

Fixed Income Insights

MONTHLY REPORT - May 2023 | CANADA EDITION

FOR PROFESSIONAL INVESTORS ONLY

Sweet spot for Canadian credit as inflation falls and BoC extends policy pause

Canadian government and corporate bonds rallied in April, buoyed by lower inflation and the BoC's extended policy pause. Standout performance came from Canadian credit, led by the energy sector, though European credits also held up well, while long inflation-linked gilts registered heavy losses.

Macro and policy backdrop – BoC paused policy on softer growth and inflation expectations

Canada's IMF GDP forecast for 2023 remained unchanged at 1.5% in April, though softening growth and inflation data give BoC a chance to extend policy pause, subject to wage inflation remaining benign. (page 2)

Canadian govts and credit – Canadian 7-10-year gov't spreads tighten vs G7 after policy pause

Narrowing Canadian 7-10-year government spreads vs G7 since January reflect differences in policy phases, where the Eurozone, US and UK are tightening vs Canada's policy pause. (pages 3-4)

Global yields and spreads – Yields show further signs of a cyclical peak

US Treasury yields remained near 2023 lows in April, buoyed by a loss of growth momentum and weaker housing. (pages 5-6)

Sovereign and climate bonds – Green bond issuance recovered strongly in Q1, spreads tightened

After a tough 2022, when issuance fell back sharply, both sovereigns and corporate issuance rebounded in Q1. (page 7)

Performance – Canadian corporates outperformed across all industries and credit ratings

Canadian corporate outperformance was led by the energy and communication industries in April. (pages 8-10)

Appendix (from page 11)

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

Chart 1: Canadian breakevens show stable inflation expectations, which fell since the Ukraine shock, and help explain BoC policy pause.

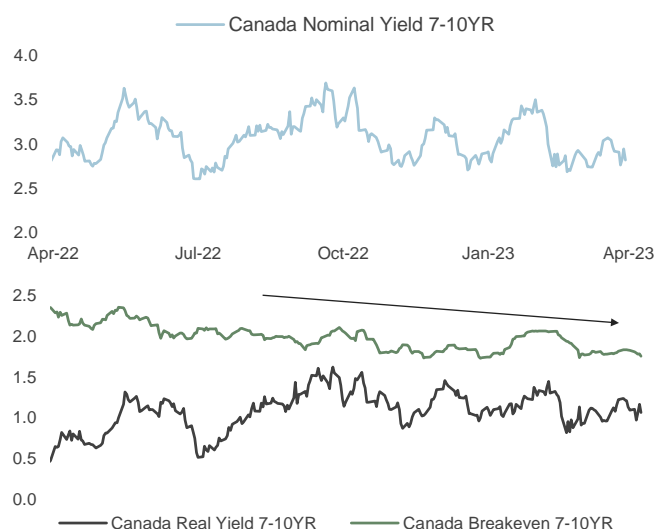
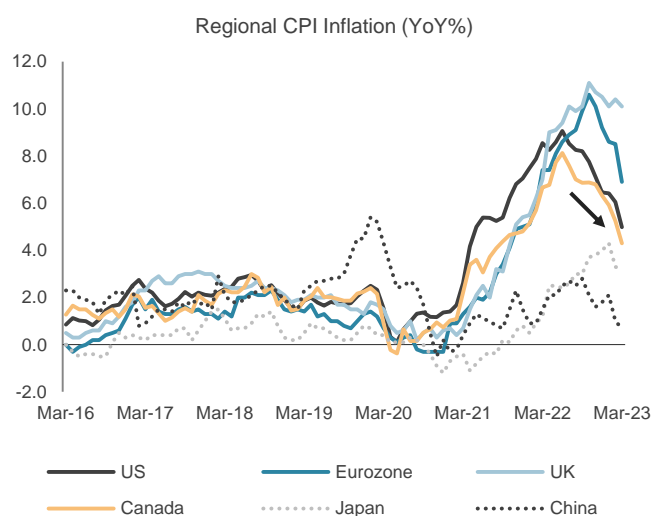


Chart 2: Apart from the UK, inflation has fallen sharply since the summer 2022 peak on lower energy prices and tighter financial conditions.



Source: FTSE Russell and Lipper global fund data. All data as of April 30, 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

The Bank of Canada may be benefitting from an ‘early mover’ advantage, and its flexible inflation targeting regime, in being able to pause policy early, after inflation continued to fall. 2024 inflation forecasts are stable near pre-Covid levels, even if low G7 unemployment levels are exerting late-cycle pressure on unit labour costs, as productivity growth falls.

Since January, the IMF has revised its quarterly real GDP growth figures upward in the US, UK and Eurozone. In Canada, the predicted 1.5% growth was unchanged as was in China, which is forecast to grow the fastest in 2023, after reopening from lockdowns though this hinges on a successful transition to domestic-led growth, with a weak property sector a key risk (Chart 1).

Canada looks set to reach the BoC’s 3% predicted inflation level in the third quarter of 2023, after CPI declined to 4.3% y/y in March (from 5.2% y/y). This compares with a peak at 8.1% y/y in June 2022, with y/y base effects and lower 2023 energy prices reducing overall price pressures, despite higher service and wage inflation taking longer to subside (Chart 2).

The BoC’s ongoing policy pause was extended in April, and reflects an early mover advantage, after raising rates in March 2022 and launching QT in April 2022 versus later starts in the US and Eurozone (Chart 3). The UK also acted early (the BoE began monetary tightening in Dec 2021 and QT in Feb 2022), but despite 11 rate rises, ‘Brexit’ and ‘Covid’ effects on trade, food/energy prices and tight labour markets mean a policy pause/pivot is unlikely, while UK CPI stays anchored above 10% y/y.

Chart 4 shows Canadian wage growth of 2.6% y/y returned to pre-Covid levels, though unemployment (5%) is at an historical low.

Chart 1: Canada’s IMF GDP forecast for 2023 was unchanged at 1.5%, in line with the 1.4% projected by the BoC. IMF revisions were up elsewhere in April (vs Jan), except in Japan & China.

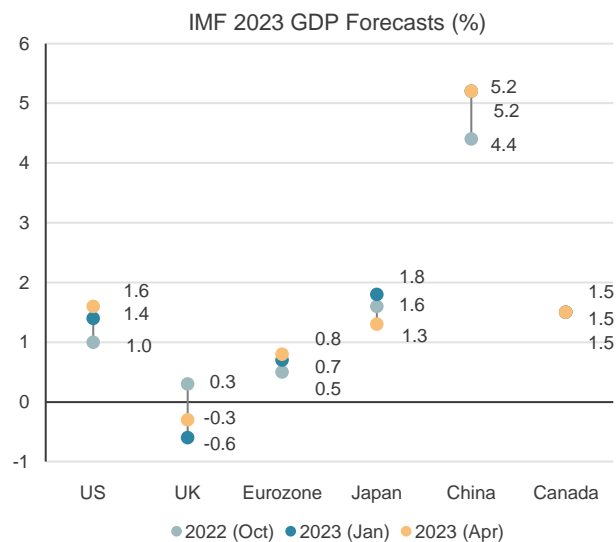


Chart 2: Inflation is predicted to remain “higher for longer” despite base effects of lower energy prices as labour markets remain tight. Canada is set to reach its target in 2024 after CPI fell in April.

	2023	Change Since Jan-23 (Bps)	2024	Change Since Jan-23 (Bps)
US	4.1	40	2.5	0
UK	6.5	-50	2.4	-10
Eurozone	5.6	-40	2.6	10
Japan	2.1	30	1.5	20
China	2.3	0	2.3	0
Canada	3.7	0	2.2	0

Chart 3: The BoC left policy unchanged again in April, leaving rates at 4.5%, unlike other G7 peers, where inflation risks have led to more tightening in the US, with Europe and UK likely to follow.

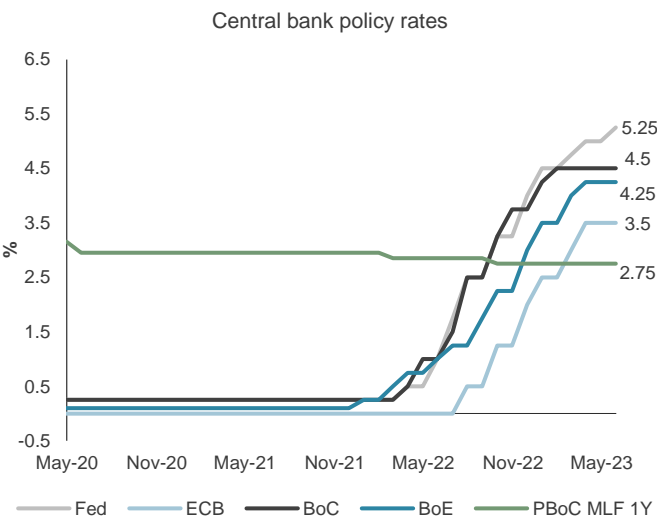


Chart 2: Cost-push pressures from wage inflation has been an issue for the BoC, driven by historically tight labour markets, but the recent fall to 2.6% now brings wage growth to pre-Covid.



Source: FTSE Russell and Refinitiv. All data as of April 30, 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.

Canadian Governments, Provinces and Municipalities

Chart 1: Canadian 10s/2s are more inverted than 20s/2s post the collapse in 2-year yields in March. The recession signal marked by the deep curve inversion is at odds with IMF GDP forecasts.

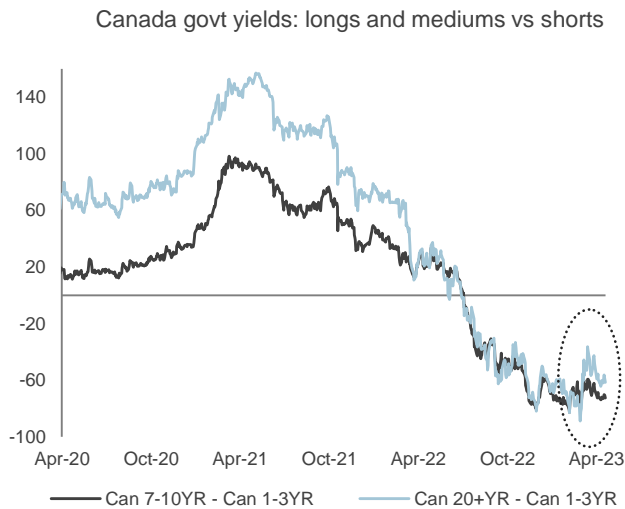


Chart 2: Some narrowing in Canada's 7-10 year government spreads vs G7 since January highlights the BoC policy pause versus tightening/easing in Germany, Japan, the UK and the US.

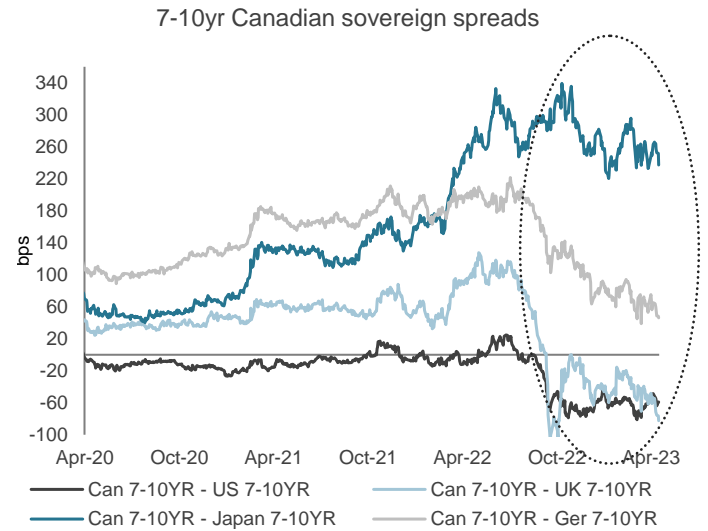


Chart 3: Long Canadian nominal and real yields have tracked closely, apart from the early Covid stage, when yields decoupled, as inflation and growth expectations collapsed.

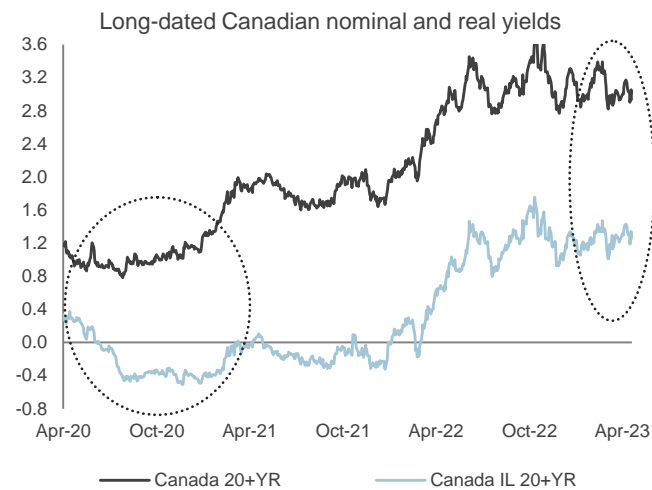


Chart 4: The decoupling of Canadian breakevens from G7 peers since 2022 has deepened since March's banking woes, helped by lower Canadian inflation, notably versus Germany and the UK.

