

June index adjustments: Cash counting & roll recon

By Warren Lovely

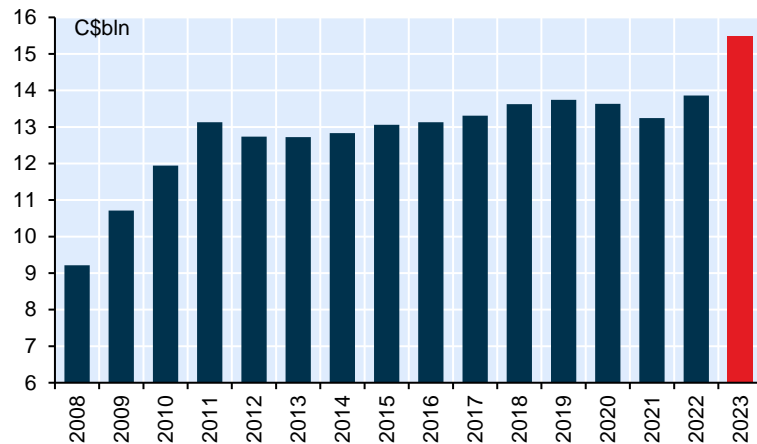
Count us among those typically hesitant to place much emphasis on so-called seasonal tendencies across financial markets. But when it comes to Canadian cash flows, seasonality is undisputed. 'Ultra-lumpy' might be the better, although less-than-technical way of terming it. As is customary, June will usher in some of the very biggest cash flow days on the domestic bond market calendar. Of particular importance are June 1st, June 2nd and June 15th, which are all good business days in calendar 2023. (For completeness, June 18th is also associated with some non-trivial cash. Since the 18th lands on a Sunday this year, related cash flows and index adjustments will be captured on June 19th.)

Over the years, we used targeted reports to break down June's outsized cash/roll effect into key component parts. In this *Market View*, we scale this year's index-related cash to prior years (hint: there's more cash to flow than ever before). We highlight the nature of index roll effects that will occur on each of the important June dates. Putting coupon and roll effects together, we offer preliminary simulations (based on existing pricing/constituents) of the specific duration adjustments looming for the FTSE Canada Universe Bond Index (including its tenors and sectors).

Given the sheer magnitude of the adjustments in question, forthcoming analysis will speak to the most consistently profitable ways to express seasonal cash flow-related views in Canadian rates and credit markets. As always, we advise caution since 'all else is not always equal'.

Chart 1: Cash will flow in unprecedented fashion this June

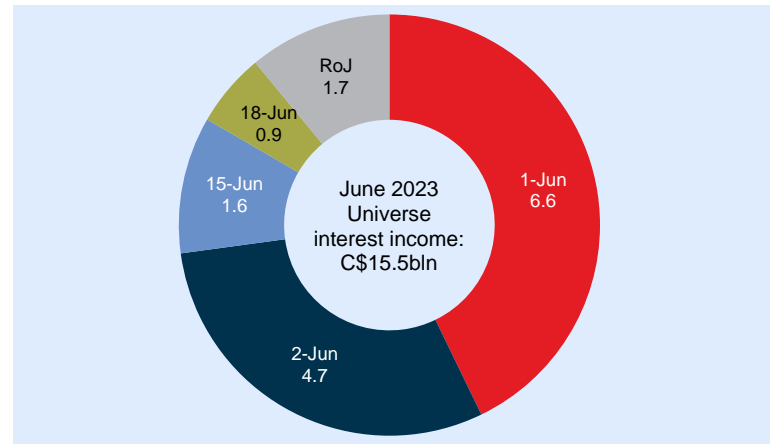
FTSE Canada Universe Bond Index: Interest income paid in month of June



Source: NBF, FTSE Russell | Note: Cash flows based on 12-May closing levels each year

