

Mortgages and the Economy

Presented by: Outline Financial April 2023



Agenda



Section 1

Understanding "rate" types and economic impact

Section 2

- Forecasting Rates: What drives fixed and variable rates from an economic perspective
- Key economic indicators to watch in 2023

Section 3

- Impact of Silicon Valley Bank (SVB) collapse on the Canadian mortgage market
- History of mortgage rule changes in Canada, their impact on the housing market, and what might be next

Wrap-up / Q&A

Video Recording of Presentation







List of Key Topics & Time Stamp (minute: second)

SECTION 1

- 0:00 Introduction
- 3:00 Agenda
- 3:47 Key rates that impact the economy and housing
- 4:21 Overnight rate, prime rate, Bank of Canada impact
- 8:50 Variable rates, trigger rates, trigger points
- 12:03 Fixed rates (short, med, long term)
- 12:57 Insured vs. conventional rates and definitions
- 13:50 Qualifying / stress test rates and examples

SECTION 2

- 14:58 Forecasting rates
- 15:07 Variable rate forecasting what to expect in 2023/2024?
- 19:05 U.S. impact on rates in Canada
- 22:06 Fixed rate forecasting and what drives fixed rates
- 25:57 Key economic indicators (and reporting dates) to watch
- 28:08 Yield curve what it is and why it matters

SECTION 3

- 29:50 Potential impact of unexpected events on rates/economy
- 32:00 Silicon Valley Bank (SVB) collapse & impact on bond yields
- 33:39 Government impact on mortgage rates and the housing market
- 34:45 15-year history of mortgage rule changes and impact on the market
- 35:45 2007 to 2010 (rule changes, prime rates, TRREB average prices)
- 38:08 2011 to 2014 (rule changes, prime rates, TRREB average prices)
- 39:59 2015 to 2018 (rule changes, prime rates, TRREB average prices)
- 41:29 2019 to 2023 (rule changes, prime rates, TRREB average prices)

Closing Remarks

43:42 - Thank you & closing remarks

What is a "rate" and how is it determined?



Rates and
Understanding How
They Are Determined

- Bank of Canada Overnight / Target Rate
- Prime Rate
- Variable Rate ("Closed")
- Fixed Rate ("Closed")
- Conventional vs. Insured Rate
- Qualifying & Stress Test Rate



Overnight Rate

- Typically referred to as the Bank of Canada (BoC) <u>Overnight Rate</u>, <u>Target Rate</u>, or <u>Policy Rate</u>.
- The overnight rate is the interest rate at which major financial institutions borrow and lend one-day (overnight) funds to and from each other in Canada.
- The Bank of Canada sets this rate which is a critical tool to help control inflation, maintain financial stability, and influence broader economic conditions.
- The Bank of Canada meets 8 times per year and announces any change to its overnight rate during those meetings. These changes usually have an equal and immediate impact a bank's/lender's Prime Rate.



Prime Rate

- Prime Rate is also referred to as the Prime Lending Rate.
- The Prime rate is what banks use as the base for their variable rate mortgages, secured lines of credit, and unsecured lines of credit.
- Variable rate products are priced at a premium or discount to the Prime rate (e.g., HELOC may be at Prime +0.50% while a Variable Mortgage may be at Prime -0.50%).
- The Overnight & Prime rates typically move together.

Bank of Canada Overnight Rate 2022/2023



Bank of Canada (BoC) 2022/2023 Rate Changes

	BoC Meeting Date	BoC Rate Change	Overnight Rate (BoC)	Prime Rate
	Jan 26, 2022	no chg.	0.25%	2.45%
	Mar 2, 2022	+ 0.25%	0.50%	2.70%
	Apr 13, 2022	+ 0.50%	1.00%	3.20%
22	Jun 1, 2022	+ 0.50%	1.50%	3.70%
2022	Jul 13, 2022	+ 1.00%	2.50%	4.70%
	Sep 7, 2022	+ 0.75%	3.25%	5.45%
	Oct 26, 2022	+ 0.50%	3.75%	5.95%
	Dec 7, 2022	+ 0.50%	4.25%	6.45%
	Jan 25, 2023	+ 0.25%	4.50%	6.70%
	Mar 8, 2023	no chg.	4.50%	6.70%
	Apr 12, 2023	no chg.	4.50%	6.70%
2023	Jun 7, 2023	tbd	tbd	tbd
20	Jul 12, 2023	tbd	tbd	tbd
	Sep 6, 2023	tbd	tbd	tbd
	Oct 25, 2023	tbd	tbd	tbd
	Dec 6, 2023	tbd	tbd	tbd

Summary of Recent Changes to BoC Overnight Rate & Prime Rate

Total of +425 basis point (+4.25%) of increases from March 2022 to January 2023.

History in Context:

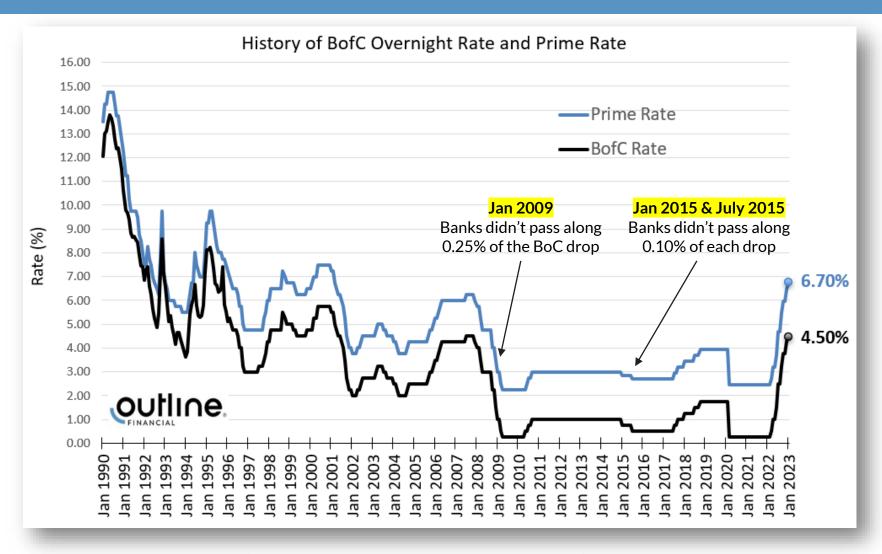
- Overnight rate remained unchanged at 0.25% from March 2020 until March 2022.
- 2022 was the fastest annual rate ascent over the past 30 years. We did see a rate descent of -3.50% in 2001, and -3.75% in 2008/2009.
- Overnight and Prime rates almost always moves together except....

