

## Are December seasonals a thing in Canada? Yes and no

By Warren Lovely & Taylor Schleich

At key times of the year, we pause to explore the impact of Canada's ultra-lumpy cash flows on the domestic bond market. And when it comes to major seasonal cash flows in this country, nothing really compares with December 1<sup>st</sup> and December 2<sup>nd</sup>—except, of course, the six-month echo effect on June 1<sup>st</sup>/2<sup>nd</sup>. Standing somewhat in the shadow are a couple of other semi-notable cash flow days later in December (on the 15<sup>th</sup> and 18<sup>th</sup>).

As with past practice, we have packaged together a collection of charts and related commentary to provide context/background and to highlight the traditional impact of Canada's seasonal cash deployment. We analyze empirical performance records, bearing in mind current location/valuation.

On the face of it, December seasonals are a bit of 'a thing', having apparently generated (or at least coincided with) non-trivial absolute and relative moves in rates and credit markets over the years. Success rates aren't necessarily perfect, mind you. Moreover, with more and more investors attuned to Canada's looming cash dump, market efficiency might argue that seasonal impacts are at risk of getting arbed out. To us, evidence has been building on this front. So we'll caution that past performance is not necessarily indicative of what we'll see this go-round, with rates/credit markets circa 2021 contending with some special factors of their own—not least of which is the (re)pricing of interest rate hikes.

As always, we could go a lot deeper here. But in the interest of 'digestibility', we've opted to showcase only some of our seasonal analysis. We extend an invitation to interested readers to follow up on specific aspects that they may wish to explore in greater detail.

'Tis the season (for big-time cash), so let's begin...

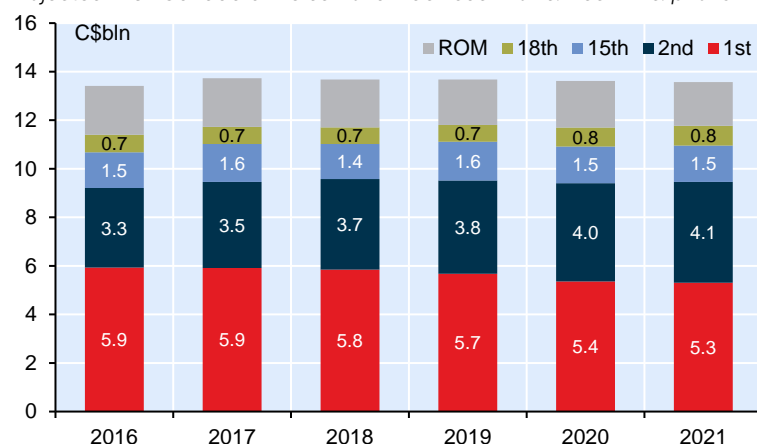
### Exploring a few angles of December cash flows

A word on how this report is structured. We have grouped a series of charts and related commentary blocks into three main sections:

- Canadian fixed income index impacts [Charts 1-5 on pages 1-2; Table 1 on page 5] – This includes estimates of December cashflows and simulated impacts on the FTSE Canada Universe Bond Index. Hint: Duration will extend notably, although far from uniformly.
- Canadian rates [Charts 6-11 on pages 3-4; Table 2 on page 6] – We present key findings based on detailed empirical analysis covering the 2010-20 period. Canada outperformance vs. the US appears to be one of the more consistently profitable elements here.
- Canadian public sector credit [Charts 12-15 on page 4] – Here we highlight the support that public sector credit spreads have tended to enjoy, with credit spreads only held back by a natural urge on the part of issuers to tap the deep vein of cash. There's support for a credit curve flattener, alongside a tendency for basis spreads to snug up. And on the topic of current valuations, CMB appears fundamentally 'cheap' to us, providing a compelling entry point as a 10-year deal approaches.

### Chart 1: December's outsized cash is heavily concentrated

Projected FTSE Canada Universe Bond Index cash flows: Dec-21 vs. prior 5Y



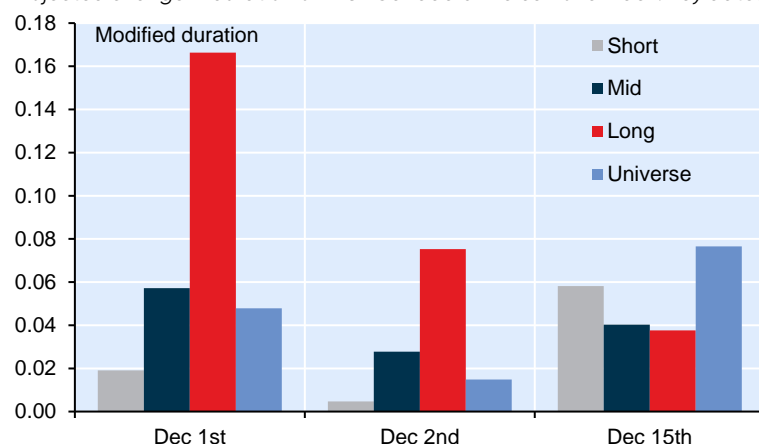
Source: NBF, FTSE Russell | Note: Based on cash flow reports generated on 9-Nov of each year; ROM refers to rest of December (excl. 1<sup>st</sup>, 2<sup>nd</sup>, 15<sup>th</sup> & 18<sup>th</sup>)

Looking at the FTSE Canada Universe Bond Index, there's nearly C\$14bln of cash being paid out this December. That's far greater than any other month, excepting June, which as the six-month echo is picking up the same clustering of maturities/coupons. The bulk of December's cash will arrive on the 1<sup>st</sup> and 2<sup>nd</sup> of the month, although the 15<sup>th</sup> and 18<sup>th</sup> are also notable days (with the latter falling on the weekend this year). This year's cash dump may not be so different than prior iterations, but that doesn't change the magnitude of resulting index adjustments or necessarily dull potential moves in rates and credit markets.

