FTSE Russell
An LSEG Business

Fixed Income Insights

MONTHLY REPORT – **SEPTEMBER 2023 | US EDITION**

FOR PROFESSIONAL INVESTORS ONLY

Are fixed income markets preparing for a return to Goldilocks?

Bond market focus shifted to resilient growth in August, as yields rose. Similarities with the Goldilocks era are emerging as inflation cools, and growth recovers. If 3-6% rates are the new normal, income and carry may supplant duration as key factors. Chinese govt bonds and US high yield credit were best performing sectors.

Macro and policy backdrop – Lower inflation but 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. (pages 2-3)

Yields, curves and spreads – Yields, and curves start to resemble the Goldilocks era of 2002-06

Some signs of dis-inversion as longer yields rise, and markets begin to adjust to a new era of higher rates? (pages 4-5)

Sovereign and climate bonds – JGB underperformance, after curve control eases, may weigh on sovereign greenium

Increased country weights for longer duration sovereign bond markets, notably Japan and UK, key to spread moves. (page 6)

Performance – Longer duration sovereigns fell in August, apart from China and EM bonds

Duration proved the enemy again in August, as curves disinverted, and long maturities re-priced to higher rates. (pages 7-9)

Appendix (from page 10)

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

Chart 1: US Treasury and Tips yields rose most in August, as Fed caution on rates prevailed, and other central banks followed suit.

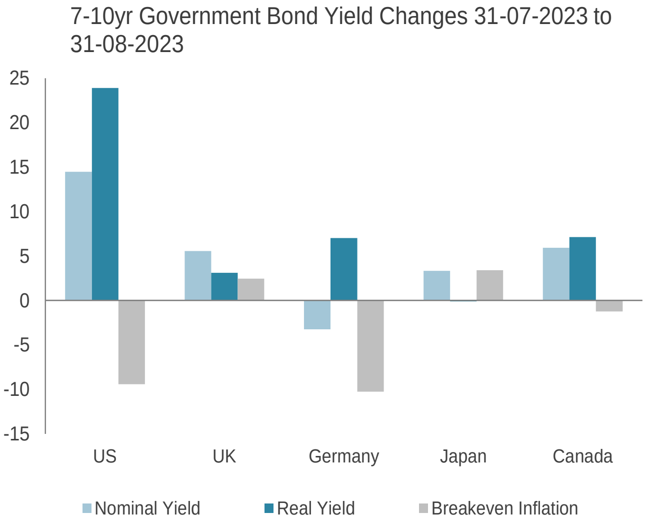
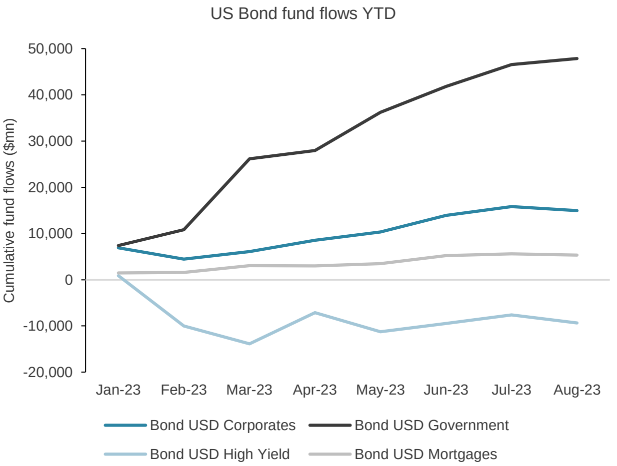


Chart 2: US bond fund flows into Treasuries show divergence from performance in 2023, since credit has outperformed, led by high yield.



Source: FTSE Russell and Lipper. 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

Real growth has withstood higher rates in 2022-23, without G7 recessions (apart from a mild Eurozone version) helped by buoyant consumer spending, as savings ratios fell. Further disinflation may be elusive in Q3, due to base effects and energy prices. China is an inflation outlier as a distressed property sector and weak consumer spending increase deflation risks.

G7 recessions have disappeared from 2023 Consensus Forecasts, after resilient Q2 GDP readings, and robust US growth early in Q3 (Chart 1). 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 consumers become more cautious, post-Covid. Japanese growth is benefiting from the recovery in services, after lockdowns were lifted, led by tourism.

Chart 2 shows steep disinflation in Q2 2023, helped by y/y base effects, but base effects deteriorate in Q3. Fed Chairman Powell confirmed at Jackson Hole that "a period of below-trend growth as well as some softening in labor market conditions" is needed for 2% inflation sustainably. Non-housing services are a key Fed focus (over 50% of the core PCE deflator) but high wage costs may delay disinflation in the sector, given the tight labor market. US core PCE has only fallen from a peak of 5.4% y/y to 4.3% y/y in July.

Personal savings ratios have returned to pre-Covid levels in the US and UK, helped by the earlier end to lockdowns in Europe and the US, than Asia (Chart 3). Covid windfalls from fiscal support and low unemployment appear to have boosted consumer confidence, and outweighed the impact of higher rates on savings to date. Only in China is there evidence of more consumer caution, post-Covid.

The US labor market shows evidence of labor hoarding and shortages, even if (nominal) average earnings growth has slowed a little to 4.4% y/y (Chart 4). US wage growth now exceeds the inflation rate for the first time since 2021, helping to sustain consumer spending. An increase in US labor force participation rates would ease wage growth and labor shortages, but this has proved elusive in this cycle, after "the great resignation".

Chart 1: Consensus G7 GDP forecasts show no recessions in 2023-24, despite the policy tightening, as consumers sustain spending. But Chinese forecasts are most at risk, as consumer caution prevails.

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: July inflation data generally showed a modest uptick, as base effects are less favorable. The Fed seems resigned to a period of higher rates to secure the 2% target, with core PCE inflation still at 4.3% y/y.

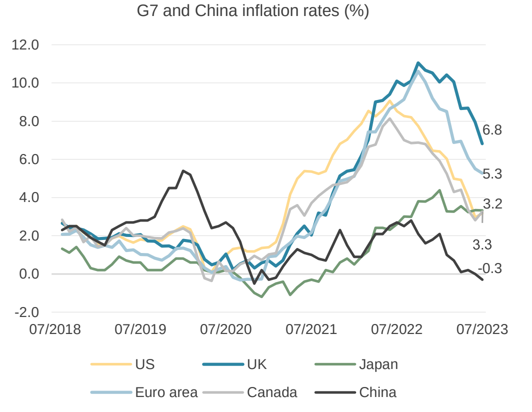


Chart 3: Consumer spending has been sustained by a fall in savings in the US and UK, despite higher rates, and the cost of living squeeze. Low unemployment and Covid fiscal support have supported consumers.

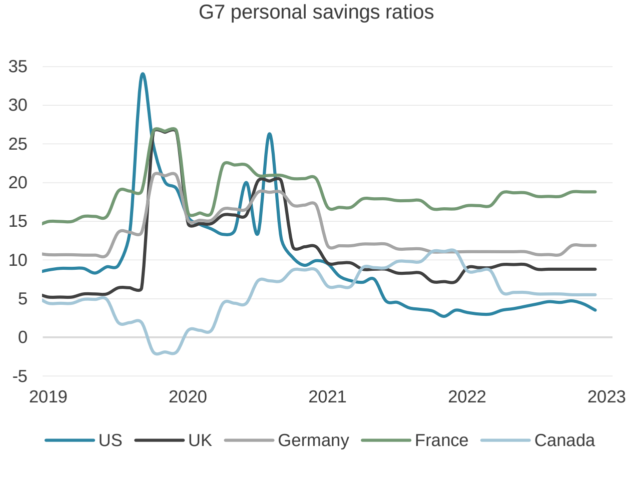
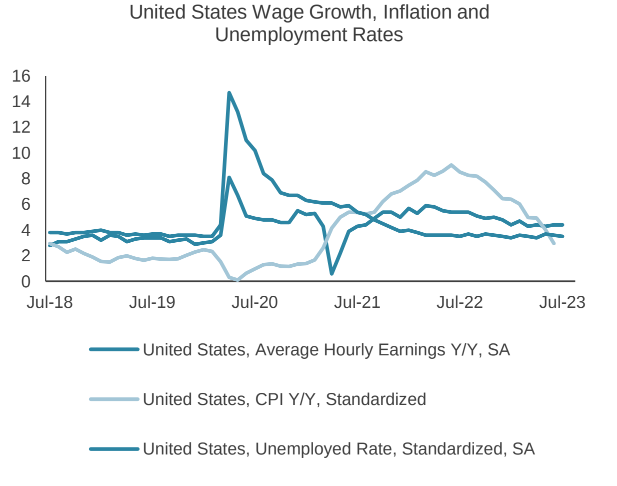


Chart 4: Although wage growth now exceeds US cpi inflation, the Fed remains cautious about service sector inflation particularly. Service sector wage pressures remain a key inflation driver and variable for the Fed.