Overnight Rate vs Prime Rates



Overnight and Prime Rate Chart

Typically move together except...



- Note: Jan 2009 banks didn't pass along 0.25% of the BofC drop / Jan 2015 didn't pass along 0.10% of the BofC drop / July 2015 didn't pass along 0.10% of a BofC drop.
- In November 2016, only TD increased its "Prime Rate" for variable rate mortgages by 0.15% which remains in place today.

What is a variable rate mortgage?



Variable Mortgage Rate "Closed"

- Most Variable Rate mortgages are "Closed" products
 - Penalty will apply if it is paid off early
 - Penalties are typically the same or less than fixed rate "closed" products
- Variable rate mortgages are typically priced at "Prime minus" a discount (e.g., Prime -0.25%, Prime -0.65%, Prime -1.0%, etc.).
- Discount depends on the lender's costs of funds at the time when you get your mortgage
 - Your discount to Prime remains the same through your term
- Over the past 20 years the discount has averaged roughly around Prime -0.50%, however, it can vary widely at any given time.

How Variable Rate Mortgages have Impacted Homeowners with Rising Rates



Variable vs Adjustable Mortgage

Very different effects over the past 12 months

	Variable Adjustable	Variable Non-Adjustable
Rate Decreases	Payment decreases & amortization stays the same	No Change to payment & amortization decreases
Rate Increases	Payment increases & amortization stays the same	No Change to payment & amortization increases until Trigger Rate is reached

For Non-Adjustable Variable Rate mortgage holders:

- As rates rose, more of their payment went to interest vs. principal with fixed payments.
- Amortization extended until "Trigger Rate" hit i.e., the point at which the entire payment is going to interest.
- "Trigger Point" is the point at which the lender may require you to increase your payment.
 Varies by lender.
- Some homeowners now in negative amortization, others operating at interest only or extended amortization.
- Renewal may force amortization to reset based on current laws in Canada.

What is a Fixed Rate Mortgage?



Fixed Mortgage Rate "Closed"

- Most Fixed Rate mortgages are "Closed" products
 - A penalty will apply if it is paid off before the end of the term
 - Penalties on fixed rates are typically higher than penalties for variable rate mortgages or line of credit products
- A fixed rate means that your mortgage rate and your monthly payment (or bi-weekly, accelerated bi-weekly, or weekly payment) will remain the same for the duration of the term
- The most common fixed rate term in Canada is 5 years, but 1, 2, 3, 4, 7, and 10-year terms are also available
- Fixed rate mortgages can often be "ported" to a new property to avoid penalties or preserve a good contract rate

Why Do Rates Differ for These Mortgages?

Insured ("High Ratio") Rates

 An Insured" mortgage is backstopped by the government through default mortgage insurance (a.k.a. CMHC insurance) leading to lower lender costs.

Insurable Rates

- An insurable mortgage means the client has 20%+ downpayment, but the lender may decide to pay for the default mortgage insurance.
- This reduces lender costs, however they need to cover insurance premium.

Uninsured ("Conventional") Rates

- Any purchase that is \$1M+, or does not qualify or require default mortgage insurance, is a "conventional / uninsured" mortgage.
- Lender must hold reserves for default on their balance sheet, increasing costs of servicing the debt



Qualifying / Stress Test Rate

Qualifying Rate:

- All federally regulated lenders (i.e., banks) must qualify mortgages based on the MQR* which is the higher of:
 - 5.25% ("the floor") or
 - $_{\circ}$ the actual mortgage rate +2.0% ("the buffer").
- This led to reduced borrowing power for clients in 2022 as rates as increased;
 conversely it may lead to increased borrowing power as rates fall.

Examples

- If someone receives a rate of 5.0%, they must qualify for the mortgage assuming a rate of 7.0% (actual rate plus 2.0%).
- If a client receives a mortgage & combined line of credit product, the qualifying rate is much higher given how high prime rate is currently.

Forecasting Rates

What to Watch!





Variable Rate Forecasting

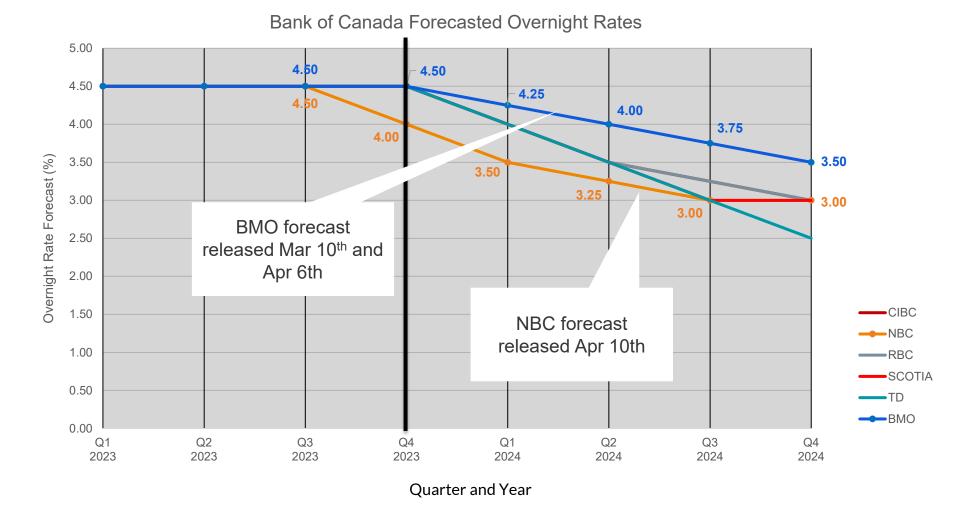
*Reminder: Variable rates move with the Prime Rate which moves with the Overnight Rate.

What are the big banks forecasting for the Overnight Rate?

2023/2024 Overnight Rate Forecasts - Where To Next?