Note: NBF's complementary cash flow analysis incorporating the impact of maturities puts this December north of -C49bln, comfortably above 2019-20, with 55% of that flowing on the 1<sup>st</sup>/2<sup>nd</sup>.

### Chart 2: Resulting impact on domestic bond indices notable

Projected change in duration of FTSE Canada Universe Bond Index: Key dates



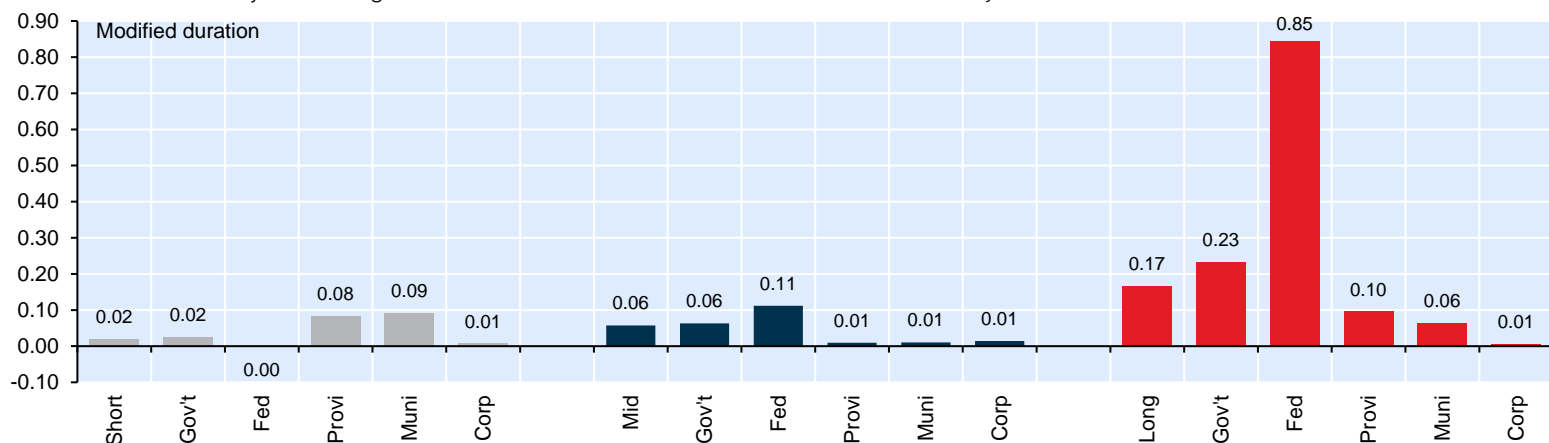
Source: NBF, FTSE Russell | Note: NBF simulations based on index composition & closing prices as at 9-Nov; assumes no change in yield curve

We estimate December's super-sized coupons and related roll outs will add successive amounts of duration to the Universe index (ceteris paribus). Specific cash flow impacts are hardly uniform, mind you, with each of the 1<sup>st</sup>, 2<sup>nd</sup> and 15<sup>th</sup> expected to leave a unique imprint on fixed income indices. All else isn't always equal, but the looming coupon/roll out/roll over effects should bolster investor demand in the days and weeks ahead. Issuers will likely be keen to capture some of this seasonal cash.

Note: Last year saw two RRBs roll out of that separate bond index. While a couple of RRB securities will each roll Mid to Short and Long to Mid, we won't see a replay of the big-time duration increase for Canada's RRB index this December 1<sup>st</sup> that we saw a year ago.

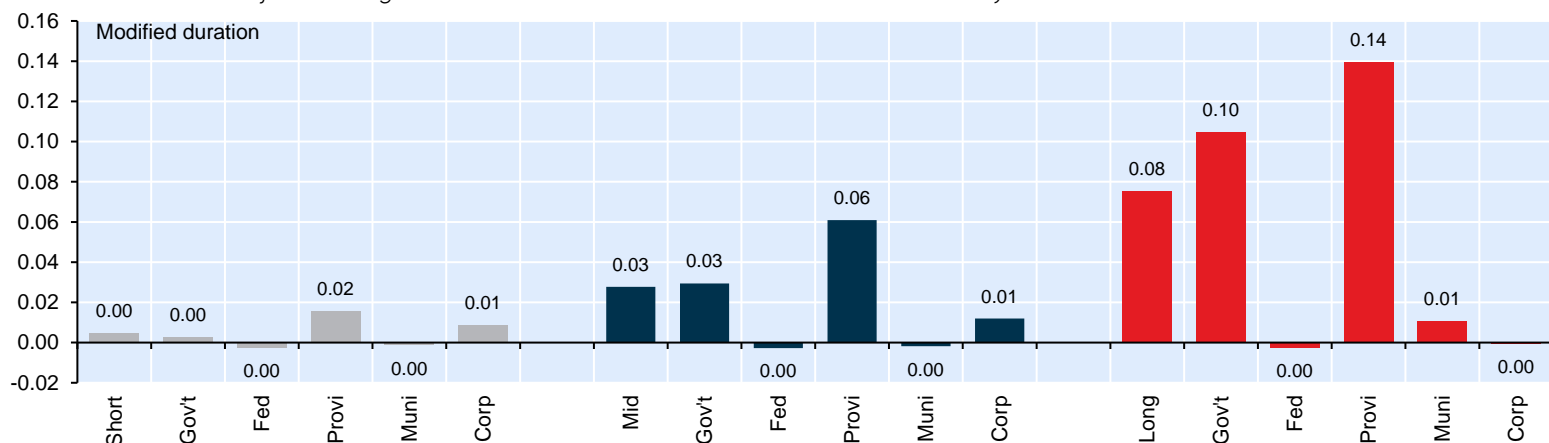
**Chart 3: Government of Canada coupon/roll effect the main story on December 1<sup>st</sup>**