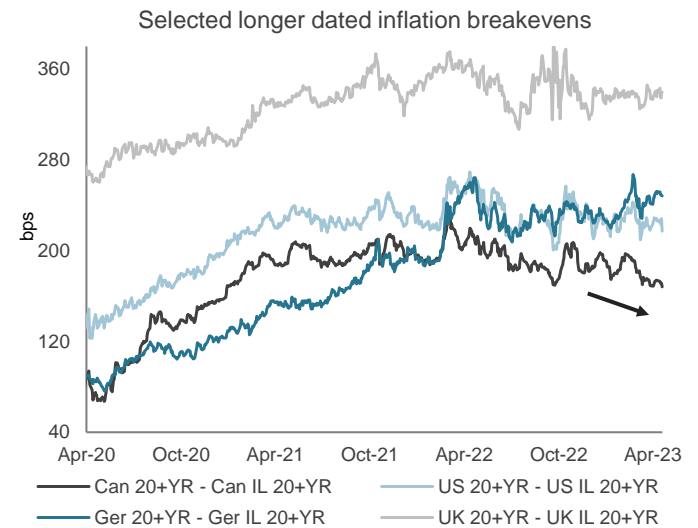


Chart 5: Provincial spreads have remained flat, or fallen a little in April, and are close to each other, especially in Alberta, where the divergence versus other provinces up until Q1 22 has ended.

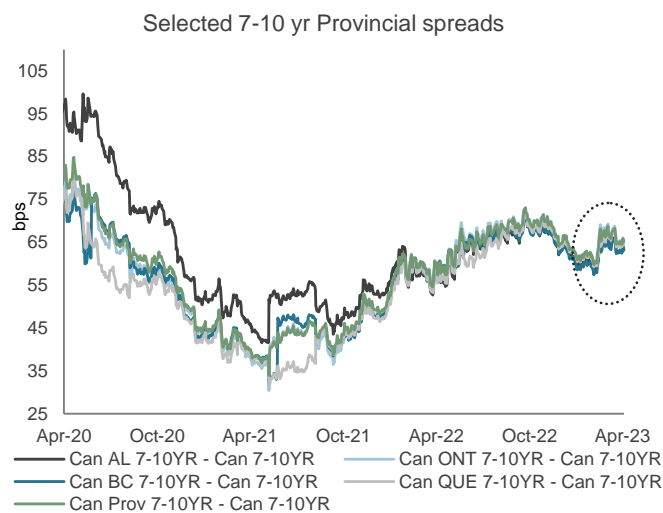
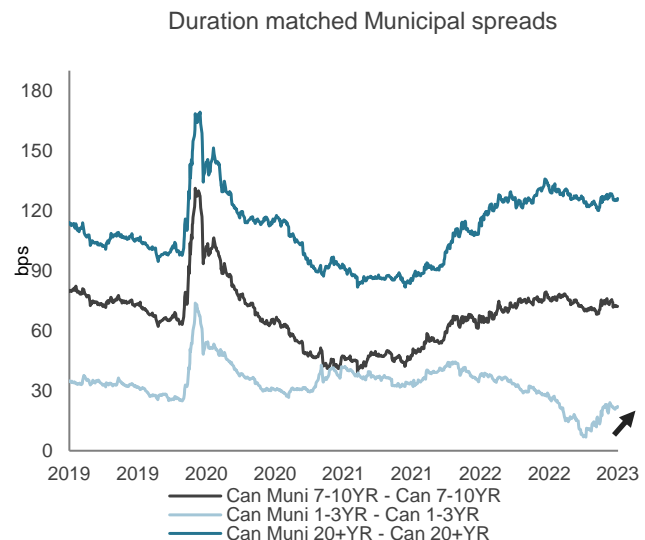


Chart 6: Long Canadian municipal spreads have widened since January after long conventional yields collapsed, while short and mid muni spreads have remained more stable.



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Canadian Corporate Bonds

Chart 1: Canadian IG yields stopped tracking US IG yields in April and, with US and Canadian HY, modestly rose, as the longer duration in US IG had a greater appeal during the recovery in April.

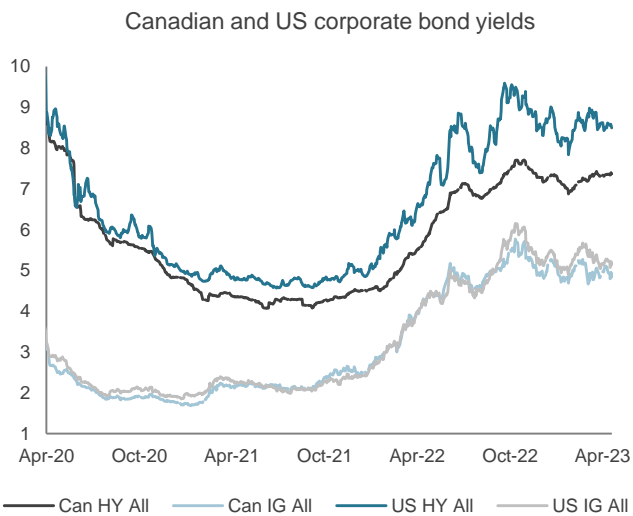


Chart 2: Canadian IG spreads narrowed in April, after the BoC decided to pause policy for the second time. The tightening in Real Estate spreads, however, was more modest than peers.

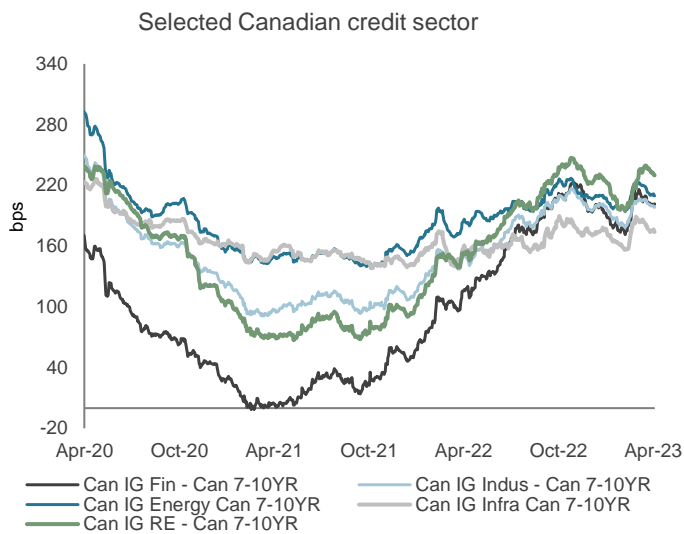


Chart 3: The back-up in Canadian HY spreads was more severe than in the US, reflecting the collapse in 7-10 year government bond yields as inflation fell and the BoC paused policy.

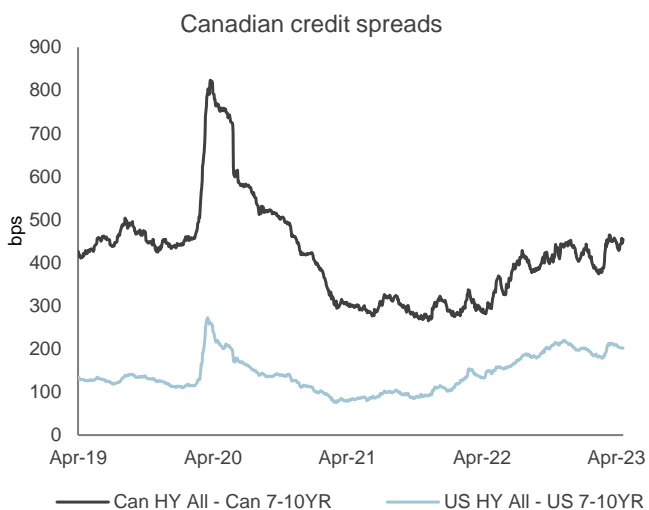


Chart 4: After widening more than A and BBB corporate bonds during 2022, AAA corporate spreads have tracked closely those of lower quality peers since January 2023.

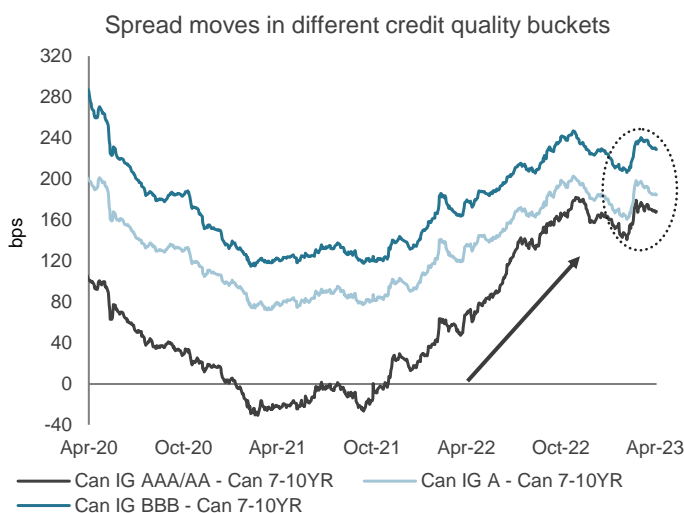


Chart 5: AAA corporate spreads have widened 97bp, 46-47bp more than lower quality credits equivalents, especially in BBBs, which have widened by only 51bp during the last 12 months.

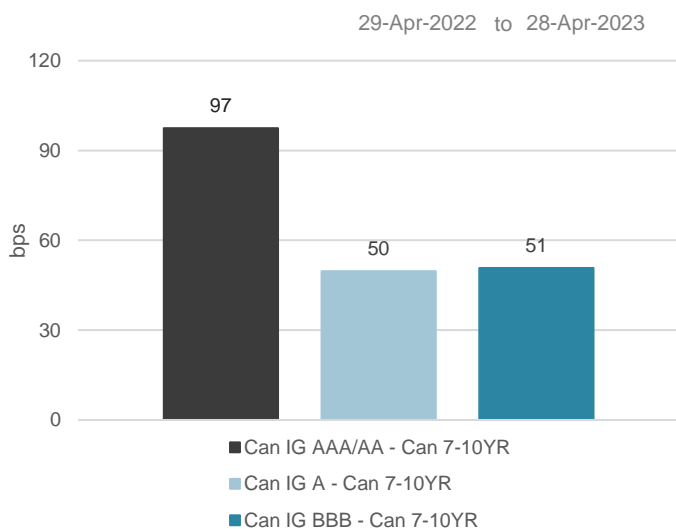
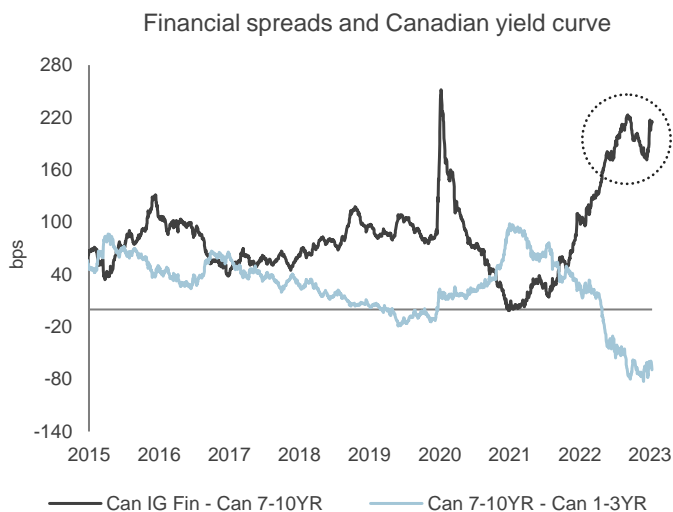


Chart 6: Financial spreads have shown strong negative correlation to the yield curve since pre-Covid. But concerns about financials caused spreads to widen independently of the curve in March.



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Global Yields, Curves and Spread Analysis

Chart 1: Nominal 7-10-year yields declined sharply after banking woes in March, and a flight to quality developed. Markets stabilised in April, though the yield downtrend since October is intact.

