranteed coupon that steps up annually when the Notes are extended.

## Key Features

Provide investors with a guaranteed annual coupon that “steps-up” annually

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



**Issuer**

CIBC



**Currency**

CAD



**Term**

10 years



**Coupon Frequency**

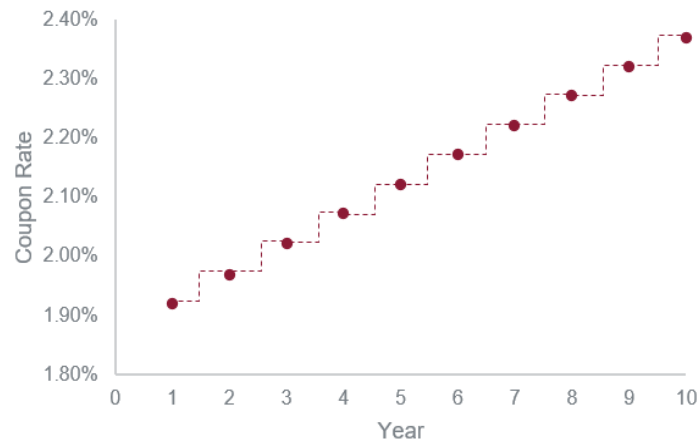
Semi-Annually



**Callable**

Annually

## Illustration and Indicative Pricing

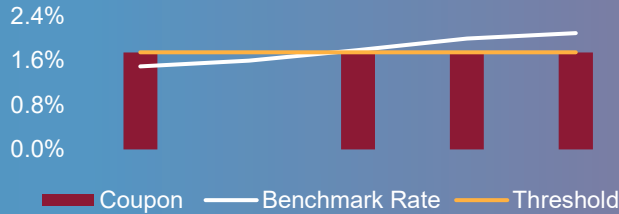


10 Year StepUp Callable Notes		
Term	Coupon	Note Return
Year 1	1.92%	1.92%
Year 2	1.97%	1.94%
Year 3	2.02%	1.97%
Year 4	2.07%	1.99%
Year 5	2.12%	2.02%
Year 6	2.17%	2.04%
Year 7	2.22%	2.07%
Year 8	2.27%	2.09%
Year 9	2.32%	2.12%
Year 10	2.37%	2.14%



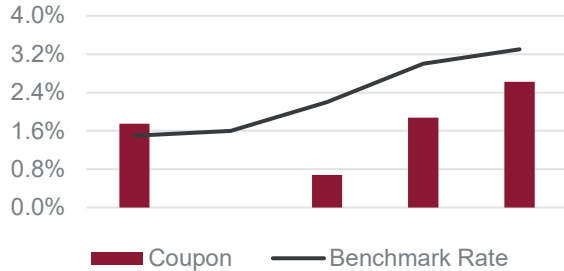
# Rate Structured Notes: The Art of the Possible

**CIBC Range Notes** have a term to maturity of 5 years. The Notes provide a guaranteed coupon for the first year of the term. In all subsequent years, the Notes only provide a coupon of if the benchmark rate is greater than a certain threshold.



Issuer	Currency	Term	Coupon in Year 1	Coupon in Years 2-5	Coupon Frequency	Benchmark
CIBC	CAD	5 years	1.75%	1.75% provided that the benchmark rate is greater than 1.75% on the valuation date	Quarterly	10-year CMS Rate

**CIBC Bond Bear Notes** provide a fixed coupon in the first year. For all subsequent years, the coupon is calculated according to a pre-defined formula



Issuer	Currency	Term	Coupon in Year 1	Coupon in Years 2-5	Coupon Frequency	Benchmark
CIBC	CAD	5 years	1.75%	1.50% x (benchmark rate - 1.75%), 0	Quarterly	10-year CMS Rate





# CIBC CUSTOMIZED DEPOSIT NOTE SOLUTIONS

CIBC Capital Markets



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# Group Poll

## QUESTION 1

Which of the following common asset classes in North America has outperformed the others over the last 3, 5, 10 and 15 years?

- a) Cash
- b) Bonds
- c) Equities

## QUESTION 2

If the performance is so robust, why are equities restricted under the Municipal Act?

