November 29, 2024 - (Vol. VIII, No. 104 T-1)

The ~~Twelve~~ Last Day Pre-Cashflow

By Warren Lovely

♪ *On the final day pre-cashflow, NBC reminded me…* ♪

♪ *T-1) One golden rule* ♪

Ok this is it, the final weekday ahead of December's colossal coupons and extraordinary extensions. So it's time to close off our *'Twelve Days Pre-Cashflow'* series with one final reminder/caveat/caution.

It's our 'golden rule' and it's reasonably simple: Empirical analysis is all well and good, but historical tendencies/seasonal patterns don't always hold. Al else is not always equal; success cannot be assured.

To be clear, we've no intention of invalidating the extensive empirical/seasonal analysis offered in the preceding days and weeks. As the below report listing suggests, it can be quite useful to place important events in context. And no question, Canada's December coupon/roll effects meet most anyone's test of materiality.

It's likewise helpful to understand what related flows, investor positioning and issuer strategies have typically meant for rates and credit markets. Certain trends observed in the lead-up to (and immediate aftermath of) December's cashflows have been both noteworthy and reasonably consistent. Still…

Blind reliance on past performance is not without risk, particularly in a volatile/uncertain environment. And have we not learned that this year is different? Economies are today in transition. Ditto for monetary and fiscal policies, which are anything but static in North America and overseas. Geopolitical events, including the recent U.S. elections, could prove to be legitimate game changers when it comes to investor sentiment. In other words, the current risk profile looks/feels considerably different than what might have prevailed in prior years.

So go ahead and get ready for the fireworks… the super-sized coupons… the chunky bond rolls… the meaningful index extensions; seek to understand investor and issuer motivations; prepare for market dislocations/opportunities. Treat the historical record as potentially useful context, but always remember the 'golden rule'.

Happy cashflow to all, and to all a good night.

Summary of NBC's cashflow analysis (in chronological order, with PDFs appended)

NBC's in-depth reports:

- *December cashflows come into view: Part A (October 22nd)*
- *December cashflows come into view: Part B (October 28th)*
- *December cashflows come into view: Part C (November 4th)*

NBC's 'The Twelve Days Pre-Cashflow':

- *T-12) Coupons a-clipping (November 14th)*
- *T-11) Cash con-centrating (November 15th)*
- *T-10) Bonds a-rolling (November 18th)*
- *T-9) Indices ex-tending (November 19th)*
- *T-8) Buckets re-weighting (November 20th)*
- *T-7) Sectors ad-justing (November 21st)*
- *T-6) Yields a-falling (November 22nd)*
- *T-5) Curves a-flattening (November 25th)*
- *T-4) Diffs com-pressing (November 26th)*
- *T-3) Spreads a-tightening (November 27th)*
- *T-2) Issuers a-waiting (November 28th)*
- *T-1) One golden rule (November 29th) – This report; not repeated with other PDFs*

Market View
Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

October 22, 2024 – (Vol. VIII, No. 74)

T-29
Weekdays
to 2-Dec-24

December cashflows come into view (Part A)

By Warren Lovely

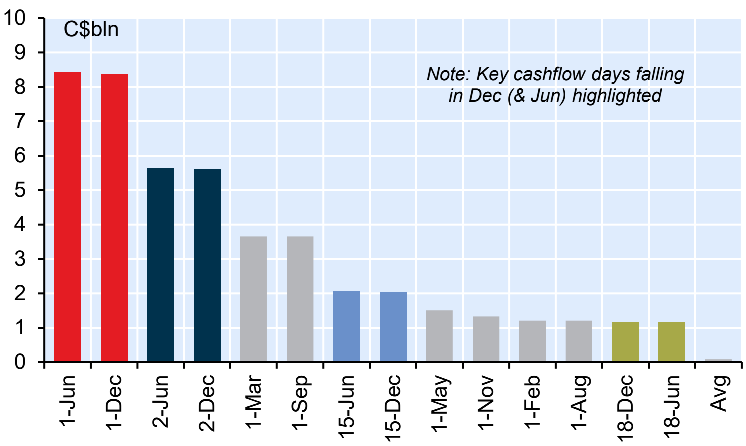
Some things are large enough that even when standing way off in the distance you needn't really squint to notice them. So it is with Canada's ultra-lumpy December bond market cashflows. Thus, despite the start of December being more than a month away (29 weekdays to be precise), we're offering the first of a few planned reports that put the upcoming deluge of cash (and index adjustments) in perspective.

This specific note—what we've dubbed **Part A** of our December cashflow analysis—quantifies/details the sheer volume of cash arriving this December. Hint: It's unprecedented. We dissect these chunky cashflows and identify key securities set to roll this year. While imperfect, we estimate potential (and in some cases theoretical) duration impacts for specific days, buckets and sectors. We caution that these simulations/projections are subject to change. As readers will appreciate, the composition of Canada's domestic bond market continues to evolve. Of note, certain bonds (including some Dec-2034 maturities) will be larger by the time December arrives. Another wrinkle: December 1st lands on a weekend, further concentrating impacts.

Note: **Part B** (forthcoming) will provide empirical analysis of related market tendencies in/around December's cashflows/index adjustments. This work can be applied to Canadian rates (absolute levels, curves, cross-market differentials) and public sector credit alike. Stay tuned.

Chart 1: Dec 1st/2nd the very definition of chunky cashflows…

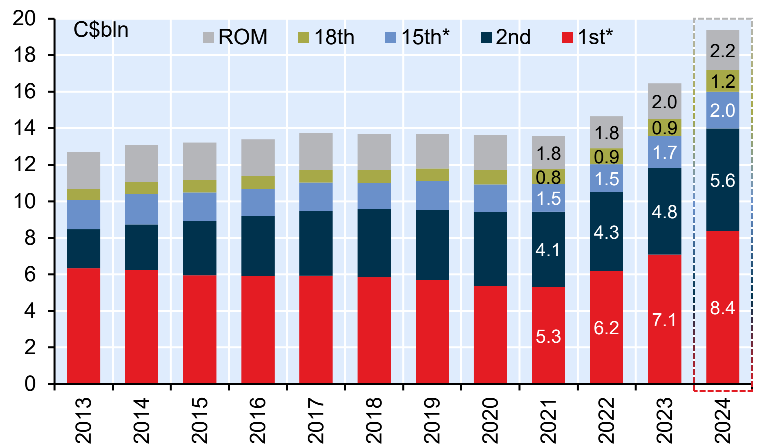
FTSE Canada Universe Bond Index: Largest projected cashflow days



Source: NBC, FTSE Russell | Note: Based on 1-year forward cashflow projections as at 18-Oct-24

Chart 2: … with even more index cash arriving this December

FTSE Canada Universe Bond Index: Projected Dec-24 cashflows vs. prior years

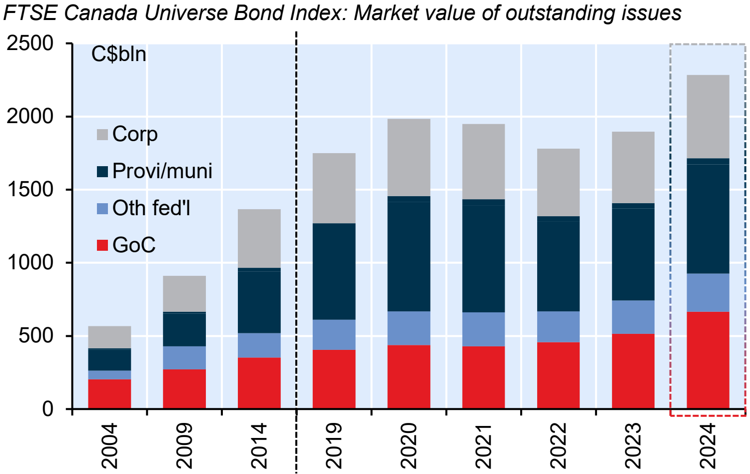


Source: NBC, FTSE Russell | Note: Generated as at 2-Nov (or most recent); 'ROM' refers to rest of December (excl. focus days); Dec 1st & Dec 15th both fall on weekend in 2024

Canada's bond market has long been characterized by lumpy/chunky cashflows, as federal, agency and provincial bond maturities tend towards concentration. December 1st/2nd/15th are particularly significant days. The sheer volume of cash set to flow this December is wholly unprecedented, approaching C$20bln for the month (+18% Y/Y and almost 50% higher than three years ago).

Chart 3: Larger effective (i.e., BoC-adjusted) bond stock…

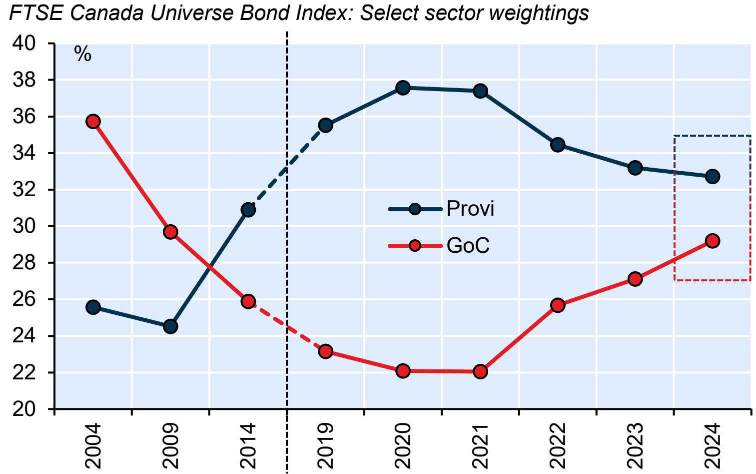
FTSE Canada Universe Bond Index: Market value of outstanding issues



Source: NBC, FTSE Russell | Note: Based on index composition as at 18-Oct each period

Chart 4: … means heavier GoC index weighting

FTSE Canada Universe Bond Index: Select sector weightings

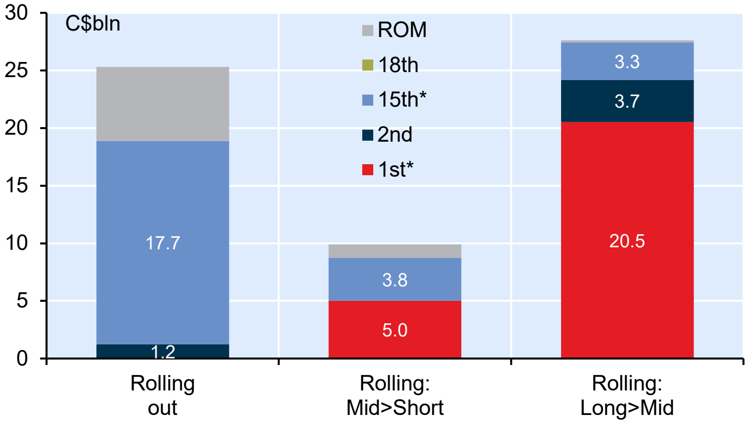


Source: NBC, FTSE Russell | Note: Based on index composition as at 18-Oct each period

Unprecedented cashflows reflect a larger pool of index-eligible securities, particularly once you control for the impact of BoC QT (which effectively puts more GoC bonds into the hands of end investors). With the available stock of GoC bonds continuing to grow, the sovereign's weight in the domestic bond universe has increased, enhancing prospective GoC bond roll/coupon effects.

Chart 5: Roll outs & roll overs will move duration needle

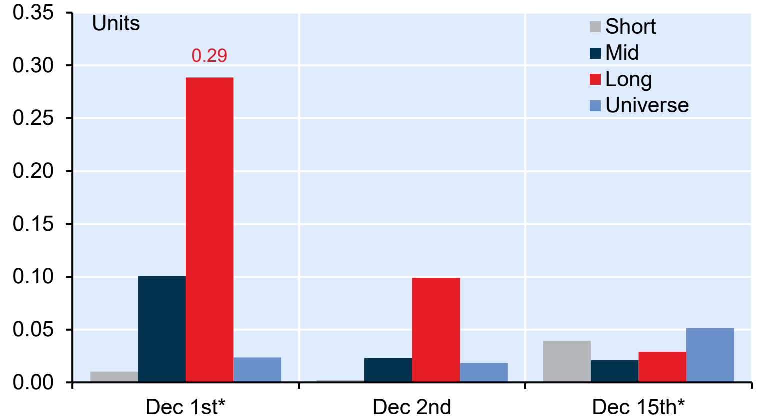
FTSE Canada Universe Bond Index: Value of bonds rolling out/over in Dec-24



Source: NBC, FTSE Russell | Note: Based on index composition as at 18-Oct-24; Dec 1st & 15th both fall on weekend in 2024; refer to Table (pg 3) for specific security details

Chart 6: Duration of 'Long' bucket set to pop

FTSE Canada Universe Bond Index: Simulated duration chg for key Dec-24 days

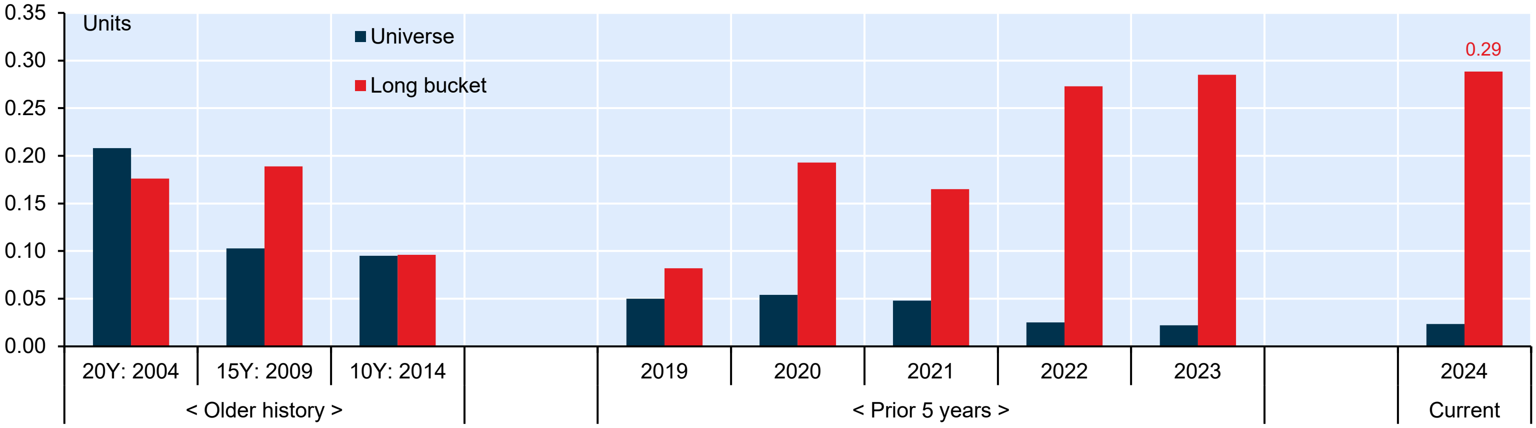


Source: NBC, FTSE Russell | Note: Based on index composition as at 18-Oct-24; assumes no change in yield curve; Dec 1st & 15th both fall on weekend in 2024

The precise nature of bond rolls varies year to year… as does the size/weight of the securities in question. Keying on December 1st/2nd, the roll over (from 'Long' to 'Mid') of GoC and provincial bonds should propel the duration of the 'Long' bucket higher, all else equal. The eventual rolling of CANHOU bonds on December 15th will be no small matter either, further adding duration to the universe.

Chart 7: Simulations point to (another) outsized duration increase for 'Long' bucket tied to December 1st impacts

FTSE Canada Universe Bond Index: Historical perspective on projected 1-day change in modified duration of 'Universe' & 'Long' bucket from 30-Nov to 1-Dec

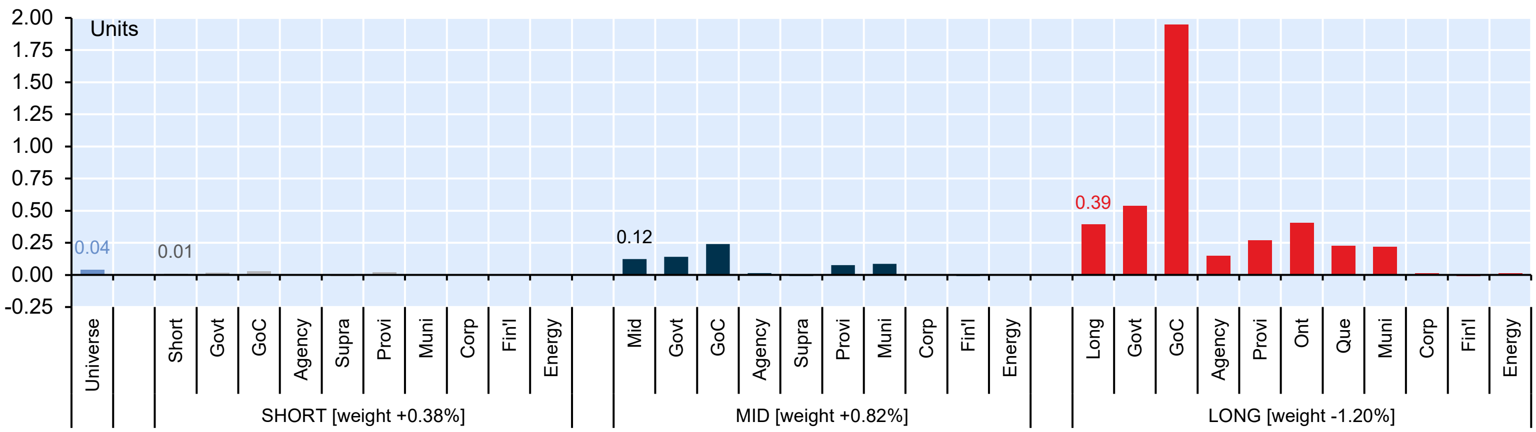


Source: NBC, FTSE Russell | Note: Based on index composition as at 17-Nov (or most recent); simulated changes can differ from actual/reported duration changes, owing to shifts in yields/curves & issuance from simulation date to 1-Dec; in some years 1-Dec falls on weekend meaning index adjustments would be captured next good business day (e.g., 2-Dec-24)

For those seeking historical perspective, the *theoretical* increase in the duration of the 'Long' bucket this December 1st could prove unprecedented. All else equal, the actual 'Long' bucket adjustment this year will be larger than what is presented above since CAN Dec-2034s are to be auctioned again prior to December 1st. Certain agency and provincial issues are also likely to increase in size.

Chart 8: This year's December 1st impact combined with December 2nd, accentuating 'Long' bucket duration adjustment

FTSE Canada Universe Bond Index: Projected 3-day change in modified duration by bucket & sector from Friday 29-Nov-24 to Monday 2-Dec-24



Source: NBC, FTSE Russell | Note: Based on index composition as at 18-Oct-24; captures multi-day impact given 30-Nov & 1-Dec fall on weekend; assumes no change in yield curve

Note that December 1st impact is this year theoretical in nature, given that this key day falls on a weekend. As a result, December 1st cashflows and related index adjustments will be captured and combined with December 2nd (which is Monday this year). It means super-concentrated impacts, with ~0.4 units of duration to be added to the 'Long' bucket (likely more when all is said and done).