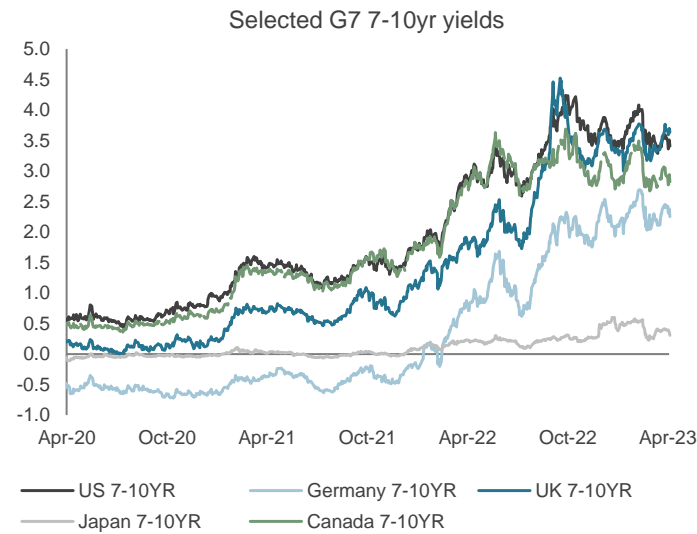


Chart 2: Real 7-10-year yields have also fallen since the banking crisis, though not as much as conventionals, as the latter proved a safe haven of choice. Real yields remain well above 2020/22 levels.

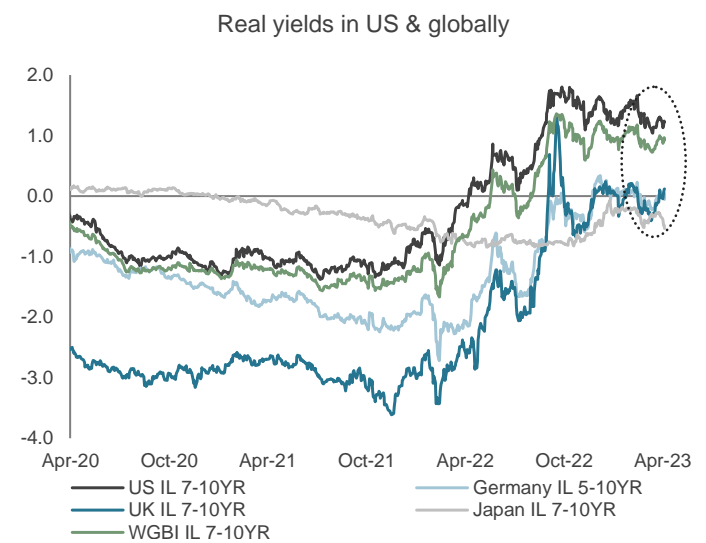


Chart 3: G7 10s/2s yield curves steepened after March's banking woes emerged, and 2-year yields collapsed. But curve inversion, or

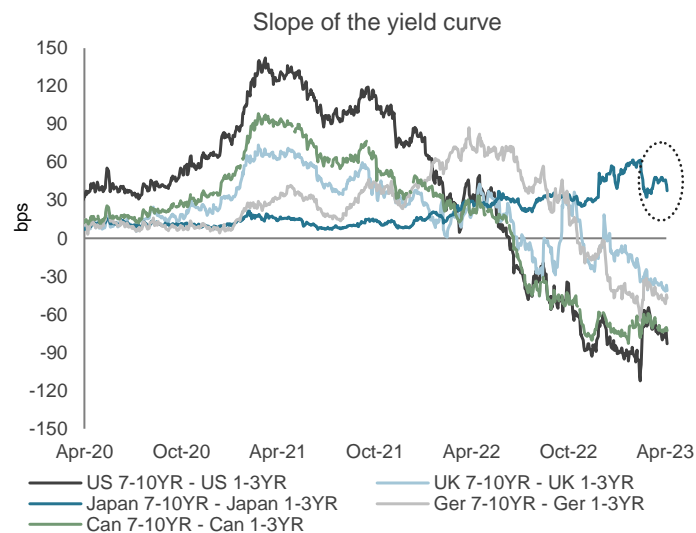


Chart 4: Like 10s/2s, the 20s+/2s yield curves resumed the 2021/23 flattening/inversion trend in April, after the brief March steepening.

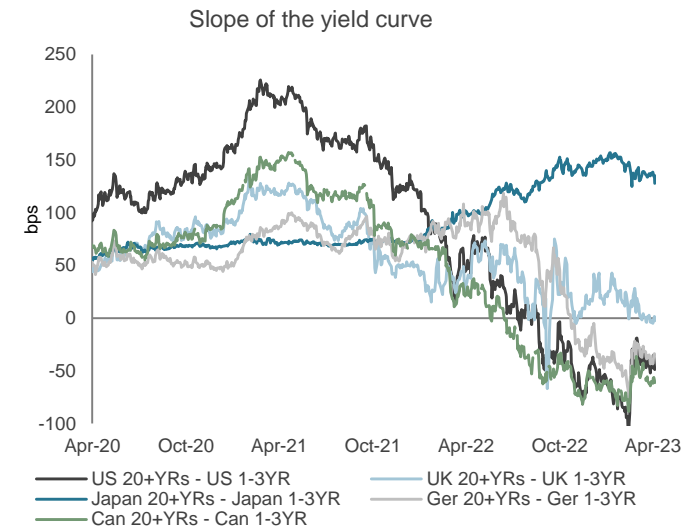


Chart 5: 7-10yr inflation breakevens stabilized near 2%, apart from the UK (due to the different RPI inflation index for accruals) & Japan. There has been little persisting impact from March's banking woes.

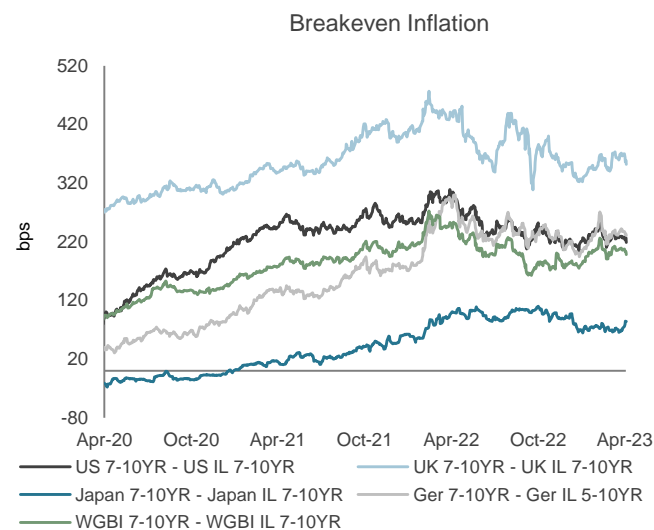
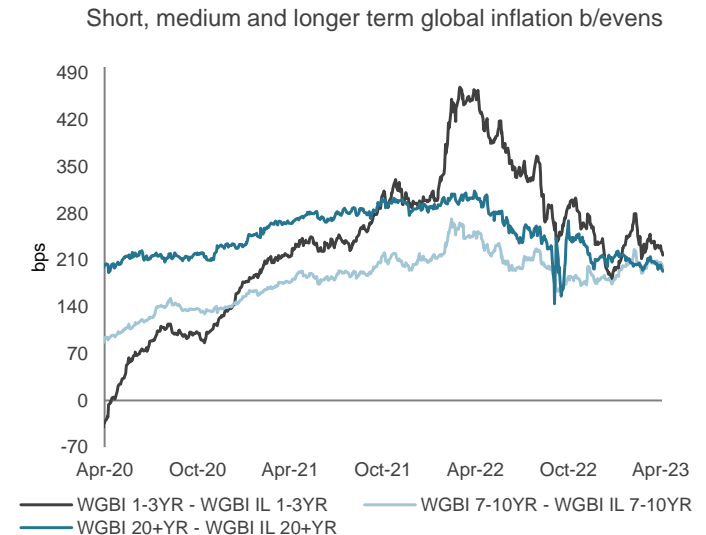


Chart 6: Short run inflation breakevens reacted more to March banking woes, and lower inflation prospects, if a credit crunch develops, though lower inflation rates in 2023 are also a factor.



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Yield Spread and Credit Spread Analysis

Chart 1: US sovereign spreads have shown the typical pro-cyclical pattern in 2022/23, falling as growth slows, after increasing in the post-Covid reflation trade. Spreads versus the UK tightened most.

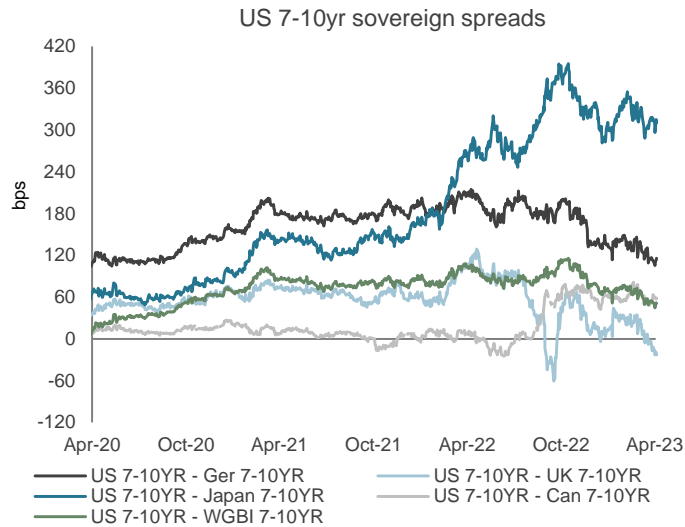


Chart 2: Peripheral Eurozone 7-10-year yield spreads reacted little to March's banking woes, though Italian spreads have widened since the ECB began signaling higher rates in Q2 2022.

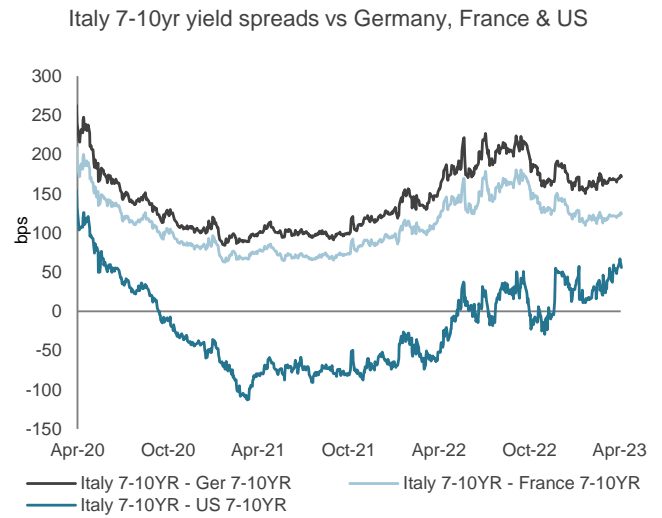


Chart 3: EM 7-10-year yield spreads widened a little in March, on fears cross-border flows may fall in a banking crisis, but moves were modest, and fell since, helped by a Fed offer of dollar swaps.

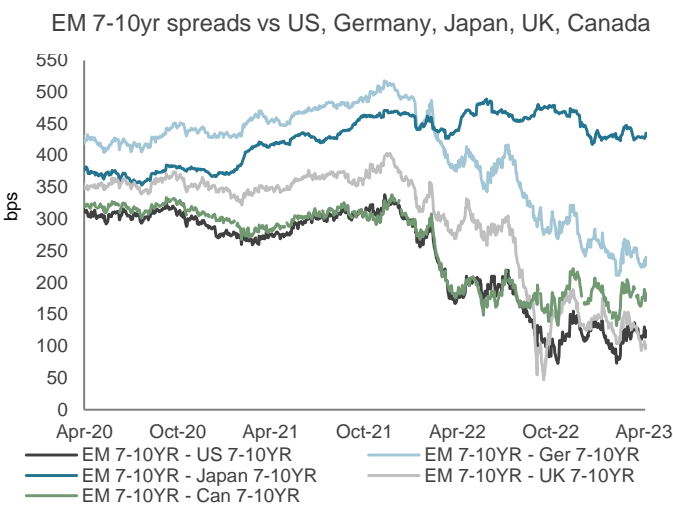


Chart 4: The modest spread widening in China 7-10-year sovereigns in March reversed in April, as Chinese inflation fell further, and nominal yields declined as a result.

