# Monthly Fixed Income Monitor

Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

November 2023

## Forecast Summary

By Taylor Schleich & Warren Lovely

- From the look of things, U.S. bond yields may have 'jumped the shark' in October, with U.S. 30s have settled in/around 4.6% as we go to print—roughly 50 bps richer than the weakest levels recently put in. Investors haven't exactly waved the all-clear as it relates to duration risk, but the acute anxiety that had been building since mid-summer has eased (if only modestly and at the margin).
- One catalyst for today's more becalmed (or less antsy) rates market: economic wariness and thus a growing confidence that the FOMC has not only delivered its last rate hike but might be in a position to entertain less restrictive policy earlier in 2024. For his part, Chair Powell isn't yet keen to encourage this type of speculation, the FOMC having essentially retained a tightening bias at its November policy rate decision. But notwithstanding residual strength in Q3, the proverbial shoe looks to be dropping on the U.S. economy. Confidence is sagging and consumers are likely to be increasingly tapped out from here, contributing to a sharp deceleration in growth and eventual relief on inflation. It's on this latter point—inflation relief—where we concede that serious question marks remain, notwithstanding a very encouraging October CPI report. To be sure, inflation expectations remain more elevated than the U.S. central bank would like and wages are still growing at a brisk pace. Our base case macro forecast, characterized as it is by sub-consensus growth, would nonetheless imply vital progress towards price stability. So, despite some very modest risk of one final FOMC rate hike, we continue to see conditions in place for a policy pivot early in the second half of the year.
- Beyond the future policy rate path, longer term yields must grapple with an outsized (and truly indefensible) budget deficit in Washington. Will Moody's become the third major credit rating agency to strip the world's largest economy of its triple-A credential? A fresh negative outlook suggests this isn't an unlikely outcome. Meantime, quantitative tightening only adds to the flood of net new Treasury supply hitting the market, with certain high-profile foreign buyer bases reportedly less engaged. As we've seen a few times, such a demand-supply (im)balance leaves the market vulnerable to auction stumbles, and rates volatility is likely to remain elevated into the turn (if not beyond).
- The Bank of Canada continues to balance the risks of over- vs. under-doing it on policy rate restrictiveness. Inflation remains too high, but by the central bank's own admission, the economy (including labour markets) is attaining a more balanced (or at least less imbalanced) position. Wage growth still needs to be wrestled down and some stickiness in housing-related inflation must be expected—given the overwhelming demand for housing created by sky-high population growth. But we feel the BoC (and the consensus) is still too optimistic on Canadian economic prospects. We've thus argued that the BoC has done (more than) enough to quell inflation, with the bulk of the impact of the Bank's earlier tightening still yet to be felt. We still see the BoC being in a position to cut somewhat ahead of the Fed, a view that OIS markets haven't been fully willing to endorse.
- Canada's bond market has its own sizeable QT programme to contend with. Sizeable bond run-offs in the first of 2024 will drain (some) excess liquidity, but there's still meaningful runway in our opinion, with bank deposits hardly setting off flares. Bond supply and demand may not everywhere be in perfect balance, but it's less troublesome than in the U.S..As for near-term considerations, Ottawa's *Fall Economic Statement* will allow for a recalibration of GoC supply expectations, alongside hoped-for resolution of CMB program uncertainty. We're also running headlong into a seasonal wave of bond market cash, coupon payments and associated index adjustments allowing for the ready digestion of new supply.

| United States | | | | | | |
|---|---|---|---|---|---|---|
| **Quarter** | **Fed funds** | **3-month** | **2-year** | **5-year** | **10-year** | **30-year** |
| **14-Nov-23** | **5.50** | **5.44** | **4.87** | **4.48** | **4.48** | **4.64** |
| **Q4:2023** | 5.50 | 5.40 | 4.95 | 4.55 | 4.55 | 4.75 |
| **Q1:2024** | 5.50 | 5.35 | 4.90 | 4.50 | 4.55 | 4.75 |
| **Q2:2024** | 5.50 | 5.30 | 4.75 | 4.40 | 4.50 | 4.70 |
| **Q3:2024** | 5.25 | 4.85 | 4.45 | 4.30 | 4.45 | 4.65 |
| **Q4:2024** | 4.75 | 4.30 | 4.15 | 4.20 | 4.35 | 4.55 |
| **Q1:2025** | 4.25 | 4.00 | 3.95 | 4.10 | 4.25 | 4.45 |
| **Q2:2025** | 4.00 | 3.80 | 3.85 | 4.00 | 4.15 | 4.35 |
| **Q3:2025** | 3.75 | 3.55 | 3.75 | 3.95 | 4.05 | 4.30 |

| Canada | | | | | | |
|---|---|---|---|---|---|---|
| **Quarter** | **Overnight** | **3-month** | **2-year** | **5-year** | **10-year** | **30-year** |
| **14-Nov-23** | **5.00** | **5.04** | **4.43** | **3.79** | **3.67** | **3.47** |
| **Q4:2023** | 5.00 | 5.00 | 4.50 | 3.85 | 3.75 | 3.55 |
| **Q1:2024** | 5.00 | 4.95 | 4.35 | 3.75 | 3.70 | 3.55 |
| **Q2:2024** | 4.75 | 4.55 | 4.05 | 3.60 | 3.60 | 3.50 |
| **Q3:2024** | 4.50 | 4.20 | 3.85 | 3.45 | 3.50 | 3.40 |
| **Q4:2024** | 4.00 | 3.75 | 3.55 | 3.35 | 3.40 | 3.35 |
| **Q1:2025** | 3.50 | 3.40 | 3.35 | 3.30 | 3.35 | 3.30 |
| **Q2:2025** | 3.25 | 3.15 | 3.20 | 3.25 | 3.30 | 3.30 |
| **Q3:2025** | 3.00 | 2.95 | 3.15 | 3.20 | 3.25 | 3.30 |

## FOMC Update: Preaching patience

For a second straight meeting, the FOMC left its policy rate unchanged in November, a decision coming as a surprise to exactly no one. Rate statement changes were kept to a minimum and a guarded Powell was reluctant to reveal much about the committee's near-term policy plans in the press conference. For now, we're left to study September's dot plot, which implies a final hike in 2023's final decision. However, it's not obvious that this will materialize. While the Fed Chair conceded they still have a "hiking bias", he also emphasized the significant progress they've already made, noted that risks have become two-sided and thus, they can afford to take things slowly. He reminded us that the efficacy of a dot plot "decays" between meetings, suggesting September's guidance isn't a good read on policymakers' current stance. Taken together, markets have assigned a near-zero probability of a December rate increase, implying the Fed's hiking cycle officially terminated back in July.