Table: Snapshot of bonds in focus this December 2024, although index composition will continue to evolve

FTSE Canada Universe Bond Index: Specific bonds rolling out or rolling down from one term bucket to another on key Dec-24 days (some of which fall on weekend)

December 1st*: FTSE Canada Universe Bond Index rolls out/roll overs (captured December 2nd)

Rolling out of UNIVERSE

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling over			**0**	**0.00**

Rolling over MID to SHORT

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CAN	2.25	1-Dec-29	5,000	0.21
Total rolling over			**5,000**	**0.21**

Rolling over LONG to MID

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CAN	3.25	1-Dec-34	20,000	0.89
MNTRL	4.10	1-Dec-34	530	0.02
Total rolling over			**20,530**	**0.92**

December 2nd: FTSE Canada Universe Bond Index roll outs/roll overs

Rolling out of UNIVERSE

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
ONT	8.50	2-Dec-25	831	0.04
CIXCN	7.00	2-Dec-25	400	0.02
Total rolling out			**1,231**	**0.06**

Rolling over MID to SHORT

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling over			**0**	**0.00**

Rolling over LONG to MID

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
ONT	3.80	2-Dec-34	3,250	0.14
NF	3.85	2-Dec-34	400	0.02
Total rolling over			**3,650**	**0.16**

December 15th*: FTSE Canada Universe Bond Index roll outs/roll overs (captured December 16th)

Rolling out of UNIVERSE

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CANHOU	1.95	15-Dec-25	12,735	0.55
CANHOU	2.25	15-Dec-25	4,075	0.18
ALBCAP	4.45	15-Dec-25	300	0.01
YORKMU	2.6	15-Dec-25	300	0.01
HEQCN	1.74	15-Dec-25	250	0.01
Total rolling out			**17,660**	**0.77**

Rolling over MID to SHORT

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CANHOU	2.90	15-Dec-29	3,750	0.16
Total rolling over			**3,750**	**0.16**

Rolling over LONG to MID

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CANHOU	3.50	15-Dec-34	3,250	0.14
Total rolling over			**3,250**	**0.14**

December 18th: FTSE Canada Universe Bond Index roll outs/roll overs

Rolling out of UNIVERSE

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling out			**0**	**0.00**

Rolling over MID to SHORT

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling over			**0**	**0.00**

Rolling over LONG to MID

Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling over			**0**	**0.00**

Summary: December 2023

Rolling out of UNIVERSE

Date	*# of securities*	*C$mln*	*%*
Dec 1st*	-	0	0.00
Dec 2nd	2 issues	1,231	0.06
Dec 15th*	5 issues	17,660	0.77
Dec 18th	-	0	0.00
Rest of M	10 issues	6,425	0.28
Total	**17 issues**	**25,316**	**1.11**

Rolling over MID to SHORT

Date	*# of securities*	*C$mln*	*%*
Dec 1st*	1 issue	5,000	0.21
Dec 2nd	-	0	0.00
Dec 15th*	1 issue	3,750	0.16
Dec 18th	-	0	0.00
Rest of M	3 issues	1,150	0.05
Total	**5 issues**	**9,900**	**0.43**

Rolling over LONG to MID

Date	*# of securities*	*C$mln*	*%*
Dec 1st*	2 issues	20,530	0.92
Dec 2nd	2 issues	3,650	0.16
Dec 15th*	1 issue	3,250	0.14
Dec 18th	-	0	0.00
Rest of M	1 issue	190	0.01
Total	**6 issues**	**27,620**	**1.23**

Source: NBC, FTSE Russell | Note: Based on index composition as at 18-Oct-24; amount O/S & weight reflect "current holdings"; rest of month at bottom of table refers to all bonds rolling out or rolling over on the other 27 days of Dec (i.e., excl. 1st, 2nd, 15th, 18th); Dec 1st & 15th both fall on weekend in 2024, while Dec 2nd & 18th are good business days this year

October 28, 2024 – (Vol. VIII, No. 80)

T-25
Weekdays
to 2-Dec-24

December cashflows come into view (Part B)

By Warren Lovely & Taylor Schleich

In 25 business days, a tidal wave of cash will wash over Canada's bond market. More dollars, in fact, than ever before. We kicked our analysis off a few days back, examining what the looming deluge could mean for the universe bond index. That required isolating coupon/roll effects for specific buckets and sectors. Refer to our earlier report **here**. Our simulations will be updated as index composition evolves. Of note, some securities (incl. certain Dec-2034 maturities) are set to grow.

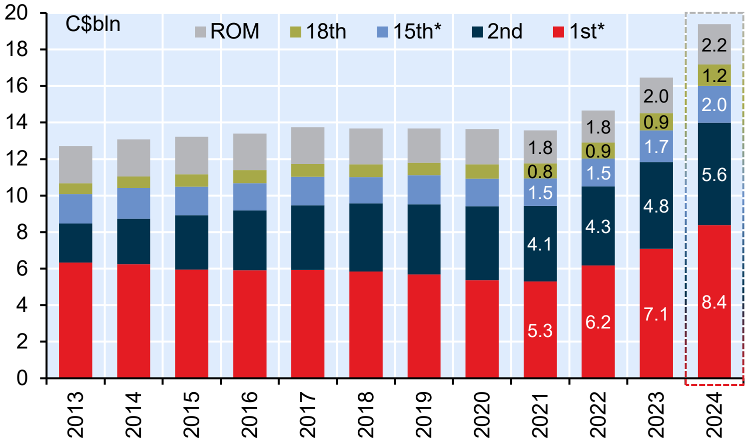
Today's follow-on note (**Part B**) examines the past performance record of Canadian rates (outright yields, curves, butterflies and cross-market).

We highlight some of the more consistently profitable aspects of Canada's cashflow-related seasonals.

As always, we urge caution when interpreting empirical results. Past isn't necessarily prelude. Current valuations (not only in rates but other core asset classes) may be anything but 'normal'. As but one example, Canada-US cross-market benchmark bond yield differentials are at notionally extreme levels. Vitally, there will be no shortage of economic releases, monetary/fiscal policy decisions and significant geopolitical events to control for in the lead up to and immediate aftermath of early December's cash. With those cautions noted, behold…

Chart 1: More index cash to be deployed this December

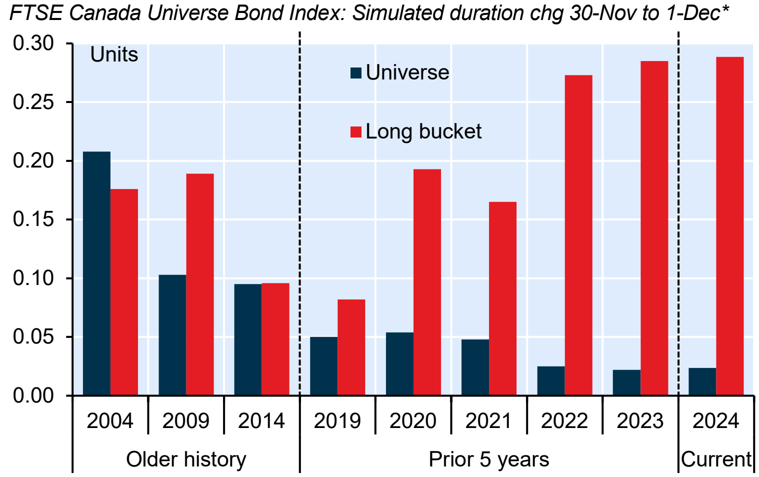
FTSE Canada Universe Bond Index: Projected Dec-24 cashflows vs. prior years



Source: NBC, FTSE Russell | Note: Generated as at 2-Nov (or most recent); 'ROM' refers to rest of December (excl. focus days); Dec 1st & Dec 15th both fall on weekend in 2024

Chart 2: Outsized boost to 'Long' bucket duration looms

*FTSE Canada Universe Bond Index: Simulated duration chg 30-Nov to 1-Dec**

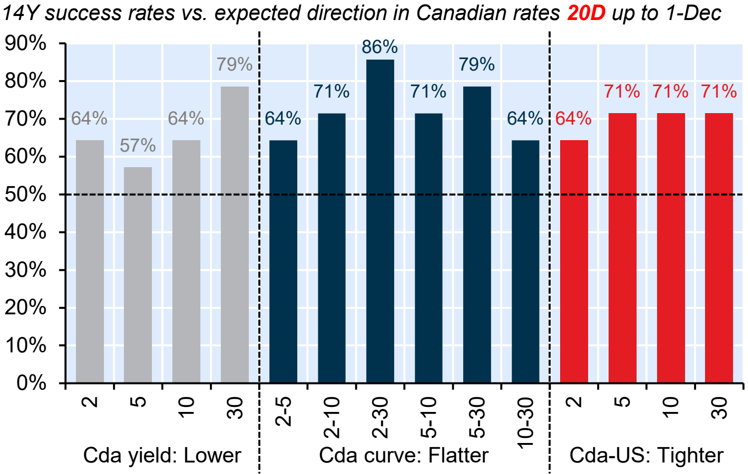


Source: NBC, FTSE Russell | Note: Based on index composition as at 17-Nov (or most recent); where 1-Dec falls on weekend (as in 2024), adjustments captured next good business day

A record amount of index cash flows this December, approaching C$20bln for the month as a whole (+18% Y/Y & ~50% higher than three years ago). Theoretically, the increase in the 'Long' bucket's duration on December 1st could be unprecedented. Note, however, that the calendar means December 1st coupon/roll effects will be captured (and thus super-concentrated) on December 2nd.

Chart 3: Some relatively consistent tendencies

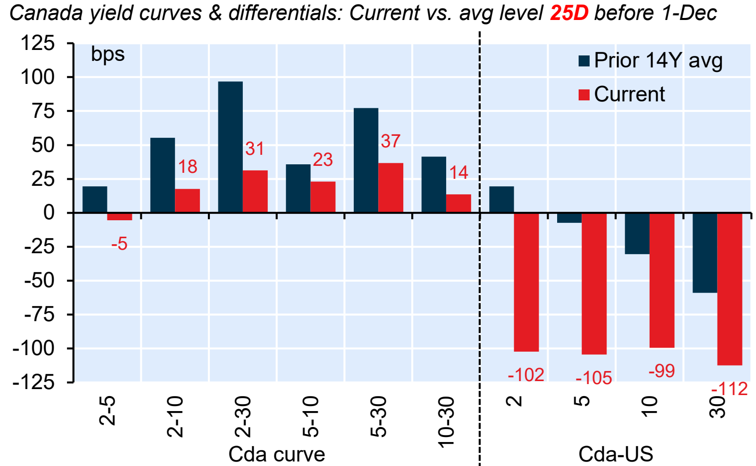
*14Y success rates vs. expected direction in Canadian rates **20D** up to 1-Dec*



Source: NBC, BBG | Note: Success rates based on 14Y period from 2010-23

Chart 4: Current location far from 'normal' (or average)

*Canada yield curves & differentials: Current vs. avg level **25D** before 1-Dec*

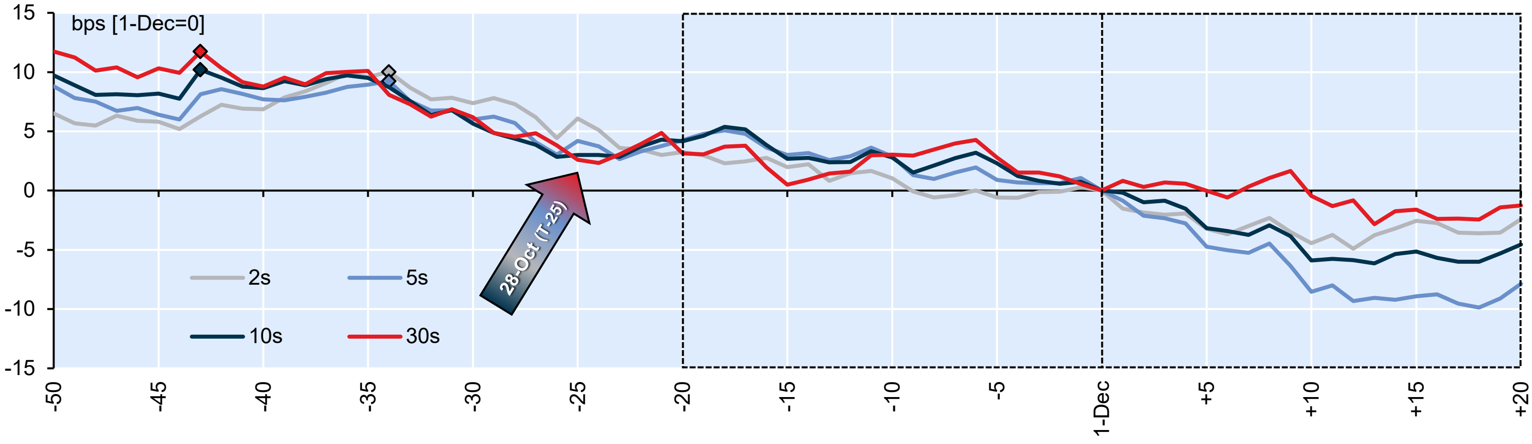


Source: NBC, BBG | Note: Prior 14Y avg (T-25) based on 2010-23; current (28-Oct) is T-25

All else equal, December seasonals support flatter curves & outperformance of Canadas vs. USTs. 100% success is elusive mind. As for set-up, GoC curves are steeper now than this time last year. But Canadas are relatively rich(er) to USTs across the term structure. Premium levels for Canada bonds make sense to us though, given underlying policy rate outlooks & sovereign credit risks.

Chart 5: When to get long Canada vs. UST? Well in advance. How long to stay in trade? History says much of December

Cumulative change in Canada-US yield differentials relative to 1-Dec, based on prior 14Y average (2010-23)

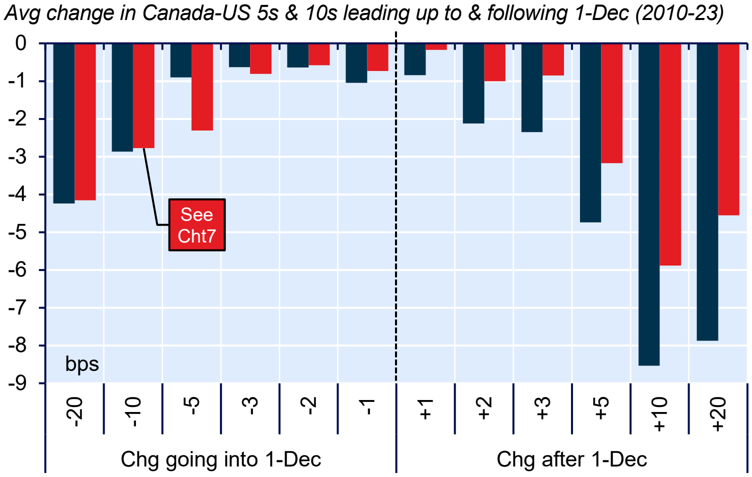


Source: NBC, BBG | Note: Cumulative change based on generic BMs; horizontal axis reflects weekdays relative to 1-Dec (set to 0); markers are optimal entry based on 14Y average change

We tend to observe material & sustained outperformance of Canada vs. USTs heading into December's large cash flows. As for post-December 1st performance, historical success rates (based on 2010-23) are most striking in 5s. Again, we caution that past performance is no guarantee, particularly with the economic and geopolitical backdrops remaining reasonably uncertain.

Chart 6: Visualizing pre & post 1-Dec change in Cda-US

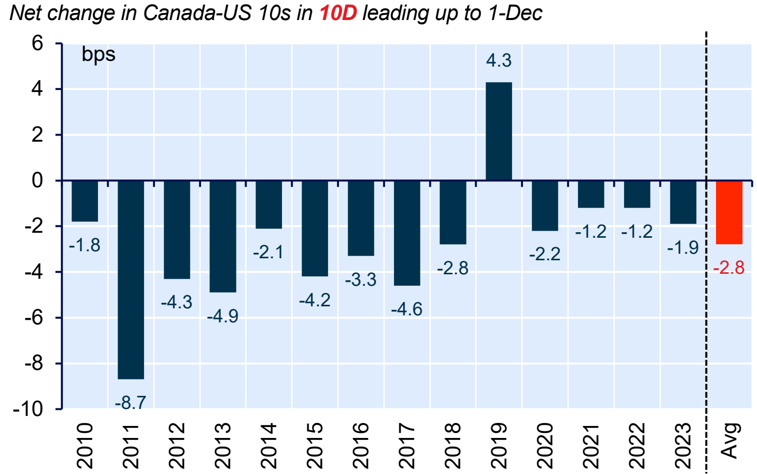
Avg change in Canada-US 5s & 10s leading up to & following 1-Dec (2010-23)



Source: NBC, BBG | Note: Avg chg for given number of weekdays vs. 1-Dec

Chart 7: Cda-US 10s tighter 13 of 14 times (in 10D lead-up)

*Net change in Canada-US 10s in **10D** leading up to 1-Dec*

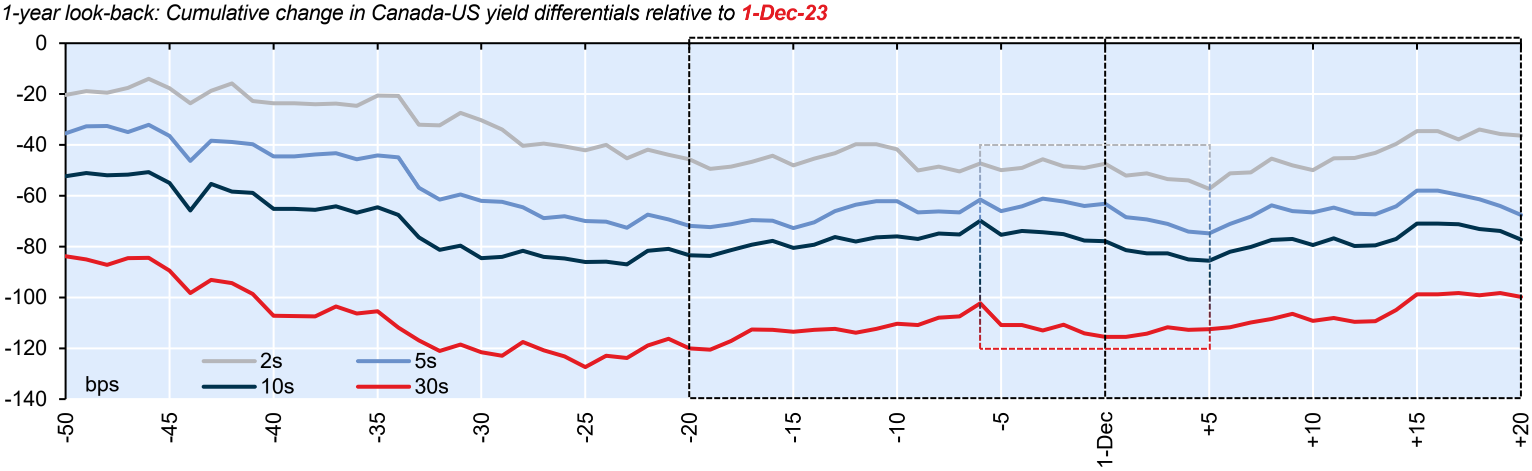


Source: NBC, BBG | Note: Based on relative changes in generic 10Y benchmarks

History suggests it pays to put the Canada-US trade on early. It has likewise tended to be profitable to maintain a long Canada, short US bias into mid-December (if not through year-end). Looking at the net change in the 10D going into 1-Dec, Canada 10s outperformed USTs 93% of the time (13 of 14Y in our post-GFC sample). The sheer size of the move isn't always substantial, however.

Chart 8: Canada was by no means 'cheap' this time last year, but Cda-US still managed selective outperformance

*1-year look-back: Cumulative change in Canada-US yield differentials relative to **1-Dec-23***

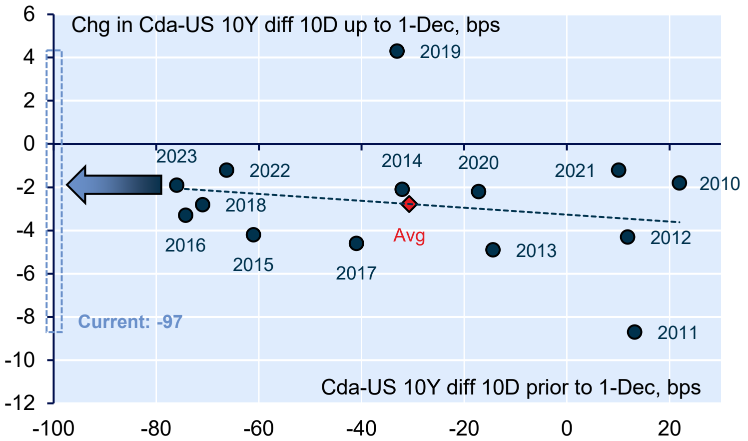


Source: NBC, BBG | Note: Cumulative change in yield differentials based on generic benchmarks; horizontal axis reflects weekdays relative to 1-Dec-23

Look to 2023 for an example of what we need to navigate this time of year. Leading up 1-Dec-23, a federal fiscal update revealed larger deficits/more borrowing, BoC remarks suggested policy was (maybe) restrictive enough, while data included a quarterly GDP contraction and a weak jobs report. All this prompted re-calibration, with Cda/US 10s & 30s firming (somewhat) in/around 1-Dec-23.

Chart 9: How important is Cda-US market location?