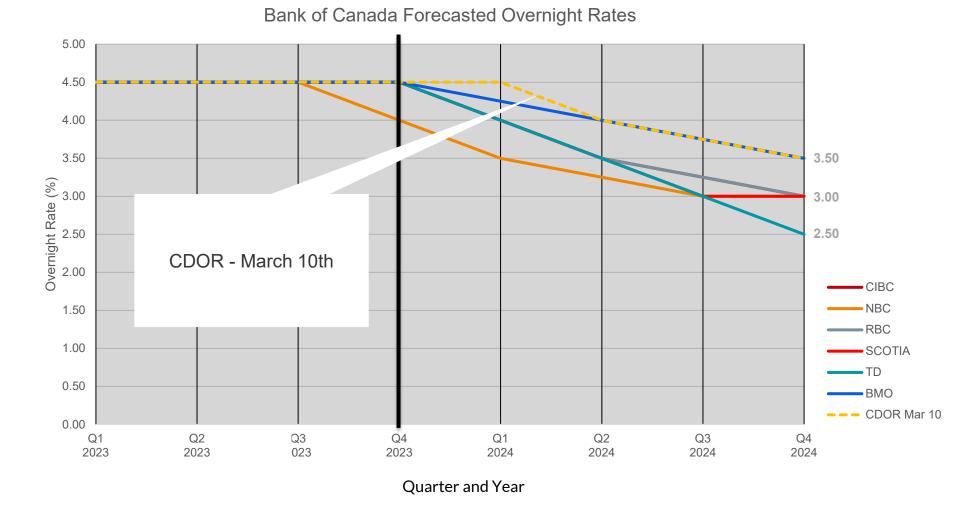
Current volatility leading to diverging forecasts, entering a period where economists and investment community have differing opinions



2023/2024 Overnight Rate Forecasts - Where To Next?



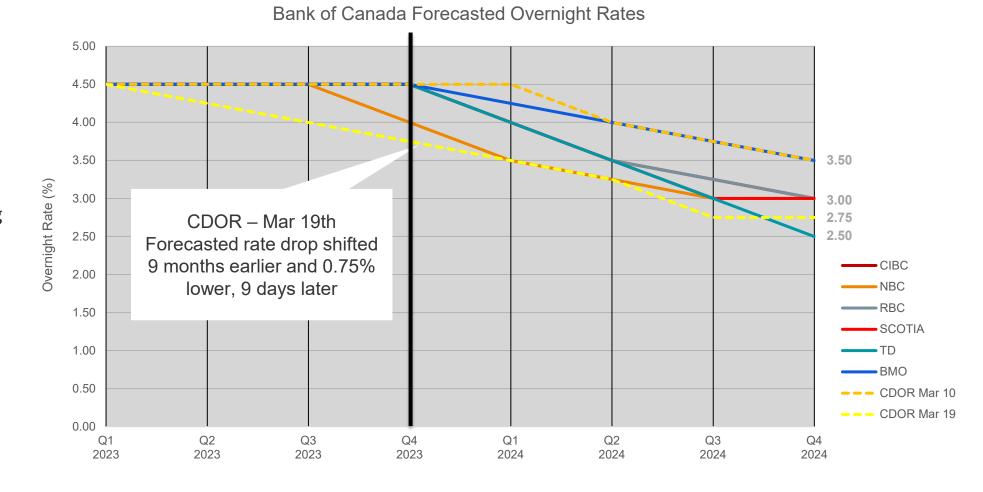
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2023/2024 Overnight Rate Forecasts - Where To Next?



Current volatility leading to diverging forecasts, entering a period where economists and investment community have differing opinions

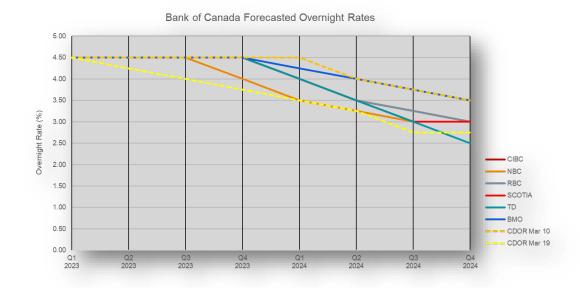


Key Takeaways for the Overnight Rate Forecasts



Key Takeaways for the Overnight Rate Forecasts

- 1. Volatility is still a concern
- 2. It appears rates have peaked in Canada
- 3. It's unlikely we'll see significant decreases in Prime rates until 2024
- 4. Important to also keep the U.S. in mind as illustrated on the next slide



Does the US Impact Canadian Mortgage Rates?



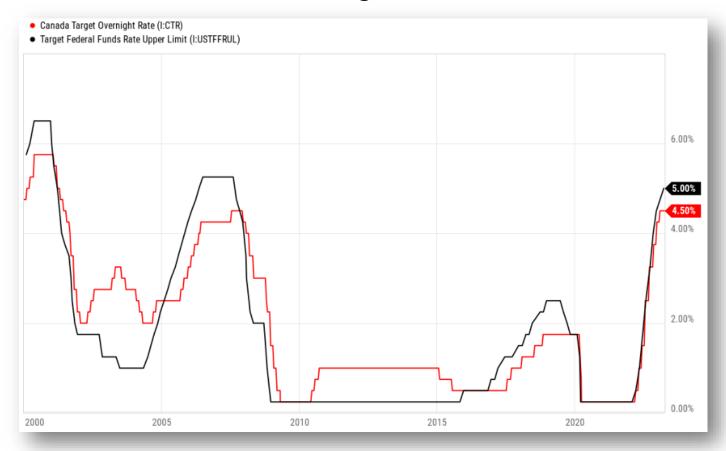
US has direct impact on Canada

- Canada buys and sells in USD
- Our produced and purchased goods' prices (and inflation) are affected by the value of the Canadian dollar

Impacting us today

- If US Federal Reserve increases their target interest rate, it puts pressure on Canada to do the same (or at least hold)
- Investment money could/will leave in short term, reducing our dollar value
- If our dollar value decreases, this increases costs of incoming goods creating further inflation

Canada / US Overnight Rate Correlation





5-Year Fixed Rate Forecasting

- To get a sense of where 5-year fixed rates are heading, you can look at the 5-year
 Canadian bond yield.
- The path of the bond yield is essentially the markets' prediction of <u>future</u> Bank of Canada's overnight rate changes and <u>future</u> economic activity.
- As expectations change (often daily), so too does the bond yield.
- An accompanying change in 5-year fixed mortgage rates may lag, but they generally follow the same pattern as shown on the next charts.