Source: FTSE Russell and LSEG. Available 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.

Financial Conditions and Monetary Policy Settings

G7 central banks, exc.BoJ, have tightened financial conditions by raising rates since March 2022, but the tightening is not severe, partly because of accommodative starting conditions. Currency moves reflect rate differentials with the yen and renminbi weakest. A stronger housing market and Covid loan forbearance prevented a spike in US mortgage defaults.

The mixed picture on US financial conditions (FC) is shown in Chart 1. Higher Treasury and corporate bond yields are offset by tighter spreads and strong equities, so FC eased since June, even if they tightened since the Fed raised rates in Q1, 2022. Overall, FC are less tight than average, helped by tail winds from earlier Fed stimulus, low yields, and strong house prices and equities*.

Interest rate differentials and policy settings have dominated fx movements in 2023 (Chart 2). Both the renminbi and yen fell back in August, after further policy easing by the PBOC, and after the initial yen rally on the easing of curve control evaporated, and more yen carry trades were implemented. The dollar rallied across the board as the Fed refused to rule out further tightening.

G7 central banks left options open to tighten policy again, if needed, after the August moves, as the stronger pass-through of wage increases to service sector inflation is a challenge, given tight labour markets. The BoE's policy challenge is the most acute with inflation still close to 7% y/y. Various FOMC members have stressed the Fed's inflation risk management in Q3.

US mortgage delinquencies have been closely correlated with the economic cycle and unemployment rates. But loan forbearance schemes, a high share of fixed rate mortgages and low share of sub-prime mortgages prevented a spike in 2020 (Chart 4).

* See " A New index to measure US financial conditions " , Fed Notes, June 30, 2023, Board of Gov. of US Fed. Reserve system.

Chart 1: US financial conditions indices have tightened since the Fed began raising rates, but the moves are not severe. Stronger equities and a weaker dollar mean conditions eased in Q3.

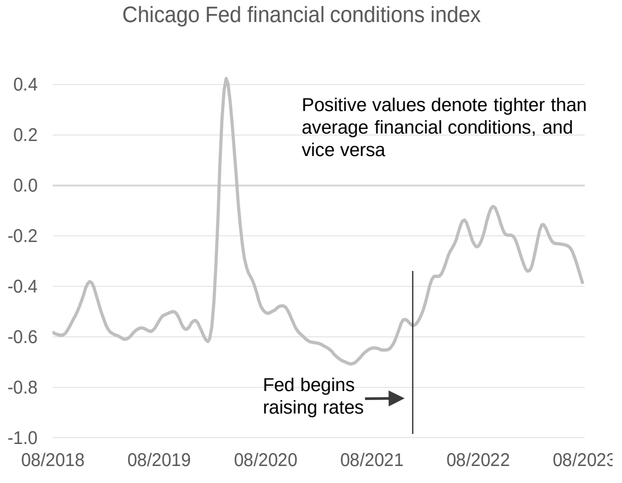


Chart 2: Currencies have been strongly correlated with interest rate differentials in 2023, with yen and renminbi the weakest. The yen's rally after the flexing of curve control has proved short-lived to date..

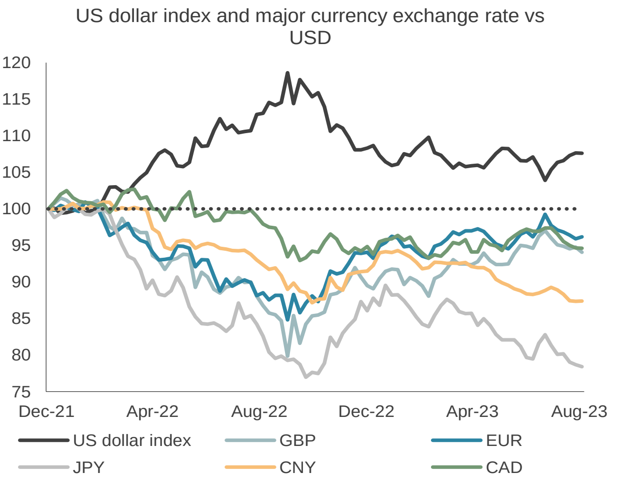


Chart 3: Central banks, exc. the BoJ and PBOC, remain reluctant to rule out further rate increases, as they seek to recover low inflation regimes, even if this increases the risk of doing too much, too late.

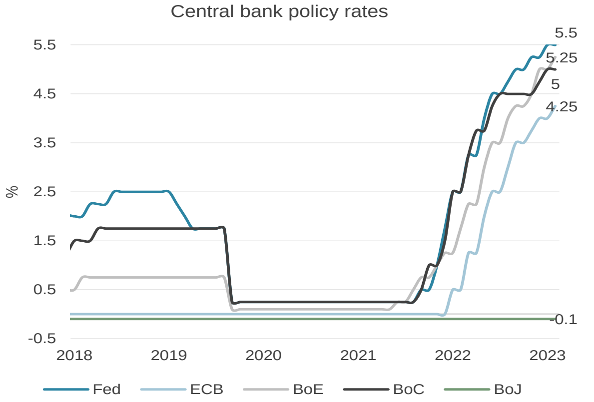
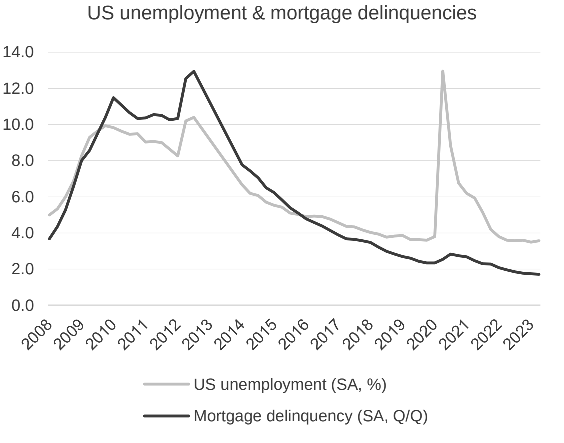


Chart 4: US mortgage defaults have trended lower, despite higher rates and the Covid unemployment spike, reflecting a high share of fixed rate mortgages, and loan forbearance schemes during Covid.



Source: FTSE Russell and LSEG. 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.

Global Yields, Curves and Spread Analysis

Chart 1: 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. JGB yields increased as curve control was eased.

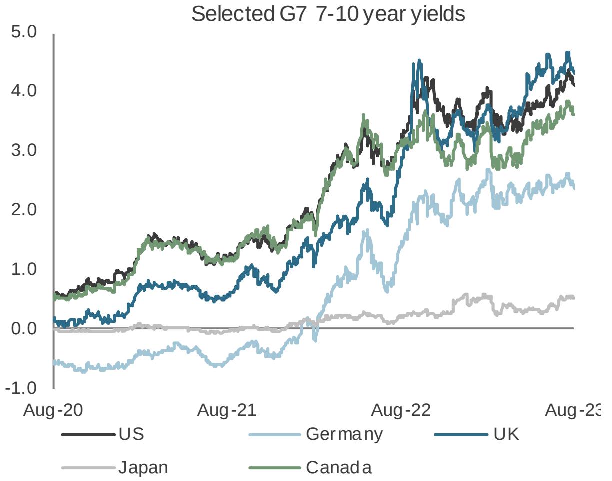


Chart 2: Real yields edged higher in August, as real growth proved resilient, and central banks signaled no early respite on rates. Lower inflation helped UK linkers but wage inflation remains the key issue.

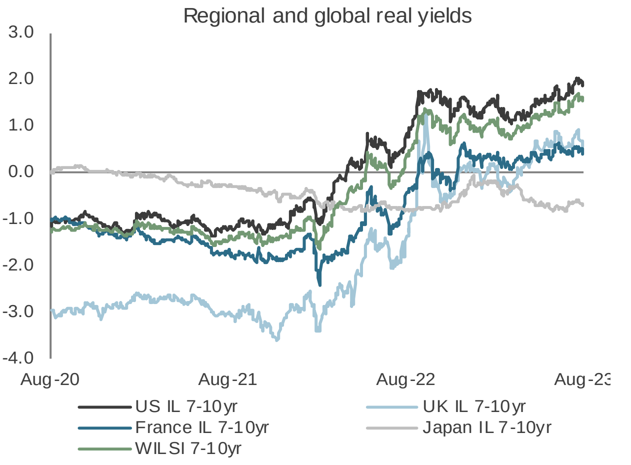


Chart 3: Yield curves disinverted somewhat, as longer yields rose. This may suggest markets are adjusting further to the end of zero rates. The JGB curve steepened on BoJ flexing of curve control.