Another issue that might argue against additional hikes is the surge in longer-term interest rates in the second half of the year. Even before the decision, we'd heard FOMC participants suggest that higher bond yields might be a substitute for policy rate adjustments. In the November 1st presser, Chair Powell put his opinion on the record:

> *"The tighter financial conditions we're seeing from higher long-term rates but also from other sources like the stronger dollar lower equity prices could matter for future rate decisions as long as two conditions are satisfied. The first is that tighter financial conditions would need to be persistent and that is something that remains to be seen. But that's critical... The second thing is that the longer-term rates that have moved up, they can't simply be a reflection of expected policy moves from us that, if we did not follow through on them, then the rates would come back down. On that, it does not appear that an expectations of higher near-term policy rates is causing the increase in longer-term rates."*

Here's where things start to get complicated. Markets loved what Powell had to say. Not only are yields off 25-50 basis points since before the Fed's meeting (depending where on the curve you look), but equities have also been on a tear ever since. The S&P 500 is up nearly 7%, while the higher beta NASDAQ is up over 9%. CDS spreads on investment grade and high-yield corporates snugged in too, nearly erasing earlier widening. Even the big dollar has retreated a touch. It can't be denied that financial conditions, however you measure them, have loosened materially since 1-Nov.

### Financial conditions give back *some* of earlier tightening

*Key financial market variables: Last Fed hike, last Fed decision, latest.*

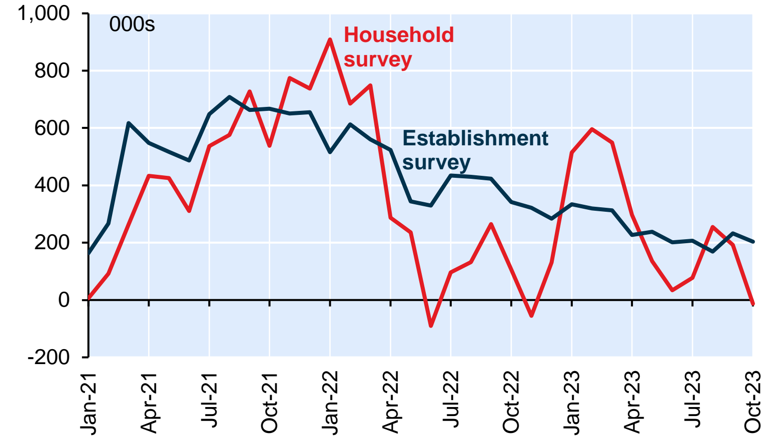
| | July hike to latest decision | | | Since Fed decision | | |
|---|---|---|---|---|---|---|
| Measure | 26-Jul | 31-Oct | Change | 31-Oct | 14-Nov | Change |
| 2-year | 4.85 | 5.09 | +24 bps | 5.09 | 4.84 | -25 bps |
| 5-year | 4.12 | 4.85 | +74 bps | 4.85 | 4.44 | -41 bps |
| 10-year | 3.87 | 4.93 | +106 bps | 4.93 | 4.45 | -49 bps |
| 30-year | 3.93 | 5.09 | +116 bps | 5.09 | 4.61 | -49 bps |
| CDX IG | 64 | 80 | +16 bps | 80 | 65 | -15 bps |
| CDX HY | 415 | 517 | +102 bps | 517 | 419 | -98 bps |
| S&P 500 | 4,567 | 4,194 | -8% | 4,194 | 4,472 | 7% |
| NASDAQ | 14,127 | 12,851 | -9% | 12,851 | 14,049 | 9% |
| DXY | 101 | 107 | 6% | 107 | 105 | -2% |

*Source: NBF, Bloomberg | Note: Closing levels, except for 14-Nov, which reflect levels as at 9:50 AM*

On the surface, this would appear to fail Powell's persistence test. Does that mean more hikes are inevitable? Not necessarily. Easing financial conditions in a red-hot economy might spell trouble for the inflation fight but that may not be an accurate assessment of where things stand. While still subject to considerable volatility, the U.S. jobs market is clearly normalizing. Hiring has slowed, labour supply is returning, and the unemployment rate is drifting up. Indeed, the 3.9% jobless rate is now above the Fed's year-end projection.

### Hiring is slowing no matter which survey you prefer

*U.S. monthly employment growth: 3-month moving average*

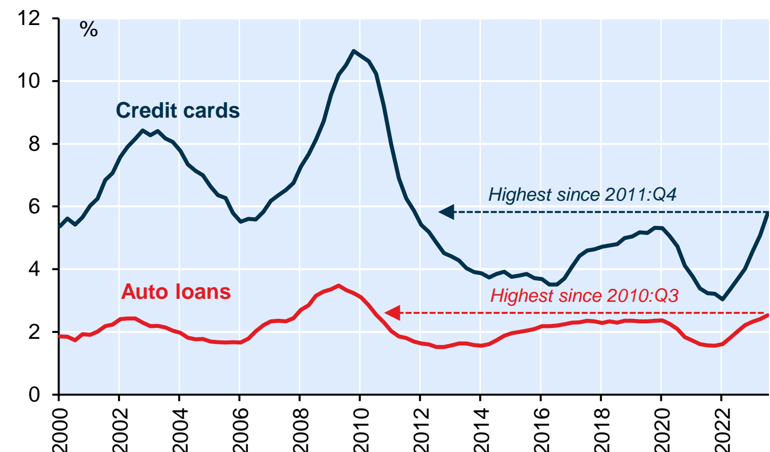



*Source: NBF, Bloomberg, BLS*

The impressive Q3 GDP surge is set to give way to below potential growth in Q4. The U.S. consumer has nearly exhausted its excess savings and more Americans are actively *dissaving*. While that can boost consumption in the near-term, this *must* be temporary without a material and sustained pick-up in wages. The resumption of student loan payments is another drain on disposable income that is only in its infancy. Growing financial pressures are already becoming clear in some key data. As we wrote recently, delinquencies are rising at rates not seen since the aftermath of the Global Financial Crisis.