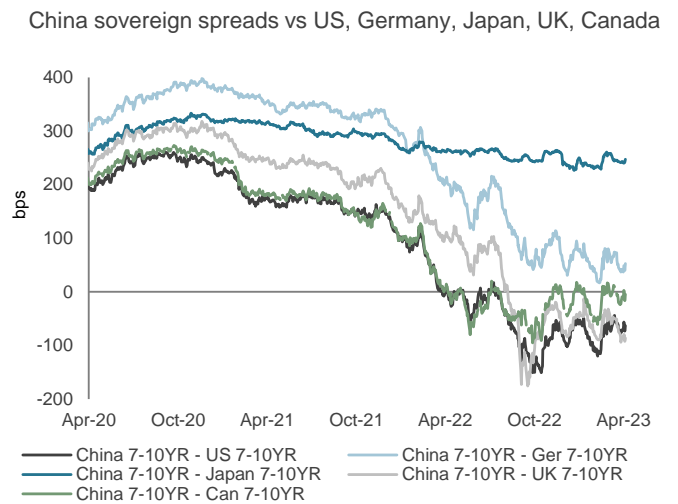


Chart 5: Lack of contagion, and prompt US regional bank takeovers, helped financial spreads stabilize in April, after the March spike on initial fears of a broader banking crisis.

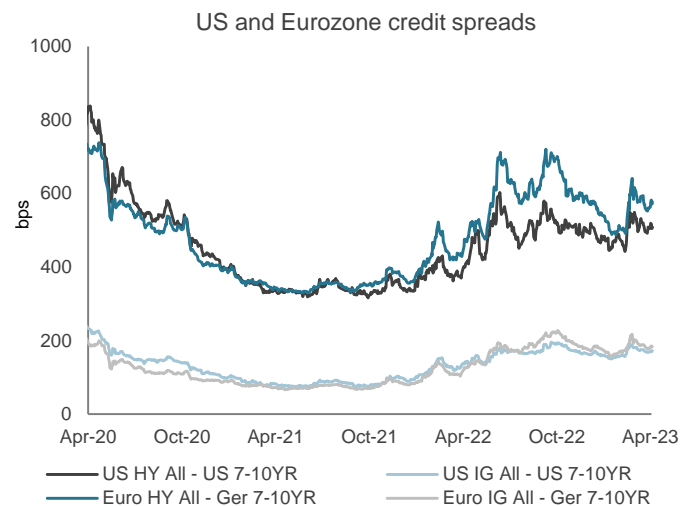
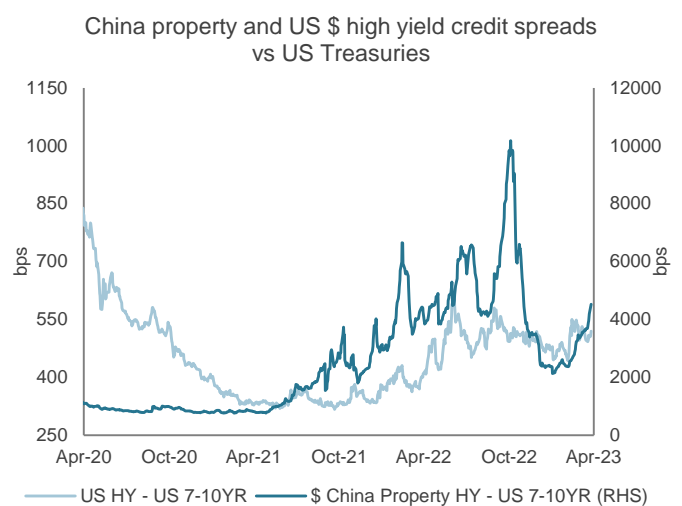


Chart 6: Although Chinese HY dollar spreads are well below the October 2022 peaks, helped by property sector support in China, they have widened sharply since March's US banking woes.



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Sovereign and Climate Bonds Analysis

Chart 1: After a major stress test of green bonds in 2022, when US green spreads widened sharply, led by HY, spreads have mean-reverted in 2023 to more normal spread levels, near 500bp in HY.

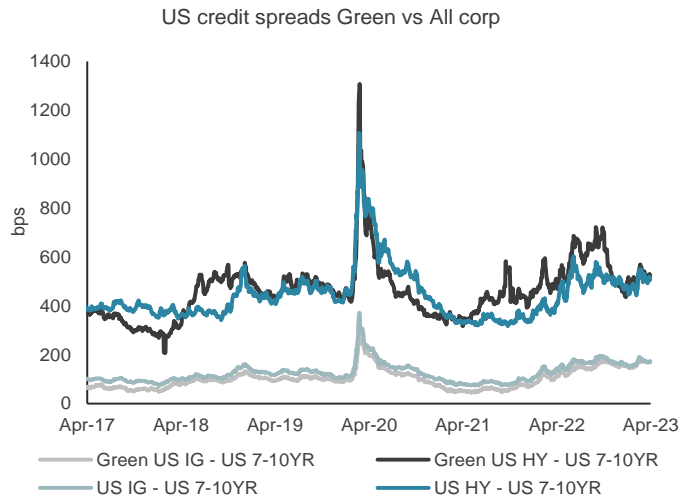


Chart 2: Unlike the US, the spread widening in HY Green Eurozone credits versus Bunds was modest in 2022, and there was no major spike. Spreads narrowed since the bond rally began in Q4 2022.

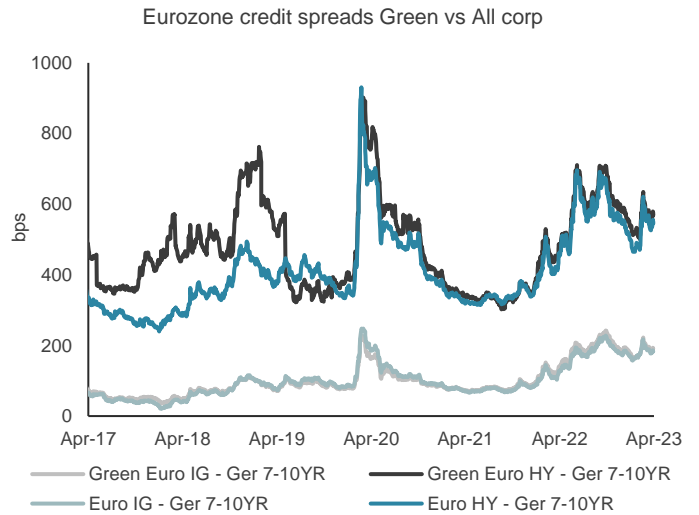


Chart 3: Overall, Green bond issuance fell more than other bonds in 2022, as yields and spreads rose. But Green issuance has rebounded in Q1 2023, and is at a new high versus total issuance.

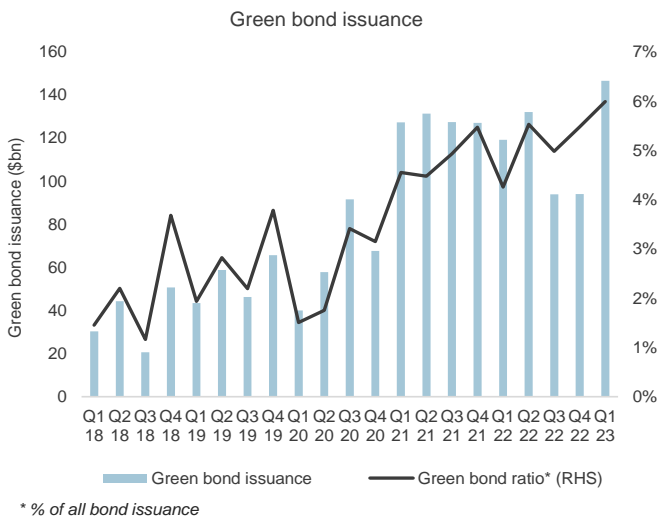


Chart 4: Within total Green bond issuance, Green corporates fell sharply, though issuance has recovered in Q1 2023, to an all-time high in absolute terms, as yields stabilised and spreads narrowed.

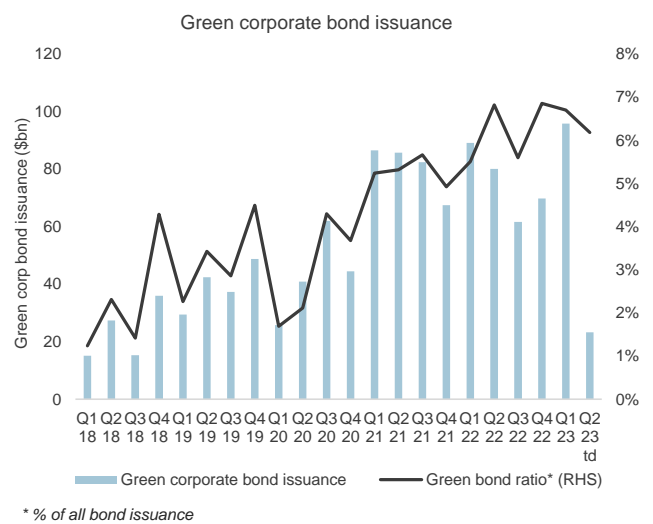


Chart 5: The currency composition of the FTSE Global Green index shows the high weighting of the Euro green bonds, at 68%, and the low US weighting, in contrast to the FTSE World BIG index.

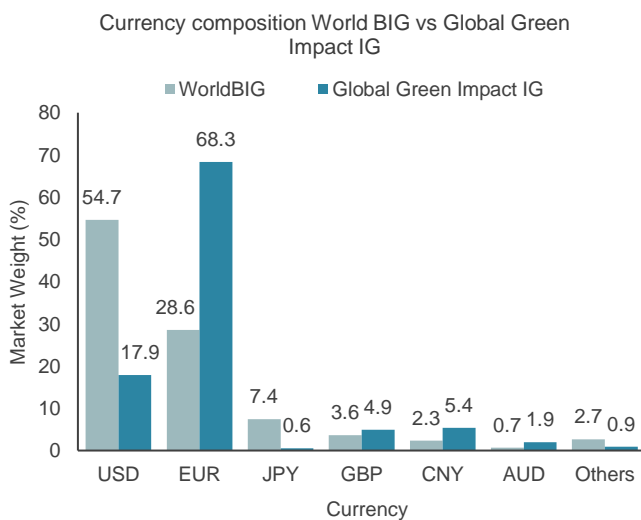
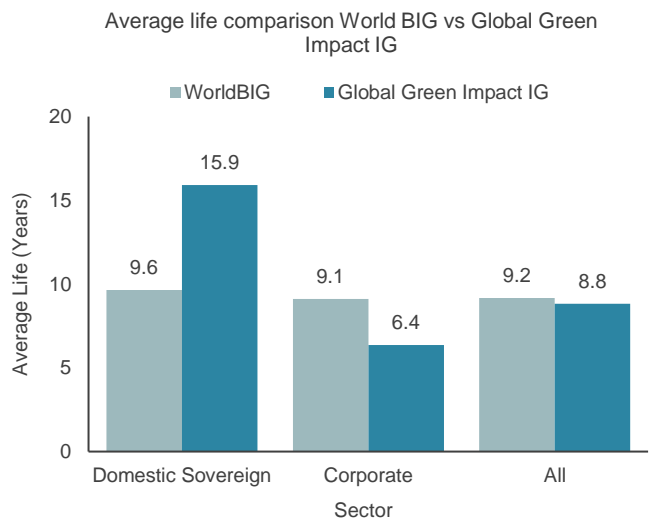


Chart 6: The higher Eurozone sovereign weighting in the Global Green (GG) index increases average life relative to World BIG, but this is offset by shorter average life of GG corporates.