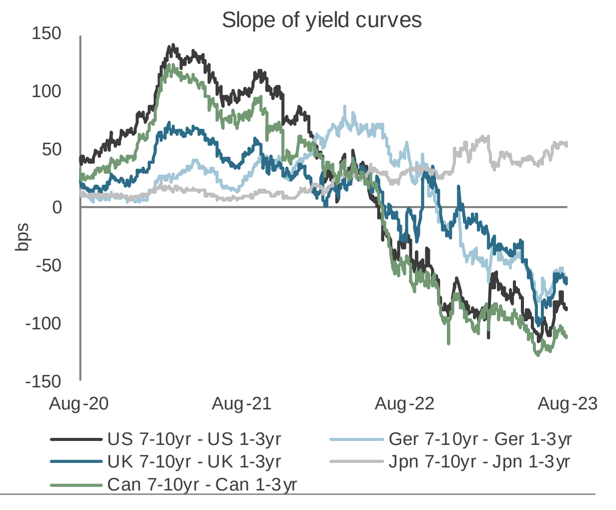


Chart 4: Long end yields also rose, as investor concerns about re-investment risk eased, on the view yields may now have entered higher trading ranges. However, curves remain inverted, ex JGBs.

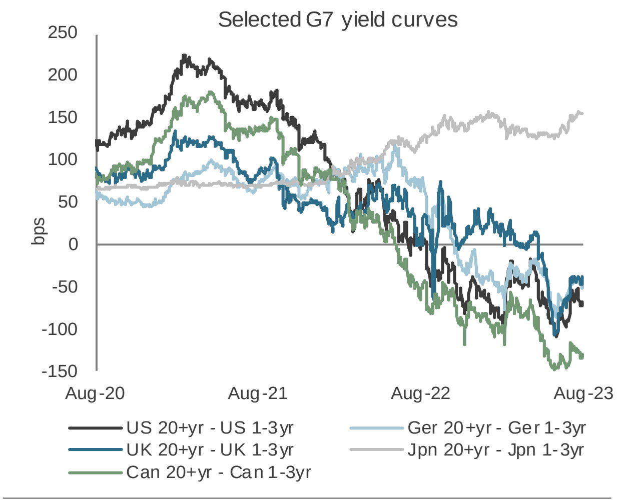


Chart 5: WGBI breakevens edged lower in August, but JGB breakevens increased modestly, as inflation linked yields rose less than nominals. Breakevens normally move pro-cyclically with yields.

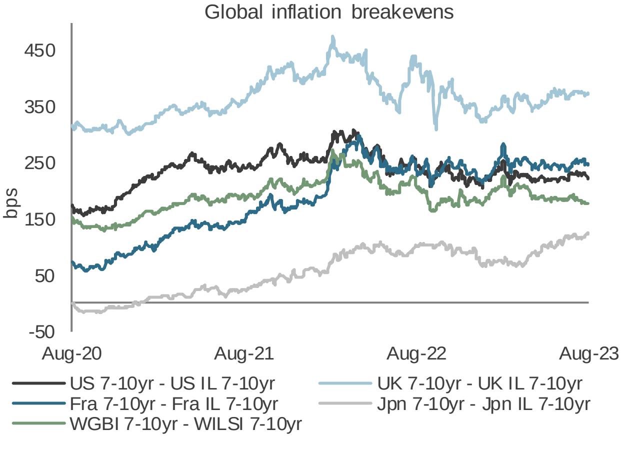
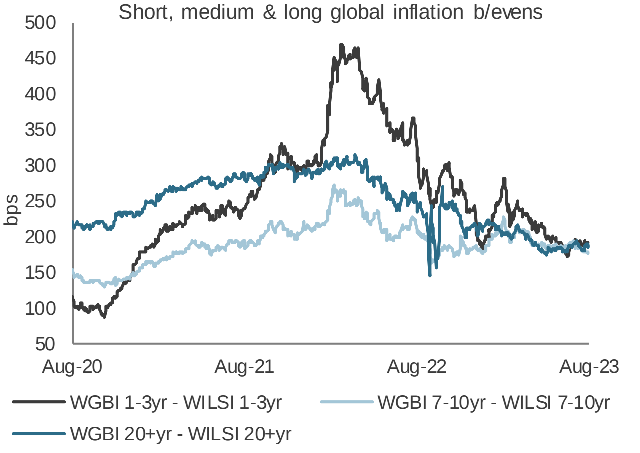


Chart 6: Overall, global inflation breakevens of all tenors remain stable around 2%, after a period of higher short-dated breakevens, with little evidence of inflation expectations de-stabilizing.



Source: FTSE Russell and LSEG. 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. For professional investors only.

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 JGBs and gilts, Treasuries are returning to pre-Covid spreads.

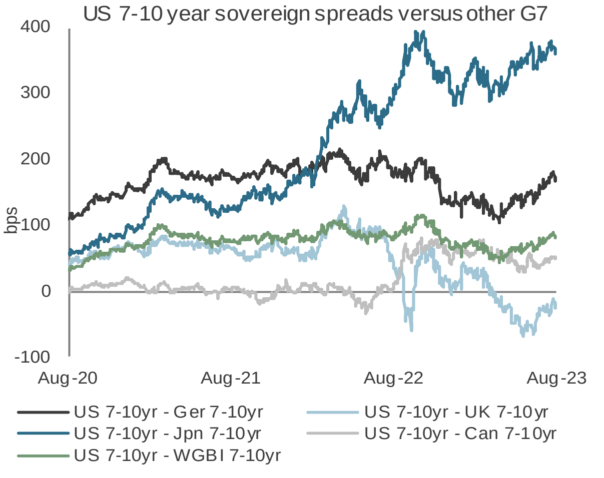


Chart 2: Italian sovereign spreads fell further in August, continuing the decline of recent months, helped by increased foreign investment, and the continuing decline in the debt/GDP ratio.

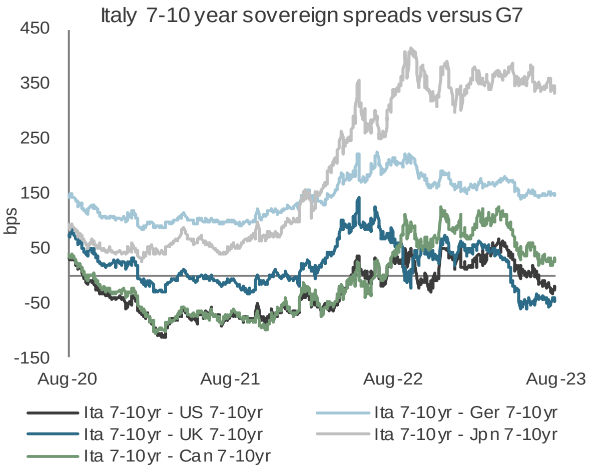


Chart 3: Emerging Market sovereign spreads remain near multi-year lows, reflecting EM success in early counter-inflation measures in 2021-22, and QE support during the initial Covid crisis in 2020.

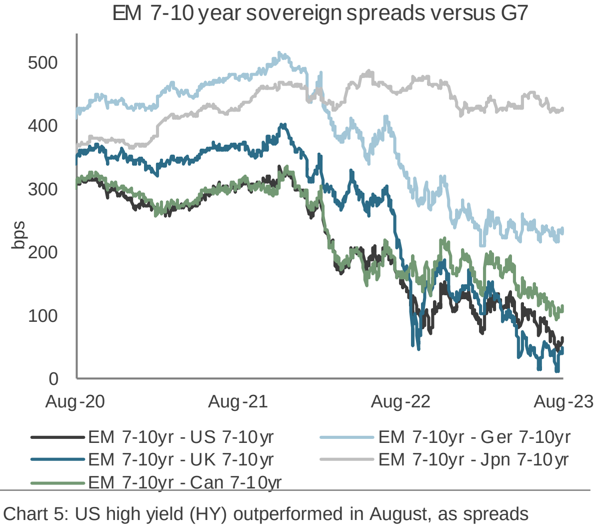


Chart 4: China's strong negative correlation with G7 yields continues, as concern about debt-deflation drove Chinese yields lower in August, while stronger growth drove G7 yields higher.