Chart 2: Three (perhaps four) dates to really watch

FTSE Canada Universe Bond Index: Interest income to be paid in Jun-23

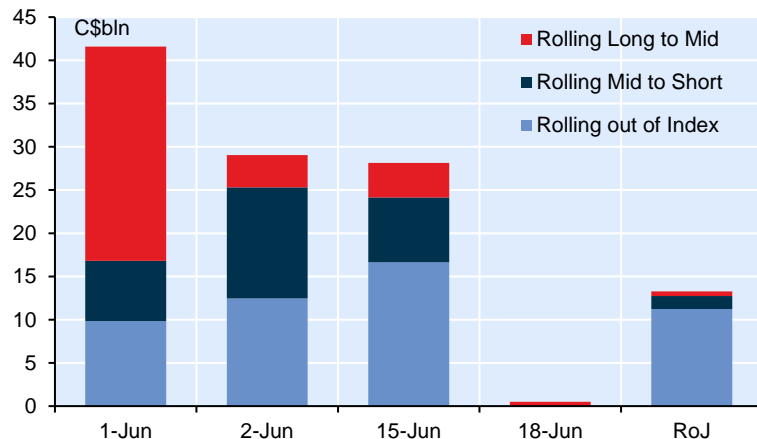


Source: NBF, FTSE Russell | Note: Cash flows based on 12-May-23 closing levels

We estimate some \$15½ billion of FTSE Canada Universe Bond Index cash is set to flow this June—an unprecedented tally. As in prior years, the vast majority of index-related cash flows on three (perhaps four) key dates: the 1st, 2nd, 15th and 18th of the month. But beyond the coupon effect, a number of bonds are due to roll over (from one bucket to another) or roll out of the index altogether...

Chart 3: Roll 'em if you hold 'em?

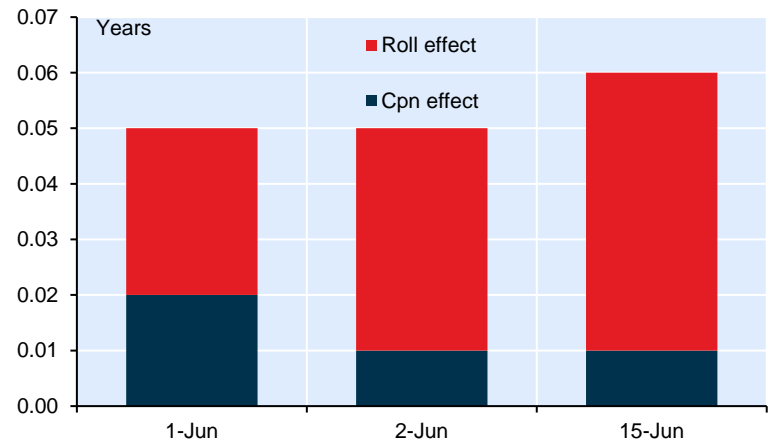
FTSE Canada Universe Bond Index: Current holdings of bonds rolling in Jun-23



Source: NBF, FTSE Russell | Note: Bond rolls based on 15-May-23 closing levels; see Table on page 3 for details on specific securities due to roll

