An LSEG Business

# **Fixed Income Insights**

MONTHLY REPORT - OCTOBER 2023 | CANADA EDITION

FOR PROFESSIONAL INVESTORS ONLY

### Long Canadian bond returns collapse in Q3, as markets re-price for Goldilocks?

The Bank of Canada paused tightening in September after economic activity and inflation eased, but left the door open for further tightening, unnerving the long end. The rebound in oil prices and tight labour markets mean inflation risks endure, for the BoC. Longs sold off in Q3, as investors sought safety in shorter maturities.

Macro and policy backdrop – Soft landings for growth give central banks room to retain tight policy settings
The BoC paused tightening in September, but higher energy prices and tight labour markets remain a worry. (page 2)

Canadian govts and credit – The possibility of more hikes prompted jitters in longs, as re-investment risk eased Canadian 7-10-year spreads vs G7 peers rose sharply in September, after the BoC left the door open for more rate hikes. (pages 3-4)

Global yields and spreads – Curve dis-inversion in long durations as some long G7 yields reach new cycle highs Longs led yield curve dis-inversion in September, suggesting some capitulation to the higher for longer narrative. (pages 5-6)

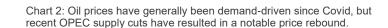
Sovereign and climate bonds – High Japan & Euro weight in climate-WGBI continues to squeeze returns vs WGBI The underperformance by JGBs has continued to weigh on Climate-WGBI returns. (page 7)

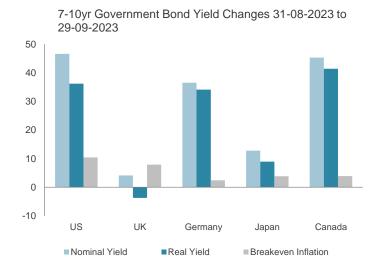
Performance – Short Canadian corporates held up in September, amid collapse in long duration bond returns
Concerns over 'higher for longer' rates and/or higher growth drove real yields higher and long bonds to sell-off. (pages 8-10)

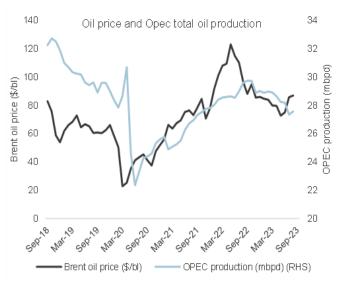
#### Appendix (from page 11)

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

Chart 1: Both nominal and real yields were driven higher as markets responded to the 'higher for longer' narrative. The UK was an outlier.







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

Most G7 central banks paused policy tightening in September after economic activity and inflation gradually eased overall, but left the door open for future moves. The surge in the oil price through the mid-90s and tight labour markets unnerved markets. The latest IMF forecasts point to a soft landing, but widening growth divergences in 2023 and 2024.

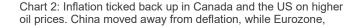
Widening economic divergences, amid de-globalisation? The IMF real economic growth forecasts were slightly more optimistic, following stronger GDP in the first quarter 2023. However, the main thesis remains of slowing and divergent global growth. The UK economy surprised on the upside, just averting contractions in the first half of 2023 (Chart 1)

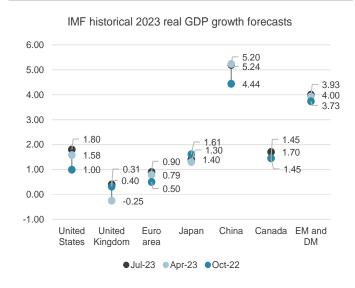
The sharp rebound in energy prices, following OPEC + Russia production cuts, less favourable base effects from 2022 in Q3, and healthy consumer spending, all contributed to inflation ticking back up (Canada and the US). The Bank of Canada signalled in its last policy briefing of "CPI inflation expect[ing] to be higher in the near term before easing again" due to higher "gasoline prices" (Chart 2).

There was a concerted policy pause among most G7 central banks in September as they assessed the impact of tightening moves to date, on their economies. The exceptions were the ECB, which proceeded with another 25bp rise, while the PBoC cut its loan prime rate by 10bp and the BoJ left its policy unchanged, after introducing a 1% cap in July (Chart 3).

Canada's unemployment level remained at historical lows, underpinning tight labour market conditions, with little evidence of this trend easing in the short term.

Chart 1: IMF real GDP forecasts were revised higher in July and the global economy is expected to avoid a recession, including in

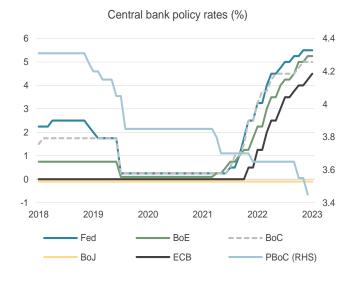




G7 and China inflation (Y/Y %) 12 10 8 6 5.2 4 4.0 2 3.7 0 - 0.1 -2 Sep-21 Sep-19 Sep-20 Sep-22 United States United Kingdom Euro Area Japan Canada China

Chart 3: Widening growth dispersion: G7 central banks (ex ECB) paused monetary policy in September, while the PBoC reduced its loan prime rate by another 10bp to revive weak economic activity.

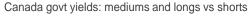
Chart 4: Pressures from tight labour markets were evidenced in the latest uptick in Canadian inflation and wage growth levels in August.





### **Canadian Governments, Provinces and Municipalities**

Chart 1: The 20/2s Canadian yield curve traded through 10/2s, despite some dis-inversion in September. The yield curve is deeply inverted, as the bear inversion has continued in 2023.



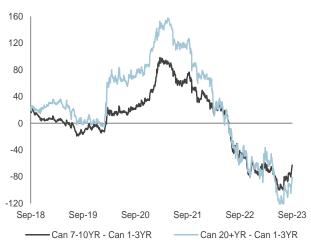


Chart 3: Since 2021, long dated Canadian real yields have tracked nominal yields higher, but more so in 2023, after repricing 'higher for longer' interest rates and/or higher growth?

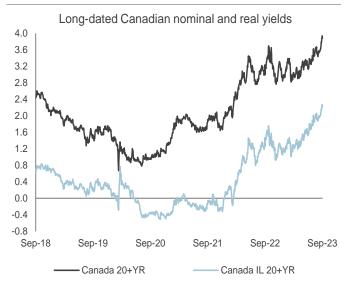


Chart 5: More of the same? Provincial spreads have flatlined, after converging around 65bp and remained wider than pre-Covid levels, with no major spread widening despite higher rates.

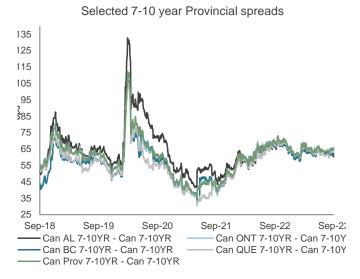


Chart 2: Canadian 7-10-year spreads vs peers rose sharply in September, after the Bank of Canada left the door open for more rate hikes, with the largest move being versus UK gilts.