### Measures of financial stress are picking up

*% of credit card/auto loans transitioning into serious delinquency (90+ days)*




*Source: NBF, FRB*

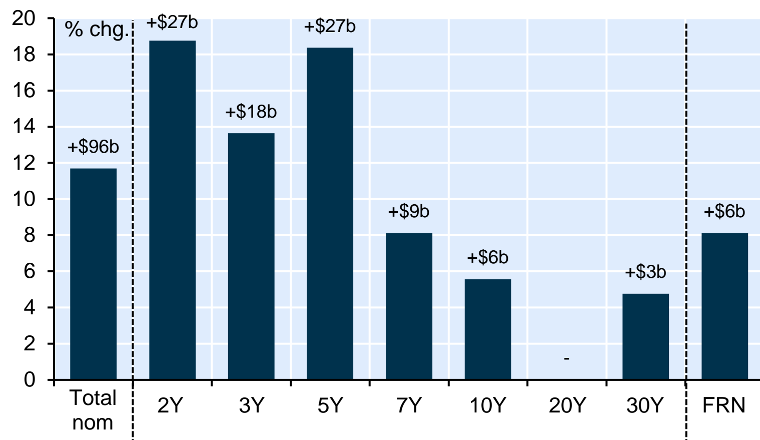
Most important of all, inflation is softening. October's CPI report offered downside surprises across the board, helping stamp out any lingering expectations for more tightening. So long as the Fed continues to see progress made in these key areas, easier financial conditions will be tolerated. This is particularly true given that recent

market moves haven't only been driven by expectations for Fed policy or normalizing economic data.

There's (appropriately) been increasing attention paid to the U.S. fiscal outlook, the supply of debt that this generates and its contrast with waning international demand and QT. Fortunately, these anxieties were assuaged at the margin as the quarterly refunding announcement from the U.S. Treasury showed less duration would be coming to market than had been feared. While overall issuance continues to climb (up more than 10% Q/Q), the majority of additional supply will be placed at the shorter end of the yield curve. The Treasury also indicated that they were nearing auction sizes consistent with longer-run projected borrowing needs. This might mean just one more increase in auction sizes next quarter, which is less than many forecasters had feared.

**Some *relative* reprieve for the long end**

*Change in coupon issuance: Aug-23 to Oct-23 vs. Nov-23 to Jan-24*

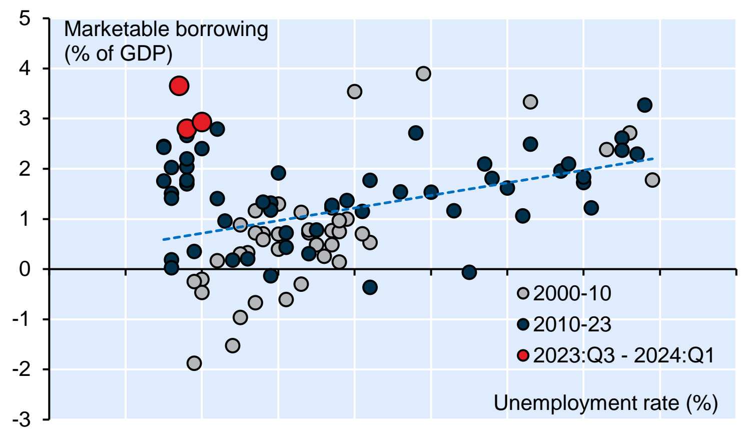



*Source: NBF, U.S. Treasury*

Of course, the U.S. fiscal outlook is far from a solved issue. The federal government remains on an unsustainable path, spending/borrowing outsized sums while the economy running at/above full employment. Nonetheless, markets are made at the margin. An irritable Treasury market will take any good (read: less bad) news it can get.

**Historically large requirements despite full employment**

*Marketable borrowing as a % of GDP vs. U.S. unemployment rate since 2000*

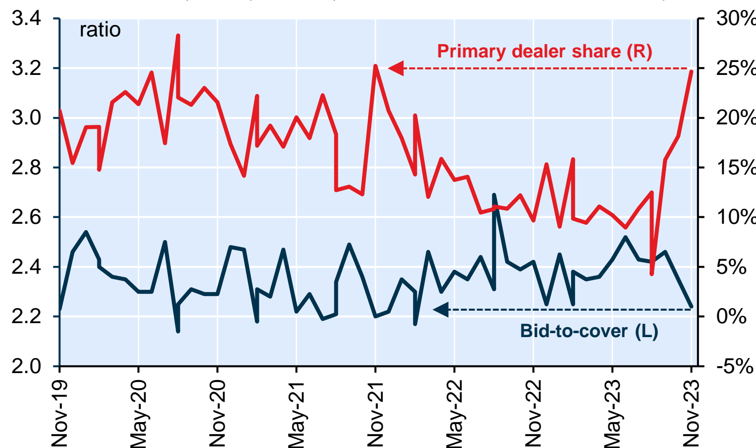



*Source: NBF, U.S. Treasury, BLS | Note: NBF forecasts used for Q4:23, Q1:24 jobless rates*

Even though smaller-than-expected long-term bond auctions were embraced at the time of announcement, this didn't make selling these bonds any smoother. The first long bond auction after the refunding announcement was, to put it simply, messy. There was a large 'tail' on the auction, whereby the auction-clearing yield significantly exceeded the when-issued yield (i.e., the prevailing yield before the auction). The bid-to-cover, or the ratio of bids to the offering amount, fell to an 18-month low and the share of the auction purchased by primary dealers hit its highest share since late 2021. Clearly, markets are still trying to figure out how to price duration risk.