December 1<sup>st</sup> effect – Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 30-Nov to 1-Dec



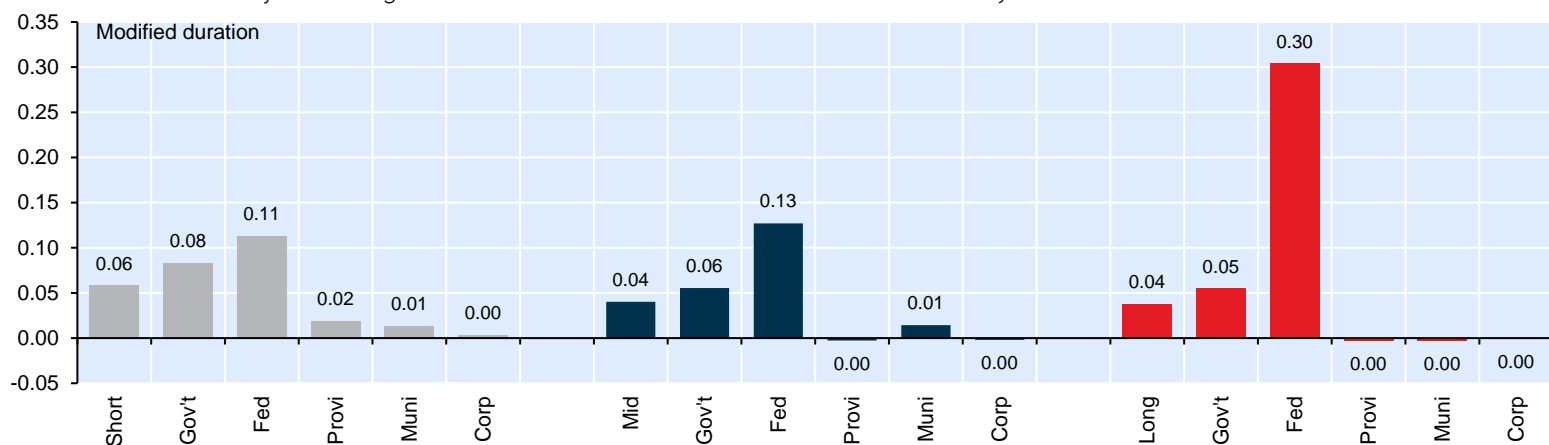
**Chart 4: Provincials in spotlight come December 2<sup>nd</sup>**

December 2<sup>nd</sup> effect – Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 1-Dec to 2-Dec



**Chart 5: Canada Mortgage Bonds (CMB) the key focus on December 15<sup>th</sup>**

December 15<sup>th</sup> effect – Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 14-Dec to 15-Dec



For Charts 3-5 > Source: NBF, FTSE Russell | Note: NBF simulations based on index composition & closing prices as at 9-Nov; assumes no change in yield curve

December 1<sup>st</sup> effects (Chart 3): C\$5.3bln in cashflows. NBF estimates +0.048 increase in modified duration of Universe, with the majority of that attributable to roll effects. The duration increase of the Long bucket will be particularly notable, as Long Federal sector extends an estimated +0.845. That should support performance of longer dated Canadas, all else equal.

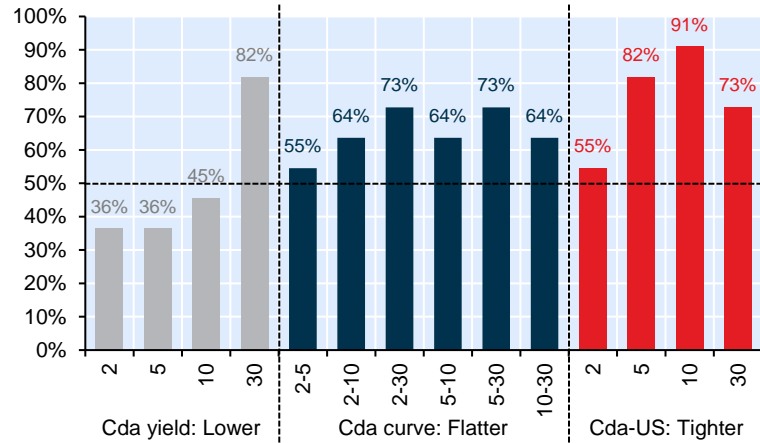
December 2<sup>nd</sup> effects (Chart 4): C\$4.1bln in cashflows. NBF estimates +0.015 increase in modified duration of Universe, capturing a coupon effect as no bonds roll out of the Universe that day. The largest duration increase will be seen in the Long bucket. Provincials will extend in all buckets, although the provincial duration increase will be most significant in Mid (+0.061) and Long (+0.139) owing to the rolling of select Ontario bonds. Anticipate repositioning of provincial portfolios, with issuers likely responding to underlying cash and resulting investor demand, all else equal.