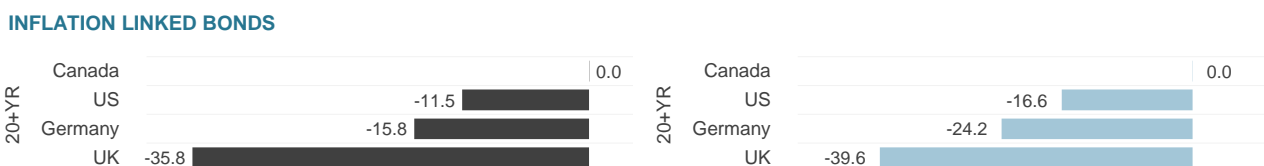
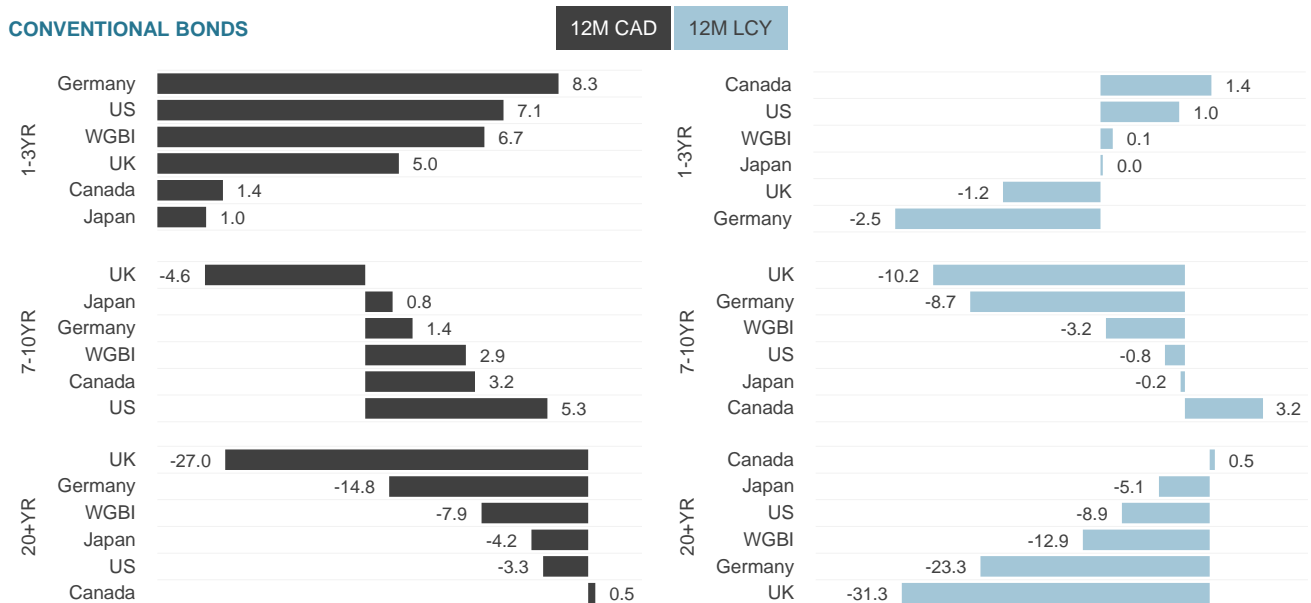
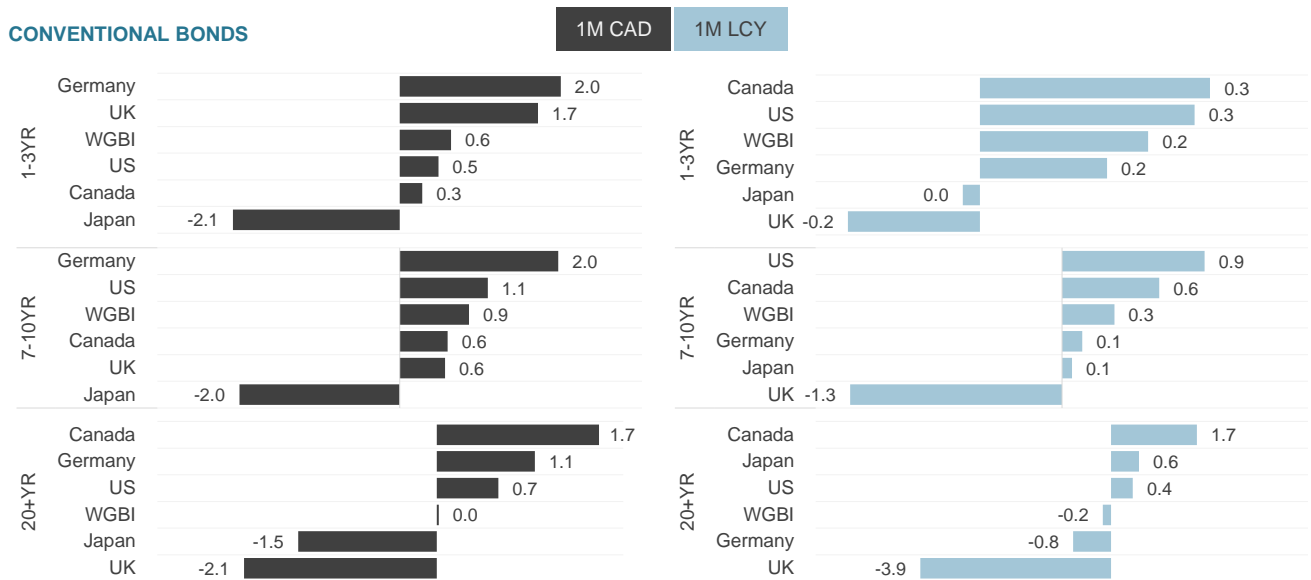
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Global Bond Market Returns – 1M & 12M % (CAD, LC, TR) as of April 30, 2023

Conventional government bonds generally held onto March gains helped by lower inflation readings and lingering concerns about financial stability, after the banking turmoil in March. Long Canadian government bonds outperformed, after the extended policy pause, but long UK index-linked bonds lost 4.7%, as sticky UK inflation threatened further MPC tightening.

Canadian conventional bonds outperformed in April, though gains were modest, with the best returns coming from long Canadian government bonds. Currency movements enhanced local currency returns elsewhere, in Canadian dollar terms. The performance of long UK index-linked gilts, down 2%, was hit by prospects of further rate hikes after inflation remained the highest in the G7.

12M returns for both Canadian conventional and real return bonds were flat, or modestly positive, following the recent rally. Long conventional and index-linked gilts continued to lag other regions, with losses of 27-38% over 12 months, in Canadian dollars.



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Corporate Bond Returns – 1M & 12M % (CAD, LCY) as of April 30, 2023

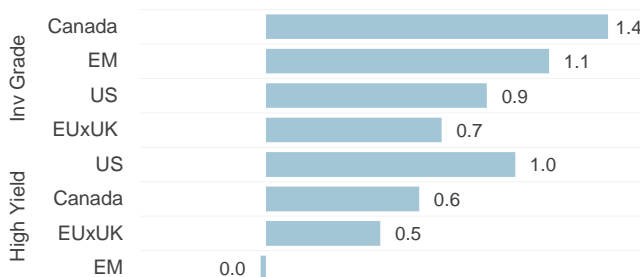
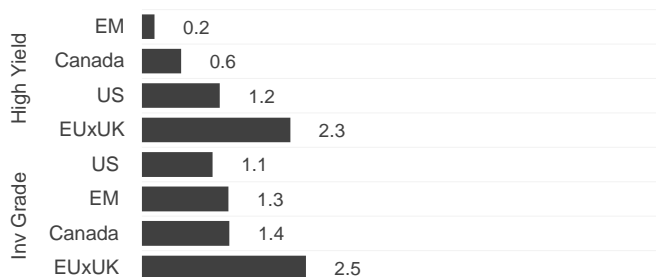
Both investment grade (IG) and high yield (HY) credits extended their year to date rally during April. IG corporates modestly outperformed HY credits, while at the industry level, Canadian energy outperformed other sectors. AAA-rated corporates made the smallest gains and underperformed BBB-rated peers, where default rates remain low.

IG corporates outperformed HY credits in April with modest returns of about 1-3% across regions, in Canadian dollar terms. AAA-rated corporates returned 0.8%, compared to a higher 1.4% for BBB-rated equivalents.

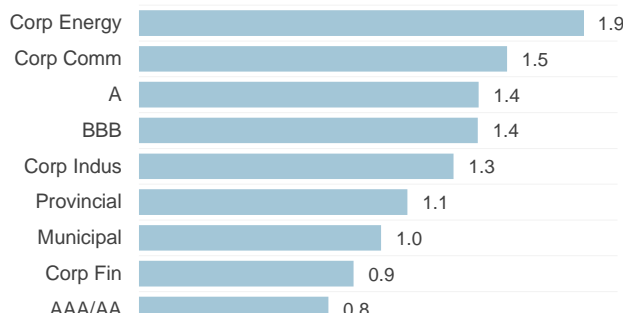
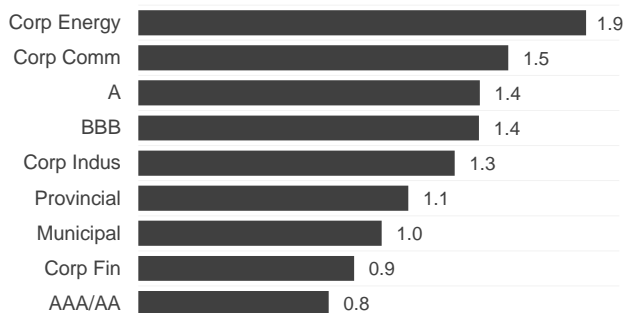
Over the last twelve months, both IG and HY corporate bonds have rallied, with Eurozone HY credits outperforming other regions with gains of 10% in Canadian dollar terms, while EM underperformed. Canadian munis and provis have returned 2-3%.

CORPORATE BONDS

1M CAD 1M LCY

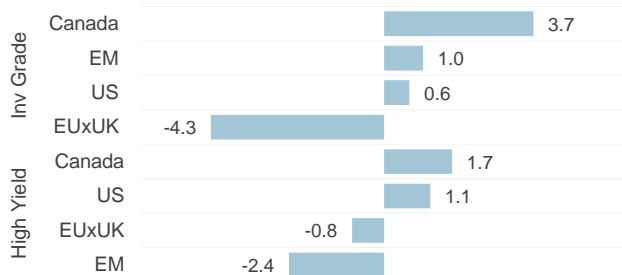
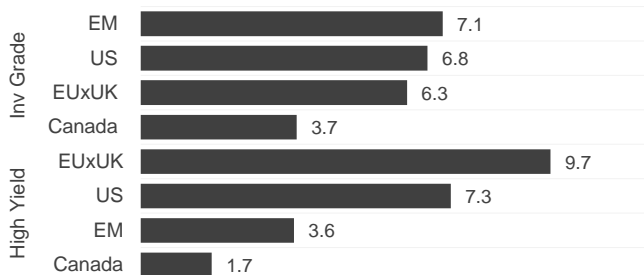


CANADA SPOTLIGHT

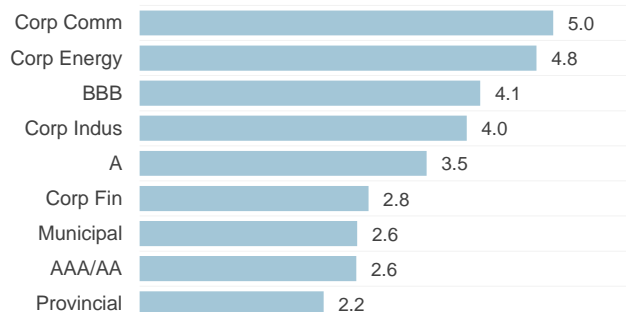
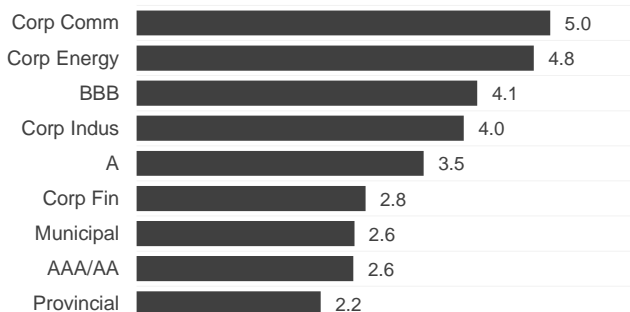


CORPORATE BONDS

12M CAD 12M 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.