- a) Market volatility/risk of loss
- b) Lower ranking than bonds on the issuer's balance sheet
- c) Both a) and b)

# CIBC Structured Solutions

## CIBC Industry Expertise

CIBC issued its first customized Deposit Note in 1994 and has originated more than \$64 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



# Eligible Investments for CIBC Municipal Accounts

## About CIBC Deposit Note Solutions

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

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

\*Municipalities must ensure that any investment in CIBC Deposit Notes have been properly authorized, is consistent with investment policy and is permitted under applicable regulations



### 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 (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\$7,000,000**

Principal Protected Notes

2018

**Family Office (British Columbia)**

**C\$10,000,000**

PPN + Discount Note

2018

**Municipality (Ontario)**

**C\$25,000,000**

Principal Protected Notes

2018

**Municipality (Ontario)**

**C\$10,000,000**

Principal Protected Notes

2017

**Municipality (Ontario)**

**C\$127,000,000**

Principal Protected Notes

2017

**Not-for-Profit (Ontario)**

**C\$450,000,000**

PPNs and Fixed Income

2016

**Municipality (Quebec)**

**C\$1,000,000**

Principal Protected Notes

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

**Not-for-Profit Healthcare (Ontario)**

**C\$20,000,000**

Principal Protected Notes

November 2015

**Family Office (Alberta)**

**C\$15,000,000**

Equity Monetization

2017

**Trust (Alberta)**

**C\$55,900,000**

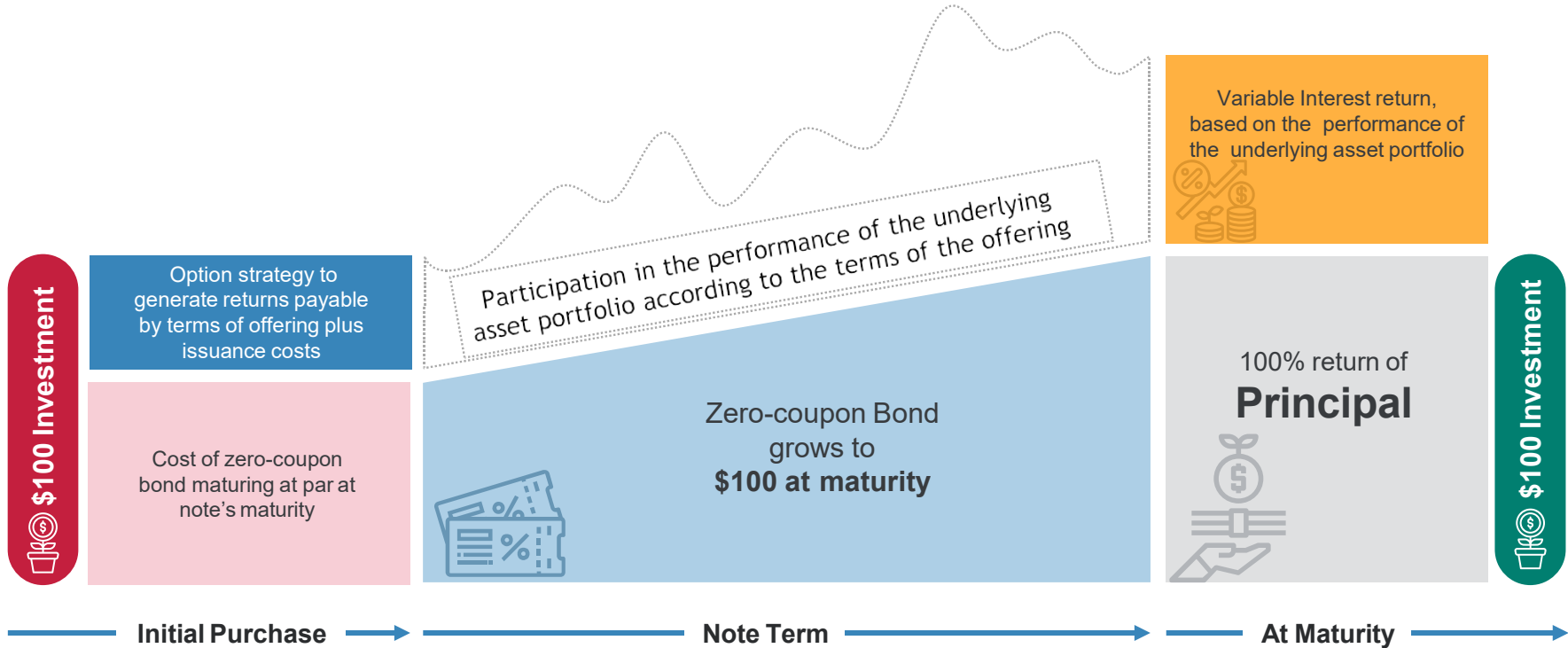
Term Stock Loan

2016





# How PPNs Are Structured



# Laddered Strategy Involving Principal Protected Deposit Notes

Term	Reference Asset	Principal Protection	Participation Rate	Maximum Return
3 years	Canadian Large Cap Index Basket**	100%	100%	8.00%
5 years	Canadian Large Cap Index Basket	100%	100%	52%
5 years	Canadian Large Cap Index Basket	100%	89%	No Maximum
7 years	Canadian Large Cap Index Basket	100%	200%	58%
7 years	Canadian Large Cap Index Basket	100%	144%	No Maximum