**A sloppy 30Y auction even with earlier relief on auction sizes**

*Bid-to-cover (L) & primary dealer purchase share (R) for 30Y treasury auctions*




*Source: NBF, U.S. Treasury*

Looking ahead, we expect that the slower-than-consensus GDP growth in our forecast will exert downward pressure on interest rates. However, fiscal/supply pressures will continue to work in the opposite direction. Add in the uncertainty on the timing of the first rate cut, the pace of subsequent cuts and location of "r-star" and we fully expect the volatility we've been seeing in the Treasury market to continue.

Given that the Fed has been subtly backing down from its September dot plot and there have been clearer signs of an economic rebalancing, we feel comfortable removing the final quarter point rate increase we'd had pencilled into December. Out the curve and consistent with one less Fed hike, we've pared our near-term targets too. However, we see yields trending sideways for another few months (again, with plenty of volatility along the way), before taking a more convincing leg lower later in 2024. The timing for the first rate cut in our forecast remains the third quarter, which is a bit later than what markets have been willing to discount.

## BoC: Inflation up, growth down, policy unchanged

In the battle between slower growth and hotter inflation, the former won out at the Bank of Canada's October meeting as Governing Council opted to leave its policy rate unchanged once again. While that was the call we'd expected (and felt was appropriate), our conviction wasn't terribly high given that many of the items policymakers had told us to focus on remained problematic. Core inflation momentum had yet to wane, inflation expectations remained elevated, wage pressures were running hot, and firms were still flagging more-aggressive-than-normal pricing plans.

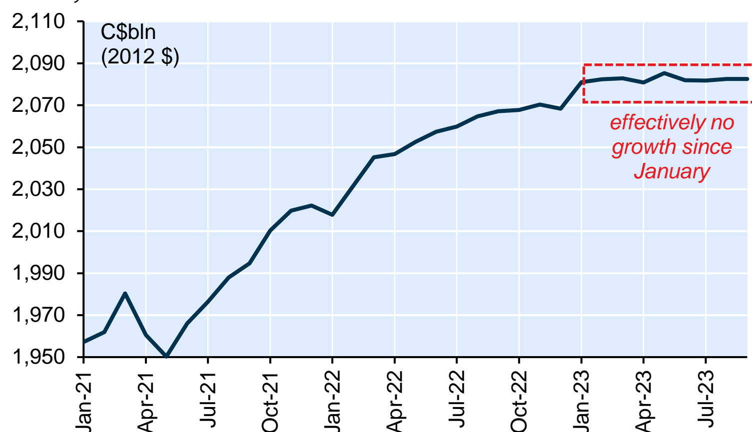
In hindsight, this uneasiness was justified. The subsequent Summary of Deliberations revealed that "*some members felt that it was more likely than not that the policy rate would need to increase further*" even though there was a "strong consensus" they could remain patient in that decision. Reading that, one could easily surmise that it

might not take much to tip the Bank back towards hiking. Are markets wrong to assign a ~0% probability to further tightening? Perhaps expectations are a bit too laissez-fair as we believe the Bank when they say they'll hike more in the face of persistent upside inflation surprises. We nonetheless agree that this is a low probability outcome. We're more concerned about the state of the economy and where it looks to be heading… and where it's heading does not imply higher inflation and the need for higher rates.

Going into the decision we knew that second quarter GDP came in roughly unchanged, the second time in the last three quarters. Since then, marginal data doesn't suggest conditions have improved. With three readings on monthly GDP in hand (technically one is a StatCan flash estimate), the economy is tracking towards another quarter of no growth. That's comfortably below what the Bank had been expecting *less than a month ago.* We'll have an official read on Q3 GDP on November 30th, but current indications suggest the Canadian economy has been stagnant since January.

**The Canadian economy is sputtering**

*Monthly Canadian real GDP*

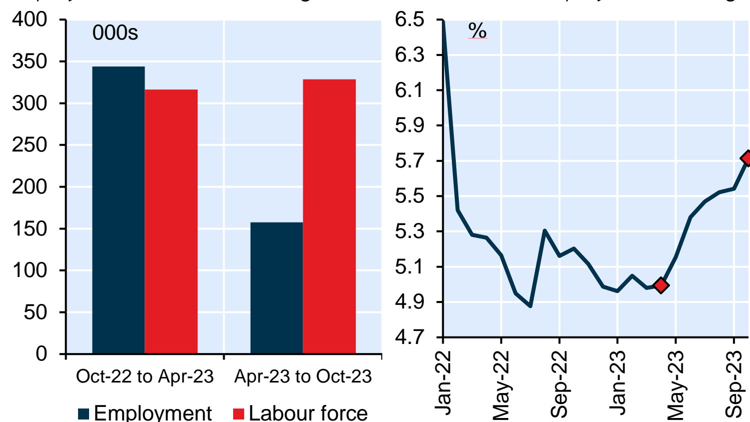



*Source: NBF, StatCan | Note: September implied from StatCan flash estimate*

Meanwhile, slower hiring and steady labour growth continued to put upward pressure on the jobless rate in October. In six months, the share of unemployed workers in the labour force has climbed from 5.0% to 5.7% and there's no reason to expect that trend to let up.

**Labour force outpacing employment, jobless rate jumping**

*Employment and labour force growth (left), national unemployment rate (right)*




*Source: NBF, StatCan*

If the BoC thought the economy was "*roughly in balance or even in slight excess supply*" at its latest decision they should see Canada as more definitively in excess supply at the coming meeting(s). To the Bank's way of thinking about inflation (i.e., relative to the output gap), price pressures can't sustainably accelerate in this environment. Assuming sluggish growth continues (it turns outright negative in our base case), policymakers should continue to err on the side of patience even if the disinflation process remains slow.

In the immediate term, marginal inflation data shouldn't put much pressure on the Bank next month. For October, falling gas prices combined with a favourable base effect will allow headline inflation to retreat materially. Importantly, that's our last read on prices before the Bank's December 6th decision and, given the state of other data, should be enough to keep the Bank sidelined.