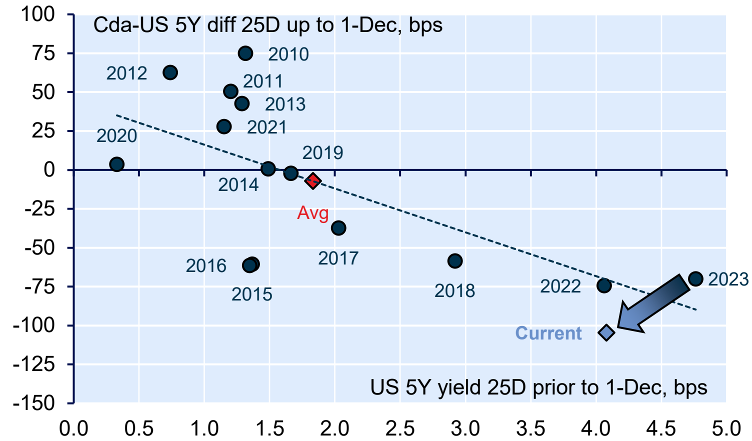
*Change in Canada-US 10s relative to prevailing level **10D** before 1-Dec*



Source: NBC, BBG | Note: Current -100 bp level as of 28-Oct-24 (T-25)

Chart 10: Underlying level & directionality a consideration

*Canada-US 5s relative to underlying US yield level **25D** before 1-Dec*

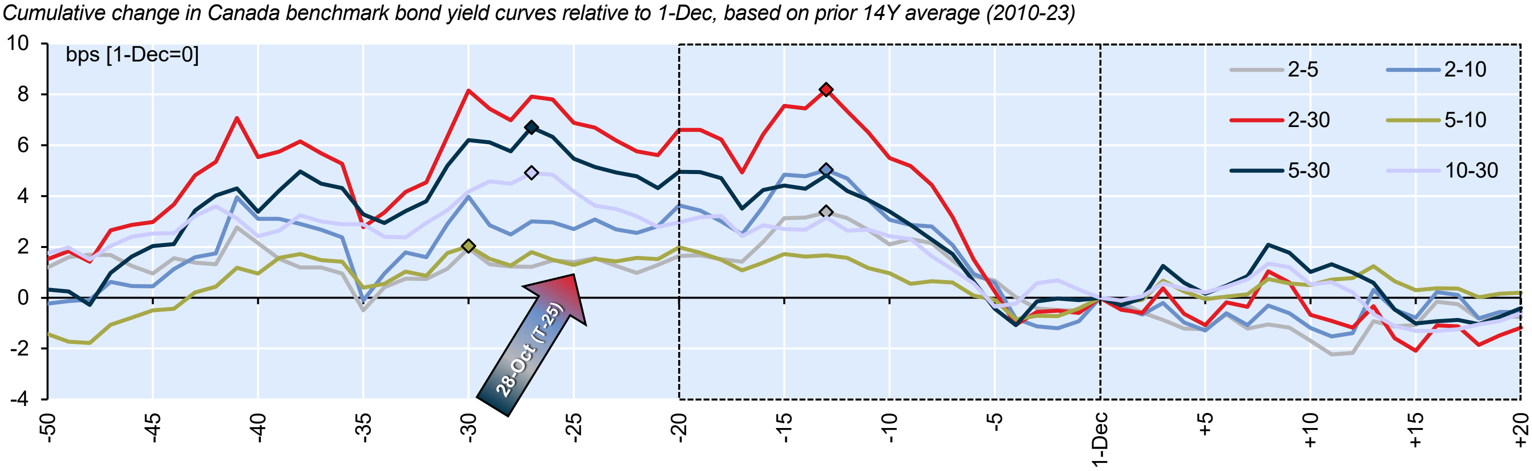


Source: NBC, BBG | Note: Current levels 4.06% & -104 bps as of 28-Oct-24 (T-25)

There's some evidence of seasonal cash supporting Canada vs. US even when starting from notionally 'rich' territory. That may be of some comfort given that Canadas now trade at some of richest relative levels seen this time of year (based on our 14Y post-GFC sample). We're far from a steady state in Treasuries, as Fed expectations and election risks remain somewhat fluid.

Chart 11: The flattener has, on average, been very much in vogue in the lead-up to 1-Dec

Cumulative change in Canada benchmark bond yield curves relative to 1-Dec, based on prior 14Y average (2010-23)

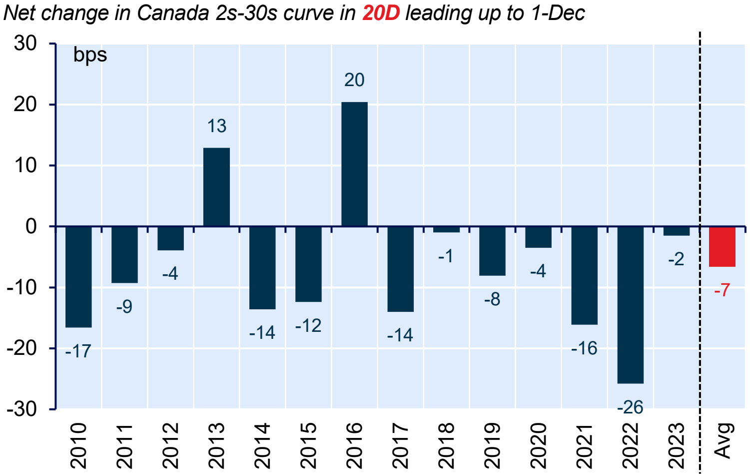


Source: NBC, BBG | Note: Cumulative change based on generic BMs; horizontal axis reflects weekdays relative to 1-Dec (set to 0); markers are optimal entry based on 14Y average change

Historically, there's a distinct tendency towards flatter curves as investors positioned for duration extensions in/around December 1st. All curves exhibit an historical flattening bias in the 10D heading into December, Canada 2s30s seeing the most consistent & significant flattening. Rate cuts (delivered & expected) have contributed to steeper curves today, particularly vs. the prior two years.

Chart 12: 86% success for 2s-30s flattener (going into 1-Dec)

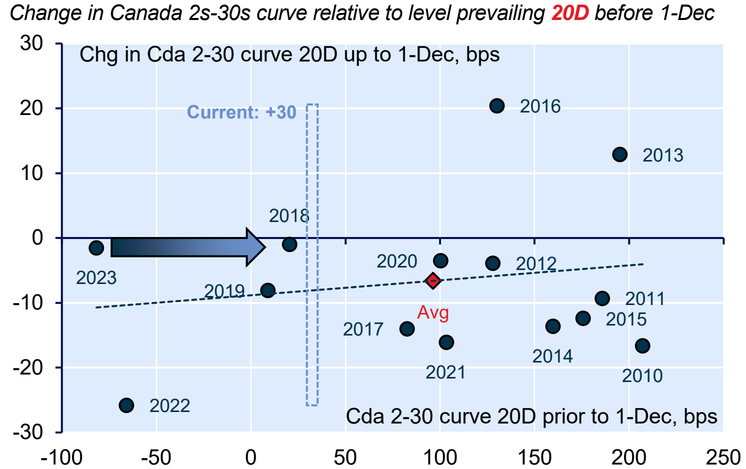
*Net change in Canada 2s-30s curve in **20D** leading up to 1-Dec*



Source: NBC, BBG | Note: Based on relative changes in generic 2Y/30Y benchmarks

Chart 13: Actually some +ve slope to key curves today

*Change in Canada 2s-30s curve relative to level prevailing **20D** before 1-Dec*

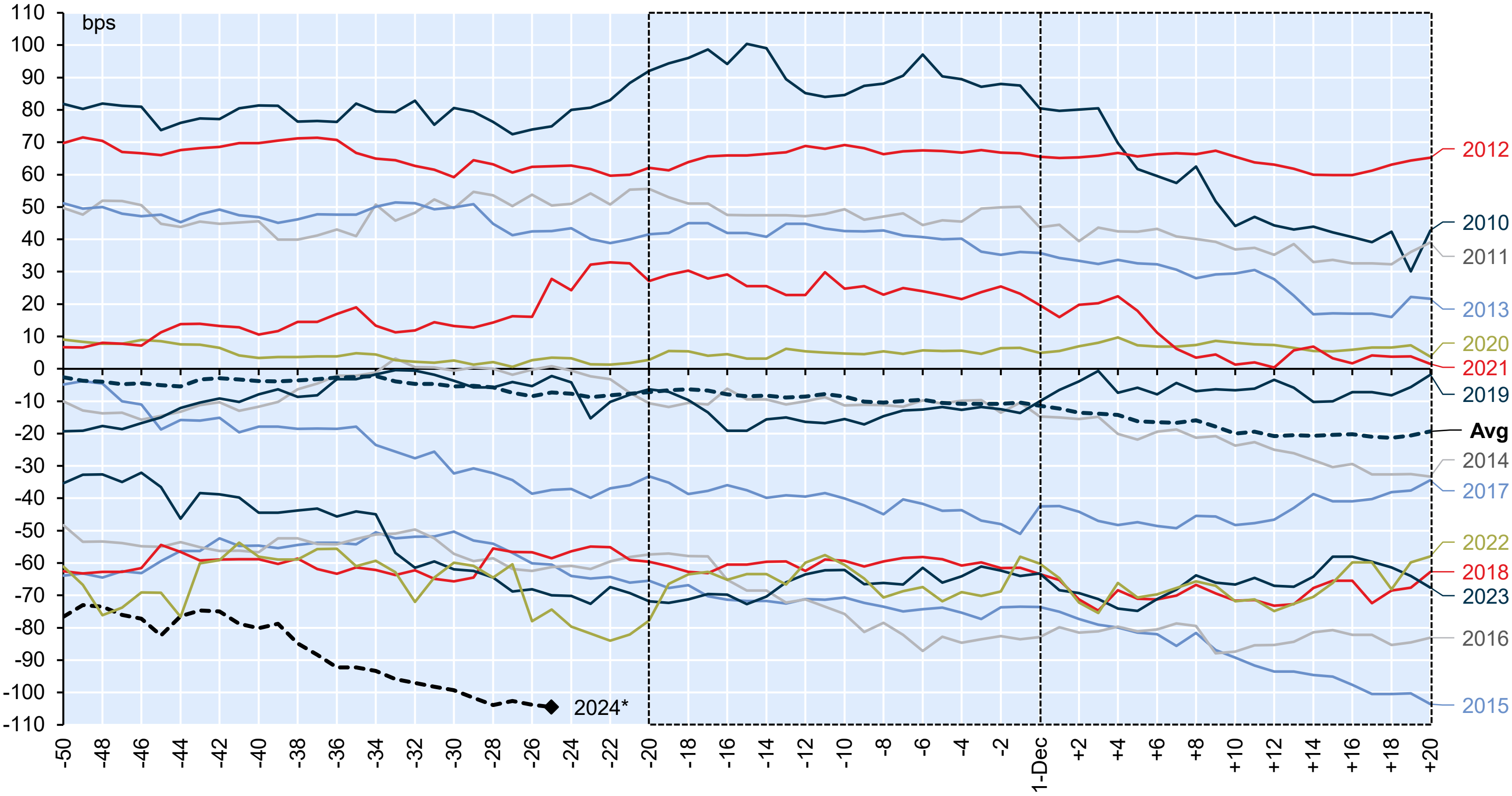


Source: NBC, BBG | Note: Current level +31 bps as of 28-Oct-24 (T-25)

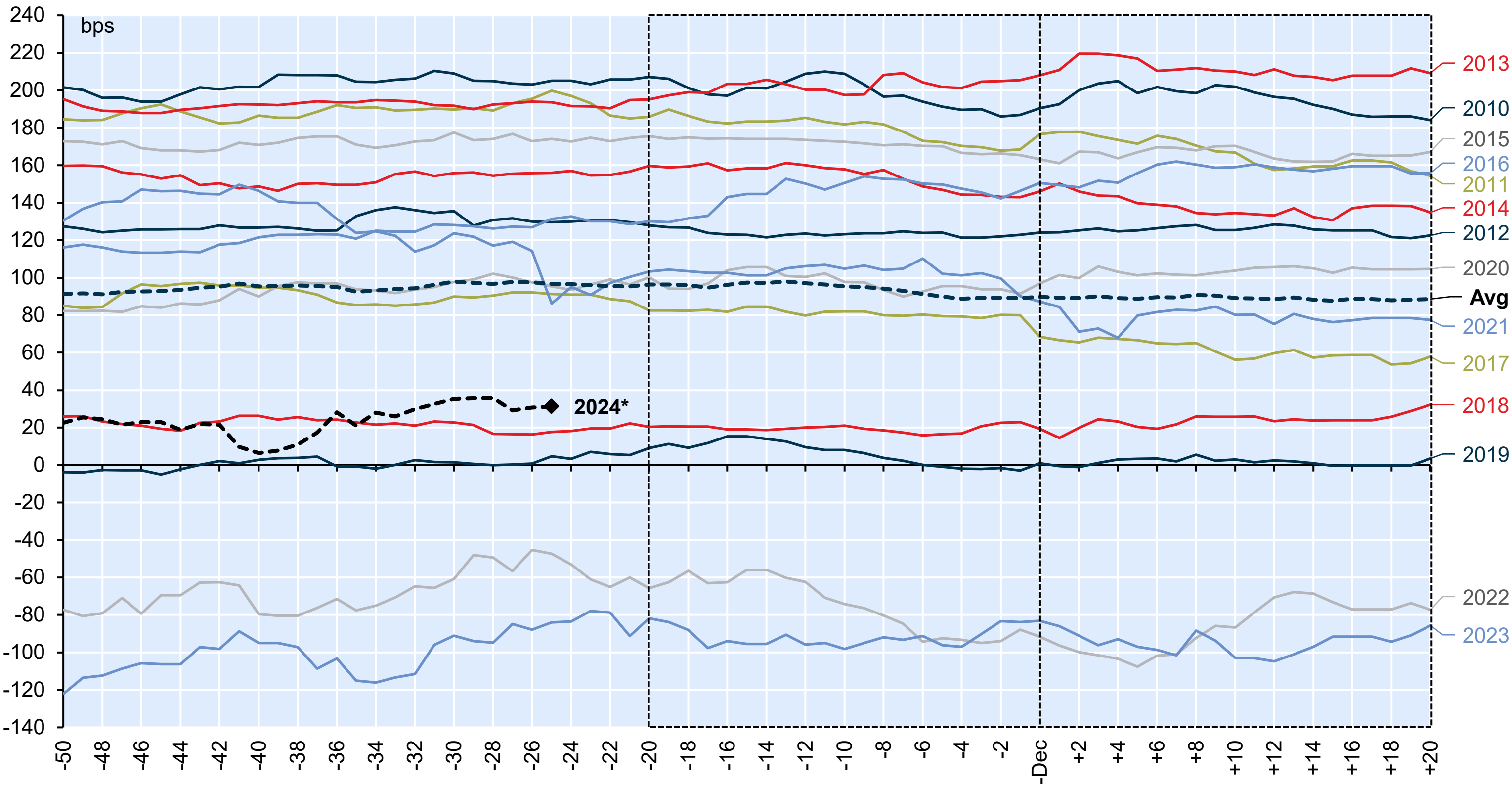
Canada 2s30s has flattened 86% of the time in the 20D period going into 1-Dec (12 of 14Y). That included a minor move (net) last year, despite an extremely inverted starting point. The curve hasn't exactly normalized. But with 2s30s at +31 bps, a temporary and technically driven flattener in/around the start of December may be possible. BoC (re)pricing is a massive consideration of course.

Chart 14-15: Visualizing today's relatively extreme levels (cross-market & curve) compared to prior years

Evolution of Canada-US 5Y yield differential pre & post 1-Dec, including current trajectory (up to 28-Oct-24)



Evolution of Canada 2s30s yield curve pre & post 1-Dec, including current trajectory (up to 28-Oct-24)



Source: NBC, BBG | Note: Yield differentials (top chart) & yield curves (bottom chart) based on generic benchmarks; horizontal axis reflects weekdays relative to 1-Dec (set to 0); 2024 path is up to 28-Oct (T-25 vs. first business day of Dec-24)

The tendency towards Canada outperformance vs. USTs spans a diverse sample. Of note, current levels (e.g., -104 bps in Cda/US 5s) are notionally extreme, with Canada having richened notably in the past three weeks. As for the curve, BoC rate cuts have helped steepen curves, even if today's levels (e.g., +31 bps in Cda 2s/30s) are still generally flatter than the post-GFC 'average'.

Table: Average moves & detailed performance record in Canadian rates

Average move & success rates in Canada interest rates (yields, curves, butterflies, cross-market) leading up to & following 1-Dec (14Y sample, based on 2010-23)

		Canada Outright				Canada Curves						Canada Flies			
Wk days		2-year	5-year	10-year	30-year	2s-5s	2s-10s	2s-30s	5s-10s	5s-30s	10s-30s	2s-5s-10s	2s-5s-30s	2s-10s-30s	5s-10s-30s
Before 1-Dec	-20	-3.0	-4.7	-6.7	-9.6	-1.7	-3.6	-6.6	-2.0	-5.0	-3.0	0.3	3.3	-0.7	1.0
	-10	-2.7	-4.8	-5.8	-8.2	-2.1	-3.1	-5.5	-1.0	-3.4	-2.4	-1.1	1.3	-0.6	1.5
	-5	-4.8	-5.5	-5.4	-5.0	-0.7	-0.6	-0.2	0.1	0.4	0.4	-0.8	-1.1	-0.9	-0.3
	-3	-2.2	-1.7	-1.0	-1.6	0.4	1.1	0.6	0.7	0.1	-0.6	-0.3	0.3	1.7	1.3
	-2	-1.5	-1.0	-0.3	-1.0	0.5	1.2	0.5	0.7	0.0	-0.7	-0.2	0.4	1.9	1.4
	-1	-0.9	-0.4	0.1	-0.3	0.5	0.9	0.6	0.4	0.1	-0.3	0.1	0.4	1.2	0.7
After 1-Dec	+1	-0.5	-0.6	-0.8	-0.9	-0.2	-0.4	-0.5	-0.2	-0.3	-0.1	0.0	0.1	-0.3	-0.1
	+2	-0.3	-0.9	-1.0	-0.9	-0.6	-0.7	-0.6	-0.1	0.0	0.1	-0.5	-0.6	-0.7	-0.1
	+3	-0.9	-1.8	-1.1	-0.5	-0.9	-0.2	0.4	0.7	1.3	0.6	-1.6	-2.1	-0.8	0.1
	+5	0.3	-0.9	-1.0	-0.8	-1.2	-1.3	-1.1	0.0	0.2	0.2	-1.2	-1.4	-1.5	-0.3
	+10	-1.8	-3.5	-3.0	-2.5	-1.7	-1.2	-0.7	0.5	1.0	0.5	-2.2	-2.7	-1.7	0.0
	+20	0.5	-0.2	0.0	-0.6	-0.8	-0.6	-1.2	0.2	-0.4	-0.6	-1.0	-0.4	0.0	0.8
Success rate (%)	-20	64%	57%	64%	79%	64%	71%	86%	71%	79%	64%	50%	43%	50%	57%
	-10	50%	50%	57%	86%	57%	64%	71%	64%	71%	64%	50%	57%	50%	36%
	-5	64%	57%	57%	64%	57%	50%	36%	29%	43%	43%	57%	57%	50%	43%
	+5	50%	57%	43%	43%	57%	64%	43%	36%	36%	36%	57%	64%	64%	50%
	+10	50%	64%	64%	57%	57%	36%	36%	36%	36%	50%	50%	57%	50%	50%
	+20	29%	50%	57%	50%	50%	43%	50%	50%	57%	64%	57%	50%	57%	50%
Test >		*Lower yield*				*Flatter curve*						*Belly outperformance vs. wings*			

		Canada-US Differential				Canada-US Boxes						Canada-US "Fly Trap"			
Wk days		2-year	5-year	10-year	30-year	2s-5s	2s-10s	2s-30s	5s-10s	5s-30s	10s-30s	2s-5s-10s	2s-5s-30s	2s-10s-30s	5s-10s-30s
Before 1-Dec	-20	-3.2	-4.2	-4.2	-3.1	-1.0	-0.9	0.1	0.1	2.2	1.0	-1.1	-2.1	-1.9	-0.9
	-10	-1.0	-2.9	-2.8	-3.0	-1.8	-1.7	-2.0	0.1	-0.1	-0.2	-1.9	-1.7	-1.5	0.3
	-5	0.6	-0.9	-2.3	-2.8	-1.5	-2.9	-3.4	-1.4	-1.4	-0.5	-0.1	0.4	-2.4	-0.9
	-3	0.1	-0.6	-0.8	-1.5	-0.8	-0.9	-1.7	-0.2	-1.2	-0.7	-0.6	0.1	-0.2	0.5
	-2	0.1	-0.6	-0.6	-1.2	-0.7	-0.7	-1.3	0.1	-0.6	-0.6	-0.8	-0.2	-0.1	0.7
	-1	-0.3	-1.1	-0.7	-0.5	-0.8	-0.4	-0.3	0.3	0.6	0.2	-1.1	-1.3	-0.6	0.1
After 1-Dec	+1	-1.5	-0.8	-0.2	0.8	0.7	1.4	2.4	0.7	1.5	1.0	0.0	-1.0	0.4	-0.3
	+2	-1.8	-2.1	-1.0	0.3	-0.3	0.8	2.1	1.1	2.1	1.3	-1.4	-2.7	-0.5	-0.2
	+3	-2.0	-2.3	-0.9	0.7	-0.3	1.2	2.7	1.5	2.5	1.5	-1.8	-3.3	-0.3	0.0
	+5	-3.2	-4.7	-3.2	0.0	-1.5	0.0	3.2	1.6	4.0	3.1	-3.1	-6.2	-3.1	-1.6
	+10	-4.4	-8.5	-5.9	-0.5	-4.1	-1.4	4.0	2.7	7.7	5.4	-6.7	-12.2	-6.9	-2.8
	+20	-2.4	-7.9	-4.6	-1.3	-5.4	-2.1	1.2	3.3	5.9	3.3	-8.8	-12.1	-5.4	0.0
Success rate (%)	-20	64%	71%	71%	71%	57%	57%	50%	43%	43%	43%	50%	43%	50%	57%
	-10	57%	79%	93%	71%	64%	71%	57%	57%	57%	64%	57%	64%	64%	36%
	-5	57%	64%	79%	71%	57%	79%	64%	71%	64%	57%	43%	36%	79%	57%
	+5	64%	71%	64%	43%	64%	50%	29%	36%	14%	14%	71%	79%	64%	64%
	+10	79%	79%	64%	43%	86%	50%	21%	29%	7%	14%	93%	**100%**	71%	64%
	+20	50%	71%	57%	43%	79%	57%	43%	29%	21%	43%	71%	71%	64%	50%
Test >		*Relative outperformance of Canada*				*Relatively greater flattening in Canada*						*Relative outperformance of Canada belly*			

