

Fixed Income Insights

MONTHLY REPORT - SEPTEMBER 2023 | CANADA EDITION

FOR PROFESSIONAL INVESTORS ONLY

Canadian yields rise after inflation bounce re-ignites fears of new rate hikes

Canadian bond market focus shifted to stronger growth in August, as yields rose. Robust consumption and tight labour markets drove inflationary pressures to remain persistent for services. Long Canadian bonds repriced to higher policy rates. In a higher yield world, income and carry optimisation may supplant duration.

Macro and policy backdrop – As inflation eases, the focus shifts to G7 growth and stronger nominal GDP

Central banks leave options open to tighten again, as recession risks recede. Chinese debt-deflation risks remain. (page 2)

Canadian govts and credit – The Canadian yield curve modestly dis-inverted, but negative carry still dominant

Some signs of dis-inversion in August as longer yields rise, but the Canadian curve remains deeply inverted. (pages 3-4)

Global yields and spreads – Are markets beginning to adjust to a new era of higher rates?

G7 7-10-year yields have trended higher in August, as markets price in the prospect of higher rates for longer, despite lower Q3 inflation. (pages 5-6)

Sovereign and climate bonds – Climate WGBI has a higher AAA exposure vs WGBI due to Bunds

Climate WGBI's higher weighting in the Eurozone gives the index higher AAA weight, but the lower US weighting in climate WGBI means the AA weight is notably lower. China's low climate WGBI weight reduced impact of lower yields (page 7)

Performance – Longer duration sovereigns fell in August, and high yield outperformed

Duration proved the enemy again in August, as curves dis-inverted, and long ends repriced to higher policy rates. (pages 8-10)

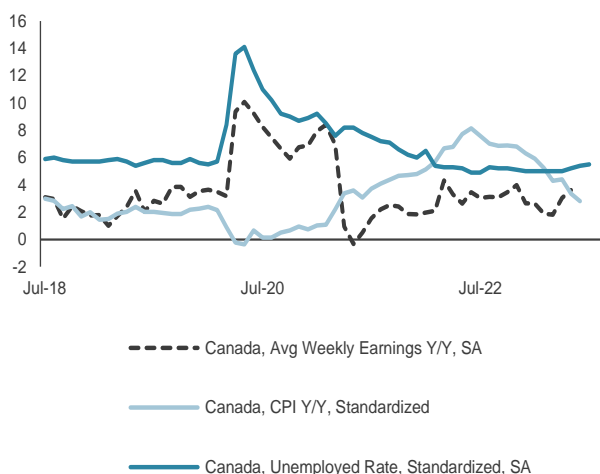
Appendix (from page 11)

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

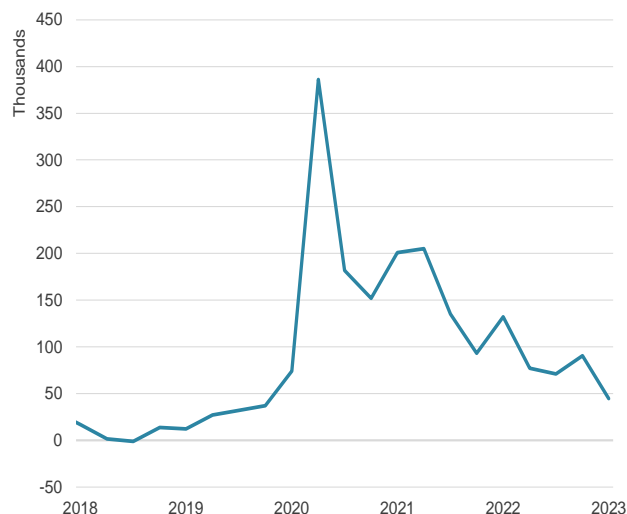
Chart 1: Tight Canadian labour markets due to low unemployment have driven wage growth higher and underpinned higher inflation.

Chart 2: Canadian personal savings are returning close to pre-Covid levels, sustaining consumer spending on services.

Canada wage growth, inflation and unemployment rates



Canadian household net saving



Source: FTSE Russell and LSEG. Latest data available as of August 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

While the Canadian economy is cooling, robust consumer spending, underpinned by high employment and Covid savings windfalls, is keeping inflation “higher for longer”, increasing the risk of a further rate rise in September. The BoC’s balance sheet is contracting quickly, as QT continues. Consensus Forecasts show G7 growth revised modestly higher for 2023.

G7 recessions have disappeared from 2023 Consensus forecasts (Chart 1), after improved Q2 GDP readings. Consumer spending has been underpinned by high levels of employment and real income growth recovering. Chinese growth forecasts carry most uncertainty, after a weak Q2, as property woes persist, and Chinese consumers show increased caution.

Canadian inflation jumped to 3.3% y/y in July from 2.8% y/y in June, prompting the BoC to revise higher its inflation forecast of around 3.0% in 2024, before easing to the 2% target in the middle of 2025. US and Japan have similar y/y CPI levels of 3.2% and 3.3% respectively. China remains the inflation outlier, with negative inflation, despite further policy easing (Chart 2).

Chart 3 shows central banks are willing to continue raising interest rates to secure low inflation regimes, as recession risks recede.

Since the end of December 2022, the Bank of Canada’s total assets have decreased by 13% to US\$357,506 million as at June 30, 2023, after it stopped reinvestment and began quantitative tightening (where maturing bond holdings are not replaced).

Chart 1: August Consensus real GDP expectations for 2023 remained unchanged for Canada, with growth expectations modestly revised upward in the US, UK and Eurozone.

Latest Consensus Real GDP Forecasts (% , August 2023)			
	2022	2023	2024
US	2.1	1.9	0.9
UK	4.1	0.3	0.5
Eurozone	3.3	0.6	0.9
Japan	1.6	1.8	0.9
China	3.0	5.5	4.8
Canada	3.5	1.3	1.0

Chart 2: Despite significant declines in inflation rates in 2023, levels remain well above target. China entered deflation as the economy struggles to recover from Covid lockdowns.

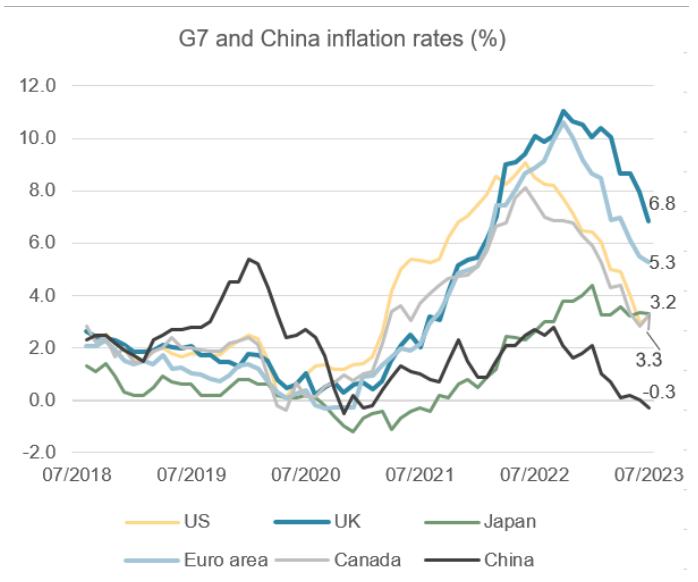
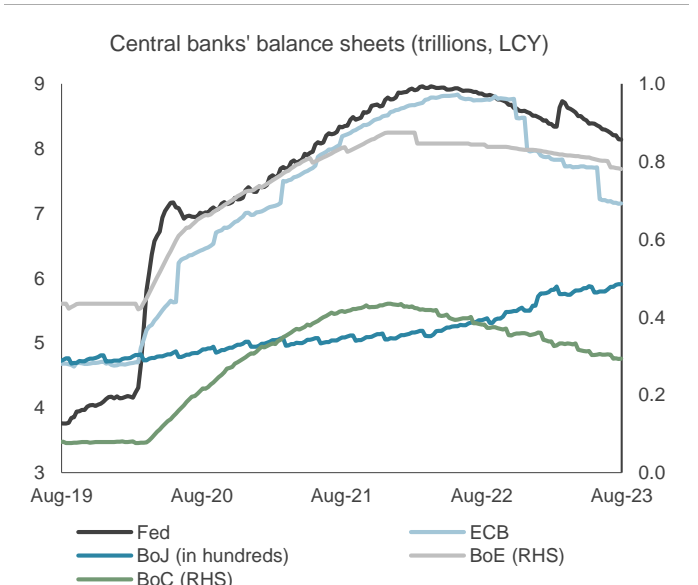
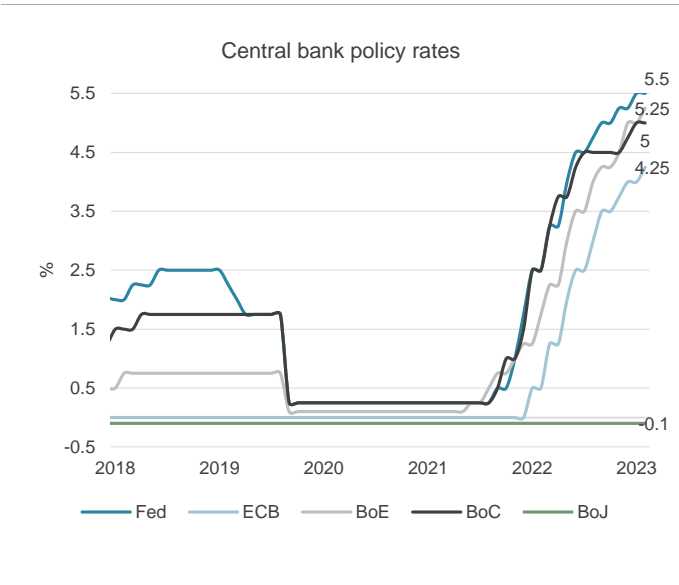


Chart 3: Central banks (ex the BoJ and PBoC) remain reluctant to rule out further rate rises, as they seek to recover low inflation regimes, even if this raises the risk of doing too much, too late.

Chart 4: Both the BoC and ECB have seen large falls in their balance sheets in 2023. By contrast, that of the BoJ grew as it soaks up JGBs for yield curve control purposes.



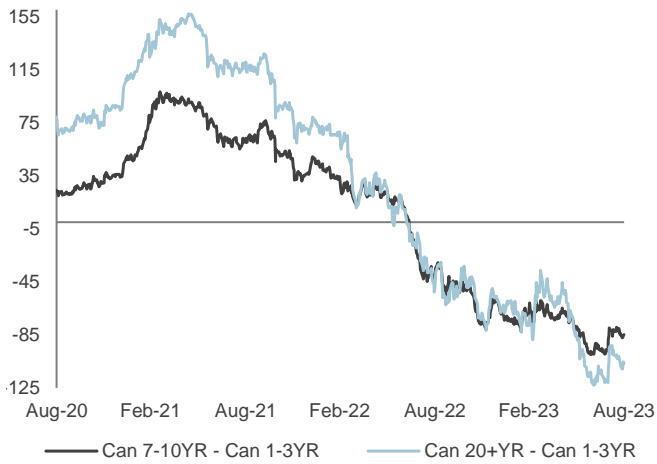
Source: FTSE Russell and Refinitiv. Latest data available as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each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

Canadian Governments, Provinces and Municipalities

Chart 1: 20/2s Canadian yield curves continued to trade through 10/2s, with curve inversions signalling recession and at odds with positive Consensus growth estimates in 2023.

Chart 2: 7-10 year Canadian government bond spreads remained tighter and negative versus US and UK spreads in August, while they widened versus those in Japan and Germany.

