

## March of dimes (billions & billions of them)

By Warren Lovely

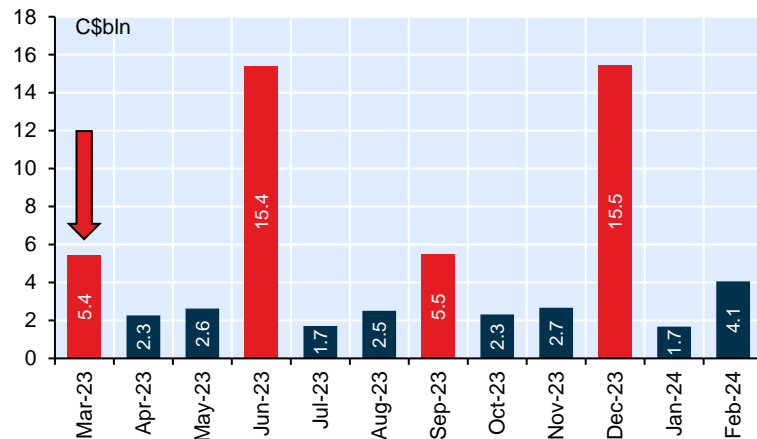
Canada's bond market cash, which always tends to be heavily concentrated, really starts to flow next week—on March 1<sup>st</sup> to be precise. Additional non-trivial cash flows will follow over the course of next month, some C\$5½ billion of FTSE Canada Universe Bond Index interest and principal set to be paid out this March—a step up from what was seen in prior years. More than coupons, a series of roll outs and/or roll overs (i.e., bonds dropping out or moving down from one bucket to another) will be key notable duration adjustments, once again on a handful of key days (March 1<sup>st</sup>, 8<sup>th</sup> and 15<sup>th</sup> being particularly noteworthy).

Make no mistake, March's above-average cash flows and bond rolls don't really compete with the jumbo coupon payments and related adjustments that await in June (and again in December). But for you 'Indexers' (active or passive)... or Canadian fixed income participants more generally... March 2023 is set to deliver a series of noteworthy tweaks/modifications. Where possible, some issuers could look to take advantage of this seasonal cash. Meanwhile, roll-induced portfolio adjustments could well see some investors moving out of or into select securities in/around key days, the GoC effect most prominent on March 1<sup>st</sup>, provincials in the spotlight on March 8<sup>th</sup> and CMB the predominant focus on March 15<sup>th</sup>... to say nothing of some chunky bank paper that will roll early in the month too. Read on for more details...

### FTSE Canada Universe Bond Index: Examining March's key cash flow/bond roll dates

**Chart 1: Canada's bond market cash ultra seasonal**

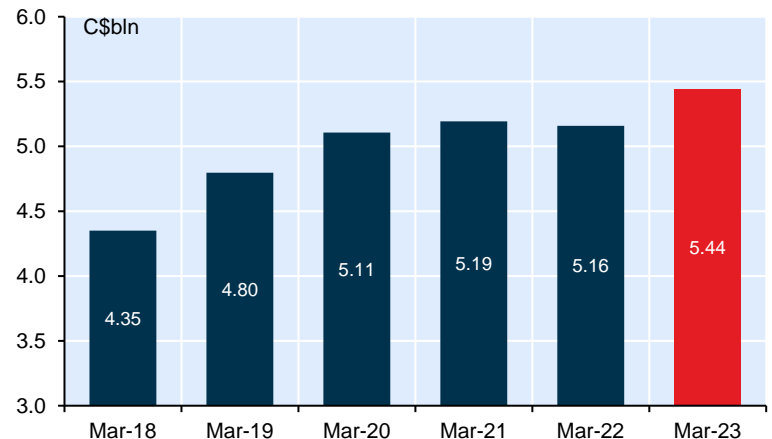
Projected FTSE Canada Universe Bond Index cash flows (next 12 months)