Chart 4: Successive waves of duration extension

FTSE Canada Universe Bond Index: Simulated duration change for key dates

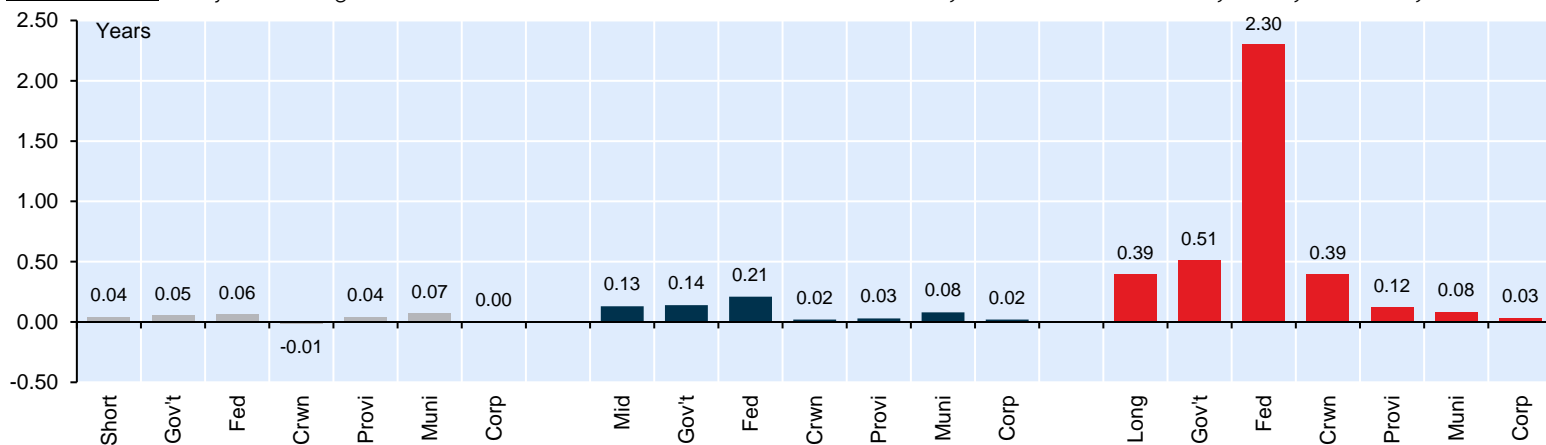


Source: NBF, FTSE Russell | Note: NBF sims based on 15-May-23 closing levels; assumes no change in yield curve; see Charts 5-7 on page 2 for detailed breakdown

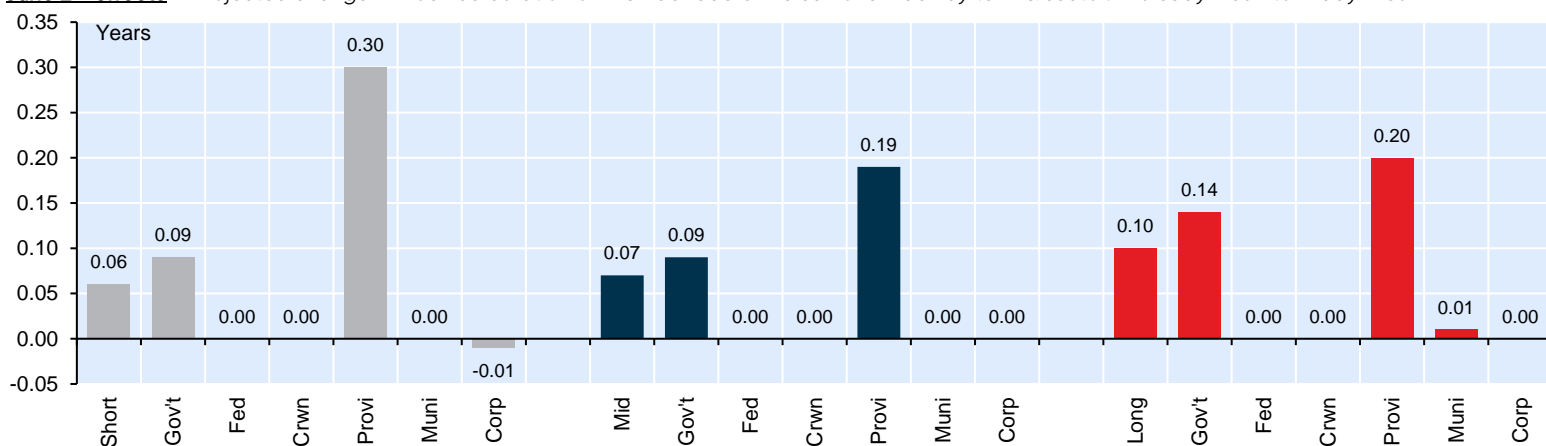
...the nature of bond roll outs/roll overs varies by key date, bucket and sector. The combined coupon and roll effect is due to produce waves of duration extension for Canadian bond indices. June 1st will see a larger GoC-led extension, while the provincial sector (mostly Ontario) is in the spotlight on the 2nd. Canada Mortgage Bonds are largely responsible for the duration boost coming on the 15th. We don't wish to underplay estimated cash flows and roll effects in corporate land, although in order of magnitude the anticipated impacts tend to be comparatively modest in the month of June.