Historical Bond Yields over Time

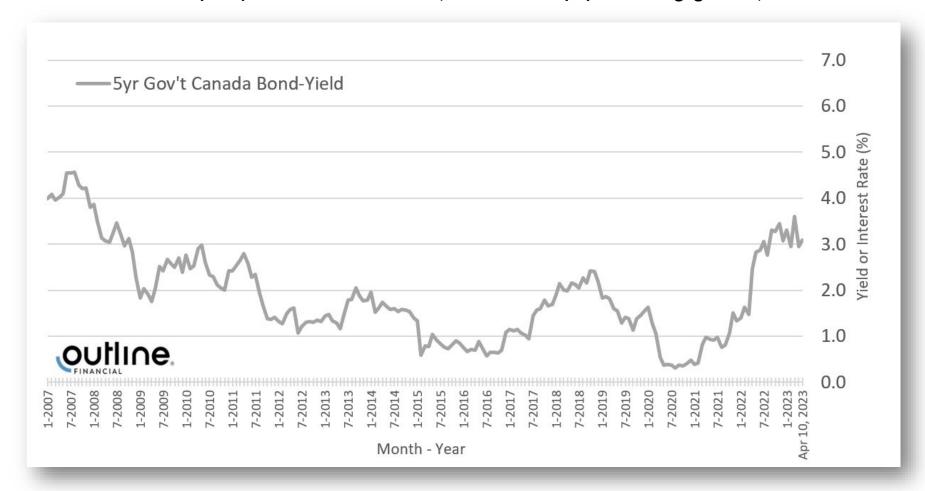


 Bond yields start to move in anticipation of future changes by the Bank of Canada as well

as economic shifts

 In the 5-year bond yield chart above, yield started increased rapidly in September 2021, in anticipation of the significant Bank of Canada rates hikes that started in March 2022.

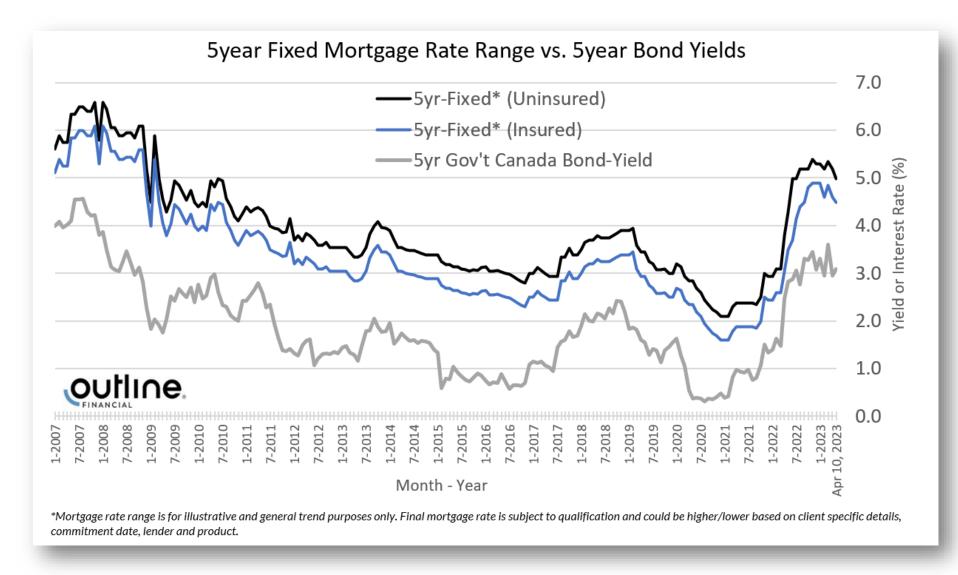
Sample 5yr Canadian Bond Yield (Matches most popular mortgage term)



Bond Yields vs Fixed Rate Mortgages



- 5-year fixed mortgage rates tend to move in lock step with 5-year bond yields as illustrated in the chart.
- Bond yields can be a very good leading indicator for potential fixed rate increases or decreases.



How Does the Economy Impact Mortgage Rates?



Sample Economic Reports That Can Impact Rate Expectations and Move Bond Yields

Three Key Economic Indicators to Watch:

<u>Inflation</u>: Measured using CPI (consumer price index). Target annual inflation range is 1% to 3%. If inflation runs higher than expected, it can put upward pressure on interest rates. (Reverse is also true)

<u>GDP</u>: Measures total goods and services produced -- the "performance" of the economy (measured quarterly). Higher than anticipated growth could signal inflationary pressures and upward pressure on interest rates. (Reverse is also true)

Jobs Report: Number of full time/part-time jobs, average earnings, unemployment rate (published first Friday each month). Strong job growth = potential for more spending = potential inflationary pressures and upward pressure on interest rates. (Reverse is also true)

*Note: the above is a simplified analysis of how these indicators can impact rate. Please contact us for a more detailed explanation.

Key Dates to Remember

Economic Calendar

- 1. Bank of Canada Rate Announcement Dates
- 1. US (Fed) Rate Announcement Dates
- 1. CAD / US Monthly Inflation Reports
- 1. CAD/US Monthly Jobs Reports

2023 Economic Calendar: Important Dates

January	February	March
6th - Jobs Report 12th - CPI/Inflation 17th - CPI/Inflation 25th - Bank of Canada Rate	1st - Fed Rate 10th - Jobs Report 14th - CPI/Inflation 21st - GDP	8th - Bank of Canada Rate 10th - Jobs Report 14th - CPI/Inflation 21st - CPI/Inflation 22nd - Fed Rate

April	May	June
6th - Jobs Report 12th - Bank of Canada Rate 12th - CPI/Inflation 18th - CPI/Inflation	3rd - Fed Rate 5th - Jobs Report 10th - CPI/Inflation 16th - GDP	7th - Bank of Canada Rate 9th - Jobs Report 13th - CPI/Inflation 14th - Fed Rate 27th - CPI/Inflation

July	August	September
7th - Jobs Report 12th - Bank of Canada Rate 12th - CPI/Inflation 18th - CPI/Inflation 26th - Fed Rate	4th - Jobs report 10th - CPI/Inflation 15th - CPI/Inflation	1st - GDP 6th - Sank of Canada Rate 8th - Jobs Report 13th - CPI/Inflation 19th - Fed Rate

October	November	December
6th - Jobs Report 12th - CPI/Inflation 25th - Bank of Canada Rate 17th - CPI/Inflation	1st - Fed Rate 3rd - Jobs Report 14th - CPI/Inflation 21st - GDP	1st - Jobs Report 6th - Bank of Canada Rate 12th - CPI/Inflation 13th - Fed Rate 19th - CPI/Inflation

What is a Bond Yield Curve?