Source: NBF, FTSE Russell | Note: Based on 22-Feb constituents/holdings

**Chart 2: More cash this March than in prior years**

FTSE Canada Universe Bond Index cash flows: Mar-23 vs. prior years

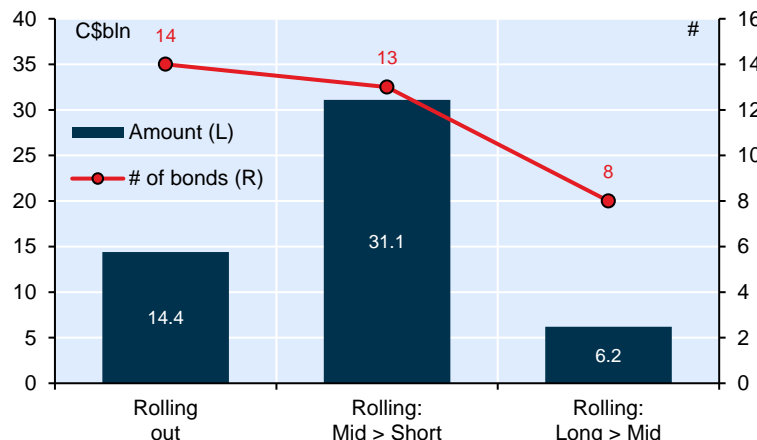


Source: NBF, FTSE Russell | Note: Based on constituents/holdings on 22-Feb each year

As it stands, March 2023 will see C\$5.4 billion of FTSE Canada Universe Bond Index cash (interest + principal) paid out. That might not compare to the truly enormous cash deluge that will rain down in June (and again in December), but March (and September) nonetheless rank as above-average cash flow months. If anything, more cash will flow this March than in prior years, the monthly tally for March 2023 standing 6% above Mar-22 and more than 10% higher than the average for the prior 5 Marchs (i.e., 2018-22). March's cash is heavily concentrated into a few key days, as discussed below. Ditto for the related bond index roll outs/roll overs, as detailed below.

**Chart 3: More than coupons, rolls a major factor in March**

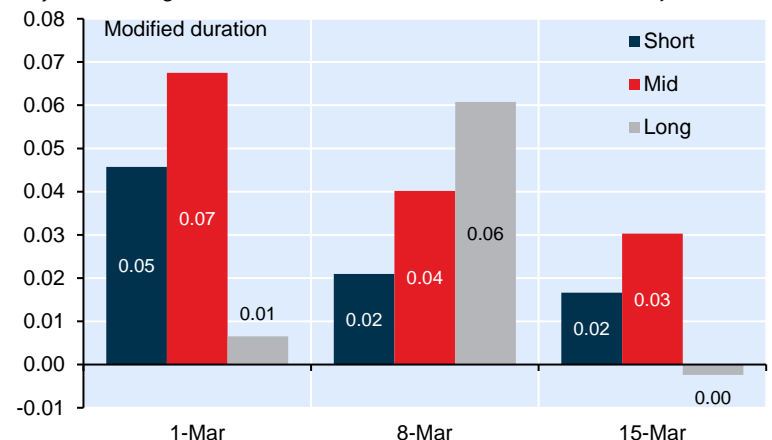
FTSE Canada Universe Bond Index roll outs, roll overs in Mar-23