Source: NBC, BBG | Note: Success rates reflect the percentage of time the 'expected' direction of trade held; examples of the a priori direction of trade include: Canada outright=lower yield; Canada curves=flatter; Canada-US yield differentials=tighter, etc; Canada-US "fly trap" represents a Canada butterfly vs. US butterfly trade involving six benchmark bonds

November 4, 2024 - (Vol. VIII, No. 86)

T-20
Weekdays
to 2-Dec-24

December cashflows come into view (Part C)

By Warren Lovely

It's now 20 weekdays to the start of December, when outsized cashflows are (once more) due to wash over Canada's domestic bond market. We've already offered some perspective on December's extraordinary seasonals, namely:

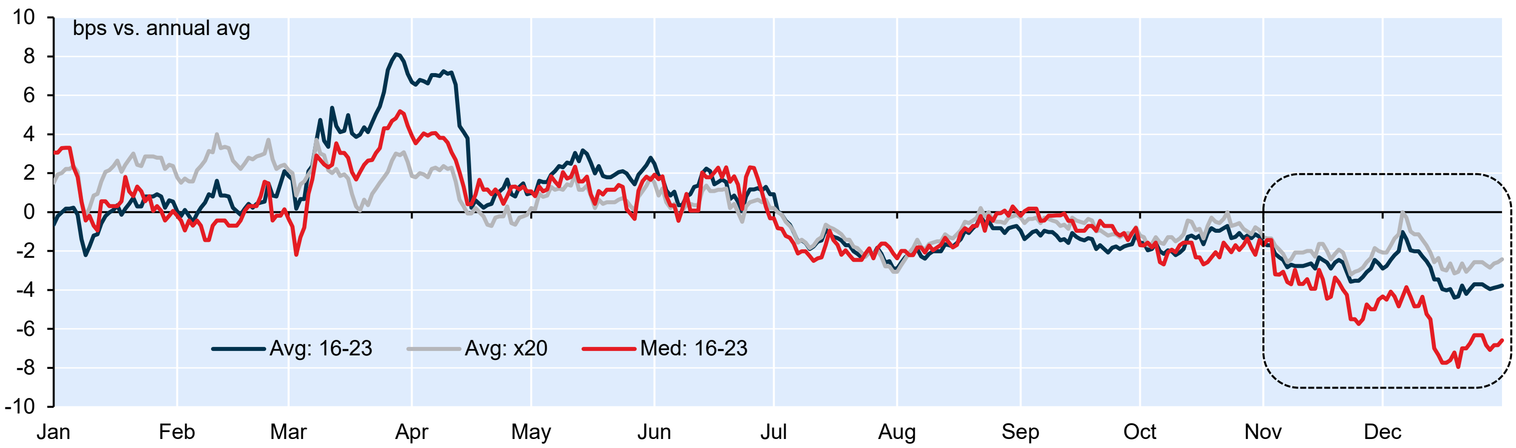
- **Part A** (**link**) put this year's cashflows in context and offered preliminary simulations of universe bond index duration effects (by bucket/tenor and sector);
- **Part B** (**link**) examined the historical performance record in Canadian rates in/around the start of December.

Our continuing coverage—what we're here calling **Part C**—shifts the focus to public sector credit markets (namely provincials). More precisely, the aim of this *Market View* is to assess/identify seasonal tendencies in absolute/relative credit spreads and returns. There's some evidence of a late-year performance window that investors may wish to take note off (and potentially position for).

Market location matters of course, and we put current valuations in context. Additionally, we explore/address the (often vital) impact of underlying bond supply dynamics. There's been no shortage of provincial bond supply in 2024, but as we had earlier flagged, a spring/summer borrowing binge set the stage for an eventual deceleration. That seems to be where we are now, with the supply outlook having turned somewhat supportive of spreads (all else equal).

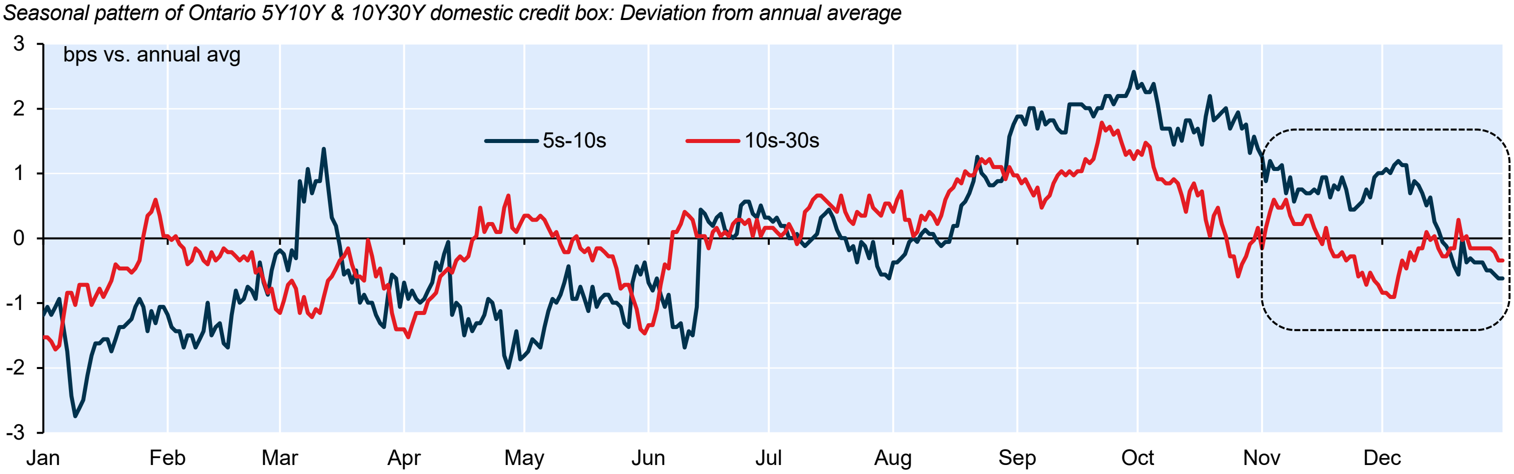
Risk factors and uncertainties abound of course. Thus, we urge caution when it comes to interpreting empirical tendencies. But whether embracing a fundamental, technical or seasonal point of view, we find ourselves relatively constructive on provi credit (longs in particular).

Chart 1: November-December generally consistent with relatively tight(er) provincial credit spreads …
Seasonal pattern of Ontario 10Y domestic bond spread: Deviation from annual average



Source: NBC | Note: Based on NBC's daily constant maturity new issue spread indications; chart represents deviation (in bps) from annual avg domestic (CAD) bond spread

Chart 2: … and flatter provincial credit curves (all else equal)
Seasonal pattern of Ontario 5Y10Y & 10Y30Y domestic credit box: Deviation from annual average

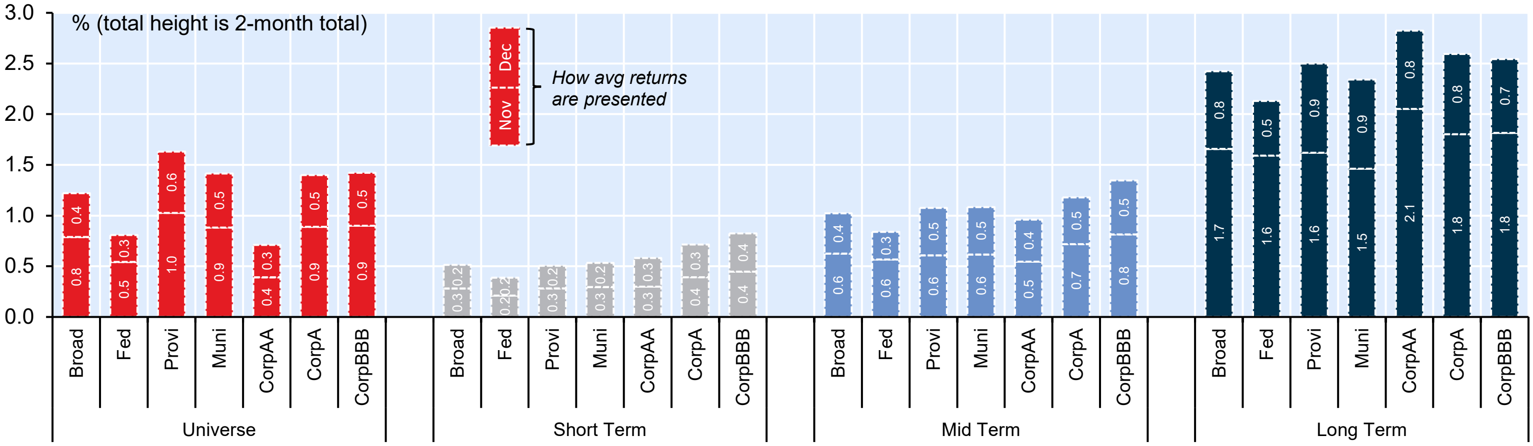


Source: NBC | Note: Based on NBC's daily constant maturity new issue spread indications; chart represents deviation (in bps) from annual avg domestic (CAD) credit box

We've notionally entered a relatively favourable window for provincial credit. An examination of new issue indications (or secondary benchmarks for that matter) reveals a tendency towards tighter cash spreads in November, consistent with what has typically been a solid month for risk/equities. We often see another final push tighter in the final few days of the calendar year, once the supply taps are turned off and liquidity thins. Technical/seasonal considerations, including sizeable bond index duration extensions, can support flatter credit curves all else equal.

Chart 3: 'Provincial' sector of Canadian bond index tends to register above-average returns in late stages of year

Average total return of FTSE Canada Universe Bond Index by bucket & select sector: November & December (2010-23)

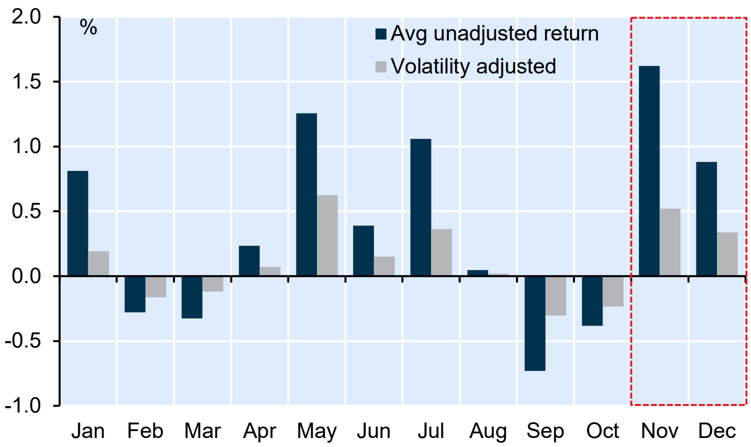


Source: NBC, FTSE Russell, BBG | Note: Based on unadjusted change in TR index for November (bottom of column) & December (top of column); 14Y sample from 2010-23

A glimpse at past returns reinforces the 'late-year performance' narrative. On average, November has delivered healthy returns for provincials, consistent with traction in risk assets more generally. Average provi returns look relatively healthy for December too. With more cash than ever arriving this December, and borrowing programs well positioned, there's apparent scope for performance.

Chart 4: December generally a good month for long provis…

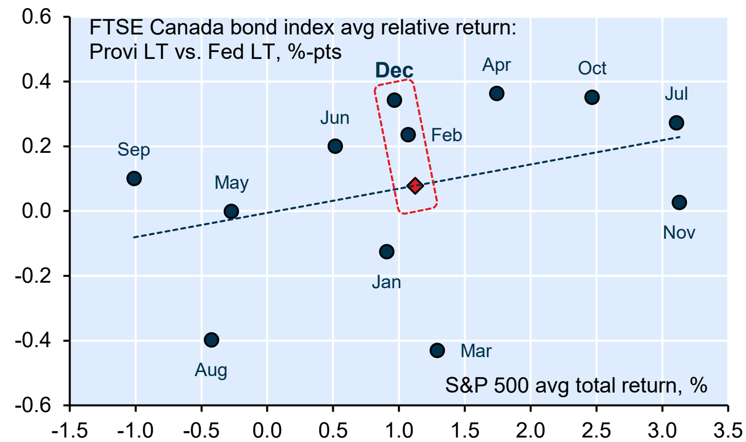
Avg total return of FTSE Canada Long Term Provincial index by month



Source: NBC, FTSE Russell, BBG | Note: Based on 2010-23; vol adj divides by std dev

Chart 5: … particularly once you control for average risk tone

Avg relative return of Long Term Provi index & S&P 500 total return by month

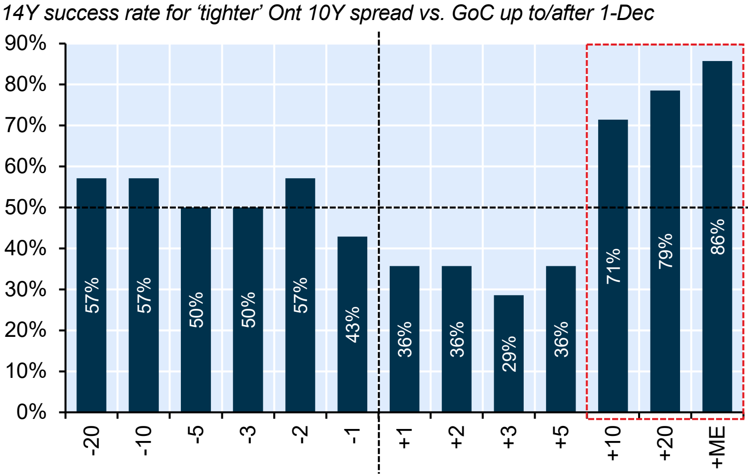


Source: NBC, FTSE Russell, BBG | Note: Based on avg returns from 2010-23

Based on simple unadjusted returns, December might not be the very best month for long provi bonds. However, on a volatility-adjusted basis, the average December gain is nothing to sneeze at. Moreover, control for underlying risk sentiment (proxied by US equity returns say) and excess long provi returns for the month of December stand out positively in the post-GFC period.

Chart 6: December's spread success often comes late

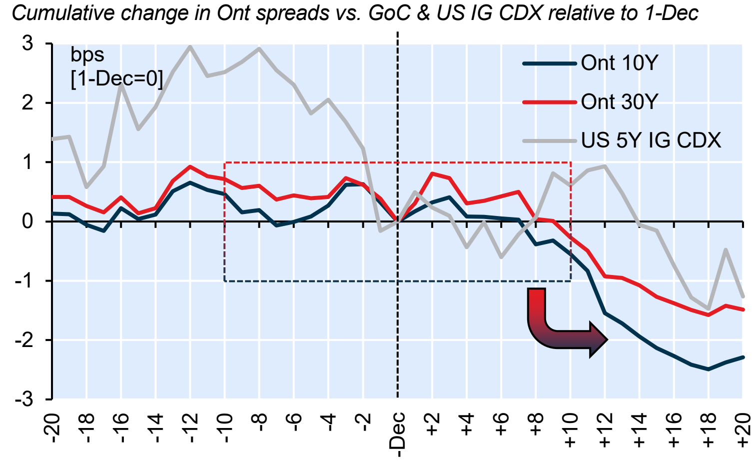
14Y success rate for 'tighter' Ont 10Y spread vs. GoC up to/after 1-Dec



Source: NBC, BBG | Note: Based on chg in generic BM from 2010-23; +ME is to month end

Chart 7: Further visualizing seasonal patterns in credit

Cumulative change in Ont spreads vs. GoC & US IG CDX relative to 1-Dec

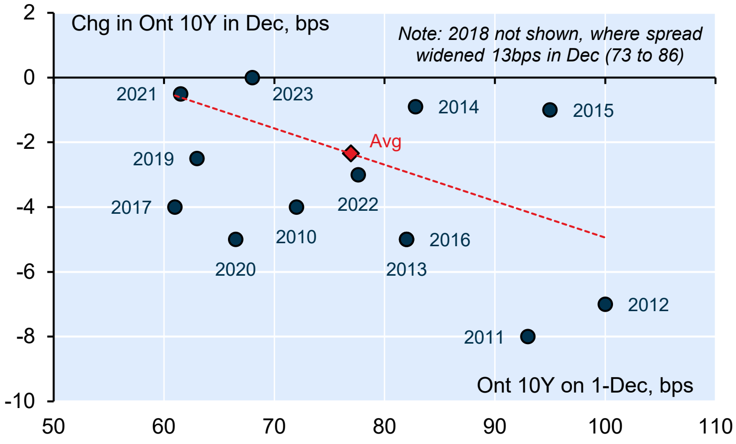


Source: NBC, BBG | Note: Based on avg chg in generic BM/index from 2011-23

If you're testing the ability of provincial spreads to tighten in the run up to (and aftermath of) December 1st, consider that provincial issuers often issue into underlying strength. Put another way, outsized cash and duration extension effects create room/demand for new issue product. Once the supply of provincial bonds winds down you tend to see a more significant tightening of spreads.

Chart 7: Scale of rally (loosely) a function of starting spread

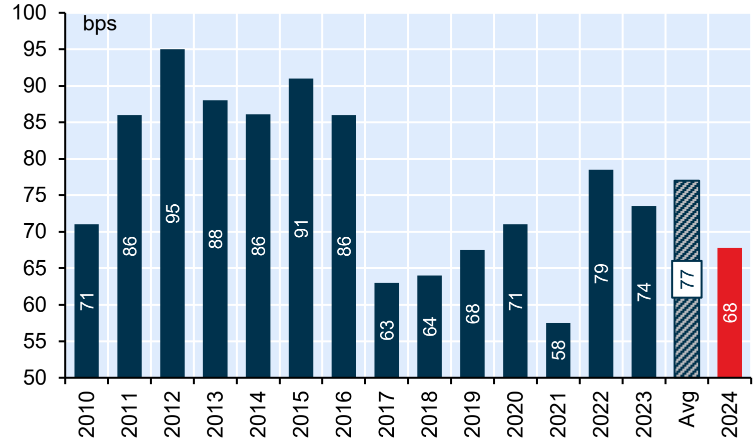
Chg in Ont 10Y spread vs GoC during Dec & spread level as at 1-Dec



Source: NBC, BBG | Note: Net chg & level for generic BM

Chart 8: 10s tighter than average (at least vs. GoC curve)

Current vs. historical Ont 10Y spread vs. GoC at T-20 weekdays to 1-Dec

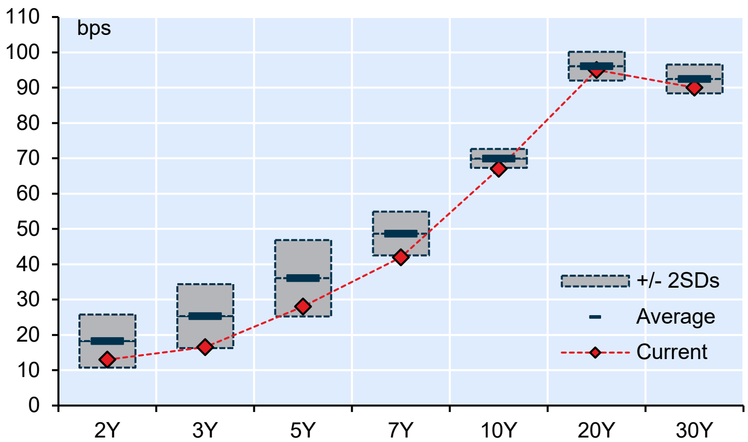


Source: NBC, BBG | Note: Generic BM spread as at T-20 vs. 1-Dec, which for 2024 is 4-Nov

As for the importance of market location, it's reasonable to assert that 'the wider the spread, the greater the scope for seasonal performance'. If you endorse this logic, it's should be noted that 10-year cash spreads are a bit tighter than where things stood the past couple of years. Credit is likewise tighter than average if you expand your sample to the post-GFC period (i.e., back to 2010).