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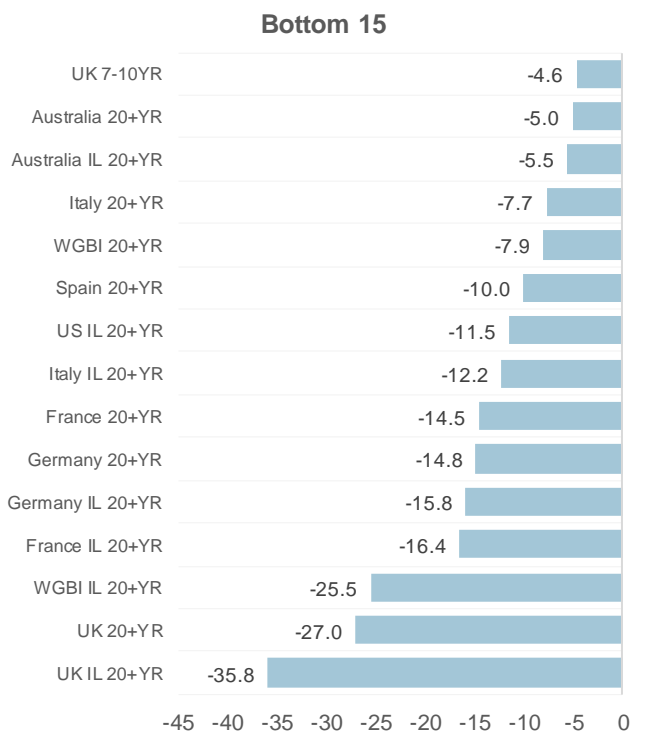
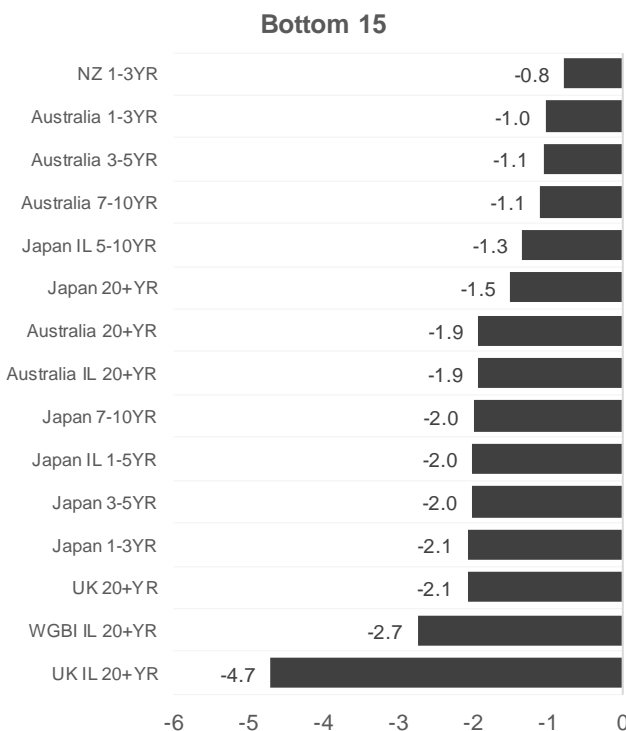
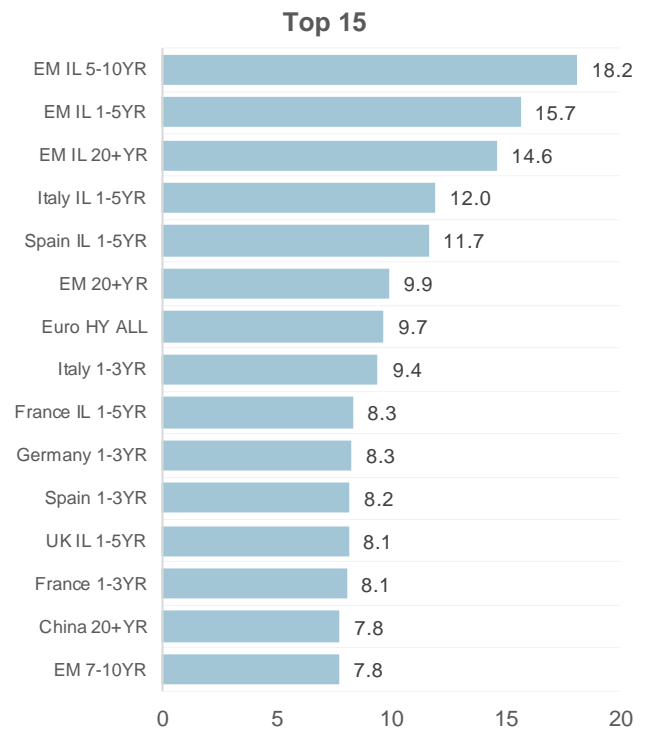
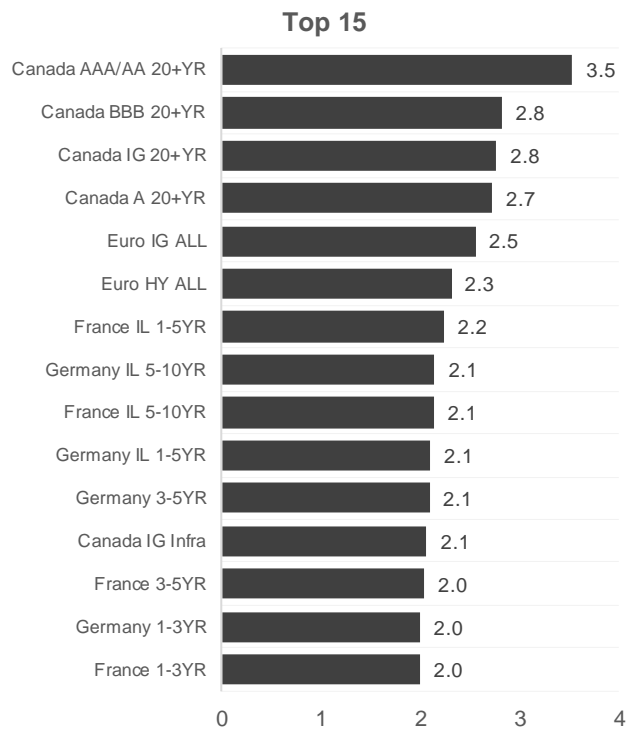
Top and Bottom Bond Returns – 1M & 12M % (CAD, TR) as of April 30, 2023

Longer dated Canadian corporate bonds outperformed across the credit quality spectrum in April. European investment grade and high yield credits also featured among the top performers. By contrast, inflation-linked bonds, notably long UK and WGBI IL bonds, extended their 12-month losses in April, resulting in negative returns of 26-36% in Canadian dollars.

Canadian corporate bonds outperformed with returns of 3-4% in April. Both European high yield and investment grade rallied, as risk appetite recovered.

Over twelve months, EM inflation-linked bonds have continued to make substantial gains of 15-18% in Canadian dollar terms and remained top performers. Short Eurozone government bonds have also rallied as did European high yield credit, gaining nearly 10%.

1M CAD 12M CAD



Source: FTSE Russell. All data as of April 30, 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%

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
Government	1-3YR	0.91	-0.72	2.38	2.96	1.89	1.79	1.35	-4.50
	7-10YR	1.39	-0.25	5.05	5.65	4.69	4.58	3.17	-2.78
	20+YR	1.41	-0.23	8.15	8.77	7.52	7.41	0.52	-5.28
Inflation-Linked	20+YR	-1.14	-2.74	2.89	3.48	0.57	0.47	0.02	-5.76
Corporate	1-3YR	1.02	-0.62	4.02	4.62	2.73	2.63	2.86	-3.08
	7-10YR	1.27	-0.37	6.69	7.30	4.68	4.58	4.53	-1.50
	20+YR	1.49	-0.15	10.45	11.08	7.04	6.94	5.06	-1.01
AAA/AA	1-3YR	1.19	-0.45	3.48	4.07	2.56	2.45	2.49	-3.43
	7-10YR	1.35	-0.29	5.48	6.08	4.06	3.96	3.31	-2.65
	20+YR	1.33	-0.31	11.99	12.63	8.17	8.07	4.61	-1.43
	All	1.09	-0.54	3.99	4.58	2.89	2.79	2.63	-3.29
A	1-3YR	0.93	-0.70	4.02	4.61	2.69	2.59	2.80	-3.13
	7-10YR	1.29	-0.35	6.61	7.22	4.76	4.66	4.45	-1.58
	20+YR	1.50	-0.14	10.24	10.87	7.09	6.98	4.50	-1.53
	All	1.20	-0.43	6.21	6.82	4.27	4.17	3.49	-2.48
BBB	1-3YR	1.09	-0.55	4.18	4.77	2.83	2.72	3.02	-2.92
	7-10YR	1.24	-0.39	6.85	7.46	4.70	4.60	4.70	-1.34
	20+YR	1.47	-0.17	10.71	11.34	6.95	6.84	5.87	-0.24
	All	1.20	-0.44	6.50	7.11	4.35	4.24	4.14	-1.87
Sectors	Comm	1.29	-0.35	7.50	8.11	4.77	4.67	5.03	-1.03
	Energy	1.28	-0.36	7.74	8.36	5.24	5.14	4.83	-1.22
	Fin	0.99	-0.65	4.42	5.02	3.01	2.91	2.78	-3.15
	Indus	1.16	-0.48	6.05	6.66	4.21	4.11	3.98	-2.02
	Infra	1.55	-0.09	8.46	9.08	6.02	5.91	4.11	-1.89
	RE	0.90	-0.73	4.75	5.35	3.16	3.05	2.72	-3.20
	Secur	1.01	-0.63	3.52	4.11	2.56	2.46	2.06	-3.83
Provinces (All)	1-3YR	0.81	-0.82	2.75	3.34	2.19	2.09	2.07	-3.82
	7-10YR	1.27	-0.37	5.26	5.86	4.57	4.46	3.99	-2.01
	20+YR	1.15	-0.49	8.37	8.99	6.53	6.42	1.34	-4.51
	All	1.10	-0.53	6.17	6.78	4.96	4.85	2.24	-3.66
Ontario	1-3YR	0.86	-0.78	2.74	3.33	2.18	2.08	2.09	-3.80
	7-10YR	1.34	-0.30	5.34	5.94	4.61	4.51	4.10	-1.91
	20+YR	1.35	-0.30	8.59	9.21	6.73	6.62	1.73	-4.14
	All	1.19	-0.45	6.10	6.71	4.90	4.79	2.47	-3.44
Alberta	1-3YR	0.74	-0.89	2.74	3.33	2.20	2.09	2.09	-3.80
	7-10YR	1.18	-0.46	5.15	5.75	4.48	4.37	3.81	-2.18
	20+YR	0.54	-1.08	7.80	8.42	6.04	5.94	-0.29	-6.05
	All	0.78	-0.86	5.64	6.24	4.54	4.44	1.54	-4.32
Quebec	1-3YR	0.80	-0.83	2.84	3.43	2.23	2.13	2.09	-3.80
	7-10YR	1.25	-0.39	5.29	5.89	4.60	4.49	3.86	-2.13
	20+YR	1.14	-0.50	8.35	8.97	6.51	6.41	1.38	-4.47
	All	1.13	-0.50	6.47	7.08	5.18	5.08	2.25	-3.64
BC	1-3YR	0.69	-0.93	2.45	3.04	2.13	2.03	2.01	-3.88
	7-10YR	1.13	-0.51	5.17	5.77	4.51	4.41	4.12	-1.89
	20+YR	0.79	-0.84	8.20	8.82	6.28	6.17	0.96	-4.86
	All	0.90	-0.73	6.05	6.65	4.99	4.89	2.01	-3.88

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 April 30, 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	0.26	0.48	1.12	2.78	1.88	1.98	0.96	7.14
	7-10YR	0.87	1.09	1.23	2.89	4.82	4.93	-0.81	5.27
	20+YR	0.44	0.66	0.09	1.74	7.72	7.83	-8.92	-3.34
	IG All	0.88	1.10	0.32	1.97	4.49	4.59	0.62	6.79
	HY All	0.99	1.21	0.77	2.43	4.68	4.78	1.14	7.33
UK	1-3YR	-0.16	1.71	-0.28	3.48	0.35	4.95	-1.19	4.98
	7-10YR	-1.29	0.56	-1.43	2.30	1.64	6.31	-10.23	-4.63
	20+YR	-3.87	-2.07	-5.24	-1.66	-1.10	3.44	-31.26	-26.97
EUR	IG All	0.70	2.55	0.31	3.64	2.57	6.21	-4.28	6.30
	HY All	0.45	2.31	0.17	3.55	3.53	7.32	-0.79	9.69
Japan	1-3YR	-0.02	-2.07	0.09	-2.84	0.19	-2.82	0.03	1.00
	7-10YR	0.06	-1.99	2.06	-0.93	1.82	-1.23	-0.18	0.80
	20+YR	0.57	-1.49	8.86	5.68	8.13	4.89	-5.15	-4.22
China	1-3YR	0.28	-0.32	0.67	-0.20	0.81	1.25	2.46	3.37
	7-10YR	0.66	0.06	1.39	0.51	1.47	1.92	3.49	4.41
	20+YR	1.65	1.05	3.16	2.27	2.58	3.03	6.81	7.77
EM	1-3YR	0.29	0.14	0.82	0.89	1.14	2.62	3.40	6.47
	7-10YR	0.50	0.46	1.30	1.58	2.82	4.04	5.55	7.75
	20+YR	1.32	0.76	2.45	1.92	3.16	3.63	7.85	9.92
	IG All	1.13	1.35	0.77	2.43	3.36	3.46	0.96	7.14
	HY All	-0.02	0.20	-2.74	-1.14	0.88	0.98	-2.35	3.63
Germany	1-3YR	0.15	1.99	0.44	3.78	0.67	4.24	-2.50	8.28
	7-10YR	0.12	1.96	0.32	3.65	3.03	6.69	-8.72	1.37
	20+YR	-0.77	1.05	-2.66	0.57	3.65	7.32	-23.26	-14.78
Italy	1-3YR	0.13	1.97	0.54	3.89	1.19	4.78	-1.45	9.45
	7-10YR	-0.22	1.61	0.94	4.30	4.95	8.67	-6.11	4.27
	20+YR	-1.39	0.42	-1.29	1.99	6.20	9.97	-16.85	-7.65
Spain	1-3YR	0.04	1.88	0.49	3.83	0.92	4.50	-2.57	8.20
	7-10YR	-0.11	1.73	0.40	3.73	3.18	6.84	-7.63	2.58
	20+YR	-1.38	0.43	-2.56	0.68	2.95	6.61	-18.93	-9.97
France	1-3YR	0.15	1.99	0.47	3.81	0.99	4.57	-2.69	8.07
	7-10YR	0.04	1.87	0.00	3.32	2.94	6.59	-8.45	1.67
	20+YR	-1.02	0.79	-3.77	-0.57	2.43	6.06	-23.04	-14.53
Sweden	1-3YR	0.16	1.48	-0.13	3.62	0.75	2.44	-0.82	0.49
	7-10YR	-0.30	1.01	-1.50	2.20	1.26	2.97	-3.44	-2.16
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	0.09	-1.03	0.88	-3.83	1.73	-0.77	1.97	0.63
	7-10YR	0.02	-1.09	2.51	-2.28	7.00	4.37	1.99	0.65
	20+YR	-0.82	-1.92	2.34	-2.44	10.60	7.88	-3.73	-5.00
NZ	1-3YR	0.30	-0.77	0.88	-2.00	1.88	-0.41	1.43	2.43
	7-10YR	1.50	0.42	1.23	-1.66	4.45	2.11	0.47	1.46
Canada	1-3YR	0.28	0.28	0.91	0.91	1.89	1.89	1.35	1.35
	7-10YR	0.59	0.59	1.39	1.39	4.69	4.69	3.17	3.17
	20+YR	1.74	1.74	1.41	1.41	7.52	7.52	0.52	0.52