Source: NBF, FTSE Russell | Note: Based on 22-Feb index constituents/holdings

**Chart 4: Roll outs/roll overs will drive duration increase**

Projected change in FTSE Canada Universe Bond Index duration by bucket

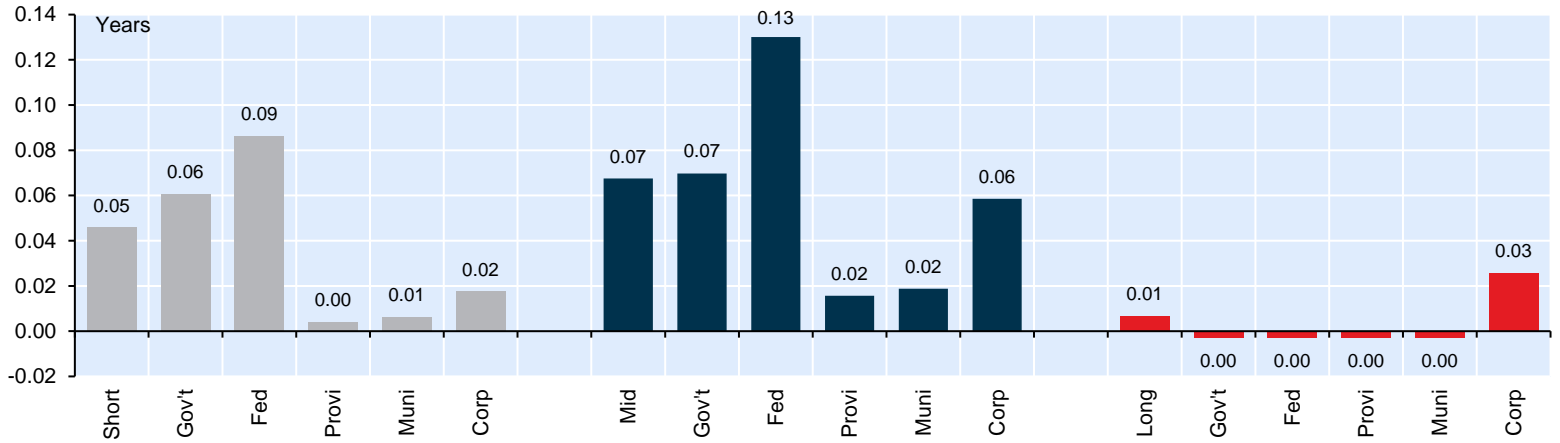


Source: NBF, FTSE Russell | Note: Based on 22-Feb prices; assumes no chg in yield curve

More than coupon payments, it's the roll out/roll over effect that should have the bigger impact on duration of the FTSE Canada Universe Bond Index in March. We count 14 bonds where total holdings exceed C\$14 billion that will have less than one year to maturity by the end of March and will thus roll out of the Universe. A further 21 securities with combined holdings of >C\$37 billion will either roll over from the Mid to Short or from the Long to Mid buckets this March. Dropping these short(er) dated securities and in some cases replacing with long(er) dated bonds will tend to add duration to select buckets, all else being equal. The roll out/roll over effect is most pronounced on March 1<sup>st</sup>, 8<sup>th</sup> and 15<sup>th</sup>... although there's at least one yard rolling on each of March 4<sup>th</sup>, 6<sup>th</sup> and 27<sup>th</sup> as well.

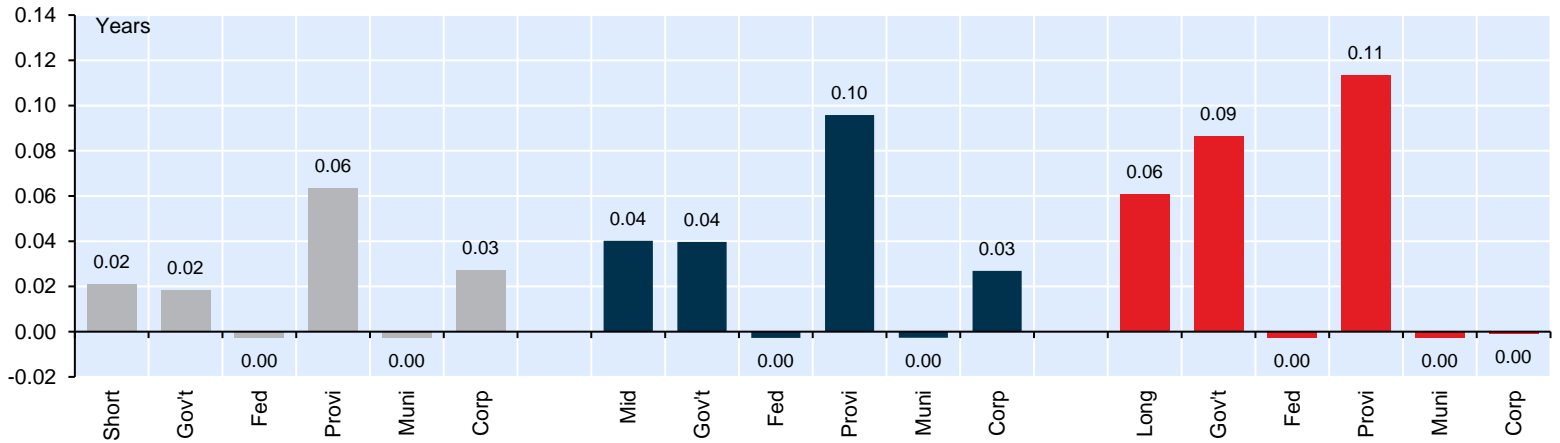
**Chart 5: Government of Canada coupon/roll effect the main story on March 1<sup>st</sup>**