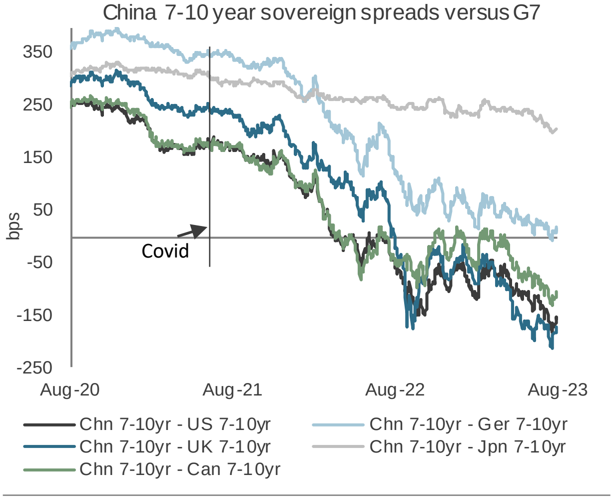


Chart 5: US high yield (HY) outperformed in August, as spreads tightened, as Eurozone HY spreads flat-lined. Closer correlation of IG credit with govt bonds has meant more stable IG spreads.

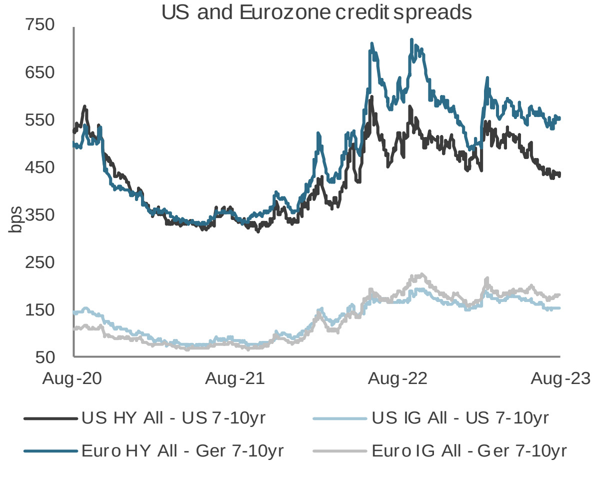
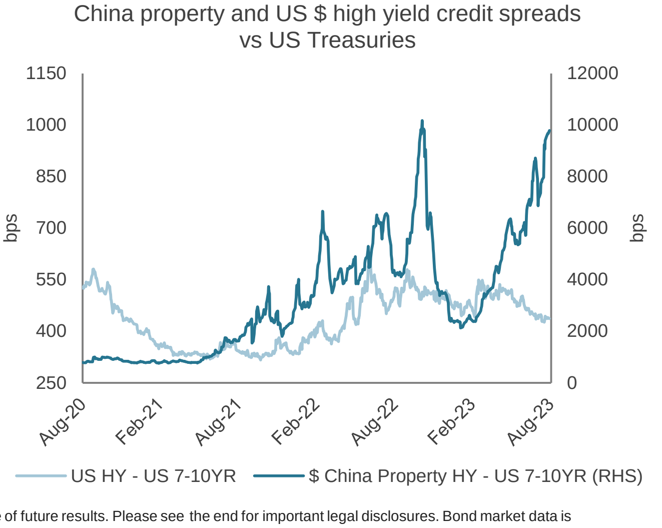


Chart 6: Chinese $ HY spreads surged back to November highs, completely reversing the Q1 tightening. Widening spreads did not reflect the easier mortgage policies unveiled by the PBoC in late August.



Source: FTSE Russell and LSEG. 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. For professional investors only.

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 stabilized in 2023.

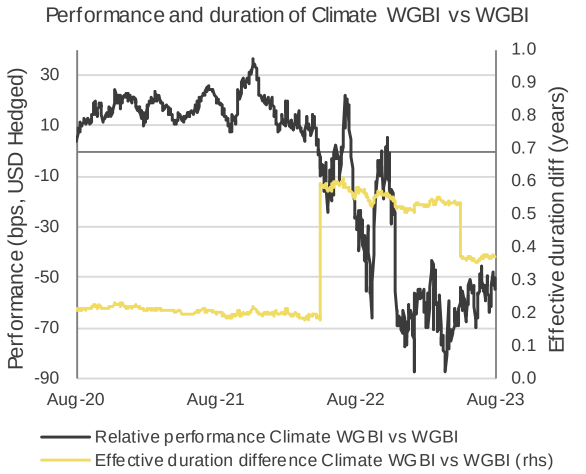


Chart 2: US underweight in the Climate WGBI fell in July's re-weighting, reducing the duration difference v WGBI. China's 15% underweight prevented lower Chinese yields impacting Climate-WGBI significantly.

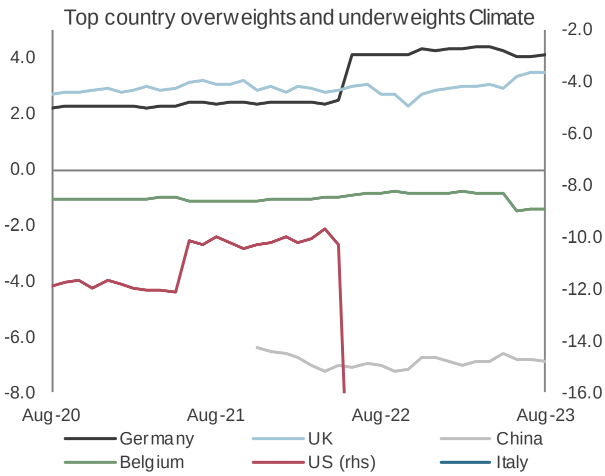


Chart 3: Climate WGBI yields remain below WGBI, though the differential narrowed after the increase in JGB yields since curve control was eased, due to Japan's high weight in the climate WGBI.

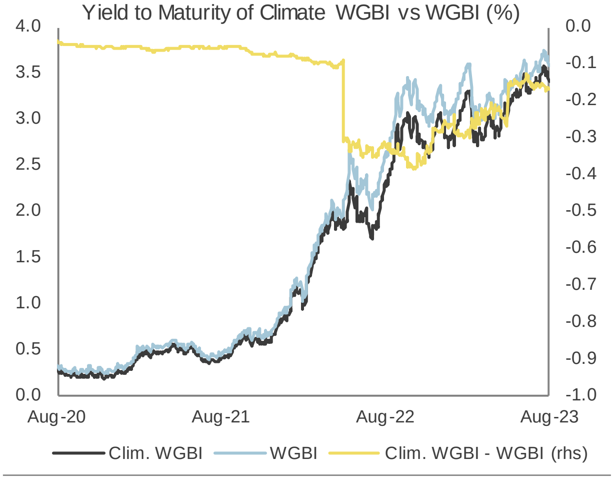


Chart 4: Climate WGBI's higher weighting in the Eurozone gives the index higher AAA weight, with Bunds rated AAA, but the lower US weighting in climate WGBI means the AA weight is notably lower.

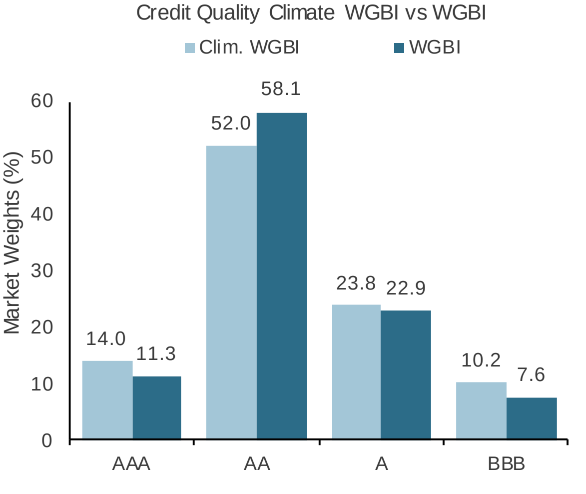


Chart 5: Although curves dis-inverted a little in August, with longer yields rising, yields remain close to 3% in both WGBI and climate WGBI in 2023, eliminating most of the "greenium" in climate WGBI.