Further out, falling GDP and rising unemployment should provide more wage and inflation relief. Having revised its 2024 inflation forecast way up, the Bank of Canada has created a balance of risks skewed to inflation surprising lower from here. That creates a higher bar for marginal rate hikes in the near term and it also creates scope for policymakers to soften their stance and entertain rate cuts earlier than they'd probably be wiling to concede now. As such we've retained our call for easing to begin in the second quarter of 2024.

**Weaker growth, stickier inflation in new MPR**

*BoC forecasts for real GDP growth and CPI inflation*

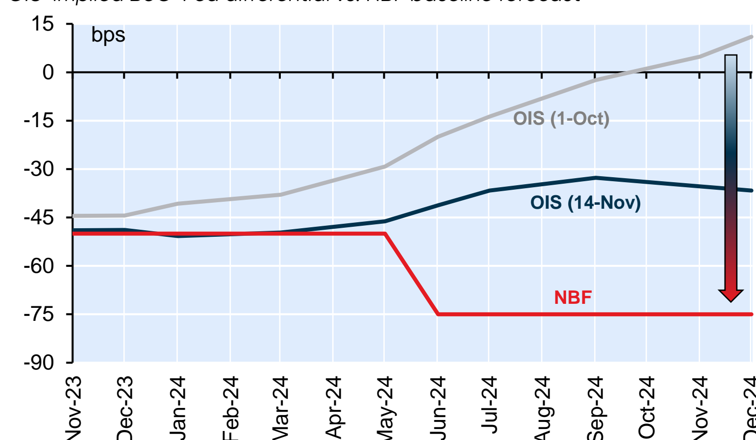
| | Projection source | Q2 | Q3 | Q4 | 2023 | 2024 |
|---|---|---|---|---|---|---|
| Real GDP | April MPR | 1.0 | - | - | 1.4 | 1.3 |
| | July MPR | 1.5 | 1.5 | 1.1* | 1.8 | 1.2 |
| | October MPR | -0.2 | 0.8 | 0.8 | 1.2 | 0.9 |
| CPI inflation | April MPR | 3.3 | - | - | 3.5 | 2.3 |
| | July MPR | 3.6 | 3.3 | 2.8* | 3.7 | 2.5 |
| | October MPR | 3.6 | 3.7 | 3.3 | 3.9 | 3.0 |

*Source: NBF, Bank of Canada | All figures are Y/Y except for quarterly GDP which is Q/Q. GDP figures are SAAR. *Q4 growth/inflation from July implied from full-year*

As for long-term rates, GoC outperformance versus U.S. treasuries remains the story. While we've made quick progress towards our targets, we see scope for marginal performance (particularly in 2s and 5s) as rate cuts come into focus faster in Canada.

**There's scope for further GoC rate outperformance**

*OIS-implied BoC-Fed differential vs. NBF baseline forecast*

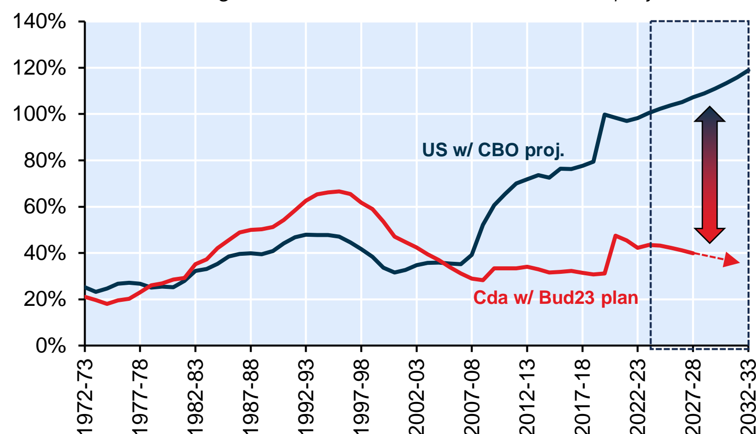



*Source: NBF, StatCan | Note: OIS-implied fed funds adjusted to upper bound concept*

Meanwhile, the long end of the curve has been more influenced by fiscal/bond supply dynamics than policy rate expectations in recent months. That's driven exceptional GoC outperformance (vs. U.S. Treasuries) to relative levels not observed since… ever. We might see that reverse to some extent if the U.S. Treasury continues to place marginal debt in the short-end and investor anxiety remains somewhat contained (it already has reversed a bit to date). Still, much lower relative yields will remain a characteristic of Canada's bond market as restrained relative bond supply offers structural support for the years ahead.

**Ottawa vs. Washington no contest (as 30Y yields attest)**

*Canada-U.S. federal gov't focus debt measures vs. GDP, incl. projections*

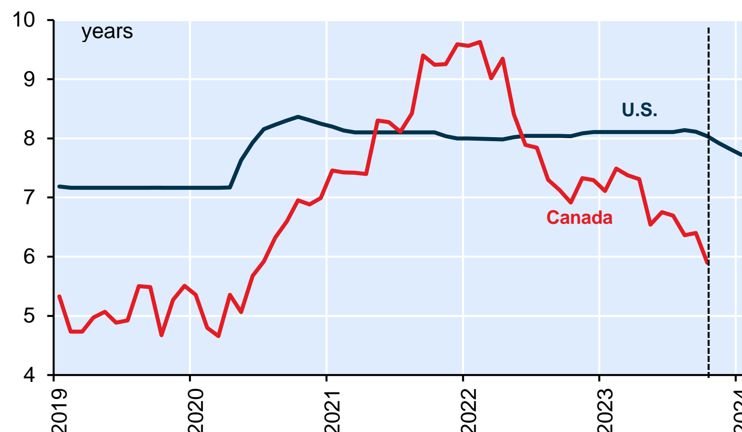



*Source: NBF, GoC, OMB, CBO | Note: US is publicly held debt; Cda is accumulated deficit; GoC Bud23 pledged to reduce federal debt burden over medium term*

Speaking of Canadian bond supply, we're due for an update in a *Fall Economic Statement* set to be published on November 21st. While many bond investors will be more closely focused on a potential decision on the future of the Canada Mortgage Bond program, updated GoC issuance targets will also be on offer. Assuming the CMB program is not immediately consolidated into the GoC program, expect changes for this fiscal year to be kept to a minimum. Although there has been some marginal pressure on the deficit (the PBO estimates an additional $6 billion of red ink in 2023-24), marginal borrowing may be steered to the bill market and/or into 2-year bonds. The Department of Finance has already proven itself more willing (relative to the U.S. Treasury) to shift the term of its debt in response to the level of and outlook for interest rates. With material rate cuts anticipated over coming years, there probably isn't much interest in locking in at these elevated long-term borrowing costs.

