

# Fixed Income Insights

MONTHLY REPORT - NOVEMBER 2023 | CANADA EDITION

FOR PROFESSIONAL INVESTORS ONLY

## Canadian bonds de-couple from Treasuries as G7 growth divergences increase

Canadian disinflation and a slight slowdown in the labour market allowed Canadian gov. bonds to de-couple from the October Treasury sell-off. Global economic fragmentation may explain increased growth and inflation dispersion in this cycle. Treasuries, gilts and JGBs were the weakest markets in October, as short Bunds, and Euros outperformed.

### Macro and policy backdrop – Higher yields tightened policy and allowed BoC to extend policy pause

Recent increases in bond yields, slightly lower inflation and modest rises in unemployment explain BoC policy pause (page 2)

### Canadian govts and credit – Canadian yields de-coupled from the sell-off in Treasuries in October

Canadian yields stabilised in October, after the Q3 sell-off. The curve dis-inverted as short yields edged lower (pages 3-4)

### Global yields and spreads – Signs of capitulation in long Treasury sell-off, as US sovereign spreads widen

Longer Treasuries led G7 yields higher in October, reflecting stronger US growth, with little safe haven buying (pages 5-6)

### Sovereign and climate bonds – US weakness narrowed performance gap between climate WGBI and WGBI

Treasury weakness offset losses in JGBs, causing climate WGBI to close performance gap (page 7)

### Performance – Another weak month for longs in October led by the US, gilts and JGBs, as Canada de-couples

Long Treasuries lost 2.9% in October, as the curve disinverted. Short Euro govts. best performers in Canadian dollars (pages 8-10)

### Appendix (from page 11)

Global bond market returns, historical bond yields, bond market durations and market values and foreign exchange returns

Chart 1: Canadian bonds largely de-coupled from the sharp increase in Treasury yields in October, with yields rising only marginally.

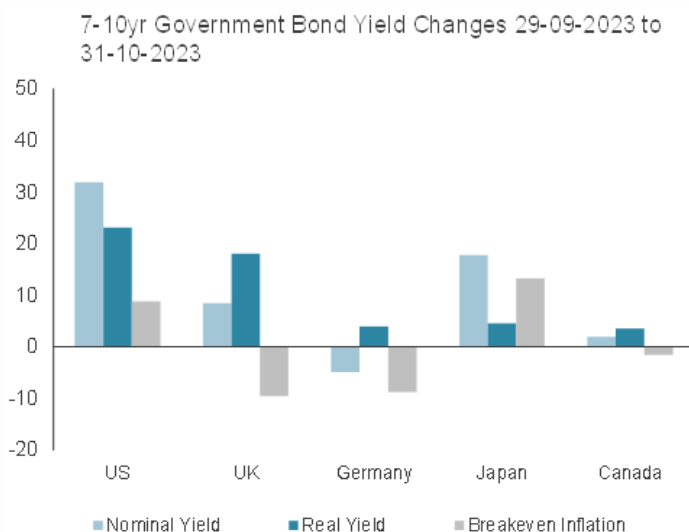
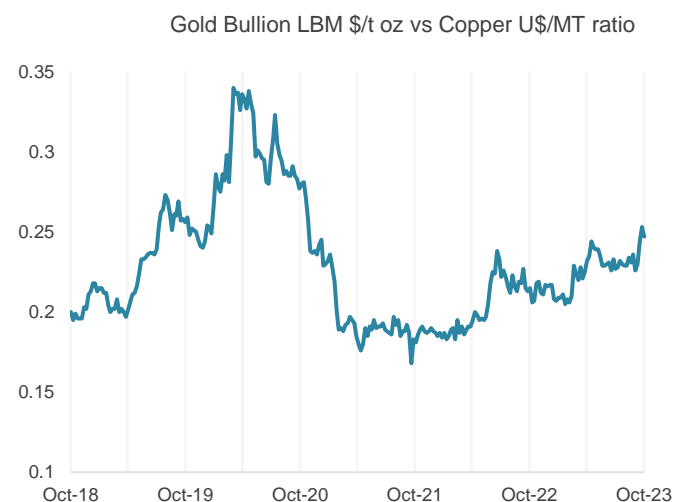


Chart 2: Despite new conflicts in the Middle East, gold was moderately higher in October, while copper, a gauge for global demand, declined.



Source: FTSE Russell and LSEG. Latest data available as of October 31, 2023. Past performance is no guarantee of future results. This report should not be considered 'research' for the purposes of MIFID II. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix for list of indices used for each market.

# Macroeconomic Backdrop – Growth and Inflation Expectations

Wide dispersion in growth and inflation continues globally and the latest IMF growth forecasts highlights these divergences and risk of global economic fragmentation. G7 interest rates appear close to a peak, with the BoC pausing policy again, in line with other G7 central banks. The tight labour market remains a key risk for 2nd round inflation effects.

The IMF expects global growth rates to remain below the historical average, slowing from 3.5% in 2022, to 3.0% in 2023 and 2.9% in 2024. This is consistent with a “soft landing”, especially in the US, where the forecast rise in unemployment is modest, from 3.6% to 3.9% by 2025. Canada’s 2023 growth in October was revised lower to 1.3% y/y, a 0.4% drop from the July projections (Chart 1).

Chart 2 shows G7 inflation is gradually declining, or stabilising, with Canadian inflation softening to 3.8% y/y in September and core inflation dropping to 2.8% y/y (from 3.3%). Food inflation eased from very high levels, with consumption starting to wane in response to higher interest rates. Even so, Canadian wages remained strong and are growing at around 4% to 5% (Chart 4).

Chart 3 shows the Bank of Canada pausing policy for the second time since September (and fourth time this year), leaving rates unchanged at 5.0%. The BoC noted “The global economy [is] slowing and growth [is] forecast to moderate further as past increases in policy rates and ...surge in global bond yields weigh on demand”. The ECB, Fed and BoE also kept policy unchanged.

The Canadian labour market has cooled a little but remains the main risk of 2nd round inflation effects, if inflation expectations destabilised. Unemployment rose to 5.7% in October, the 4th monthly rise in the last 6 months, even if wage growth remains robust.

Chart 1: The IMF lowered its 2023 growth projections for Europe ex UK, China and Canada in October, but revised upward that of the US, after the economy expanded by 4.9% y/y in Q3.

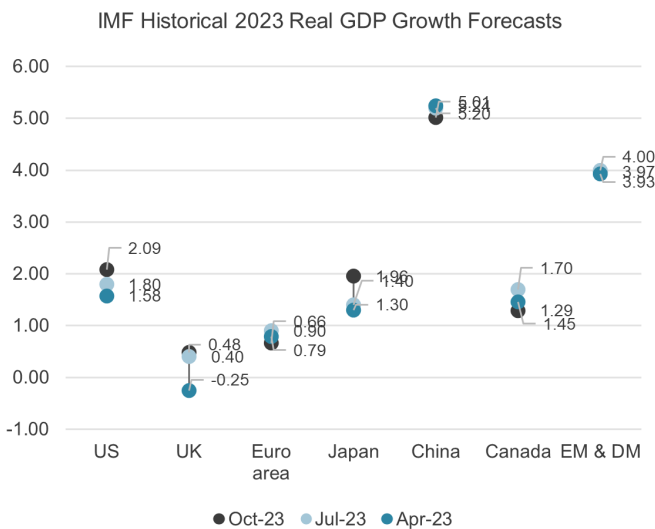


Chart 2: Inflation continued to ease in October as food prices fell and the impact of higher rates broadened from manufacturing to services. Canadian CPI fell below expectations to 3.8% y/y.

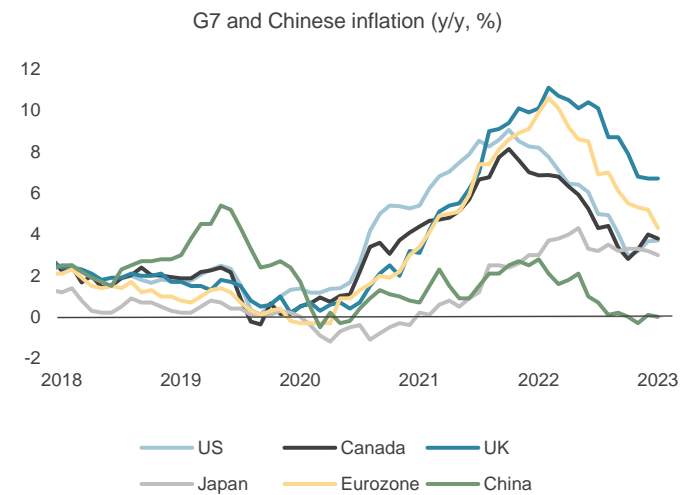


Chart 3: G7 central banks paused policy, but for different reasons, in October/November, with inflation rates varying widely. However, none of them ruled out a further move against inflation in 2023-24.

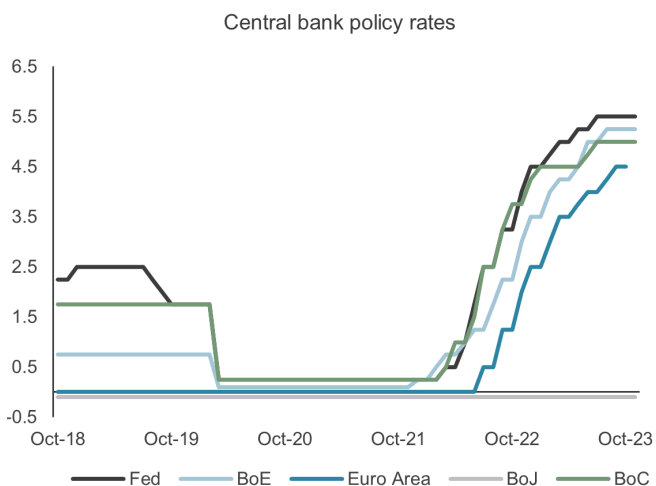


Chart 4: Canadian wage growth remains robust at 4-5% and is underpinned by low unemployment historically. However, unemployment has moved back towards 6% in recent months.



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# Canadian Governments, Provinces and Municipalities

Chart 1: Both the 10/2s and 20/2s Canadian yield curves dis-inverted somewhat, after large oscillations in October due to geopolitical uncertainty and central banks pausing policy.

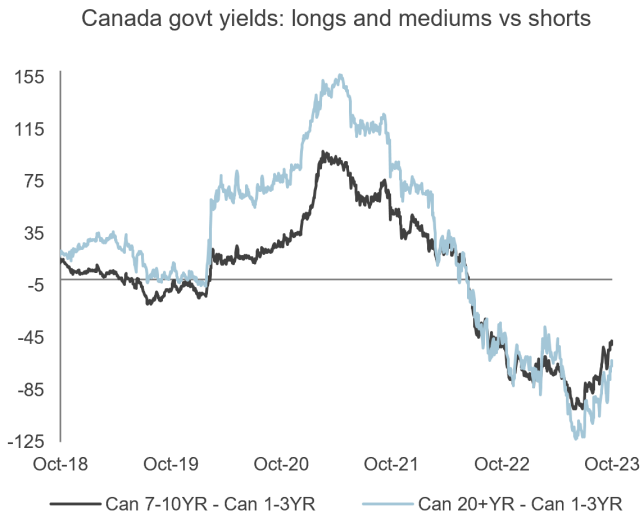


Chart 2: Canadian 7-10 year yields fell vs gilt, Treasury and JGB equivalents in October as economic activity softened and the BoC paused policy for a second time.

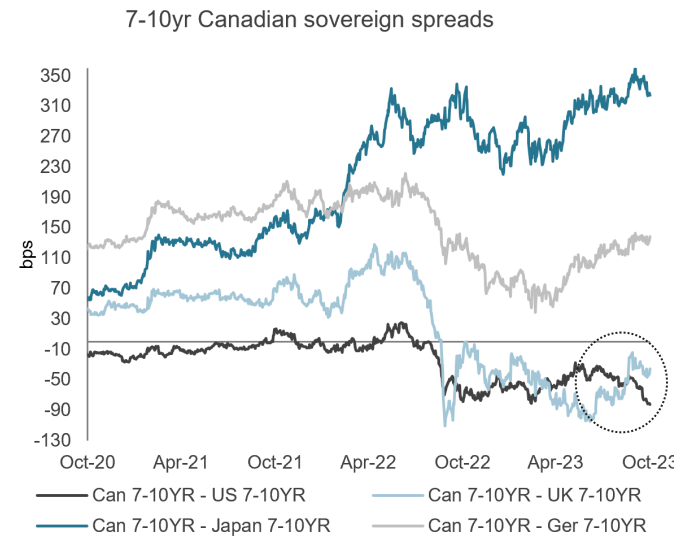


Chart 3: Long Canadian real yields have tracked nominal yields higher since 2021, particularly in 2023, after repricing 'higher for longer' rates when the BoC paused policy again in October.