December 15<sup>th</sup> effects (Chart 5): C\$1.5 billion in cashflows. NBF estimates a meaningful +0.077 increase in modified duration of Universe, with ~95% of that duration increase attributable to roll effects. This duration increase is clearly a CMB story, as three specific CANHOU securities key extensions in each of the Short Federal, Mid Federal and Long Federal sub-indices.

Note: Refer to the detailed Table 1 on page 5 for specific roll outs and roll overs for key days in December 2021.

**Chart 6: Searching for consistently profitable aspects**

11Y success rate vs. expected direction in Canadian rates 10D up to 1-Dec

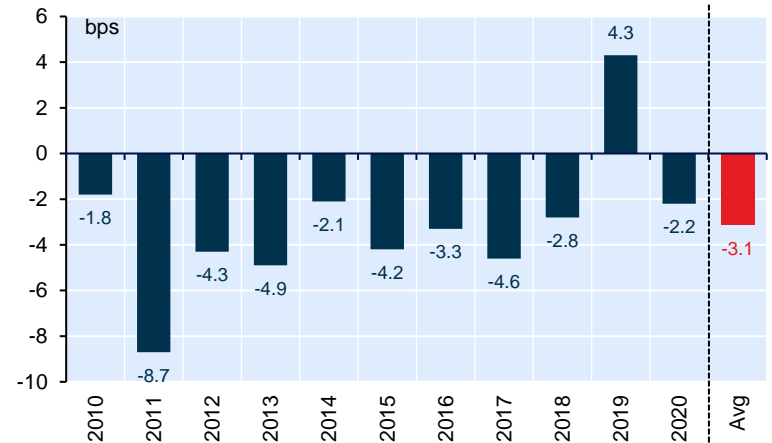


Source: NBF, Bloomberg | Note: Success rates based on 11Y period from 2010-20

Turning to market impacts, December seasonals support flatter curves and relative performance of Canadas vs. USTs, all else equal. Success rates aren't exactly 100%, however. Looking at moves in the days leading up to 1-Dec, Canada-US 10s are most consistently tighter.

**Chart 7: This is what 91% success looks like (in Cda-US 10s)**

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

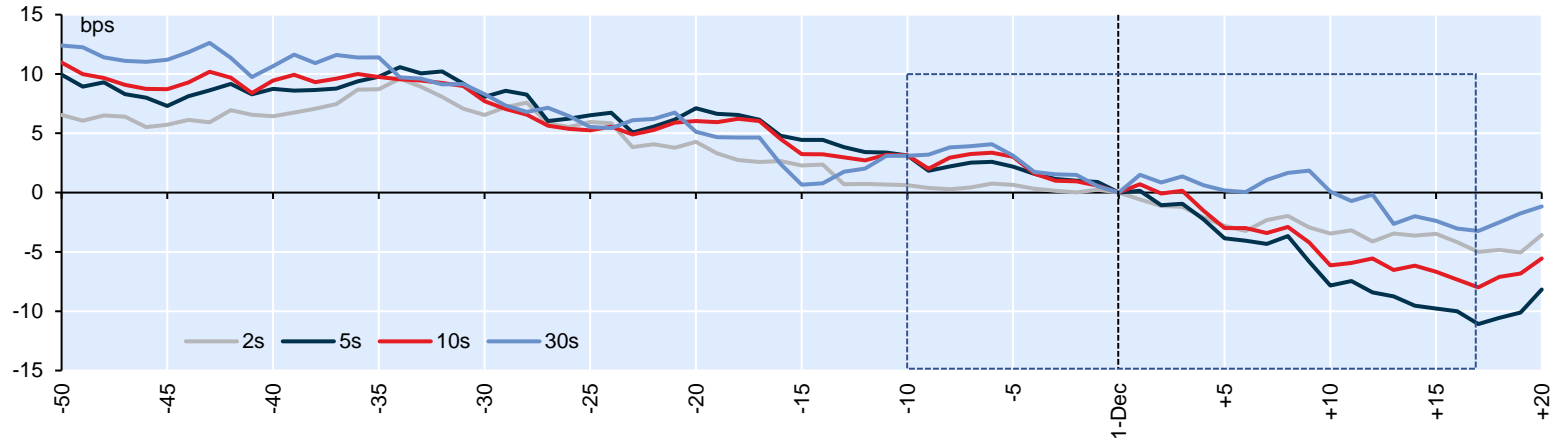


Source: NBF, Bloomberg | Note: Based on relative changes in generic 10Y benchmarks

Canada 10s have outperformed Treasuries in 10 of 11 years, based on the 10D change leading up to 1-Dec. That's a 91% success rate, better than any other point on the curve. The only year this didn't work? That was 2019, when Canada lagged on a late-November rally.