Chart 9: Cash spreads have snugged up of late…

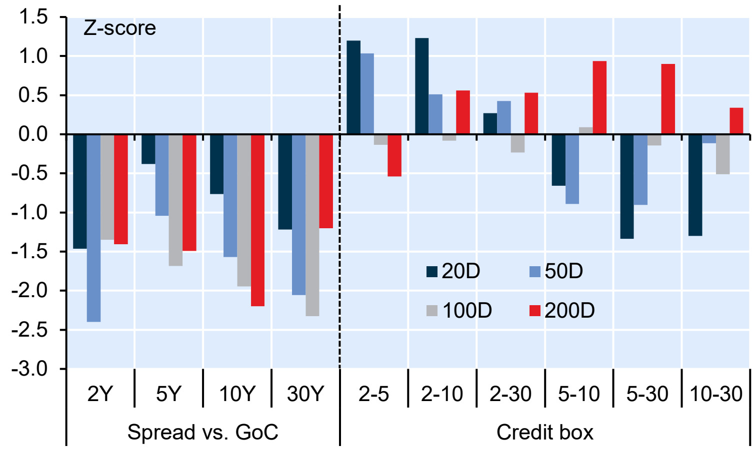
Ontario domestic bond spreads vs. GoC curve: Current vs. 200D average



Source: NBC | Note: Based on constant maturity NI indications as at 4-Nov

Chart 10: … although key boxes may have room to flatten

Relative valuation of Ontario domestic bond spreads & credit boxes

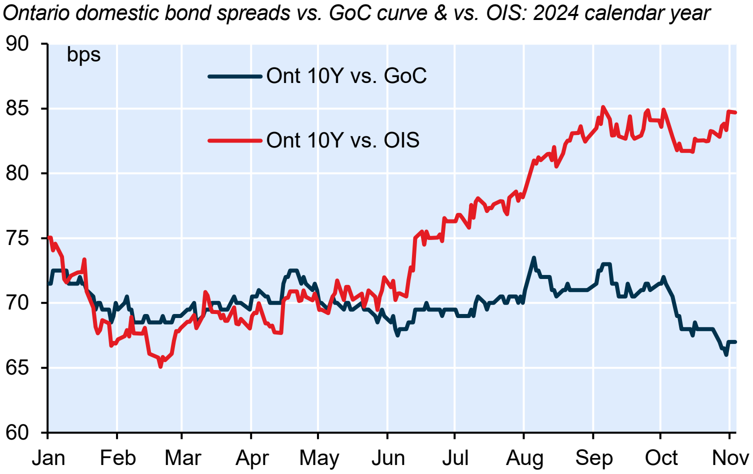


Source: NBC | Note: Based on constant maturity NI indications as at 4-Nov

Having snugged up in October, provincial spreads aren't exactly flagging cheap to Canadas, whether you take a short(er) or long(er) perspective. Ontario 10s, for instance, are roughly two-standard deviations inside of the average for the past 200D trading days. While longs have enjoyed some performance of late, there should be scope for the 10s30s box to flatten (ceteris paribus).

Chart 11: Provis remain 'cheap' on a swapped basis

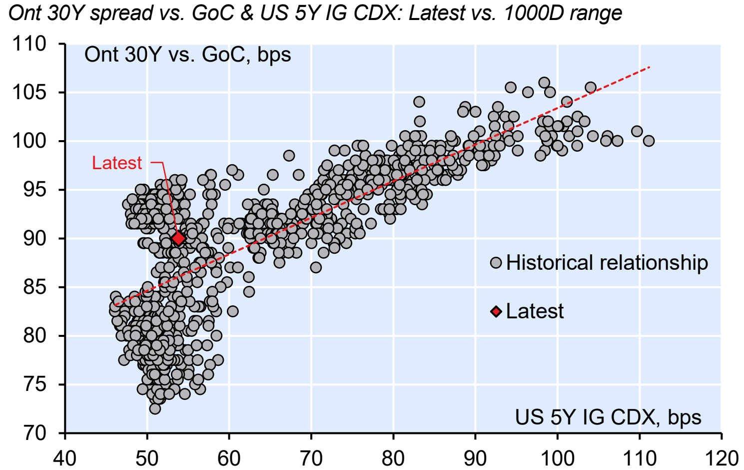
Ontario domestic bond spreads vs. GoC curve & vs. OIS: 2024 calendar year



Source: NBC | Note: Based on constant maturity NI indications to 4-Nov

Chart 12: Lining long provis up vs. a key risk proxy

Ont 30Y spread vs. GoC & US 5Y IG CDX: Latest vs. 1000D range

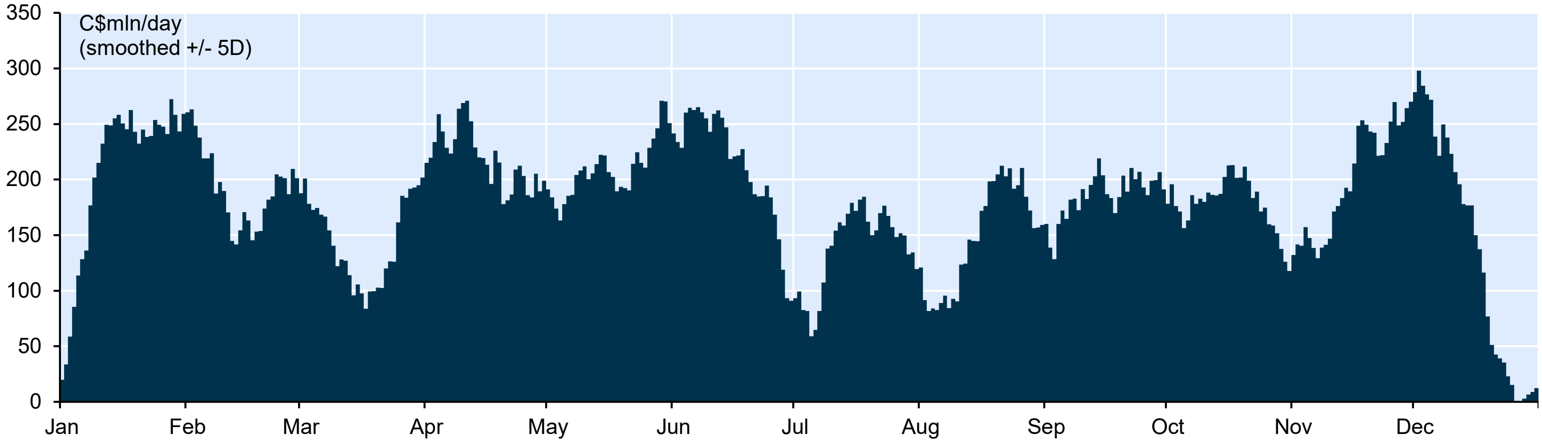


Source: NBC, BBG | Note: Based on constant maturity NI indications; latest is 4-Nov

It's clear that provincial valuations are far from normal on a swapped basis. But that's hardly unique to provincials as North American swap spreads hover in extreme territory. Meantime, corporate credit has been well supported up till now. As it stands, 10-year provincial G spreads look neither meaningfully rich nor cheap vs. key risk proxies like US IG CDX. Longs look like better value to us.

Chart 13: In a normal year, provincial issues would tend to bring ample supply from mid-November to mid-December

Average daily CAD provincial bond supply (gross) over course of calendar year

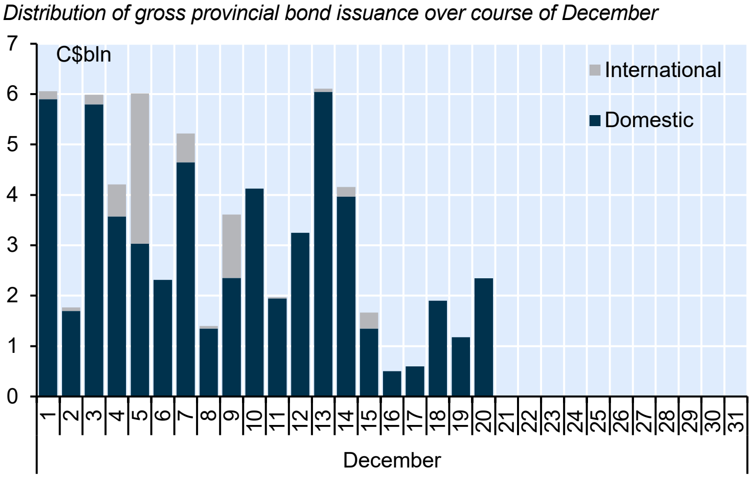


Source: NBC, BBG | Note: Domestic issuance only; smooths daily issuance by +/- 5D; based on marketable bond issuance from 2010-23

As previously noted, the tendency of provincial governments to supply the market has historically sopped up (much) investor demand in/around December 1st. Once the 'all clear' is signaled on provincial issuance—generally in the back half of December—spreads have often tightened into calendar year-end, where a related drop off in secondary liquidity can exacerbate market moves.

Chart 14: Generally nothing doing last 10+ days of year

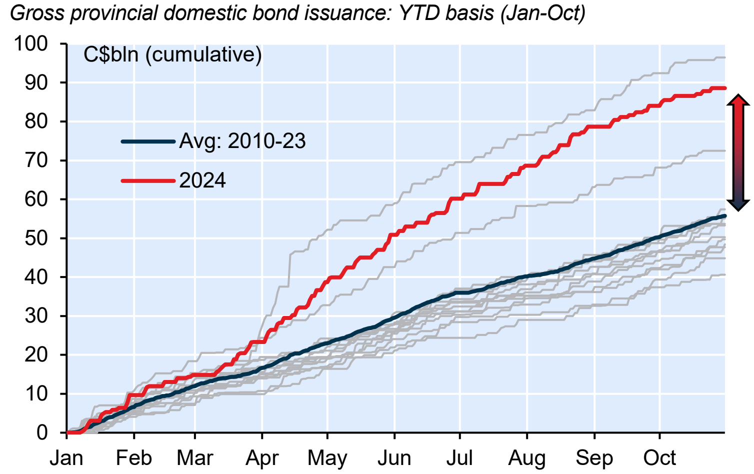
Distribution of gross provincial bond issuance over course of December



Source: NBC, BBG | Note: Daily distribution of December supply from 2010-23

Chart 15: After earlier surge, provi bond supply moderating

Gross provincial domestic bond issuance: YTD basis (Jan-Oct)

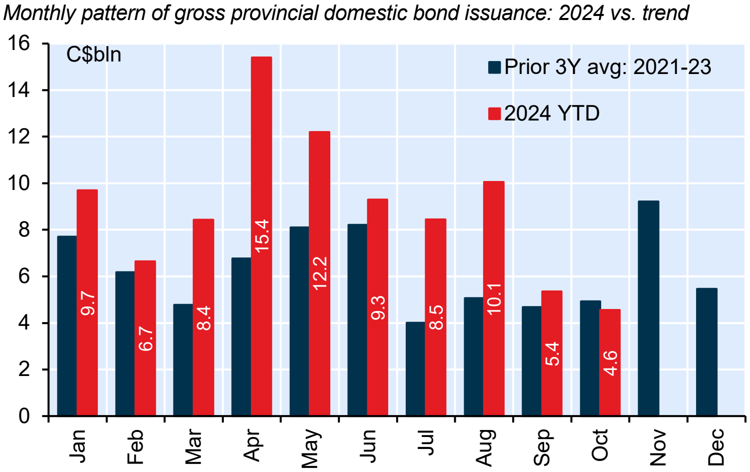


Source: NBC, BBG | Note: Green lines refer to individual years (2010 to 2023)

Beyond the traditional lull in the final days of the year, there's reason to believe the near-term crop of provincial bonds may be quite manageable. This year's borrowing needs were certainly non-trivial, but most issuers got off to a very quick start. As it stands, many provincial funding programs are well advanced. The whole sector is 82% funded at the 58% mark of the fiscal year. Nice!

Chart 16: Provincial issuance has geared down

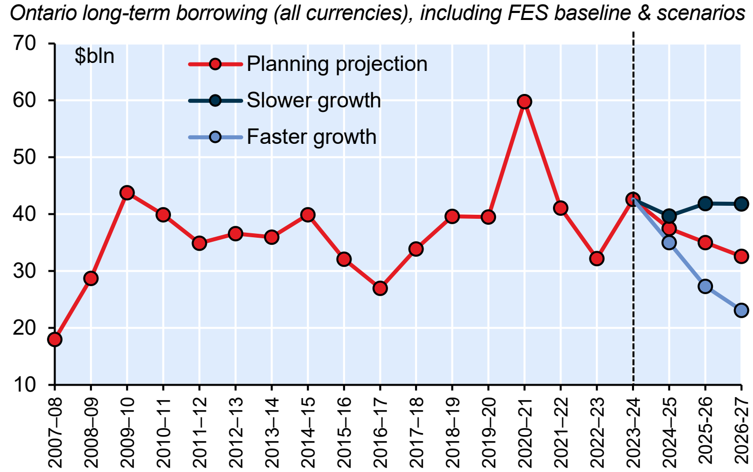
Monthly pattern of gross provincial domestic bond issuance: 2024 vs. trend



Source: NBC, BBG | Note: CAD issues only

Chart 17: Ontario's needs could be pointed lower from here

Ontario long-term borrowing (all currencies), including FES baseline & scenarios



Source: NBC, Ont | Note: Actuals to 2023-24; borrowing in all markets/currencies

Provincial issuance has slowed from the rather exceptional pace witnessed in the spring/summer. (Note: Domestic supply slipped a bit below the recent trend in October.) While we can expect some supply through year end, it seems unlikely to overwhelm. Meantime, Ontario's fall update hinted at medium-term supply relief, assuming planning projections play out. Beyond a prospective moderation in future year supply, this key provincial benchmark revealed a stronger fiscal outlook, with smaller deficits and a lighter debt burden noteworthy given positive outlooks at S&P and Moody's.

Market View
Economics and Strategy
NATIONAL BANK OF CANADA FINANCIAL MARKETS

November 14, 2024 - (Vol. VIII, No. 90 T-12)

The Twelve Days Pre-Cashflow

By Warren Lovely

♬ On the twelfth day pre-cashflow, NBC reminded me… ♬

♬ T-12) Coupons a-clipping ♬

Humour us as we adapt a holiday classic to an exciting season for Canada's domestic bond market. We call this *'The Twelve Days Pre-Cashflow'* and the idea is simple enough. Over the next 12 weekdays, we'll offer a single chart (or at most two) to highlight a specific aspect/implication of the outsized cashflows and index rolls expected this December. We'll try to deliver these in a logical/natural order. In many cases, we'll lean into (updating where necessary) our earlier detailed analysis, which was compiled in three complementary *Market View* reports. Refer to page 2 for hyperlinks to this earlier work.

This being T-12 weekdays to the start of December, we begin with: *Coupons a-clipping*. As you might have guessed, in today's short stanza we ask: How much index-related coupon cash is on its way to bond investors? Answer: Loads.

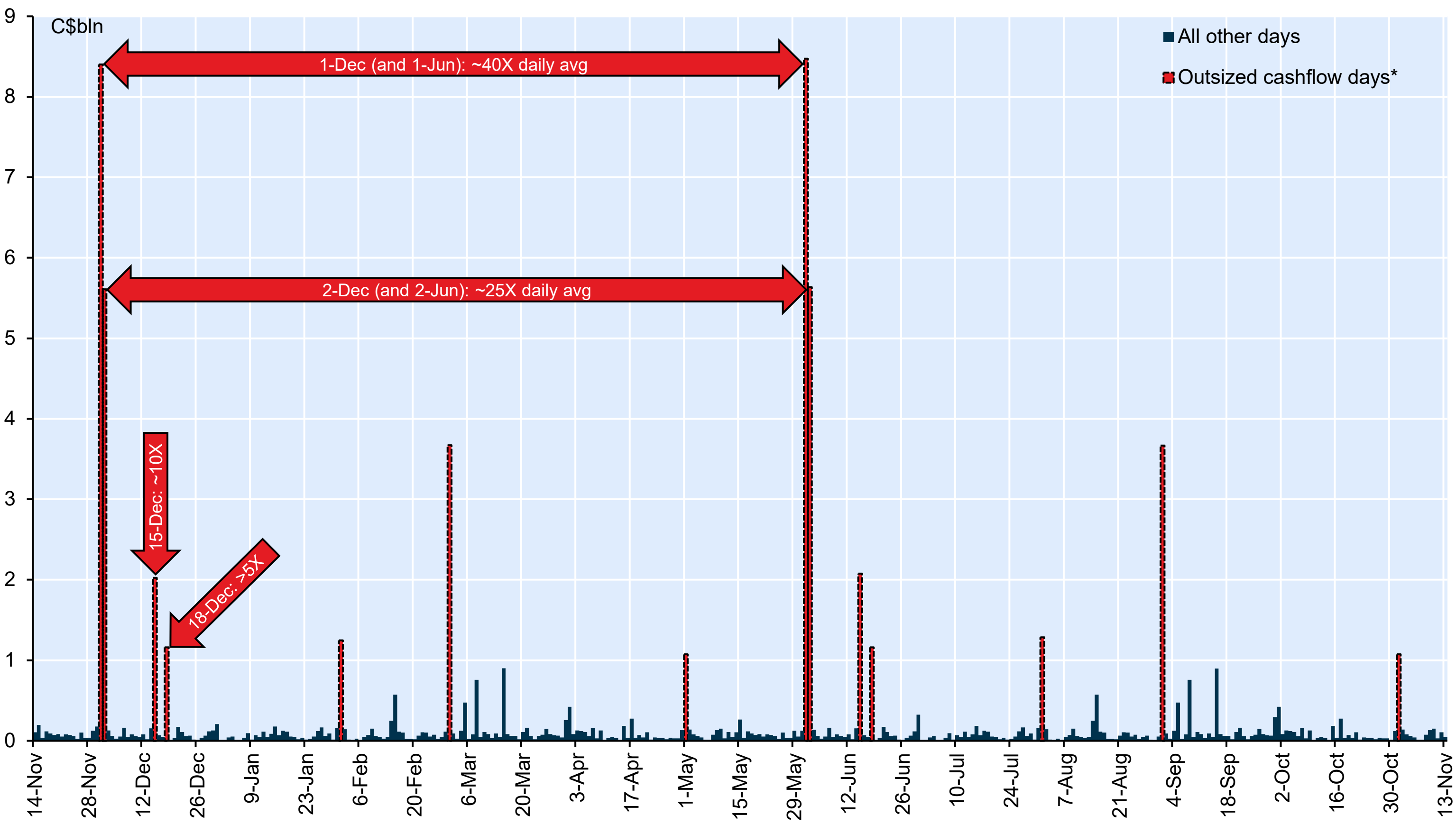
Examine the FTSE Canada Universe Bond Index and you will find more than half of today's total holdings can be traced to bonds bearing either a June or December maturity dating. That results in highly concentrated coupon payments. At no time of the year is this more apparent than in/around June 1st/June 2nd and December 1st/December 2nd (Chart).

To be clear, the hyper-concentrated nature of Canada's maturities and resulting coupon payments is nothing new. But as we've previously highlighted, there is more cash arriving this year than ever before. Moreover, when we look to each of December 1st and December 2nd, we are talking about individual cashflows that are 25-40 times the daily average (or 7-10 standard deviations from the mean if you prefer you think in sigmas). Outsized? You bet!

Finally, in a nod to tomorrow's T-11 stanza, early December cash will this year be super-concentrated (given the 1st falls on a weekend)…

Chart T-12: Coupons a-clipping

FTSE Canada Universe Bond Index: Daily projected interest income for coming one-year period, with outsized cashflow days highlighted



Source: NBC, FTSE Russell | Note: Based on projected FTSE Canada Universe Bond Index interest income payments for the coming 365 calendar days, based on 12-Nov-24 index constituents/prices; 365-day period covers 14-Nov-24 to 13-Nov-25; outsized cashflow days (red columns in the above chart) are defined as calendar days when projected interest income payments exceed the coming year's daily average by at least 5-times; 14 calendar days meet this 'outsized' definition, the nearest of these being 1-Dec-24 & 2-Dec-24 (with 15-Dec-24 & 18-Dec-24 also deemed 'outsized'); for weekends & holidays, projected interest income would be received on the next good business day, which is an issue we'll touch on tomorrow (which is T-11)

November 15, 2024 - (Vol. VIII, No. 91 T-11)

The ~~Twelve~~ Eleven Days Pre-Cashflow

By Warren Lovely

♬ On the eleventh day pre-cashflow, NBC reminded me… ♬

♬ T-11) Cash con-centrating ♬

We're continuing to adapt a holiday classic to an important season for Canada's domestic bond market. We have dubbed this *'The Twelve Days Pre-Cashflow'* and the idea is simple enough. In the 12 weekdays leading up to start of December, we're offering a single chart (or at most two) to highlight a specific aspect/implication of the truly outsized cashflows and index rolls now around the corner.

We kicked things off yesterday (when we were twelve weekdays out from the start of December or T-12) with: ***Coupons a-clipping***.