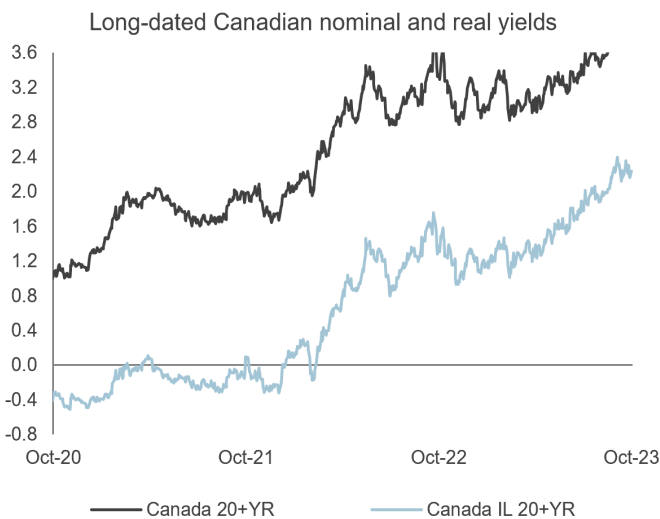


Chart 4: Inflation breakevens have stabilised in October, including in Canada. But in the US, breakevens rose sharply, due to concerns over US debt and higher energy prices.

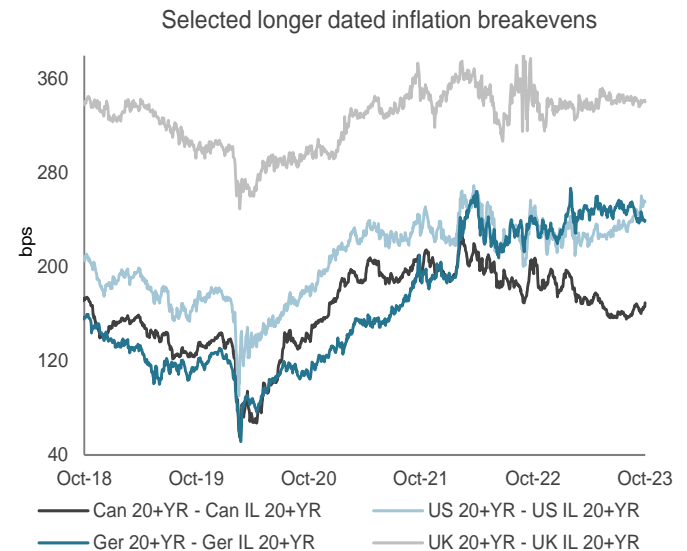


Chart 5: British Columbia and Alberta spreads decoupled from those of other Provinces in October, thanks to budget surpluses. Alberta spreads fell to 12 month lows, helped by energy prices.

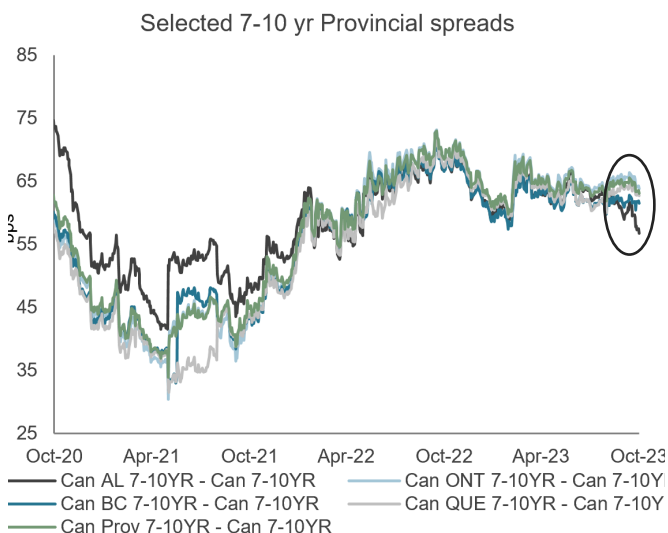
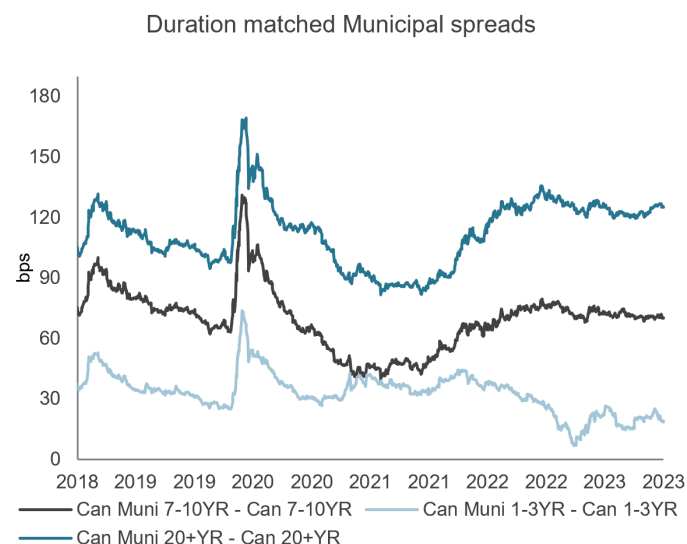


Chart 6: Long Canadian muni spreads widened on higher for longer rates, mid muni spreads stayed stable, while short spreads resumed their fall in October as economic activity slowed.



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# Canadian Corporate Bonds

Chart 1: US HY (and IG) yields rose more sharply in October than Canadian peers after Treasury yields surged on higher for longer rates, stronger economic growth in Q3, and reduced risk appetite.

Chart 2: Other Canadian credit sector spreads fell sharply in October, following the move in infrastructure spreads over the last 12 months. However, real estate spreads did not tighten.

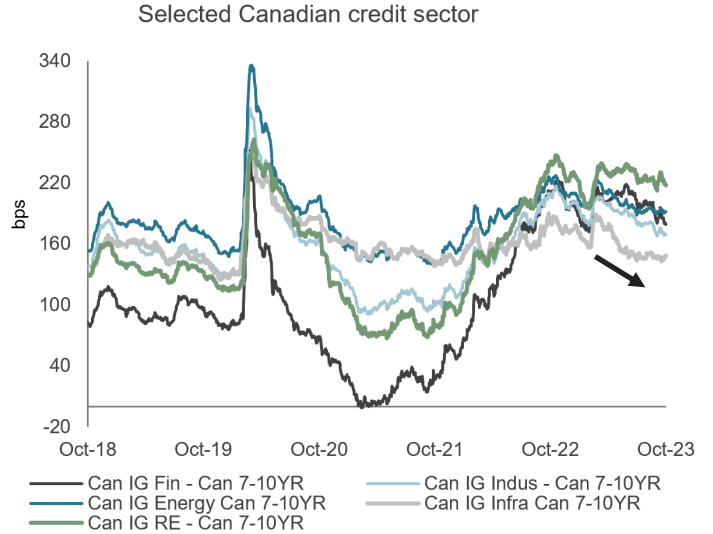
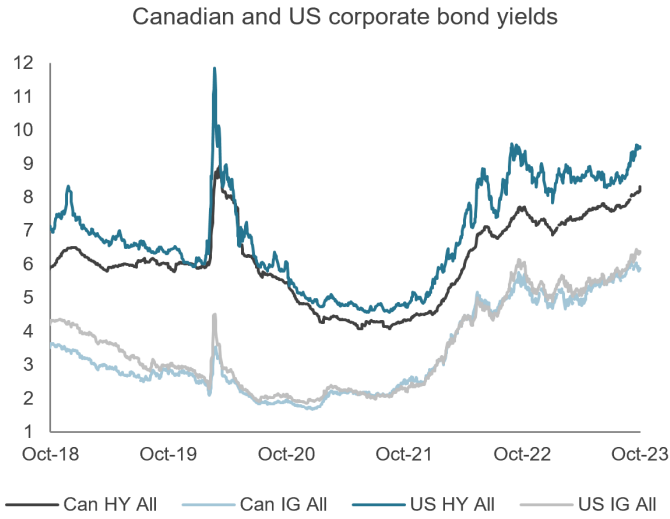


Chart 3: Canadian HY spreads have been much more stable than their US HY equivalents since 2021 and have continued to narrow unlike their HY peers which spiked in October, as equities fell back..

Chart 4: AAA spreads have been hit hardest in the period of rising government bond yields, with spreads near Covid highs. Single A and BBB spreads are well below Covid highs in comparison.

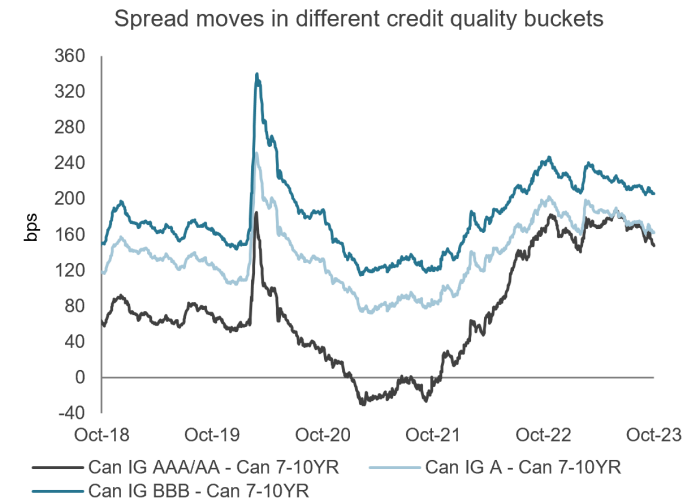
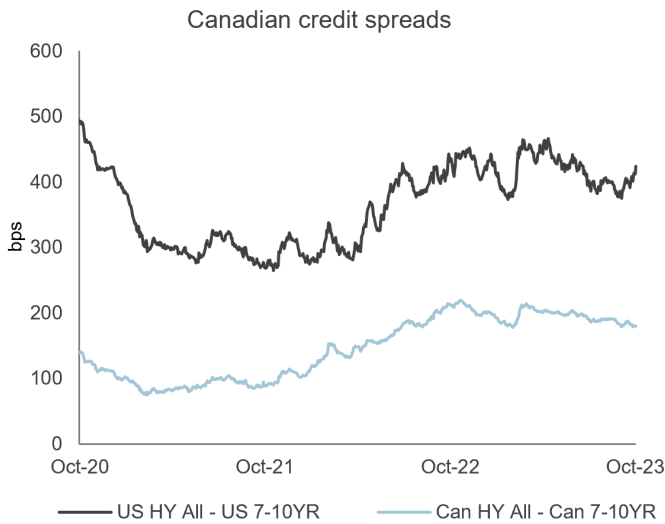
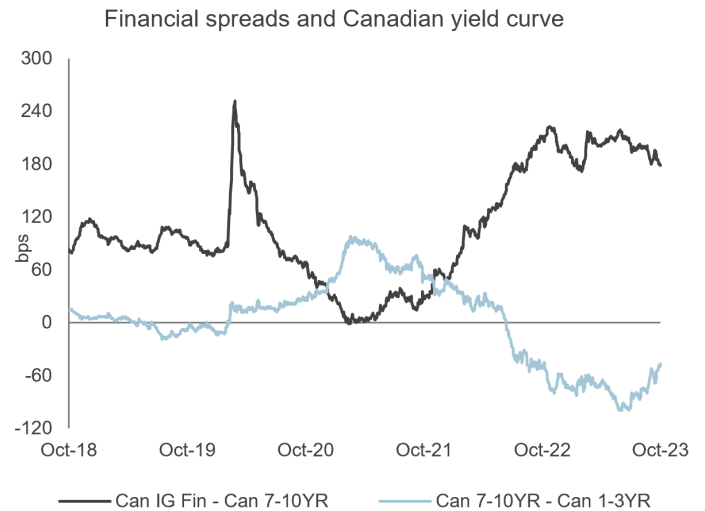
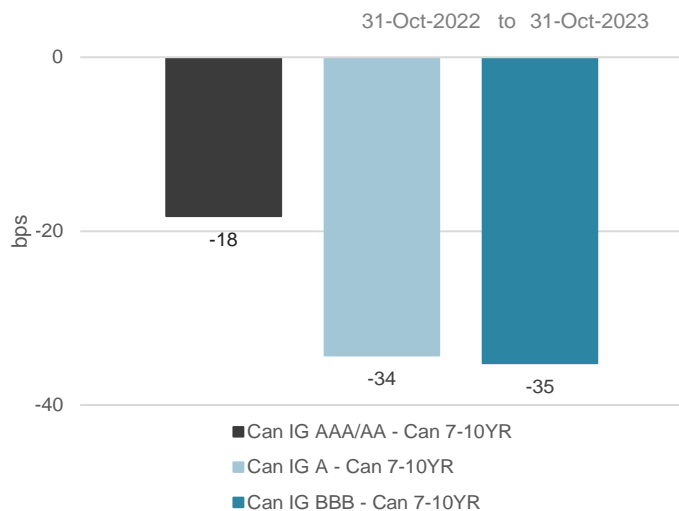


Chart 5: BBB and Single A spreads have both narrowed more than AAA spreads versus Canadian governments in the last 12 months. This may be due to the higher correlation of AAAs with govt yields.

Chart 6: Financial IG spreads narrowed in October, while the 10/2s Canadian government yield curve dis-inverted as longer yields rose relative to shorts, after the BoC's policy pause.



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# Global Yields, Curves and Spread Analysis

Chart 1: The US led yields higher in October, with 10 yr yields above 5%, and little evidence of safe haven buying of govt bonds. Bunds resisted the upward pressure on yields, as Eurozone inflation fell.

