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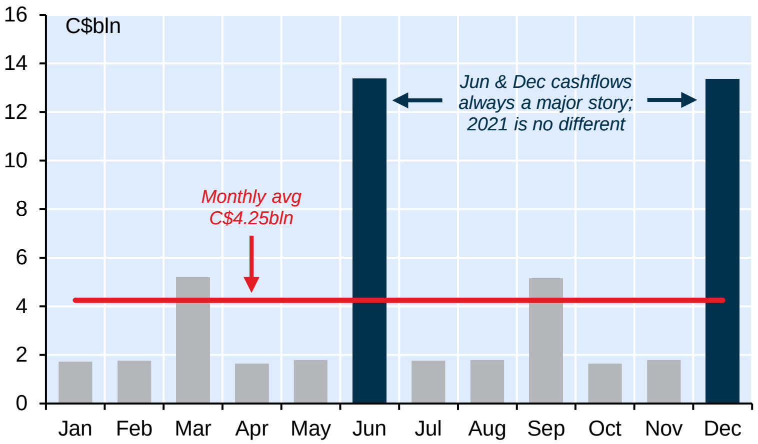
Market View – Exploring Canada's outsized June cashflow effects

By Warren Lovely / Taylor Schleich

June 1st is now less than a month away (20 trading days to be precise). Time to start thinking about the distribution and deployment of all the associated cash, resulting Index adjustments, absolute and relative value trades, etc. If anything, awareness of Canada's June 1st (and June 2nd and June 15th) cash flow effect intensifies with each passing year, which begs the question: have seasonal trades been arbed out of the system, owning to market efficiency? Here are a few things to think about ahead of one of the most material sets of cash flows Canada's bond market sees each year. As for format of this note, we're attaching some brief text to a series of key charts. There is a certain amount of nuance, plenty of caveats and any number of additional charts one could include. We'll happily take up the discussion with interested parties.

Chart 1: Canada bond cash always heavily concentrated

Projected FTSE Canada Universe Bond Index cash flows: 2021 by month

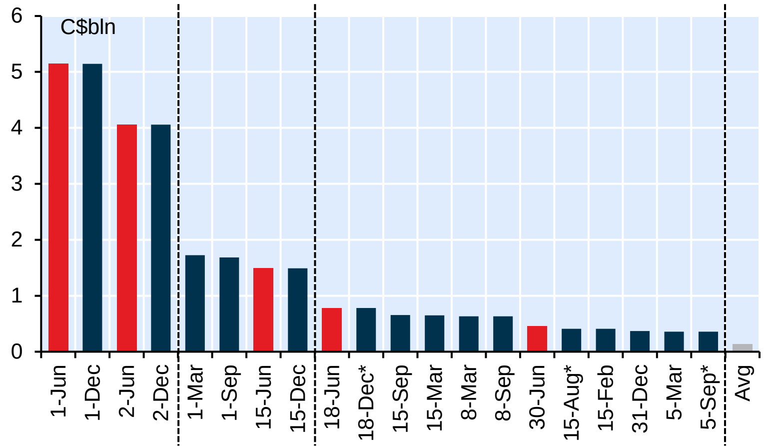


Source: NBF, FTSE Russell | Note: Projected cash flows generated at end of 2020

June 1st/2nd cash flows are a big deal in Canada, being the six-month echo effect of December 1st/2nd. The cash being deployed next month is more than 3x the monthly average. Outsized coupons and major league roll effects means average duration typically extends. This year will be no different. Refer to Index-related analysis and detailed simulation results on pages 4-6.

Chart 2: June's jumbo cashflows arrive on 1st, 2nd & 15th

Projected FTSE Canada Universe Bond Index cash flows: 2021 by key days

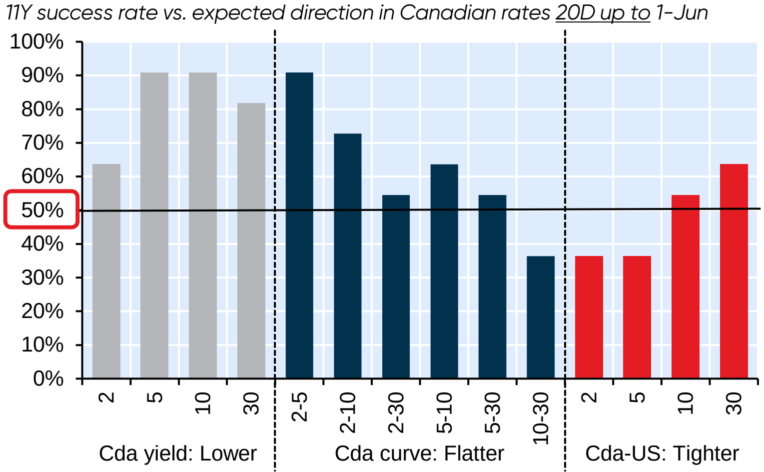


Source: NBF, FTSE Russell | Note: Projected cash flows generated at end of 2020; asterisk (*) denotes a day that falls on weekend in 2021; red bars are large Jun-21 cashflow days

While June 1st usually gets the glory, *five* of the year's fifteen biggest cash flow days come in the month of June. The 1st can be attributed to GoC coupons/maturities, the 2nd dominated by provincials and the 15th largely a CMB story. Also look out for the 18th and 30th which will deliver additional, non-trivial cash to the market.