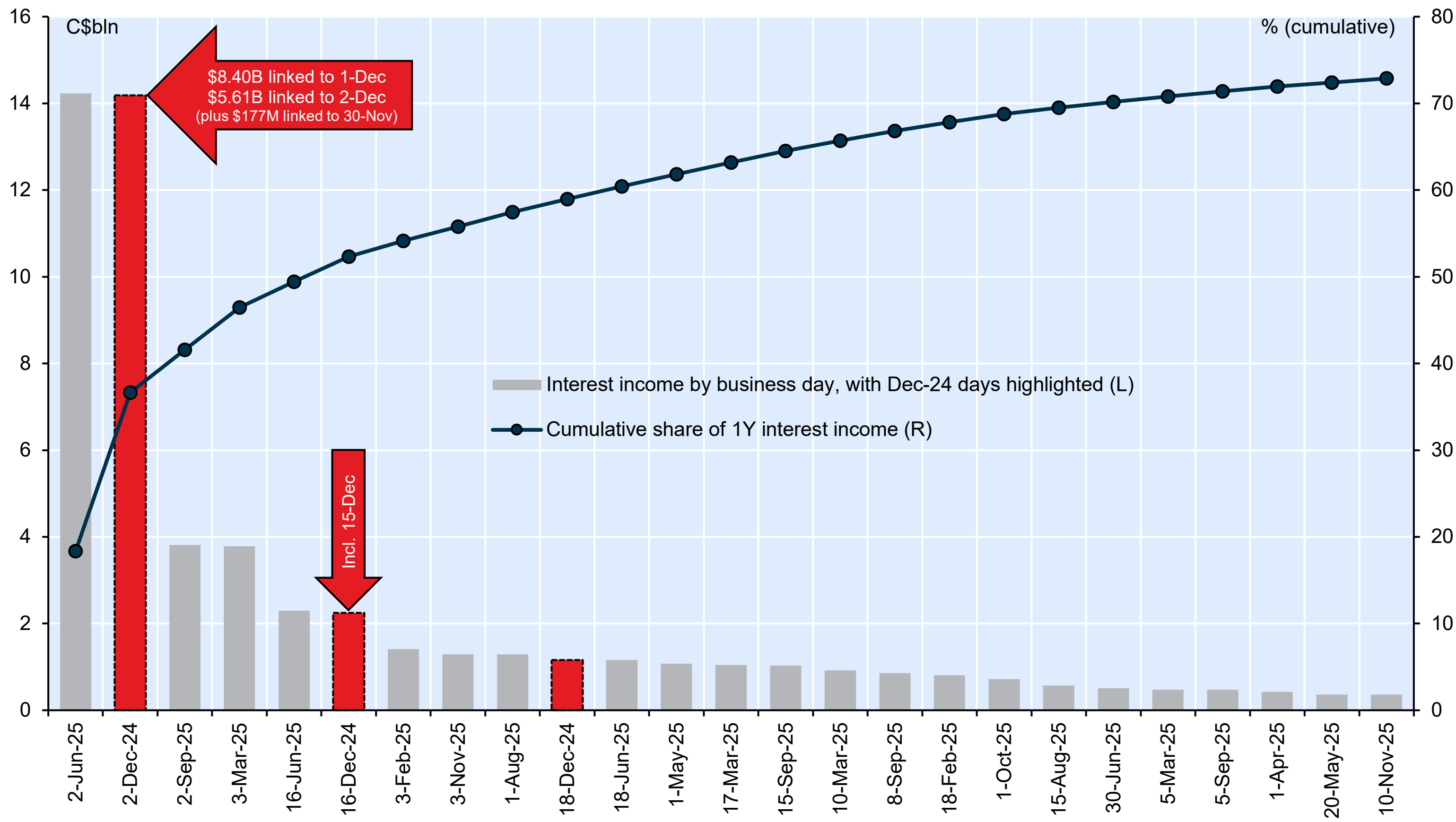
This being T-11 weekdays to the start of December, we continue with: *Cash con-centrating*. A quick glance at your calendar reveals that December 1st falls on Sunday this year. As result, the meaningful coupon/roll effects associated with December 1st won't be captured until the next good business day: Monday, December 2nd. As many appreciate, the 2nd is itself a pretty important coupon/roll day. Thus, this year's early December impacts look to be super-concentrated.

To illustrate, refer to the below chart which ranks good business days by the total amount of index interest income due to arrive in the next year. Underlying the rather hefty $14 billion expected to land on December 2nd is a roughly 60-40 split between the 1st and 2nd (plus a little dribble of cash linked to November 30th). There is another outsized December cashflow day also falls on a weekend in 2024: December 15th, where impacts will be pushed into Monday, December 16th. We'd note that the effective concentration of key cashflow days should be accounted/controlled for when comparing to prior years.

Early December's appreciable bond roll effects—which result when securities either drop out of the universe index or roll over from one bucket to another—will likewise be clumped together on the 2nd. If you are wondering, there are precisely seven fixed-rate bonds with a December 1st or December 2nd maturity that are about to see their index status change. A couple of those have a pretty material float. That's the precise focus of Monday's T-10 stanza: *Bonds a-rolling*. Until then…

Chart T-11: Cash con-centrating

FTSE Canada Universe Bond Index: Top 25 business days of projected interest income for coming one-year period, controlling for weekends/holidays



Source: NBC, FTSE Russell | Note: Based on projected FTSE Canada Universe Bond Index interest income payments for the coming 365 calendar days, based on 12-Nov-24 index constituents/prices; 365-day period covers 14-Nov-24 to 13-Nov-25; chart refers to good business days only (grouping/adding weekend/holiday cashflows as appropriate)

November 18, 2024 - (Vol. VIII, No. 93 T-10)

The ~~Twelve~~ Ten Days Pre-Cashflow

By Warren Lovely

♫ On the tenth day pre-cashflow, NBC reminded me… ♫

♫ T-10) Bonds a-rolling ♫

We continue with *'The Twelve Days Pre-Cashflow'*. Our immediately preceding stanza (which we sung Friday on what was T-11 weekdays to the start of December) was: ***Cash con-centrating***. That brings us to T-10 and with it a fresh verse: *Bonds a-rolling*.

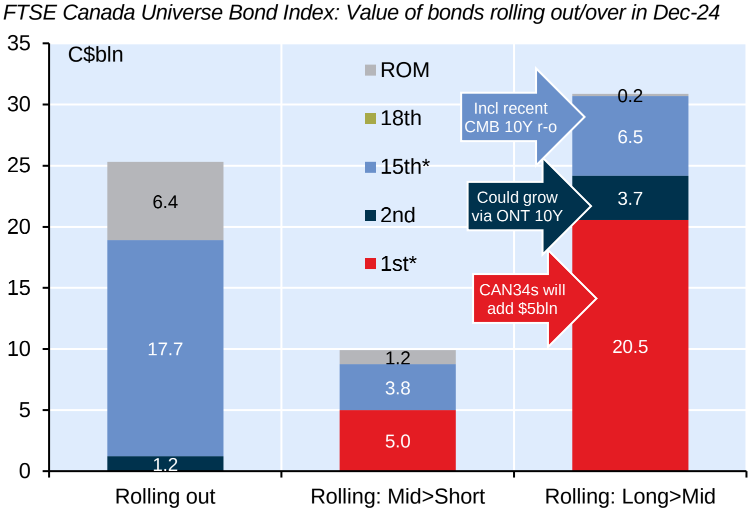
In the same way that coupons will be concentrated on December 2nd—since December 1st is a Sunday—bond roll effects will be lumpy. As it stands, seven bonds will see their index status change on the 2nd. Most notable will be the rolling down of four bonds from the 'Long' to the 'Mid' bucket, where combined holdings currently top $24 billion. That makes this year's two-day roll-over more material than in recent years.

Strictly speaking, the December 2nd Long>Mid status change involves federal (CAN), provincial (ONT, NF) and municipal (MNTRL) product. But the CAN 3.25% 1-Dec-2034s will undoubtedly exert outsized influence. This issue is already $20 billion in size but will be re-opened again this week. Tacking on another 5 yards via Wednesday's auction only enhances what is going to be a substantial duration event for the 'Long' end. Elsewhere, Ontario's 3.8% 2-Dec-34 bond (the current 10-year benchmark) could possibly be re-opened. While a less-immediate roll, the CANHOU 3.5% 15-Dec-2034 issue just doubled in size.

That's meant as a segue to tomorrow's T-9 offering: *Indices ex-tending*.

Chart T-10(a): Bonds a-rolling this December

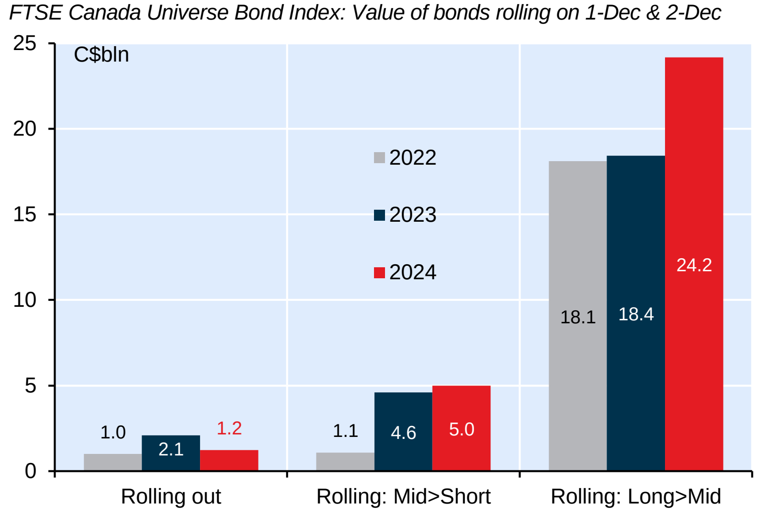
FTSE Canada Universe Bond Index: Value of bonds rolling out/over in Dec-24



Source: NBC, FTSE Russell | Note: Based on index composition as at 14-Nov-24; value of final rolls will change as index evolves & bonds issued; 1-Dec & 15-Dec fall on weekend in 2024; ROM refers to rest of Dec; see Table below for select security details for 1-Dec & 2-Dec

Chart T-10(b): How Dec 1st/2nd rolls compare to prior years

FTSE Canada Universe Bond Index: Value of bonds rolling on 1-Dec & 2-Dec



Source: NBC, FTSE Russell | Note: Combined sum of roll outs/roll overs for the two days; based on index composition as at 14-Nov each year; value of final rolls would have/will change as index evolves & bonds issued; see Table below for 2024 securities

Table T-10: A closer look at the bonds a-rolling on the first business day of December

FTSE Canada Universe Bond Index: Specific bonds rolling out of index or rolling over from one bucket to another on select Dec-24 days

December 1st*: FTSE Canada Universe Bond Index rolls out/roll overs (captured December 2nd)

Rolling out of UNIVERSE				
Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling over			**0**	**0.00**

Rolling over MID to SHORT				
Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CAN	2.25	1-Dec-29	5,000	0.21
Total rolling over			**5,000**	**0.21**

Rolling over LONG to MID				
Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
CAN	3.25	1-Dec-34	20,000	0.89
MNTRL	4.10	1-Dec-34	530	0.02
Total rolling over			**20,530**	**0.91**

December 2nd: FTSE Canada Universe Bond Index roll outs/roll overs

Rolling out of UNIVERSE				
Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
ONT	8.50	2-Dec-25	831	0.04
CIXCN	7.00	2-Dec-25	400	0.02
Total rolling out			**1,231**	**0.06**

Rolling over MID to SHORT				
Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
N/A				
Total rolling over			**0**	**0.00**

Rolling over LONG to MID				
Issuer *Ticker*	Cpn *%*	Maturity *Date*	O/S *C$mln*	Weight *%*
ONT	3.80	2-Dec-34	3,250	0.14
NF	3.85	2-Dec-34	400	0.02
Total rolling over			**3,650**	**0.16**

Source: NBC, FTSE Russell | Note: Based on index composition as at 14-Nov-24; amount O/S & weight relate to "current holdings"; certain bonds could/will increase in size before 2-Dec

Market View
Economics and Strategy

NATIONAL BANK OF CANADA
FINANCIAL MARKETS

November 19, 2024 - (Vol. VIII, No. 95 T-9)

The ~~Twelve~~ Nine Days Pre-Cashflow

By Warren Lovely

♬ On the ninth day pre-cashflow, NBC reminded me… ♬

♬ T-9) Indices ex-tending ♬

We continue with *'The Twelve Days Pre-Cashflow'*. Our immediately preceding stanza (delivered yesterday on what was T-10 weekdays to the start of December) was: ***Bonds a-rolling***. That brings us to T-9 and with it a fresh verse: *Indices ex-tending*.

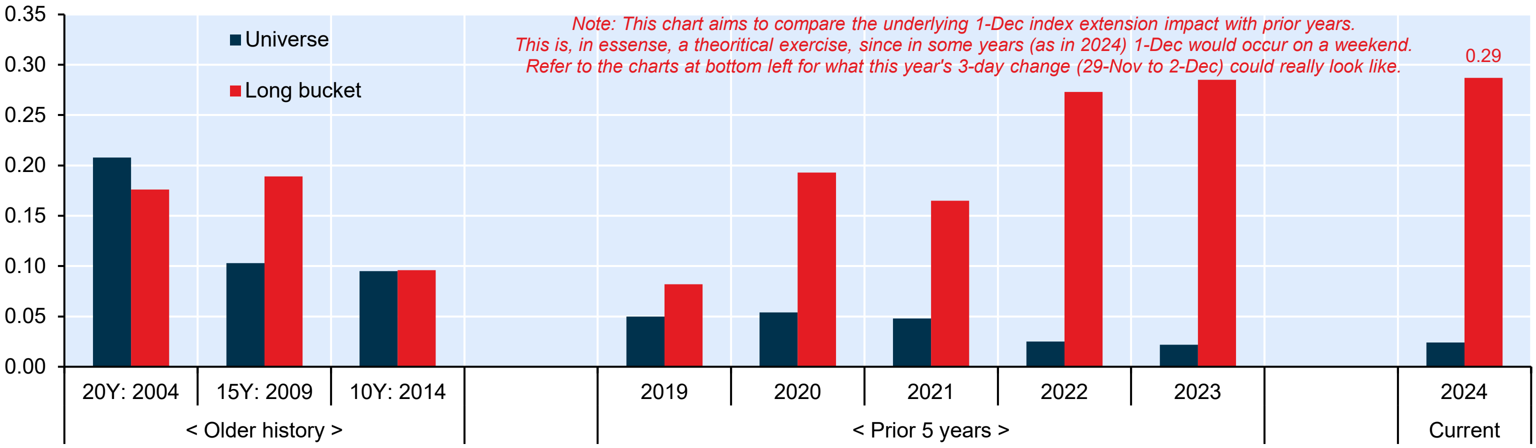
With an unprecedented amount of coupons to be paid and some chunky issues rolling, expect non-trivial duration to be added to select bond index buckets/sectors. And since December 1st falls on a Sunday, that day's outsized index impacts will be lumped together and captured on December 2nd. Based on current index composition and pricing, we peg the potential duration increase for the FTSE Canada Universe Bond Index for December 2nd at 0.04 units. The 'Long' bucket is poised for a hefty 0.39-unit increase, keyed by the sovereign sector.

If that's not enough duration for you, consider that final duration adjustments could be even larger, particularly for the 'Long' bucket. That's because 5 yards will be tacked on to the CAN 3.25% 1-Dec-2034s this week. No promises, but Ontario might likewise re-open its 10-year benchmark (2-Dec-2034s) before the end of the month. We offer a couple related scenarios for the 'Long' bucket at bottom right.

Our T-8 offering set for tomorrow will be: *Buckets re-weighting*.

Chart T-9(a): Another outsized December 1st duration effect…

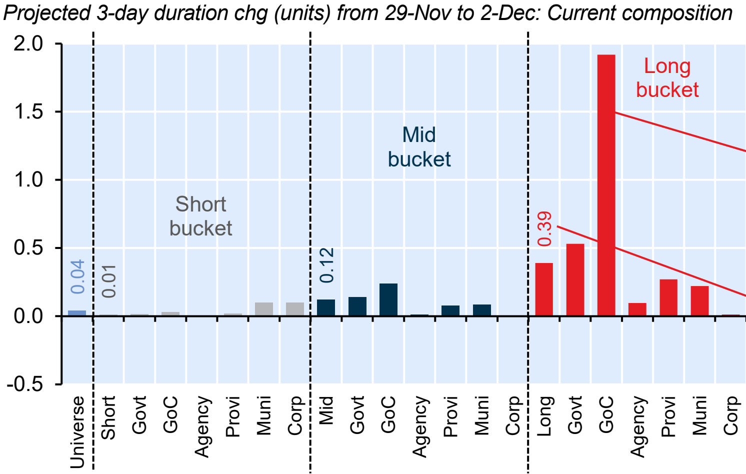
FTSE Canada Universe Bond Index: Historical perspective on projected 1-day change in modified duration (units) of 'Universe' & 'Long' bucket from 30-Nov to 1-Dec



Source: NBC, FTSE Russell | Note: Based on index composition as at 17-Nov (or most recent); simulated changes can differ from actual/reported duration changes owing to shifts in yields/curves & issuance from simulation date to 1-Dec; in some years 1-Dec falls on weekend with index adjustments captured next good business day (e.g., 2-Dec-24)

Chart T-9(b): …to be captured on December 2nd…

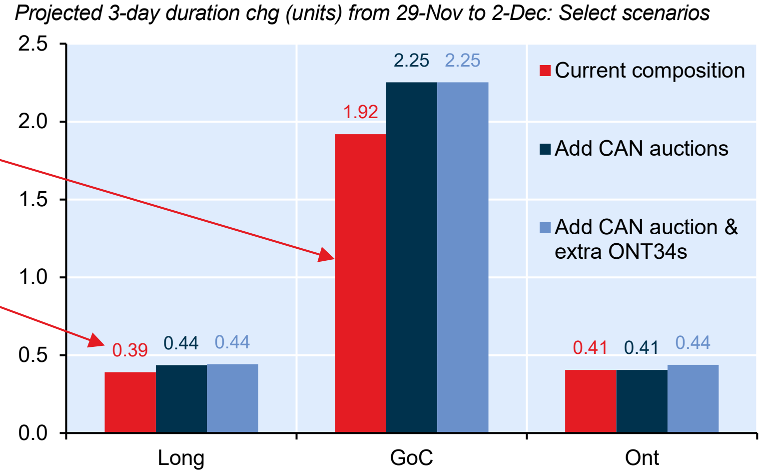
Projected 3-day duration chg (units) from 29-Nov to 2-Dec: Current composition



Source: NBC, FTSE Russell | Note: Based on FTSE Canada Universe Bond Index composition as at 15-Nov-24; captures multi-day impact given 30-Nov & 1-Dec fall on weekend; assumes no change in yield curve

Chart T-9(c): … with final extension biased even higher

Projected 3-day duration chg (units) from 29-Nov to 2-Dec: Select scenarios



Source: NBC, FTSE Russell | Note: Red bars based on FTSE Canada Universe Bond Index composition as at 15-Nov-24; dark blue adjusts CAN 3/2030s & CAN 12/2034s for planned auctions; light blue additionally adds potential re-opening of ONT 12/2034s

November 20, 2024 - (Vol. VIII, No. 96 T-8)

The ~~Twelve~~ Eight Days Pre-Cashflow

By Warren Lovely

♫ On the eighth day pre-cashflow, NBC reminded me… ♫

♫ T-8) Buckets re-weighting ♫

We continue with *'The Twelve Days Pre-Cashflow'*. Our immediately preceding stanza (delivered yesterday on what was T-9 weekdays to the start of December) was: ***Indices ex-tending***. That brings us to T-8 and with it a fresh verse: *Buckets re-weighting*.

The rolling of bonds at the start of December will adjust the relative weights of buckets and sectors of the FTSE Canada Universe Bond Index. We deal with the former today and the latter tomorrow.

The primary bucket re-weighting trigger will be bond roll overs (either from 'Mid' to 'Short' or from 'Long' to 'Mid'). The cascading (or dropping down) of select issues will add marginal weight (and incremental duration) to the 'Short' and 'Mid' buckets.

Meantime, with four Dec-2034 maturities slated for eviction from the 'Long' end on December 2nd, the relative weighting of this bucket will drop. Again, there's nothing particularly subtle about the looming adjustments to the 'Long' end.

As illustrated below, the dynamic interplay between bucket weights and duration gets us to the 0.041 duration extension that we have estimated for the 'Universe' on Monday, December 2nd. (To clarify, that's a 3-day cumulative duration adjustment, inclusive of December 1st impacts.)

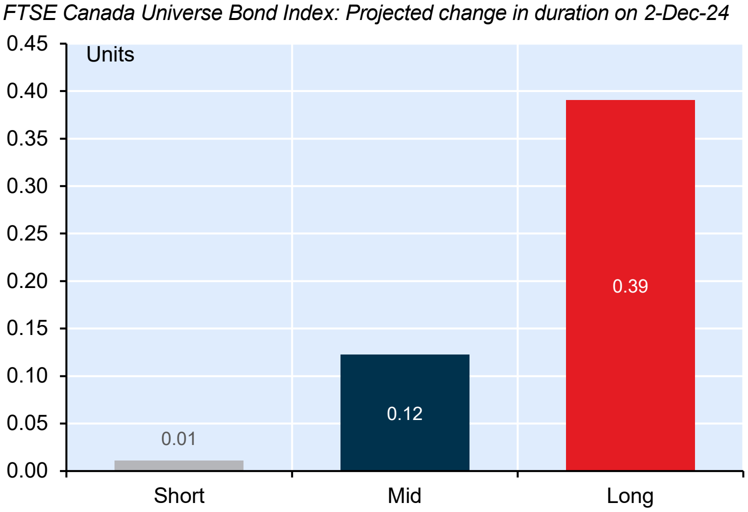
As repeatedly cautioned, all projected changes in weights and duration are based on current index constituents and prices/yields. Clearly, however, Canada's domestic bond market is not static.

We have a couple GoC auctions staring us in the face: 5s on Wednesday, 10s on Thursday. The 10-year GoC auction is particularly noteworthy, since it will add weight to a security that is set to roll over from 'Long' to 'Mid'. Some marginal supply could arrive from other issuers/sectors too. Thus, treat all simulations with a degree of caution.