**Chart 8: Historically, it has paid to be long Canada vs. US heading into 1-Dec... keeping trade on for much of December**

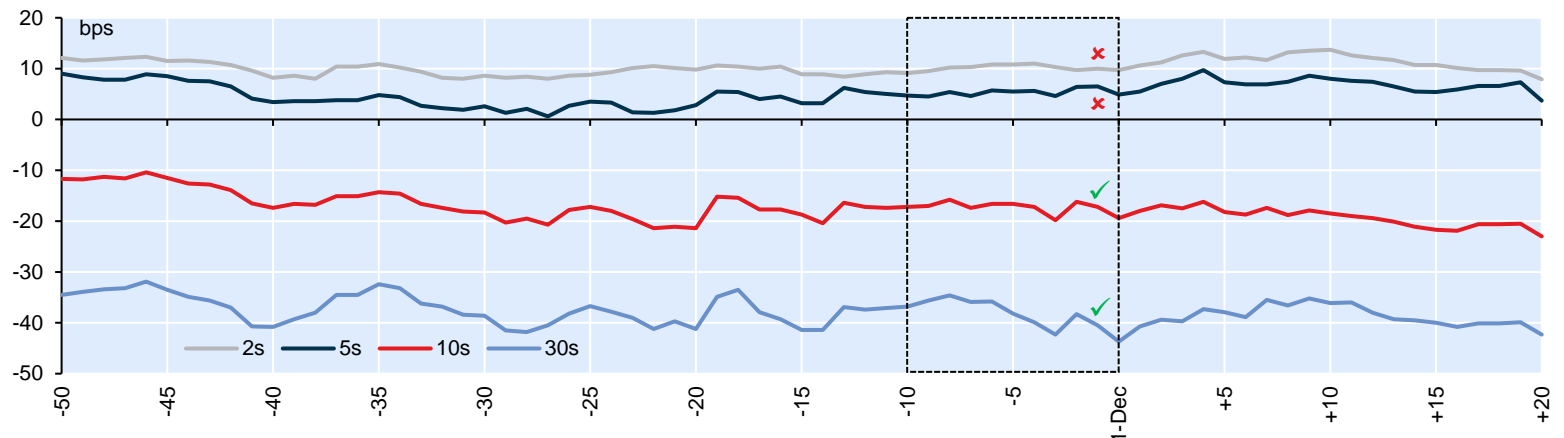
Cumulative change in Canada-US yield differentials relative to 1-Dec, based on prior 11Y average (2010-20)



Source: NBF, Bloomberg | Note: Cumulative change in yield differentials based on generic benchmarks; horizontal axis reflects weekdays relative to 1-Dec (which is set to 0)

**Chart 9: The 2020 experience... there wasn't much doing in 2s or 5s, but there was more support out the curve**

Cumulative change in Canada-US yield differentials relative to 1-Dec, based on 2020 levels

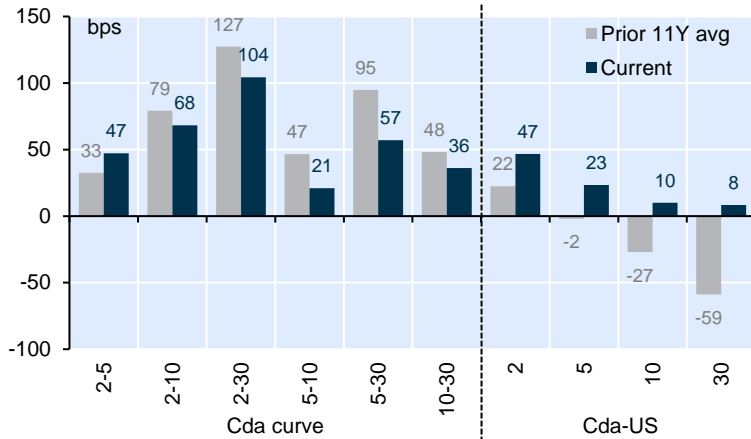


Source: NBF, Bloomberg | Note: Cumulative change in yield differentials based on generic benchmarks; horizontal axis reflects weekdays relative to 1-Dec-20 (which is set to 0)

To be clear, Charts 6-7 focused on performance in the lead up to December. But as per Chart 8, we've tended to observe continued outperformance of Canada vs. the US over the course of December (or much of the month anyway). When it comes to post-December 1<sup>st</sup> performance vs. the US, the historical record is best in 5s and 10s. Yet again, we caution that performance is hardly a guarantee. Reflecting on last year, there wasn't much performance pre- or post-cash in 2s or 5s. Canada 10s and longs did better vs. the US in the immediate lead-in to December, but Canadas generally gave it up after the first of the month. In other words, tread carefully... particularly with key data ahead (e.g., Cdn CPI on Wednesday) and central bank chatter still peppering the headlines.

**Chart 10: How do prevailing levels compare to history?**

Canada yield curves & differentials: Current vs. avg level 10D before 1-Dec

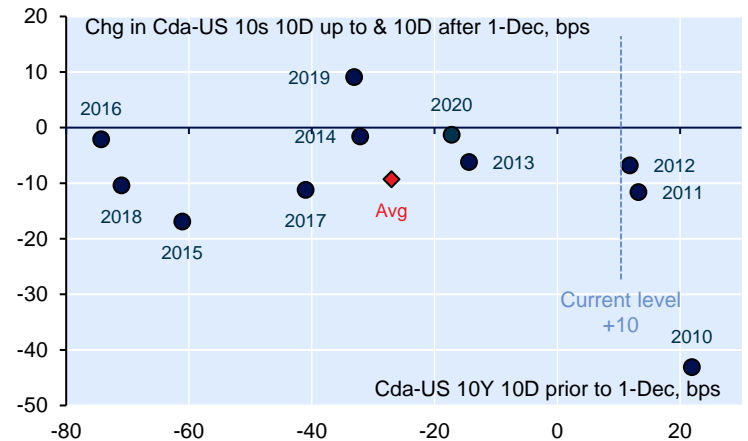


Source: NBF, Bloomberg | Note: Prior 11Y average based on 2010-20

Today's curve tends to flatter than what we've typically seen going into December. Index duration extension might add near-term flattening fuel, although we caution that BoC rate hike expectations may be overdone. As it stands, Canada's are cheaper to the US than average.