**More nimble debt strategy on display in Canada**

*Weighted average term of federal bond issuance: Canada vs. U.S.*




*Source: NBF, U.S. Treasury, BoC, Bloomberg | Note: For Canada, 6M moving WAT is used. For U.S. 3M moving WAT is used. Canada's WAT reflects issuance through Oct. 2023*

While this strategy for debt management limits duration and keeps long-term rates lower than they might otherwise be, it's not a free lunch. Borrowing short in an inverted yield curve environment means relatively higher debt servicing costs today. Yes, just like Canadian mortgage holders, the federal government is more interest-sensitive than their U.S. counterpart too. This short-term focused borrowing strategy paid off well in the falling rate environment of the 2010s. With rates now historically elevated (at least relative to recent history), there's an apparent hope we return to that environment relatively soon.

## Interest Rates, spreads & foreign exchange: Current levels vs. those prevailing 3, 6, 9 and 12 months ago

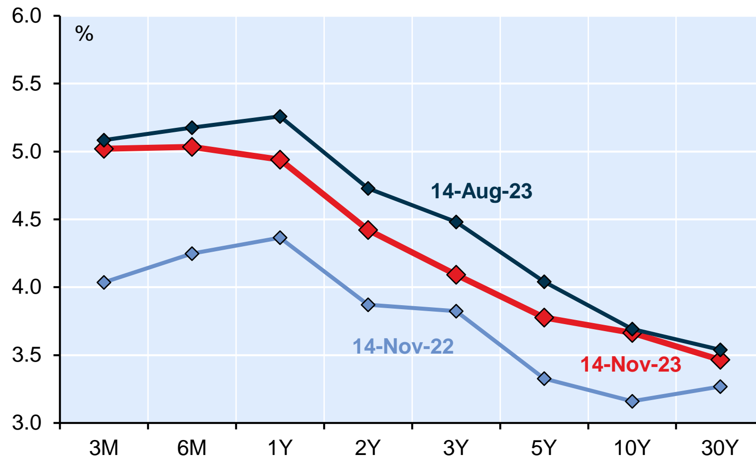
| Canada | | | | | | |
|---|---|---|---|---|---|---|
| **Closing:** | **Current** | **3M** | **6M** | **9M** | **12M** | **5Y avg** |
| **Interest Rates (%)** | | | | | | |
| **3M** | **5.02** | 5.07 | 4.43 | 4.51 | 4.02 | 1.76 |
| **1Y** | **4.94** | 5.25 | 4.48 | 4.75 | 4.35 | 2.00 |
| **2Y** | **4.42** | 4.73 | 3.80 | 4.08 | 3.87 | 1.90 |
| **3Y** | **4.09** | 4.48 | 3.64 | 3.76 | 3.82 | 1.87 |
| **5Y** | **3.78** | 4.04 | 3.08 | 3.28 | 3.33 | 1.85 |
| **10Y** | **3.66** | 3.69 | 2.95 | 3.11 | 3.16 | 1.94 |
| **30Y** | **3.47** | 3.54 | 3.02 | 3.11 | 3.27 | 2.17 |
| **Spreads (bps)** | | | | | | |
| **3M-10Y** | **-136** | -139 | -149 | -140 | -86 | 17 |
| **2Y-10Y** | **-76** | -104 | -86 | -97 | -71 | 4 |
| **5Y-10Y** | **-11** | -35 | -14 | -17 | -17 | 9 |
| **10Y-30Y** | **-20** | -15 | 8 | 1 | 11 | 23 |
| **Currencies** | | | | | | |
| **USD/CAD** | **1.37** | 1.35 | 1.35 | 1.33 | 1.33 | 1.31 |
| **EUR/CAD** | **1.49** | 1.47 | 1.46 | 1.43 | 1.38 | 1.47 |

| United States | | | | | | |
|---|---|---|---|---|---|---|
| **Closing:** | **Current** | **3M** | **6M** | **9M** | **12M** | **5Y avg** |
| **Interest Rates (%)** | | | | | | |
| **3M** | **5.41** | 5.44 | 5.13 | 4.77 | 4.17 | 1.87 |
| **1Y** | **5.28** | 5.37 | 4.77 | 4.91 | 4.60 | 2.02 |
| **2Y** | **4.86** | 4.97 | 4.01 | 4.52 | 4.39 | 2.00 |
| **3Y** | **4.61** | 4.65 | 3.67 | 4.20 | 4.23 | 2.00 |
| **5Y** | **4.46** | 4.36 | 3.47 | 3.91 | 3.99 | 2.05 |
| **10Y** | **4.45** | 4.19 | 3.51 | 3.70 | 3.86 | 2.24 |
| **30Y** | **4.61** | 4.29 | 3.84 | 3.78 | 4.04 | 2.65 |
| **Spreads (bps)** | | | | | | |
| **3M-10Y** | **-95** | -125 | -163 | -107 | -31 | 37 |
| **2Y-10Y** | **-40** | -78 | -51 | -82 | -54 | 25 |
| **5Y-10Y** | **0** | -17 | 3 | -21 | -14 | 20 |
| **10Y-30Y** | **16** | 10 | 34 | 7 | 18 | 41 |
| **Currencies** | | | | | | |
| **CAD/USD** | **0.73** | 0.74 | 0.74 | 0.75 | 0.75 | 0.76 |
| **EUR/USD** | **1.08** | 1.09 | 1.09 | 1.07 | 1.03 | 1.12 |

*Source: NBF, Bloomberg | Note: values quoted in 3-month intervals from present day to the nearest trading date 3M, 6M, 9M, and 12M prior*