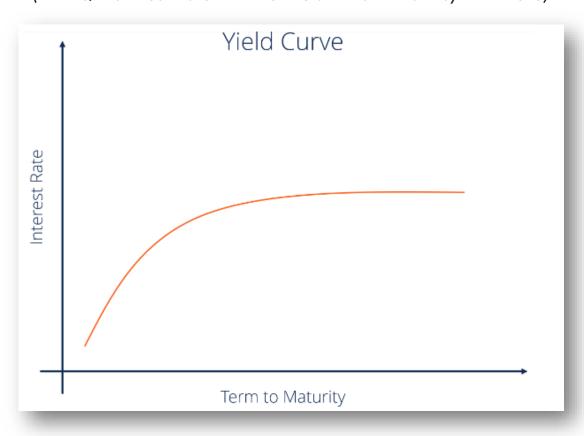


Like the 5-year bond yield, we can also track bond yields for the following terms:

- Canada 1-year bond yield
- Canada 2-year bond yield
- Canada 3-year bond yield
- Canada 5-year bond yield
- Canada 7-year bond yield
- Canada 10-year bond yield
- Canada 20-year bond yield

The bond yield curve is a mapping of bond yields for various terms. It represents the markets' "expectation" of future changes in the economy and overnight/target rates.

A typical 'healthy' bond yield curve (Yields/interest rates increase as term to maturity increases)

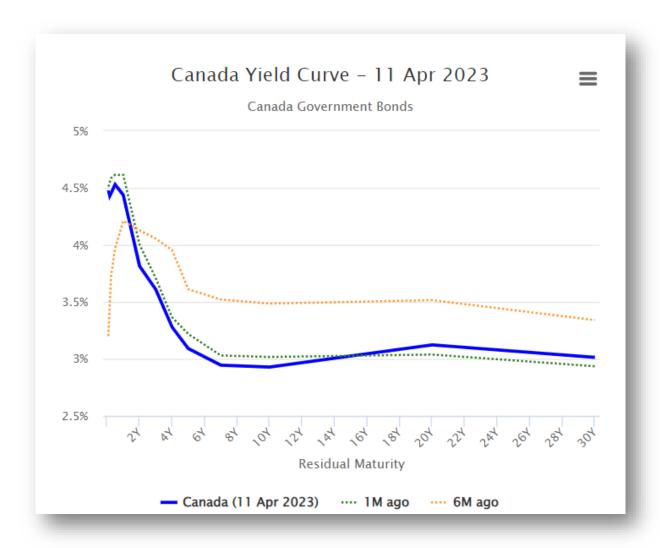


Bond Yield Curve – How it looks today



What does the current Yield Curve look like?

- 2022 was an extraordinary year for the bond market due to rapidly rising inflation
- We saw the <u>yield curve invert</u> this means short term returns were higher than long term returns (opposite of "typical" yield curve)
- An Inverted yield curve often predicts a future recession
- Based on today's curve vs. 6 months ago, the market believes we are nearing the end of the impact of high inflation



Bond Yield Curve – How it looks today

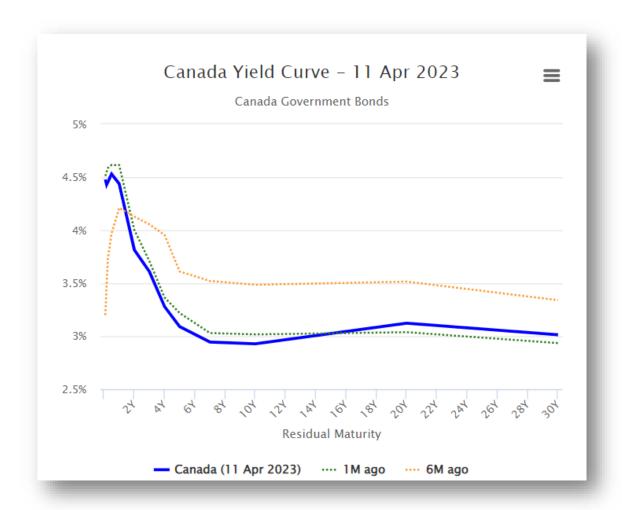


The Current Yield Curve Suggests:

- 1. Impact of inflation on economy may be near it peak
- 2. A potential for recession in the near future
- These two factors could lead to lower fixed rates over the next few years

However, this could shift again as bond yields are only the market's current 'prediction' of what could happen.

Important to stay current on data/changes/forecasts to help drive decisions.



Unforeseen Events & How They Can Impact Expectations

SVB Collapse and What it Means for Mortgages



Volatile Times – Silicon Valley Bank (SVB) Collapse



On March 10th, 2023, the Silicon Valley Bank ("SVB") collapsed, representing the second-largest bank failure in US history (\$209 billion in assets at the time of failure), and the largest since the 2007-2008 financial crisis.