Canada govt yields: longs and mediums vs shorts



7-10yr Canadian sovereign spreads vs G7

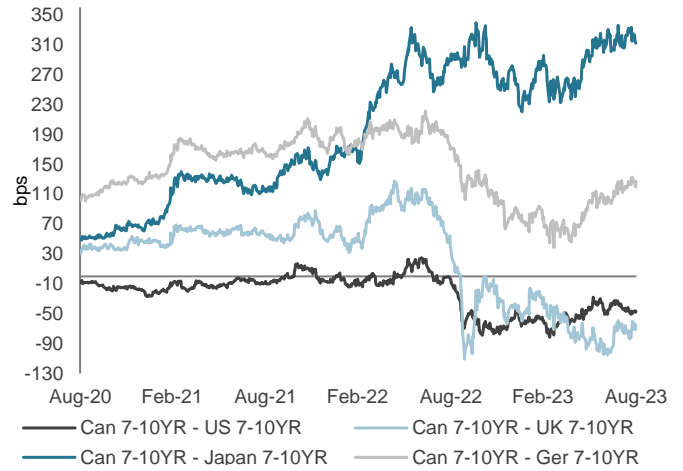
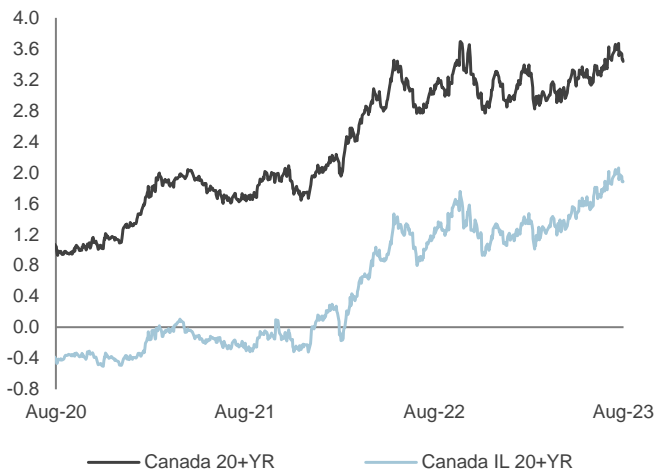


Chart 3: Long Canadian real return yields tracked nominal yields higher in August, before they eased, after m/m inflation rose by 0.5% in July, causing markets to reprice for higher rates.

Chart 4: Evidence of inflation expectations easing is more visible in long Canadian breakevens, which have decoupled from G7 peers. German and US breakevens are close to converging.

Long-dated Canadian nominal and real yields



Selected longer dated inflation breakevens

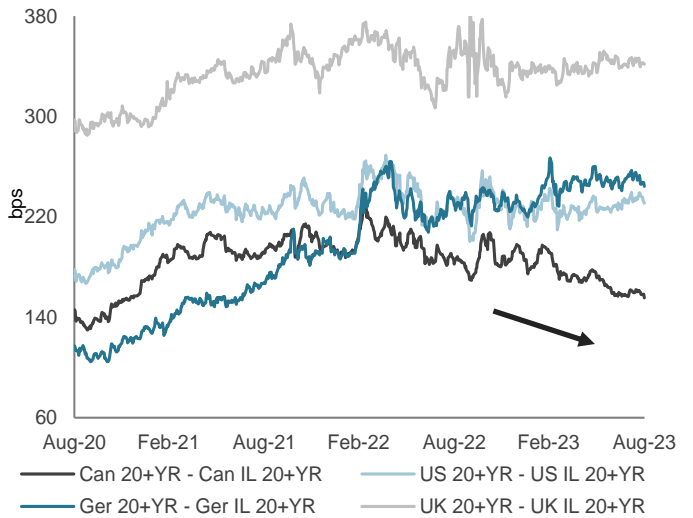
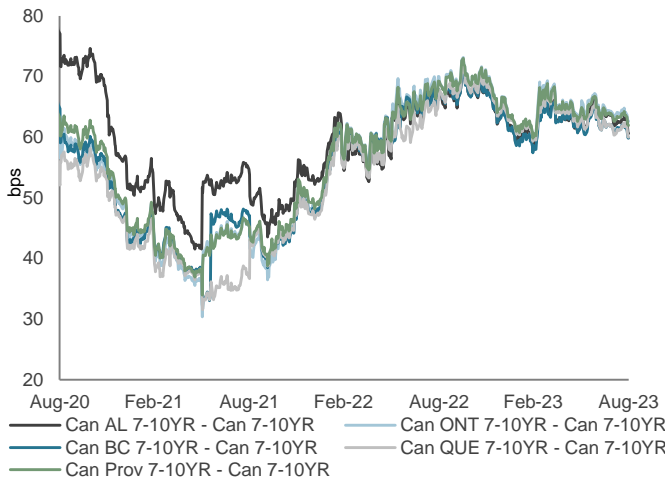


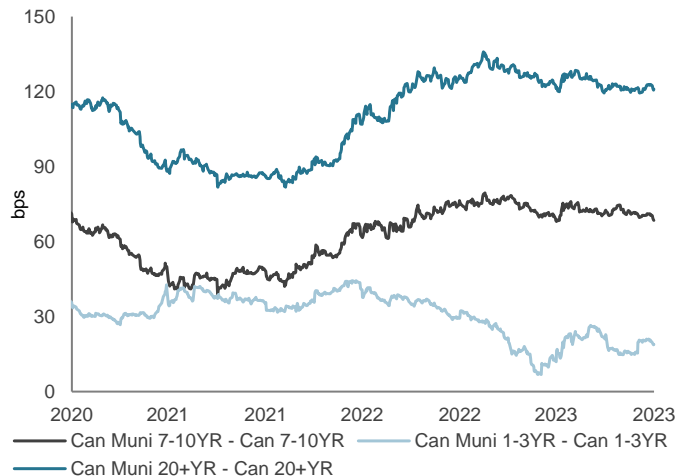
Chart 5: Provincial spreads have flatlined, remaining close to 65bp versus 7-10 year Canadian government peers, with no noticeable spread widening after the BoC rate hike in July.

Chart 6: Short muni spreads have been more volatile than their longer peers in 2023 as rates rose. Despite widening modestly in August, they remain noticeably tighter vs 10yr and 20yr spreads.

Selected 7-10 year Provincial spreads



Duration matched Municipal spreads



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Canadian Corporate Bonds

Chart 1: US and Canadian HY credit yields have remained below their 2020 peaks, despite rate increases, unlike investment grade credits, which have remained close to their 2022 peaks.

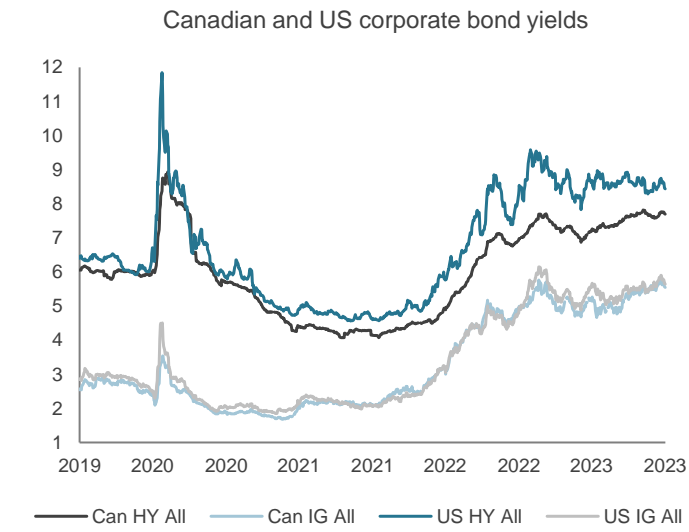


Chart 2: Canadian infrastructure spreads have decoupled from sector peers, after continuing to fall in August. Real estate spreads have remained close to their 2022 peaks.

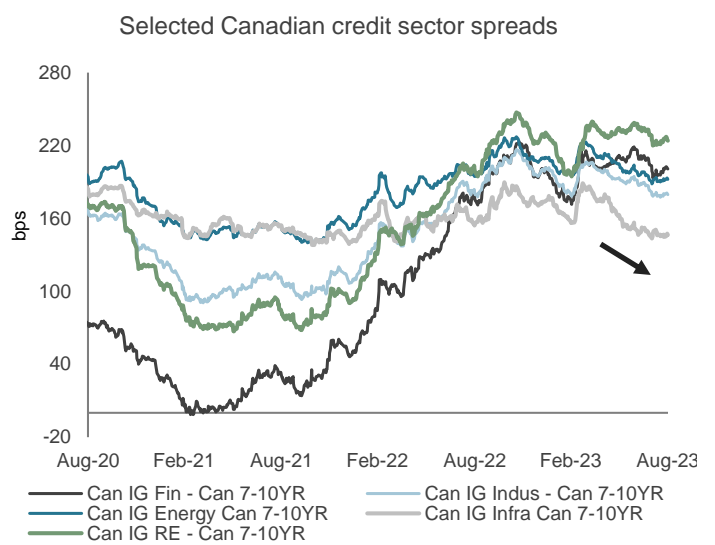


Chart 3: Canadian high yield spreads have been less volatile than US high yield credits, and appear close to converging as government bond spreads widen on higher interest rates.

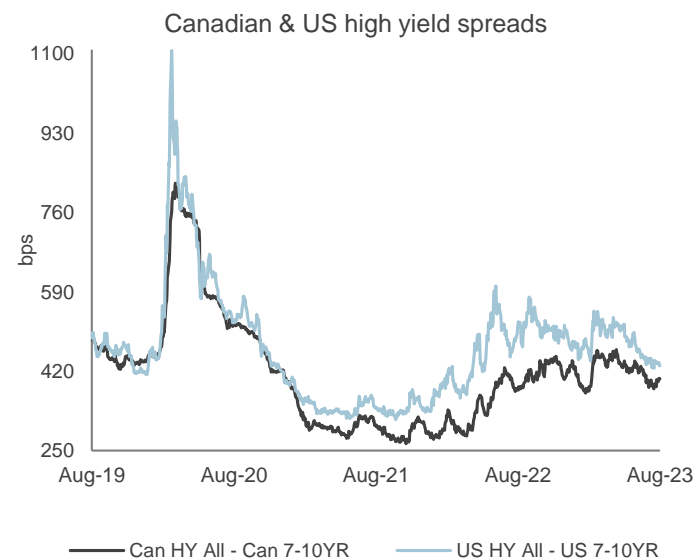


Chart 4: AAA spreads have been hit hardest in the period of rising government bond yields, with spreads near Covid highs and converging with their lower A-rated equivalents in August.

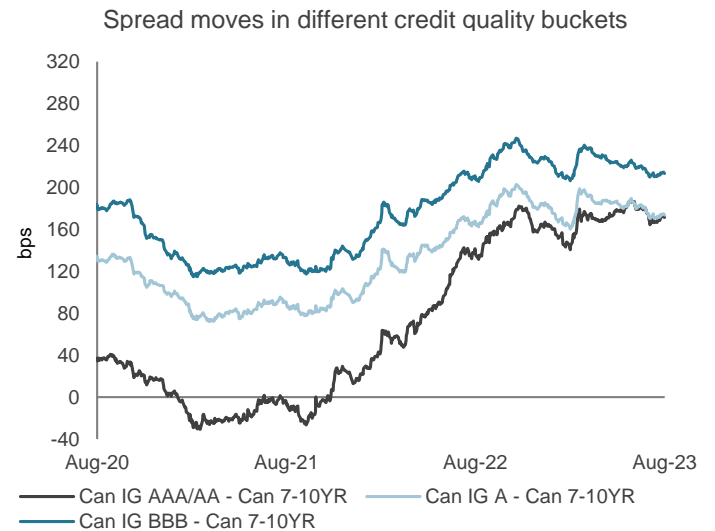


Chart 5: Lower quality Canadian credit spreads have benefited from the equity/risk rally YTD and have barely increased in the last year, unlike AAA-rated spreads, which are 33bp wider.