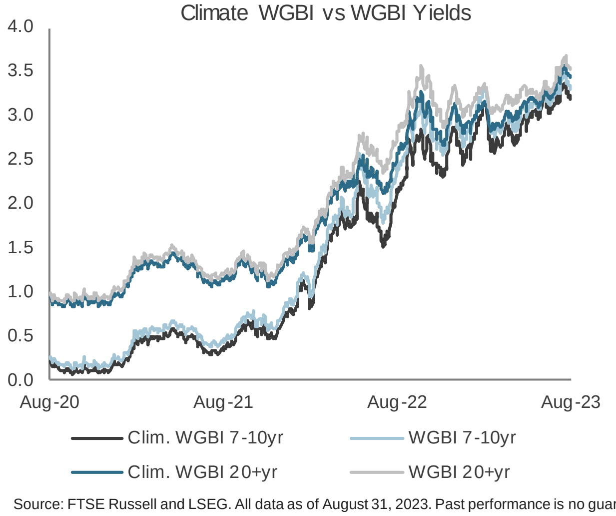
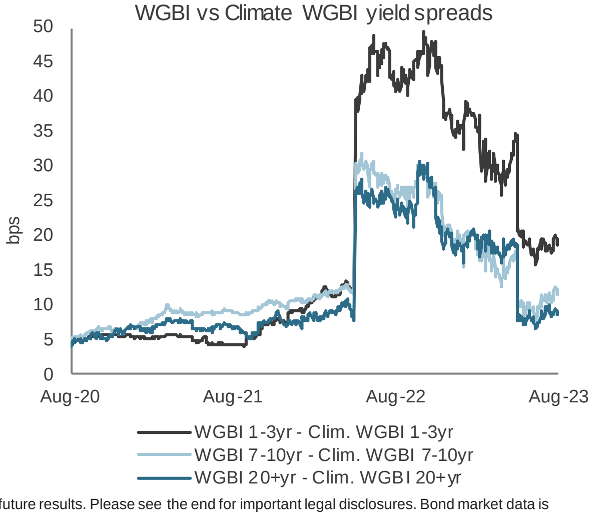


Chart 6: The "greenium" or yield discount on climate-WGBI increased when Japan's weight increased, and the US fell, in 2022. But this may unwind further as BoJ curve control is eased.



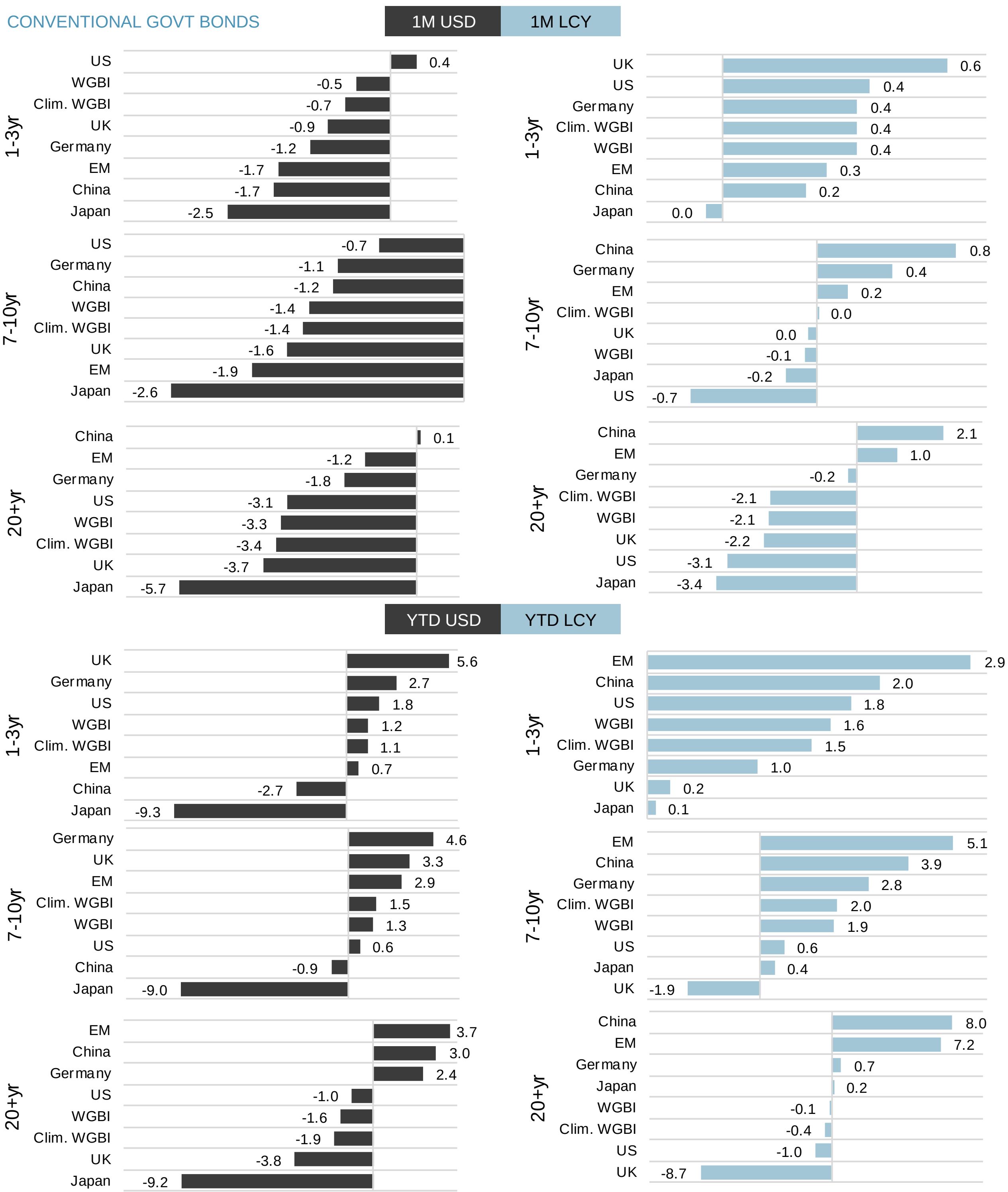
Source: FTSE Russell and LSEG. All data as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional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

Global Sovereign Bond Returns – 1M and YTD % (USD & LC, TR)

Longer duration sovereign bonds fell back in August, with only China and EM bonds resisting the trend (in LC). JGBs were weakest, losing up to 6% in dollar terms, as the yen rally, on curve control flexing, reversed quickly. It is a similar story YTD, with long gilts and JGBs losing 4-9% in dollar terms, while China, EM bonds and short gilts gained up to 6%.

There were signs of a replay of 2022's duration-driven losses in August, in longer dated G7 bonds with losses of 2-6% in dollar terms, in JGBs, Bunds, gilts, US Treasuries, also due to weaker currencies. Short yields actually fell marginally (ex Japan).

YTD, short gilts, long EM and China governments returned 3-6% but long JGBs lost 10%. FX moves often drove the bulk of returns, notably yen weakness but also sterling and euro strength.



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.

Global Inflation-Linked Bond Returns − 1M & YTD % (USD, LC, TR)

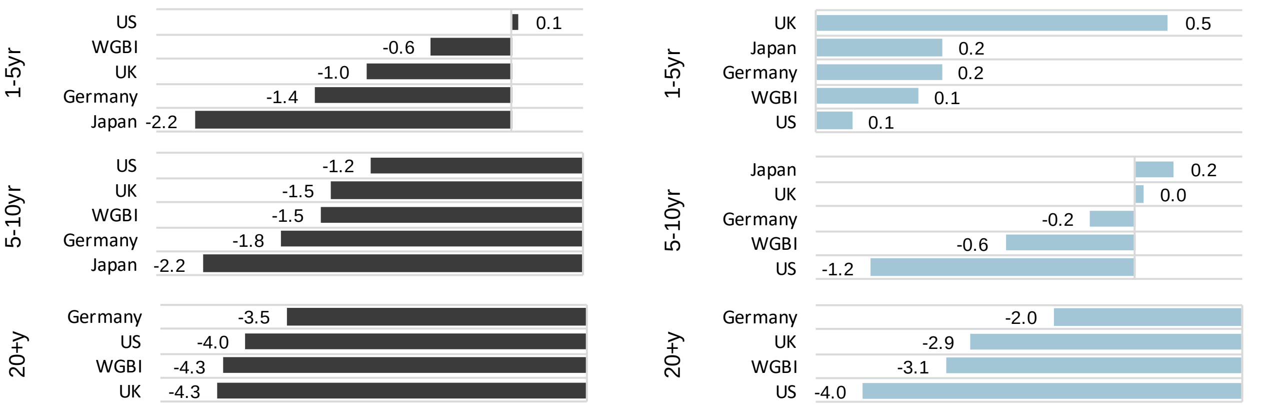
Longer inflation-linked gave up the July gains in August, and more, and dollar strength squeezed returns further in overseas markets, with losses of up to 4% in dollar terms in UK linkers and Tips. Credit continues to outperform YTD, led by Eurozone and US high yield, with gains of up to 9% in dollar terms. IG credit is still up YTD but more modestly by 3-5%.

US dollar strength, high duration and fears of more rate increases drove longer linker weakness in August, and credit fell modestly.