Simulated March 1<sup>st</sup> duration effect – Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 28-Feb to 1-Mar



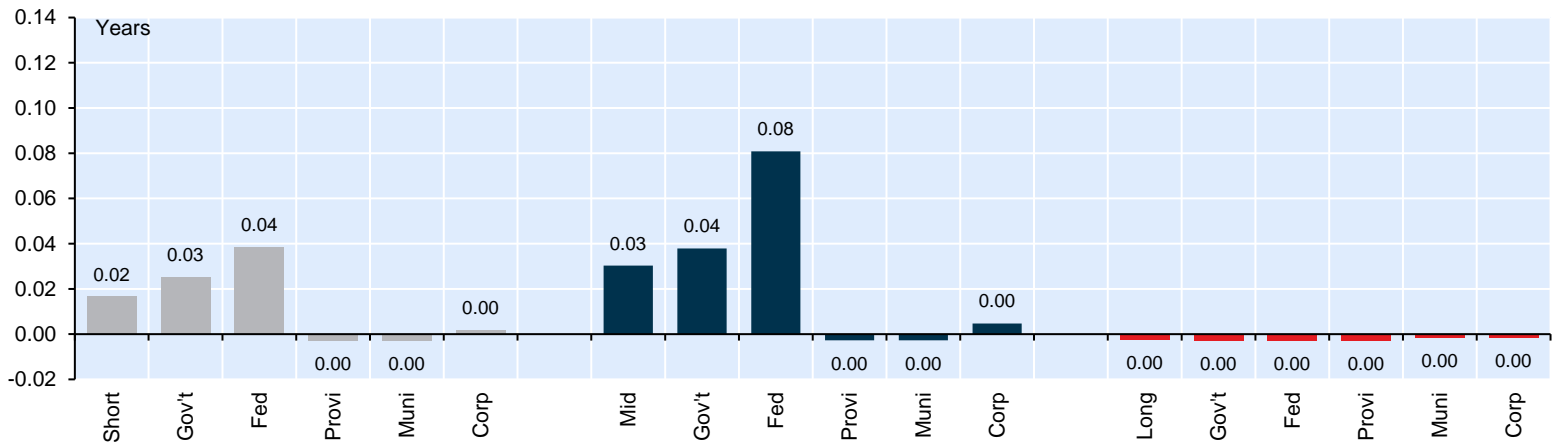
**Chart 6: Provincials the primary story on March 8<sup>th</sup>**

Simulated March 8<sup>th</sup> duration effect – Projected change in modified duration of FTSE Canada Universe Bond Index by term & sector: 7-Mar to 8-Mar



**Chart 7: Canada Mortgage Bonds (CMB) a key focus on March 15<sup>th</sup>**

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



For Charts 5-7 > Source: NBF, FTSE Russell | Note: NBF simulations based on index composition & closing prices as at 22-Feb; assumes no change in yield curve

March 1<sup>st</sup> (Chart 5): C\$1.86bln in Index cash flows | 1 bond rolls out, 4 roll Mid to Short, 2 roll Long to Mid | NBF estimates +0.022 increase in modified duration of Universe, with majority attributable to roll effects. Duration adjustments in Short and Mid buckets most notable. Short Federal to extend +0.086 as CAN 2.25% 3/2024 (C\$5.3bln eff o/s) rolls out, with related Index weight up. Mid Federal to extend +0.130 as CAN 3.5% 3/2028 (C\$11.5bln eff o/s) rolls Mid to Short. Among others, BMO 3.19% 3/2028 (C\$2.5bln eff o/s) rolls Mid to Short.