Charts 5-7: Dissecting the prospective duration adjustments on June's key dates

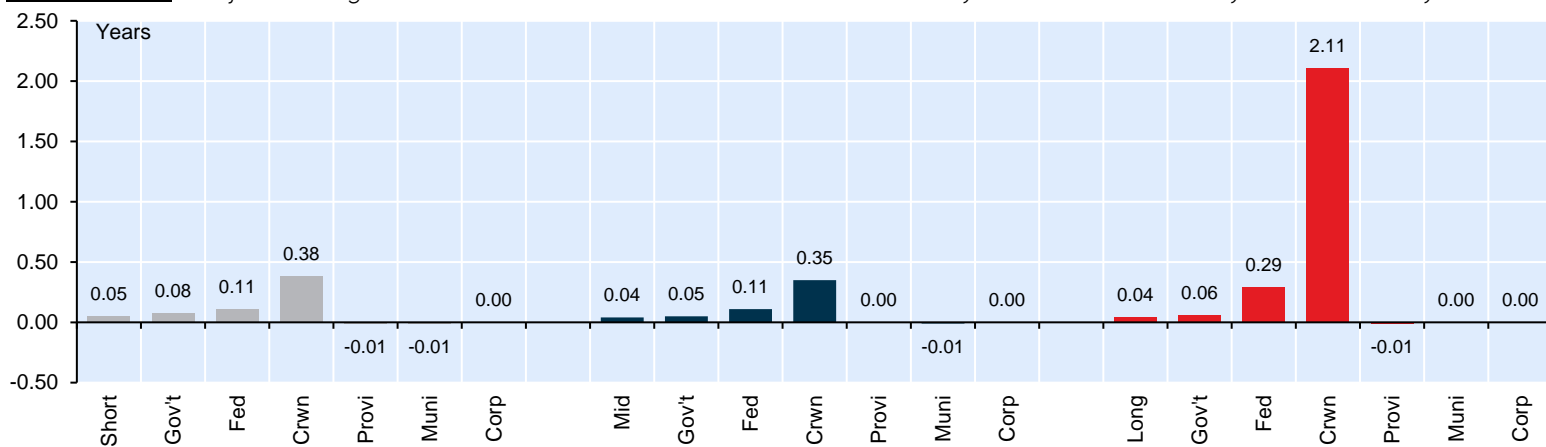
June 1st effects > Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: Wednesday 31-May to Thursday 1-Jun



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



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



Source: NBF, FTSE Russell | Notes to charts: NBF simulations based on 15-May-23 closing values/constituents; assumes no change in yield curve

June 1st effects (top chart) > C\$6.65 billion in Universe cash flows (+18% vs. prior year). NBF estimates +0.05 year increase in modified duration of Universe, with 60% of duration increase attributable to roll effects. Duration increase of Long bucket particularly notable, as Long Federal sector extends estimated +2.3 years. Should support performance of longer dated Canadas.

June 2nd effects (middle chart) > C\$4.66 billion in Universe cash flows (+8% vs. prior year). NBF estimates +0.05 year increase in modified duration of Universe, with 80% of duration increase attributable to roll effects. Notable duration increase expected for all buckets, most apparent in Provincial sector. Much of anticipated adjustment in Provincial index can be linked to Ontario. Note that the ultimate duration adjustment could be further impacted by the development of ONT 2033 bond (i.e., new 10Y benchmark), which will roll over from Long to Mid on June 2nd.

June 15th effects (bottom chart) > C\$1.63 billion in Universe cashflows (+10% vs. prior year). NBF estimates +0.06 year increase in modified duration of Universe, with >80% of duration increase attributable to roll effects. Duration increase largely a Canada Housing Trust story. Most notable is impact of CANHOU 2.9% Jun-2024 issue, which will roll out of index.

Note: Refer to the following tables for specific roll outs and roll overs. Actual duration adjustments subject to underlying market levels and index composition, which will change in lead up to June 1st.

Table 1: The securities driving June's major roll effects... 25 bonds over 3 key days with total holdings approaching \$100 billion
Specific bond issues rolling out of FTSE Canada Universe Bond Index or rolling over to a shorter bucket: June 1st, June 2nd & June 15th

On 1-Jun					On 2-Jun					On 15-Jun				
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 %
CAN	2.50	01-Jun-24	7,396	0.37	ONT	3.50	02-Jun-24	11,550	0.59	CANHOU	2.90	15-Jun-24	16,634	0.84
ALTA	3.10	01-Jun-24	2,425	0.12	MP	3.30	02-Jun-24	900	0.05					
Total rolling out			9,821	0.50	Total rolling out			12,450	0.64	Total rolling out			16,634	0.84

Rolling over from MID to SHORT bucket of FTSE Canada Universe Bond Index														
On 1-Jun					On 2-Jun					On 15-Jun				
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 %
CAN	2.00	01-Jun-28	5,065	0.25	ONT	2.90	02-Jun-28	9,550	0.48	CANHOU	3.10	15-Jun-28	5,000	0.25
NS	1.10	01-Jun-28	1,100	0.05	MP	3.00	02-Jun-28	2,050	0.10	CPPIBC	3.00	15-Jun-28	2,500	0.13
FNFAA	3.05	01-Jun-28	427	0.02	NF	2.85	02-Jun-28	1,250	0.06					
AIREIN	3.04	01-Jun-28	400	0.02										
Total rolling MID to SHORT			6,992	0.34	Total rolling MID to SHORT			12,850	0.64	Total rolling MID to SHORT			7,500	0.38