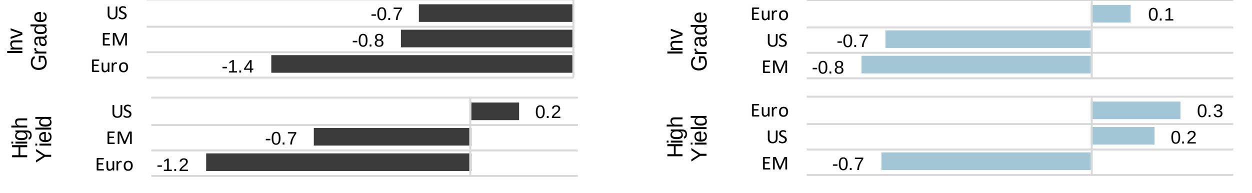
YTD, credit has outperformed, with HY strongest, thanks to the correlation of HY credit to equity market performance, shorter duration, and less sensitivity to higher govt bond yields. The strong euro also boosted Euro HY returns, in dollar terms, YTD.

INFLATION LINKED BONDS

1M USD | 1M LCY

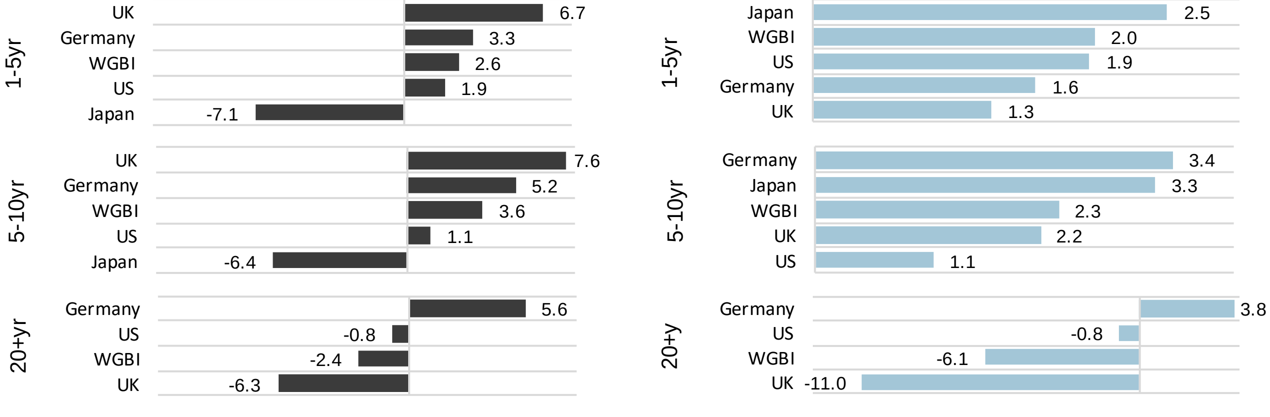


CORPORATE BONDS

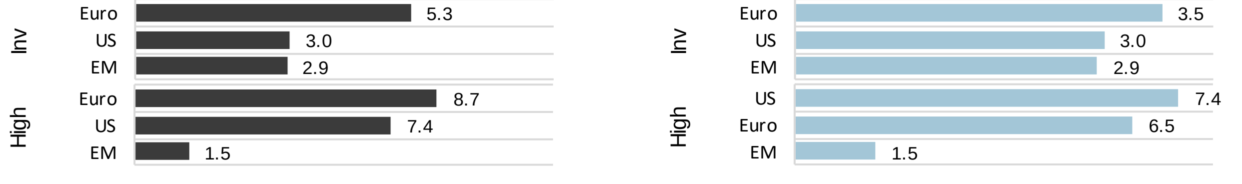


INFLATION LINKED BONDS

YTD USD | YTD LCY



CORPORATE BONDS



Source: FTSE Russell. All data as of August 31, 2023. This analysis is taken from 100+ 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.

Top and Bottom Bond Returns – 1M & 12M % (USD, TR)

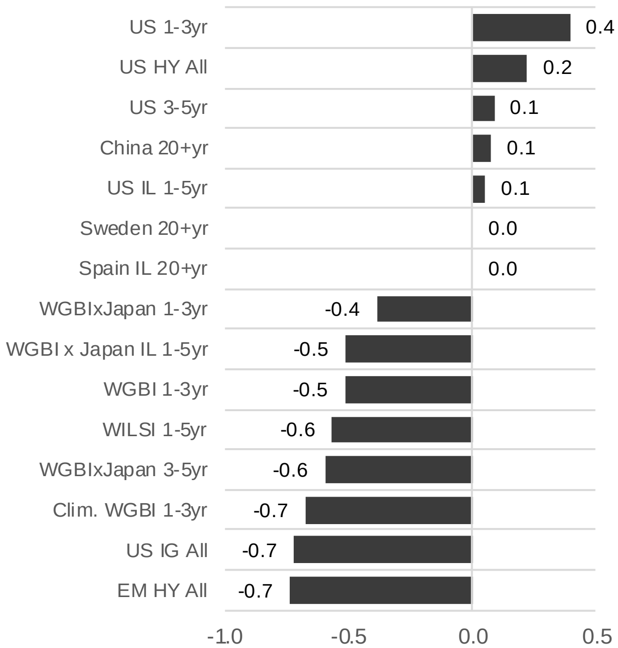
Shorter Treasuries, Tips and Chinese bonds held their valuations in August, in dollar terms, while long Australasian, UK index-linked, US Tips and JGB bonds lost 4-7%. 12M returns still capture some of the brutal 2022, duration-driven sell-off, with losses of 9-22% in long NZ, Canadian, WILSI, US Tips and UK gilts and index-linked bonds.

Very few bonds managed positive returns in August, but losses were mainly seen in longer maturities, with Australasian returns squeezed by currency weakness, on economic exposure to the China slowdown. JGBs were also hit by yen weakness.

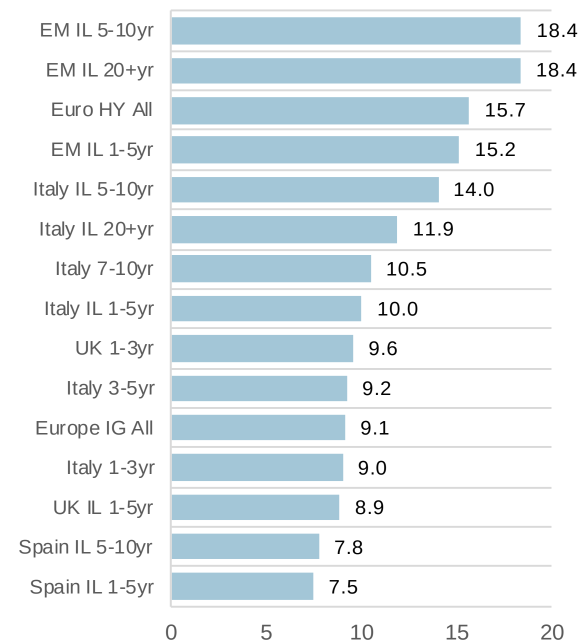
On 12M, EM inflation linked were strongest performers, gaining 18%, helped by currency strength. Eurozone debt also gained 8-14%, in dollar terms, boosted by currency gains, and improved fundamentals in Italy. Short gilts benefited from sterling strength.

1M USD	12M USD

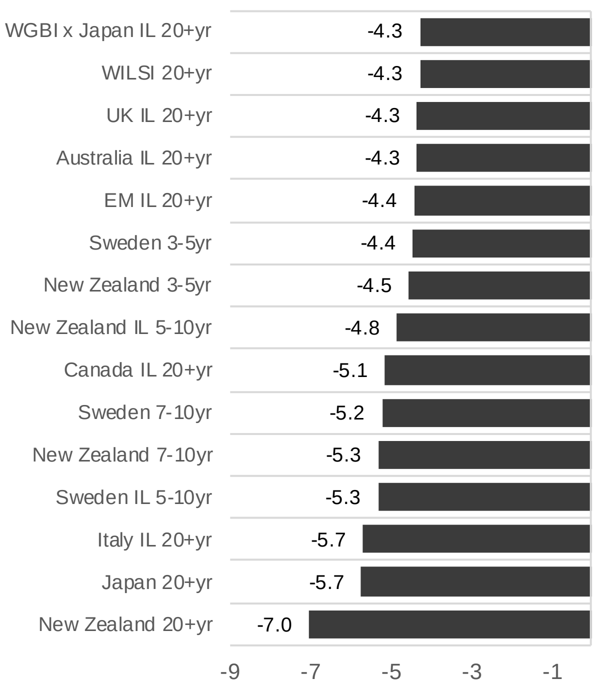
Top 15



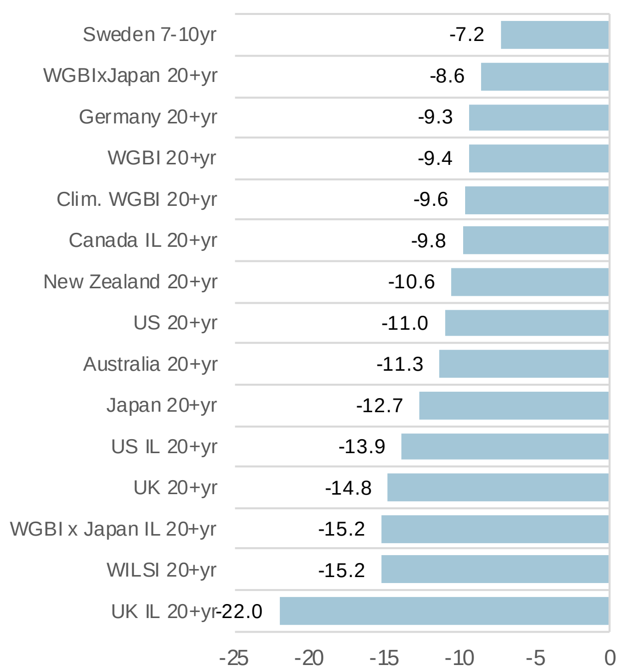
Top 15



Bottom 15



Bottom 15



Source: FTSE Russell. All data as of August 31, 2023. This analysis is taken from 100+ 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 – Global Bond Market Returns % (USD & LC, TR) – August 31, 2023