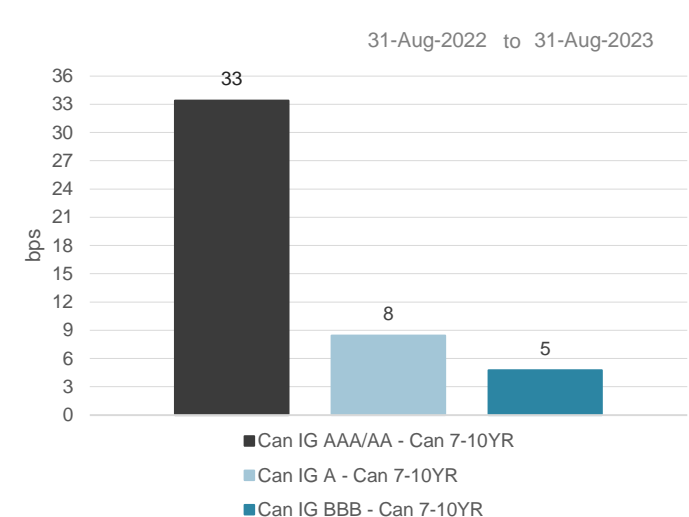
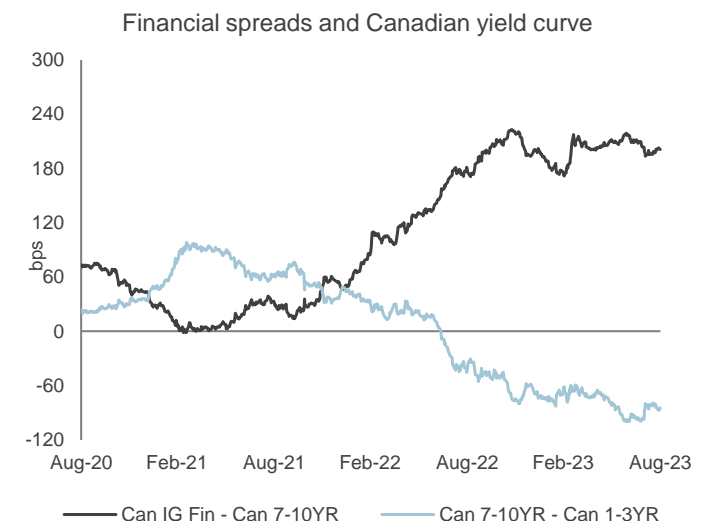


Chart 6: Financial spreads remained relatively stable in 2023, as the degree of inversion in the government yield curve stabilised, with some modest dis-inversion on higher rate expectations in Q3.



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Global Yields, Curves and Spread Analysis

Chart 1: US, Canadian and UK 7-10-year yields rose sharply in August, before easing a little, after central banks confirmed core inflation could still warrant another rate hike to combat inflation.

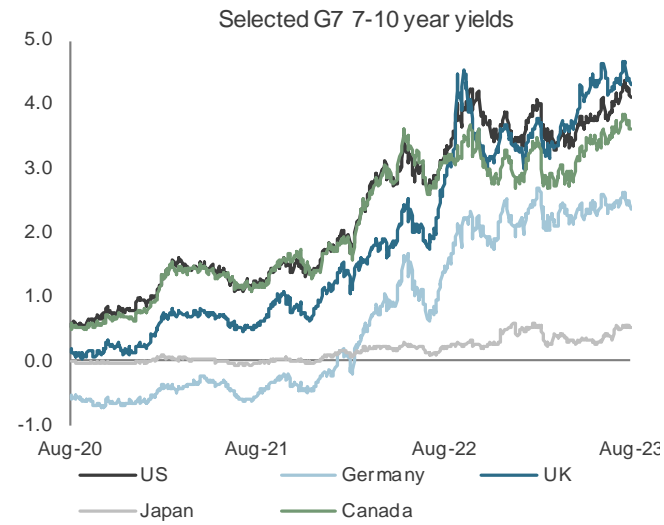


Chart 2: Real yields mostly edged higher in August, as real growth proved resilient, and central banks signalled no early respite on rates. This makes an ECB pause less likely in September.

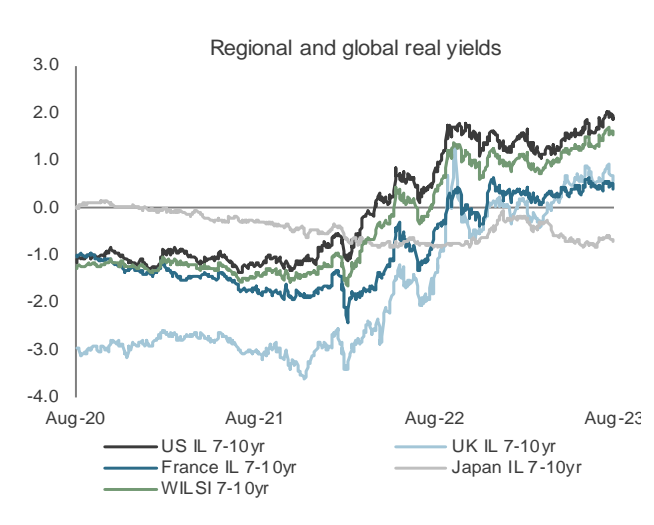


Chart 3: Yield curves dis-inverted somewhat, as longer yields rose. This may suggest markets are adjusting further to the end of zero rates. The JGB curve steepened on BoJ flexing of curve control.

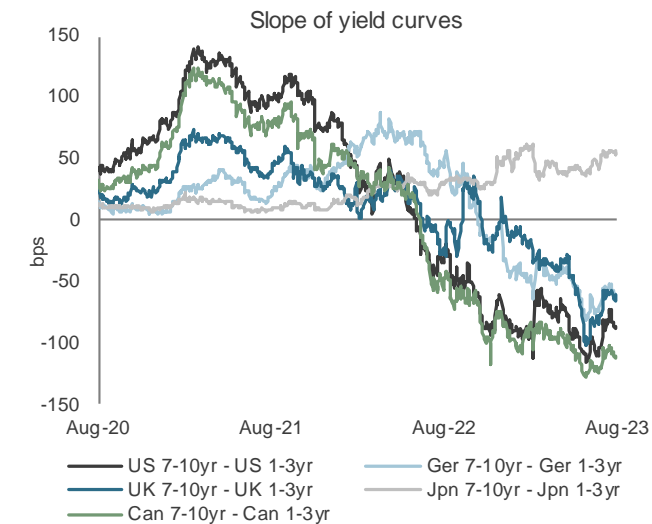


Chart 4: Long end yields also rose, as investor concerns about re-investment risk eased, on the view yields may now have entered higher trading ranges. However, curves remain inverted, ex JGBs.

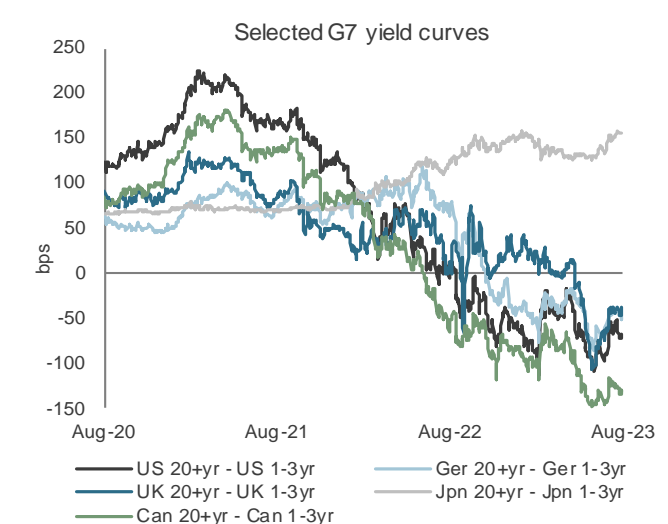


Chart 5: WGBI breakevens edged lower in August, but JGB breakevens increased, as inflation linked bond yields rose less than

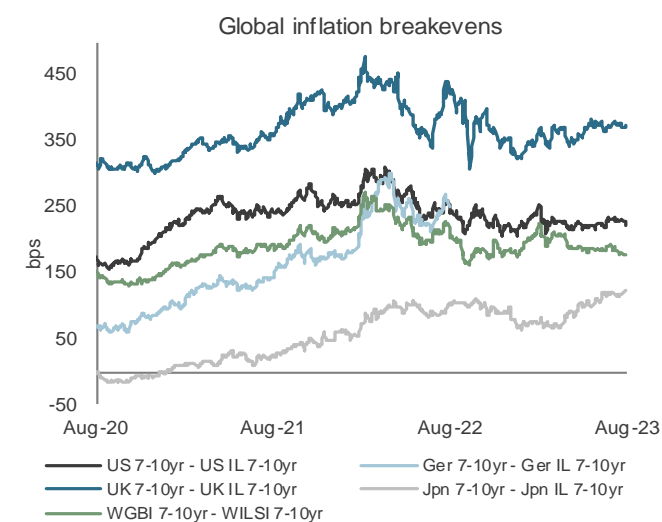
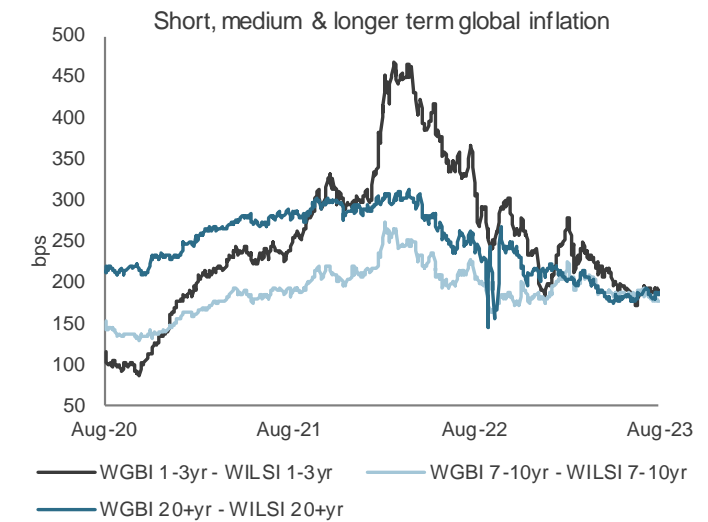


Chart 6: Overall, global inflation breakevens of all tenors remain stable around 2%, after a period of higher short-dated breakevens,



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Yield Spread and Credit Spread Analysis

Chart 1: US Treasuries led global yields higher in August, spooked by stronger Q3 US growth, with spreads widening accordingly. Apart from v JGBs & gilts, US spreads returned to pre-Covid levels.

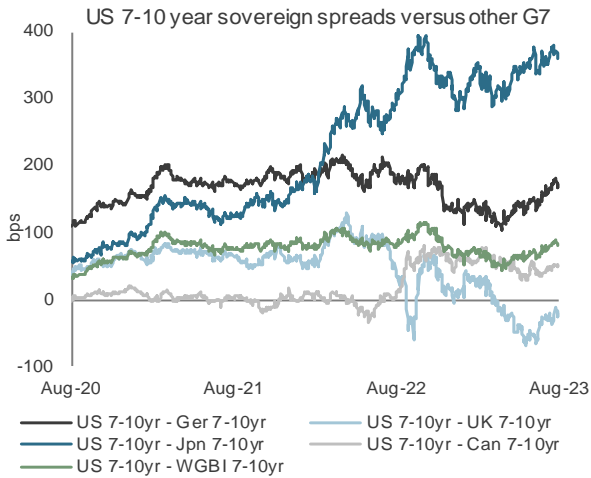


Chart 2: Italian sovereign spreads fell further in August, continuing the decline of recent months, helped by increased foreign investment, and the continuing decline in the debt/GDP ratio.

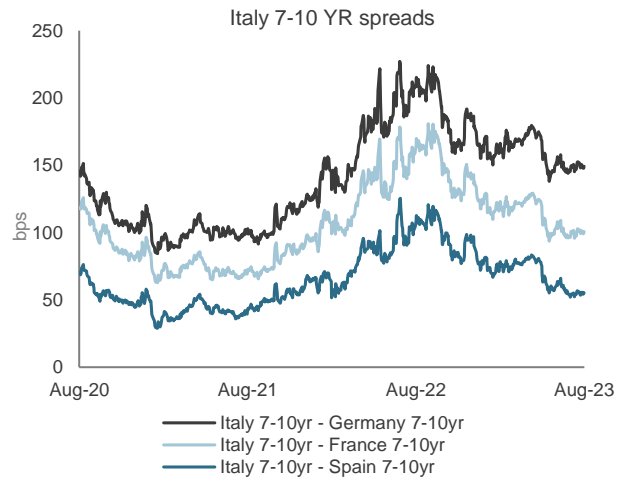


Chart 3: EM sovereign spreads remain near multi-year lows, reflecting EM success in early counter-inflation measures in 2021-22, and QE support during the initial Covid crisis in 2020.