Chart 3: Searching for consistently profitable trades

11Y success rate vs. expected direction in Canadian rates 20D up to 1-Jun

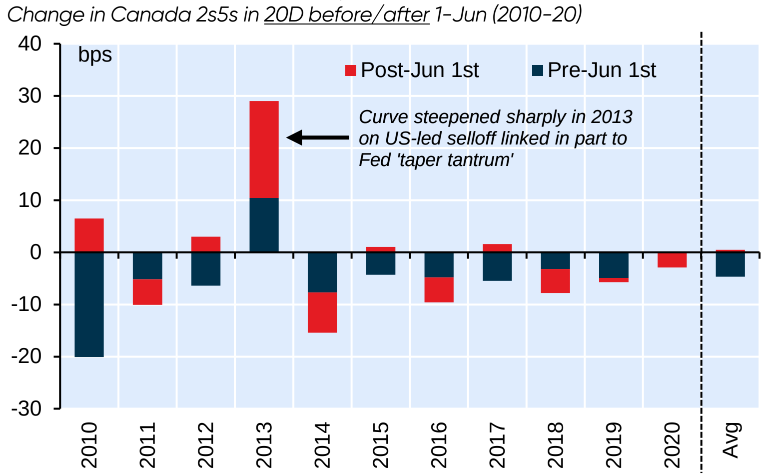


Source: NBF, Bloomberg | Note: Success rates based on 11Y period from 2010-20; based solely on performance leading up to June 1st; does not include post-June 1st performance

If you're looking for consistent performance of Canadian rates (outright, on the curve, vs. the US) leading up to June 1st, you're not likely to find it. Yes, yields have tended to arrive at T=0 lower than they were 20 days before, but rates have generally moved lower over the past decade. If there's one trade that does look compelling, it's in 2s-5s which has consistently flattened in the June 1st lead-up.

Chart 4: Historical tendency for Canada 2s5s to flatten

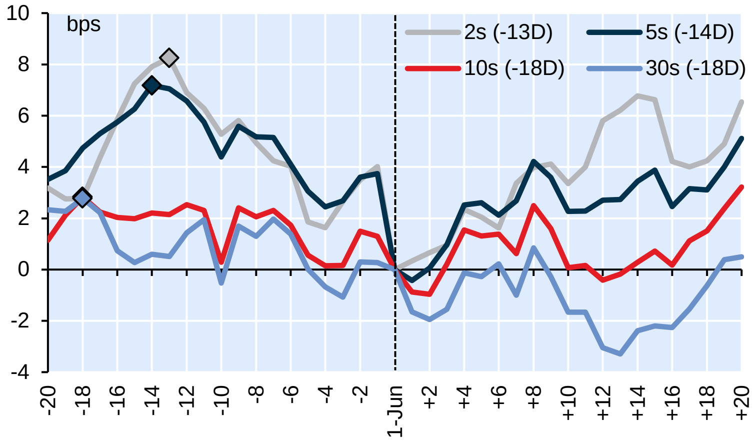
Change in Canada 2s5s in 20D before/after 1-Jun (2010-20)



Source: NBF, Bloomberg

Since 2010, we've seen 2s-5s flatten in the 20 days before/after June 1st in all but one year. Importantly, the 2013 outlier came just as the infamous 'taper tantrum' was kicking off. In all other years, 2s-5s ended June flatter by an average of ~8 bps compared to early May. Be wary of the potential for a 2013 repeat this year. While Powell is patient for now, the Fed's June meeting *could* introduce taper talk.

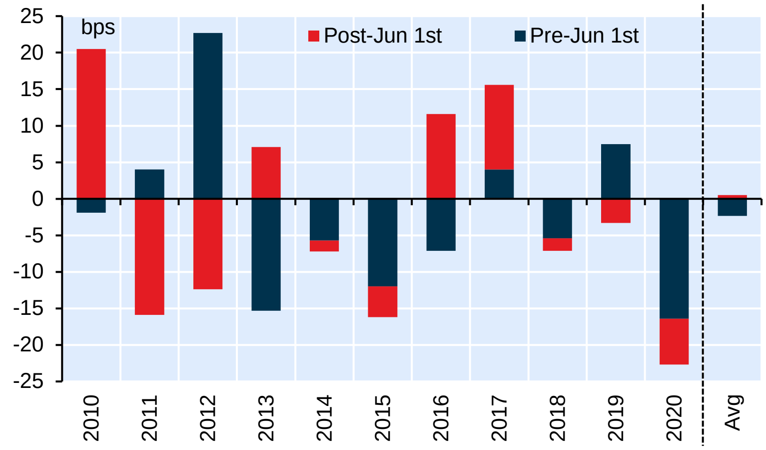
Chart 5: Optimal entry vs. UST 13-18 days prior [caution!]
Cumulative change in Canada-US yield differentials relative to 1-Jun



Source: NBF, Bloomberg | Note: Avg change in yield differentials relative to 1-Jun; based on 11Y period from 2010-20

The above chart illustrates the average move in Canada-U.S yield differentials leading up to and following the key date of June 1st. While there looks to be some performance, on average, as Chart 3 demonstrates, this is far from consistent. Moreover, any outperformance generated in the June 1st lead-up tends to be taken back in the days after the big day. If there's one area of the curve that we would prefer, however, it's the long end which offers a better success rate and greater average outperformance after June 1st (more like less underperformance relative to shorter points on the curve). But even here, we advise exercising caution when relying on perceived seasonal tendencies…

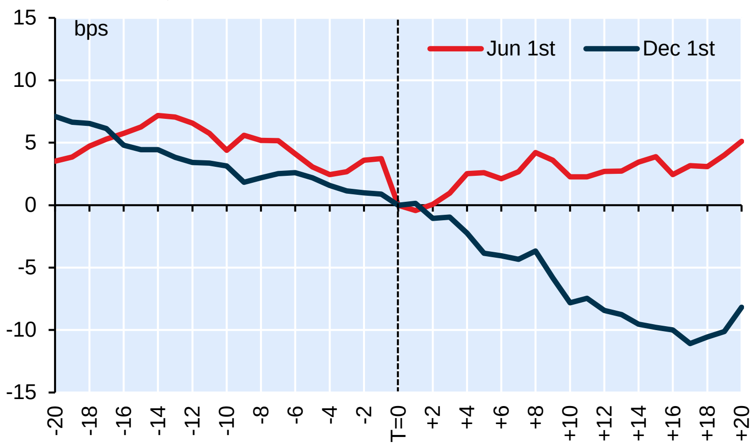
Chart 6: Long Canadas outperform UST? [On average, yes]
Change in Canada-US 30s in 20D before/after 1-Jun



Source: NBF, Bloomberg

While 30-year Canadas tend to outperform Treasuries on average, you can see it's not a very clean relationship. There have been a number of years when the trade proved unsuccessful. For what it's worth, the trade looks to be *more* successful in the 20-day lead-up to June 1st with inconsistent/insignificant performance fully 20 days after. This year, we look to be at a relatively attractive entry point with 30-year Canadas having underperformed by over 20 bps in April. But here too we'd caution that this relative sell-off was largely justified by a repricing of BoC expectations and by the GoC's pledge to continue terming out its bond stock. From a more fundamental standpoint, we'd see current levels as being in line with "fair value".