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

Source: FTSE Russell. All data as of April 30, 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	0.23	0.45	1.74	3.41	2.58	2.68	-1.01	5.05
	5-10YR	0.17	0.39	1.80	3.47	4.41	4.52	-3.29	2.63
	20+YR	-0.39	-0.17	0.40	2.05	6.76	6.87	-16.57	-11.46
UK	1-5YR	-0.33	1.53	1.18	5.00	0.70	5.33	1.79	8.15
	5-10YR	-1.76	0.09	0.77	4.58	2.50	7.21	-6.57	-0.74
	20+YR	-6.45	-4.70	-7.46	-3.96	-1.58	2.94	-39.60	-35.83
EUxUK	1-5YR	0.26	2.10	0.93	4.28	0.98	4.56	-3.48	7.20
	5-10YR	0.30	2.14	1.45	4.83	2.97	6.62	-8.04	2.13
	20+YR	-0.11	1.72	0.66	4.01	7.06	10.86	-24.17	-15.79
Japan	1-5YR	0.05	-2.00	0.42	-2.52	0.91	-2.12	2.34	3.33
	5-10YR	0.73	-1.33	2.48	-0.51	1.34	-1.71	1.93	2.92
EM	1-5YR	-1.25	-0.62	2.49	4.96	3.39	7.34	13.30	15.66
	5-10YR	-0.32	-0.04	3.65	6.49	3.42	7.46	15.12	18.15
	20+YR	1.18	1.81	4.66	8.12	4.15	9.58	6.48	14.64
Germany	1-5YR	0.26	2.10	0.93	4.28	0.98	4.56	-3.48	7.20
	5-10YR	0.30	2.14	1.45	4.83	2.97	6.62	-8.04	2.13
	20+YR	-0.11	1.72	0.66	4.01	7.06	10.86	-24.17	-15.79
Italy	1-5YR	0.06	1.90	1.23	4.60	1.48	5.08	0.81	11.95
	5-10YR	-0.11	1.73	2.06	5.45	4.59	8.30	-3.55	7.11
	20+YR	-1.61	0.20	1.10	4.46	10.85	14.78	-20.92	-12.17
Spain	1-5YR	-0.01	1.83	1.10	4.46	1.21	4.79	0.55	11.67
	5-10YR	-0.20	1.64	1.44	4.82	2.52	6.16	-5.00	5.50
France	1-5YR	0.39	2.24	1.27	4.64	1.29	4.88	-2.45	8.34
	5-10YR	0.29	2.13	1.76	5.15	3.11	6.76	-6.65	3.67
	20+YR	-0.34	1.49	-1.20	2.09	5.22	8.95	-24.76	-16.44
Sweden	1-5YR	-0.74	0.57	-0.57	3.16	0.58	2.27	2.51	3.86
	5-10YR	-1.69	-0.39	-1.85	1.83	0.09	1.77	-3.86	-2.58
Australia	1-5YR	0.39	-0.73	2.27	-2.51	4.35	1.79	6.74	5.33
	5-10YR	0.49	-0.63	2.61	-2.19	7.74	5.10	6.07	4.68
	20+YR	-0.82	-1.92	-0.89	-5.52	12.60	9.83	-4.22	-5.48
NZ	5-10YR	1.49	0.41	3.50	0.54	6.36	3.98	5.63	6.68
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	0.96	0.96	-1.14	-1.14	0.57	0.57	0.02	0.02

Indices used: FTSE Canada RRB Canada Bond Index.

Source: FTSE Russell. All data as of April 30, 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 April 30, 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
Canada	Current	3.55	2.83	2.94	
	3M Ago	3.68	2.91	3.00	
	6M Ago	3.81	3.29	3.35	
	12M Ago	2.64	2.84	2.85	
IL	Current			1.26	
	3M Ago			1.20	
	6M Ago			1.38	
	12M Ago			0.73	
Provincial	Current	3.72	3.48	3.97	3.77
	3M Ago	3.70	3.53	3.99	3.80
	6M Ago	3.99	3.97	4.40	4.18
	12M Ago	2.98	3.44	3.81	3.52
Ontario	Current	3.74	3.48	3.96	3.77
	3M Ago	3.74	3.53	3.99	3.80
	6M Ago	4.00	3.97	4.40	4.18
	12M Ago	2.97	3.44	3.83	3.48
Quebec	Current	3.68	3.47	3.93	3.75
	3M Ago	3.65	3.52	3.96	3.78
	6M Ago	3.96	3.96	4.36	4.17
	12M Ago	2.97	3.42	3.78	3.54
Alberta	Current	3.70	3.46	4.00	3.76
	3M Ago	3.66	3.51	3.98	3.76
	6M Ago	3.96	3.96	4.36	4.13
	12M Ago	3.01	3.42	3.76	3.49
BC	Current	3.68	3.46	3.96	3.75
	3M Ago	3.62	3.50	3.96	3.75
	6M Ago	4.00	3.95	4.36	4.16
	12M Ago	2.96	3.44	3.77	3.52
Municipal	Current	3.77	3.55	4.19	3.90
	3M Ago	3.75	3.62	4.24	3.93
	6M Ago	4.05	4.04	4.64	4.31
	12M Ago	3.02	3.51	4.02	3.61
Corporate	Current	4.86	4.71	4.90	4.84
	3M Ago	4.84	4.69	4.92	4.83
	6M Ago	5.40	5.36	5.50	5.42
	12M Ago	3.96	4.57	4.86	4.33
High Yield	Current				7.37
	3M Ago				6.99
	6M Ago				7.60
	12M Ago				5.84

		1-5YR	5-10YR	20+YR	All Mat
AAA/AA	Current	4.53	4.34	4.38	4.51
	3M Ago	4.59	4.25	4.40	4.52
	6M Ago	4.98	4.80	4.95	4.95
	12M Ago	3.44	3.99	4.39	3.55
A	Current	4.77	4.40	4.62	4.67
	3M Ago	4.71	4.45	4.66	4.66
	6M Ago	5.31	5.07	5.22	5.25
	12M Ago	3.97	4.27	4.57	4.19
BBB	Current	5.14	4.91	5.30	5.12
	3M Ago	1.85	1.32	1.54	5.10
	6M Ago	1.76	1.65	1.84	5.70
	12M Ago	-0.79	0.11	0.64	4.63
Comm	Current	4.67	5.34	4.93	4.99
	3M Ago	4.69	5.37	4.87	4.98
	6M Ago	5.40	6.03	5.43	5.65
	12M Ago	4.65	5.49	3.98	4.72
Energy	Current	4.93	4.81	4.98	4.92
	3M Ago	4.87	4.86	5.01	4.93
	6M Ago	5.43	5.49	5.61	5.52
	12M Ago	3.98	4.84	4.98	4.67
Financial	Current	4.84	4.75	5.07	4.84
	3M Ago	4.80	4.60	5.03	4.79
	6M Ago	5.39	5.35	5.56	5.40
	12M Ago	3.93	4.41	4.79	4.02
Industrial	Current	4.78	4.64	5.04	4.81
	3M Ago	4.87	4.60	5.03	4.84
	6M Ago	5.34	5.20	5.64	5.38
	12M Ago	3.96	4.41	5.01	4.34
Infrastructure	Current	4.37	4.35	4.66	4.57
	3M Ago	4.45	4.35	4.71	4.61
	6M Ago	4.87	4.93	5.23	5.13
	12M Ago	3.56	4.17	4.60	4.41
Securitization	Current	4.79			4.79
	3M Ago	4.82			4.82
	6M Ago	5.25			5.25
	12M Ago	3.67			3.67

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 April 30, 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 April 30, 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	4.24	3.62	3.41	3.75	1.68	1.23	1.58	5.15	8.50
	3M Ago	4.35	3.74	3.46	3.71	1.85	1.32	1.54	5.01	8.23
	6M Ago	4.58	4.37	4.05	4.34	1.76	1.65	1.84	5.97	8.97
	12M Ago	2.60	2.93	2.90	3.07	-1.34	-0.20	0.46	4.33	6.98
UK	Current	4.05	3.77	3.64	4.02	0.39	0.14	0.63		
	3M Ago	3.42	3.26	3.33	3.70	0.31	0.00	0.30		
	6M Ago	3.38	3.55	3.56	3.62	-2.33	-0.13	0.24		
	12M Ago	1.63	1.62	1.87	2.08	-4.34	-2.71	-1.44		
Japan	Current	-0.07	0.02	0.30	1.20	-1.31	-0.63			
	3M Ago	-0.02	0.11	0.52	1.55	-1.33	-0.34			
	6M Ago	-0.06	0.02	0.24	1.31	-1.37	-0.81			
	12M Ago	-0.06	-0.01	0.22	0.95	-1.46	-0.85			
China	Current	2.28	2.51	2.78	3.17					
	3M Ago	2.30	2.57	2.87	3.31					
	6M Ago	1.93	2.30	2.68	3.15					
	12M Ago	2.21	2.47	2.83	3.36					
EM	Current	3.74	4.37	4.66	4.46	3.84	4.04	5.15	5.61	11.71
	3M Ago	3.59	4.30	4.76	4.57	3.11	3.37	5.25	5.52	10.25
	6M Ago	3.67	4.37	5.03	4.77	1.66	3.00	5.23	6.70	13.96
	12M Ago	3.49	4.30	4.85	4.95	1.88	2.93	4.94	4.58	10.52
Germany	Current	2.72	2.35	2.25	2.37	0.16	-0.06	-0.11		
	3M Ago	2.59	2.31	2.21	2.22	0.38	0.13	-0.09		
	6M Ago	1.94	1.95	2.07	2.22	-0.76	-0.35	-0.17		
	12M Ago	0.15	0.56	0.86	1.18	-2.14	-1.50	-1.01		
Italy	Current	3.36	3.49	3.97	4.45	0.80	1.65	1.83		
	3M Ago	3.17	3.42	3.92	4.29	1.18	1.87	1.85		
	6M Ago	2.82	3.30	3.95	4.36	0.25	1.64	1.84		
	12M Ago	0.82	2.13	3.00	3.54	-2.01	0.41	1.39		
France	Current	2.84	2.66	2.73	3.23	-0.06	0.17	0.58		
	3M Ago	2.71	2.58	2.64	3.01	0.24	0.30	0.52		
	6M Ago	2.15	2.20	2.44	3.02	-0.91	-0.16	0.46		
	12M Ago	0.32	1.18	1.67	2.35	-3.14	-1.32	-0.18		
Sweden	Current	2.89	2.59	2.31	0.00	0.71	0.73			
	3M Ago	2.50	2.27	2.05	0.00	-0.17	0.14			
	6M Ago	2.34	2.38	2.25	0.00	-0.59	-0.17			
	12M Ago	1.15	2.06	1.99	0.00	-1.48	-1.14			
Australia	Current	3.13	3.05	3.30	3.88	0.09	0.84	1.50		
	3M Ago	3.17	3.24	3.51	3.96	0.23	0.92	1.37		
	6M Ago	3.21	3.35	3.70	4.10	-0.01	1.05	1.67		
	12M Ago	2.31	3.78	4.05	4.30	0.09	1.32	1.94		
NZ	Current	4.89	4.15	4.08	4.23	0.95	1.61	0.00	0.00	0.00
	3M Ago	4.67	4.18	4.11	4.41	1.28	1.79	0.00	0.00	0.00
	6M Ago	4.31	4.28	4.18	4.44	1.43	2.04	0.00	0.00	0.00
	12M Ago	3.11	3.80	4.00	4.28	0.86	1.83	0.00	0.00	0.00
Canada	Current	3.55		2.83	2.94			1.26	4.84	7.37
	3M Ago	3.68		2.91	3.00			1.20	4.83	6.99
	6M Ago	3.81		3.29	3.35			1.38	5.42	7.60
	12M Ago	2.64		2.84	2.85			0.73	4.33	5.84