What Happened:

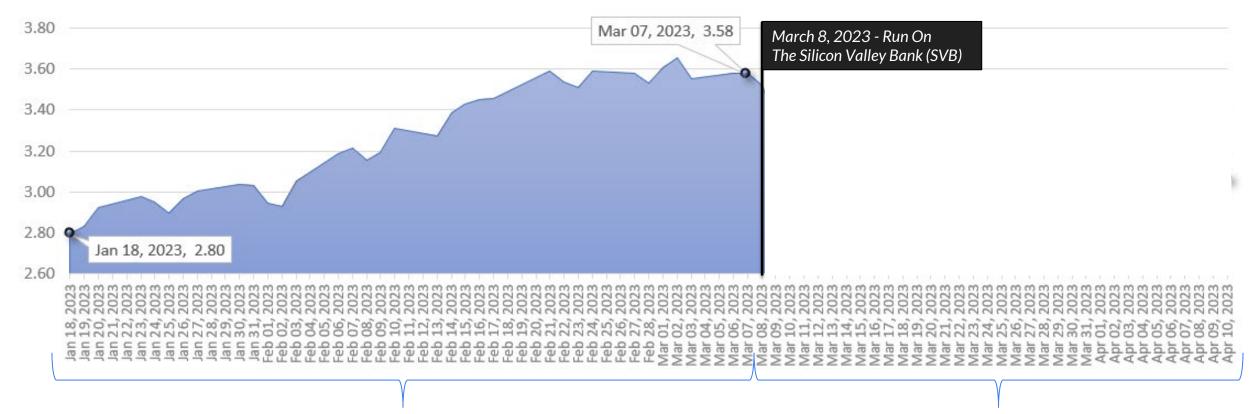
- In 2021, in order to seek higher returns, SVB increased its holdings of longer-term treasury bonds (typically very safe instruments).
- Trouble began when the US Fed Reserve started raising interest rates in 2022 causing the value of these treasury bonds to fall drastically.
- Higher interest rates also meant higher borrowing costs (cash burn) for many SVB clients who in turn required more regular/larger withdrawals to meet operating demands.
- SVB had to sell its treasury bonds at large losses to satisfy these withdrawals, and ultimately had to raise additional capital which prompted concerns about its financial health.
- Concerns escalated to a point where on March 8th customers withdrew \$42 billion in a single day ("run on the bank") ultimately leading to the collapse of SVB on March 10th.



Volatile Times



5 Year Canada Bond Yield



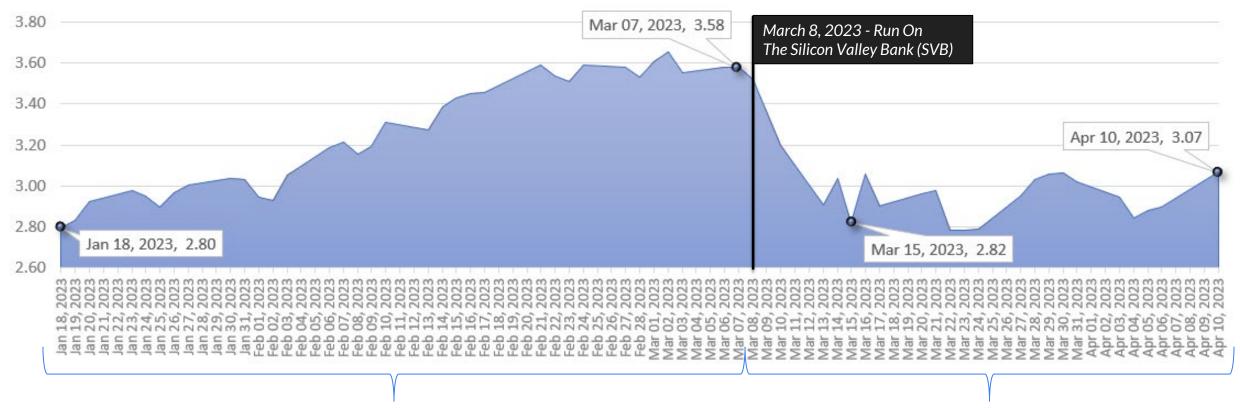
Upward Pressure on Rates/Yield - Resilient Economy

- Strong job market
- Inflation not slowing as quickly as hoped
- Resilient economy

Volatile Times



5 Year Canada Bond Yield



Upward Pressure on Rates/Yield - Resilient Economy

- Strong job market
- Inflation not slowing as quickly as hoped
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Post SVB Collapse - Uncertain Economy

- 5-year bond yields dropped 75bps (0.75%)
- How far reaching? Isolated or potential crisis?
- Significant ongoing bond market volatility
- Lender Mtg Rates many taking a "wait and see approach", although rate discretion often available.



How does the Government impact mortgage rates and the real estate market?

How do government initiatives / policies impact the mortgage & real estate market?



How does the Government impact mortgage rates and the real estate market?

Monetary Policy

• Government's effort (through the Bank of Canada) to control money supply to keep inflation low, stable, and predictable.

Fiscal Policy

• Fiscal policy refers to the use of government spending and tax policies to either stimulate (expansionary fiscal policy) or contract (contractionary fiscal policy) the economy.

CMHC (Canada Mortgage & Housing Corporation)

CMHC is a crown corporation. Sets the rules for "insured mortgages".

OSFI (Office of the Superintendent of Financial Institutions)

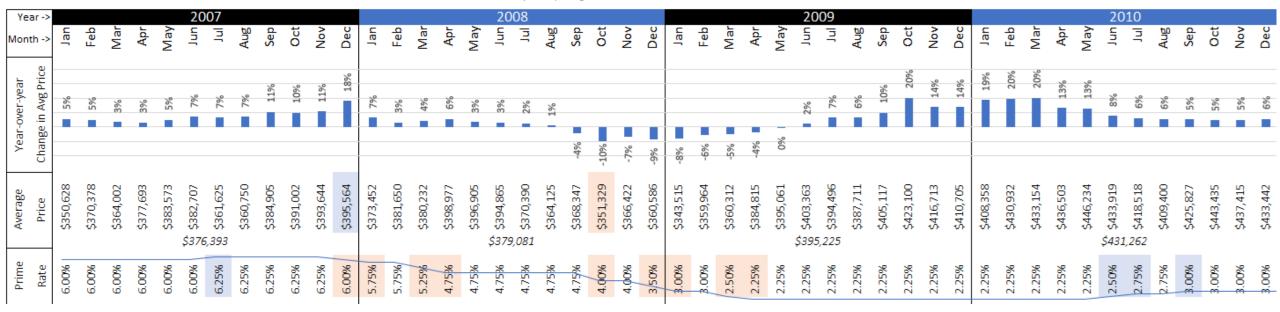
- Independent agency of the Government reports to the Minister of Finance.
- The sole regulator of banks. Responsible for the mortgage adjudication (underwriting)
 process for all federally regulated banks. Sets the rules for "uninsured mortgages".