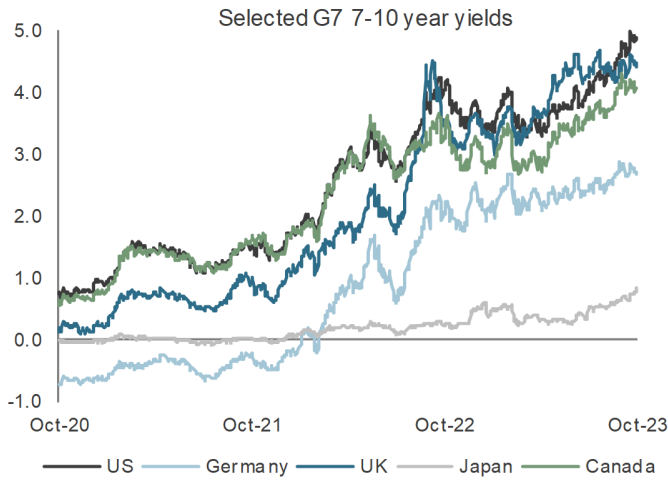


Chart 2: US Tips led other real yields higher, though US moves were more marked. JGB real yields largely resisted upward pressure even if nominal yields did not. (on fears of looser yield curve control).

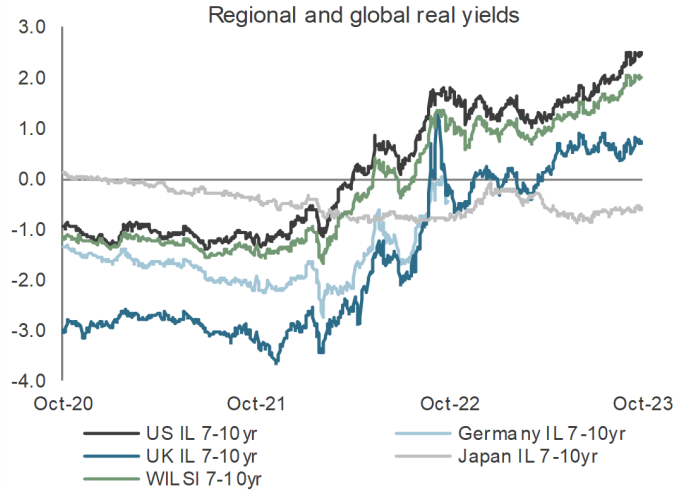


Chart 3: Curves oscillated, awaiting central bank policy decisions, with a bias to dis-invert, as 7-10 yr yields rose in October. The JGB curve steepened as markets mulled the end of curve control.

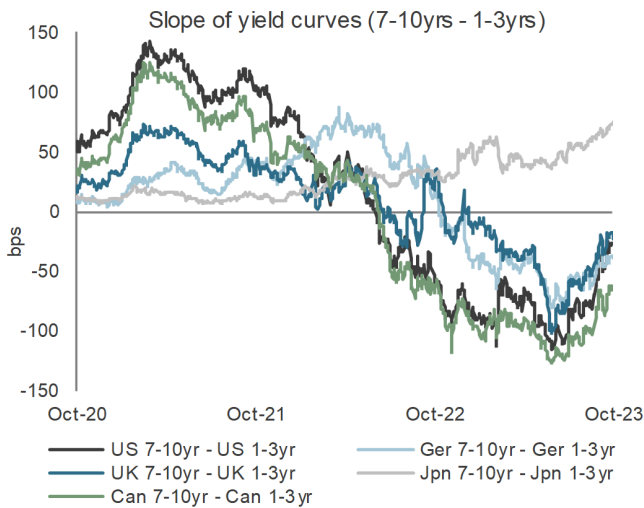


Chart 4: Apart from Canada, long yields have risen steadily versus short in recent months, as the higher for longer narrative took a grip of markets, and re-investment risk concerns eased.

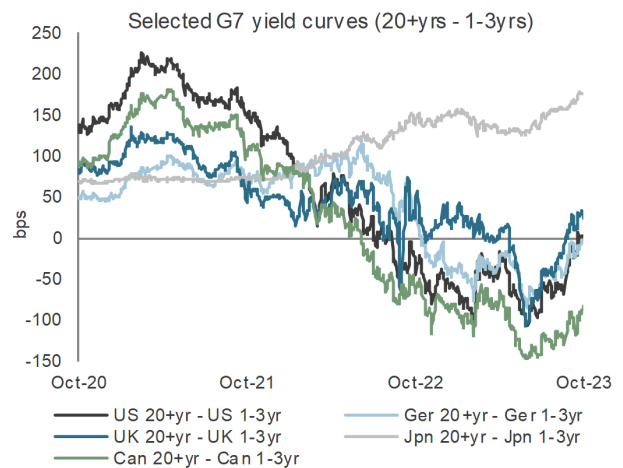


Chart 5: Breakevens edged higher in some markets in Q4, though moves are modest compared to the Ukraine spike in 2022. JGB breakevens are at post-Covid highs, but below the 2% inflation target.

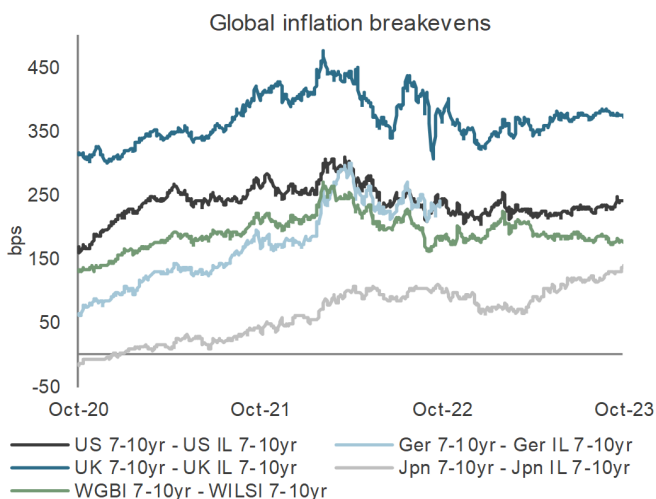
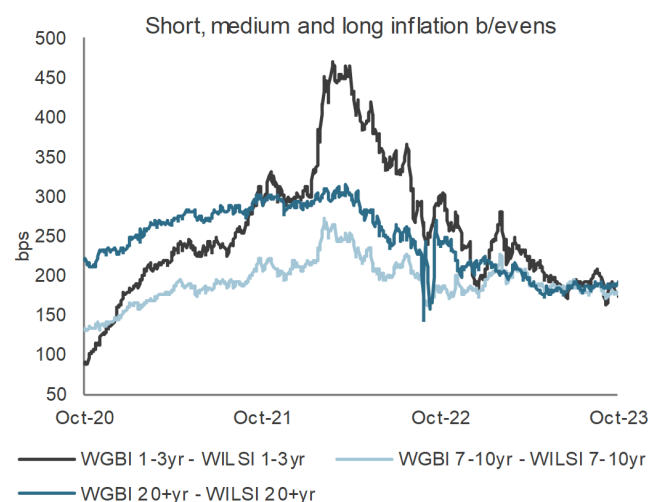


Chart 6: Global inflation breakevens of all tenors remain stable at around 2%. Neither the rebound in oil prices in Q3 nor the recent conflagration in the middle east de-stabilised inflation expectations



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# Yield Spread and Credit Spread Analysis

Chart 1: The spike in Treasury yields in October, caused sovereign spreads to widen, as other markets moved less. US Treasuries trade above gilt yields again, as they did in most of the post-GFC period

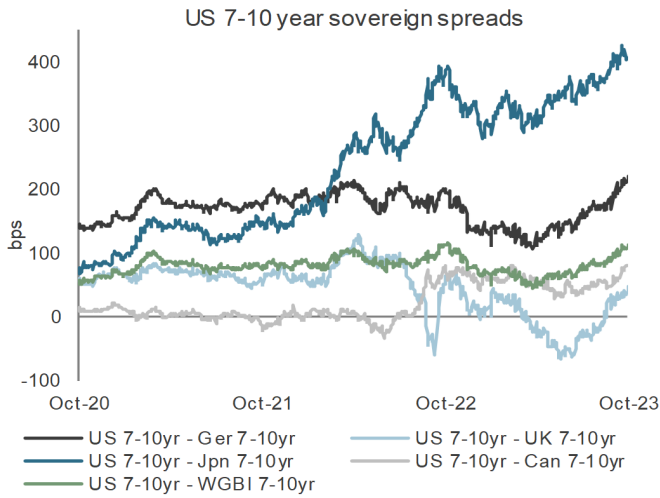


Chart 2: 7-10-year Italian sovereigns now trade through Treasuries again, after the US yield spike in October, but spreads moved out versus Bunds and other markets, showing the normal pro-cyclicality.

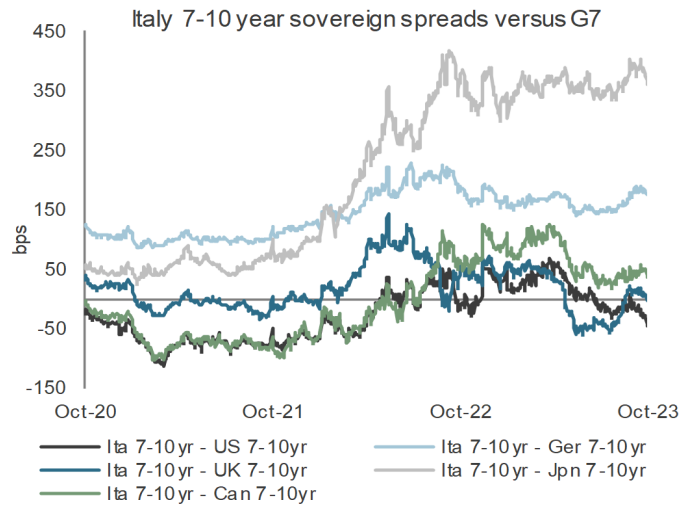


Chart 3: Helped by lower Chinese spreads, EM spreads remain at, or near post-Covid lows, benefitting from earlier counter-inflation policy than the G7. EM 7-10 yr spreads versus the US are now close to zero.

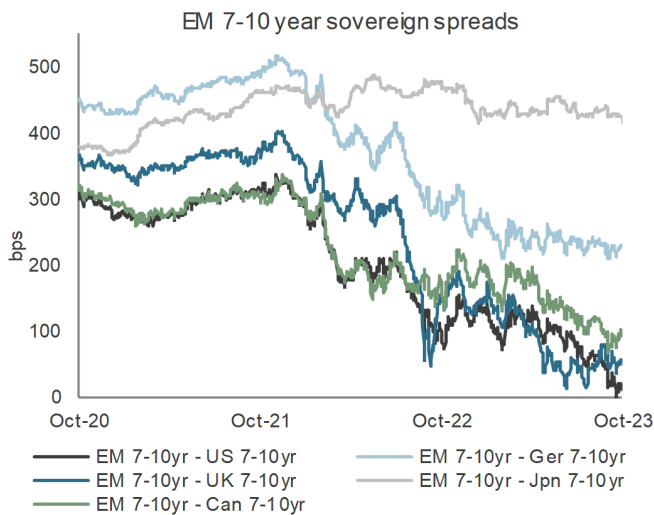


Chart 4: Chinese govt bonds now trade well through Treasuries and other G7 markets, apart from JGBs and Bunds. Divergence in policy rates and inflation performance are the main drivers.

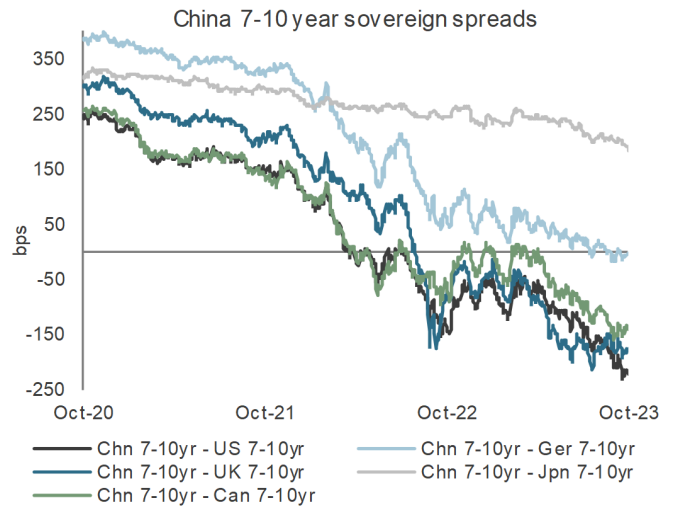


Chart 5: After a long period of tightening, HY spreads moved higher in October, with Eurozone HY spreads moving more. IG spreads moved less in October, and remain relatively cheaper.