Rolling over from LONG to MID bucket of FTSE Canada Universe Bond Index														
On 1-Jun					On 2-Jun					On 15-Jun				
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 %
CAN	2.75	01-Jun-33	15,262	0.77	ONT	3.65	02-Jun-33	2,250	0.12	CANHOU	3.65	15-Jun-33	4,000	0.21
CAN	5.75	01-Jun-33	6,839	0.44	ONTSCH	5.90	02-Jun-33	891	0.05					
ALTA	4.15	01-Jun-33	800	0.04	MP	3.80	02-Jun-33	600	0.03					
CANLIL	3.76	01-Jun-33	725	0.04										
NWRWPT	4.15	01-Jun-33	500	0.02										
NS	5.80	01-Jun-33	401	0.02										
ETRHVY	3.43	01-Jun-33	250	0.01										
Total rolling LONG to MID			24,777	1.35	Total rolling LONG to MID			3,741	0.20	Total rolling LONG to MID			4,000	0.21

Source: NBF, FTSE Russell | Note: Relevant securities as of 15-May; O/S refers to "current holdings"; weight refers to Universe & is based on current holdings

Based on closing levels and index constituents as of May 15th, there were 25 unique securities comprising over 5% of the FTSE Canada Universe Bond Index due to roll out or roll over on June 1st, June 2nd or June 15th. Combined holdings for the bonds in question approached \$100 billion. While the above table concentrates on the three days where coupon and roll effects tend to be most pronounced, a number of additional bonds will roll out or roll over on other days throughout June 2023. For example, another 20+ bonds will roll out in June, including a number of government securities in the early part of the month alongside a couple of notable financial roll outs in the latter half of the month. Full details are available for those interested. Finally, we would note that index constituents and amounts outstanding can/will change as June approaches. So treat the above table (and the detailed simulations on page 3) as preliminary in nature.

Table 2: Detailed simulations of June 1st index adjustments (preliminary)

Simulated change in FTSE Canada Universe Bond Index weights & modified duration: May 31st to June 1st

	Index weight simulation (%)		Modified duration simulation		Duration change analysis: 31-May to 1-Jun			
	31-May	1-Jun	31-May	1-Jun	Coupon effect	Roll effect	Total change	
Short (1-5 years)	Short Government	28.2	28.2	2.52	2.57	0.00	0.05	0.05
	Short Federal	19.5	19.6	2.49	2.55	0.00	0.06	0.06
	Short Fed Agency	6.5	6.5	2.71	2.70	-0.01	0.00	-0.01
	Short Provincial	8.1	8.1	2.59	2.63	0.00	0.04	0.04
	Short Ontario	4.1	4.1	2.53	2.53	0.00	0.00	0.00
	Short Quebec	1.7	1.7	2.68	2.68	0.00	0.00	0.00
	Short Municipal	0.6	0.6	2.61	2.68	0.00	0.07	0.07
	Short Corporate	14.4	14.5	2.70	2.70	0.00	0.00	0.00
	Short Financial	9.3	9.4	2.62	2.62	0.00	0.00	0.00
	Short Energy	1.7	1.7	3.01	3.01	0.00	0.00	0.00
	Short (Overall)	42.5	42.7	2.58	2.62	0.00	0.04	0.04
Mid (6-10 years)	Mid Government	22.6	23.6	6.69	6.83	0.02	0.12	0.14
	Mid Federal	12.0	13.1	6.99	7.20	0.04	0.17	0.21
	Mid Fed Agency	3.6	3.7	6.60	6.62	0.00	0.02	0.02
	Mid Provincial	10.0	10.0	6.34	6.37	0.01	0.02	0.03
	Mid Ontario	4.2	4.3	6.33	6.33	0.00	0.00	0.00
	Mid Quebec	2.7	2.7	6.51	6.52	0.01	0.00	0.01
	Mid Municipal	0.6	0.6	6.42	6.50	0.01	0.07	0.08
	Mid Corporate	4.7	4.7	5.93	5.95	0.00	0.02	0.02
	Mid Financial	0.7	0.7	5.63	5.63	0.00	0.00	0.00
	Mid Energy	1.4	1.4	5.99	6.03	0.00	0.04	0.04
	Mid (Overall)	27.2	28.4	6.56	6.69	0.02	0.11	0.13
Long (10+ years)	Long Government	23.8	22.5	15.08	15.59	0.12	0.39	0.51
	Long Federal	6.1	4.8	16.27	18.57	0.22	2.08	2.30
	Long Fed Agency	0.5	0.5	11.44	11.83	0.14	0.25	0.39
	Long Provincial	16.8	16.8	14.73	14.85	0.09	0.03	0.12
	Long Ontario	6.6	6.6	14.68	14.67	-0.01	0.00	-0.01
	Long Quebec	5.0	5.0	14.71	14.94	0.23	0.00	0.23
	Long Municipal	0.9	0.9	13.35	13.43	0.08	0.00	0.08
	Long Corporate	6.4	6.5	12.34	12.37	0.01	0.02	0.03
	Long Financial	0.3	0.3	12.00	12.00	0.00	0.00	0.00
	Long Energy	2.3	2.3	12.26	12.32	0.01	0.05	0.06
	Long (Overall)	30.2	29.0	14.49	14.88	0.10	0.29	0.39
Universe	100.0	100.0	7.27	7.32	0.02	0.03	0.05	