#### 7-10 year Canadian sovereign spreads

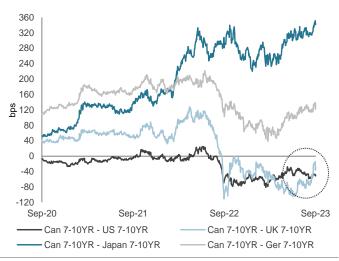


Chart 4: Canadian inflation breakevens made a small rebound in September, and modestly rose, after the BoC left the door open for another rate hike. UK and German breakevens were stable.

### Selected longer dated inflation breakevens

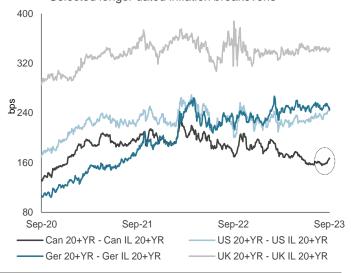


Chart 6: Canadian municipals spreads were relatively stable in September, with 7-10yr munis flatlining, and shorts modestly higher, following the rebound from the lows in 2022-23.

#### **Duration matched Municipal spreads**



## **Canadian Corporate Bonds**

Chart 1: Both US and Canadian HY credit yields are higher than pre-Covid, reflecting higher rates, though US HY yields remain below their peak. US and Canadian IG yields are at a 5-year high.

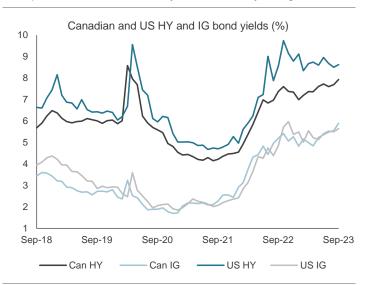


Chart 3: Canadian HY spreads remained wider than pre-Covid levels, despite the rally since January 2023, while US HY spreads are narrower than in 2020, benefiting from the equity market rally.

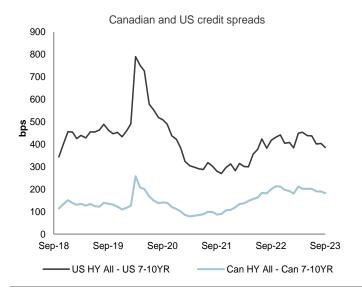


Chart 5: Some corporate spreads fell over 12M, though AAA spreads have increased marginally (by 3bp). In contrast, Single As and BBs have tightened about 20bp versus 7-10 year govt yields.

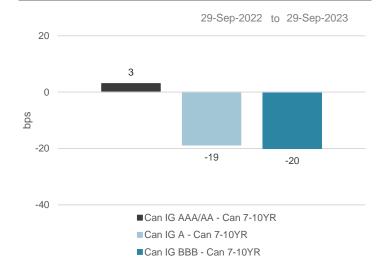


Chart 2: Canadian infrastructure spreads have decoupled from industry peers in 2023 after staying relatively stable since 2020, unlike other sectors, such as financials and real estate.

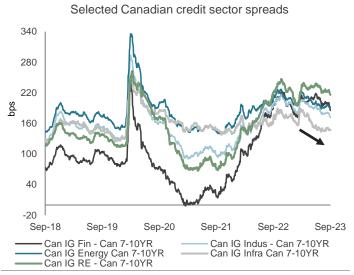


Chart 4: AAA spreads have been hit hardest in the period of rising government bond yields, with spreads at Covid highs and converging downward with their lower A-rated equivalents.



Chart 6: Financial spreads fell in September as the curve steepened on prospects of 'higher for longer' rates. This continues the pattern of recent years (wider spreads on more inversion).

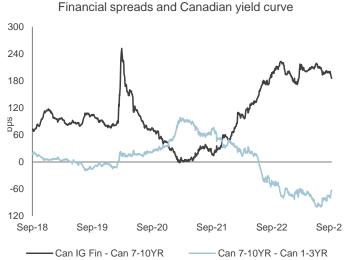
Sep-20

Sep-21

Sep-22

Can IG A - Can 7-10YR

Sep-23



Source: FTSE Russell. All data as of September 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.

0

-40 | Sep-18

Sep-19

Can IG AAA/AA - Can 7-10YR

Can IG BBB - Can 7-10YR

## Global Yields, Curves and Spread Analysis

Chart 1: September saw a further increase in G7 7-10yr yields, led by the Germany and Canada, where yields hit new cycle highs. JGB yields edged higher, though the 1% 10-year yield ceiling is intact.



Chart 3: Yield curves dis-inverted further in September, with the front end helped by policy pauses (ex ECB). Curves remain deeply inverted, apart from JGBs, where the BoJ's curve control dominates.

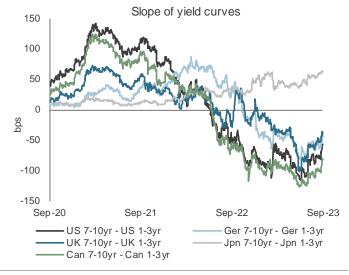


Chart 5: Breakevens increased in the UK, on the BoE policy pause, and in Japan, as the BoJ retained zero rates, but moved little

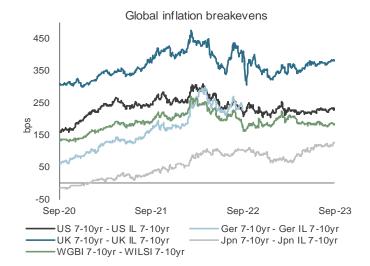


Chart 2: Real yields increased to new cycle highs in the US and Germany, but UK index linked rallied a little on better inflation data, and the BoE policy pause. JGB real 7-10-year yields flatlined.

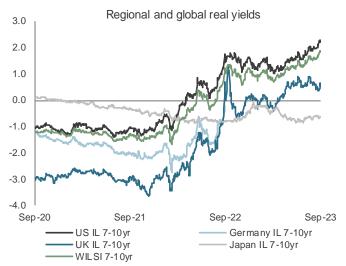


Chart 4: There were bigger dis-inversion moves in longer maturities versus shorts, led by the UK, after the surprise BoE policy pause caused short yields to ease. Long end JGB yields also increased.