March 8<sup>th</sup> (Chart 6): C\$0.65bln in Index cash flows | 2 bonds roll out, 3 roll Mid to Short, 1 rolls Long to Mid | NBF estimates +0.008 increase in modified duration of Universe, virtually all of it roll-related. Duration of all three primary buckets to rise led by Provincial sector, the weight of Short increasing at expense of Mid and Long. Of note, ONT 3.6% 3/2028 (C\$5.5bln eff o/s) rolls Mid to Short, while ONT 5.85% 3/2033 (C\$4.3bln eff o/s) rolls Long to Mid. Note that March 8<sup>th</sup> (along with March 4<sup>th</sup>/6<sup>th</sup>) will see some notable financials roll out and/or roll over, impacting corporate duration.

March 15<sup>th</sup> (Chart 7): C\$0.62bln in Index cash flows | 1 bond rolls out, 3 roll Mid to Short, 0 roll Long to Mid | NBF estimates little change to modified duration of Universe, although CMB roll overs will impact certain buckets. Two CANHOU bonds dated 3/2028 (C\$6.2bln eff o/s combined) roll Mid to Short, as does PSPCAP 1.5% 3/2028 (C\$1bln eff o/s). On balance, Short weighting to increase.



**Table 1: Identifying the specific bonds in focus this March, with a handful of securities moving the duration dial**

Specific bond issues rolling out of FTSE Canada Universe Bond Index or rolling from one bucket to another: March 1<sup>st</sup>, 8<sup>th</sup>, 15<sup>th</sup>

March 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 %
CAN	2.25	01-Mar-24	5,296	0.28	CAN	3.5	01-Mar-28	11,500	0.62	CHPUCN	5.4	01-Mar-33	550	0.03
					BMO	3.19	01-Mar-28	2,500	0.13	WNCN	6.69	01-Mar-33	100	0.01
					TCN	3.625	01-Mar-28	600	0.03					
					FCRCN	3.447	01-Mar-28	200	0.01					
<b>Total rolling out</b>			<b>5,296</b>	<b>0.28</b>	<b>Total rolling over</b>			<b>14,800</b>	<b>0.78</b>	<b>Total rolling over</b>			<b>650</b>	<b>0.03</b>

March 8th: 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 %
TD	2.85	08-Mar-24	2,000	0.11	ONT	3.6	08-Mar-28	5,500	0.29	ONT	5.85	08-Mar-33	4,258	0.26
BNCN	5.04	08-Mar-24	486	0.03	TD	1.888	08-Mar-28	1,500	0.07					
					CHPUCN	4.178	08-Mar-28	750	0.04					
<b>Total rolling out</b>			<b>2,486</b>	<b>0.13</b>	<b>Total rolling over</b>			<b>7,750</b>	<b>0.40</b>	<b>Total rolling over</b>			<b>4,258</b>	<b>0.26</b>

March 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 %
ALACN	4.4	15-Mar-24	200	0.01	CANHOU	2.65	15-Mar-28	3,911	0.20	<b>N/A</b>				
					CANHOU	2.35	15-Mar-28	2,337	0.12					
					PSPCAP	1.5	15-Mar-28	1,000	0.05					
<b>Total rolling out</b>			<b>200</b>	<b>0.01</b>	<b>Total rolling over</b>			<b>7,248</b>	<b>0.36</b>	<b>Total rolling over</b>			<b>0</b>	<b>0.00</b>

Source: NBF, FTSE Russell | Note: Relevant securities as of 22-Feb; O/S and weight (in Universe) refers to "current holdings"; other bonds will roll out or roll over during March, but we have focused on three key days; issuers listed by Bloomberg bond ticker



**Table 2: Simulation details moving from February 28<sup>th</sup> to March 1<sup>st</sup>**

FTSE Canada Universe Bond Index simulations / Simulation timeframe: Tuesday, February 28<sup>th</sup> to Wednesday, March 1<sup>st</sup>