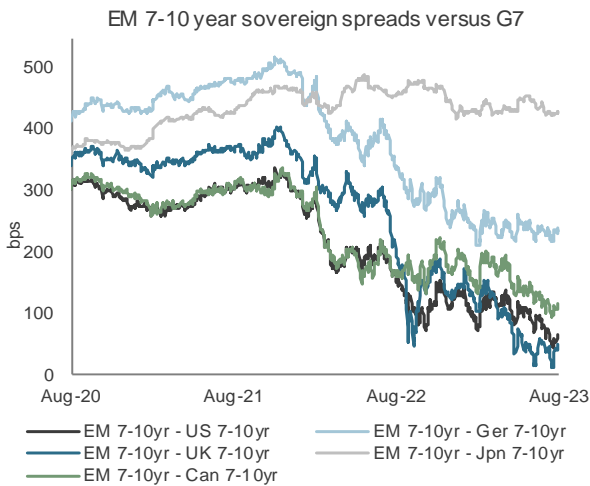


Chart 4: China's strong negative correlation with G7 yields continues, as concern about debt-deflation drove Chinese yields lower in August, while stronger growth drove G7 yields higher.

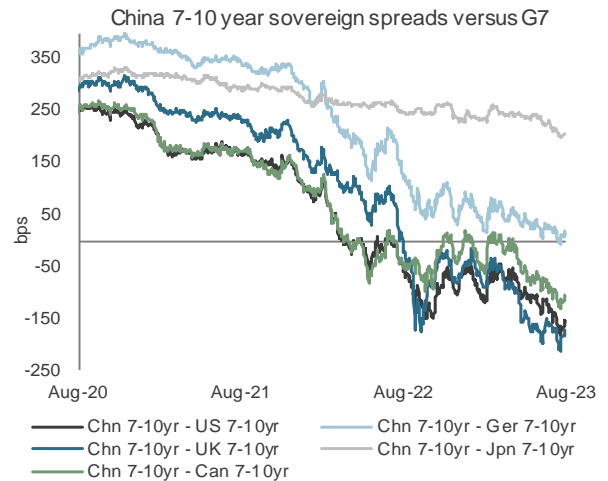


Chart 5: US high yield (HY) outperformed in August, as spreads tightened, and Eurozone HY spreads flat-lined. Closer correlation of IG credit with govt bonds has meant more stable IG spreads.

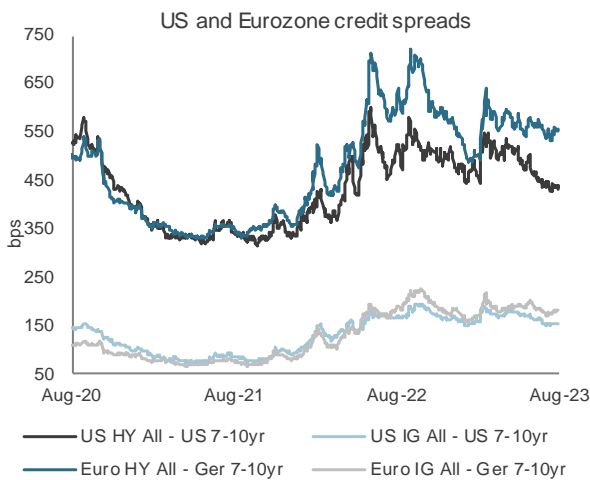


Chart 6: Chinese \$ HY spreads surged back to November highs, completely reversing the Q1 tightening. Widening spreads did not reflect the easier PBoC mortgage policies unveiled in late August.



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Sovereign and Climate Bonds Analysis

Chart 1: Climate WGBI outperformed WGBI during the years of very low yields, helped by extra duration, but this reversed in 2022, when duration squeezed returns hard. This has stabilised in 2023.

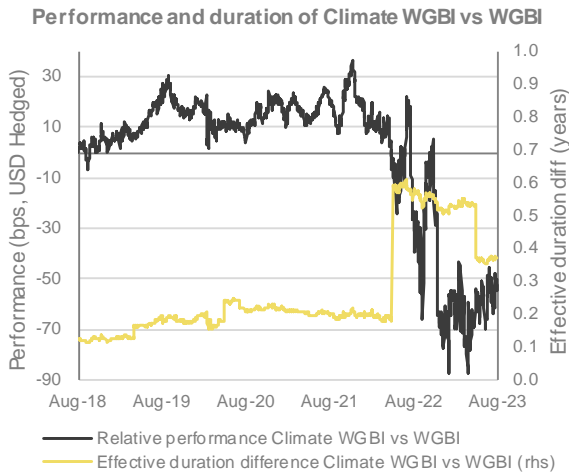


Chart 2: US underweight in Climate WGBI (CW) fell in July's re-weighting, reducing the duration difference vs WGBI & China's 15% underweight prevented lower Chinese yields impacting significantly.

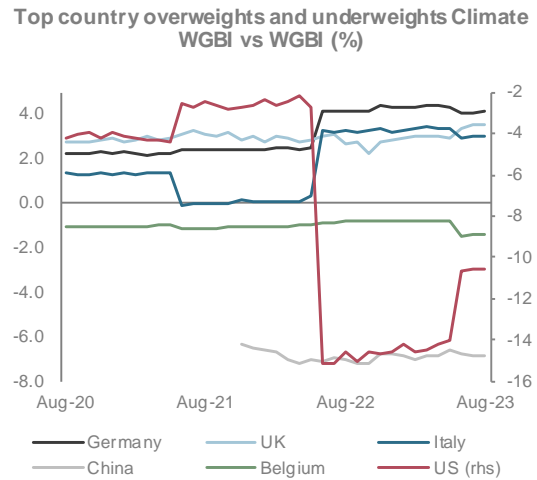


Chart 3: Climate WGBI yields remain below WGBI, though the differential narrowed after the increase in JGB yields since curve control was eased, due to Japan's high weight in the climate WGBI.

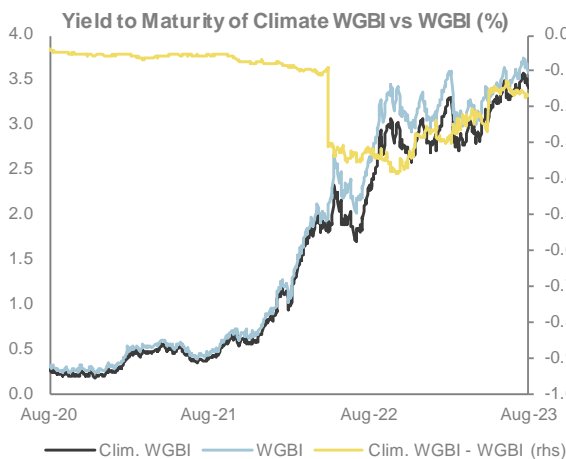


Chart 4: Climate WGBI's higher weighting in the Eurozone gives the index higher AAA weight, with Bunds rated AAA, the lower US weighting in climate WGBI means the AA weight is notably lower.

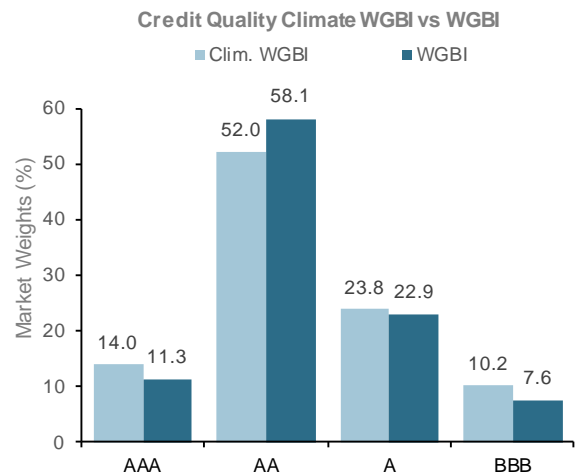


Chart 5: Although curves dis-inverted a little in August, with longer yields rising, yields remain close to 3% in both WGBI and Climate WGBI in 2023, eliminating most of the "greenium" in Climate WGBI.

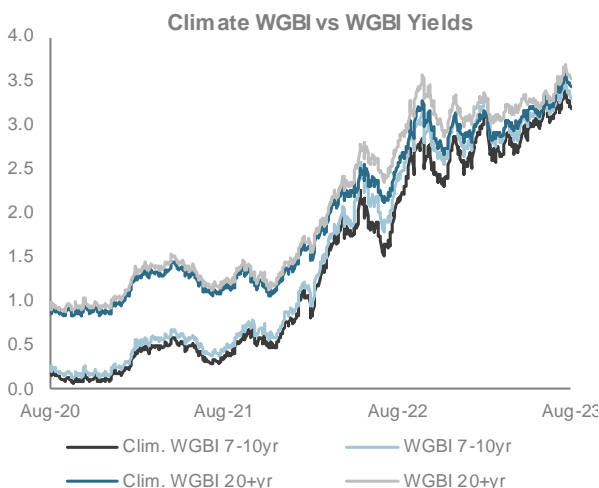
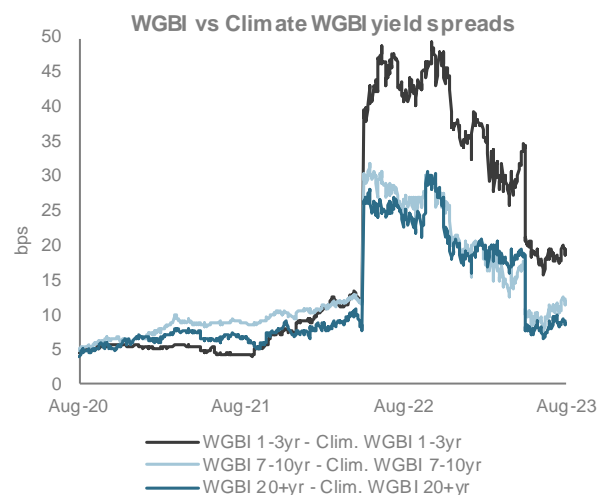


Chart 6: The "greenium" or yield discount on Climate-WGBI increased when Japan's weight rose, and the US fell, in 2022. But this may unwind further as BoJ curve control is eased.



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Global Bond Market Returns – 1M & YTD % (CAD, LC, TR) as of Aug 31, 2023

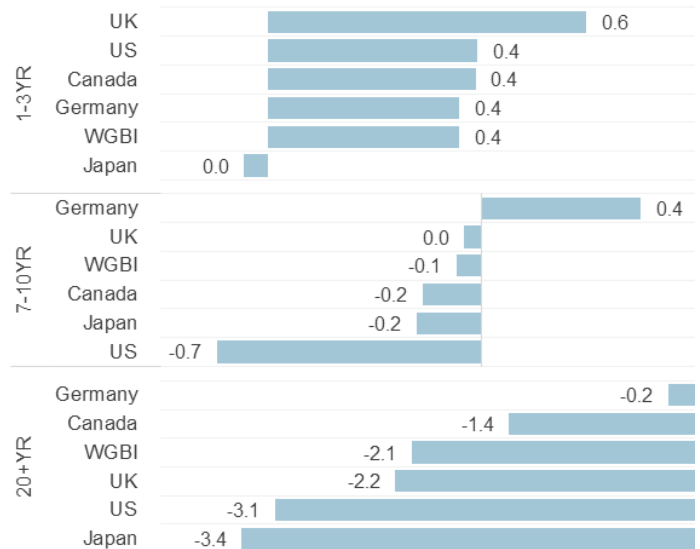
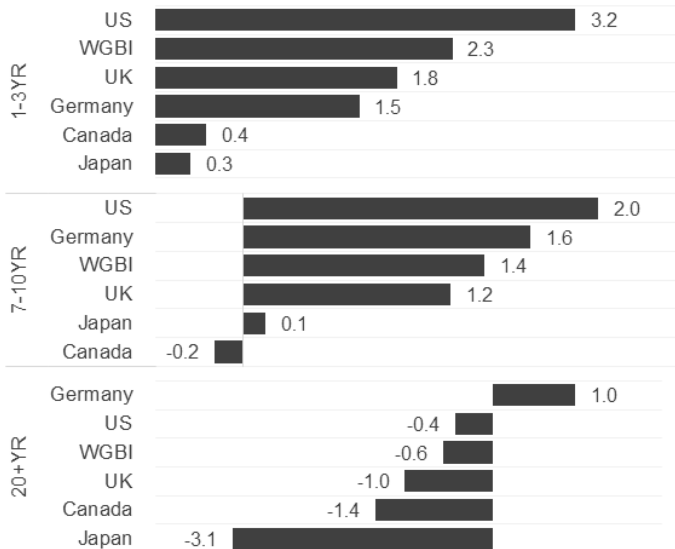
Short government bond yields edged lower in August, despite inflation upticks in some economies, and central banks warning of possible further rate hikes. Canadian government bond returns were flat or lower in August, especially in long bonds. Long real return bonds followed nominals bonds lower, extending the negative returns seen since January.