A Review of Mortgage Rule Changes from 2007 to 2023

Upper Section - Summary of Mortgage Rule Changes by Year

Lower Section - Accompanying Prime Rate & TRREB Real Estate Stats Data



Data Source: TRREB Market Watch, Prime Rate History



<u>2007</u>

Insured & Uninsured:

- 100% financing (\$0 down)
- 40-year amortization
- 95% Loan-to-value refinance
- 5% down on rental properties
- Qualify based on contract / actual mortgage rate

<u> 2008</u>

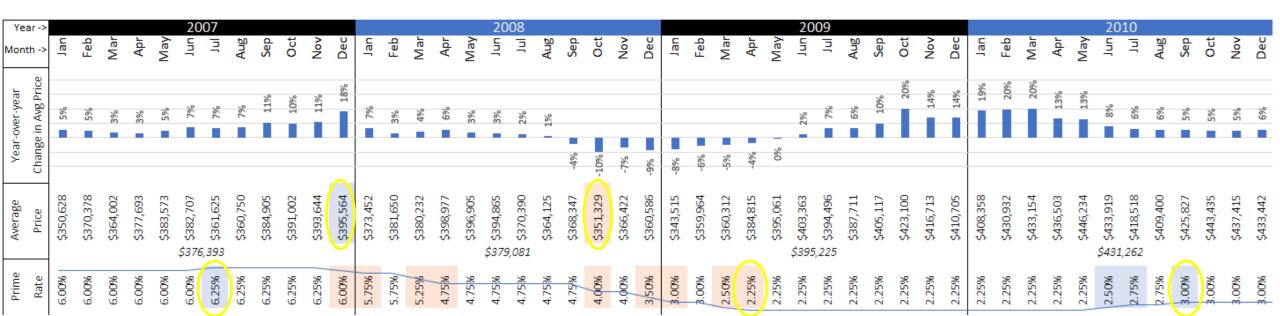
Insured (CMHC):

Amortization restricted to 35 years

<u>2010</u>

April 2010:

- Refinance LTV reduced from 95% to 90%
- Rentals require 20% down payment
- Insured stress test for variable or fixed rate terms < 5years.
 Higher of benchmark rate (5yr fixed posted) or contract rate





2011

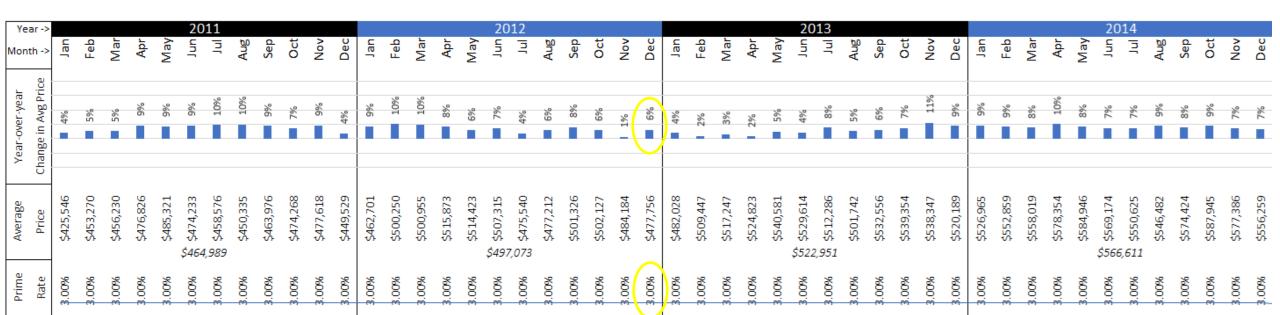
2012

Jan 2011:

- Refinance LTV reduced from 90% to 85%
- Insured amortization reduced from 35yr to 30yr

June 2012

- Insured amortization reduced from 30yr to 25yr
- Refinance LTV reduced from 85% to 80%
- Line of credit max 65% LTV (unless combined with mortgage)
- Insured purchase price must be under \$1M
- OSFI publishes B-20 Residential Mortgage Underwriting Practices and Procedures (RMUP)



A History of Mortgage Rule Changes in Canada



<u>2011</u>

Jan 2011:

- Refinance LTV reduced from 90% to 85%
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<u>2012</u>

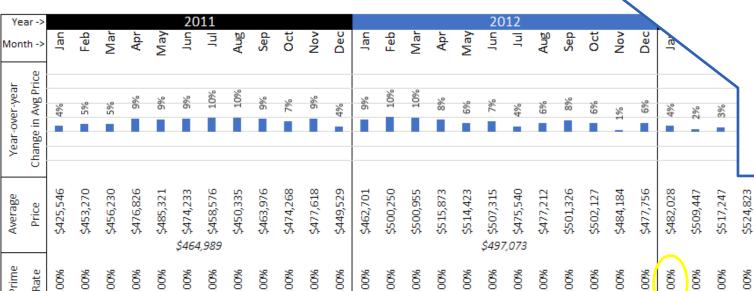
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OSFI: B-20 Guideline set out 5 principles for sound residential mortgage underwriting (Underwriting "Manual")

- **Principle 1**: have a comprehensive RMUP. Practices procedures should comply (a.k.a. <u>internal audits</u>)
- **Principle 2**: Due diligence on borrower identity and demonstrated willingness to pay debt in timely manner (a.k.a. lots of docs! credit, source DP, rationale, purpose)
- Principle 3: Assess borrower's capacity to service debt obligations in timely manner (a.k.a. – "rigorous effort" to verify income by independent source)
- **Principle 4**: Sound collateral management and appraisal process (a.k.a., <u>Appraisals</u> constantly review and challenge assumptions on value. Limit LTV for certain "higher risk" programs)
- **Principle 5**: effective credit and counterparty risk management practices and procedures...including mortgage insurance (a.k.a., mortgage insurance not a substitute for quality underwriting)