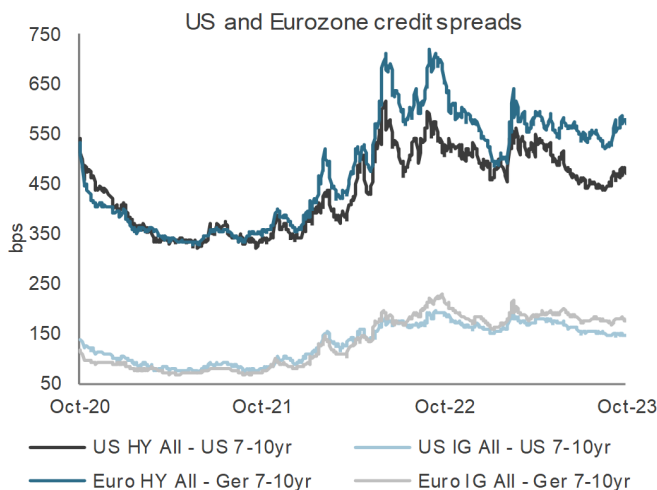
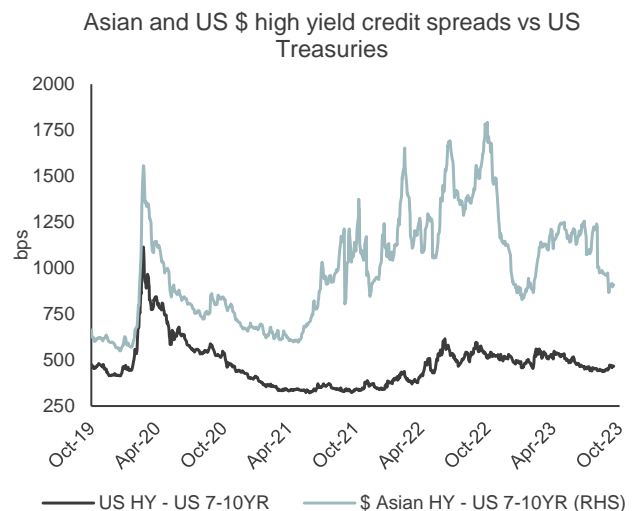


Chart 6: Asian dollar HY spreads largely reflect developments in the Chinese property sector, given the high proportion of property sector issuers. US dollar HY spreads remain much more stable.



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# Sovereign and Climate Bonds Analysis

Chart 1: Since the bear market in bonds developed in early 2022, climate WGBI has underperformed WGBI, due to the extra duration US underperformance of late has narrowed the performance gap.

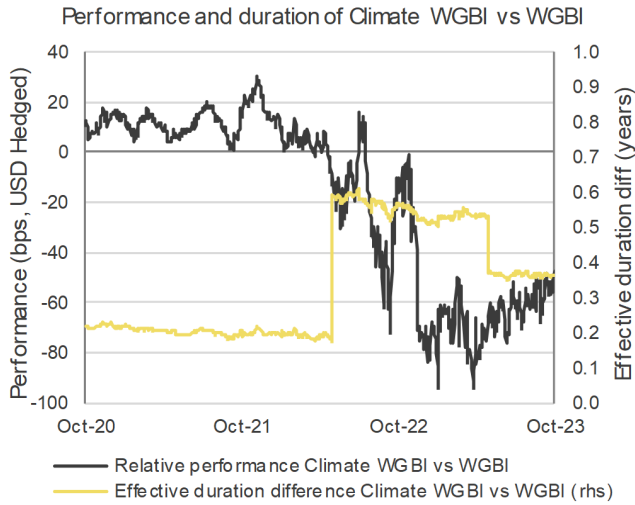


Chart 2: US underweight in Climate WGBI fell in July's re-weighting, reducing the duration difference vs WGBI and China's 15% underweight prevented lower Chinese yields impacting significantly.

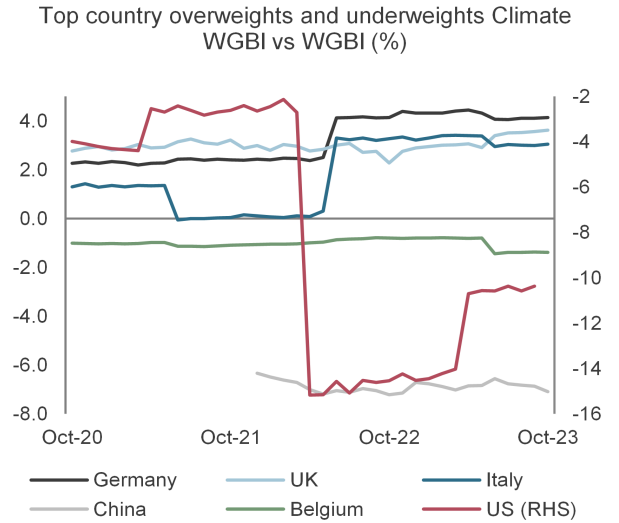


Chart 3: The increase in JGB yields in 2023 and high Japan country weight drove Climate-WGBI yields higher, versus WGBI, though climate -WBI yields remain lower, even if the 'greenium' is modest.

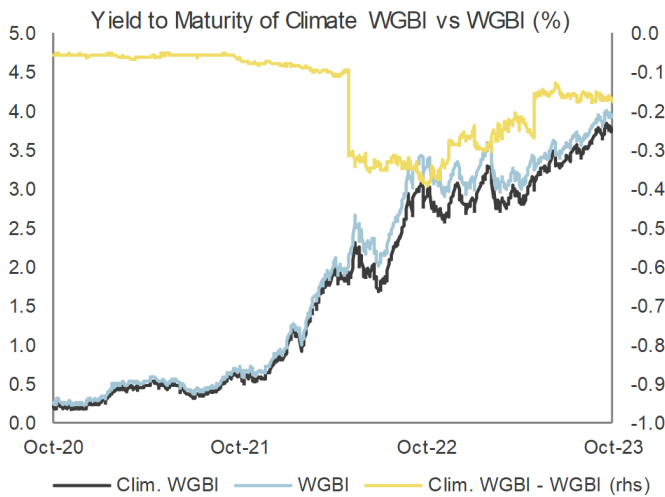


Chart 4: Climate WGBI's higher weighting in the Eurozone gives the index a higher AAA weight, with Bunds rated AAA, but the lower US weighting in Climate WGBI means the AA weight is notably lower.

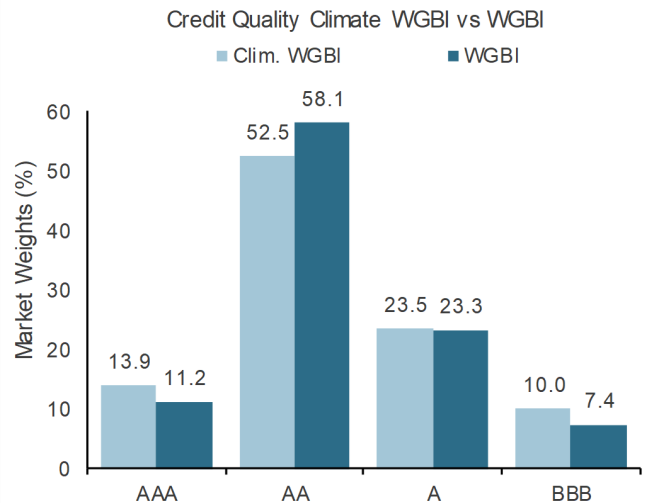


Chart 5: Yield curves in climate WGBI and WGBI remain extremely flat, with yields converging at about 3.5% for both medium maturities and longs, squeezing out most of the 'greenium' in Climate WGBI.

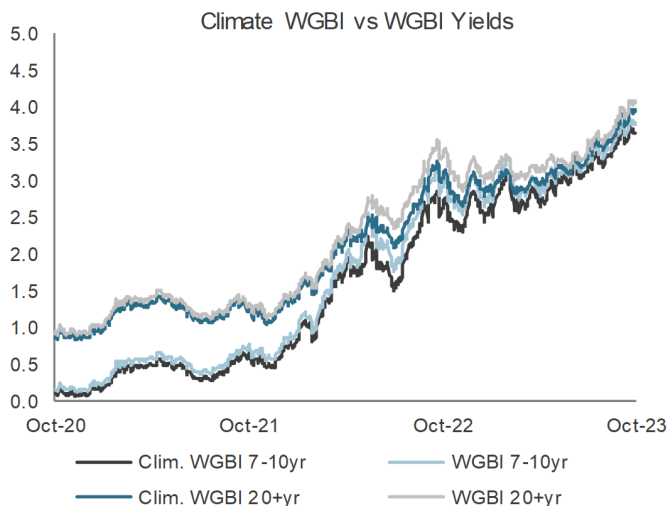
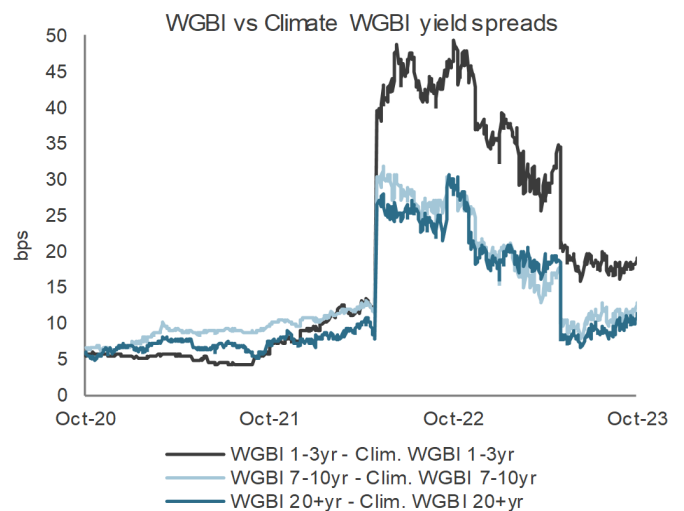


Chart 6: Unlike mediums and longs, where spreads are tight, WGBI short yields are further above the climate WGBI, reflecting Japan's zero rate policy and high weighting in the climate WGBI.



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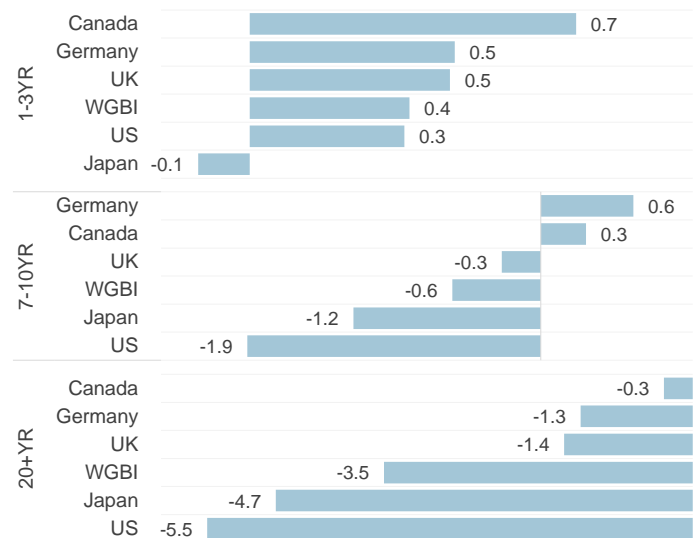
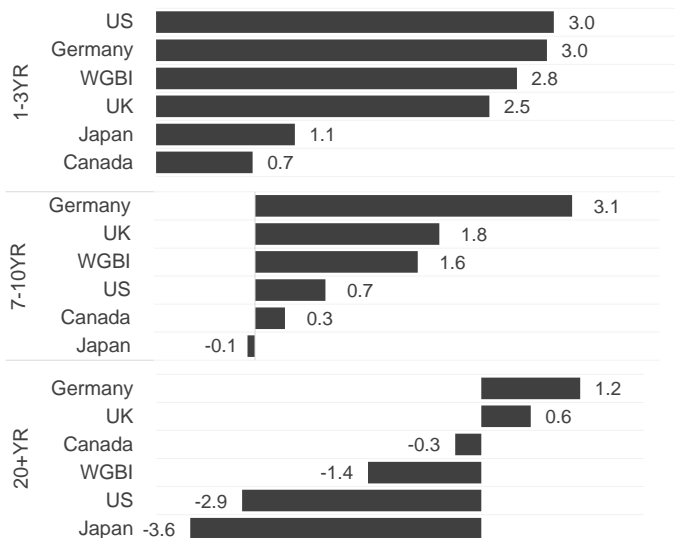
# Global Bond Market Returns – 1M & YTD % (CAD, LCY) as of Oct 31, 2023

Short and medium government bonds outperformed longs as G7 central banks paused policy again in October. Short US Treasuries, Bunds and WGBI outperformed, while long yields moved higher, led by the US. Canada largely de-coupled from long Treasuries. YTD, government bond performance remains mostly negative in mid-term and long maturities, led by JGBs.

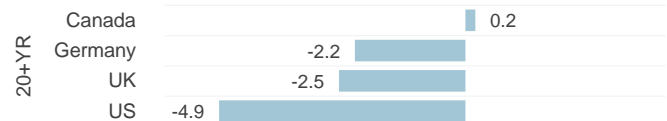
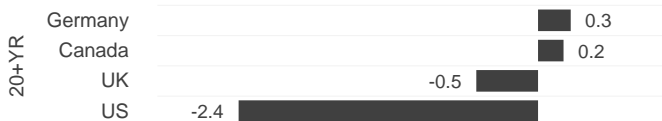
Canadian longs resisted the pull of higher US yields in October, but Bunds and long gilts performed best, gaining 0.6-1.2%, in Canadian dollars. G7 short bonds outperformed, up 1-3% in Canadian dollars. Yen weakness YTD means JGBs have lost 11-16%.