Long Canadian government bonds lost about 1% in August, while short and medium US conventional bonds outperformed. Since January, yen weakness added to the negative returns of JGBs, resulting in a loss of about 9%.

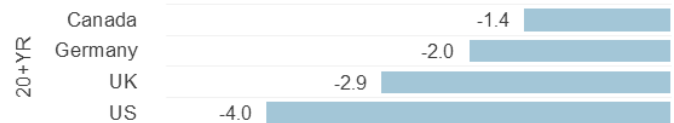
CONVENTIONAL BONDS

1M CAD

1M LCY



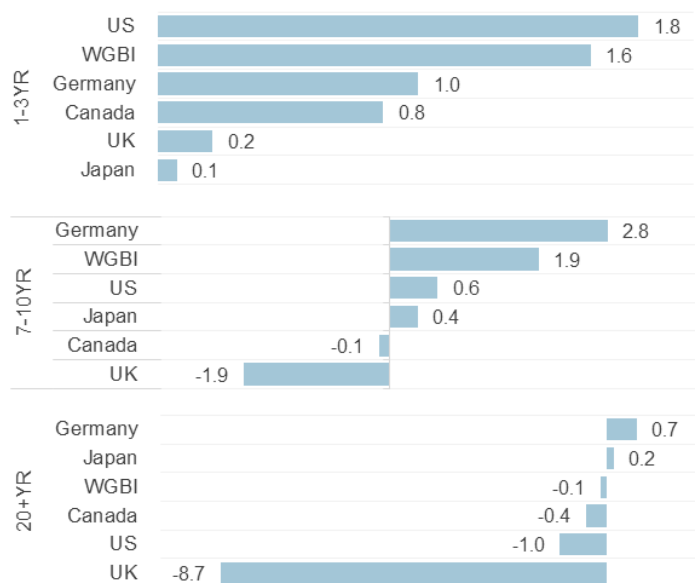
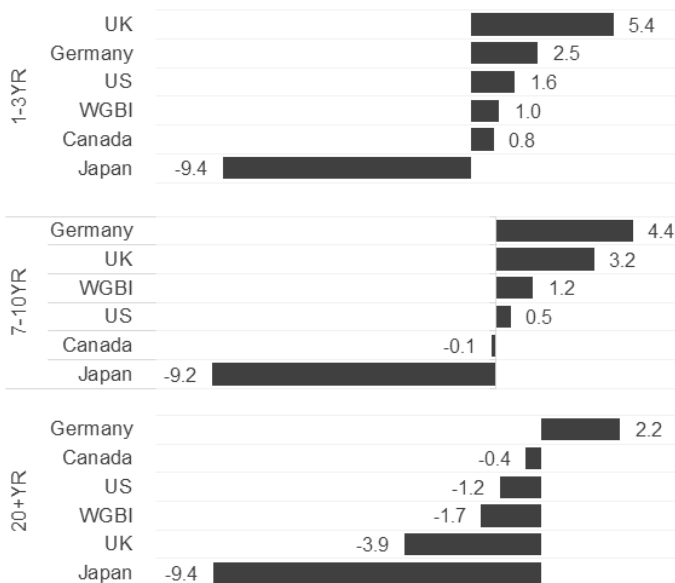
INFLATION LINKED BONDS



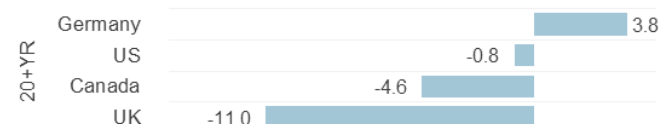
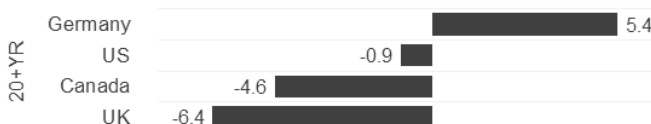
CONVENTIONAL BONDS

YTD CAD

YTD LCY



INFLATION LINKED BONDS

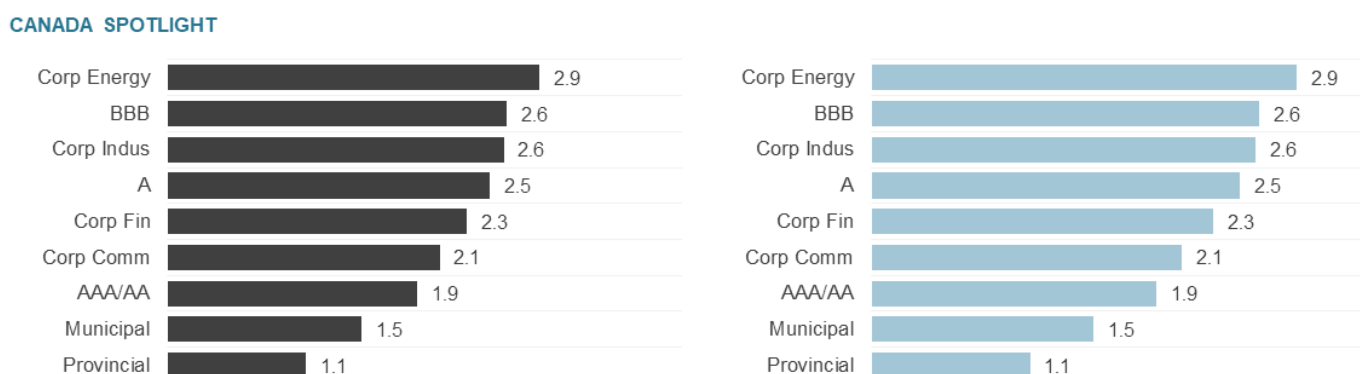
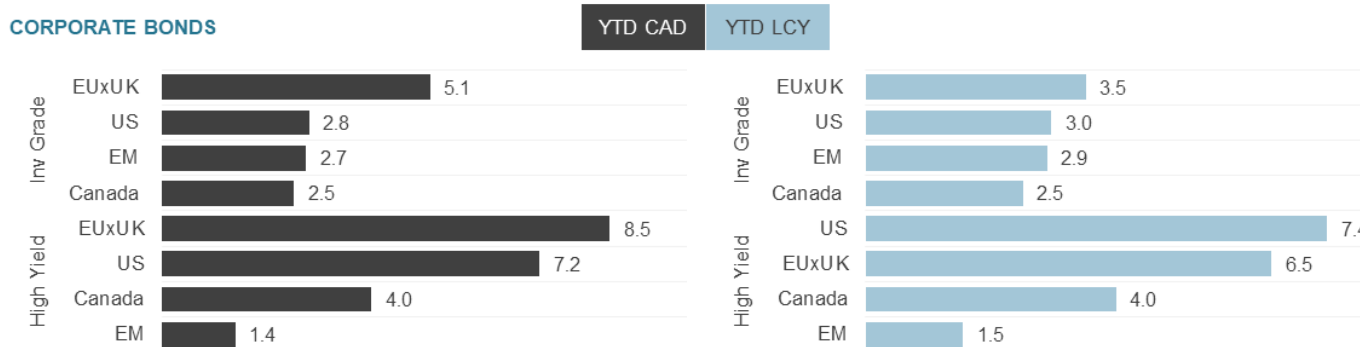
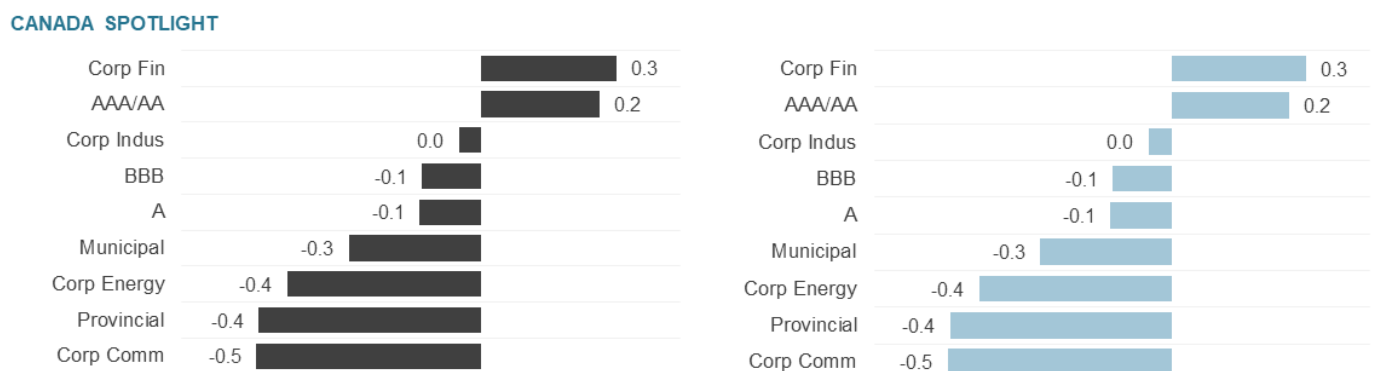
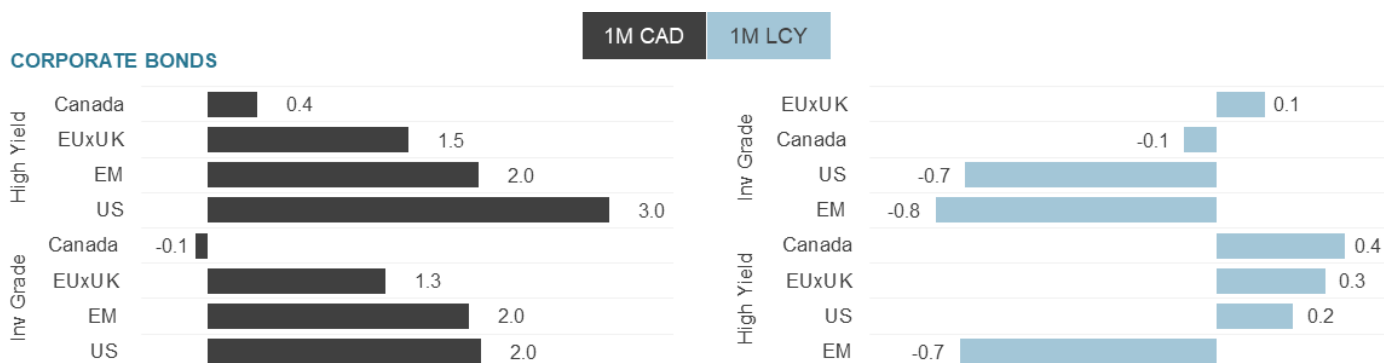


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Corporate Bond Returns – 1M & YTD % (CAD, LC, TR) as of Aug 31, 2023

Corporate bond performance was mixed in August after economic data painted a mixed picture of the global economy, though high yield outperformed. The weaker Canadian dollar helped overseas returns turn positive in August in the US, Eurozone, and EM credits. Canadian credits were modestly negative or flat overall in August.

Provinces and municipal bonds fell marginally in August, while Euro, US and EM corporate bond returns were boosted by the weaker Canadian dollar. YTD, US and Eurozone high yield credits have benefited from equity market rallies and returned 7-9%.



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 Aug 31, 2023

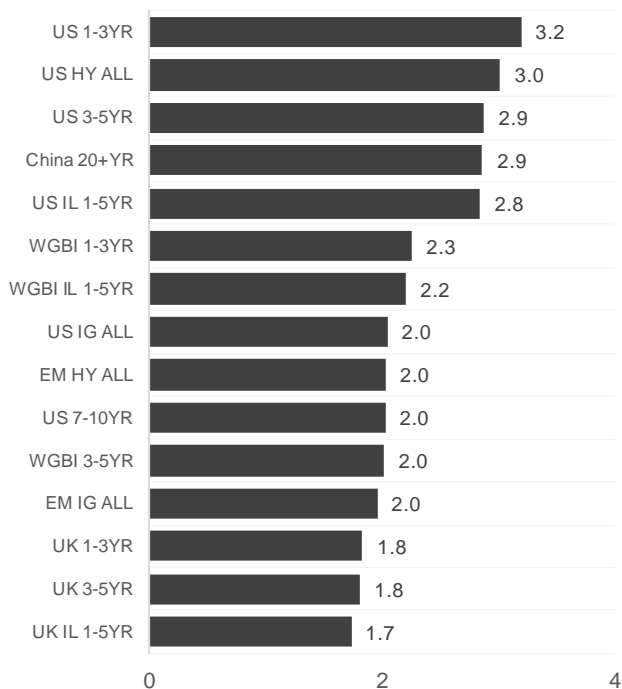
Short US government bonds and high yield credit, and long Chinese governments took the top spots in the performance table in August, while EM sovereigns, European peripherals and Euro HY have retained their top positions YTD. Long governments, including Canada, underperformed in August, while UK IL bonds are still down 20%, on 12M.