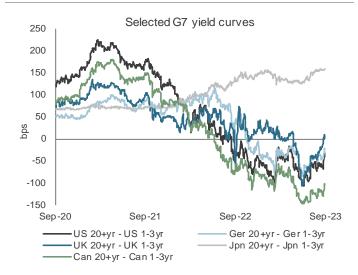


Chart 6: Global inflation breakevens of all tenors remain stable around 2%. Despite the oil price rebound in September, there is



## **Yield Spread and Credit Spread Analysis**

Chart 1: UK gilt yields traded through Treasuries again in September, reversing the 2022 yield spread move. US spreads generally increased in September, though moved less vs Canada.



Chart 3: EM sovereign spreads remain near post-Covid lows, helped by early counter-inflation policy vs DM. EM spill-over effects from G7 tightening have been far less than in previous cycles.

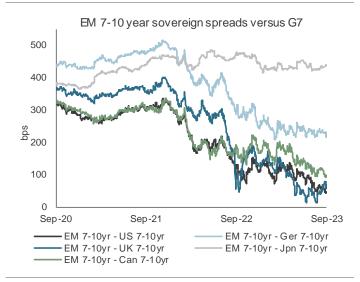


Chart 5: High yield spreads continue to narrow, helped by investor risk appetite, and low default rates. IG spreads are now relatively more attractive, having fallen far less since the 2022 spike.

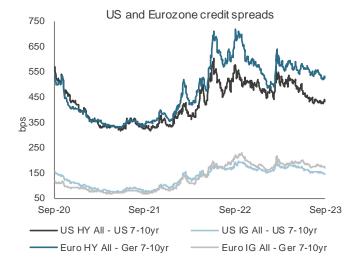


Chart 2: 7-10 year Italian spreads edged out in September versus European peers, driven by higher Bund yields, further ECB policy tightening and failure to reach agreement on new EU fiscal rules.

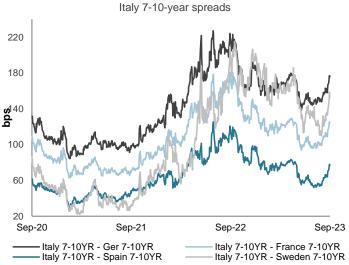


Chart 4: The PBoC's latest policy easing drove Chinese spreads to, or near, cyclical lows. The correlation of Chinese yields to the G7 remains very low, and de-globalisation may reduce this further.

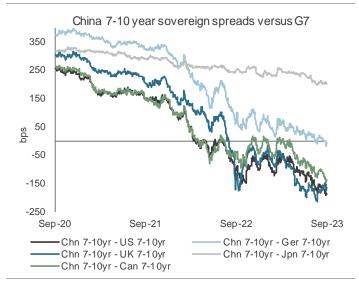


Chart 6: Chinese \$ HY spreads eased in September from record highs, as Country Garden escaped from a potential default. Easier mortgage policies may also have helped to narrow spreads.



### **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 the sell-off in 2022. Climate WGBI continues to underperform WGBI.

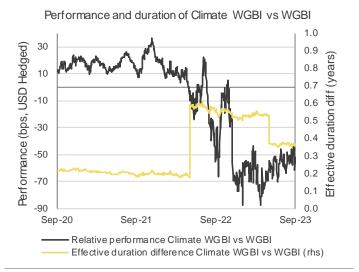


Chart 3: The increase in JGB yields in 2023 and high Japan country weight drove Climate-WGBI yields higher, versus WGBI, though Climate WGBI yields remain lower, even if the 'greenium' is modest.

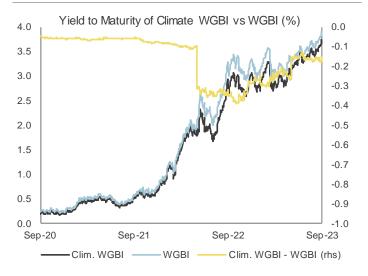


Chart 5: Although curves dis-inverted further in September, as long yields rose, yields converged on 3% in both WGBI and climate WGBI in 2023, eliminating most of the 'greenium' in Climate WGBI.



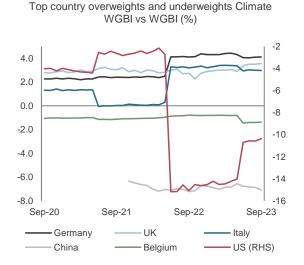


Chart 4: Climate WGBI's higher weighting in the Eurozone gives the index a higher AAA weight, with Bunds rated AAA, but the lower US weighting in Climate WGBI means the AA weight is notably lower.

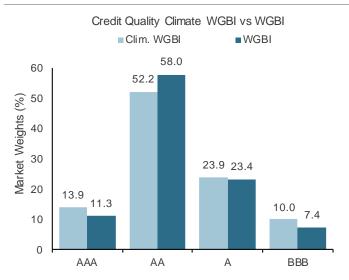
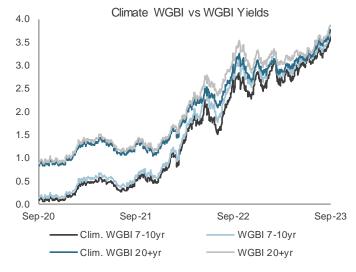
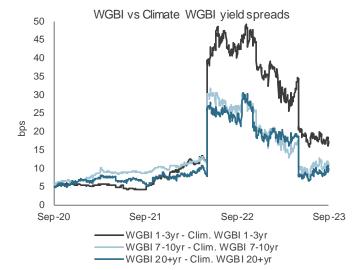


Chart 6: The 'greenium' rose sharply in 2022, when Japan's country weight was increased, and the US fell, reflecting Fed tightening, and BoJ curve control, but much of this has unwound in 2023.