Source: NBF, FTSE Russell | Note: NBF simulations based on 15-May-23 closing values/constituents; assumes no change in yield curve

Table 3: Detailed simulations of June 2nd index adjustments (preliminary)

Simulated change in FTSE Canada Universe Bond Index weights & modified duration: June 1st to June 2nd

	Index weight simulation (%)		Modified duration simulation		Duration change analysis: 1-Jun to 2-Jun			
	1-Jun	2-Jun	1-Jun	2-Jun	Coupon effect	Roll effect	Total change	
Short (1-5 years)	Short Government	28.2	28.4	2.52	2.61	0.00	0.09	0.09
	Short Federal	19.6	19.8	2.49	2.49	0.00	0.00	0.00
	Short Fed Agency	6.5	6.5	2.70	2.70	0.00	0.00	0.00
	Short Provincial	8.1	8.1	2.59	2.89	0.01	0.29	0.30
	Short Ontario	4.1	4.0	2.53	3.04	0.02	0.49	0.51
	Short Quebec	1.7	1.7	2.68	2.68	0.00	0.00	0.00
	Short Municipal	0.6	0.6	2.61	2.61	0.00	0.00	0.00
	Short Corporate	14.4	14.5	2.70	2.69	-0.01	0.00	-0.01
	Short Financial	9.3	9.4	2.62	2.62	0.00	0.00	0.00
	Short Energy	1.7	1.8	3.01	3.01	0.00	0.00	0.00
Short (Overall)	42.6	43.0	2.58	2.64	0.00	0.06	0.06	
Mid (6-10 years)	Mid Government	22.5	22.2	6.71	6.80	0.02	0.07	0.09
	Mid Federal	12.0	12.1	7.03	7.03	0.00	0.00	0.00
	Mid Fed Agency	3.7	3.7	6.60	6.60	0.00	0.00	0.00
	Mid Provincial	10.0	9.6	6.35	6.54	0.03	0.16	0.19
	Mid Ontario	4.2	3.9	6.33	6.68	0.06	0.29	0.35
	Mid Quebec	2.7	2.7	6.52	6.52	0.00	0.00	0.00
	Mid Municipal	0.6	0.6	6.43	6.43	0.00	0.00	0.00
	Mid Corporate	4.7	4.7	5.93	5.93	0.00	0.00	0.00
	Mid Financial	0.7	0.7	5.63	5.63	0.00	0.00	0.00
	Mid Energy	1.4	1.4	5.99	5.99	0.00	0.00	0.00
Mid (Overall)	27.2	27.0	6.58	6.65	0.01	0.06	0.07	
Long (10+ years)	Long Government	23.7	23.6	15.20	15.34	0.08	0.06	0.14
	Long Federal	6.0	6.1	16.49	16.49	0.00	0.00	0.00
	Long Fed Agency	0.5	0.5	11.58	11.58	0.00	0.00	0.00
	Long Provincial	16.7	16.6	14.82	15.02	0.12	0.08	0.20
	Long Ontario	6.6	6.4	14.67	15.12	0.27	0.18	0.45
	Long Quebec	5.0	5.0	14.94	14.93	-0.01	0.00	-0.01
	Long Municipal	0.9	0.9	13.43	13.44	0.01	0.00	0.01
	Long Corporate	6.5	6.5	12.35	12.35	0.00	0.00	0.00
	Long Financial	0.3	0.3	12.00	12.00	0.00	0.00	0.00
	Long Energy	2.3	2.4	12.27	12.27	0.00	0.00	0.00
Long (Overall)	30.1	30.1	14.59	14.69	0.06	0.04	0.10	
Universe	100.0	100.0	7.29	7.34	0.01	0.04	0.05	