	Index weight simulation (%)		Modified duration simulation		Duration change analysis: 28-Feb to 1-Mar			
	28-Feb	1-Mar	28-Feb	1-Mar	Coupon effect	Roll effect	Total change	
Short (1-5 years)	<b>Short Government</b>	<b>28.03</b>	<b>28.41</b>	<b>2.541</b>	<b>2.602</b>	<b>0.002</b>	<b>0.058</b>	<b>0.061</b>
	Short Federal	19.51	19.89	2.457	2.543	0.001	0.085	0.086
	Short Provincial	7.93	7.94	2.728	2.732	0.004	0.000	0.004
	Short Municipal	0.59	0.59	2.826	2.832	0.006	0.000	0.006
	<b>Short Corporate</b>	<b>14.76</b>	<b>14.98</b>	<b>2.708</b>	<b>2.726</b>	<b>-0.002</b>	<b>0.020</b>	<b>0.018</b>
	Short Financial	9.46	9.62	2.674	2.695	-0.003	0.024	0.022
	<b>Short (Overall)</b>	<b>42.79</b>	<b>43.39</b>	<b>2.599</b>	<b>2.645</b>	<b>0.001</b>	<b>0.045</b>	<b>0.046</b>
Mid (6-10 years)	<b>Mid Government</b>	<b>22.90</b>	<b>22.34</b>	<b>6.777</b>	<b>6.847</b>	<b>0.009</b>	<b>0.061</b>	<b>0.070</b>
	Mid Federal	12.60	12.03	7.068	7.198	0.002	0.128	0.130
	Mid Provincial	9.75	9.76	6.417	6.433	0.016	0.000	0.016
	Mid Municipal	0.55	0.55	6.497	6.515	0.019	0.000	0.019
	<b>Mid Corporate</b>	<b>5.00</b>	<b>4.89</b>	<b>5.862</b>	<b>5.921</b>	<b>0.001</b>	<b>0.057</b>	<b>0.059</b>
	Mid Financial	0.92	0.80	5.402	5.548	0.010	0.136	0.145
	<b>Mid (Overall)</b>	<b>27.90</b>	<b>27.22</b>	<b>6.613</b>	<b>6.681</b>	<b>0.007</b>	<b>0.060</b>	<b>0.067</b>
Long (10+ years)	<b>Long Government</b>	<b>22.77</b>	<b>22.85</b>	<b>15.175</b>	<b>15.173</b>	<b>-0.003</b>	<b>0.000</b>	<b>-0.003</b>
	Long Federal	5.32	5.34	16.944	16.941	-0.003	0.000	-0.003
	Long Provincial	16.55	16.61	14.717	14.714	-0.003	0.000	-0.003
	Long Municipal	0.90	0.90	13.149	13.146	-0.003	0.000	-0.003
	<b>Long Corporate</b>	<b>6.55</b>	<b>6.53</b>	<b>12.099</b>	<b>12.125</b>	<b>0.002</b>	<b>0.024</b>	<b>0.026</b>
	Long Financial	0.34	0.34	11.350	11.347	-0.003	0.000	-0.003
	<b>Long (Overall)</b>	<b>29.31</b>	<b>29.39</b>	<b>14.489</b>	<b>14.495</b>	<b>-0.002</b>	<b>0.008</b>	<b>0.007</b>
<b>Universe</b>	<b>100.00</b>	<b>100.00</b>	<b>7.204</b>	<b>7.226</b>	<b>0.004</b>	<b>0.017</b>	<b>0.022</b>	

Source: NBF, FTSE Russell | Note: Simulation provided for illustrative purposes based on Index constituents/closing prices from 22-Feb; assumes no change in yield curve

**Table 3: Simulation details moving from March 7<sup>th</sup> to March 8<sup>th</sup>**

FTSE Canada Universe Bond Index simulations / Simulation timeframe: Tuesday, March 7<sup>th</sup> to Wednesday, March 8<sup>th</sup>