**Chart 11: Canada performance impervious to location?**

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

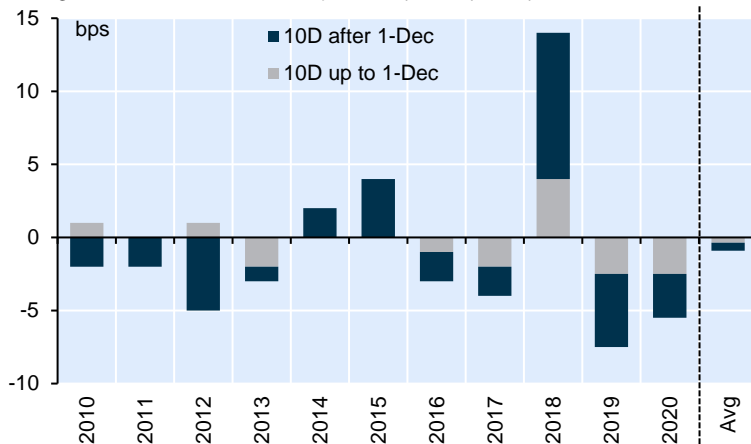


Source: NBF, Bloomberg | Note: Current +10bp level as of 15-Nov

While location is important, seasonal cash has helped Canada better the US even when starting from much richer levels. Market directionality is another key consideration, generally enabling Canada outperformance during periods of rising interest rates.

**Chart 12: All else equal, December cash supports provis**

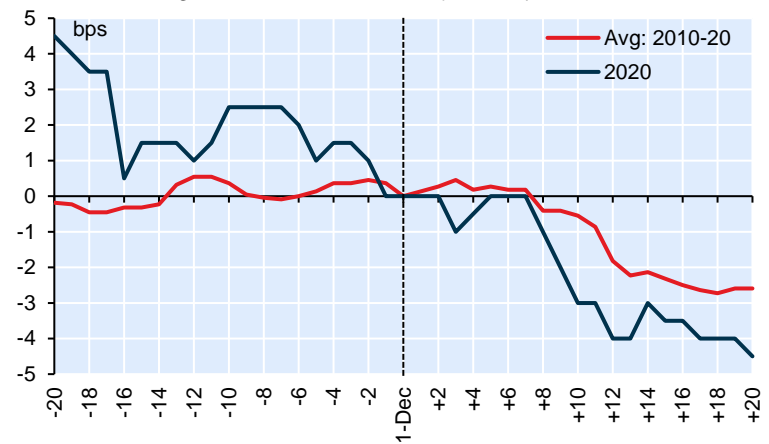
Change in Ontario 10Y secondary bond spread pre & post 1-Dec



Source: NBF, Bloomberg | Note: Based on secondary levels for generic benchmarks

**Chart 13: Noted spread rally often seen into year end**

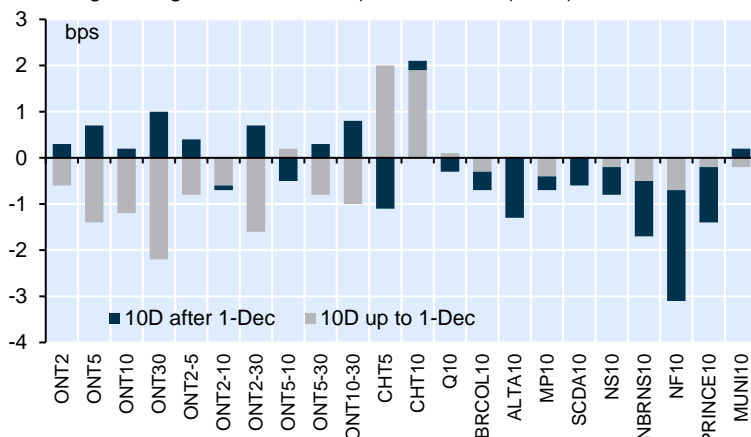
Cumulative change in Ontario 10Y secondary bond spread relative to 1-Dec



Source: NBF, Bloomberg | Note: Based on secondary levels for generic benchmarks

**Chart 14: Of credit curves & basis spreads**

5Y average change in select credit spreads/curves pre & post 1-Dec

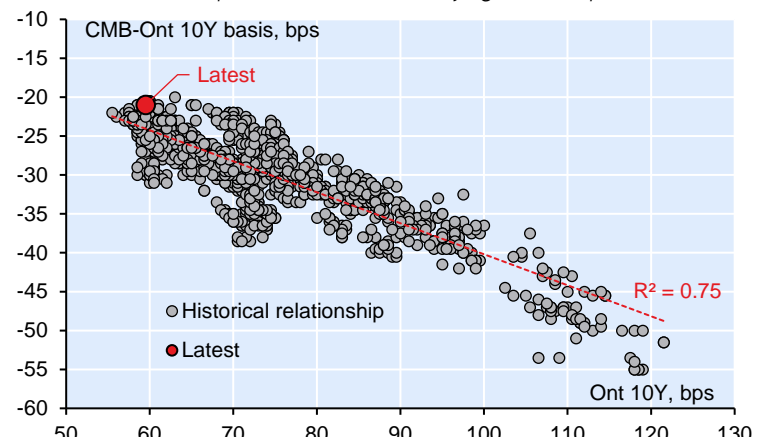


Source: NBF | Note: Based on constant maturity NI indications for 5Y sample (2016-20)