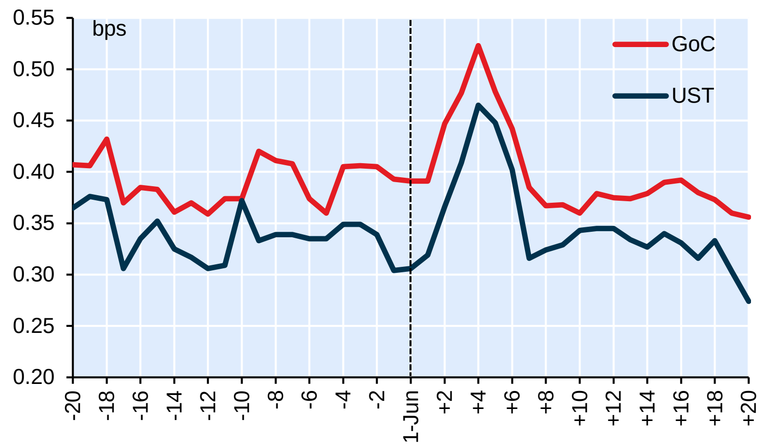
Chart 7: Jun 1st takes back seat to Dec 1st vis-à-vis Can-US
Cumulative change in Canada-US 5s relative to 1-Jun & 1-Dec



Source: NBF, Bloomberg | Note: T=0 refers to 1-Jun or 1-Dec; avg change in yield differentials based on 11Y period from 2010-20

If you're looking for larger and more consistent cash flow effects, it may be best to wait six months. Really, it's the December 1st payments that have tended to exert the biggest influence on market levels. Why? Well firstly, even in December the seasonal effects are far from perfect and have failed to materialize in some years. But overall, we theorize that the pool of liquidity in/around December 1st isn't as deep, with trading desks emptying out ahead of Christmas vacations. In contrast, cash flows tend to be issued into more heavily in June. In December, the same level of supply simply isn't there to sop up the influx of cash. Refer to Chart 15 for more colour on relative supply story.

Chart 8: All else not always equal… the 2020 experience
Canada & US 5Y benchmark yields before/after 1-Jun-2020

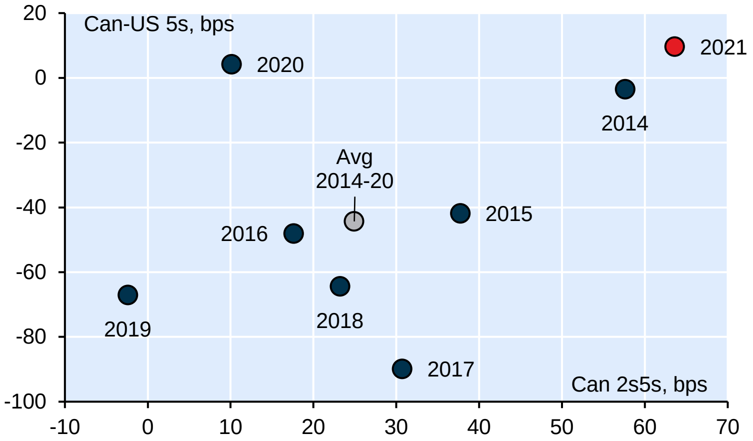


Source: NBF, Bloomberg | Note: 2020 actuals covering 4-May (T-20) to 29-Jun (T+20)

While cash flows may influence outright rate/curve/Canada-US dynamics at the margin, it's more important to be aware of broader market sentiment during our sample period. Take last June as an example. With the May-2020 non-farm payroll report showing a multi-million job gain in the US, bonds quickly sold off. A few days later, Jay Powell and the Fed made sure to let us know they'd be remaining extremely accommodative. Cue a bounce back. Needless to say, fundamentals can, and often do, exert greater influence on market levels than cash flow seasonality. Consider this a friendly warning.

Chart 9: Potentially attractive entry point this year

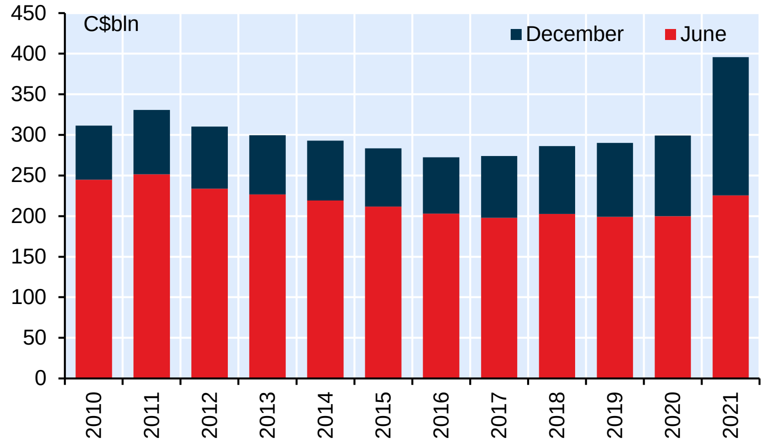
Canada-US yield differential & Canada curve 20D prior to 1-Jun (incl. current)



Source: NBF, Bloomberg | Note: Post 'taper tantrum' sample; dots refer to prevailing levels 20 days ahead of 1-Jun; 2021 as of 3-May

Chart 10: This year's GoC bond stock considerably larger...