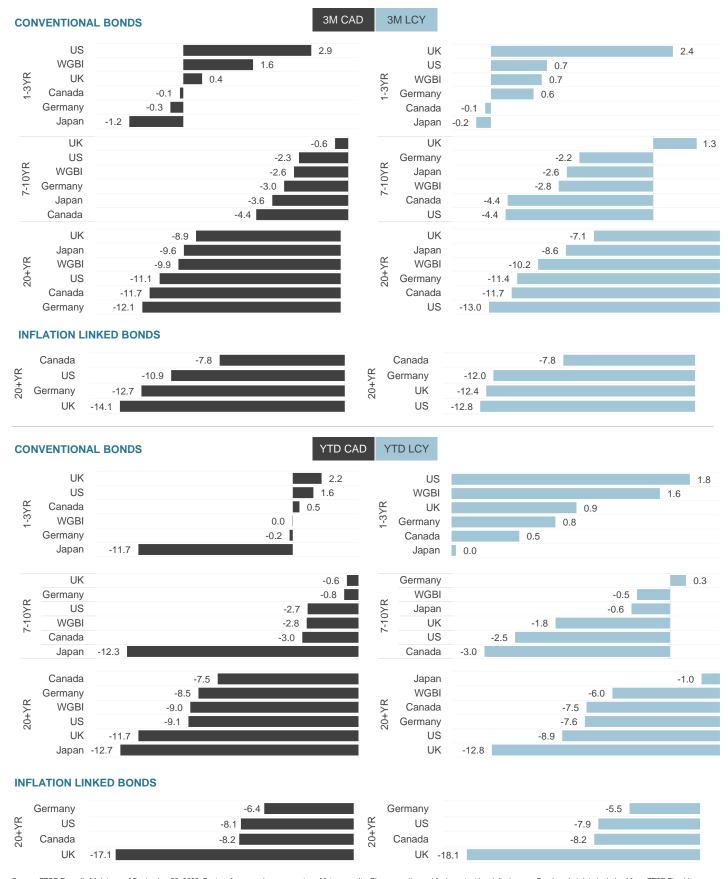




## Global Bond Market Returns - 3M & YTD % (CAD, LC, TR) as of Sept 30, 2023

Long government returns fell sharply in the last three months, after stronger economic growth suggested rates may stay higher for longer, with the possibility of another rate rise before the end of the year, as signalled by the Fed in its last briefing. The BoC raised rates in June and July, but paused rate increases in September, along with the US and UK.

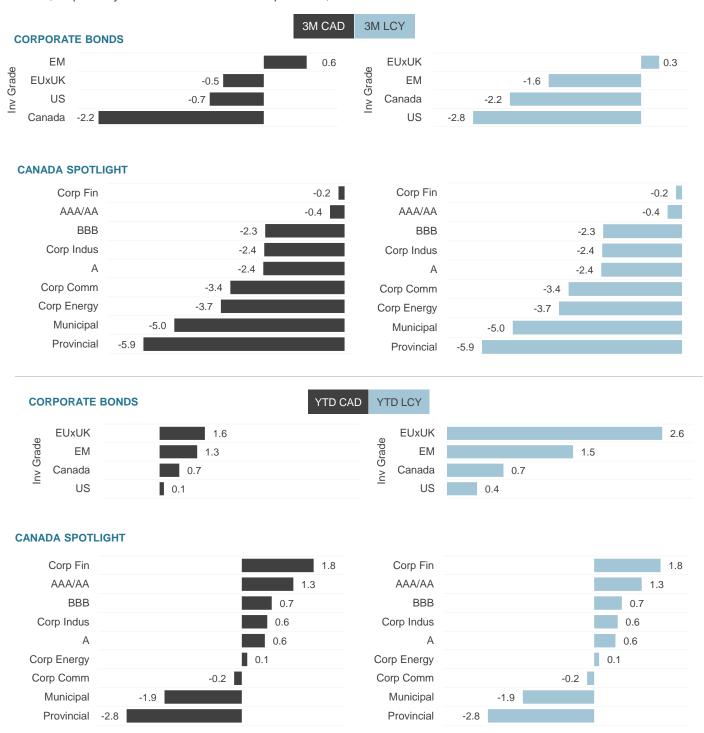
Only short US and UK bonds made modest gains in Q3, as policy tightening neared its peak, while returns for longer duration conventional and inflation-linked bonds, turned negative, notably in Canada, with losses of nearly 12% and 8% respectively.



### Corporate Bond Returns - 3M & YTD % (CAD, LC, TR) as of Sept 30, 2023

EM corporates gained in the last three months in Canadian dollars, while Canadian equivalents lost about 2%. Canadian provincial and municipal bonds underperformed, with AAA rated corporates losing least, led by financials.

Provincial and municipal bonds have underperformed since January, with September losses contributing to the negative performance of 5-6%. Meanwhile, investment grade corporates posted modest positive returns, with Canada and the US, up 0.7% and 0.1%, respectively. Euro IG credit was the best performer, with a 1.6% return in Canadian dollar terms.



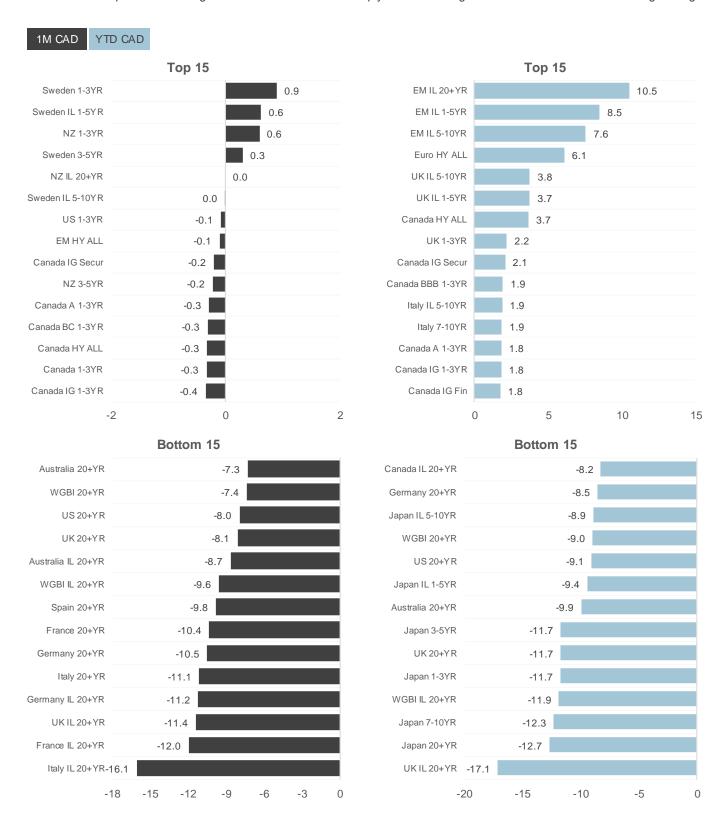
Indices used: FTSE Canada Corporate Bond Index (AAA/AA, A, BBB, Financial, Communication, Industrial, Energy, Overall), FTSE Canada High Yield Bond Index, FTSE Canada Municipal Bond Index.

### Top and Bottom Bond Returns - 1M & YTD % (CAD, TR) as of Sept 30, 2023

EM inflation bonds have maintained their leadership of the Top 15 returns since January. Short UK inflation linkers also fared well, as did Canadian short corporates, which outperformed in September and YTD. High yield, notably in Europe, outperformed. Long governments remained in the doldrums, both in September and on 12M, with deeply negative returns.

High yield credit, EM inflation linked bonds and short UK gilts outperformed YTD, with returns of 2-11% in Canadian dollar terms.

Top 15 September returns were modest, with Swedish governments, up about 1%, taking the lead, along with short US Treasuries and Canadian corporates. But long Eurozone linkers sold off sharply on failure to agree new EU fiscal rules and ECB tightening.