	Index weight simulation (%)		Modified duration simulation		Duration change analysis: 7-Mar to 8-Mar			
	7-Mar	8-Mar	7-Mar	8-Mar	Coupon effect	Roll effect	Total change	
Short (1-5 years)	<b>Short Government</b>	<b>28.01</b>	<b>28.33</b>	<b>2.527</b>	<b>2.546</b>	<b>-0.002</b>	<b>0.020</b>	<b>0.018</b>
	Short Federal	19.50	19.53	2.442	2.439	-0.003	0.000	-0.003
	Short Provincial	7.92	8.21	2.716	2.780	0.000	0.064	0.064
	Short Municipal	0.58	0.59	2.816	2.813	-0.003	0.000	-0.003
	<b>Short Corporate</b>	<b>14.77</b>	<b>14.77</b>	<b>2.691</b>	<b>2.718</b>	<b>-0.002</b>	<b>0.029</b>	<b>0.027</b>
	Short Financial	9.47	9.45	2.657	2.689	-0.001	0.033	0.032
	<b>Short (Overall)</b>	<b>42.78</b>	<b>43.10</b>	<b>2.584</b>	<b>2.605</b>	<b>-0.002</b>	<b>0.023</b>	<b>0.021</b>
Mid (6-10 years)	<b>Mid Government</b>	<b>22.89</b>	<b>22.88</b>	<b>6.770</b>	<b>6.810</b>	<b>0.001</b>	<b>0.039</b>	<b>0.040</b>
	Mid Federal	12.61	12.63	7.053	7.051	-0.003	0.000	-0.003
	Mid Provincial	9.73	9.70	6.418	6.514	0.005	0.091	0.096
	Mid Municipal	0.55	0.55	6.499	6.496	-0.003	0.000	-0.003
	<b>Mid Corporate</b>	<b>5.00</b>	<b>4.90</b>	<b>5.850</b>	<b>5.877</b>	<b>-0.001</b>	<b>0.028</b>	<b>0.027</b>
	Mid Financial	0.92	0.85	5.402	5.465	0.002	0.060	0.062
	<b>Mid (Overall)</b>	<b>27.89</b>	<b>27.78</b>	<b>6.605</b>	<b>6.645</b>	<b>0.000</b>	<b>0.040</b>	<b>0.040</b>
Long (10+ years)	<b>Long Government</b>	<b>22.78</b>	<b>22.56</b>	<b>15.168</b>	<b>15.254</b>	<b>0.002</b>	<b>0.085</b>	<b>0.087</b>
	Long Federal	5.33	5.34	16.924	16.921	-0.003	0.000	-0.003
	Long Provincial	16.55	16.32	14.713	14.827	0.003	0.110	0.114
	Long Municipal	0.90	0.90	13.131	13.129	-0.003	0.000	-0.003
	<b>Long Corporate</b>	<b>6.55</b>	<b>6.56</b>	<b>12.097</b>	<b>12.096</b>	<b>-0.001</b>	<b>0.000</b>	<b>-0.001</b>
	Long Financial	0.34	0.34	11.340	11.337	-0.003	0.000	-0.003
	<b>Long (Overall)</b>	<b>29.33</b>	<b>29.12</b>	<b>14.482</b>	<b>14.543</b>	<b>0.001</b>	<b>0.060</b>	<b>0.061</b>
<b>Universe</b>	<b>100.00</b>	<b>100.00</b>	<b>7.195</b>	<b>7.203</b>	<b>0.000</b>	<b>0.008</b>	<b>0.008</b>	

Source: NBF, FTSE Russell | Note: Simulation provided for illustrative purposes based on Index constituents/closing prices from 22-Feb; assumes no change in yield curve

**Table 4: Simulation details moving from March 14<sup>th</sup> to March 15<sup>th</sup>**

FTSE Canada Universe Bond Index simulations / Simulation timeframe: Tuesday, March 14<sup>th</sup> to Wednesday, March 15<sup>th</sup>