### Evolution of the Canadian yield curve

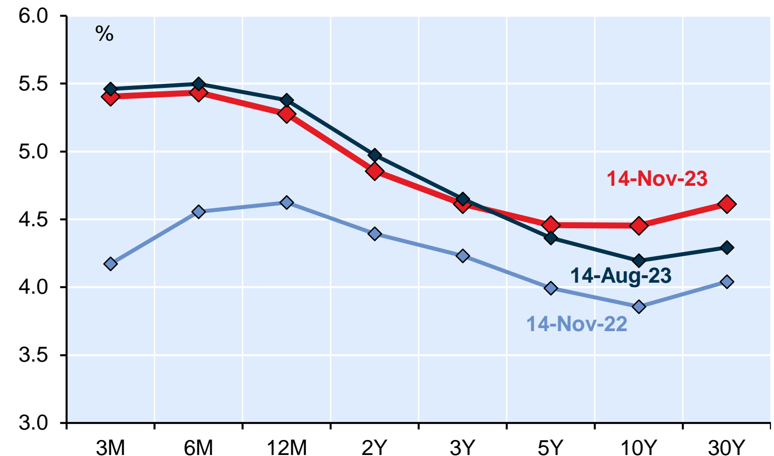
*GoC yield curve: Current, 3 & 12 months ago*




*Source: NBF, Bloomberg*

### Evolution of the U.S. yield curve

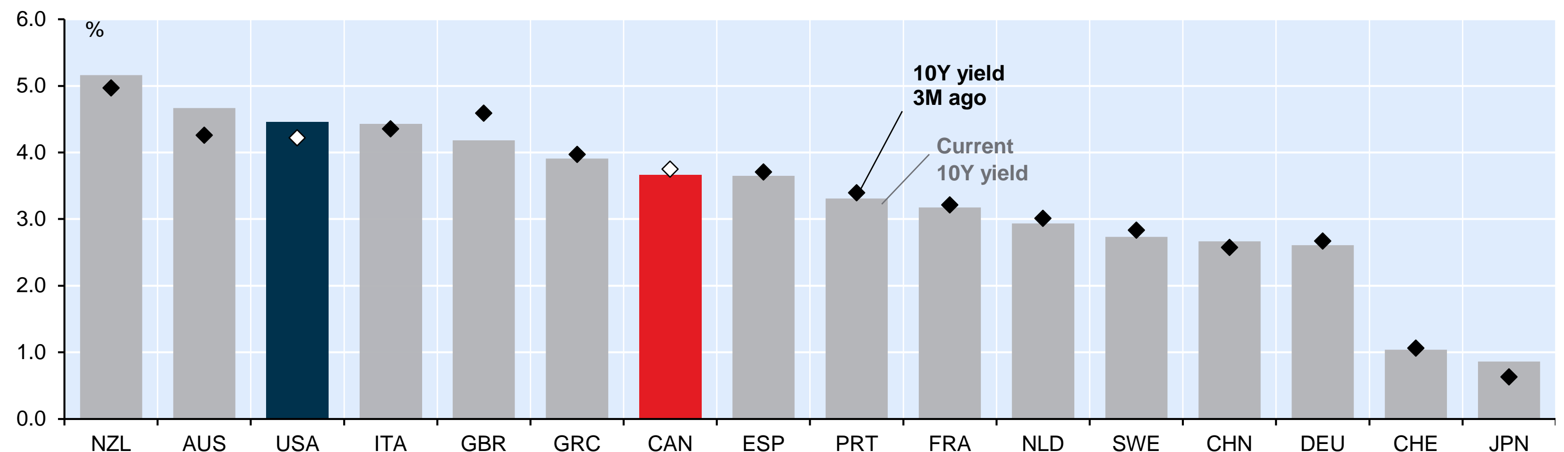
*U.S. yield curve: Current, 3 & 12 months ago*




*Source: NBF, Bloomberg*

### World bond market snapshot

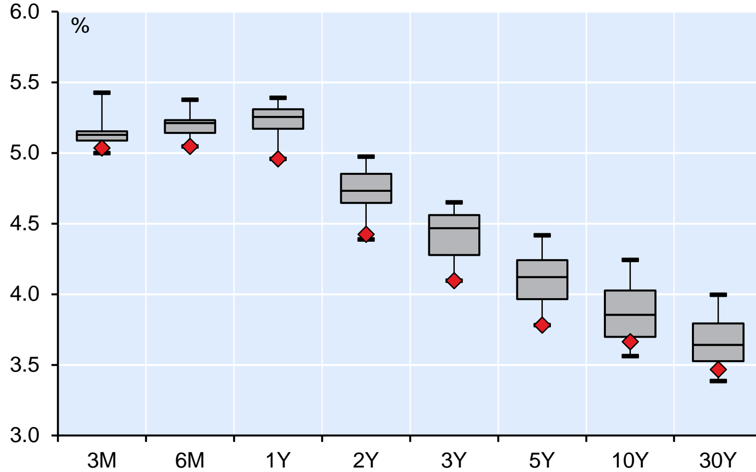
*10Y bond yield by country (descending): Current vs. 3 months ago*




*Source: NBF, Bloomberg*

### Canadian benchmark interest rates

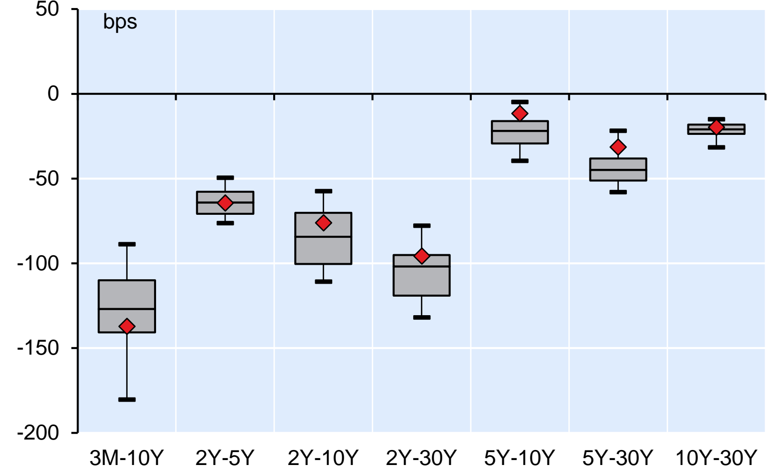
*GoC benchmark bond yields: Current & 3-month trading range*