\$540,581



3.00% \$529,614 3.00% \$532,556 3.00% \$533,347 3.00% \$539,354 3.00% \$538,347 3.00% \$526,965 3.00% \$558,019 3.00% \$558,019 3.00% \$558,946 3.00% \$558,946 3.00% \$558,946 3.00% \$558,945 3.00% \$558,945 3.00% \$558,945 3.00% \$558,945 3.00% \$558,945 3.00% \$558,945 3.00% \$558,945



2011

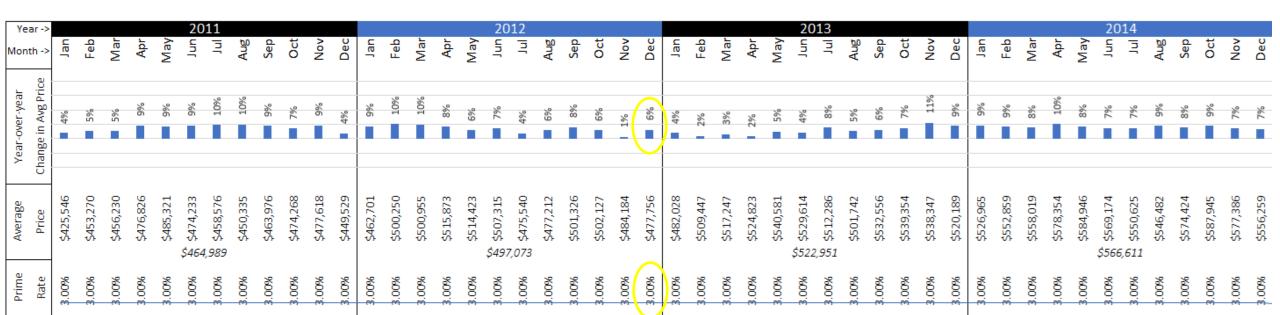
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<u>2015</u>

Dec 2015:

- Minimum downpayment: 5% on portion up to \$500,000, 10% on portion between \$500,000 and \$999,999.
- \$1M+ continues to need 20% down payment

<u> 2016</u>

Oct 20216:

 ALL <u>insured</u> mortgages (including 5-year fixed) must be stress tested using greater of contract or 5-year posted rate (qualification rate)

<u>2017</u>

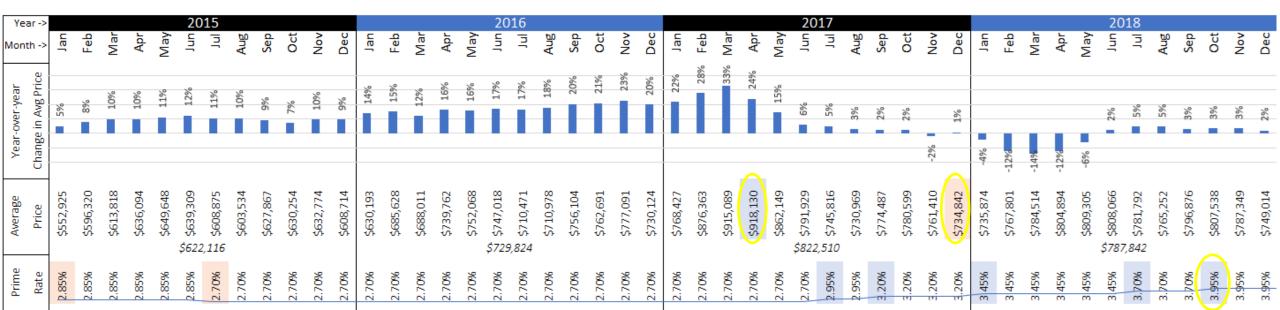
April 2017:

 Ontario "Fair Housing Plan" announcement meant to cool housing market. Intro of 15% foreign buyer's tax (NRST) and expansion of rent controls

<u>2018</u>

Jan 1, 2018:

- OSFI updated B-20 guidelines including STRESS TEST for ALL uninsured mortgages
- Stress Test = higher of contract rate +2% or 5-year benchmark fixed rate published by the Bank of Canada





<u>2019</u>

March 2019

- RRSP withdrawal limit under Home Buyer's Plan increased to \$35K vs. \$25K
- First time homer buyer incentive plan implemented (similar to shared equity purchase with government)

<u>2020</u>

March 2020:

 Government announces several mortgage measures to support liquidity in the mortgage market

<u>2021</u>

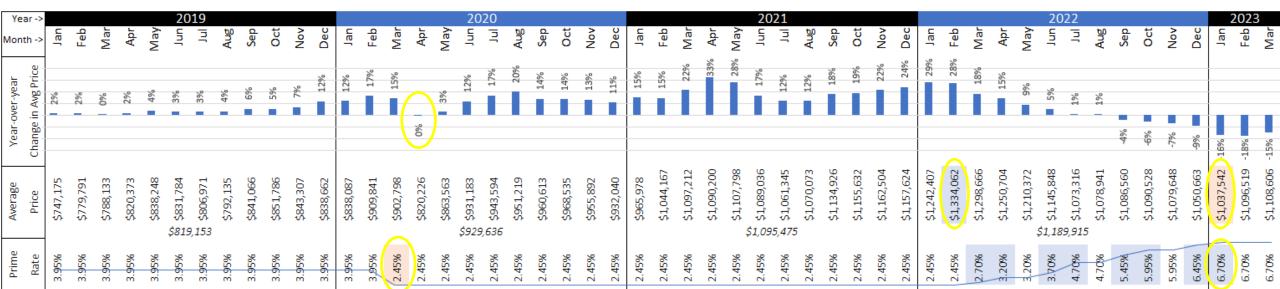
June 2021:

- Stress test for <u>insured</u> & <u>uninsured</u> amended to greater of contract rate +2% or a 5.25% floor rate (a.k.a. "MQR" = minimum qualifying rate)
- Regulators will report on stress test rate at lease once a year in December

2023 (proposed changes)

OSFI public consultation until April:

- "LTI" <u>Loan-to-income</u> restrictions
- No more than 25% of a bank's mortgages can have a LTI > 4.5x income. Example: 100K income, mortgage capped at 450K
- More restrictive GDS/TDS for uninsured mortgages.
- "MQR" used for subject and non subject properties when qualifying.
- Tougher stress test for variable or terms under 5 years.



Thank you!

OUTION

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