	Index weight simulation (%)		Modified duration simulation		Duration change analysis: 14-Mar to 15-Mar			
	14-Mar	15-Mar	14-Mar	15-Mar	Coupon effect	Roll effect	Total change	
Short (1-5 years)	<b>Short Government</b>	<b>28.01</b>	<b>28.37</b>	<b>2.509</b>	<b>2.534</b>	<b>-0.002</b>	<b>0.027</b>	<b>0.025</b>
	Short Federal	19.51	19.87	2.423	2.461	-0.002	0.040	0.038
	Short Provincial	7.92	7.92	2.700	2.697	-0.003	0.000	-0.003
	Short Municipal	0.58	0.58	2.797	2.794	-0.003	0.000	-0.003
	<b>Short Corporate</b>	<b>14.76</b>	<b>14.78</b>	<b>2.675</b>	<b>2.677</b>	<b>-0.003</b>	<b>0.004</b>	<b>0.002</b>
	Short Financial	9.46	9.47	2.641	2.638	-0.003	0.000	-0.003
	<b>Short (Overall)</b>	<b>42.77</b>	<b>43.16</b>	<b>2.566</b>	<b>2.583</b>	<b>-0.002</b>	<b>0.019</b>	<b>0.017</b>
Mid (6-10 years)	<b>Mid Government</b>	<b>22.89</b>	<b>22.51</b>	<b>6.754</b>	<b>6.792</b>	<b>0.004</b>	<b>0.034</b>	<b>0.038</b>
	Mid Federal	12.61	12.23	7.034	7.115	0.010	0.071	0.081
	Mid Provincial	9.72	9.73	6.407	6.404	-0.003	0.000	-0.003
	Mid Municipal	0.55	0.55	6.480	6.477	-0.003	0.000	-0.003
	<b>Mid Corporate</b>	<b>5.00</b>	<b>4.98</b>	<b>5.838</b>	<b>5.843</b>	<b>-0.002</b>	<b>0.007</b>	<b>0.005</b>
	Mid Financial	0.92	0.92	5.392	5.389	-0.003	0.000	-0.003
	<b>Mid (Overall)</b>	<b>27.89</b>	<b>27.49</b>	<b>6.590</b>	<b>6.621</b>	<b>0.003</b>	<b>0.027</b>	<b>0.030</b>
Long (10+ years)	<b>Long Government</b>	<b>22.79</b>	<b>22.80</b>	<b>15.153</b>	<b>15.150</b>	<b>-0.003</b>	<b>0.000</b>	<b>-0.003</b>
	Long Federal	5.33	5.33	16.905	16.902	-0.003	0.000	-0.003
	Long Provincial	16.56	16.57	14.700	14.697	-0.003	0.000	-0.003
	Long Municipal	0.90	0.90	13.119	13.117	-0.001	0.000	-0.001
	<b>Long Corporate</b>	<b>6.55</b>	<b>6.55</b>	<b>12.092</b>	<b>12.091</b>	<b>-0.001</b>	<b>0.000</b>	<b>-0.001</b>
	Long Financial	0.34	0.34	11.336	11.333	-0.003	0.000	-0.003
	<b>Long (Overall)</b>	<b>29.34</b>	<b>29.35</b>	<b>14.470</b>	<b>14.468</b>	<b>-0.002</b>	<b>0.000</b>	<b>-0.002</b>
<b>Universe</b>	<b>100.00</b>	<b>100.00</b>	<b>7.181</b>	<b>7.181</b>	<b>0.000</b>	<b>0.001</b>	<b>0.000</b>	

Source: NBF, FTSE Russell | Note: Simulation provided for illustrative purposes based on Index constituents/closing prices from 22-Feb; assumes no change in yield curve



## Economics and Strategy

### Montreal Office

514-879-2529

#### Stéfane Marion

Chief Economist and Strategist  
stefane.marion@nbc.ca

#### Kyle Dahms

Economist  
kyle.dahms@nbc.ca

#### Alexandra Ducharme

Economist  
alexandra.ducharme@nbc.ca

#### Matthieu Arseneau

Deputy Chief Economist  
matthieu.arseneau@nbc.ca

#### Daren King, CFA

Economist  
daren.king@nbc.ca

#### Angelo Katsoras

Geopolitical Analyst  
angelo.katsoras@nbc.ca

#### Jocelyn Paquet

Economist  
jocelyn.paquet@nbc.ca

### Toronto Office

416-869-8598

#### Warren Lovely

Chief Rates and Public Sector Strategist  
warren.lovely@nbc.ca

#### Taylor Schleich

Rates Strategist  
taylor.schleich@nbc.ca

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