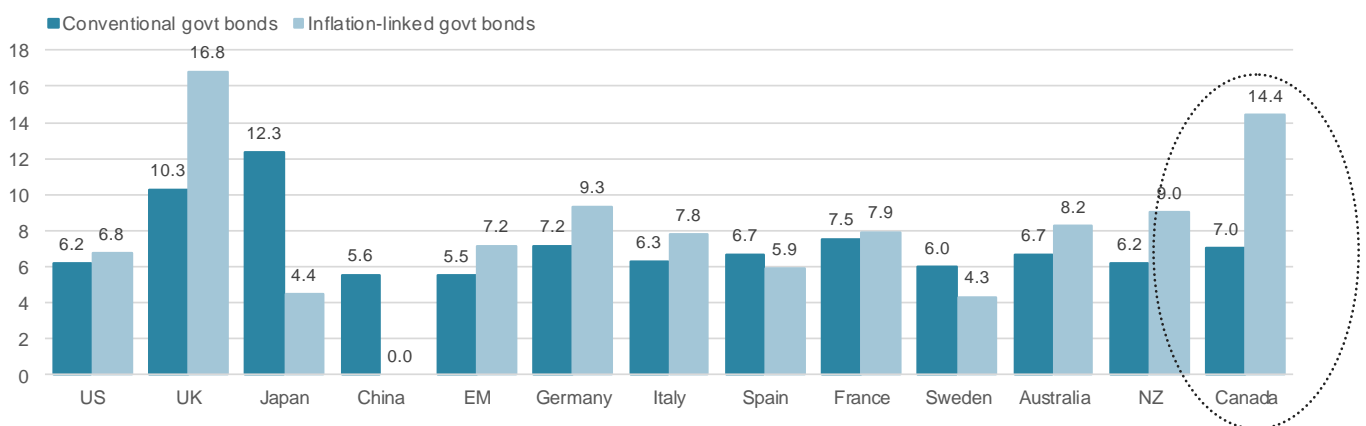
Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

Appendix – Duration and Market Value (USD, Bn)

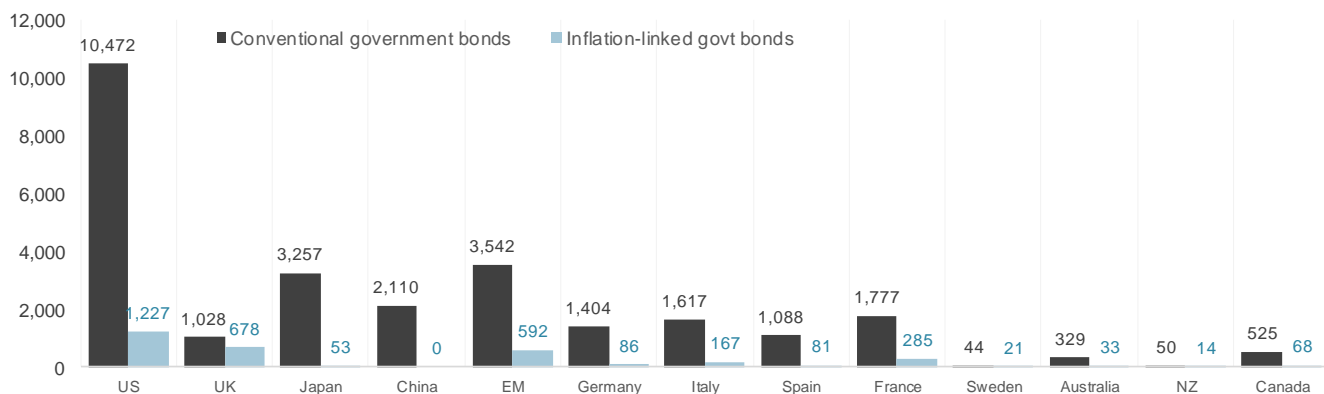
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.6	17.6	6.2	2,276.4	1,094.8	1,326.9	10,472.5	7.0	21.9	6.8	412.7	125.8	1227.4
UK	3.7	7.6	19.1	10.3	128.4	144.8	297.9	1,027.9	6.8	28.6	16.8	130.2	262.4	678.3
Japan	4.0	7.9	24.0	12.3	351.4	365.7	725.9	3,256.9	7.4		4.4	19.1		53.1
China	3.6	7.4	17.6	5.6	445.8	352.3	242.9	2,110.3						
EM	3.5	6.9	15.9	5.5	716.19	633.09	338.43	3,541.6	5.6	13.6	7.2	123.5	149.6	591.9
Germany	3.8	7.8	20.6	7.2	301.47	213.64	152.49	1,403.7	6.7	22.1	9.3	31.0	19.2	86.2
Italy	3.7	7.3	16.4	6.3	317.51	248.17	146.35	1,617.4	6.6	26.6	7.8	55.9	5.5	167.4
Spain	3.6	7.4	17.4	6.7	211.49	192.08	104.18	1,087.8	7.1		5.9	22.7		81.2
France	3.6	7.6	20.1	7.5	342.31	355.24	214.42	1,776.7	6.9	24.6	7.9	103.0	20.7	285.4
Sweden	3.4	7.9		6.0	7.78	9.28		44.3	6.1		4.3	9.9		21.3
Australia	3.5	7.7	18.1	6.7	55.88	90.14	16.22	329.4	7.4	22.8	8.2	9.7	2.8	33.2
NZ	3.3	7.2	17.6	6.2	9.03	9.31	2.48	50.0	6.5		9.0	3.2		14.2
Canada		7.3	16.9	7.0		166.20	111.10	524.5		14.4	14.4		68.4	68.4

	Investment grade bonds						High Yield					
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	11.2	8.7	7.3	6.9	7.2	75.7	454.0	2,530.7	3,387.0	6,447.5	4.1	1,148.6
Euro	6.1	5.0	4.7	4.3	4.5	10.6	186.9	1,135.3	1,487.3	2,820.0	3.1	432.9
EM		5.8	4.9	5.0	5.0		44.41	224.75	346.1	615.3	3.3	191.9

Average Duration



Total Market Value (USD Billions)



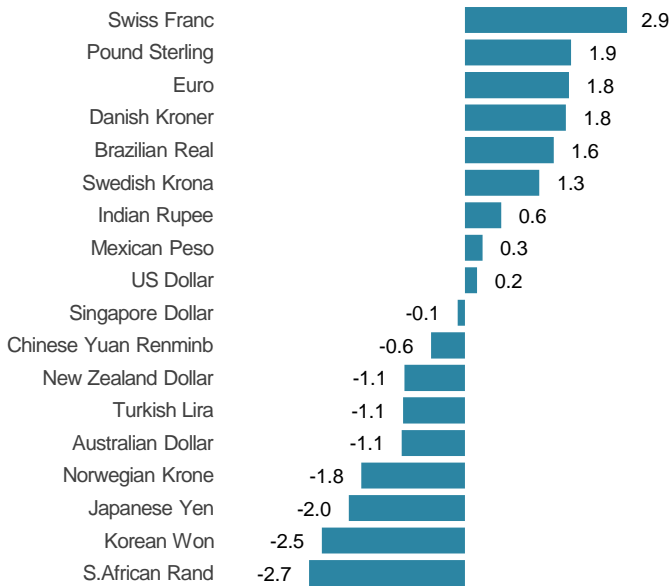
Data as of 2023-04-28

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

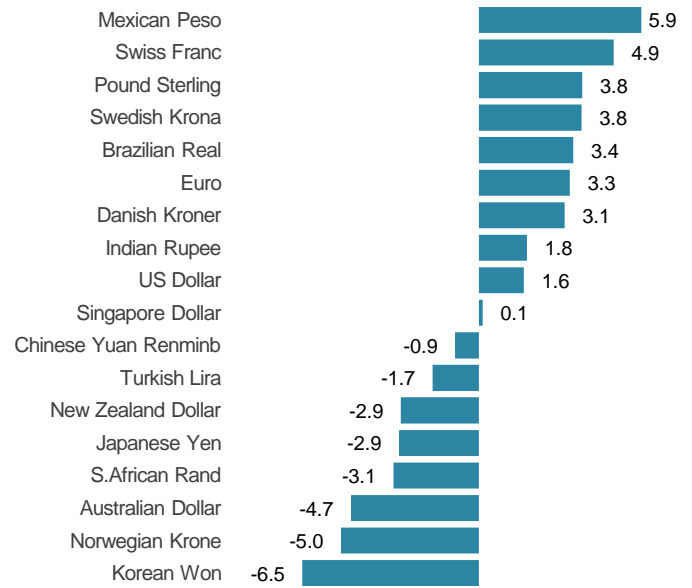
Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indexes used for each market. For professional investors only.

Appendix – Foreign Exchange Returns % as of April 30, 2023

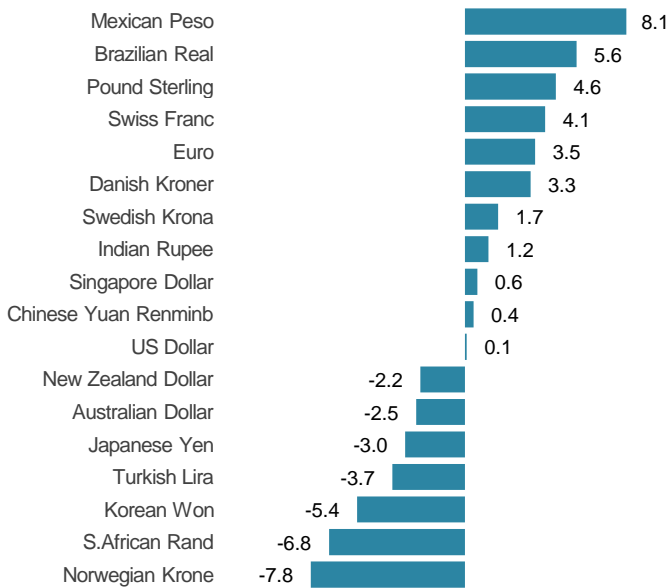
FX Moves vs CAD - 1M



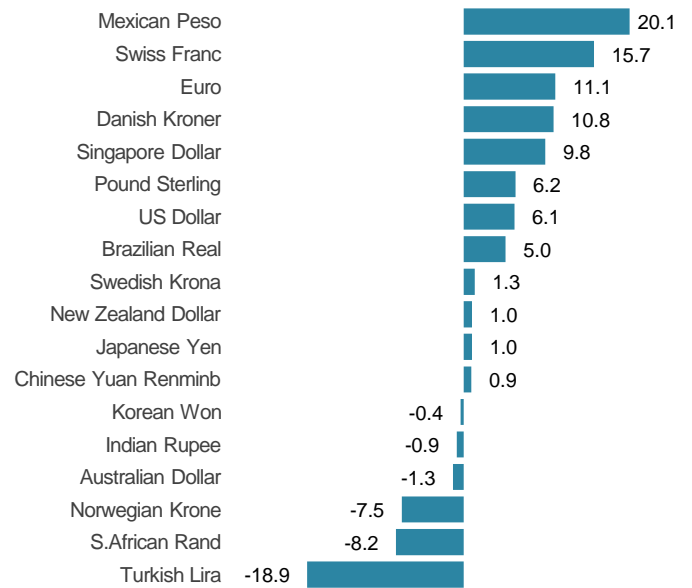
FX Moves vs CAD - 3M



FX Moves vs CAD - YTD



FX Moves vs CAD - 12M



Source: FTSE Russell and Refinitiv. All data as of April 30, 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 – Glossary

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

Total Returns

Growth/Inflation

Financial Conditions

Govt. Bonds

Corporate Bonds

Spreads

Inflation-Linked

Credit/Equities

Appendix



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