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

### Government and corporate bond returns

Top 15% Bottom 15%

		3	М	6	М	ΥT	ſD
		Local	USD	Local	USD	Local	USD
Government	1-3YR	-0.08	-2.20	-1.08	-0.98	0.51	0.73
	7-10YR	-4.36	-6.39	-6.78	-6.69	-2.99	-2.78
	20+YR	-11.69	-13.57	-12.47	-12.38	-7.50	-7.29
Inflation-Linked	20+YR	-7.84	-9.80	-7.88	-7.79	-8.24	-8.04
Corporate	1-3YR	0.13	-2.00	-0.13	-0.03	1.82	2.04
	7-10YR	-2.56	-4.63	-3.37	-3.28	-0.13	0.08
	20+YR	-7.11	-9.08	-5.32	-5.22	-1.38	-1.16
AAA/AA	1-3YR	-0.05	-2.18	-0.41	-0.31	1.43	1.66
	7-10YR	-2.07	-4.15	-3.45	-3.36	-0.71	-0.49
	20+YR	-9.51	-11.43	-7.28	-7.19	-3.12	-2.91
	All	-0.43	-2.55	-0.81	-0.71	1.26	1.48
A	1-3YR	0.21	-1.92	-0.09	0.01	1.82	2.05
	7-10YR	-2.64	-4.71	-3.53	-3.43	-0.25	-0.03
	20+YR	-7.35	-9.32	-5.76	-5.67	-1.76	-1.54
	All	-2.40	-4.48	-2.19	-2.09	0.56	0.78
BBB	1-3YR	0.09	-2.04	-0.09	0.01	1.93	2.15
	7-10YR	-2.54	-4.61	-3.28	-3.18	0.00	0.21
	20+YR	-6.71	-8.70	-4.64	-4.54	-0.80	-0.59
	All	-2.35	-4.42	-2.10	-2.00	0.73	0.95
Sectors	Comm	-3.37	-5.43	-3.27	-3.17	-0.19	0.03
	Energy	-3.66	-5.70	-3.09	-2.99	0.13	0.35
	Fin	-0.18	-2.31	-0.33	-0.23	1.76	1.98
	Indus	-2.37	-4.45	-2.17	-2.08	0.62	0.84
	Infra	-5.46	-7.47	-4.77	-4.67	-1.08	-0.86
	RE	-0.78	-2.89	-1.09	-0.99	1.16	1.38
	Secur	0.37	-1.77	0.23	0.33	2.07	2.29
Provinces (All)	1-3YR	-0.41	-2.52	-1.49	-1.39	0.38	0.59
	7-10YR	-3.63	-5.68	-5.40	-5.31	-1.72	-1.51
	20+YR	-9.87	-11.79	-9.28	-9.19	-5.07	-4.87
	All	-5.94	-7.94	-6.37	-6.27	-2.82	-2.60
Ontario	1-3YR	-0.40	-2.52	-1.45	-1.35	0.40	0.62
	7-10YR	-3.70	-5.75	-5.44	-5.34	-1.72	-1.50
	20+YR	-9.96	-11.87	-9.37	-9.28	-5.01	-4.80
	All	-5.67	-7.67	-6.14	-6.05	-2.59	-2.38
Alberta	1-3YR	-0.28	-2.40	-1.47	-1.37	0.42	0.64
	7-10YR	-3.14	-5.20	-5.01	-4.92	-1.41	-1.20
	20+YR	-10.04	-11.96	-9.43	-9.34	-5.77	-5.56
	All	-5.58	-7.59	-6.12	-6.02	-2.93	-2.72
Quebec	1-3YR	-0.49	-2.61	-1.58	-1.48	0.31	0.53
	7-10YR	-3.76	-5.81	-5.56	-5.47	-1.89	-1.68
	20+YR	-9.83	-11.75	-9.17	-9.08	-4.99	-4.78
	All	-6.42	-8.41	-6.73	-6.64	-3.09	-2.88
BC	1-3YR	-0.05	-2.18	-1.17	-1.07	0.69	0.91
	7-10YR	-3.51	-5.56	-5.33	-5.24	-1.64	-1.43
	20+YR	-10.11	-12.02	-9.56	-9.47	-5.43	-5.23
	All	-6.23	-8.22	-6.74	-6.65	-3.11	-2.90

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.

## 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%.

		1 M		3	M	Υ	ΓD	12M		
		Local	CAD	Local	CAD	Local	CAD	Local	CAD	
US	1-3YR	-0.01	-0.08	0.73	2.92	1.78	1.56	2.49	0.85	
	7-10YR	-3.10	-3.17	-4.42	-2.34	-2.50	-2.71	-1.90	-3.47	
	20+YR	-7.90	-7.96	-12.97	-11.08	-8.86	-9.05	-10.69	-12.13	
	IG All	-2.51	-2.58	-2.84	-0.73	0.37	0.15	3.75	2.09	
UK	1-3YR	0.73	-3.04	2.38	0.43	0.94	2.19	3.60	11.46	
	7-10YR	0.07	-3.68	1.30	-0.63	-1.85	-0.62	2.67	10.46	
	20+YR	-4.55	-8.12	-7.08	-8.85	-12.81	-11.72	-15.63	-9.23	
EUR	IG All	-0.85	-3.35	0.31	-0.54	2.63	1.59	3.71	10.28	
	HY All	0.42	-2.25	2.03	1.05	6.91	6.09	12.13	19.38	
Japan	1-3YR	-0.04	-2.54	-0.19	-1.23	0.03	-11.74	-0.13	-4.69	
	7-10YR	-0.98	-3.46	-2.59	-3.60	-0.62	-12.32	-2.20	-6.66	
	20+YR	-1.19	-3.67	-8.65	-9.60	-1.03	-12.68	-5.59	-9.89	
China	1-3YR	-0.11	-0.37	0.35	1.97	1.94	-3.19	2.24	-2.33	
	7-10YR	-0.63	-0.89	0.37	1.99	3.24	-1.95	3.60	-1.03	
	20+YR	-1.87	-2.13	1.18	2.81	6.01	0.68	5.84	1.10	
EM	1-3YR	-0.03	-0.99	0.61	1.50	2.83	-0.47	3.83	2.02	
	7-10YR	-1.53	-2.51	-1.10	-0.39	3.50	0.16	5.60	3.33	
	20+YR	-2.28	-2.81	-0.35	1.16	4.80	0.62	6.66	3.65	
	IG All	-1.32	-1.39	-1.56	0.58	1.54	1.32	5.02	3.33	
	HY All	-0.04	-0.11	0.01	2.18	1.51	1.29	10.13	8.36	
Germany	1-3YR	-0.19	-2.71	0.56	-0.29	0.78	-0.24	-0.31	6.01	
-	7-10YR	-2.52	-4.98	-2.21	-3.04	0.25	-0.76	-3.09	3.05	
	20+YR	-8.21	-10.52	-11.39	-12.14	-7.59	-8.52	-14.42	-8.99	
Italy	1-3YR	-0.44	-2.95	0.61	-0.24	1.59	0.57	1.63	8.07	
	7-10YR	-4.07	-6.49	-3.45	-4.27	2.89	1.85	2.45	8.95	
	20+YR	-8.85	-11.14	-10.49	-11.25	-1.07	-2.08	-5.60	0.39	
Spain	1-3YR	-0.22	-2.73	0.55	-0.30	1.11	0.09	0.27	6.63	
	7-10YR	-2.88	-5.33	-2.49	-3.32	0.60	-0.42	-1.59	4.65	
	20+YR	-7.49	-9.82	-9.39	-10.16	-5.38	-6.34	-9.78	-4.06	
France	1-3YR	-0.22	-2.73	0.58	-0.27	1.09	0.07	-0.16	6.16	
	7-10YR	-2.70	-5.15	-2.36	-3.19	0.19	-0.82	-2.86	3.30	
	20+YR	-8.05	-10.36	-10.63	-11.39	-7.21	-8.15	-12.25	-6.69	
Sweden	1-3YR	0.18	0.90	0.76	2.35	1.00	-3.35	0.63	1.14	
	7-10YR	-1.51	-0.80	-2.15	-0.60	-2.91	-7.08	-4.11	-3.62	
	20+YR					0.00	0.00	0.00	0.00	
Australia	1-3YR	-0.20	-0.61	1.06	0.12	1.16	-3.93	2.02	0.77	
	7-10YR	-2.98	-3.39	-2.04	-2.96	-0.14	-5.17	-0.37	-1.60	
	20+YR	-6.91	-7.30	-7.33	-8.20	-5.17	-9.95	-8.74	-9.86	
NZ	1-3YR	-0.24	0.59	0.13	0.34	1.57	-3.72	1.28	5.86	
	7-10YR	-2.83	-2.02	-4.11	-3.91	-3.04	-8.09	-3.27	1.10	
Canada	1-3YR	-0.33	-0.33	-0.08	-0.08	0.51	0.51			
	7-10YR	-2.86	-2.86	-4.36	-4.36	-2.99	-2.99			
	20+YR	-7.08	-7.08	-11.69	-11.69	-7.50	-7.50			