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

1. Solactive Canada Bank 30 AR Index
2. Solactive Canada Insurance AR Index
3. Solactive Canada Pipelines AR Index
4. Solactive Canada Telecommunications AR Index

The reference asset in the following illustrative pages consists of the largest capitalization stocks in these 4 sectors (3 stocks each, 12 total), not the Solactive indices themselves. This is done to provide a general representation of the sectors in the actual Reference Asset basket. The Solactive indices themselves do not have a long enough price history to run this analysis effectively. Past performance is not indicative of future performance.



# CIBC Principal Protected Notes



## Reference Asset

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



## Term / Currency

3 years / CAD



## Variable Return at Maturity

100.00% participation in the positive price return of the Reference Asset over the term of the Notes



## Principal Protection

100% principal protection at maturity



## Max. Payout

8.00%

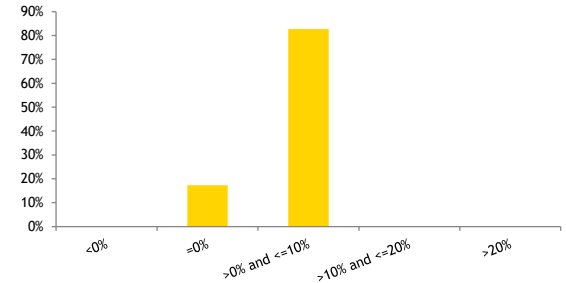
## Hypothetical Examples

	Underlying Return	Note Return at Maturity
Bullish Example	+10.00%	+8.00%
Moderate Example	+5.00%	+5.00%
Bearish Example	-10.00%	0.00%

## Historical Note Returns (May 29, 2003 – July 6, 2021)<sup>1</sup>

- The 3.0-year historical average note return was **+6.40%** representing a compounded annual return of **+2.09%**
- Historically, investor capital was always preserved, and they would have achieved positive returns **82.73%** of the time

## Historical Hypothetical Note Return Distribution



<sup>1</sup>The Historical Note Returns were calculated by CIBC Capital Markets using daily closing prices for the Reference Asset available on Bloomberg. Hypothetical 3.0-year Notes were issued daily from May 29, 2003 until July 6, 2021 such that the last Note would have matured July 6, 2021. 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 takes into consideration the specified maximum return. Returns calculated over other periods or referencing different maximum returns would have produced different results.