Outstanding C$ GoC bonds with Jun/Dec maturities (as of 31-May each year)



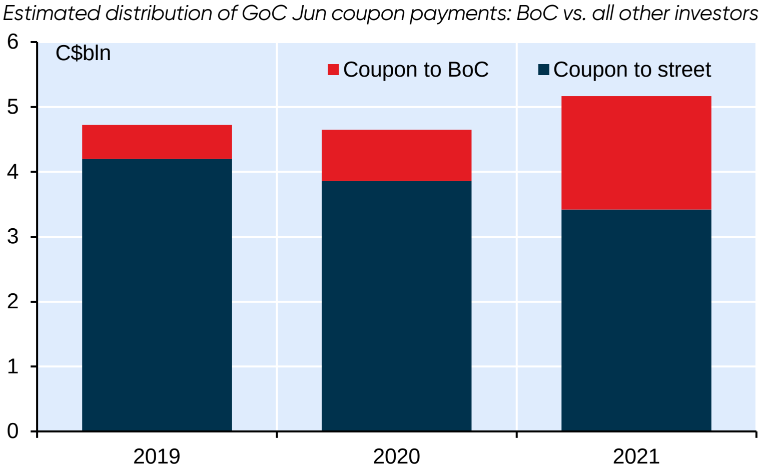
Source: NBF, BoC | Note: Based on C$ GoC bonds bearing Jun/Dec maturity; 31-May-2021 outstandings estimated using Apr-Jun QBS

This year's iteration does provide a seemingly compelling entry point for some curves/differentials. Canada 5s are cheaper to 2s than they have been in each of the past seven years. And since 2014, Canada 5s have never been as cheap to the US in the June 1st lead-up as is currently the case. Looking for a catalyst of Canada outperformance this year time? If you're in the camp that the Fed's June meeting could result in some taper talk, we could see that Canada-US differential move back below zero. Alternatively, should a less-patient BoC continue to signal a higher likelihood of a 2022 rate hike (as early as July), a 2-year driven sell-off could flatten Canada's curve even more.

Digging deeper into the piles of cash, massive government support/stimulus measures over the past year has meant a surge in borrowing and rapid growth in the GoC bond stock. Versus 2020, GoC bonds paying coupons in June have accelerated by ~C$100 billion. With the ongoing GoC term-out set to continue, this rapid growth is set to continue over the course of the year even as overall borrowing needs are down (given that 10Y and 30Y bonds bear December and June maturities). While this rise would imply additional coupon cash being paid out, the effect is muted by the fact that: (a) 10-year bonds sold over the last year were issued with measly coupon rates and (b) the central bank has taken down the majority of net supply...

Chart 11: ... but QE means more GoC coupons go to BoC

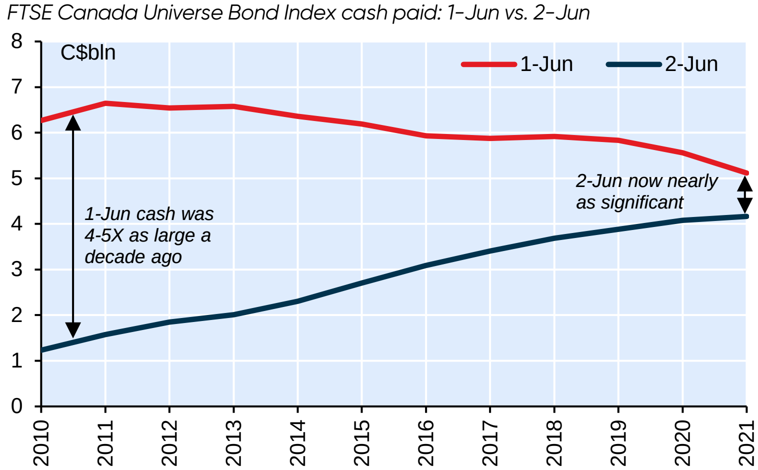
Estimated distribution of GoC Jun coupon payments: BoC vs. all other investors



Source: NBF, Bloomberg | Note: Based on C$ GoC bonds bearing Jun/Dec maturity; Jun-2021 payments incorporate May auction/QE purchase estimates.

Chart 12: The June 2nd effect is growing

FTSE Canada Universe Bond Index cash paid: 1-Jun vs. 2-Jun



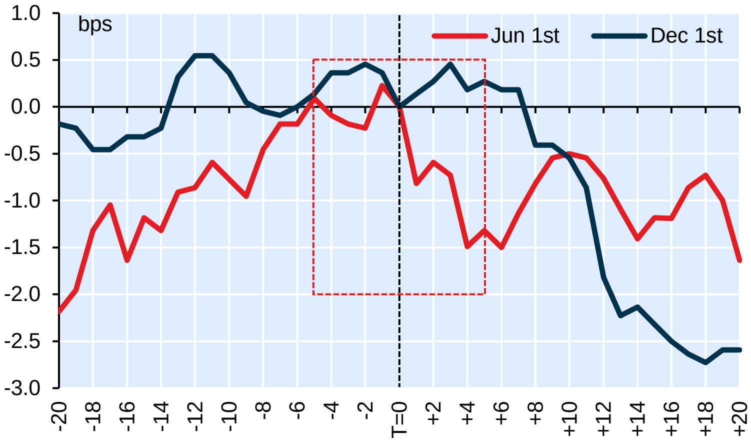
Source: NBF, FTSE Russell | Note: Based on Index composition on 30-Apr of each year

Notwithstanding a considerably larger crop of GoC bonds bearing a June or December maturity, today's ultra-skinny yields are pulling down the weighted average coupon. Then there's the BoC QE impact, where large-scale purchases—currently C$3 billion/week but north of $5 billion a year ago—mean more GoC coupons are getting paid to the central bank than ever before. If anything, the decline in the weighted average coupon paid to the street has been exacerbated by the composition of the Bank's purchases, given at least an initial focus on illiquid and relatively higher-coupon off-the-runs. While there's still a sizeable slug of June cash to go to end investors, it's actually less than what was paid in 2019 and 2020.