Canada's cash has likewise left a mark on public sector credit. Results may be less-than-consistent, but the deployment of large-scale December cash has supported spreads going into month and kept a solid bid to credit as December progresses. Provincial governments will often issue into this cash, which in the past has limited the degree of tightening. We'd highlight an historical tendency towards late-year spread compression once supply dries up for the holidays. A finer look at constant maturity credit curves over the past half decade supports a credit curve flattener and a relative tightening of provincial basis spreads to Ontario. CMB is often something of a special case, although we consider CMB fundamentally cheap to provis in 5s and 10s... perhaps more than ever.

**Chart 15: CMB simply too cheap here? We think so**

CMB-Ont 10Y basis spread, relative to underlying Ont 10Y spread level



Source: NBF | Note: Based on daily constant maturity NI indications since 2016



**Table 1: ID'ing the specific bonds in focus this December... a small handful will really move the dial**

Specific bond issues rolling out of FTSE Canada Universe Bond Index or rolling from one bucket to another: December 1<sup>st</sup>, 2<sup>nd</sup>, 15<sup>th</sup> & 18<sup>th</sup>

December 1st: FTSE Canada Universe Bond Index rolls out/roll overs														
Rolling out of UNIVERSE					Rolling over MID to SHORT					Rolling over LONG to MID				
Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %
BCMFA	2.15	01-Dec-22	500	0.03	CNQCEN	3.42	01-Dec-26	600	0.03	NS	6.60	01-Dec-31	271	0.02
Q	3.50	01-Dec-22	6,900	0.37	NWRWPT	2.00	01-Dec-26	500	0.03	UBRCOL	6.65	01-Dec-31	125	0.01
										CAN	1.50	01-Dec-31	8,075	0.41
<b>Total rolling out</b>			<b>7,400</b>	<b>0.40</b>	<b>Total rolling over</b>			<b>1,100</b>	<b>0.06</b>	<b>Total rolling over</b>			<b>8,471</b>	<b>0.44</b>

December 2nd: FTSE Canada Universe Bond Index roll outs/roll overs														
Rolling out of UNIVERSE					Rolling over MID to SHORT					Rolling over LONG to MID				
Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %
					ONT	8.00	02-Dec-26	325	0.02	ONT	2.25	02-Dec-31	2,250	0.12
					BNS	2.62	02-Dec-26	1,250	0.07					
<b>Total rolling out</b>			<b>0</b>	<b>0.00</b>	<b>Total rolling over</b>			<b>1,575</b>	<b>0.09</b>	<b>Total rolling over</b>			<b>2,250</b>	<b>0.12</b>

December 15th: FTSE Canada Universe Bond Index roll outs/roll overs														
Rolling out of UNIVERSE					Rolling over MID to SHORT					Rolling over LONG to MID				
Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %
MGCN	3.10	15-Dec-22	425	0.02	VANC	2.70	15-Dec-26	90	0.00	CANHOU	1.60	15-Dec-31	4,000	0.20
ALTA	2.55	15-Dec-22	1,867	0.10	CANHOU	1.10	15-Dec-26	5,250	0.26					
CANHOU	2.40	15-Dec-22	16,470	0.87										
CWBCN	2.92	15-Dec-22	350	0.02										
<b>Total rolling out</b>			<b>19,112</b>	<b>1.01</b>	<b>Total rolling over</b>			<b>5,340</b>	<b>0.27</b>	<b>Total rolling over</b>			<b>4,000</b>	<b>0.20</b>

December 18th: FTSE Canada Universe Bond Index roll outs/roll overs														
Rolling out of UNIVERSE					Rolling over MID to SHORT					Rolling over LONG to MID				
Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %	Issuer Ticker	Cpn %	Maturity Date	O/S C\$mIn	Weight %
BRCOL	2.70	18-Dec-22	1,400	0.07	SE	7.30	18-Dec-26	125	0.01					
<b>Total rolling out</b>			<b>1,400</b>	<b>0.07</b>	<b>Total rolling over</b>			<b>125</b>	<b>0.01</b>	<b>Total rolling over</b>			<b>0</b>	<b>0.00</b>

Source: NBF, FTSE Russell | Note: Relevant securities as of 9-Nov; O/S and weight (in Universe) refers to "current holdings"; other bonds will roll out or roll over during month of December, but the focus of this report is these four key days

**Table 2: The performance record in Canadian rates... A detailed look at how successful December 1<sup>st</sup> trades have been**  
Average move & success rates in Canada interest rates (outright yields, curves, butterflies & vs. US) leading up to & following December 1<sup>st</sup> (based on 2010-20)