# CIBC Principal Protected Notes



## Reference Asset

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



## Term / Currency

7 years / CAD



## Variable Return at Maturity

144.00% participation in the positive price return of the Reference Asset over the term of the Notes



## Principal Protection

100% principal protection at maturity

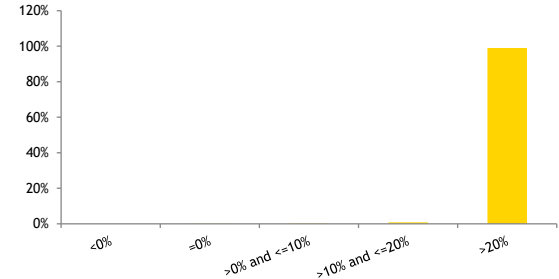
## Hypothetical Examples

	Underlying Return	Note Return at Maturity
Bullish Example	+70.00%	+100.80%
Moderate Example	+35.00%	+50.40%
Bearish Example	-10.00%	0.00%

## Historical Note Returns (May 29, 2003 – July 6, 2021)<sup>1</sup>

- The 7.0-year historical average note return was **+89.24%** representing a compounded annual return of **+9.54%**
- Historically, investor capital was always preserved, and they would have achieved positive returns **99.94%** of the time

## Historical Hypothetical Note Return Distribution



<sup>1</sup>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 May 29, 2003 until July 6, 2021 such that the last Note would have matured July 6, 2021. 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 takes into consideration the specified maximum return. Returns calculated over other periods or referencing different maximum returns would have produced different results.

# CIBC PPN – Single Call Participation



## Reference Asset

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



## Term / Currency

7 years / CAD



## Contingent Coupon

Contingent coupon received if the index is  $\geq 0.00\%$  on the fifth anniversary date.

1st:	2nd:	3rd:	4th:	5th:	6th:	7th:
-	-	-	-	23.0%	-	-



## Auto-Call Level

CIBC will automatically call the Notes on the fifth anniversary date if the Reference Index Return is greater than or equal to 0%, returning 100% of principal in addition to the coupon.



## Variable Return at Maturity

100.00% participation in the positive price return of the Reference Asset over the term of the Notes



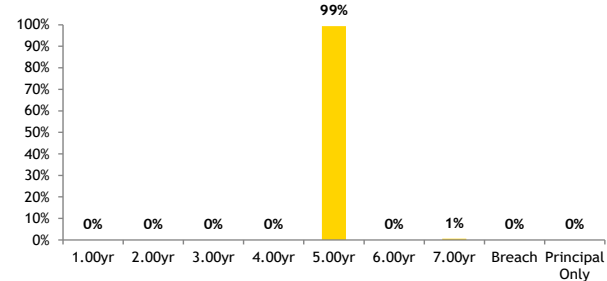
## Principal Protection

100% principal protection at maturity

## Historical Note Returns (May 29, 2003 – July 6, 2021)<sup>1</sup>

- Since inception, the Note was called **99.37% of the time** on the first call date
- Since inception, the average duration of the note was **5.01 years**
- Since inception, investors would have only received their Principal back (with no return) 0.00% of the time
- Since inception, the notes that were not called returned an average of 42.79%

## Historical Hypothetical Note Return Distribution



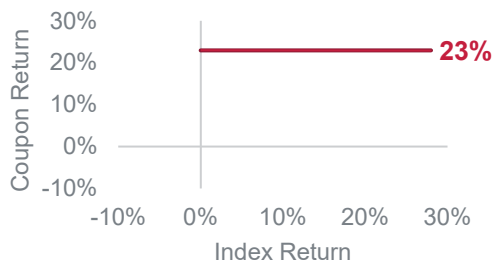
<sup>1</sup>The Historical Note Returns were calculated by CIBC Capital Markets using daily closing prices for the Reference Asset available on Bloomberg. Hypothetical 7.0-year Notes were issued daily from March 23, 2000 until September 13, 2021 such that the last Note would have matured September 13, 2021. 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 – Single Call Participation

## Graphical Illustration

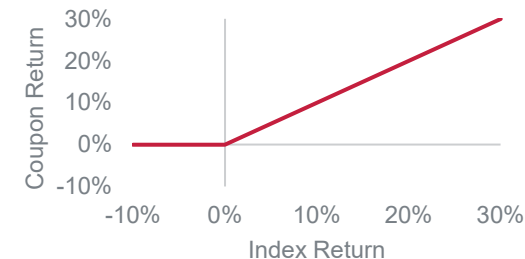
### Scenario 1

On the 5th Valuation Date, the Reference Index Level is greater than 0%, and the Notes are autocalled



### Scenario 2

The Notes are not called on the 5th Valuation Date. Investors receive 100% participation in the positive price return of the Reference Asset at maturity



### Hypothetical Examples

Valuation Date	Index Return	Coupon	Principal Returned?
1	-10%		
-	-		
5	1%	23.00%	Yes

Valuation Date	Index Return	Coupon	Principal Returned?
1	-10%		
2	-20%		
3	-7%		
-	-		
7	13%	13.00%	Yes

- On the 5th Valuation Date, the Reference Index Level is greater than 0%. The Notes are autocalled and the investors receive Variable Return of 23%

- On the final Valuation Date, the Reference Index Level is above 0% of the initial level, and the full principal amount is returned + 100% participation in the positive price return of the Reference Asset at maturity

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.