As important as June 1st rates-centric cash flows are, don't lose sight of June's other major cash dynamics. We're thinking about provi-driven flows on June 2nd and the CMB-induced cash that arrives on the 15th. Taken together, 80% of June's total Index-related cash can be traced to these three days. Note as well that the relative importance of June 2nd has been growing, consistent with an ever-larger stockpile of provincial bonds (many bearing a June or December maturity). For Index watchers and investors more generally, the changing composition of Canada's bond stock (and growing importance of June 2nd) suggests June's cash flow story may be perhaps as relevant to credit as to rates.

Chart 13: Searching for performance window in provincials

Cumulative change in Ontario 10Y spread vs. GoC relative to 1-Jun & 1-Dec

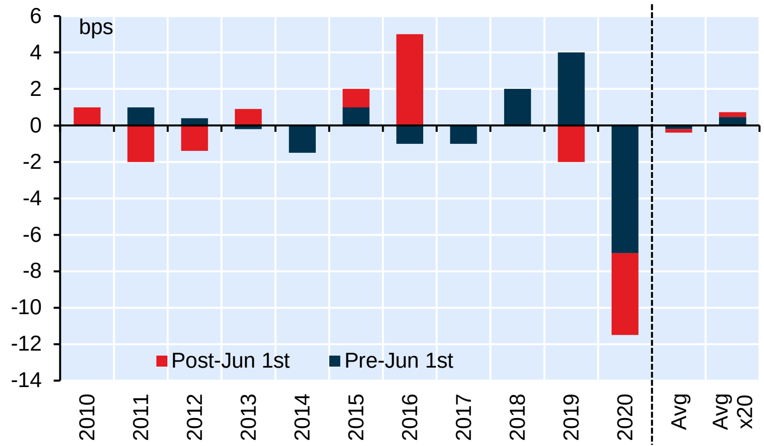


Source: NBF, Bloomberg | Note: T=0 relates to 1-Jun/1-Dec; avg spread change based on 11Y period from 2010-20

Extending our empirical analysis to provincial credit, you won't find particularly compelling or consistent evidence supporting spread tightening in the lead up to June. Indeed, in the 20-days leading up to June 1st, Ontario 10s managed to tighten barely one third of the time. Post-cash flow performance is better, however, 10-year spreads snugging up by an average 1½ bps in the first five days of June. If there's a purely empirically driven trade, it might be to get long provincial credit in the final one to five days of May and to unwind the position five days into June (see red dotted box in Chart 13). June's performance record contrasts with the spread trajectory in/around December, when a late-year let-up in supply has been known to key a rally in spreads to close out the calendar year.

Chart 14: Last year's massive spread rally uncharacteristic

Change in Ontario 30Y spread vs. GoC in the 10D before/after 1-Jun

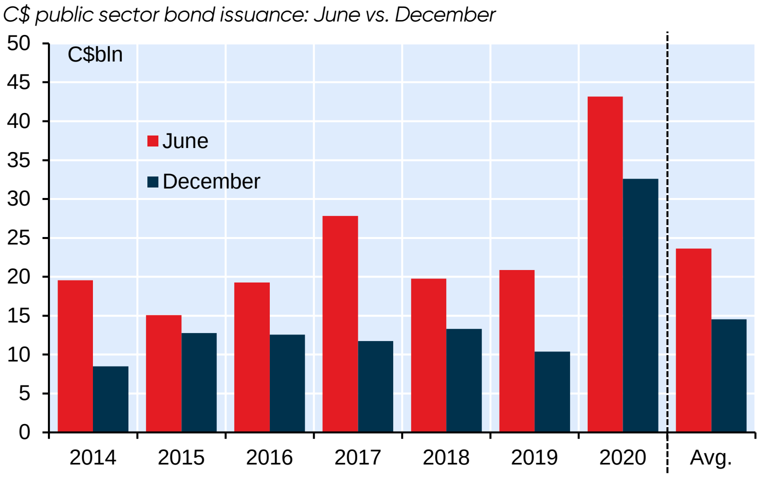


Source: NBF, Bloomberg | Note: Avg x20 excludes 2020 experience

Averages are one thing, but it pays to look more closely at individual tranches/years of performance. Here, a couple things stand out. First, 2020 was a major outlier relative to past Junes, as a stimulus-fueled surge in investor confidence propelled credit to tighter and tighter levels, including in Canada (both pre and post our focus cash flows). So beware, the little bit of average spread performance in our sample owes mostly to last year's rally. As for the cash flow effect on provincial credit curves, the record is mixed (some might say boring). Since 2010, Ontario's 10s30s credit box has (on average) been very little changed, perhaps a tiny bit steeper, in the early days of June as cash hits the system.

Chart 15: Issuers lean into June cash (more so than December)

C$ public sector bond issuance: June vs. December

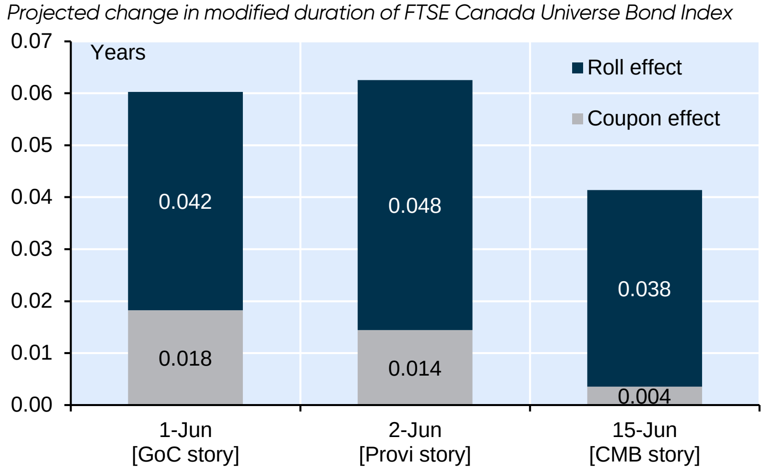


Source: NBF, BoC, Bloomberg | Note: Includes GoCs, CMBs, provis & munis

As noted earlier, we have a tendency to see issuers lean into the heavy the cash flows being paid into investor accounts in June. In fact, for provincial C$ issuance you won't find a month of the year that averages more supply than June over the past 10 years. On the flip side, December issuance is somewhat more limited by the holiday season that can keep issuers out of the market for a week or longer. Historically, December has been one of the lightest months of issuance for provinces, and to a greater extent the sovereign. It's why we theorize that some of the technical post-key date performance is less striking/compelling in June compared to December.