Government Bond Returns

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

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
US	1-3yr	0.26	0.26	1.78	1.78	1.80	1.80	1.33	1.33
	7-10yr	-2.59	-2.59	0.40	0.40	0.62	0.62	-3.51	-3.51
	20+yr	-5.37	-5.37	-3.33	-3.33	-1.04	-1.04	-11.00	-11.00
	IG All	-0.02	-0.02	2.02	2.02	2.96	2.96	0.82	0.82
	HY All	3.51	3.51	4.71	4.71	7.36	7.36	6.75	6.75
UK	1-3yr	0.54	2.79	0.29	4.97	0.20	5.56	0.61	9.56
	7-10yr	-0.45	1.78	-2.22	2.34	-1.92	3.32	-7.59	0.63
	20+yr	-0.34	1.90	-6.33	-1.96	-8.66	-3.78	-21.73	-14.76
Euro	IG All	0.77	2.59	2.38	4.77	3.51	5.27	1.11	9.13
	HY All	2.10	4.00	2.88	5.56	6.47	8.69	7.06	15.69
Japan	1-3yr	-0.13	-4.15	-0.07	-6.50	0.07	-9.30	-0.16	-4.93
	7-10yr	-1.26	-5.25	0.51	-5.96	0.36	-9.04	-1.73	-6.42
	20+yr	-7.19	-10.93	-3.88	-10.07	0.16	-9.22	-8.29	-12.68
China	1-3yr	0.71	-1.86	1.85	-3.05	2.05	-2.69	2.38	-3.18
	7-10yr	1.60	-0.99	3.54	-1.44	3.90	-0.92	3.57	-2.06
	20+yr	4.36	1.70	8.53	3.31	8.04	3.02	7.22	1.39
EM	1-3yr	0.67	0.67	1.00	1.00	2.42	2.42	3.51	3.51
	7-10yr	0.02	0.02	1.96	1.96	1.78	1.78	1.23	1.23
	IG All	-0.12	-0.12	1.92	1.92	2.89	2.89	2.07	2.07
	HY All	1.83	1.83	0.16	0.16	1.55	1.55	4.50	4.50
Germany	1-3yr	0.11	1.92	1.41	3.79	0.97	2.69	-1.10	6.75
	7-10yr	-0.78	1.02	2.91	5.32	2.85	4.59	-5.08	2.45
	20+yr	-2.58	-0.82	1.48	3.85	0.67	2.38	-16.01	-9.34
Italy	1-3yr	0.50	2.32	1.97	4.36	2.05	3.78	0.98	9.00
	7-10yr	1.14	2.97	4.81	7.26	7.26	9.08	2.37	10.50
	20+yr	1.62	3.45	4.71	7.16	8.52	10.37	-3.38	4.29
Spain	1-3yr	0.17	1.98	1.49	3.87	1.33	3.05	-0.69	7.20
	7-10yr	-0.17	1.64	3.16	5.58	3.58	5.34	-2.99	4.71
	20+yr	-0.28	1.52	2.13	4.53	2.28	4.02	-9.55	-2.37
France	1-3yr	0.08	1.89	1.43	3.81	1.31	3.03	-1.06	6.79
	7-10yr	-0.53	1.27	2.74	5.15	2.97	4.72	-4.48	3.10
	20+yr	-1.53	0.25	1.93	4.32	0.91	2.63	-13.30	-6.42
Sweden	1-3yr	-0.03	-0.63	1.18	-3.64	0.82	-4.06	0.48	-2.43
	7-10yr	-2.79	-3.38	0.47	-4.31	-1.42	-6.19	-4.49	-7.25
Australia	1-3yr	0.25	0.33	1.19	-2.82	1.36	-3.19	1.79	-3.84
	7-10yr	-2.09	-2.01	0.81	-3.18	2.93	-1.70	0.61	-4.96
	20+yr	-4.23	-4.15	-1.95	-5.84	1.88	-2.71	-6.14	-11.33
New Zealand	1-3yr	-0.20	-0.85	1.11	-2.82	1.82	-4.14	1.14	-1.77
	7-10yr	-3.41	-4.03	-0.08	-3.97	-0.22	-6.05	-2.75	-5.55
	20+yr	-8.76	-9.35	-4.30	-8.02	-5.87	-11.38	-7.90	-10.55
Canada	1-3yr	0.19	0.66	0.93	1.56	1.21	1.36	1.76	-1.50
	7-10yr	-2.30	-1.84	-0.55	0.08	-0.51	-0.36	-0.56	-3.75
	20+yr	-3.73	-3.28	-1.70	-1.08	-0.75	-0.60	-4.08	-7.15

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 % (USD & LC, TR) – August 31, 2023

Inflation-Linked Bond Returns

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

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
US	1-5yr	0.24	0.24	1.74	1.74	1.95	1.95	-0.40	-0.40
	5-10yr	-1.61	-1.61	0.71	0.71	1.13	1.13	-4.30	-4.30
	20+yr	-5.49	-5.49	-4.26	-4.26	-0.80	-0.80	-13.85	-13.85
UK	1-5yr	1.13	3.39	1.70	6.44	1.26	6.66	-0.04	8.85
	5-10yr	1.50	3.77	1.22	5.95	2.15	7.61	-4.69	3.79
	20+yr	1.38	3.65	-7.37	-3.05	-11.04	-6.29	-28.40	-22.03
Japan	1-5yr	1.08	-3.00	1.88	-4.68	2.49	-7.11	3.49	-1.46
	5-10yr	0.78	-3.29	4.03	-2.66	3.25	-6.42	2.70	-2.21
EM	1-5yr	6.32	5.86	5.44	5.09	10.43	11.38	15.45	15.17
	5-10yr	4.13	4.96	4.68	6.11	8.09	11.38	15.45	18.41
	20+yr	1.70	5.32	9.67	15.55	8.70	16.59	10.43	18.38
Germany	1-5yr	0.31	2.12	1.34	3.71	1.57	3.29	-2.19	5.58
	5-10yr	-0.35	1.45	1.93	4.32	3.42	5.18	-2.90	4.81
	20+yr	-4.40	-2.68	0.66	3.02	3.80	5.56	-12.15	-5.18
Italy	1-5yr	0.95	2.77	2.17	4.56	2.88	4.63	1.95	10.04
	5-10yr	1.74	3.58	4.18	6.62	7.77	9.60	5.66	14.04
	20+yr	-0.32	1.48	4.32	6.76	12.73	14.64	3.68	11.91
Spain	1-5yr	0.27	2.08	1.31	3.68	1.94	3.67	-0.43	7.47
	5-10yr	0.39	2.21	2.29	4.68	3.80	5.56	-0.17	7.75
France	1-5yr	0.18	1.99	1.30	3.67	1.67	3.39	-1.42	6.40
	5-10yr	-0.18	1.62	2.11	4.51	3.65	5.41	-1.54	6.27
	20+yr	-3.31	-1.57	2.12	4.52	3.77	5.53	-8.07	-0.77
Sweden	1-5yr	0.35	-0.26	0.95	-3.85	1.60	-3.32	2.25	-0.71
	5-10yr	-1.67	-2.27	0.22	-4.55	0.35	-4.51	-3.84	-6.62
Australia	1-5yr	0.29	0.36	2.67	-1.39	4.34	-0.36	5.41	-0.42
	5-10yr	-0.89	-0.82	2.97	-1.11	6.01	1.24	5.32	-0.50
	20+yr	-3.64	-3.57	2.92	-1.15	7.11	2.29	2.32	-3.34
New Zealand	5-10yr	-2.67	-3.31	1.09	-2.85	2.67	-3.34	4.09	1.10
Canada	20+yr	-6.77	-6.33	-6.44	-5.85	-10.05	-9.92	-6.81	-9.79