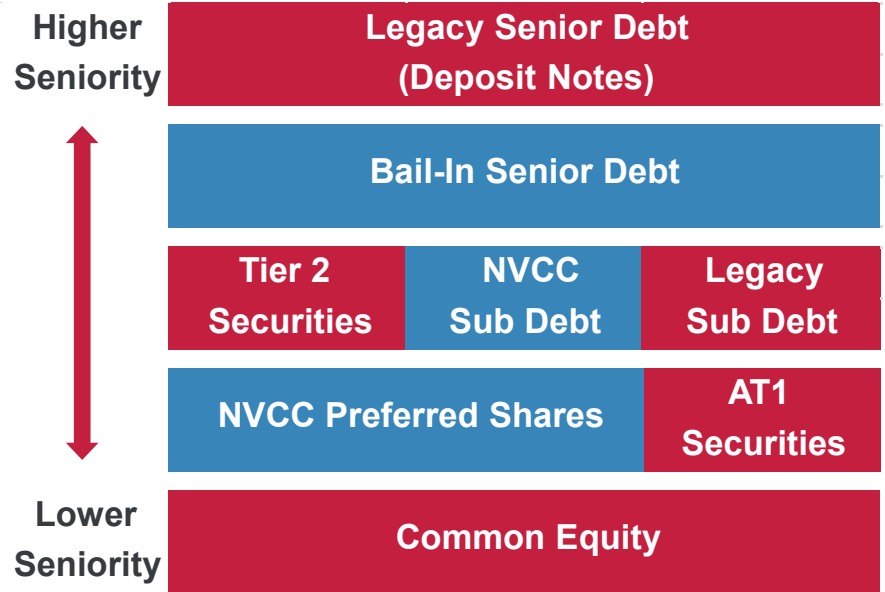
# Conclusion

- 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

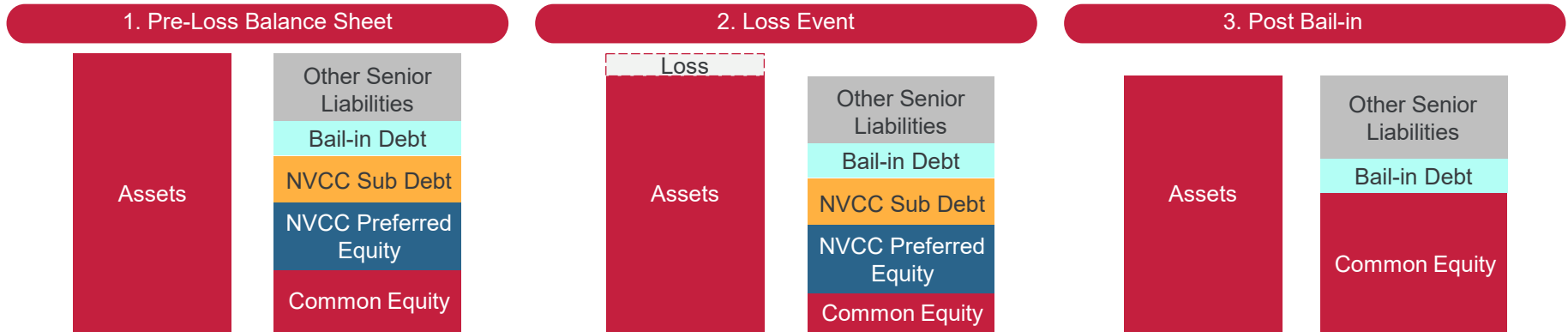




# Appendix 1: How Bail-In Is Expected To Work

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**
  - “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

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