## CONVENTIONAL BONDS

1M CAD 1M LCY

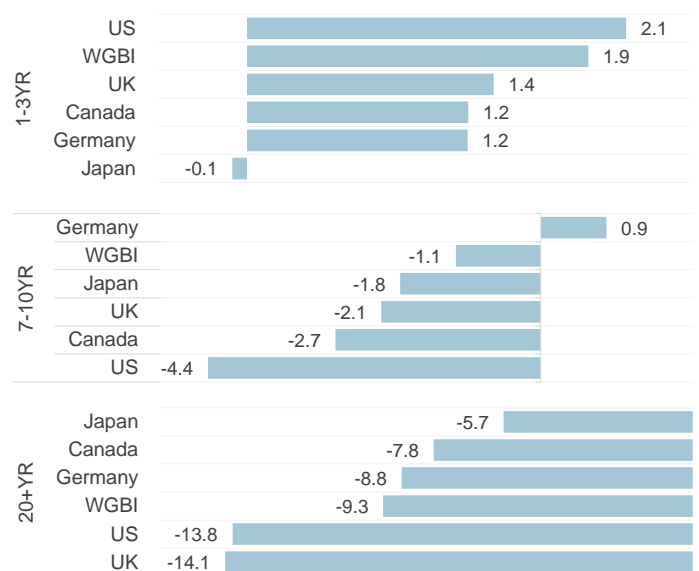
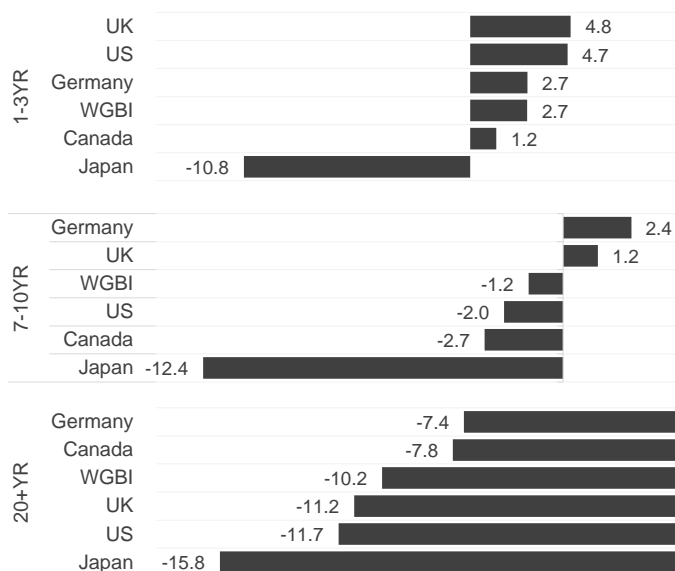


## INFLATION LINKED BONDS

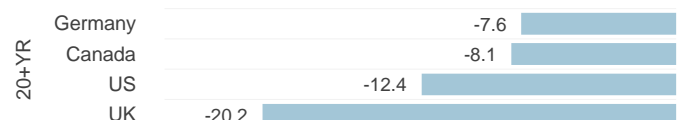
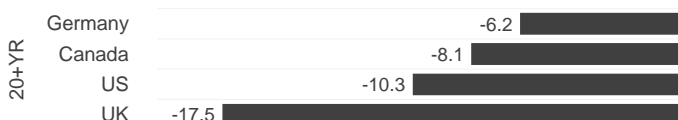


## CONVENTIONAL BONDS

YTD CAD YTD LCY



## INFLATION LINKED BONDS



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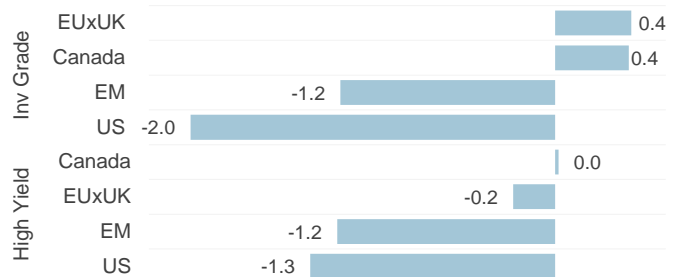
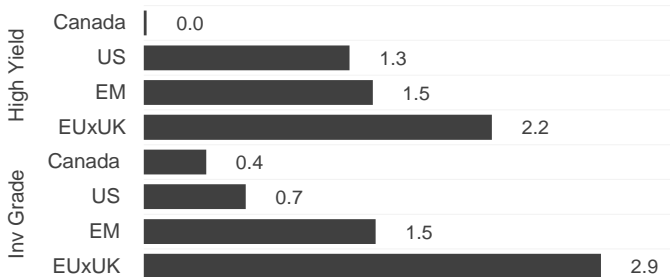
# Corporate Bond Returns – 1M & YTD % (CAD, LC, TR) as of Oct 31, 2023

Canadian dollar weakness in October boosted returns in overseas credit markets, even though yields rose in the US and EM. Canadian provis, munis and credits made modest gains. YTD, high yield credits have outperformed significantly, led by Euro and US high yield with gains of 7-9%. Canadian high yield outperformed other domestic markets, gaining 4%.

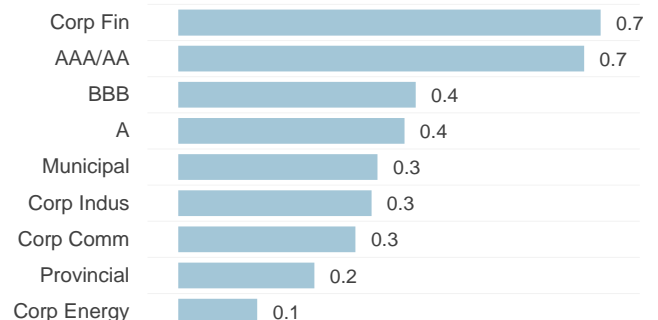
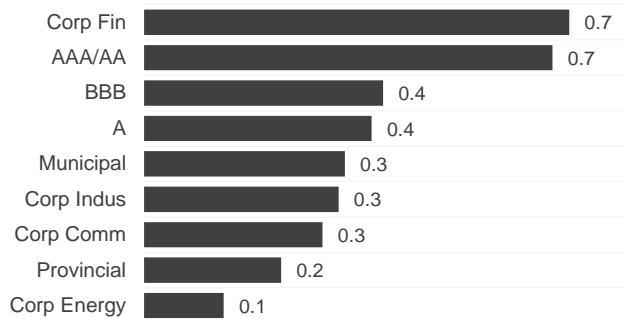
European corporates outperformed in October with 2-3% gains in Canadian dollars. Canadian HY credit flat-lined, while munis and provis made modest gains of about 1%. Lower correlation of HY credit to govt bonds, and shorter duration, have aided returns.

## CORPORATE BONDS

1M CAD 1M LCY

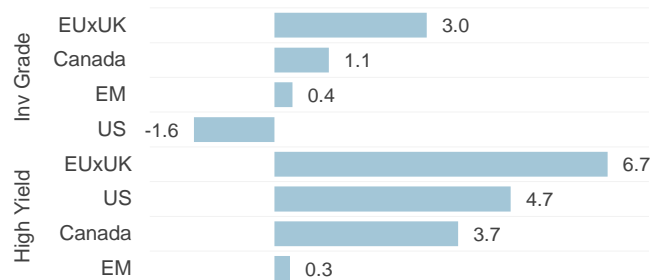
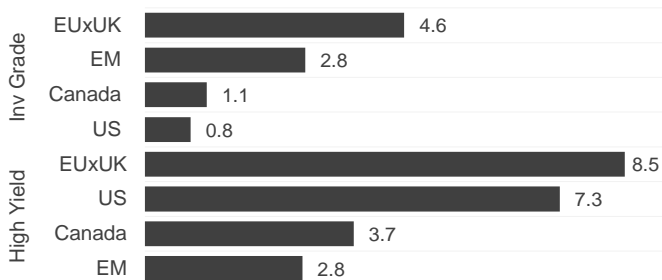


## CANADA SPOTLIGHT

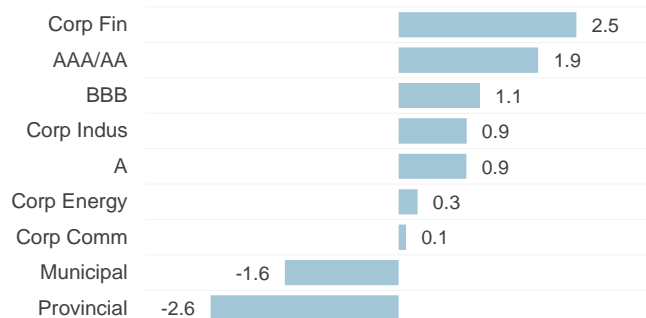
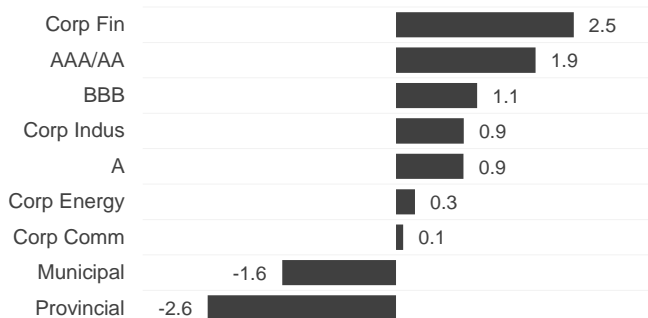


## CORPORATE BONDS

YTD CAD YTD LCY



## CANADA SPOTLIGHT



Indices used: FTSE Canada Corporate Bond Index (AAA/AA, A, BBB, Financial, Communication, Industrial, Energy, Overall), FTSE Canada High Yield Bond Index, FTSE Canada Provincial Bond Index, FTSE Canada Municipal Bond Index.

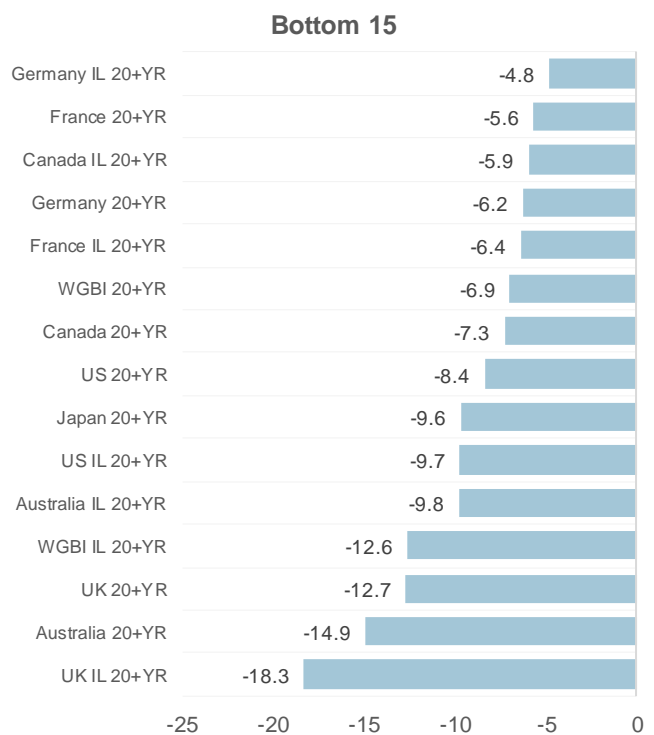
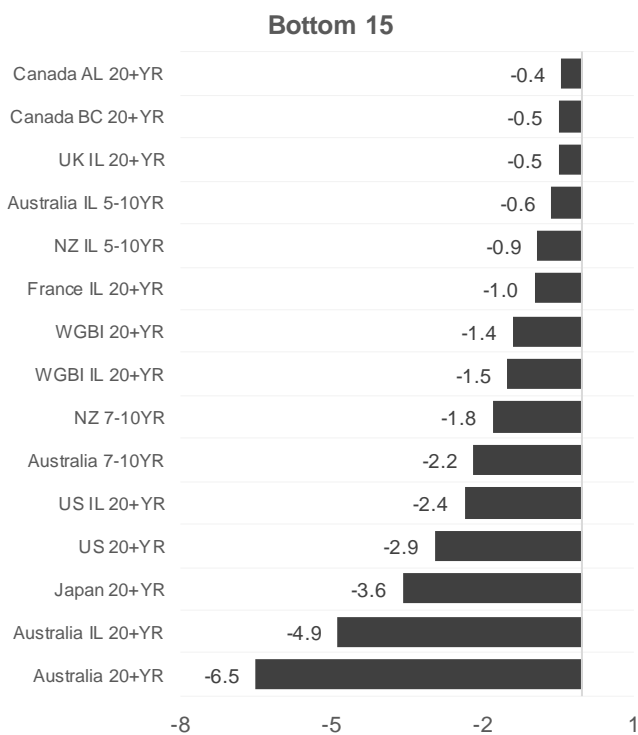
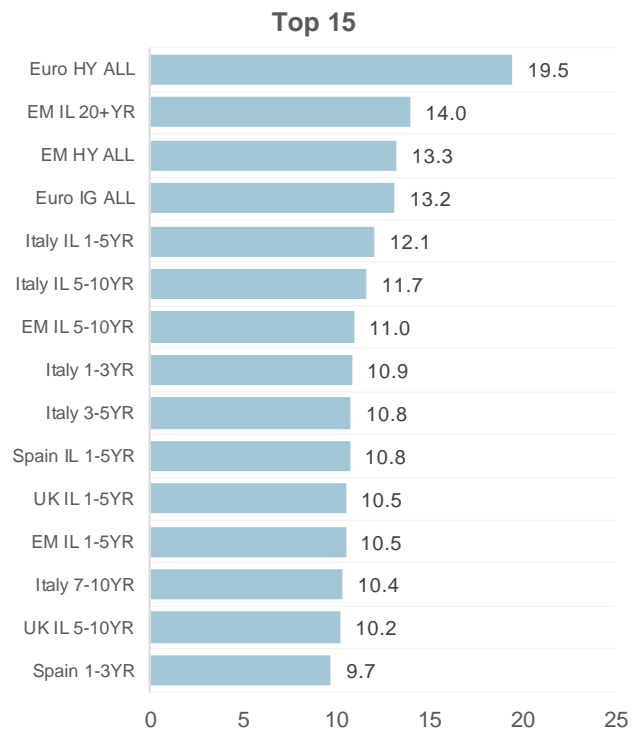
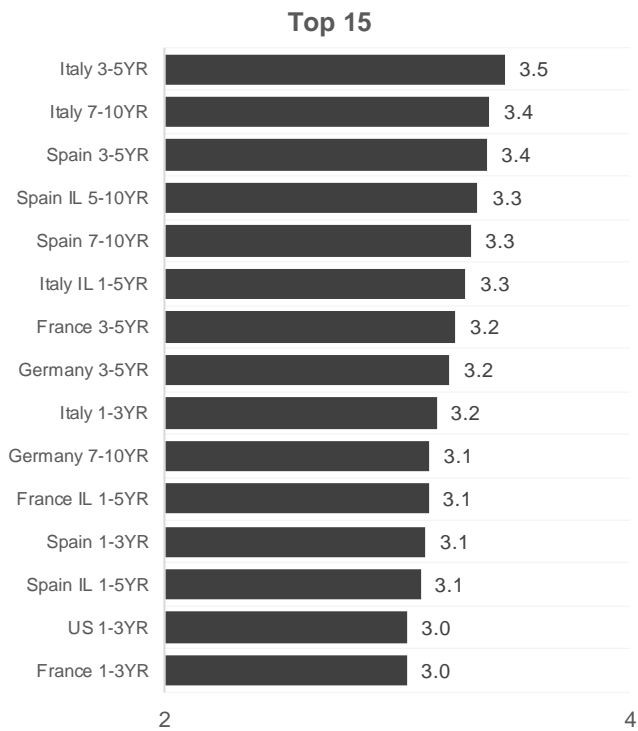
Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