Source: NBF, FTSE Russell | Note: NBF simulations based on 15-May-23 closing values/constituents; assumes no change in yield curve



Table 4: Detailed simulations of June 15th index adjustments (preliminary)

Simulated change in FTSE Canada Universe Bond Index weights & modified duration: June 14th to June 15th

	Index weight simulation (%)		Modified duration simulation		Duration change analysis: 14-Jun to 15-Jun			
	14-Jun	15-Jun	14-Jun	15-Jun	Coupon effect	Roll effect	Total change	
Short (1-5 years)	Short Government	28.2	28.0	2.49	2.57	0.00	0.08	0.08
	Short Federal	19.6	19.3	2.46	2.57	0.00	0.11	0.11
	Short Fed Agency	6.5	6.0	2.67	3.05	0.02	0.36	0.38
	Short Provincial	8.1	8.1	2.57	2.56	-0.01	0.00	-0.01
	Short Ontario	4.0	4.1	2.52	2.52	0.00	0.00	0.00
	Short Quebec	1.7	1.7	2.65	2.64	-0.01	0.00	-0.01
	Short Municipal	0.6	0.6	2.59	2.58	-0.01	0.00	-0.01
	Short Corporate	14.4	14.6	2.66	2.66	0.00	0.00	0.00
	Short Financial	9.3	9.4	2.59	2.59	0.00	0.00	0.00
	Short Energy	1.7	1.8	2.98	2.98	0.00	0.00	0.00
Short (Overall)	42.7	42.6	2.55	2.60	0.00	0.05	0.05	
Mid (6-10 years)	Mid Government	22.5	22.6	6.70	6.75	0.00	0.05	0.05
	Mid Federal	12.0	11.9	7.00	7.11	0.00	0.11	0.11
	Mid Fed Agency	3.7	3.5	6.57	6.92	0.03	0.32	0.35
	Mid Provincial	9.9	10.0	6.35	6.35	0.00	0.00	0.00
	Mid Ontario	4.2	4.2	6.36	6.36	0.00	0.00	0.00
	Mid Quebec	2.7	2.7	6.49	6.48	-0.01	0.00	-0.01
	Mid Municipal	0.6	0.6	6.40	6.39	-0.01	0.00	-0.01
	Mid Corporate	4.7	4.7	5.91	5.91	0.00	0.00	0.00
	Mid Financial	0.7	0.7	5.60	5.60	0.00	0.00	0.00
	Mid Energy	1.4	1.4	5.96	5.96	0.00	0.00	0.00
Mid (Overall)	27.2	27.3	6.56	6.60	0.00	0.04	0.04	
Long (10+ years)	Long Government	23.6	23.6	15.25	15.31	0.00	0.06	0.06
	Long Federal	6.1	5.9	16.46	16.75	0.00	0.29	0.29
	Long Fed Agency	0.5	0.3	11.55	13.66	0.04	2.07	2.11
	Long Provincial	16.7	16.8	14.91	14.90	-0.01	0.00	-0.01
	Long Ontario	6.5	6.5	14.91	14.90	-0.01	0.00	-0.01
	Long Quebec	5.0	5.0	14.90	14.90	0.00	0.00	0.00
	Long Municipal	0.9	0.9	13.44	13.44	0.00	0.00	0.00
	Long Corporate	6.5	6.5	12.33	12.33	0.00	0.00	0.00
	Long Financial	0.3	0.3	11.99	12.02	0.03	0.00	0.03
	Long Energy	2.3	2.4	12.25	12.25	0.00	0.00	0.00
Long (Overall)	30.1	30.2	14.62	14.66	0.00	0.04	0.04	
Universe	100.0	100.0	7.27	7.33	0.01	0.05	0.06	

Source: NBF, FTSE Russell | Note: NBF simulations based on 15-May-23 closing values/constituents; assumes no change in yield curve



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