Long Canadian real return bonds were in the Bottom 15 performers in August with other long sovereigns with losses of 1-3%. Short US governments, long Chinese governments and US HY registered positive returns of about 3% in Canadian dollars.

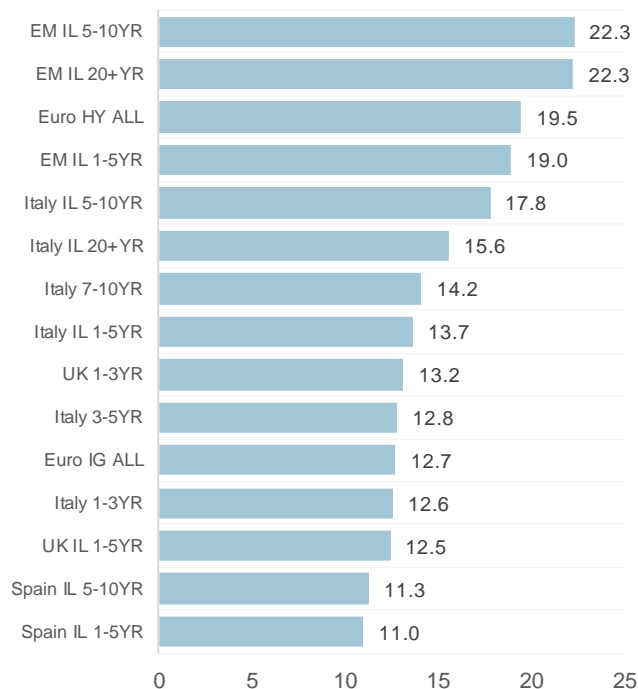
On 12M, EM inflation-linked bonds, Italian government bonds and European corporates outperformed, with gains of 13-22% in Canadian dollar terms. UK index-linked bonds were down 20% and continued to be the worst performing fixed income assets.

1M CAD 12M CAD

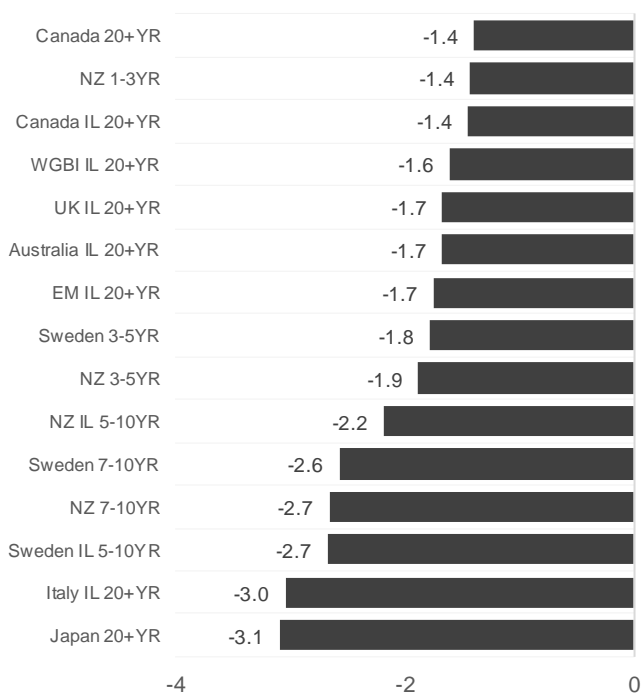
Top 15



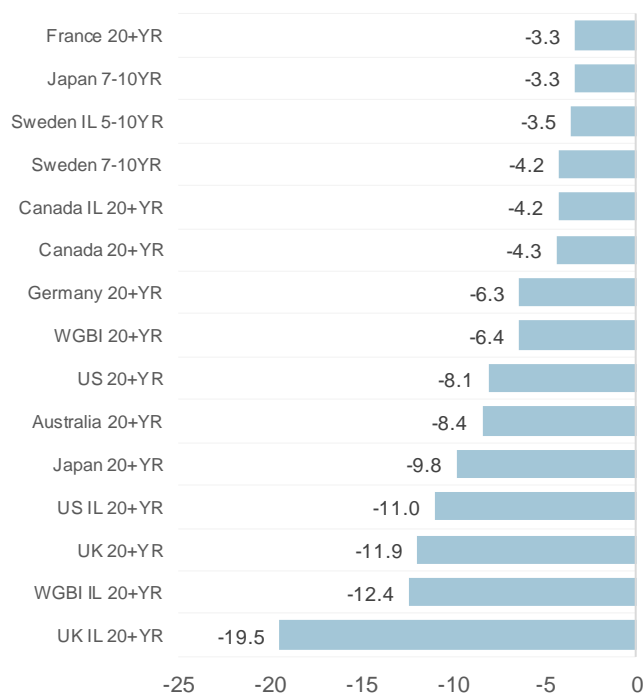
Top 15



Bottom 15



Bottom 15



Source: FTSE Russell. All data as of August 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%

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
Government	1-3YR	-0.15	0.32	0.60	1.23	0.84	0.99	1.29	-1.96
	7-10YR	-2.15	-1.69	-0.36	0.26	-0.14	0.01	-0.43	-3.62
	20+YR	-4.09	-3.64	-2.01	-1.40	-0.45	-0.30	-4.33	-7.39
Inflation-Linked	20+YR	-4.13	-3.68	-3.64	-3.03	-4.61	-4.47	-4.24	-7.31
Corporate	1-3YR	0.36	0.83	1.10	1.73	2.18	2.33	3.02	-0.28
	7-10YR	-0.75	-0.28	0.76	1.39	1.93	2.08	2.50	-0.78
	20+YR	-1.22	-0.76	1.19	1.83	3.57	3.73	1.51	-1.74
AAA/AA	1-3YR	0.21	0.68	0.96	1.60	1.86	2.01	2.50	-0.78
	7-10YR	-0.94	-0.47	-0.04	0.59	0.95	1.10	1.34	-1.91
	20+YR	-1.74	-1.28	0.36	0.99	3.35	3.51	-0.50	-3.69
	All	0.09	0.56	0.86	1.49	1.93	2.08	2.39	-0.89
A	1-3YR	0.38	0.85	1.03	1.67	2.12	2.27	2.98	-0.32
	7-10YR	-0.81	-0.34	0.78	1.41	1.88	2.03	2.23	-1.04
	20+YR	-1.32	-0.86	1.08	1.72	3.40	3.55	0.93	-2.30
	All	-0.27	0.20	1.03	1.67	2.50	2.65	2.27	-1.01
BBB	1-3YR	0.38	0.85	1.24	1.88	2.36	2.51	3.23	-0.07
	7-10YR	-0.70	-0.24	0.80	1.43	2.05	2.20	2.75	-0.54
	20+YR	-1.07	-0.61	1.37	2.01	3.83	3.98	2.39	-0.89
	All	-0.29	0.18	1.14	1.78	2.63	2.79	2.88	-0.42
Sectors	Comm	-0.98	-0.51	0.54	1.17	2.11	2.26	2.50	-0.79
	Energy	-0.55	-0.08	1.42	2.06	2.89	3.04	2.60	-0.69
	Fin	0.33	0.80	1.04	1.68	2.32	2.47	2.95	-0.35
	Indus	-0.20	0.27	1.07	1.71	2.61	2.76	2.94	-0.36
	Infra	-1.14	-0.67	1.03	1.66	2.79	2.95	1.13	-2.11
	RE	0.15	0.62	0.71	1.35	2.13	2.29	2.51	-0.78
	Secur	0.43	0.90	1.13	1.77	2.28	2.43	2.99	-0.31
Provinces (All)	1-3YR	-0.34	0.13	0.46	1.09	0.92	1.07	1.57	-1.68
	7-10YR	-1.54	-1.08	0.06	0.69	0.84	0.99	1.28	-1.97
	20+YR	-2.83	-2.37	-0.81	-0.19	1.27	1.42	-1.09	-4.26
	All	-1.89	-1.43	-0.26	0.37	1.08	1.23	0.19	-3.02
Ontario	1-3YR	-0.36	0.11	0.46	1.09	0.91	1.06	1.58	-1.67
	7-10YR	-1.56	-1.10	0.08	0.70	0.88	1.02	1.38	-1.87
	20+YR	-2.91	-2.45	-0.70	-0.08	1.38	1.53	-0.85	-4.02
	All	-1.84	-1.38	-0.15	0.48	1.14	1.29	0.42	-2.79
Alberta	1-3YR	-0.40	0.06	0.35	0.98	0.82	0.97	1.45	-1.80
	7-10YR	-1.51	-1.05	0.03	0.66	0.78	0.93	1.09	-2.14
	20+YR	-3.03	-2.57	-1.50	-0.88	0.40	0.55	-2.67	-5.79
	All	-1.93	-1.47	-0.60	0.02	0.58	0.73	-0.52	-3.71
Quebec	1-3YR	-0.26	0.21	0.54	1.18	1.02	1.17	1.70	-1.56
	7-10YR	-1.55	-1.09	0.07	0.70	0.82	0.97	1.22	-2.02
	20+YR	-2.70	-2.24	-0.74	-0.12	1.39	1.54	-0.95	-4.12
	All	-1.94	-1.48	-0.27	0.36	1.15	1.30	0.16	-3.05
BC	1-3YR	-0.16	0.31	0.57	1.20	1.01	1.16	1.44	-1.81
	7-10YR	-1.53	-1.07	0.00	0.63	0.80	0.95	1.16	-2.08
	20+YR	-2.83	-2.37	-1.05	-0.43	1.04	1.19	-1.39	-4.55
	All	-1.95	-1.49	-0.41	0.21	0.97	1.12	-0.10	-3.30

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 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 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	0.39	3.19	0.26	-0.21	1.80	1.64	1.33	4.69
	7-10YR	-0.74	2.03	-2.59	-3.05	0.62	0.47	-3.51	-0.32
	20+YR	-3.14	-0.44	-5.37	-5.81	-1.04	-1.19	-11.00	-8.06
	IG All	-0.72	2.04	-0.02	-0.49	2.96	2.80	0.82	4.16
	HY All	0.22	3.02	3.51	3.02	7.36	7.20	6.75	10.28
UK	1-3YR	0.60	1.83	0.54	2.31	0.20	5.40	0.61	13.19
	7-10YR	-0.05	1.18	-0.45	1.30	-1.92	3.17	-7.59	3.96
	20+YR	-2.24	-1.04	-0.34	1.42	-8.66	-3.92	-21.73	-11.94
EUR	IG All	0.14	1.33	0.77	2.11	3.51	5.11	1.11	12.75
	HY All	0.31	1.51	2.10	3.51	6.47	8.53	7.06	19.52
Japan	1-3YR	-0.04	0.27	-0.13	-4.60	0.07	-9.44	-0.16	-1.78
	7-10YR	-0.18	0.13	-1.26	-5.69	0.36	-9.18	-1.73	-3.33
	20+YR	-3.39	-3.09	-7.19	-11.35	0.16	-9.36	-8.29	-9.79
China	1-3YR	0.22	0.99	0.71	-2.31	2.05	-2.83	2.38	0.02
	7-10YR	0.82	1.59	1.60	-1.45	3.90	-1.07	3.57	1.18
	20+YR	2.08	2.86	4.36	1.22	8.04	2.87	7.22	4.74
EM	1-3YR	0.28	1.05	1.05	-0.82	2.86	0.52	3.78	4.91
	7-10YR	0.18	0.86	1.14	-0.40	5.11	2.73	5.57	6.23
	20+YR	0.96	1.51	3.44	1.69	7.24	3.53	7.38	7.02
	IG All	-0.81	1.96	-0.12	-0.59	2.89	2.74	2.07	5.45
	HY All	-0.74	2.03	1.83	1.35	1.55	1.40	4.50	7.96
Germany	1-3YR	0.36	1.55	0.11	1.44	0.97	2.53	-1.10	10.29
	7-10YR	0.45	1.64	-0.78	0.54	2.85	4.44	-5.08	5.84
	20+YR	-0.20	0.98	-2.58	-1.29	0.67	2.23	-16.01	-6.34
Italy	1-3YR	0.37	1.56	0.50	1.84	2.05	3.62	0.98	12.61
	7-10YR	0.25	1.44	1.14	2.48	7.26	8.92	2.37	14.16
	20+YR	-0.52	0.66	1.62	2.97	8.52	10.20	-3.38	7.74
Spain	1-3YR	0.39	1.58	0.17	1.50	1.33	2.90	-0.69	10.74
	7-10YR	0.52	1.71	-0.17	1.16	3.58	5.19	-2.99	8.18
	20+YR	-0.54	0.64	-0.28	1.04	2.28	3.86	-9.55	0.86
France	1-3YR	0.38	1.57	0.08	1.41	1.31	2.88	-1.06	10.33
	7-10YR	0.52	1.71	-0.53	0.79	2.97	4.56	-4.48	6.51
	20+YR	0.13	1.32	-1.53	-0.22	0.91	2.47	-13.30	-3.32
Sweden	1-3YR	0.11	-1.26	-0.03	-1.10	0.82	-4.21	0.48	0.80
	7-10YR	-1.23	-2.57	-2.79	-3.83	-1.42	-6.33	-4.49	-4.18
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	0.64	-0.58	0.25	-0.14	1.36	-3.34	1.79	-0.65
	7-10YR	0.70	-0.52	-2.09	-2.47	2.93	-1.84	0.61	-1.81
	20+YR	-0.04	-1.25	-4.23	-4.60	1.88	-2.85	-6.14	-8.39
NZ	1-3YR	0.23	-1.42	-0.20	-1.31	1.82	-4.28	1.14	1.48
	7-10YR	-1.02	-2.66	-3.41	-4.48	-0.22	-6.19	-2.75	-2.42
Canada	1-3YR	0.39	0.39	-0.15	-0.15	0.84	0.84	1.29	1.29
	7-10YR	-0.17	-0.17	-2.15	-2.15	-0.14	-0.14	-0.43	-0.43
	20+YR	-1.39	-1.39	-4.09	-4.09	-0.45	-0.45	-4.33	-4.33