## Top and Bottom Bond Returns – 1M & 12M % (CAD, TR) as of Oct 31, 2023

Shorter dated Euro govts, linkers, and Treasuries escaped the weakness in longs in October and showed gains of up to 4% boosted by Canadian dollar weakness. 12M returns capture a recovery in the Euro, with the dollar peaking in October 2022, and Euro HY gaining nearly 20%, but long UK, WGBI, Australian and US bonds fell further in 2023, with losses of 8-18%.

The de-coupling of credit, particularly HY, from losses in govt. bonds over the last 12M is shown in the top 15, with EM and Euro HY gaining 13-19% in Canadian dollar terms. All bottom 15 performers are 20+ yr government issues.

1M CAD 12M CAD



Source: FTSE Russell. All data as of October 31, 2023. This analysis is taken from 130+ FTSE Russell sub-indices. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

# Appendix – Canadian Bond Market Returns % (CAD vs USD, TR)

## Government and corporate bond returns

Top 15% Bottom 15%

Green highlight indicates highest 15%, red indicates lowest 15%.

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
<b>Government</b>	1-3YR	0.79	-4.43	-0.63	-2.91	1.25	-1.18	1.73	-0.04
	7-10YR	-2.73	-7.77	-7.06	-9.20	-2.70	-5.04	-2.36	-4.06
	20+YR	-8.67	-13.41	-14.24	-16.21	-7.79	-10.01	-7.25	-8.87
<b>Inflation-Linked</b>	20+YR	-5.00	-9.57	-8.57	-10.33	-8.05	-9.91	-5.93	-7.21
<b>Corporate</b>	1-3YR	0.74	-4.49	-0.16	-2.46	2.57	0.11	3.86	2.05
	7-10YR	-1.75	-6.84	-4.22	-6.43	0.26	-2.15	2.18	0.40
	20+YR	-6.16	-11.03	-8.23	-10.34	-1.76	-4.12	1.36	-0.41
<b>AAA/AA</b>	1-3YR	0.60	-4.62	-0.37	-2.66	2.18	-0.27	3.09	1.30
	7-10YR	-1.17	-6.29	-4.13	-6.33	-0.23	-2.62	1.12	-0.64
	20+YR	-7.80	-12.58	-10.81	-12.86	-3.52	-5.83	-0.11	-1.85
	All	0.23	-4.97	-0.94	-3.22	1.93	-0.52	3.01	1.22
<b>A</b>	1-3YR	0.79	-4.44	-0.12	-2.42	2.57	0.11	3.89	2.08
	7-10YR	-1.82	-6.92	-4.40	-6.60	0.15	-2.25	1.92	0.15
	20+YR	-6.36	-11.22	-8.63	-10.74	-2.16	-4.50	0.72	-1.04
	All	-1.65	-6.75	-3.20	-5.43	0.93	-1.49	2.81	1.02
<b>BBB</b>	1-3YR	0.71	-4.51	-0.13	-2.43	2.69	0.23	4.04	2.23
	7-10YR	-1.73	-6.83	-4.13	-6.34	0.38	-2.03	2.44	0.65
	20+YR	-5.84	-10.72	-7.59	-9.71	-1.16	-3.54	2.31	0.53
	All	-1.59	-6.69	-3.09	-5.32	1.12	-1.30	3.21	1.41
<b>Sectors</b>	Comm	-2.41	-7.47	-4.46	-6.66	0.10	-2.30	2.70	0.91
	Energy	-2.93	-7.97	-4.73	-6.93	0.26	-2.14	2.64	0.85
	Fin	0.40	-4.80	-0.54	-2.82	2.46	0.00	3.86	2.05
	Indus	-1.67	-6.77	-3.14	-5.37	0.94	-1.48	2.72	0.93
	Infra	-4.33	-9.29	-6.66	-8.81	-1.04	-3.42	1.24	-0.52
	RE	-0.11	-5.29	-1.37	-3.64	1.75	-0.69	3.32	1.52
	Secur	1.04	-4.20	0.27	-2.03	2.84	0.38	3.80	1.99
<b>Provinces (All)</b>	1-3YR	0.71	-4.52	-0.93	-3.21	1.24	-1.19	1.79	0.02
	7-10YR	-2.11	-7.18	-5.59	-7.77	-1.28	-3.65	-0.63	-2.36
	20+YR	-7.53	-12.32	-11.12	-13.16	-5.31	-7.58	-3.67	-5.35
	All	-4.07	-9.04	-7.20	-9.34	-2.60	-4.94	-1.48	-3.19
<b>Ontario</b>	1-3YR	0.73	-4.49	-0.89	-3.17	1.26	-1.16	1.82	0.05
	7-10YR	-2.15	-7.23	-5.63	-7.80	-1.28	-3.64	-0.59	-2.32
	20+YR	-7.53	-12.32	-11.17	-13.21	-5.19	-7.47	-3.54	-5.22
	All	-3.80	-8.79	-6.88	-9.02	-2.32	-4.66	-1.20	-2.92
<b>Alberta</b>	1-3YR	0.86	-4.37	-0.89	-3.17	1.28	-1.15	1.83	0.05
	7-10YR	-1.56	-6.66	-5.13	-7.31	-0.88	-3.26	-0.24	-1.98
	20+YR	-7.67	-12.46	-11.52	-13.55	-6.17	-8.42	-4.61	-6.27
	All	-3.69	-8.69	-6.96	-9.10	-2.73	-5.07	-1.72	-3.43
<b>Quebec</b>	1-3YR	0.55	-4.66	-1.03	-3.31	1.18	-1.25	1.78	0.01
	7-10YR	-2.29	-7.36	-5.81	-7.98	-1.48	-3.84	-0.82	-2.55
	20+YR	-7.53	-12.32	-10.99	-13.04	-5.19	-7.47	-3.56	-5.24
	All	-4.53	-9.48	-7.69	-9.82	-2.91	-5.24	-1.72	-3.43
<b>BC</b>	1-3YR	0.94	-4.30	-0.61	-2.90	1.51	-0.93	1.82	0.05
	7-10YR	-1.99	-7.07	-5.48	-7.66	-1.22	-3.59	-0.59	-2.33
	20+YR	-7.91	-12.68	-11.45	-13.49	-5.89	-8.15	-4.19	-5.86
	All	-4.41	-9.37	-7.64	-9.77	-3.03	-5.36	-2.06	-3.77

Indices used: FTSE Canada Non-Agency Bond Index (Short, Mid, Long), FTSE Canada RRB Canada Index, FTSE Canada Corporate Bond Index (Short, Mid, Long, AAA/AA, A, BBB), FTSE Canada Provincial Bond Index, FTSE Canada High Yield Bond Index.

Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

## Appendix – Global Bond Market Returns % (CAD vs LC, TR)

### Government bond returns

Top 15% Bottom 15%

Green highlight indicates highest 15%, red indicates lowest 15%.

		1M		3M		YTD		12M	
		Local	CAD	Local	CAD	Local	CAD	Local	CAD
US	1-3YR	0.35	3.04	0.73	6.24	2.14	4.65	2.94	4.77
	7-10YR	-1.93	0.70	-5.68	-0.52	-4.38	-2.03	-2.40	-0.66
	20+YR	-5.48	-2.94	-15.68	-11.07	-13.85	-11.73	-9.95	-8.35
	IG All	-1.97	0.65	-5.13	0.06	-1.61	0.80	2.80	4.62
	HY All	-1.33	1.32	-2.25	3.10	4.73	7.31	5.37	7.24
UK	1-3YR	0.45	2.55	1.79	1.25	1.39	4.80	1.67	9.05
	7-10YR	-0.26	1.82	-0.23	-0.76	-2.10	1.19	-2.53	4.55
	20+YR	-1.45	0.61	-8.04	-8.53	-14.07	-11.19	-18.59	-12.68
EUR	IG All	0.41	2.93	-0.30	0.81	3.05	4.57	3.98	13.17
	HY All	-0.23	2.23	0.51	1.44	6.67	8.46	9.95	19.50
Japan	1-3YR	-0.12	1.06	-0.20	-1.25	-0.08	-10.81	-0.23	-0.34
	7-10YR	-1.23	-0.07	-2.38	-3.41	-1.85	-12.39	-3.62	-3.73
	20+YR	-4.70	-3.58	-9.04	-9.99	-5.69	-15.81	-9.55	-9.65
China	1-3YR	0.16	2.64	0.27	3.28	2.10	-0.63	1.98	3.51
	7-10YR	0.43	2.93	0.62	3.64	3.69	0.92	2.97	4.52
	20+YR	-0.13	2.35	0.03	3.04	5.87	3.04	4.36	5.93
EM	1-3YR	0.16	2.50	0.41	2.56	2.99	2.02	3.68	6.97
	7-10YR	-0.02	2.10	-1.38	0.39	3.48	2.26	5.45	8.19
	20+YR	-0.25	1.92	-1.59	0.55	4.53	2.55	5.66	8.15
	IG All	-1.16	1.49	-3.25	2.04	0.36	2.82	6.09	7.97
	HY All	-1.18	1.47	-1.95	3.41	0.31	2.77	11.30	13.27
Germany	1-3YR	0.46	2.99	0.63	1.75	1.24	2.74	0.46	9.34
	7-10YR	0.61	3.14	-1.49	-0.39	0.86	2.35	-2.32	6.32
	20+YR	-1.26	1.21	-9.55	-8.55	-8.76	-7.41	-13.86	-6.24
Italy	1-3YR	0.64	3.17	0.57	1.69	2.24	3.75	1.87	10.88
	7-10YR	0.86	3.40	-3.00	-1.92	3.78	5.31	1.40	10.37
	20+YR	-0.20	2.31	-9.50	-8.49	-1.27	0.18	-6.16	2.13
Spain	1-3YR	0.59	3.12	0.76	1.88	1.71	3.21	0.81	9.73
	7-10YR	0.78	3.31	-1.62	-0.52	1.39	2.88	-1.44	7.28
	20+YR	-0.50	2.00	-8.45	-7.43	-5.85	-4.46	-10.00	-2.04
France	1-3YR	0.51	3.04	0.68	1.80	1.61	3.11	0.58	9.48
	7-10YR	0.49	3.01	-1.72	-0.62	0.68	2.16	-2.72	5.88
	20+YR	-1.52	0.96	-9.32	-8.31	-8.61	-7.27	-13.29	-5.63
Sweden	1-3YR	0.39	0.23	0.67	-0.14	1.39	-3.12	0.82	1.49
	7-10YR	0.53	0.37	-2.20	-2.99	-2.39	-6.74	-3.53	-2.89
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	-0.31	0.42	0.13	-0.77	0.85	-3.53	0.95	1.73
	7-10YR	-2.88	-2.17	-5.12	-5.97	-3.01	-7.22	-4.76	-4.02
	20+YR	-7.17	-6.49	-13.63	-14.40	-11.97	-15.79	-15.56	-14.91
NZ	1-3YR	0.70	0.10	0.69	-0.75	2.28	-3.62	1.84	3.77
	7-10YR	-1.21	-1.80	-4.99	-6.34	-4.21	-9.74	-5.65	-3.86
Canada	1-3YR	0.74	0.74	0.79	0.79	1.25	1.25	1.73	1.73
	7-10YR	0.30	0.30	-2.73	-2.73	-2.70	-2.70	-2.36	-2.36
	20+YR	-0.32	-0.32	-8.67	-8.67	-7.79	-7.79	-7.25	-7.25

Indices used: FTSE Canada Non-Agency Bond Index (Short, Mid, Long).

Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

## Appendix – Global Bond Market Returns % (CAD vs LC, TR)

### Inflation-Linked Bond Returns

Top 15% Bottom 15%

Green highlight indicates top 15%, red indicates bottom 15%.

		1M		3M		YTD		12M	
		Local	CAD	Local	CAD	Local	CAD	Local	CAD
US	1-5YR	0.35	3.04	0.09	5.57	1.99	4.49	2.16	3.98
	5-10YR	-0.93	1.73	-4.26	0.98	-1.95	0.46	-1.29	0.46
	20+YR	-4.91	-2.36	-15.27	-10.63	-12.44	-10.29	-11.25	-9.68
UK	1-5YR	0.22	2.31	1.93	1.39	2.70	6.15	3.06	10.54
	5-10YR	-0.61	1.46	-0.25	-0.78	1.86	5.28	2.78	10.25
	20+YR	-2.52	-0.49	-12.87	-13.33	-20.20	-17.52	-23.80	-18.27
EUxUK	1-5YR	0.51	3.04	0.09	1.20	1.48	2.98	0.24	9.10
	5-10YR	0.48	3.00	-2.08	-0.99	1.49	2.98	-0.83	7.94
	20+YR	-2.20	0.26	-12.72	-11.75	-7.56	-6.20	-12.52	-4.79
Japan	1-5YR	0.00	1.17	0.33	-0.72	2.65	-8.37	2.83	2.72
	5-10YR	-0.12	1.06	0.06	-0.99	3.13	-7.94	2.03	1.92
EM	1-5YR	-0.03	1.10	0.55	-0.19	9.49	9.67	10.13	10.52
	5-10YR	-0.31	0.26	-2.02	-3.52	6.30	7.83	8.85	10.99
	20+YR	-1.07	0.02	-5.71	-6.74	3.88	10.50	6.18	14.01
Germany	1-5YR	0.51	3.04	0.09	1.20	1.48	2.98	0.24	9.10
	5-10YR	0.48	3.00	-2.08	-0.99	1.49	2.98	-0.83	7.94
	20+YR	-2.20	0.26	-12.72	-11.75	-7.56	-6.20	-12.52	-4.79
Italy	1-5YR	0.76	3.29	-0.16	0.95	2.60	4.11	2.98	12.09
	5-10YR	0.40	2.92	-4.39	-3.33	3.32	4.84	2.58	11.66
	20+YR	-2.03	0.43	-19.19	-18.29	-4.93	-3.53	-10.68	-2.78
Spain	1-5YR	0.57	3.10	0.04	1.16	1.81	3.31	1.76	10.76
	5-10YR	0.81	3.35	-1.93	-0.84	1.80	3.30	0.37	9.25
France	1-5YR	0.61	3.13	-0.11	1.00	1.20	2.70	0.32	9.19
	5-10YR	0.48	3.01	-1.89	-0.79	1.42	2.92	-1.05	7.70
	20+YR	-3.40	-0.97	-14.96	-14.01	-9.50	-8.17	-13.97	-6.36
Sweden	1-5YR	0.37	0.22	0.35	-0.47	1.89	-2.65	2.46	3.13
	5-10YR	0.01	-0.15	-2.04	-2.83	-0.38	-4.81	-1.29	-0.64
Australia	1-5YR	0.00	0.74	0.39	-0.52	3.92	-0.59	4.20	5.01
	5-10YR	-1.35	-0.62	-2.35	-3.23	2.53	-1.92	1.94	2.73
	20+YR	-5.56	-4.86	-13.79	-14.56	-7.22	-11.25	-10.44	-9.75
NZ	5-10YR	-0.30	-0.90	-2.17	-3.57	0.99	-4.84	2.40	4.34
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	0.20	0.20	-5.00	-5.00	-8.05	-8.05	-5.93	-5.93

Indices used: FTSE Canada RRB Canada Bond Index.

Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.



# Appendix – Canadian Historical Bond Yields % as of October 31, 2023

## Canadian Bond Yields

Top 15% Bottom 15%

Green highlight indicates top 15%, red indicates bottom 15%.

		1-3YR	7-10YR	20+YR	All Mat
<b>Canada</b>	Current	4.55	4.08	3.93	
	3M Ago	4.55	3.58	3.34	
	6M Ago	3.55	2.83	2.94	
	12M Ago	3.81	3.29	3.35	
<b>IL</b>	Current			0.00	
	3M Ago			1.78	
	6M Ago			1.26	
	12M Ago			1.38	
<b>Provincial</b>	Current	4.71	4.71	4.95	4.82
	3M Ago	4.64	4.22	4.32	4.37
	6M Ago	3.72	3.48	3.97	3.77
	12M Ago	3.99	3.97	4.40	4.18
<b>Ontario</b>	Current	4.71	4.72	4.94	4.81
	3M Ago	4.63	4.22	4.32	4.38
	6M Ago	3.74	3.48	3.96	3.77
	12M Ago	4.00	3.97	4.40	4.18
<b>Quebec</b>	Current	4.65	4.71	4.91	4.80
	3M Ago	4.68	4.20	4.27	4.33
	6M Ago	3.68	3.47	3.93	3.75
	12M Ago	3.96	3.96	4.36	4.17
<b>Alberta</b>	Current	4.73	4.65	4.95	4.79
	3M Ago	4.63	4.22	4.35	4.38
	6M Ago	3.70	3.46	4.00	3.76
	12M Ago	3.96	3.96	4.36	4.13
<b>BC</b>	Current	4.77	4.69	4.94	4.82
	3M Ago	4.72	4.20	4.30	4.33
	6M Ago	3.68	3.46	3.96	3.75
	12M Ago	4.00	3.95	4.36	4.16
<b>Municipal</b>	Current	4.74	4.78	5.18	4.94
	3M Ago	4.71	4.29	4.56	4.52
	6M Ago	3.77	3.55	4.19	3.90
	12M Ago	4.05	4.04	4.64	4.31
<b>Corporate</b>	Current	5.87	5.92	5.85	5.88
	3M Ago	5.65	5.39	5.20	5.49
	6M Ago	4.86	4.71	4.90	4.84
	12M Ago	5.40	5.36	5.50	5.42
<b>High Yield</b>	Current				8.32
	3M Ago				7.60
	6M Ago				7.37
	12M Ago				7.60

		1-5YR	5-10YR	20+YR	All Mat
<b>AAA/AA</b>	Current	5.57	5.61	5.24	5.56
	3M Ago	5.35	5.17	4.66	5.32
	6M Ago	4.53	4.34	4.38	4.51
	12M Ago	4.98	4.80	4.95	4.95
<b>A</b>	Current	5.78	5.62	5.57	5.70
	3M Ago	5.58	5.08	4.93	5.33
	6M Ago	4.77	4.40	4.62	4.67
	12M Ago	5.31	5.07	5.22	5.25
<b>BBB</b>	Current	6.09	6.10	6.29	6.14
	3M Ago	2.44	1.72	1.80	5.72
	6M Ago	1.68	1.23	1.58	5.12
	12M Ago	1.77	1.53	1.77	5.70
<b>Comm</b>	Current	5.95	6.32	5.98	5.96
	3M Ago	5.36	5.65	5.74	5.50
	6M Ago	4.67	5.34	4.93	4.99
	12M Ago	5.40	6.03	5.43	5.65
<b>Energy</b>	Current	5.98	6.02	5.99	6.00
	3M Ago	5.74	5.47	5.29	5.48
	6M Ago	4.93	4.81	4.98	4.92
	12M Ago	5.43	5.49	5.61	5.52
<b>Financial</b>	Current	5.86	6.00	5.79	5.87
	3M Ago	5.64	5.48	5.26	5.62
	6M Ago	4.84	4.75	5.07	4.84
	12M Ago	5.39	5.35	5.56	5.40
<b>Industrial</b>	Current	5.72	5.73	5.91	5.77
	3M Ago	5.56	5.25	5.25	5.40
	6M Ago	4.78	4.64	5.04	4.81
	12M Ago	5.34	5.20	5.64	5.38
<b>Infrastructure</b>	Current	5.39	5.52	5.61	5.56
	3M Ago	5.17	5.04	4.99	5.02
	6M Ago	4.37	4.35	4.66	4.57
	12M Ago	4.87	4.93	5.23	5.13
<b>Securitization</b>	Current	5.80			5.81
	3M Ago	5.70			5.71
	6M Ago	4.79			4.79
	12M Ago	5.25			5.25

Indices used: FTSE Canada Non-Agency Bond Index (Short, Mid, Long), FTSE Canada RRB Canada Index, FTSE Canada Corporate Bond Index (Short, Mid, Long, AAA/AA, A, BBB), FTSE Canada Provincial Bond Index, FTSE Canada High Yield Bond Index.

Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

# Appendix – Historical Bond Yields % as of October 31, 2023

## Global Bond Yields

Top 15% Bottom 15%

Green highlight indicates top 15%, red indicates bottom 15%.

		Conventional government bonds				Inflation-linked bonds			Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	5.17	4.87	4.90	5.19	2.82	2.50	2.64	6.38	9.46
	3M Ago	5.01	4.33	3.97	4.11	2.44	1.72	1.80	5.50	8.34
	6M Ago	4.24	3.62	3.41	3.75	1.68	1.23	1.58	5.15	8.49
	12M Ago	4.58	4.37	4.05	4.34	1.76	1.65	1.84	5.97	8.97
UK	Current	4.67	4.45	4.43	4.91	0.65	0.71	1.51		
	3M Ago	5.04	4.69	4.25	4.39	1.86	0.65	1.00		
	6M Ago	4.05	3.77	3.64	4.02	0.39	0.14	0.63		
	12M Ago	3.38	3.35	3.53	3.74	-2.60	-0.37	0.19		
Japan	Current	0.09	0.34	0.83	1.82	-1.55	-0.65			
	3M Ago	-0.04	0.08	0.50	1.40	-1.70	-0.74			
	6M Ago	-0.07	0.02	0.30	1.20	-1.31	-0.63			
	12M Ago	-0.06	0.00	0.24	1.40	-1.43	-0.85			
China	Current	2.27	2.42	2.67	3.08					
	3M Ago	2.08	2.34	2.66	3.04					
	6M Ago	2.28	2.51	2.78	3.17					
	12M Ago	1.93	2.57	2.84	3.29					
EM	Current	3.71	4.43	5.00	4.55	4.20	4.73	5.46	6.68	11.30
	3M Ago	3.58	4.17	4.80	4.41	3.05	4.07	4.88	5.93	11.51
	6M Ago	3.74	4.37	4.66	4.46	3.84	4.04	5.15	5.61	11.71
	12M Ago	3.67	4.53	4.89	4.84	2.40	3.25	5.36	6.70	13.96
Germany	Current	3.09	2.66	2.70	3.05	0.90	0.45	0.65		
	3M Ago	3.09	2.60	2.41	2.53	0.60	0.07	0.01		
	6M Ago	2.72	2.35	2.25	2.37	0.16	-0.06	-0.11		
	12M Ago	1.94	1.99	1.95	1.87	-0.46	-0.31	-0.43		
Italy	Current	3.77	3.88	4.45	5.06	1.77	2.35	2.53		
	3M Ago	3.60	3.55	3.86	4.35	1.30	1.64	1.69		
	6M Ago	3.36	3.49	3.97	4.45	0.80	1.65	1.83		
	12M Ago	2.82	2.98	3.52	3.79	-0.02	1.17	1.23		
France	Current	3.21	3.01	3.23	3.88	0.93	0.78	1.28		
	3M Ago	3.15	2.90	2.90	3.35	0.58	0.37	0.60		
	6M Ago	2.84	2.66	2.73	3.23	-0.06	0.17	0.58		
	12M Ago	2.15	2.06	2.15	2.46	-0.97	-0.50	-0.04		
Sweden	Current	3.43	3.05	2.94		1.34	1.30			
	3M Ago	3.33	2.83	2.57		0.96	0.74			
	6M Ago	2.89	2.59	2.31		0.71	0.73			
	12M Ago	2.34	2.03	1.71		-0.78	-0.37			
Australia	Current	4.49	4.48	4.87	5.33	1.47	2.04	2.53		
	3M Ago	4.02	3.86	4.03	4.40	1.03	1.47	1.79		
	6M Ago	3.13	3.05	3.30	3.88	0.09	0.84	1.50		
	12M Ago	3.21	3.35	3.67	4.08	0.36	1.16	1.58		
NZ	Current	5.49	5.37	5.55	5.69	2.47	3.05			
	3M Ago	5.21	4.80	4.70	4.87	1.94	2.39			
	6M Ago	4.89	4.15	4.08	4.23	0.95	1.61			
	12M Ago	4.31	4.54	4.34	4.52	1.42	1.91			
Canada	Current	4.55		4.08	3.93			0.00	5.88	8.32
	3M Ago	4.55		3.58	3.34			1.78	5.49	7.60
	6M Ago	3.55		2.83	2.94			1.26	4.84	7.37
	12M Ago	3.81		3.29	3.35			1.38	5.42	7.60