Chart 16: Waves of duration extension coming in June

Projected change in modified duration of FTSE Canada Universe Bond Index

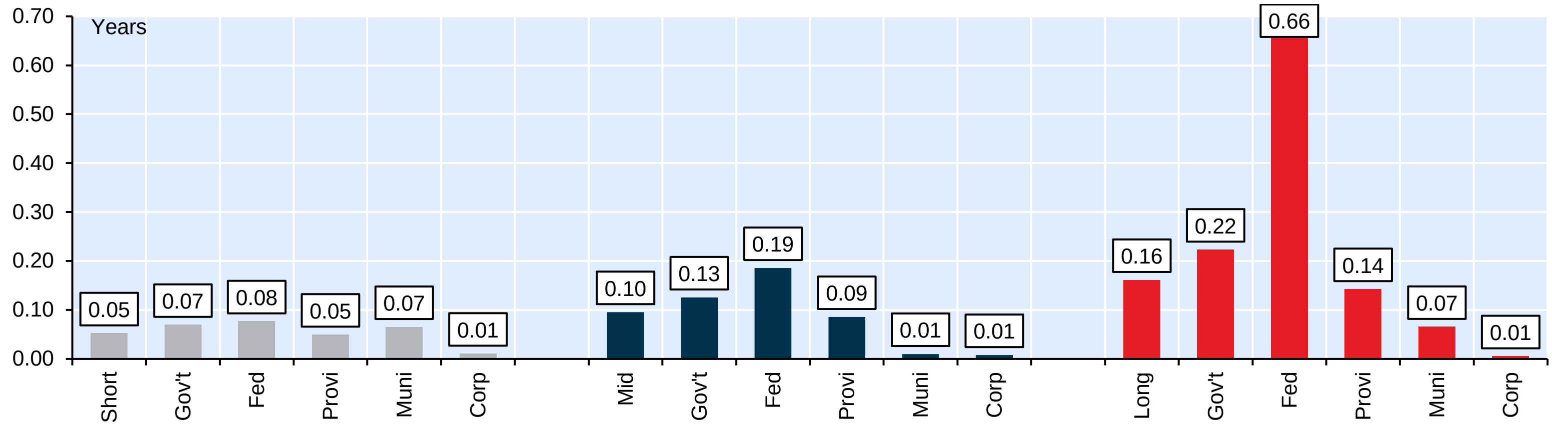


Source: NBF, FTSE Russell | Note: Simulations conducted 3-May, using 30-Apr closing values; assumes no change in yield curve

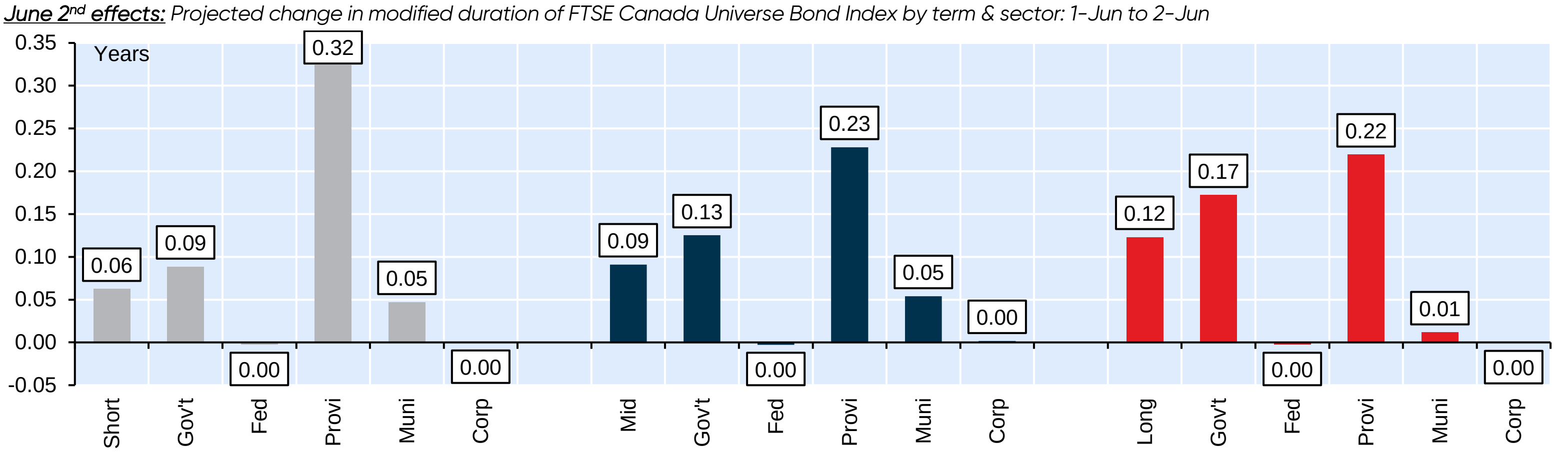
Still want more? Well we'd be remiss if we didn't offer up some colour from our detailed FTSE Canada Universe Bond Index simulations. Given the three major cash flow days in June, we've generated three separate sims. As to be expected, and consistent with prior years, there's a fairly hefty increase in modified duration of the Universe Index coming on both June 1st and June 2nd. A more modest but still material duration increase will arrive on June 15th. While the overall duration adjustments may look similar, don't be fooled. The impact on individual sectors and buckets varies massively from one key day to the other. Refer to the next page…