## 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		3	3M		ΓD	12M		
		Local	CAD	Local	CAD	Local	CAD	Local	CAD	
US	1-5YR	-0.31	-0.38	0.27	2.45	1.64	1.41	2.89	1.24	
	5-10YR	-2.14	-2.21	-3.01	-0.90	-1.03	-1.25	0.83	-0.79	
	20+YR	-7.18	-7.24	-12.78	-10.89	-7.92	-8.12	-4.46	-6.00	
UK	1-5YR	1.20	-2.59	2.58	0.62	2.47	3.75	5.89	13.92	
	5-10YR	0.33	-3.43	1.48	-0.46	2.48	3.76	5.36	13.35	
	20+YR	-7.99	-11.43	-12.42	-14.10	-18.14	-17.12	-30.12	-24.82	
EUxUK	1-5YR	-0.60	-3.10	0.65	-0.21	0.96	-0.06	1.13	7.54	
	5-10YR	-2.34	-4.80	-1.69	-2.52	1.01	-0.02	1.12	7.53	
	20+YR	-8.94	-11.24	-12.00	-12.74	-5.48	-6.44	-7.83	-1.98	
Japan	1-5YR	0.16	-2.35	0.46	-0.59	2.66	-9.43	3.10	-1.60	
	5-10YR	0.00	-2.51	-0.60	-1.64	3.25	-8.90	2.73	-1.96	
EM	1-5YR	-0.82	-2.46	3.27	1.95	9.52	8.48	13.19	13.03	
	5-10YR	-1.35	-3.30	-0.03	-1.03	6.63	7.55	12.34	14.56	
	20+YR	-3.40	-5.11	-4.27	-5.18	5.00	10.47	7.46	15.47	
Germany	1-5YR	-0.60	-3.10	0.65	-0.21	0.96	-0.06	1.13	7.54	
	5-10YR	-2.34	-4.80	-1.69	-2.52	1.01	-0.02	1.12	7.53	
	20+YR	-8.94	-11.24	-12.00	-12.74	-5.48	-6.44	-7.83	-1.98	
Italy	1-5YR	-1.03	-3.52	0.41	-0.45	1.83	0.79	4.44	11.06	
	5-10YR	-4.51	-6.92	-3.60	-4.42	2.91	1.87	6.75	13.52	
	20+YR	-13.92	-16.09	-17.05	-17.75	-2.96	-3.94	-1.55	4.69	
Spain	1-5YR	-0.70	-3.20	0.44	-0.41	1.23	0.20	2.13	8.61	
	5-10YR	-2.71	-5.17	-1.74	-2.57	0.98	-0.04	2.75	9.27	
France	1-5YR	-1.05	-3.55	0.07	-0.78	0.60	-0.42	1.40	7.83	
	5-10YR	-2.62	-5.07	-1.65	-2.49	0.93	-0.09	1.64	8.08	
	20+YR	-9.72	-12.00	-12.89	-13.63	-6.32	-7.27	-6.29	-0.35	
Sweden	1-5YR	-0.09	0.62	0.96	2.56	1.51	-2.86	3.39	3.91	
	5-10YR	-0.73	-0.02	-0.68	0.89	-0.38	-4.67	-0.12	0.39	
Australia	1-5YR	-0.41	-0.82	1.09	0.15	3.91	-1.32	7.33	6.01	
	5-10YR	-1.97	-2.37	-0.32	-1.25	3.93	-1.31	7.49	6.17	
	20+YR	-8.29	-8.67	-6.82	-7.69	-1.77	-6.71	3.60	2.32	
NZ	5-10YR	-1.34	-0.52	-2.74	-2.54	1.29	-3.98	4.13	8.84	
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Canada	20+YR	-3.80	-3.80	-7.84	-7.84	-8.24	-8.24			

Indices used: FTSE Canada RRB Canada Bond Index.