*Source: NBF, Bloomberg | Note: Grey box denotes 25th to 75th percentile trading range*

### Canadian interest rate curves

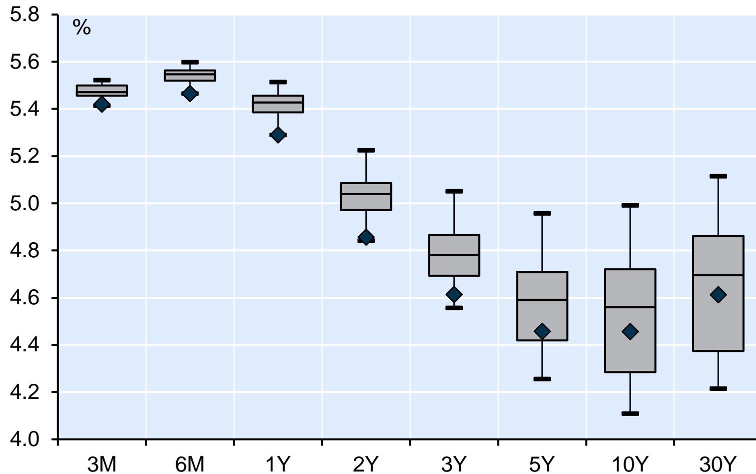
*GoC benchmark bond yield curves: Current & 3-month trading range*




*Source: NBF, Bloomberg | Note: Grey box denotes 25th to 75th percentile trading range*

### U.S. benchmark interest rates

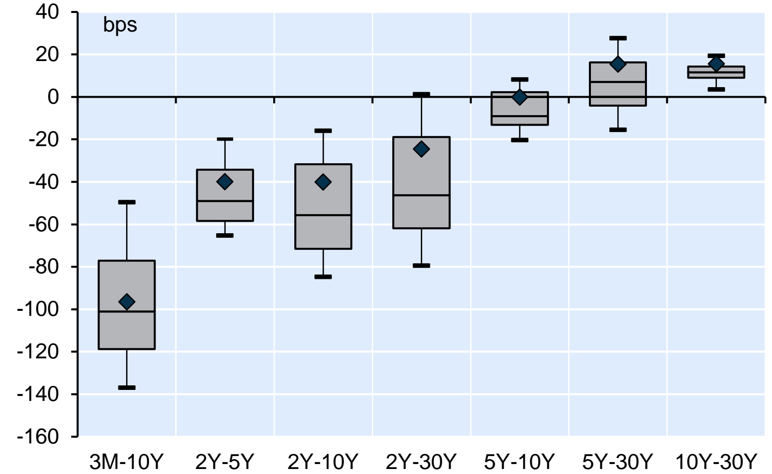
*UST benchmark bond yields: Current & 3-month trading range*




*Source: NBF, Bloomberg | Note: Grey box denotes 25th to 75th percentile trading range*

### U.S. interest rate curves

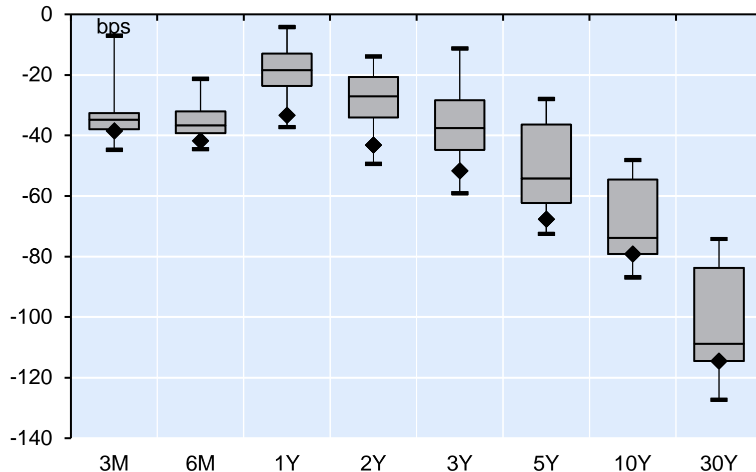
*UST benchmark bond yield curves: Current & 3-month trading range*




*Source: NBF, Bloomberg | Note: Grey box denotes 25th to 75th percentile trading range*

### Canada-U.S. interest rate differentials

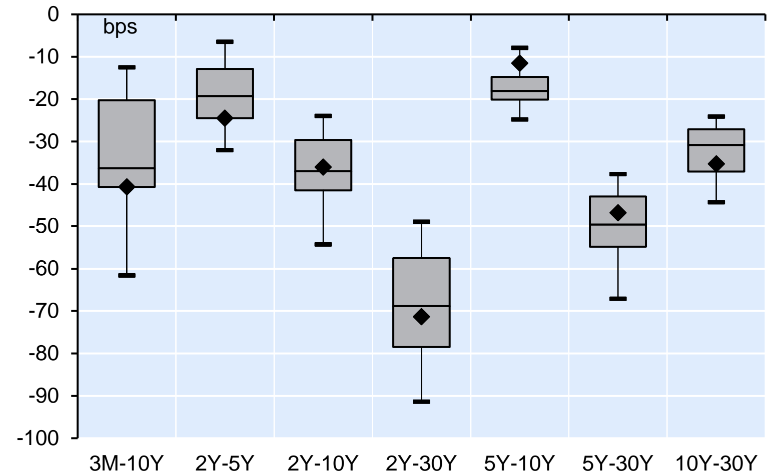
*GoC -UST benchmark bond yields: Current & 3-month trading range*




*Source: NBF, Bloomberg | Note: Grey box denotes 25th to 75th percentile trading range*

### Canada-U.S. interest rate boxes

*GoC-UST yield curves: Current & 3-month trading range*




*Source: NBF, Bloomberg | Note: Grey box denotes 25th to 75th percentile trading range*

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