		Canada Outright				Canada Curves						Canada Flies			
		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
Days before / after 1-Dec	-20	2.4	2.7	1.9	-2.1	0.3	-0.5	-4.5	-0.8	-4.8	-3.9	1.1	5.1	3.4	3.1
	-10	2.0	0.7	-0.7	-3.2	-1.3	-2.7	-5.2	-1.4	-3.9	-2.5	0.1	2.6	-0.2	1.1
	-5	-0.7	-0.8	-0.7	-0.9	-0.2	0.0	-0.2	0.2	-0.1	-0.2	-0.3	-0.1	0.2	0.4
	-3	0.2	1.0	2.1	1.3	0.8	1.9	1.1	1.1	0.3	-0.8	-0.3	0.5	2.7	1.9
	-2	0.5	1.8	2.9	2.1	1.2	2.4	1.6	1.2	0.3	-0.9	0.0	0.9	3.3	2.1
	-1	1.2	2.2	2.9	2.5	1.0	1.7	1.3	0.7	0.3	-0.4	0.3	0.7	2.1	1.1
	+1	-1.0	-0.9	-0.9	-0.7	0.1	0.2	0.3	0.0	0.2	0.2	0.1	-0.1	0.0	-0.2
+2	-1.3	-0.6	0.2	0.9	0.7	1.5	2.2	0.8	1.5	0.7	-0.1	-0.8	0.8	0.1	
+3	-2.2	-1.5	0.1	1.6	0.8	2.4	3.9	1.6	3.1	1.5	-0.9	-2.4	0.9	0.1	
+5	-1.9	-1.7	-1.3	0.1	0.1	0.5	2.0	0.4	1.9	1.5	-0.2	-1.7	-1.0	-1.1	
+10	-0.3	-0.1	0.1	0.8	0.3	0.5	1.1	0.2	0.8	0.6	0.1	-0.5	-0.1	-0.4	
+20	-0.2	0.1	-1.1	-1.9	0.3	-0.9	-1.7	-1.1	-1.9	-0.8	1.4	2.2	-0.1	-0.3	
Success rate (%)	-20	55%	45%	55%	73%	64%	64%	82%	64%	73%	64%	55%	45%	45%	45%
	-10	36%	36%	45%	82%	55%	64%	73%	64%	73%	64%	45%	45%	45%	36%
	-5	55%	45%	45%	55%	55%	45%	36%	27%	45%	55%	55%	45%	45%	27%
	+5	64%	55%	36%	36%	55%	55%	27%	27%	18%	18%	55%	64%	64%	55%
	+10	45%	55%	55%	45%	45%	27%	27%	27%	36%	45%	36%	45%	45%	45%
	+20	27%	45%	55%	45%	45%	36%	45%	64%	64%	64%	45%	45%	55%	55%

		Canada-US Differential				Canada-US Boxes						Canada-US "Fly Trap"			
		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
Days before / after 1-Dec	-20	-4.3	-7.1	-6.0	-5.1	-2.8	-1.7	-0.8	1.1	2.0	0.9	-3.9	-4.8	-2.6	0.2
	-10	-0.6	-3.1	-3.1	-3.1	-2.5	-2.5	-2.5	0.0	0.0	0.0	-2.5	-2.5	-2.6	-0.1
	-5	-0.6	-2.2	-3.0	-3.1	-1.5	-2.4	-2.5	-0.8	-0.9	-0.1	-0.7	-0.6	-2.3	-0.8
	-3	-0.1	-1.2	-1.0	-1.5	-1.0	-0.9	-1.4	0.2	-0.4	-0.5	-1.2	-0.6	-0.3	0.7
	-2	0.0	-1.0	-0.9	-1.5	-1.0	-0.9	-1.5	0.1	-0.5	-0.5	-1.0	-0.5	-0.4	0.6
	-1	-0.2	-0.9	-0.6	-0.5	-0.6	-0.3	-0.3	0.3	0.4	0.0	-1.0	-1.0	-0.4	0.3
	+1	-0.6	0.1	0.7	1.5	0.7	1.3	2.1	0.6	1.4	0.8	0.2	-0.6	0.5	-0.2
+2	-1.1	-1.1	-0.1	0.9	0.1	1.1	2.0	1.0	1.9	0.9	-0.9	-1.8	0.1	0.1	
+3	-1.2	-0.9	0.1	1.4	0.3	1.3	2.6	1.1	2.3	1.2	-0.8	-2.1	0.1	-0.1	
+5	-2.8	-3.9	-3.0	0.2	-1.1	-0.2	3.0	0.9	4.0	3.2	-1.9	-5.1	-3.4	-2.3	
+10	-3.4	-7.8	-6.1	0.1	-4.4	-2.7	3.5	1.7	7.9	6.2	-6.1	-12.3	-8.9	-4.5	
+20	-3.6	-8.2	-5.6	-1.2	-4.6	-2.0	2.4	2.6	7.0	4.4	-7.2	-11.6	-6.4	-1.8	
Success rate (%)	-20	64%	82%	82%	91%	64%	64%	55%	36%	45%	36%	64%	55%	55%	36%
	-10	55%	82%	91%	73%	73%	82%	64%	55%	55%	64%	55%	64%	73%	45%
	-5	64%	73%	82%	73%	55%	73%	55%	64%	55%	55%	45%	45%	73%	55%
	+5	64%	64%	55%	45%	55%	55%	27%	36%	9%	9%	64%	82%	64%	73%
	+10	73%	73%	64%	45%	82%	55%	18%	36%	9%	9%	91%	100%	82%	73%
	+20	55%	73%	64%	45%	73%	55%	36%	36%	18%	36%	64%	73%	73%	55%

Source: NBF, Bloomberg | 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 bonds



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