## Appendix - Canadian Historical Bond Yields % as of September 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	4.70	4.07	3.88	
	3M Ago	4.34	3.34	3.13	
	6M Ago	3.58	2.87	3.03	
	12M Ago	3.65	3.19	3.13	
IL	Current			2.22	
	3M Ago			1.54	
	6M Ago			1.28	
	12M Ago			1.43	
Provincial	Current	4.87	4.72	4.90	4.84
	3M Ago	4.43	3.99	4.11	4.15
	6M Ago	3.72	3.54	4.08	3.84
	12M Ago	3.87	3.88	4.19	4.03
Ontario	Current	4.88	4.73	4.90	4.85
	3M Ago	4.41	4.00	4.10	4.16
	6M Ago	3.74	3.54	4.07	3.83
	12M Ago	3.89	3.88	4.20	4.03
Quebec	Current	4.80	4.71	4.86	4.81
	3M Ago	4.47	3.98	4.06	4.11
	6M Ago	3.69	3.53	4.04	3.83
	12M Ago	3.85	3.86	4.16	4.02
Alberta	Current	4.89	4.68	4.89	4.82
	3M Ago	4.40	3.99	4.14	4.15
	6M Ago	3.69	3.52	4.10	3.82
	12M Ago	3.85	3.85	4.13	3.97
BC	Current	4.93	4.69	4.88	4.82
	3M Ago	4.50	3.97	4.09	4.11
	6M Ago	3.67	3.51	4.05	3.80
	12M Ago	3.87	3.86	4.15	4.00
Municipal	Current	4.93	4.78	5.14	4.98
	3M Ago	4.49	4.07	4.34	4.30
	6M Ago	3.77	3.61	4.29	3.96
	12M Ago	3.94	3.94	4.44	4.16
Corporate	Current	5.94	5.91	5.78	5.90
	3M Ago	5.54	5.23	5.05	5.36
	6M Ago	4.99	4.88	5.08	5.00
	12M Ago	5.18	5.18	5.24	5.20
High Yield	Current				7.93
-	3M Ago				7.72
	6M Ago				7.37
	12M Ago				7.38

		1-5YR	5-10YR	20+YR	All Mat
AAA/AA	Current	5.66	5.65	5.21	5.65
	3M Ago	5.24	4.97	4.50	5.21
	6M Ago	4.64	4.50	4.58	4.63
	12M Ago	4.76	4.65	4.67	4.74
A	Current	5.85	5.61	5.49	5.72
	3M Ago	5.49	4.93	4.78	5.21
	6M Ago	4.91	4.56	4.80	4.83
	12M Ago	5.09	4.91	4.96	5.03
BBB	Current	6.16	6.09	6.21	6.15
	3M Ago	2.45	1.72	1.68	5.58
	6M Ago	1.44	1.17	1.53	5.27
	12M Ago	5.42	5.39	5.65	5.47
Comm	Current	5.94	6.24	6.07	5.97
	3M Ago	5.20	5.48	5.61	5.34
	6M Ago	4.82	5.55	5.01	5.12
	12M Ago	5.27	5.78	5.23	5.46
Energy	Current	6.07	6.01	5.91	5.99
	3M Ago	5.61	5.32	5.15	5.34
	6M Ago	5.01	5.03	5.18	5.09
	12M Ago	5.23	5.30	5.37	5.31
Financial	Current	5.93	6.01	5.75	5.93
	3M Ago	5.54	5.34	5.12	5.52
	6M Ago	4.99	4.99	5.25	5.00
	12M Ago	5.16	5.15	5.18	5.16
Industrial	Current	5.81	5.72	5.81	5.79
	3M Ago	5.45	5.08	5.10	5.26
	6M Ago	4.88	4.78	5.23	4.94
	12M Ago	5.14	5.06	5.39	5.18
Infrastructure	Current	5.51	5.53	5.55	5.54
	3M Ago	5.02	4.87	4.83	4.86
	6M Ago	4.50	4.46	4.83	4.72
	12M Ago	4.68	4.81	4.97	4.91
Securitization	Current	5.90			5.91
	3M Ago	5.55			5.55
	6M Ago	4.93			4.93
	12M Ago	5.02			5.02

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.

## Appendix - Historical Bond Yields % as of September 30, 2023

Global Bond Yields

Top 15% Bottom 15%

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

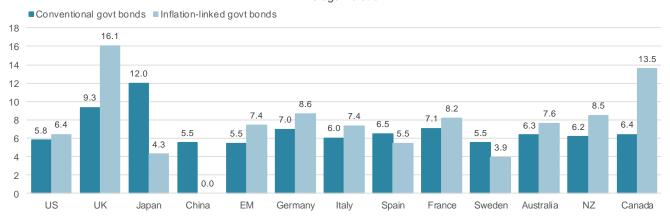
		Conv	entional go	vernment l	oonds	Inflat	ion-linked l	onds	Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	5.16	4.71	4.59	4.82	2.72	2.29	2.37	6.06	
	3M Ago	5.01	4.31	3.85	3.95	2.45	1.72	1.68	5.53	
	6M Ago	4.20	3.72	3.49	3.76	1.44	1.17	1.53	5.25	
	12M Ago	4.31	4.18	3.83	3.95	2.11	1.82	1.95	5.72	
UK	Current	4.73	4.46	4.35	4.81	0.55	0.53	1.39		
	3M Ago	5.36	5.04	4.38	4.35	1.78	0.72	0.90		
	6M Ago	3.79	3.55	3.43	3.80	0.00	-0.27	0.35		
	12M Ago	4.39	4.36	4.22	4.29	-0.37	0.48	0.54		
Japan	Current	0.01	0.21	0.66	1.61	-1.75	-0.70			
-	3M Ago	-0.10	-0.01	0.29	1.21	-1.64	-0.87			
	6M Ago	-0.09	0.02	0.30	1.22	-1.30	-0.51			
	12M Ago	-0.07	0.02	0.26	1.34	-1.35	-0.77			
China	Current	2.24	2.42	2.70	3.06					
	3M Ago	2.09	2.33	2.66	3.08					
	6M Ago	2.31	2.56	2.84	3.25					
	12M Ago	2.06	2.35	2.73	3.17					
EM	Current	3.58	4.52	5.05	4.51	3.27	4.48	5.32	6.43	11.01
	3M Ago	3.67	4.04	4.79	4.42	4.15	4.07	4.86	5.95	11.86
	6M Ago	3.62	4.37	4.69	4.52	2.59	3.67	5.15	5.77	11.18
	12M Ago	3.70	4.42	5.07	4.79	1.96	3.35	5.28	6.09	13.35
Germany	Current	3.21	2.78	2.75	2.97	0.87	0.44	0.52		
	3M Ago	3.17	2.66	2.37	2.36	0.96	0.19	-0.06		
	6M Ago	2.69	2.36	2.24	2.33	-0.02	-0.12	-0.15		
	12M Ago	1.66	1.90	2.00	2.12	-0.78	-0.43	-0.29		
Italy	Current	3.94	4.03	4.50	5.02	1.68	2.31	2.43		
	3M Ago	3.79	3.71	3.87	4.25	1.74	1.78	1.70		
	6M Ago	3.27	3.43	3.88	4.34	0.45	1.50	1.74		
	12M Ago	2.87	3.41	4.05	4.43	0.23	1.71	1.89		
France	Current	3.33	3.14	3.26	3.79	0.82	0.75	1.12		
	3M Ago	3.21	2.94	2.85	3.19	0.88	0.47	0.55		
	6M Ago	2.83	2.66	2.70	3.17	-0.29	0.05	0.53		
	12M Ago	1.91	2.32	2.50	2.95	-0.97	-0.20	0.38		
Sweden	Current	3.50	3.18	2.98		1.42	1.28			
	3M Ago	3.43	2.94	2.61		1.18	0.91			
	6M Ago	2.85	2.56	2.25		0.09	0.32			
	12M Ago	2.31	2.28	2.08		-0.48	-0.23			
Australia	Current	4.14	4.10	4.43	4.86	1.30	1.78	2.24		
	3M Ago	4.17	3.99	4.02	4.36	1.04	1.47	1.85		
	6M Ago	3.03	3.00	3.27	3.82	0.01	0.82	1.43		
	12M Ago	3.44	3.27	3.54	4.01	-0.12	1.06	1.71		
NZ	Current	5.63	5.35	5.32	5.54	2.50	2.89			
	3M Ago	5.08	4.67	4.61	4.77	1.53	2.15			
	6M Ago	4.78	4.37	4.23	4.37	1.04	1.72			
	12M Ago	4.20	4.46	4.16	4.34	1.56	2.05			
Canada	Current	4.70		4.07	3.88			2.22	5.90	7.93
Janada	3M Ago	4.34		3.34	3.13			1.54	5.36	7.72
	6M Ago	3.58		2.87	3.03			1.28	5.00	7.37
	12M Ago							,— ,— ,— ,— ,— ,— ,— ,— ,— ,— ,— ,— ,— ,		