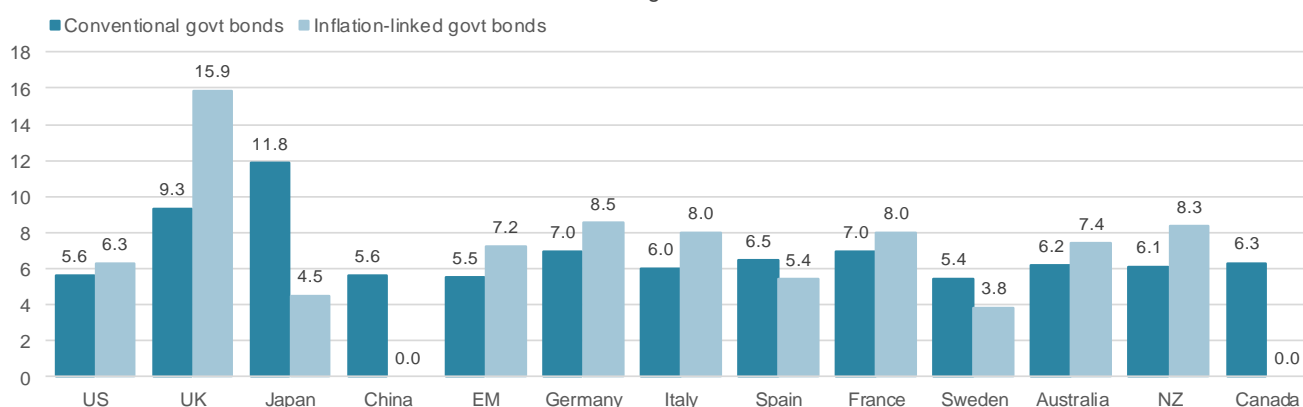
Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

## Appendix – Duration and Market Value (USD, Bn)

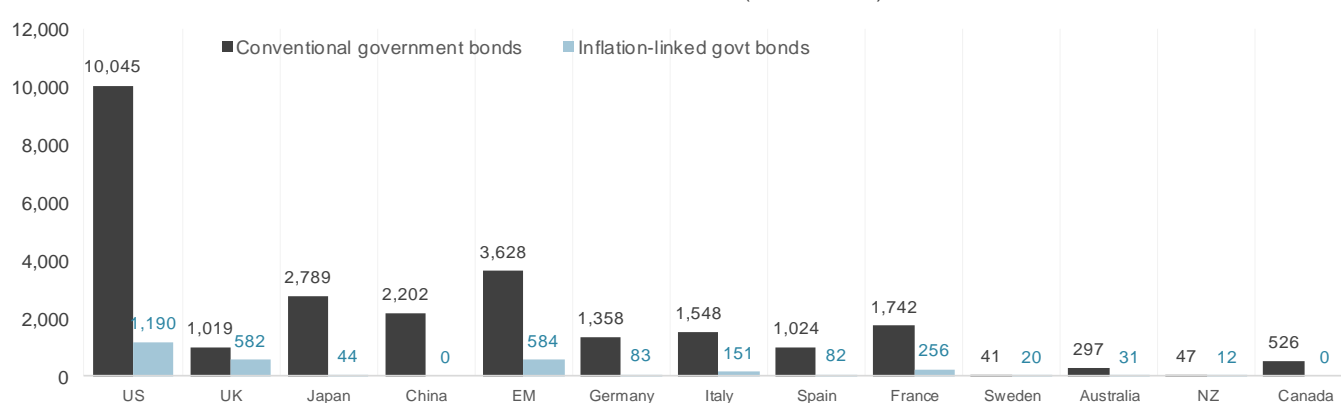
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
<b>US</b>	3.7	7.3	16.1	<b>5.6</b>	2,348.7	1,029.4	1,101.9	<b>10,044.9</b>	7.0	21.0	<b>6.3</b>	384.3	109.1	<b>1190.4</b>
<b>UK</b>	3.4	7.4	17.7	<b>9.3</b>	135.3	182.2	274.1	<b>1,019.0</b>	6.8	27.0	<b>15.9</b>	96.1	214.7	<b>582.4</b>
<b>Japan</b>	3.9	8.1	23.6	<b>11.8</b>	338.1	332.8	581.6	<b>2,788.9</b>	7.2		<b>4.5</b>	18.3		<b>43.6</b>
<b>China</b>	3.7	7.5	17.6	<b>5.6</b>	479.1	364.1	253.0	<b>2,202.3</b>						
<b>EM</b>	3.5	6.9	15.9	<b>5.5</b>	754.10	655.45	345.55	<b>3,628.4</b>	5.7	13.2	<b>7.2</b>	104.9	156.9	<b>584.2</b>
<b>Germany</b>	3.7	7.5	20.2	<b>7.0</b>	299.91	210.34	144.89	<b>1,358.1</b>	7.0	21.5	<b>8.5</b>	41.8	16.5	<b>83.0</b>
<b>Italy</b>	3.7	7.2	15.8	<b>6.0</b>	298.31	251.48	126.50	<b>1,548.0</b>	7.7	26.0	<b>8.0</b>	54.8	4.5	<b>151.2</b>
<b>Spain</b>	3.7	7.5	17.2	<b>6.5</b>	199.23	175.15	86.86	<b>1,023.8</b>	6.6		<b>5.4</b>	22.3		<b>81.7</b>
<b>France</b>	3.7	7.5	19.2	<b>7.0</b>	281.50	308.76	189.11	<b>1,742.4</b>	6.5	24.1	<b>8.0</b>	100.9	17.9	<b>256.4</b>
<b>Sweden</b>	3.5	7.4		<b>5.4</b>	13.07	8.26		<b>41.2</b>	5.6		<b>3.8</b>	9.2		<b>19.9</b>
<b>Australia</b>	3.6	7.5	16.6	<b>6.2</b>	33.89	79.33	12.34	<b>297.1</b>	7.0	21.9	<b>7.4</b>	9.1	2.2	<b>30.9</b>
<b>NZ</b>	3.7	7.4	15.9	<b>6.1</b>	9.49	12.79	2.12	<b>46.7</b>	6.1		<b>8.3</b>	2.9		<b>12.4</b>
<b>Canada</b>		7.0	16.4	<b>6.3</b>		172.80	92.50	<b>525.9</b>						

	Investment grade bonds						High Yield					
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
<b>US</b>	9.8	7.8	6.7	6.2	<b>6.6</b>	66.5	419.2	2,458.4	3,156.0	<b>6,100.0</b>	3.8	1,130.4
<b>Euro</b>	5.4	4.7	4.5	4.2	<b>4.4</b>	12.2	179.1	1,147.6	1,398.3	<b>2,737.2</b>	3.0	408.7
<b>EM</b>		5.3	4.5	4.8	<b>4.7</b>		44.53	212.55	304.6	<b>561.7</b>	3.2	178.9

Average Duration



Total Market Value (USD Billions)



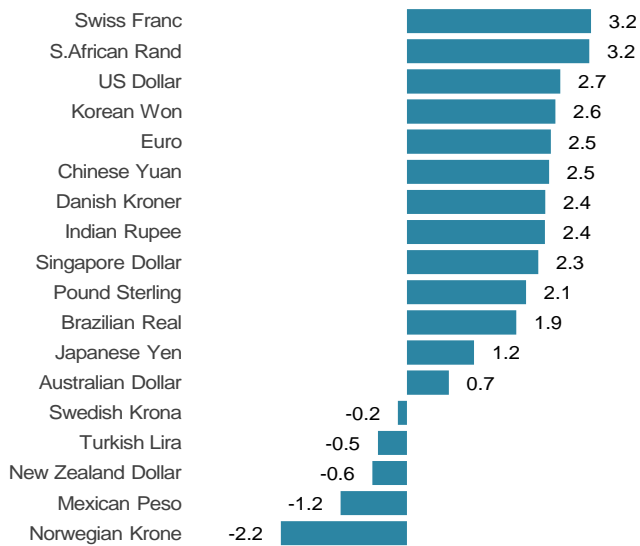
Data as of 2023-10-31

Indices used: FTSE Canada Non-Agency Bond Index (Mid, Long, Overall), FTSE Canada RRB Canada Bond Index.

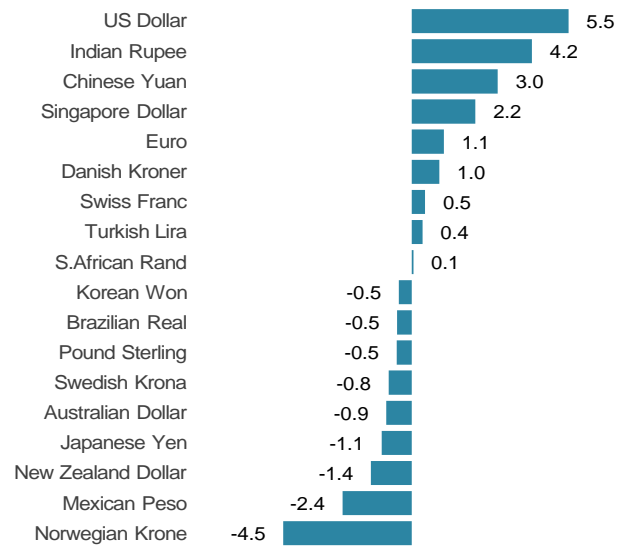
Source: FTSE Russell. All data as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indexes used for each market. For professional investors only.

## Appendix – Foreign Exchange Returns % as of October 31, 2023

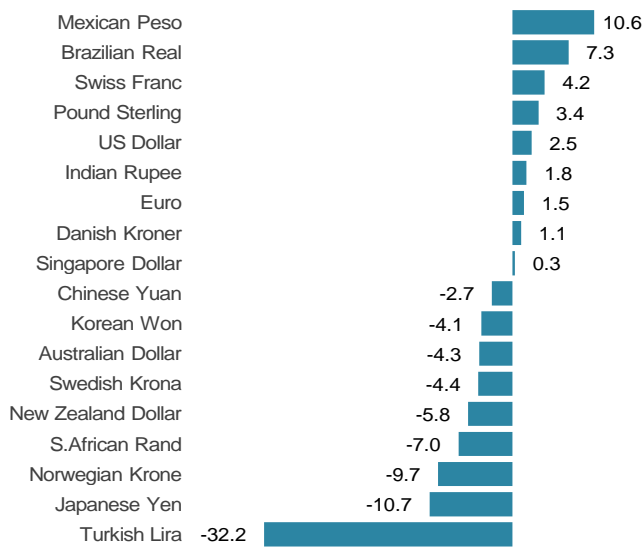
### FX Moves vs CAD - 1M



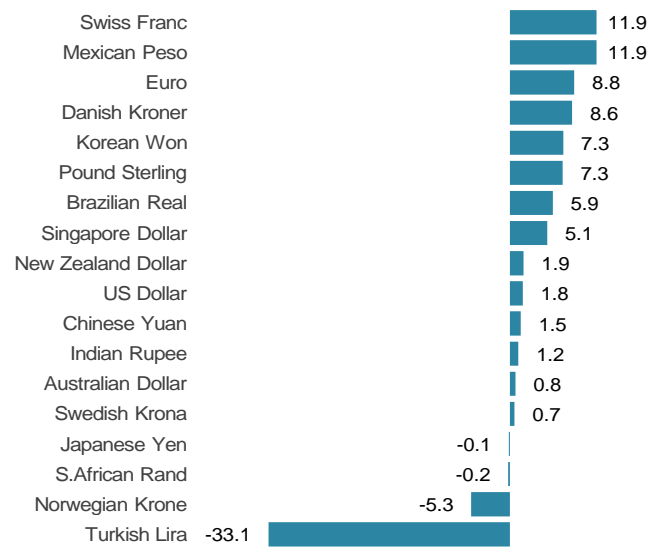
### FX Moves vs CAD - 3M



### FX Moves vs CAD - YTD



### FX Moves vs CAD - 12M



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## Appendix – Glossary

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### **Bond markets are based on the following indices:**

FTSE Canada Universe Bond Index for all Canadian government and corporate bond markets\*

FTSE Canada High Yield Bond Index for the Canadian high yield market

FTSE Canada RRB Canada Index for the Canadian inflation-linked bond market

FTSE World Government Bond Index (WGBI) for all global government bond markets

FTSE World Inflation-Linked Securities Index (WorldILSI) for all global inflation-linked bond markets

FTSE US Broad Investment-Grade Bond Index (USBIG®) for the US corporate bond market

FTSE US High-Yield Market Index for the US high yield bond market

FTSE Euro Broad Investment-Grade Bond Index (EuroBIG®) for the Euro-denominated corporate bond market

FTSE European High-Yield Market Index for the European high yield market

FTSE Chinese Government and Policy Bank Bond Index (CNGPBI) for the Chinese government bond market

FTSE Emerging Markets Inflation-Linked Securities Index (EMILSI) for the emerging markets inflation-linked bond market

FTSE Emerging Markets Broad Bond Index (EMUSDBBI) for the emerging markets corporate bond market

### **List of Abbreviations used in charts:**

IL = Inflation-linked bonds

IG = Investment-grade bonds

HY = High-yield bonds

BPS = Basis points

EM = Emerging market

LC = Local currency

### **\* FTSE Canada Bond Indexes**

1-3YR = Short Term Bond Indices

7-10YR = Mid Term Bond Indices

20+ YR = Long Term Bond Indices



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