Charts 17-19: Entirely different shades of Index extension on 1st/2nd/15th

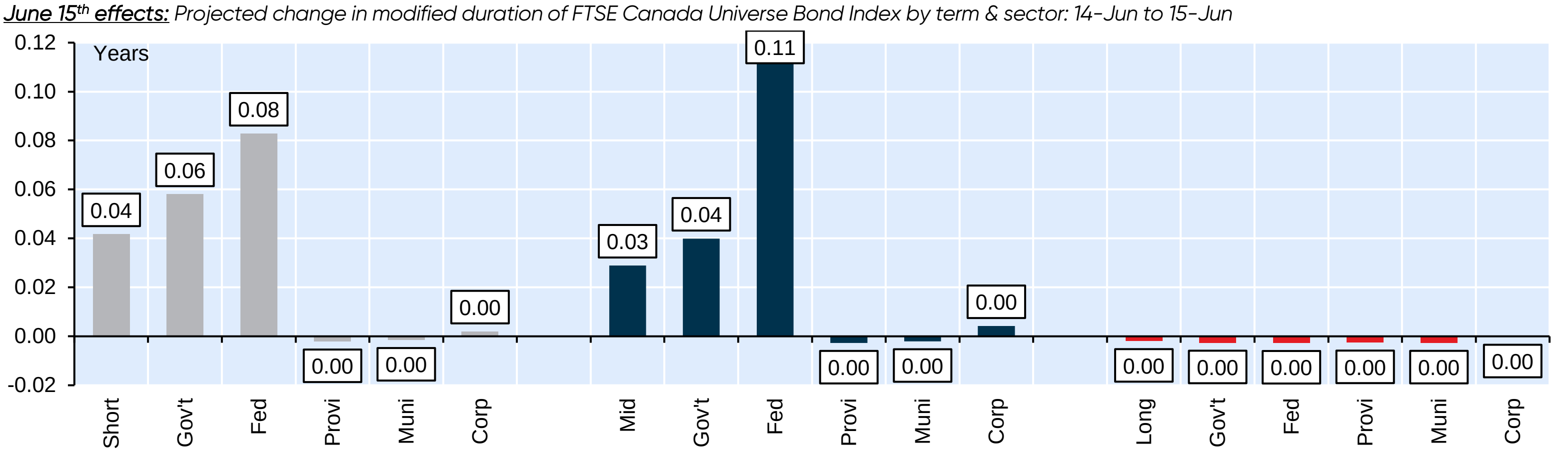
June 1st effects: *Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 31-May to 1-Jun*



June 2nd effects: *Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 1-Jun to 2-Jun*



June 15th effects: *Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 14-Jun to 15-Jun*



Source: NBF, FTSE Russell | Note: NBF simulations conducted 3-May, using 30-Apr closing values; assumes no change in yield curve

June 1st effects (top chart): C$5.12 billion in cashflows. NBF estimates +0.060 year increase in modified duration of Universe, with ~70% of duration increase attributable to roll effects. Duration increase of Long bucket particularly notable, as Long Federal sector extends estimated +0.655 years. Should support performance of longer dated Canadas.

June 2nd effects (middle chart): C$4.17 billion in cashflows. NBF estimates +0.063 year increase in modified duration of Universe, with nearly 80% of duration increase attributable to roll effects. Largest duration increase in Long bucket, although Mid and Short buckets to extend in non-trivial fashion also. Provincials extend meaningfully all across the curve (Short Provi +0.324 years; Mid Provi +0.228 years; Long Provi +0.220 years). Anticipate repositioning of provincial portfolios with issuers likely responding to underlying cash/demand, all else equal.

June 15th effects (bottom chart): C$1.51 billion in cashflows. NBF estimates +0.041 year increase in modified duration of Universe, with ~90% of duration increase attributable to roll effects. Duration increase clearly a CMB story, as Short Federal and Mid Federal sectors extend most significantly. Negligible changes throughout Long bucket. Note: Refer to next page for specific roll outs and roll overs.

Table 1: ID'ing the bonds driving this year's hefty roll effects

Specific bond issues rolling out of FTSE Canada Universe Bond Index or rolling from one bucket to another: June 1st, June 2nd & June 15th

Rolling out of FTSE Canada Universe Bond Index

On 1-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
CAN	2.75	01-Jun-22	9,703	0.53
BMO	2.57	01-Jun-22	835	0.05
GM	2.6	01-Jun-22	400	0.02
BCMFA	3.35	01-Jun-22	290	0.02
CAN	9.25	01-Jun-22	148	0.01
Total rolling out			**11,376**	**0.63**

On 2-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
ONT	3.15	02-Jun-22	12,250	0.67
NF	1.95	02-Jun-22	675	0.04
Total rolling out			**12,925**	**0.71**

On 15-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
CANHOU	1.75	15-Jun-22	10,328	0.56
FTSCN	10.125	15-Jun-22	40	0.00
Total rolling out			**10,368**	**0.56**

Rolling over from MID to SHORT bucket of FTSE Canada Universe Bond Index

On 1-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
CAN	1.5	01-Jun-26	6,236	0.34
ALTA	2.2	01-Jun-26	3,717	0.21
ENBGAS	2.81	01-Jun-26	250	0.01
CRTUCN	3.29	01-Jun-26	200	0.01
Total rolling MID to SHORT			**10,402**	**0.57**

On 2-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
ONT	2.4	02-Jun-26	8,146	0.46
MP	2.55	02-Jun-26	1,900	0.11
SCDA	2.55	02-Jun-26	1,075	0.06
NF	3	02-Jun-26	1,000	0.06
YORKMU	2.5	02-Jun-26	300	0.02
HRUCN	2.91	02-Jun-26	250	0.01
ONT	8	02-Jun-26	156	0.01
Total rolling MID to SHORT			**12,827**	**0.73**

On 15-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
CANHOU	1.25	15-Jun-26	5,000	0.26
PSPCAP	0.9	15-Jun-26	1,500	0.08
REIUCN	1.97	15-Jun-26	500	0.03
Total rolling MID to SHORT			**7,000**	**0.37**

Rolling over from LONG to MID bucket of FTSE Canada Universe Bond Index

On 1-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
CAN	1.5	01-Jun-31	4,785	0.25
ALTA	1.65	01-Jun-31	2,160	0.11
ALTA	3.5	01-Jun-31	1,180	0.07
Total rolling LONG to MID			**8,124**	**0.43**