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

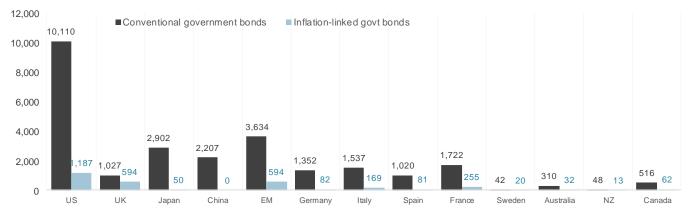
	Conventional government bonds										Inflation-linked government bonds					
		Durat	ion		Market Value				Duration			Market Value				
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total		
US	3.7	7.4	16.6	5.8	2,336.3	1,016.5	1,147.5	10,110.2	7.0	21.2	6.4	374.4	114.8	1186.8		
UK	3.4	7.5	17.9	9.3	129.3	178.5	272.7	1,026.8	6.9	27.2	16.1	97.3	220.6	593.8		
Japan	3.9	8.0	23.7	12.0	347.2	333.9	626.2	2,901.5	7.3		4.3	19.1		50.1		
China	3.7	7.5	17.6	5.5	450.8	347.6	252.7	2,207.1								
EM	3.6	6.9	15.8	5.5	738.74	655.47	345.32	3,633.5	5.8	13.4	7.4	105.8	159.9	594.1		
Germany	3.8	7.6	20.3	7.0	295.95	204.19	142.89	1,351.8	7.1	21.6	8.6	41.2	16.6	82.5		
Italy	3.7	7.2	15.7	6.0	269.05	227.15	134.11	1,537.0	7.8	26.1	7.4	54.7	4.6	168.6		
Spain	3.8	7.5	16.8	6.5	196.31	175.14	88.72	1,020.2	6.6		5.5	21.5		80.6		
France	3.6	7.5	19.4	7.1	312.44	302.33	190.11	1,721.8	6.6	24.2	8.2	98.6	18.6	254.5		
Sweden	3.6	7.5		5.5	13.22	8.45		41.8	5.7		3.9	9.4		20.3		
Australia	3.4	7.6	17.1	6.3	49.79	83.62	13.55	310.3	7.1	22.1	7.6	9.4	2.4	31.9		
NZ	3.7	7.5	16.1	6.2	9.69	13.14	2.20	48.0	6.2		8.5	3.0		12.9		
Canada		7.1	16.9	6.4		168.40	89.00	515.8		13.5	13.5		61.7	61.7		

	Investment grade bonds											
			Duration			Market Value				Duration	MktVal	
	AAA	AA	Α	BBB	Overall	AAA	AA	Α	BBB	Overall		
US	10.2	8.1	6.9	6.4	6.8	68.6	431.6	2,513.0	3,216.0	6,229.3	3.9	1,151.5
Euro	5.7	4.7	4.5	4.2	4.4	11.0	177.5	1,147.5	1,381.6	2,717.6	3.0	405.7
EM		5.5	4.6	4.9	4.9		45.19	216.36	311.9	573.4	3.3	183.7

### Average Duration

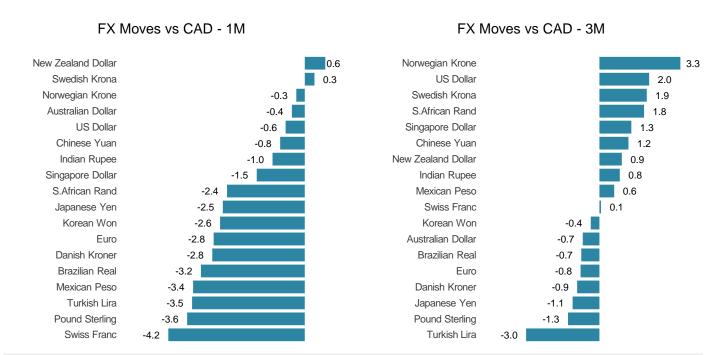


### Total Market Value (USD Billions)



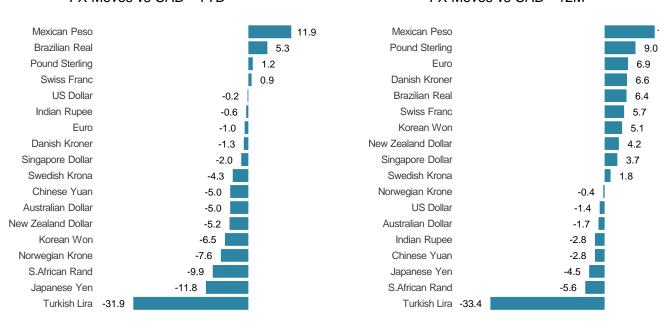
Data as of 2023-09-29

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



### FX Moves vs CAD - YTD

### FX Moves vs CAD - 12M



## 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

Source: FTSE Russell. All data as of September 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. For professional investors only



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