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

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 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	0.05	2.84	0.24	-0.23	1.95	1.80	-0.40	2.89
	5-10YR	-1.24	1.51	-1.61	-2.07	1.13	0.98	-4.30	-1.13
	20+YR	-4.00	-1.33	-5.49	-5.93	-0.80	-0.94	-13.85	-11.00
UK	1-5YR	0.50	1.73	1.13	2.91	1.26	6.51	-0.04	12.46
	5-10YR	0.04	1.27	1.50	3.29	2.15	7.45	-4.69	7.23
	20+YR	-2.86	-1.67	1.38	3.17	-11.04	-6.42	-28.40	-19.45
EUxUK	1-5YR	0.18	1.36	0.31	1.64	1.57	3.14	-2.19	9.07
	5-10YR	-0.21	0.97	-0.35	0.98	3.42	5.02	-2.90	8.28
	20+YR	-1.99	-0.83	-4.40	-3.13	3.80	5.40	-12.15	-2.04
Japan	1-5YR	0.18	0.49	1.08	-3.45	2.49	-7.25	3.49	1.80
	5-10YR	0.18	0.49	0.78	-3.74	3.25	-6.56	2.70	1.03
EM	1-5YR	1.42	1.22	6.32	5.36	10.43	11.21	15.45	18.98
	5-10YR	-0.38	-0.48	4.13	4.47	8.09	11.22	15.45	22.33
	20+YR	-1.33	-1.75	1.70	4.82	8.70	16.41	10.43	22.30
Germany	1-5YR	0.18	1.36	0.31	1.64	1.57	3.14	-2.19	9.07
	5-10YR	-0.21	0.97	-0.35	0.98	3.42	5.02	-2.90	8.28
	20+YR	-1.99	-0.83	-4.40	-3.13	3.80	5.40	-12.15	-2.04
Italy	1-5YR	0.11	1.30	0.95	2.29	2.88	4.47	1.95	13.68
	5-10YR	-0.27	0.91	1.74	3.10	7.77	9.44	5.66	17.82
	20+YR	-4.18	-3.04	-0.32	1.01	12.73	14.47	3.68	15.61
Spain	1-5YR	0.17	1.36	0.27	1.60	1.94	3.51	-0.43	11.03
	5-10YR	-0.01	1.17	0.39	1.73	3.80	5.40	-0.17	11.32
France	1-5YR	0.34	1.53	0.18	1.52	1.67	3.24	-1.42	9.92
	5-10YR	0.27	1.46	-0.18	1.15	3.65	5.25	-1.54	9.79
	20+YR	-2.49	-1.33	-3.31	-2.03	3.77	5.37	-8.07	2.51
Sweden	1-5YR	0.07	-1.30	0.35	-0.73	1.60	-3.46	2.25	2.58
	5-10YR	-1.33	-2.68	-1.67	-2.72	0.35	-4.65	-3.84	-3.53
Australia	1-5YR	0.79	-0.43	0.29	-0.11	4.34	-0.50	5.41	2.88
	5-10YR	0.97	-0.25	-0.89	-1.28	6.01	1.09	5.32	2.79
	20+YR	-0.47	-1.67	-3.64	-4.02	7.11	2.14	2.32	-0.14
NZ	5-10YR	-0.54	-2.18	-2.67	-3.76	2.67	-3.48	4.09	4.44
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	-1.45	-1.45	-4.13	-4.13	-4.61	-4.61	-4.24	-4.24

Indices used: 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 indices used for each market. For professional investors only.

Appendix – Canadian Historical Bond Yields % as of August 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
Canada	Current	4.50	3.65	3.44	
	3M Ago	4.04	3.22	3.18	
	6M Ago	4.04	3.35	3.26	
	12M Ago	3.56	3.14	3.06	
IL	Current			1.88	
	3M Ago			1.44	
	6M Ago			1.34	
	12M Ago			1.23	
Provincial	Current	4.63	4.27	4.42	4.43
	3M Ago	4.21	3.86	4.15	4.08
	6M Ago	4.12	3.95	4.23	4.12
	12M Ago	3.80	3.83	4.08	3.94
Ontario	Current	4.62	4.28	4.42	4.44
	3M Ago	4.24	3.86	4.14	4.09
	6M Ago	4.16	3.95	4.23	4.13
	12M Ago	3.81	3.84	4.09	3.95
Quebec	Current	4.67	4.25	4.38	4.39
	3M Ago	4.15	3.85	4.11	4.04
	6M Ago	4.07	3.94	4.19	4.10
	12M Ago	3.80	3.80	4.04	3.93
Alberta	Current	4.62	4.26	4.45	4.43
	3M Ago	4.20	3.85	4.18	4.09
	6M Ago	4.08	3.94	4.22	4.10
	12M Ago	3.77	3.81	4.02	3.89
BC	Current	4.67	4.25	4.40	4.39
	3M Ago	4.18	3.84	4.13	4.04
	6M Ago	4.05	3.93	4.19	4.08
	12M Ago	3.78	3.82	4.04	3.92
Municipal	Current	4.69	4.34	4.65	4.57
	3M Ago	4.25	3.94	4.38	4.22
	6M Ago	4.16	4.03	4.47	4.27
	12M Ago	3.85	3.90	4.32	4.07
Corporate	Current	5.68	5.48	5.32	5.55
	3M Ago	5.33	5.12	5.11	5.24
	6M Ago	5.15	5.14	5.20	5.16
	12M Ago	4.92	5.01	5.01	4.96
High Yield	Current				7.70
	3M Ago				7.61
	6M Ago				7.19
	12M Ago				6.97

		1-5YR	5-10YR	20+YR	All Mat
AAA/AA	Current	5.39	5.28	4.77	5.37
	3M Ago	5.03	4.80	4.58	5.01
	6M Ago	4.84	4.66	4.64	4.80
	12M Ago	4.54	4.48	4.45	4.52
A	Current	5.62	5.18	5.04	5.39
	3M Ago	5.28	4.81	4.84	5.09
	6M Ago	5.04	4.86	4.94	4.99
	12M Ago	4.85	4.70	4.73	4.79
BBB	Current	5.89	5.66	5.74	5.79
	3M Ago	2.08	1.52	1.68	5.47
	6M Ago	1.82	1.57	1.65	5.44
	12M Ago	1.06	0.98	1.38	5.23
Comm	Current	5.49	5.80	5.78	5.60
	3M Ago	5.08	5.53	5.38	5.23
	6M Ago	5.12	5.62	5.28	5.33
	12M Ago	5.02	5.55	4.89	5.20
Energy	Current	5.78	5.56	5.43	5.58
	3M Ago	5.38	5.23	5.21	5.27
	6M Ago	5.28	5.35	5.32	5.32
	12M Ago	4.89	5.22	5.13	5.09
Financial	Current	5.68	5.56	5.34	5.66
	3M Ago	5.35	5.25	5.24	5.34
	6M Ago	5.11	5.04	5.21	5.11
	12M Ago	4.91	4.95	4.99	4.92
Industrial	Current	5.57	5.30	5.36	5.45
	3M Ago	5.24	4.96	5.19	5.16
	6M Ago	5.14	5.08	5.28	5.16
	12M Ago	4.88	4.87	5.18	4.96
Infrastructure	Current	5.19	5.13	5.10	5.12
	3M Ago	4.82	4.77	4.87	4.85
	6M Ago	4.81	4.82	4.98	4.93
	12M Ago	4.42	4.58	4.75	4.68
Securitization	Current	5.69			5.68
	3M Ago	5.31			5.31
	6M Ago	5.08			5.08
	12M Ago	4.80			4.80

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 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 indices used for each market. For professional investors only.

Appendix – Historical Bond Yields % as of August 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	4.99	4.39	4.12	4.32	2.50	1.94	2.01	5.65	8.44
	3M Ago	4.61	3.92	3.65	3.94	2.08	1.52	1.68	5.43	8.86
	6M Ago	4.90	4.34	3.93	4.01	1.82	1.57	1.65	5.55	8.62
	12M Ago	3.49	3.44	3.19	3.46	0.87	0.75	1.14	4.86	8.37
UK	Current	4.91	4.63	4.31	4.53	1.11	0.67	1.12		
	3M Ago	4.55	4.33	4.10	4.45	1.18	0.54	1.06		
	6M Ago	3.95	3.79	3.72	4.07	0.45	0.18	0.67		
	12M Ago	3.04	2.99	3.00	3.33	-1.97	-1.34	-0.31		
Japan	Current	-0.02	0.14	0.53	1.55	-1.82	-0.76			
	3M Ago	-0.08	0.01	0.33	1.22	-1.51	-0.77			
	6M Ago	-0.04	0.11	0.53	1.35	-1.25	-0.36			
	12M Ago	-0.10	-0.02	0.24	1.18	-1.28	-0.81			
China	Current	2.06	2.28	2.59	2.93					
	3M Ago	2.13	2.36	2.70	3.14					
	6M Ago	2.38	2.62	2.86	3.32					
	12M Ago	1.96	2.35	2.71	3.14					
EM	Current	3.50	4.22	4.80	4.34	2.84	4.28	5.01	6.14	11.41
	3M Ago	3.74	4.16	4.62	4.44	4.34	4.24	5.00	5.78	12.12
	6M Ago	3.71	4.48	4.88	4.57	1.46	3.33	5.35	5.95	10.85
	12M Ago	3.49	4.18	4.90	4.68	2.63	3.35	5.09	5.25	11.65
Germany	Current	3.03	2.53	2.38	2.55	0.64	0.13	0.11		
	3M Ago	2.71	2.30	2.20	2.40	0.37	-0.04	-0.13		
	6M Ago	3.09	2.78	2.59	2.57	0.22	0.08	0.03		
	12M Ago	0.97	1.91	2.07	2.06	-0.64	-0.20	-0.17		
Italy	Current	3.56	3.53	3.87	4.41	1.37	1.72	1.86		
	3M Ago	3.35	3.42	3.89	4.43	1.11	1.62	1.80		
	6M Ago	3.65	3.81	4.18	4.55	0.84	1.69	1.90		
	12M Ago	2.11	3.13	3.83	4.11	0.34	1.78	1.82		
France	Current	3.09	2.85	2.87	3.36	0.48	0.37	0.71		
	3M Ago	2.83	2.63	2.68	3.24	0.22	0.20	0.53		
	6M Ago	3.18	3.03	3.01	3.37	-0.05	0.24	0.69		
	12M Ago	1.21	2.26	2.64	3.15	-0.59	0.28	0.72		
Sweden	Current	3.43	3.00	2.75	0.00	1.33	1.14			
	3M Ago	2.97	2.62	2.31	0.00	0.74	0.55			
	6M Ago	3.18	2.96	2.65	0.00	0.64	0.72			
	12M Ago	2.24	2.38	2.24	0.00	-0.93	-0.36			
Australia	Current	3.85	3.75	3.99	4.42	0.97	1.43	1.84		
	3M Ago	3.51	3.38	3.58	4.12	0.42	1.03	1.59		
	6M Ago	3.66	3.65	3.83	4.19	0.50	1.26	1.78		
	12M Ago	3.11	3.71	4.03	4.37	0.67	1.53	2.05		
NZ	Current	5.30	4.96	4.89	5.07	2.15	2.58	0.00	0.00	0.00
	3M Ago	5.08	4.35	4.28	4.46	1.23	1.85	0.00	0.00	0.00
	6M Ago	5.06	4.68	4.57	4.67	1.40	2.07	0.00	0.00	0.00
	12M Ago	3.85	4.51	4.48	4.78	1.57	2.22	0.00	0.00	0.00
Canada	Current	4.50		3.65	3.44			1.88	5.55	7.70
	3M Ago	4.04		3.22	3.18			1.44	5.24	7.61
	6M Ago	4.04		3.35	3.26			1.34	5.16	7.19
	12M Ago	3.56		3.14	3.06			1.23	4.96	6.97