On 2-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
ONT	2.15	02-Jun-31	2,500	0.13
ONT	6.2	02-Jun-31	2,267	0.17
MP	2.05	02-Jun-31	600	0.03
Total rolling LONG to MID			**5,367**	**0.33**

On 15-Jun

Issuer Ticker	Cpn %	Maturity Date	O/S C$mln	Weight %
Total rolling LONG to MID			**N/A**	

Source: NBF, FTSE Russell | Note: Relevant securities as of 3-May; O/S refers to "current holdings"; weight refers to Universe and is based on dollar duration

Table 2: Examining past performance in/around June 1st

Average move & success rates in Canada interest rates (yields, curves, butterflies, vs. US) & provincial credit before/after June 1st (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-Jun	-20	-8.7	-13.4	-12.3	-12.0	-4.7	-3.6	-3.3	1.1	1.4	0.3	-5.8	-6.1	-3.9	0.8
	-10	-9.1	-11.1	-10.4	-8.9	-2.1	-1.4	0.2	0.7	2.3	1.6	-2.7	-4.3	-2.9	-0.9
	-5	-5.3	-6.9	-6.5	-5.5	-1.6	-1.2	-0.2	0.4	1.4	1.0	-2.1	-3.0	-2.1	-0.5
	-3	-5.8	-6.3	-5.0	-3.6	-0.6	0.8	2.2	1.3	2.7	1.4	-1.9	-3.3	-0.6	0.0
	-1	-4.2	-4.3	-2.7	-1.6	-0.1	1.5	2.6	1.6	2.7	1.1	-1.7	-2.8	0.4	0.5
	+1	2.0	3.1	3.3	2.6	1.1	1.3	0.6	0.2	-0.5	-0.7	0.8	1.6	2.0	1.0
	+3	0.9	2.7	4.4	4.5	1.7	3.5	3.6	1.8	1.8	0.1	0.0	-0.1	3.4	1.7
	+5	3.0	5.9	7.3	6.7	2.9	4.4	3.7	1.5	0.8	-0.6	1.4	2.1	5.0	2.1
	+10	3.7	3.3	2.8	1.0	-0.4	-0.9	-2.7	-0.6	-2.3	-1.7	0.2	1.9	0.8	1.2
	+20	5.2	5.6	4.8	1.6	0.5	-0.4	-3.6	-0.9	-4.0	-3.2	1.3	4.5	2.8	2.3
Success rate (%)	-20	64%	91%	91%	82%	91%	73%	55%	64%	55%	36%	55%	73%	73%	64%
	-10	64%	64%	82%	73%	73%	82%	55%	45%	55%	45%	73%	73%	64%	64%
	-5	64%	73%	73%	73%	73%	55%	64%	45%	45%	45%	55%	64%	91%	73%
	+5	27%	36%	18%	18%	18%	18%	36%	36%	36%	64%	55%	36%	18%	27%
	+10	36%	36%	36%	45%	55%	55%	55%	55%	73%	82%	55%	45%	36%	27%
	+20	45%	45%	45%	55%	55%	73%	73%	55%	64%	55%	45%	45%	55%	45%
Criteria		*Lower yield*				*Flatter yield curve*						*Belly performance*			

		Canada-US Differential				Canada-US Boxes						Ontario spread/credit curves			
		2-year	5-year	10-year	30-year	2s-5s	2s-10s	2s-30s	5s-10s	5s-30s	10s-30s	10-year	30-year	9s-10s	10s-30s
Days before / after 1-Jun	-20	-3.2	-3.5	-1.1	-2.3	-0.3	2.0	0.9	2.4	1.2	-1.2	2.2	1.2	-0.1	-1.0
	-10	-5.3	-4.4	-0.3	0.5	0.9	5.0	5.8	4.1	4.9	0.8	0.8	-0.2	0.0	-1.0
	-5	-1.9	-3.1	-0.6	0.0	-1.2	1.3	1.8	2.5	3.0	0.6	-0.1	-0.4	0.0	-0.4
	-3	-2.7	-2.7	-0.2	1.1	0.0	2.5	3.7	2.5	3.8	1.2	0.2	-0.2	0.0	-0.4
	-1	-4.0	-3.7	-1.3	-0.3	0.3	2.7	3.7	2.4	3.5	1.0	-0.2	-0.2	0.0	0.0
	+1	0.3	-0.4	-0.9	-1.7	-0.8	-1.2	-2.0	-0.5	-1.2	-0.8	-0.8	-0.6	0.0	0.2
	+3	0.9	1.0	0.2	-1.5	0.0	-0.7	-2.5	-0.8	-2.5	-1.8	-0.7	-0.6	0.1	0.1
	+5	2.0	2.6	1.3	-0.3	0.6	-0.7	-2.3	-1.3	-2.9	-1.6	-1.3	-1.1	0.1	0.2
	+10	3.4	2.3	0.1	-1.7	-1.1	-3.3	-5.0	-2.2	-3.9	-1.7	-0.5	-0.2	0.1	0.3
	+20	6.5	5.1	3.2	0.5	-1.4	-3.3	-6.0	-1.9	-4.6	-2.7	-1.6	-0.9	0.3	0.7
Success rate (%)	-20	36%	36%	55%	64%	64%	64%	55%	64%	73%	73%	27%	36%	45%	73%
	-10	64%	73%	55%	45%	45%	36%	36%	36%	27%	27%	36%	45%	36%	91%
	-5	73%	55%	55%	55%	55%	45%	45%	45%	45%	36%	27%	27%	27%	64%
	+5	45%	27%	36%	64%	45%	73%	73%	55%	64%	64%	55%	55%	55%	36%
	+10	27%	45%	55%	64%	55%	82%	82%	73%	73%	64%	45%	36%	36%	27%
	+20	27%	55%	45%	64%	64%	73%	73%	45%	55%	64%	55%	55%	45%	18%
Criteria		*Relatively tighter yield vs. US*				*Relatively flatter yield curve vs. US*						*Tigher credit spread, flatter credit curve*			

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; refer to "Criteria" for nature of tests

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