Our T-7 offering set for tomorrow will be: *Sectors ad-justing.*

Chart T-8(a): Simulated change in duration by bucket…

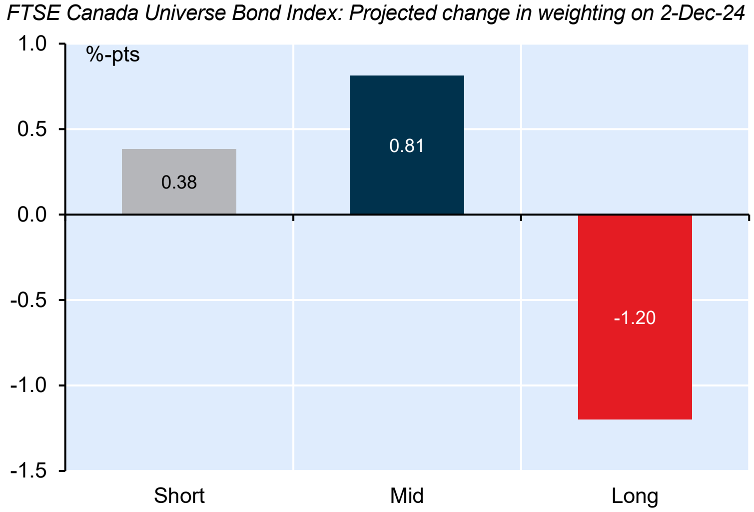
FTSE Canada Universe Bond Index: Projected change in duration on 2-Dec-24



Source: NBC, FTSE Russell | Note: Based on FTSE Canada Universe Bond Index composition as at 15-Nov-24; captures multi-day impact given 30-Nov & 1-Dec fall on weekend; assumes no change in yield curve

Chart T-8(b): … and revised bucket weighting…

FTSE Canada Universe Bond Index: Projected change in weighting on 2-Dec-24



Source: NBC, FTSE Russell | Note: Based on FTSE Canada Universe Bond Index composition as at 15-Nov-24; captures multi-day impact given 30-Nov & 1-Dec fall on weekend; assumes no change in yield curve

Chart T-8(c): … gets us to 0.041 expected increase in Universe duration on December 2nd

FTSE Canada Universe Bond Index: Projected change in modified duration & relative weighting by bucket on 2-Dec-24

Bucket >	'Short' bucket		'Mid' bucket		'Long' bucket		'Universe'
Metric >	Mod duration	Weight	Mod duration	Weight	Mod duration	Weight	Mod duration
Date	Units	% of Universe	Units	% of Universe	Units	% of Universe	Units
Friday, November 29, 2024	2.665	41.4%	6.441	29.2%	14.434	29.4%	7.226
Monday, December 2, 2024	2.676	41.8%	6.564	30.1%	14.824	28.2%	7.267
3-day change	*0.011*	*0.4%*	*0.122*	*0.8%*	*0.390*	*-1.2%*	*0.041*

Source: NBC, FTSE Russell | Note: Note: Based on FTSE Canada Universe Bond Index composition as at 15-Nov-24; captures multi-day impact given 30-Nov & 1-Dec fall on weekend; assumes no change in yield curve

November 21, 2024 - (Vol. VIII, No. 97 T-7)

The ~~Twelve~~ Seven Days Pre-Cashflow

By Warren Lovely

♬ On the seventh day pre-cashflow, NBC reminded me… ♬

♬ T-7) Sectors ad-justing ♬

We continue with *'The Twelve Days Pre-Cashflow'*. Our immediately preceding stanza (delivered yesterday on what was T-8 weekdays to the start of December) was: ***Buckets re-weighting***. That brings us to T-7 and with it a fresh verse: *Sectors ad-justing*.

The unprecedented cashflows that will arrive this December reflect a larger pool of index-eligible securities, particularly when you control for BoC Quantitative Tightening (or the passive run-off of maturing bonds from the central bank's balance sheet). This QT process effectively puts more GoC bonds into the hands of end investors. In some respects, you can think of this as the delayed arrival and absorption of some of Ottawa's peak-COVID borrowing binge.

Beyond QT, ongoing federal deficits and non-budgetary cash needs (including for the partial consolidation of CMB supply among other things) further contribute to the growth in the federal debt stock.

Whatever the reason, as the available stock of GoC bonds has accumulated, the sovereign's relative weight in the domestic bond universe has increased. All else equal, that enhances the relative significance of prospective GoC bond roll/coupon effects for investors.

You can consider this a structural or broader strategic shift in the composition of Canada's domestic bond market. But as most surely appreciate, there are shorter-term and/or tactical considerations for December 2nd too.

As we explored yesterday, the rolling over of specific bonds from one bucket to another (i.e., 'Mid' to 'Short' and/or 'Long' to 'Mid') will drive notable adjustments in relative bucket and sector weightings.

With five Dec-2034 federal, provincial and municipal government securities set to roll down on the 2nd, the share of the index in the 'Long' bucket will drop. For the 'Long' end, it's duration (way) up but weighting (notably) down.

From a sector perspective, the total public sector (or 'government') weight within the 'Long' sleeve of the index will drop on December 2nd, presumably to be rebuilt as fresh longer-dated government supply is brought to market. On the flip side, the corporate share of the 'Long' bucket—never particularly heavy—will edge up a bit on December 2nd. Aside: Based on current holdings, roughly one-quarter of index-eligible corporate debt resides in the 'Long' bucket. By comparison, the relative share of index-eligible provincial bonds classified as 'Long' is one-half.

Having spent time dissecting the nature and scope of looming index adjustments, it's appropriate to shift the focus to the traditional market reaction(s) to December cashflows/duration adjustments. Our earlier reporting outlined a variety of empirical findings, highlighting underlying tendencies in rates and credit markets alike. As something of a reminder, we'll quickly reiterate select findings starting tomorrow, or T-6, with: *Yields a-falling*.

Chart T-7(a): Larger index-eligible bond stock

FTSE Canada Universe Bond Index: Market value of outstanding issues

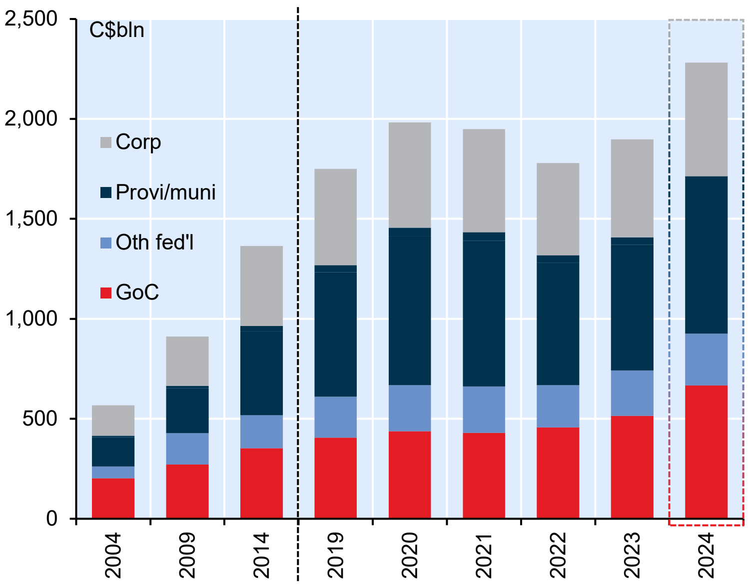
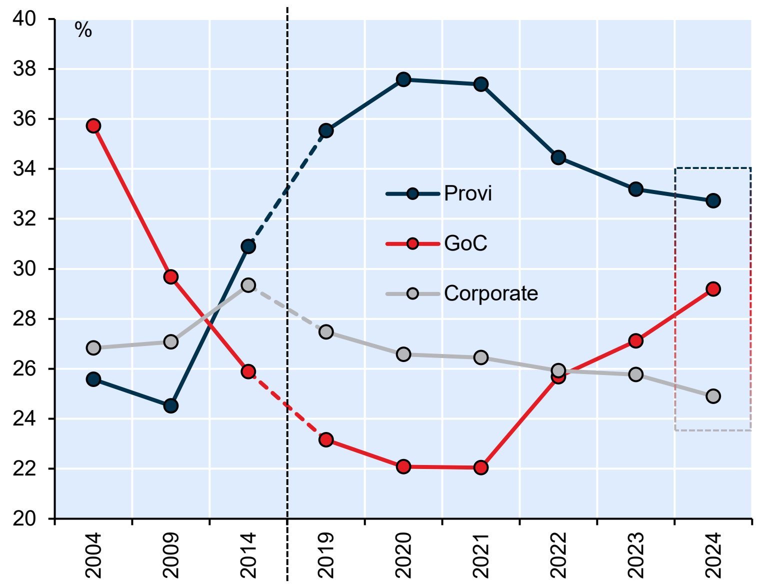


Chart T-7(b): *GoC's weight in index has moved up*

FTSE Canada Universe Bond Index: Select sector weightings



Source: NBC, FTSE Russell | Note to both charts: Based on FTSE Canada Universe Bond Index composition as at 18-Oct each period

November 22, 2024 - (Vol. VIII, No. 99 T-6)

The ~~Twelve~~ Six Days Pre-Cashflow

By Warren Lovely

♫ On the sixth day pre-cashflow, NBC reminded me… ♫

♫ T-6) Yields a-falling ♫

We continue with *'The Twelve Days Pre-Cashflow'*. Having thoroughly dissected looming bond index adjustments, we now shift our focus to the *traditional* market reaction(s) observed in/around Canada's lumpy December coupons and rolls. Today, or T-6 weekdays to the start of December, we key on absolute GoC interest rates.

Before going any further, a vital caveat: Empirical/seasonal analysis must always be interpreted with caution. The sample we are using isn't enormous, covering the post-GFC period of 2010-23 (i.e., 14 vintages). Moreover, even where market tendencies, average moves and/or success rates seem durable/compelling, all else is not always equal.

This idea of past not necessarily being prelude is our so-called 'golden rule'; the one rule we endeavour to keep top-of-mind and likewise the one rule we always intended to close off this December cashflow analysis with (on T-1).

Do the past few days of trade not reinforce the need for caution? Economic surprises (including October CPI) and political pronouncements (read fresh stimulus) have recast Canada's absolute and relative interest rate backdrop. We're talking about big moves where the direction contrasts with the historical average.

And what pray tell is the seasonal tendency for GoC yields in/around the start of December? Here, we specify the ex-ante test as: 'GoC yields lower'. This expected direction (aka *yields a-falling*) has generally held across the term structure going into and coming out of the early December cash deluge (Chart).

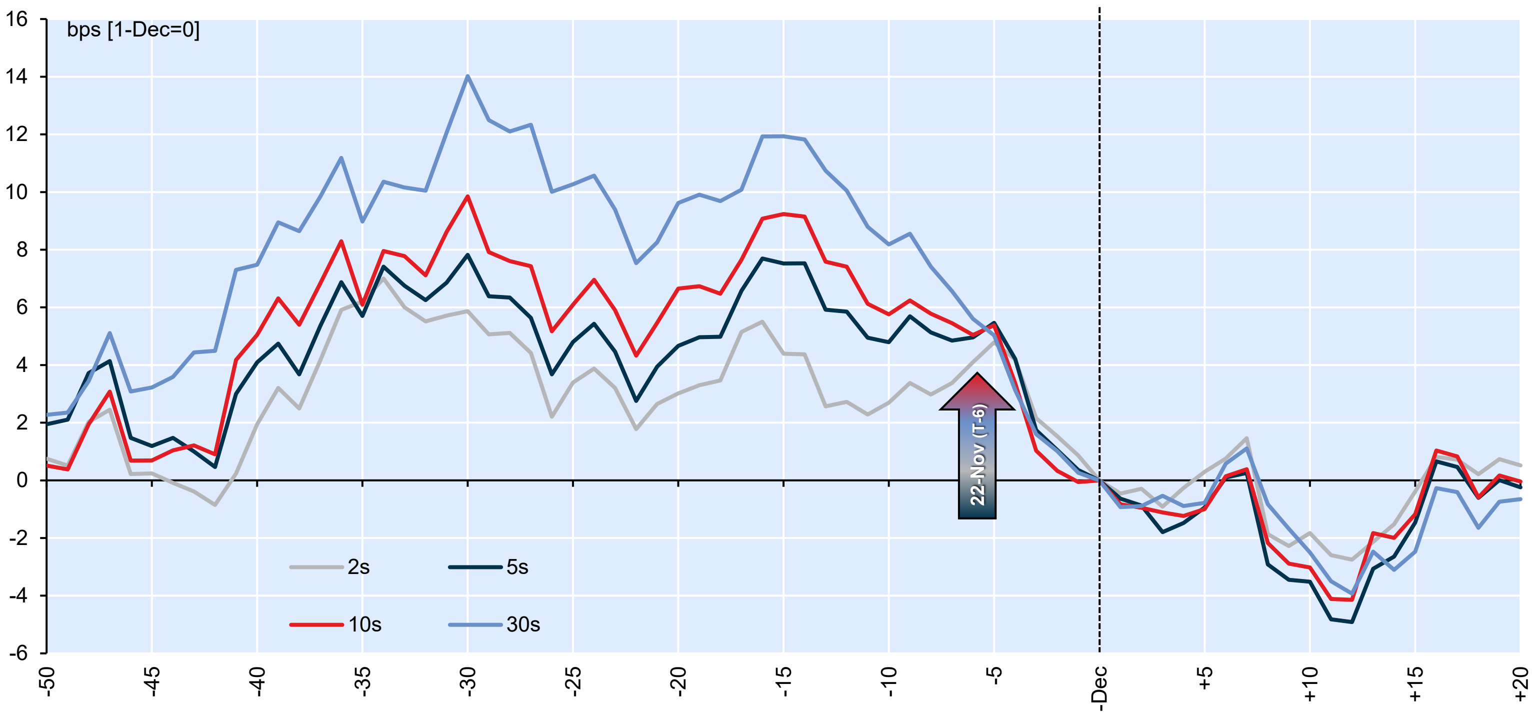
Again, blind reliance on historical patterns would have hurt you this year (at least so far). Benchmark yields are up ~25 bps in the last two weeks, bucking the notional/seasonal compression trend. Having absorbed such a meaningful sell-off, what of the shorter-term tendency… from say T-6 weekdays (i.e., where we are today) to the start of December?

In the post-GFC era, the average GoC yield change over that 6-day window has been: 2Y -4.1 bps; 5Y -5.0 bps; 10Y -5.0 bps; 30Y -5.6 bps. Keying on longs, GoC 30-year yields declined 9 out of 14 times over that 6-day pre-cashflow period (i.e., a 64% success rate vs. test). The anticipated direction held in each of the past three years, the 6-day rally going into 1-Dec-23 a sizeable 28 bps. Reiterating the 'golden rule', there was more driving Canadas last November/December than mere cashflow anticipation/deployment (as we had explored earlier).

On Monday (T-5 weekdays to December 2nd), we continue the seasonal analysis with: *Curves a-flattening*.

Chart T-6: GoC yields a-falling? That's what the average yield path showed in the past, but all else is not necessarily equal

Cumulative change in GoC benchmark bond yields relative to 1-December, based on prior 14Y average (2010-23)



Source: NBC, BBG | Note: Cumulative change based on generic BMs; horizontal axis reflects weekdays relative to 1-Dec (or next good business day if 1-Dec falls on weekend)

November 25, 2024 - (Vol. VIII, No. 100 T-5)

The ~~Twelve~~ Five Days Pre-Cashflow

By Warren Lovely

♫ On the fifth day pre-cashflow, NBC reminded me… ♫

♫ T-5) Curves a-flattening ♫

We continue with *'The Twelve Days Pre-Cashflow'*. Having thoroughly dissected looming bond index adjustments, we have shifted our focus to the *traditional* market reaction(s) observed in/around December coupons and rolls. Today is precisely one week or T-5 weekdays to the start of December. Here, we explore GoC yield curve dynamics.

A necessary reminder of our 'golden rule': Empirical/seasonal analysis must always be interpreted with caution. The sample we are using isn't enormous, covering the post-GFC period of 2010-23 (i.e., 14 vintages). Moreover, even where market tendencies, average moves and/or success rates seem durable/compelling, all else is not always equal.

As for the empirical record on yield curves…

Historically, there's been a distinct tendency towards flatter curves in the run up to December 1st, investors seemingly keen to position for the sizeable (if seasonal) duration extension. All major curves have exhibited this historical flattening bias. A notional performance window generally kicked off in final 2-3 weeks of November.

Not surprisingly, the broadest curve of all—Canada 2s30s—has demonstrated the greatest consistency (or highest success rate) when it comes to a flattening bias. Based on our post-GFC sample, the average move in 2s30s in the final 10 weekdays of November has been -5.5 bps.

Looking back, however, the flattener has (on average) looked a bit played out even before December 1st arrives. Consider: 2s30s is the major curve to flatten more often than not in the final 5 weekdays pre-cashflow. Nor is there much historical evidence to support follow-on flattening in first few days (or even the first couple weeks) of December.

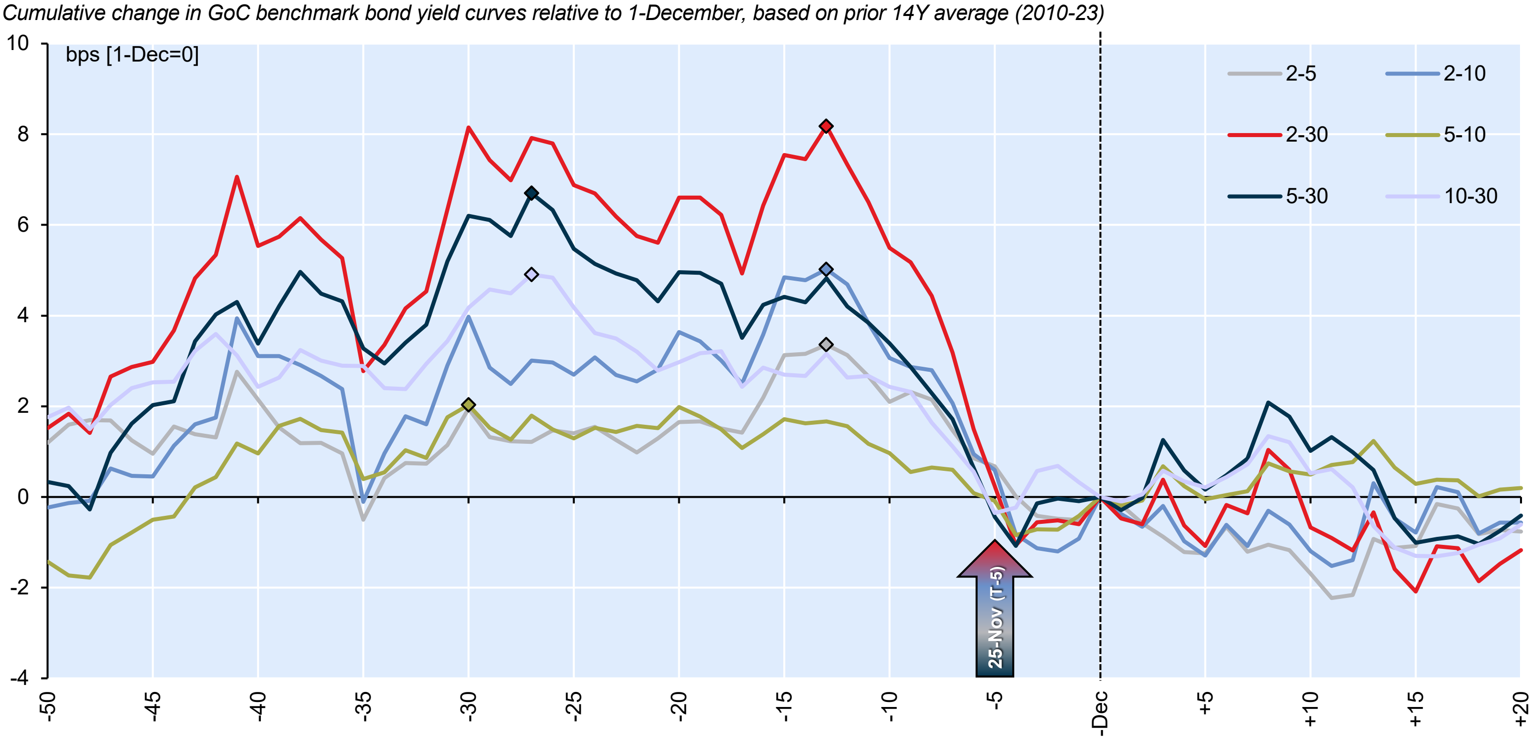
As for the 2024 lead in…

There's been no shortage of volatility in North America rates markets of late. Domestic data surprises and pro-growth fiscal announcements have forced a noted recalibration of BoC expectations, including for the policy rate decision upcoming on December 11th. This policy rate rethink has pressured the front end most of all, driving a bear flattening in the past 5-10 sessions. So while Canada curves have technically moved in the 'expected' direction (i.e., flatter), there are clearly more fundamental forces at play than advanced positioning for an upcoming extension.