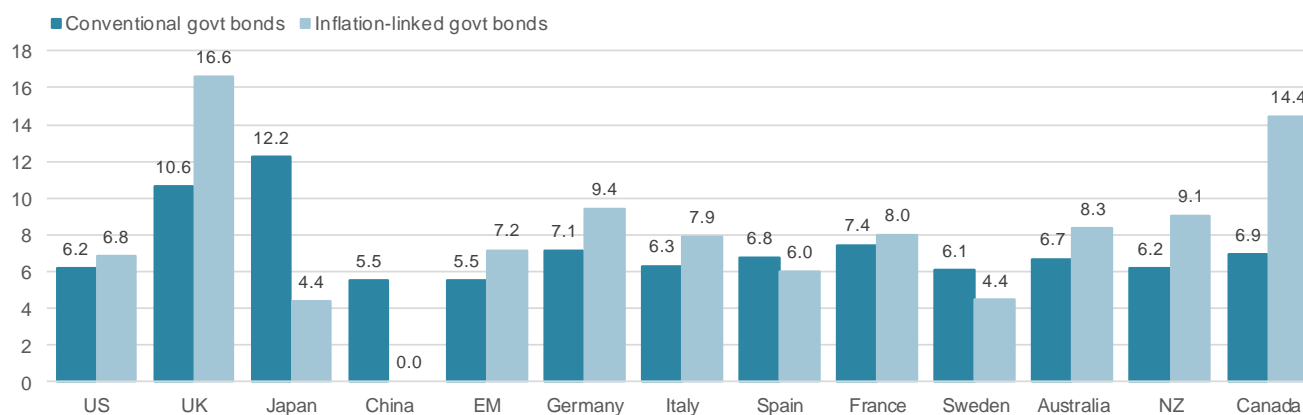
Source: FTSE Russell. All data as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

Appendix – Duration and Market Value (USD, Bn)

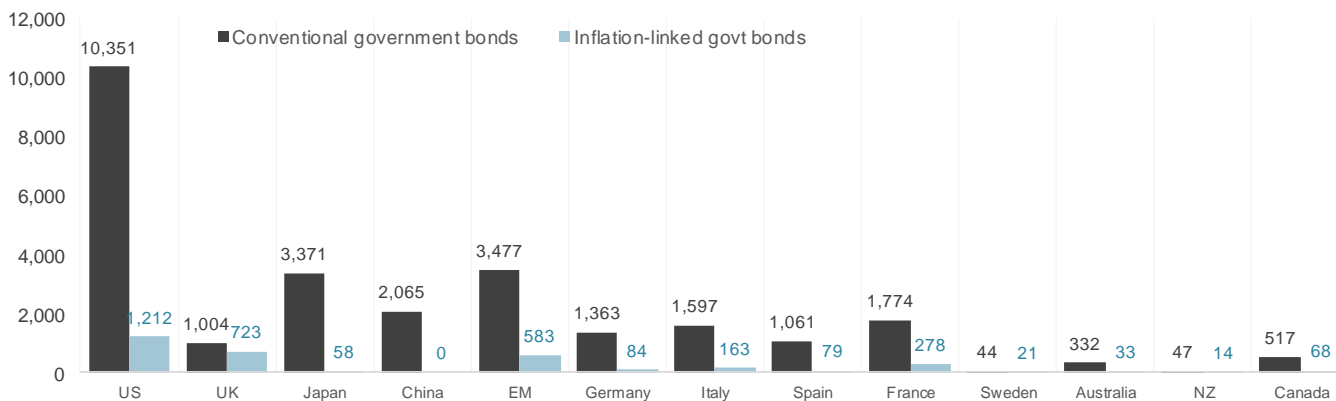
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.4	17.1	5.9	2,326.2	1,094.2	1,242.6	10,402.0	7.1	21.4	6.6	382.6	116.3	1201.4
UK	3.5	7.3	18.4	9.7	132.1	161.5	295.6	1,065.1	6.5	27.6	16.7	130.3	249.1	632.8
Japan	3.9	8.1	23.8	12.0	353.3	356.3	646.4	3,009.1	7.0		4.0	16.8		48.5
China	3.7	7.5	17.7	5.6	479.2	337.8	256.1	2,158.8						
EM	3.5	6.9	15.9	5.6	768.00	653.74	352.94	3,624.9	5.5	13.8	7.2	139.0	166.9	650.0
Germany	3.7	7.6	20.7	7.2	310.85	235.78	158.24	1,416.7	7.2	21.8	9.0	43.2	18.7	87.4
Italy	3.7	7.2	16.1	6.3	283.47	258.54	153.74	1,641.2	7.9	26.3	7.6	58.7	5.5	181.3
Spain	3.8	7.6	17.4	6.8	200.98	184.88	98.31	1,065.8	6.7		5.6	22.6		83.6
France	3.7	7.6	20.1	7.4	319.78	308.58	209.84	1,789.5	6.7	24.4	8.4	103.8	21.1	268.2
Sweden	3.7	7.6		5.6	13.17	8.43		41.6	5.7		4.0	9.3		20.1
Australia	3.5	7.7	17.4	6.5	50.47	86.01	14.76	317.1	7.2	22.4	7.8	9.5	2.6	32.6
NZ	3.8	7.6	16.7	6.4	9.43	13.16	2.26	47.4	6.2		8.6	3.0		13.2
Canada		7.0	17.7	6.7		193.00	91.60	526.3		13.9	13.9		64.2	64.2

	Investment grade bonds										High Yield	
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	10.7	8.5	7.2	6.5	7.0	72.1	448.8	2,610.9	3,256.9	6,388.7	3.9	1,170.8
Euro	6.2	4.9	4.6	4.3	4.5	9.6	184.5	1,188.1	1,427.5	2,809.7	3.1	416.0
EM		5.7	4.8	5.1	5.0		45.00	220.04	320.1	585.1	3.4	186.0

Average Duration



Total Market Value (USD Billions)

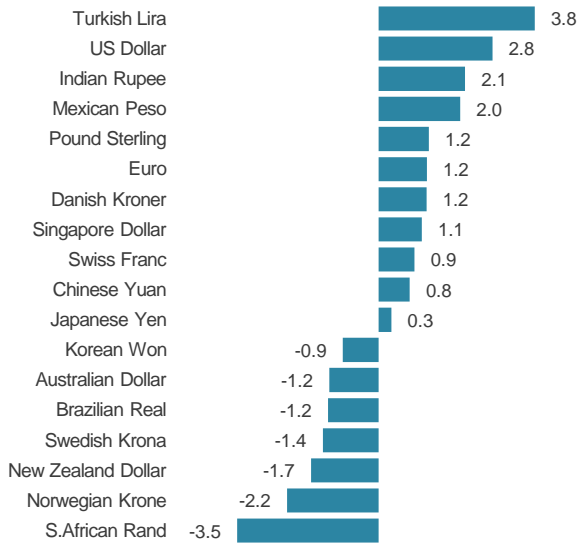


Indices used: FTSE Canada Non-Agency Bond Index (Mid, Long, Overall), FTSE Canada RRB Canada Bond Index.

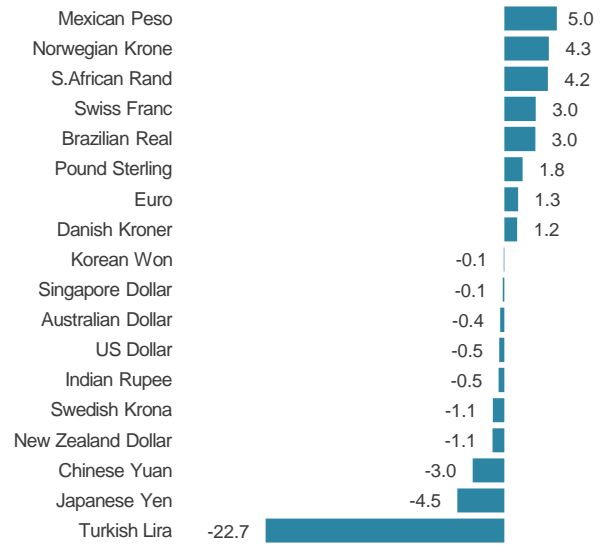
Source: FTSE Russell. All data as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indexes used for each market. For professional investors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

Appendix – Foreign Exchange Returns % as of August 31, 2023

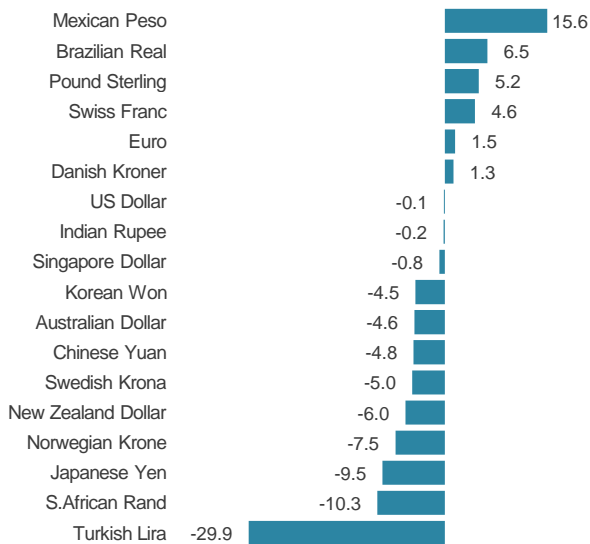
FX Moves vs CAD - 1M



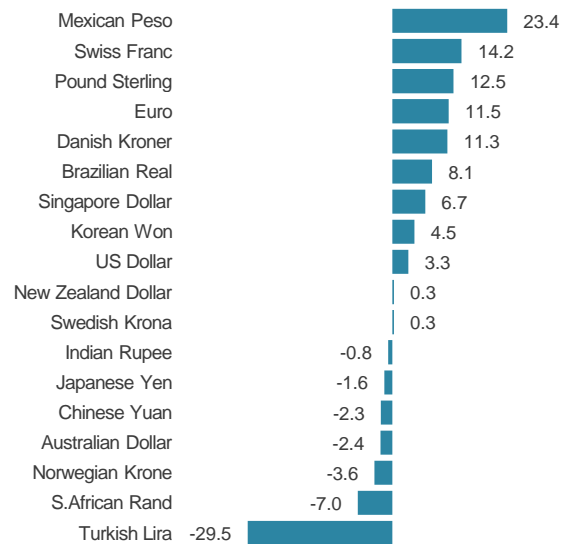
FX Moves vs CAD - 3M



FX Moves vs CAD - YTD



FX Moves vs CAD - 12M



Source: FTSE Russell and Refinitiv. All data as of 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 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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