Tomorrow (T-4 weekdays to December 2nd), we continue the seasonal analysis with: *Diffs com-pressing*.

Chart T-5: GoC yield curves a-flattening?

Cumulative change in GoC benchmark bond yield curves relative to 1-December, based on prior 14Y average (2010-23)



Source: NBC, BBG | Note: Cumulative change based on generic BMs; horizontal axis reflects weekdays relative to 1-Dec (or next good business day if 1-Dec falls on weekend)

November 26, 2024 - (Vol. VIII, No. 101 T-4)

The ~~Twelve~~ Four Days Pre-Cashflow

By Warren Lovely

♫ On the fourth day pre-cashflow, NBC reminded me… ♫

♫ T-4) Diffs com-pressing ♫

We continue with *'The Twelve Days Pre-Cashflow'*. Having thoroughly dissected looming bond index adjustments, we have shifted our focus to the *traditional* market reaction(s) observed in/around December coupons and rolls. We are now T-4 weekdays to the start of December, with today's offering focused on Canada-US bond yield differentials.

Historically, we have observed material and sustained outperformance of GoC bonds vs. US Treasuries heading into December's large seasonal cashflows (and the related duration extension). It has generally paid to put a long Canada, short US position on early, anywhere from T-43 to T-34 weekdays prior to the start of December (Chart). As a thought experiment: If you had obeyed optimal entry points (based on our 14-year post-GFC sample), GoC-UST differentials would in all cases be tighter: 10-12 bps better for 2s and 5s and more like 25 bps richer in both 10s and longs. The below Table puts pre-cashflow cross-market gyrations in context (with all levels in bps):

		Optimal Entry Day*	Richest Level	Latest (26-Nov-24)		
				Level	*vs. Optimal*	*vs. Richest*
GoC-UST	2Y	-94	-118	-104	*-10*	*14*
	5Y	-93	-121	-105	*-12*	*16*
	10Y	-76	-116	-101	*-25*	*15*
	30Y	-93	-133	-118	*-26*	*15*

Source: NBC, BBG | Note: Optimal entry date based on 14Y post-GFC sample; latest as at 07:45ET

Granted, in a development that nicely reinforces a vital caveat (and our oft-repeated 'golden rule'), past is no prelude. Yield differentials have deviated from the average compression path in this year's run-up to December 2nd. BoC re-pricing had sparked a bout of underperformance, erasing some earlier relative performance. As we send this, Canadas are outperforming anew on Trump tariff threats. Uncertainty reigns.

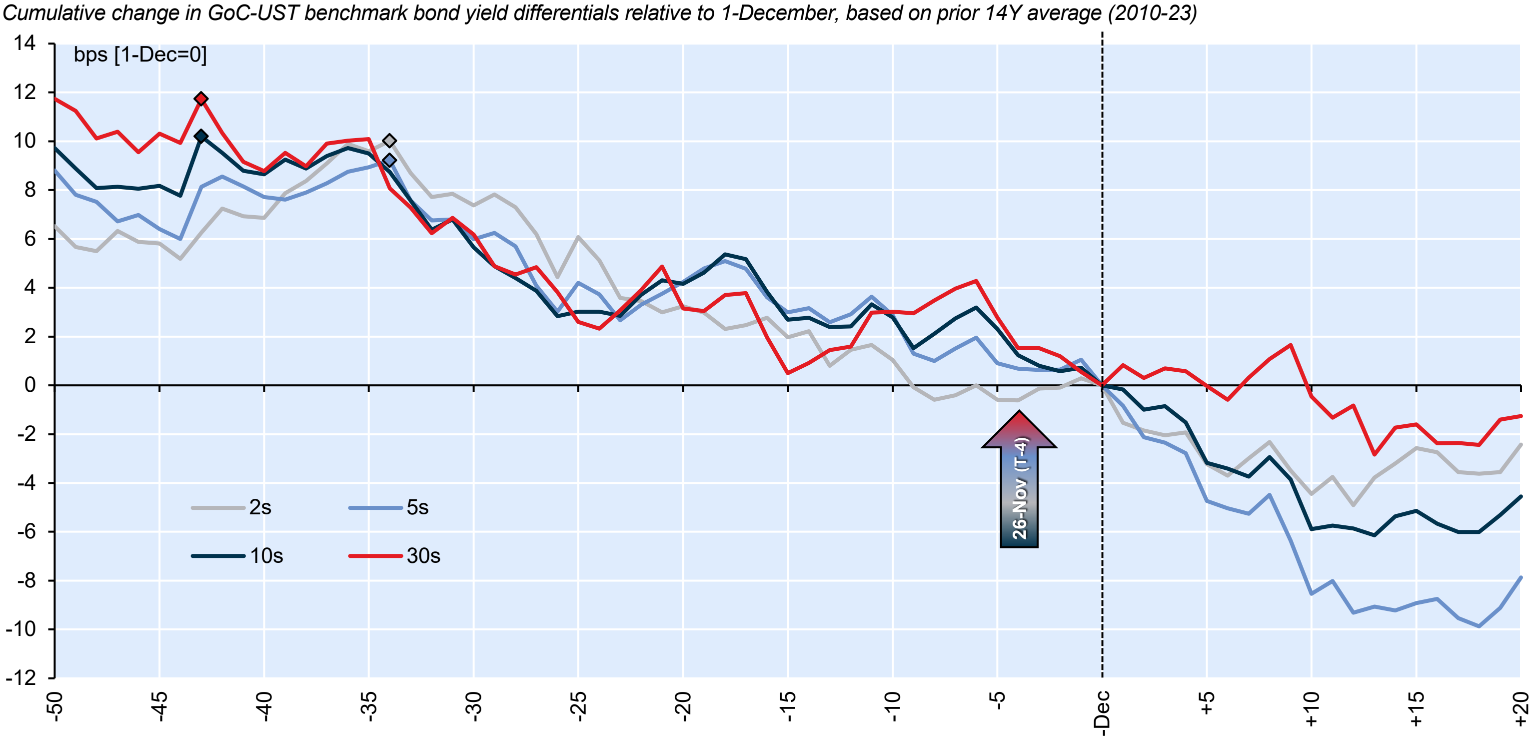
The start of December is not far away now. And we cautiously note that it has tended to be profitable to maintain a long Canada, short US bias into mid-December (if not through year-end).

When it comes to post-December 1st performance, historical success rates (based on 2010-23) are most striking in 5s. Again, we warn that past performance is no guarantee, particularly with the economic and geopolitical backdrops highly uncertain. As we were just reminded, we will have President-elect Trump pronouncements to parse. There will likewise be some important data releases and central bank speak to digest ahead of the final monetary policy decisions of 2024. As a reminder, the Bank of Canada is next up on December 11th, with the FOMC following on December 18th.

We continue our seasonal analysis tomorrow (T-3 weekdays to December 2nd) with: *Spreads a-tightening*.

Chart T-4: A seasonal compression in Canada-US yield differentials? What the average historical path shows us

Cumulative change in GoC-UST benchmark bond yield differentials relative to 1-December, based on prior 14Y average (2010-23)



Source: NBC, BBG | Note: Cumulative change based on generic BMs; horizontal axis reflects weekdays relative to 1-Dec (or next good business day if 1-Dec falls on weekend)

November 27, 2024 - (Vol. VIII, No. 102 T-3)

The ~~Twelve~~ Three Days Pre-Cashflow

By Warren Lovely

♬ On the third day pre-cashflow, NBC reminded me… ♬

♬ T-3) Spreads a-tightening ♬

We continue with *'The Twelve Days Pre-Cashflow'*. We are now T-3 weekdays to the start of December, with today's offering focused on public sector credit spreads.

As we had earlier flagged, November has traditionally been a favourable window for provincial credit, consistent with what has often been a healthy season for risk/equities. Notwithstanding geopolitical noise, this November hasn't disappointed. At ~63 bps, Ontario constant maturity 10s vs. the GoC curve—a bellwether credit spread if there ever was one—are roughly 5 bps inside of recent wides.

With 10s performing on the curve, Ontario's 5s10s credit box has flattened of late. The closely watched 10s30s credit box has backed up (i.e., steepened) somewhat from recent lows but remains no steeper (if not a bit flatter) than the level averaged in October. In general, December's sizeable bond index duration extensions support flatter credit curves all else equal.

When gauging public sector spread prospects in/around the start of December, we must remember that provincial issuers have historically issued into underlying strength. Put another way, the outsized cash and duration extension effects at this time of year naturally create room/demand for new issue product. Saying that, some key provincial borrowing programs are nicely advanced, which hints that this year's seasonal supply surge may be underwhelming. We'll see.

Guided by the empirical record, once the provincial bond supply taps are fully turned off for the calendar year—usually by mid-December—a more significant tightening of spreads can materialize. We will explore the supply impulse tomorrow on T-2 weekdays to December 2nd.

Chart T-3(a): November-December generally consistent with relatively tight(er) provincial credit spreads…

Seasonal pattern of Ontario 10Y domestic bond spread vs. GoC curve: Deviation from annual average

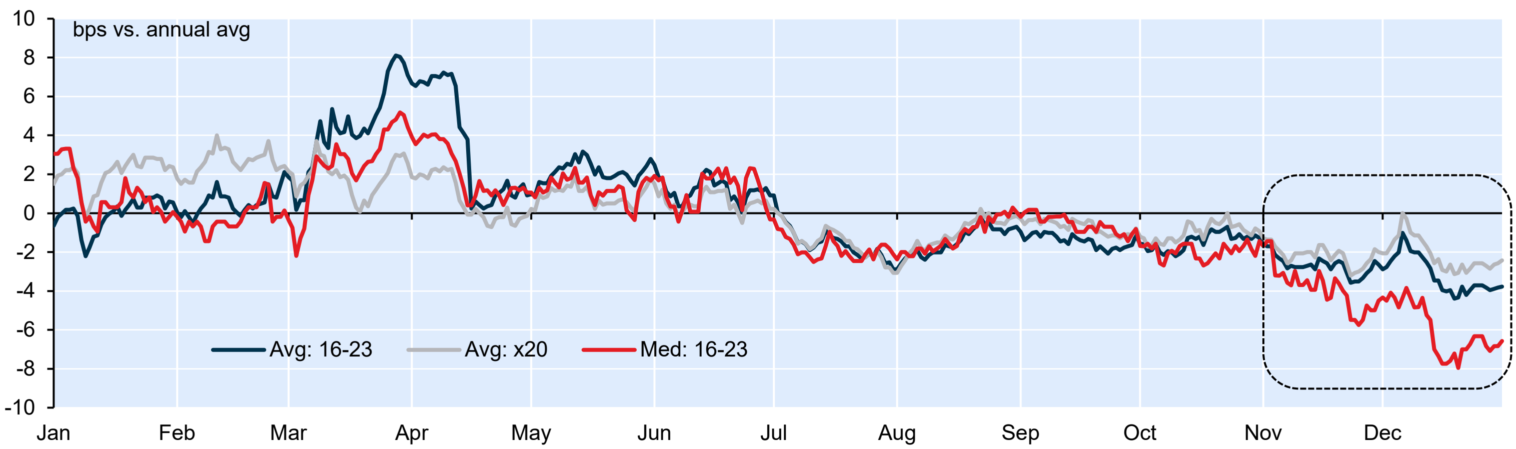
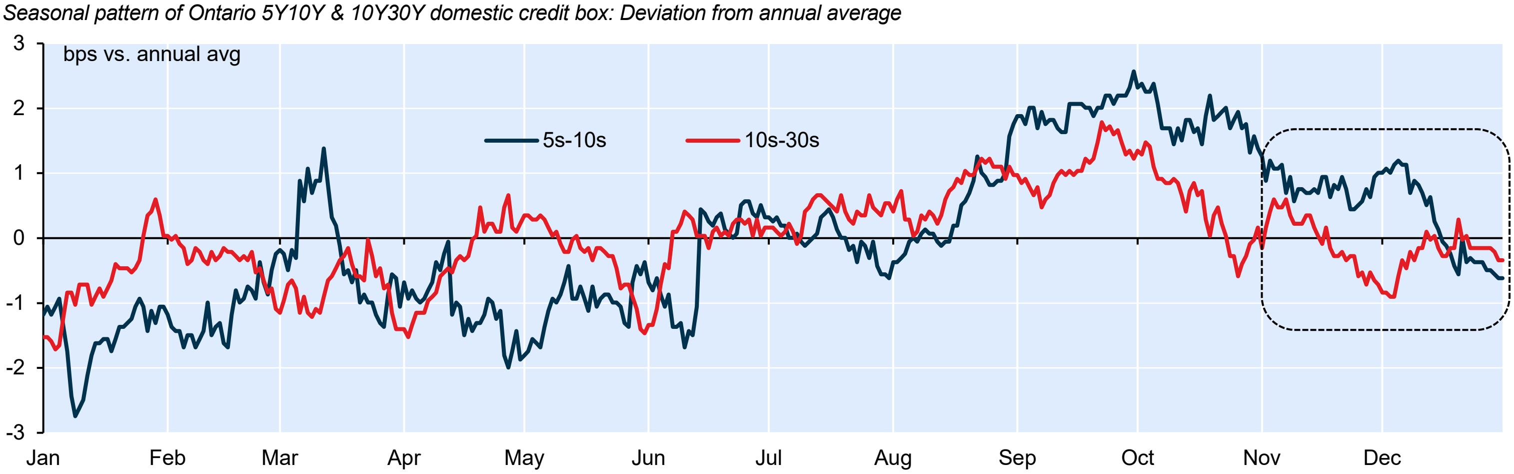


Chart T-3(b): … and flatter provincial credit curves (all else equal)

Seasonal pattern of Ontario 5Y10Y & 10Y30Y domestic credit box: Deviation from annual average



Source: NBC | Notes: Based on NBC's daily constant maturity new issue spread indications; chart represents deviation (in bps) from annual avg domestic (CAD) spread or credit box

November 28, 2024 - (Vol. VIII, No. 103 T-2)

The ~~Twelve~~ Two Days Pre-Cashflow

By Warren Lovely

♬ On the penultimate day pre-cashflow, NBC reminded me… ♬

♬ T-2) Issuers a-waiting ♬

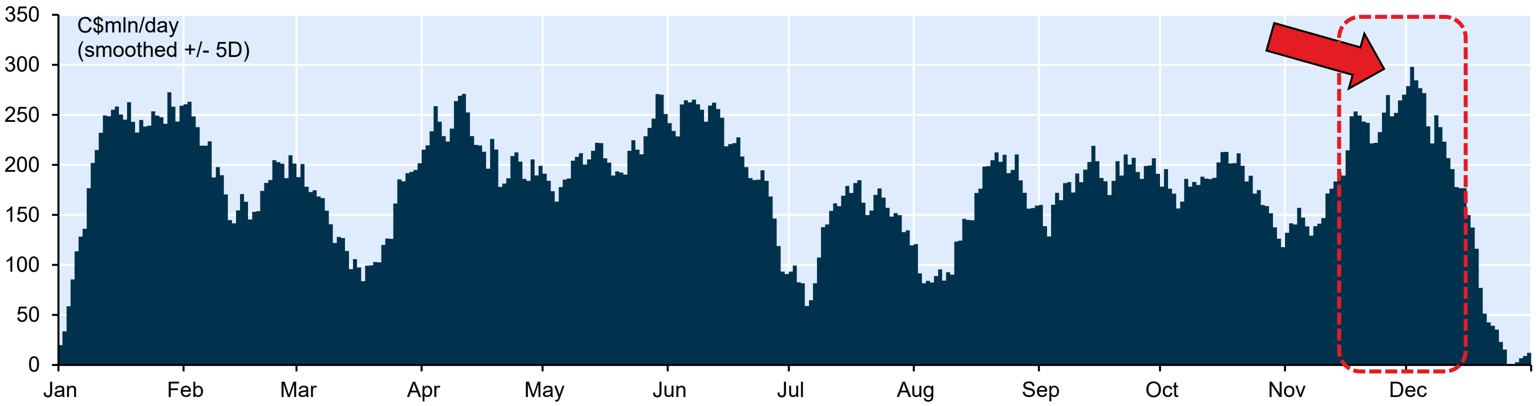
We continue with *'The Twelve Days Pre-Cashflow'*. We are T-2 weekdays to the start of December and here focus on supply seasonals.

Traditionally, provincial issuers have been a-waiting Canada's seasonal pocket of demand. It's often been a textbook case of issuing into strength. But there's reason to believe the near-term crop of provincial bonds may be comparatively modest. Funding programs are in many cases well advanced, the whole sector 90% funded at the two-thirds mark of the fiscal year. Quebec is already pre-borrowing for 2025-26, while Ontario's relatively advanced/comfortable position can allow for a more opportunistic approach to primary markets.

Note that as investor cash is gradually absorbed and the holidays close in, borrowers generally shut things right down in the final two weeks of December. As it happens, this late-year lull in supply often coincides with tight(er) spreads, with holiday constrained secondary liquidity having an ability to amplify market moves.

Chart T-2: In a *normal* year, provincial issues would tend to bring ample supply from mid-November to mid-December

Average daily CAD provincial bond supply (gross) over course of calendar year



Source: NBC, BBG | Note: Domestic issuance only; smooths daily issuance by +/- 5D; based on marketable bond issuance from 2010-23

Table T-2: … but 2024-25 anything but ordinary, as a large-sized program quite well advanced for this time of year

NBC provincial borrowing program status: 2024-25 fiscal year (i.e., April 2024 to March 2025)

Province / Agency	Ticker	Completed C$bln 2023-24	Required [a] C$bln 2024-25	Required [a] ~C$/per capita [b] 2024-25	Completed [c] C$bln 2024-25	Domestic % 2024-25	Foreign % 2024-25	Remaining C$bln 2024-25	Funded Status % 2024-25
British Columbia[d]	BRCOL	16.05	25.19	4,500	18.16	39%	61%	7.03	72%
Alberta[e]	ALTA	5.13	11.70	2,400	10.50	34%	66%	1.20	90%
Saskatchewan	SCDA	2.59	4.31	3,500	3.43	41%	59%	0.88	80%
Manitoba[f]	MP	5.75	6.19	4,200	4.90	59%	41%	1.29	79%
Ontario[g]	ONT	42.60	37.50	2,400	33.45	82%	18%	4.05	89%
Québec[h]	Q	27.30	29.47	3,800	32.55	65%	35%	0.00	110%
Hydro-Québec[i,j]	QHEL	3.80	5.00		6.10	100%	0%	0.00	122%
New Brunswick[k]	NBRNS	1.80	1.69	2,000	1.40	100%	0%	0.29	83%
Nova Scotia	NS	2.00	2.60	2,400	1.70	100%	0%	0.90	65%
Prince Edward Island	PRINCE	0.20	0.40	2,300	0.20	100%	0%	0.20	50%
Newfoundland & Labrador[l]	NF	2.10	2.80	5,200	1.98	96%	4%	0.82	71%
TOTAL		**109.3**	**126.9**	**3,100**	**114.4**	**65%**	**35%**	**16.7**	**90%**
								% FY elapsed:	*66%*

Source: NBC, prov gov'ts, BBG, StatCan | Notes: (a) Long-term gross funding req't based on latest available official estimates; incl. capital needs, loans/advances, other cash adjustments & refinancings; req'ts generally excl. pre-funding for future years (with exceptions); (b) Per capita req't based on 2024:Q1 population estimates; (c) Funds borrowed to date, based on known issuance; (d) Req't excludes internal financing sources; (e) Req't includes pre-borrowing for future debt requirements; (f) Currently pre-funding towards 2025-26; (g) Includes certain hydro-related financing under province's banner; (h) Includes req't for Financement-Québec; (i) Funds in own name with explicit guarantee; (j) Fiscal year is January – December; (k) Includes req't for NB Power & NB Municipal Finance Corp; (l) Includes req't for N&L Hydro

NBC's *'The Twelve Days Pre-Cashflow'* (2024 edition)

- ***T-12) Coupons a-clipping*** *(released November 14th)* See link
- ***T-11) Cash con-centrating*** *(released November 15th)* See link
- ***T-10) Bonds a-rolling*** *(released November 18th)* See link
- ***T-9) Indices ex-tending*** *(released November 19th)* See link
- ***T-8) Buckets re-weighting*** *(released November 20th)* See link
- ***T-7) Sectors ad-justing*** *(released November 21st)* See link
- ***T-6) Yields a-falling*** *(released November 22nd)* See link
- ***T-5) Curves a-flattening*** *(released November 25th)* See link
- ***T-4) Diffs com-pressing*** *(released November 26th)* See link
- ***T-3) Spreads a-tightening*** *(released November 27th)* See link
- ***T-2) Issuers a-waiting*** *(released November 28th)* See link
- ***T-1) One golden rule*** *(released November 29th)* See first page of file

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Other Dec-24 cashflow-related reports:

- ***December cashflows come into view: Part A*** *(released October 22nd)*
- ***December cashflows come into view: Part B*** *(released October 28th)*
- ***December cashflows come into view: Part C*** *(released November 4th)*

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