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 % (USD & LC, TR) – August 31, 2023

Global Bond Yields

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

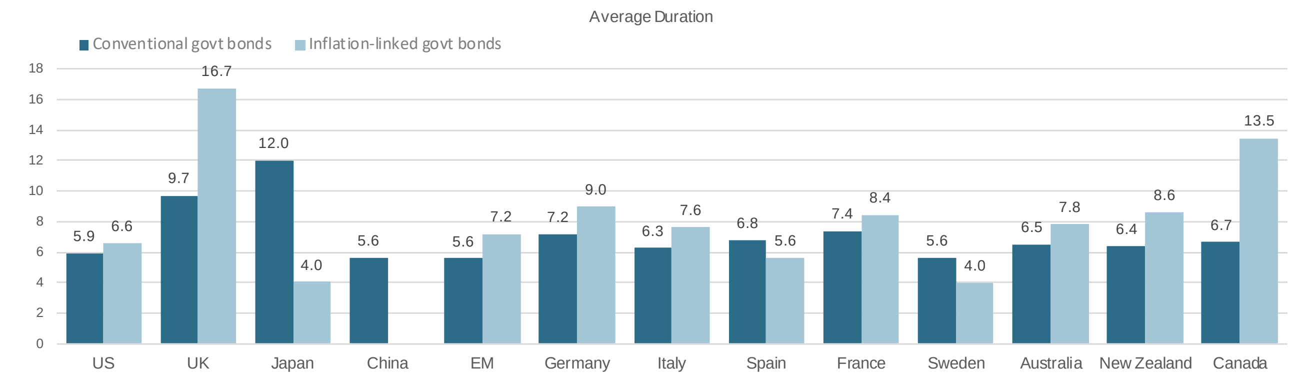
		Conventional government bonds				Inflation-linked bonds			Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.99	4.39	4.12	4.32	2.50	1.94	2.01	5.65	8.44
	3M Ago	4.61	3.92	3.65	3.94	2.08	1.52	1.68	5.43	8.86
	6M Ago	4.90	4.34	3.93	4.01	1.82	1.57	1.65	5.55	8.62
	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	2.82	2.77	3.06	-3.47	-1.62	-0.45		
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	-0.04	0.20	1.10	-1.23	-0.83			
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	2.30	2.68	3.16					
EM	Current	8.60	6.87	6.67		2.84	4.28	5.01	6.14	11.41
	3M Ago	8.46	6.96	6.55		4.34	4.24	5.00	5.78	12.12
	6M Ago	7.92	7.12	6.70		1.46	3.33	5.35	5.95	10.85
	12M Ago	7.65	6.83	6.22		2.45	3.50	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	1.25	1.41	1.62	-1.62	-0.97	-0.68		
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	2.78	3.53	3.93	-1.97	1.08	1.73		
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	1.53	1.88	2.52	-1.84	-0.60	0.15		
Sweden	Current	3.43	3.00	2.75		1.33	1.14			
	3M Ago	2.97	2.62	2.31		0.74	0.55			
	6M Ago	3.18	2.96	2.65		0.64	0.72			
	12M Ago	2.24	2.22	1.96		-1.11	-0.90			
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	3.30	3.56	3.84	-0.19	0.81	1.56		
New Zealand	Current	5.30	4.96	4.89	5.07	2.15	2.58			
	3M Ago	5.08	4.35	4.28	4.46	1.23	1.85			
	6M Ago	5.06	4.68	4.57	4.67	1.40	2.07			
	12M Ago	3.85	3.87	3.97	4.33	0.72	1.84			
Canada	Current	4.72	4.04	3.62	3.41	2.09	1.87	1.82		
	3M Ago	4.29	3.56	3.22	3.18	1.60	1.38	1.41		
	6M Ago	4.27	3.62	3.34	3.24	1.35	1.28	1.35		
	12M Ago	3.67	3.40	3.14	3.05	1.31	1.11	1.29		

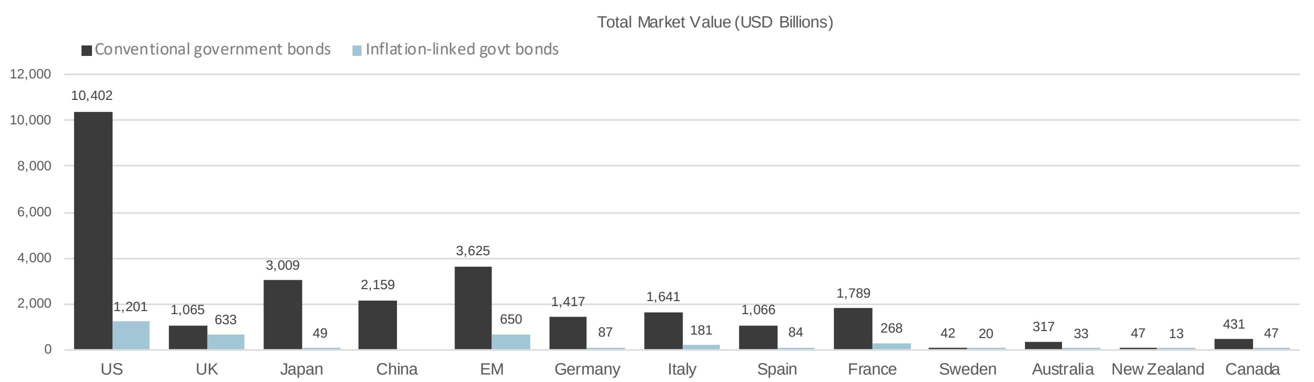
Source: FTSE Russell. All data as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

Appendix − Duration and Market Value (USD, Bn) as of August 31, 2023

	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	**1,201.4**
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**	768.0	653.7	352.9	**3,624.9**	5.5	13.8	**7.2**	139.0	166.9	**650.0**
Germany	3.7	7.6	20.7	**7.2**	310.8	235.8	158.2	**1,416.7**	7.2	21.8	**9.0**	43.2	18.7	**87.4**
Italy	3.7	7.2	16.1	**6.3**	283.5	258.5	153.7	**1,641.2**	7.9	26.3	**7.6**	58.7	5.5	**181.3**
Spain	3.8	7.6	17.4	**6.8**	201.0	184.9	98.3	**1,065.8**	6.7		**5.6**	22.6		**83.6**
France	3.7	7.6	20.1	**7.4**	319.8	308.6	209.8	**1,789.5**	6.7	24.4	**8.4**	103.8	21.1	**268.2**
Sweden	3.7	7.6		**5.6**	13.2	8.4		**41.6**	5.7		**4.0**	9.3		**20.1**
Australia	3.5	7.7	17.4	**6.5**	50.5	86.0	14.8	**317.1**	7.2	22.4	**7.8**	9.5	2.6	**32.6**
New Zealand	3.8	7.6	16.7	**6.4**	9.4	13.2	2.3	**47.4**	6.2		**8.6**	3.0		**13.2**
Canada	3.6	7.6	19.7	**6.7**	55.7	110.1	60.8	**431.5**	6.9	20.7	**13.5**	8.0	19.0	**47.3**

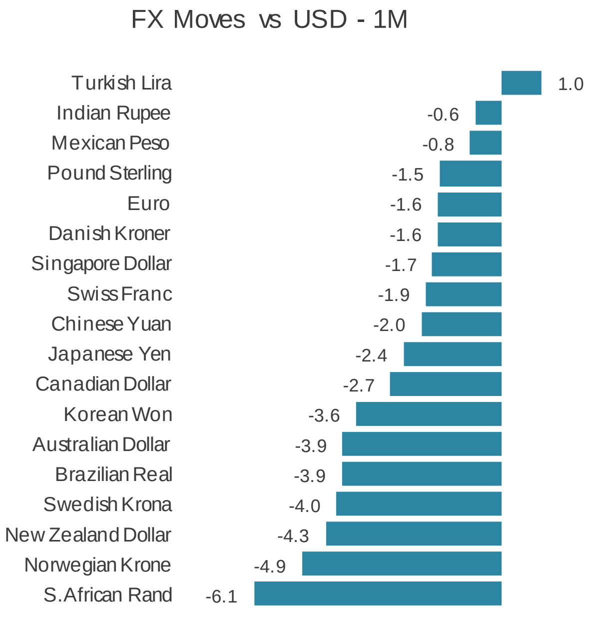
	Investment grade bonds										High Yield	
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	10.7	8.5	7.2	6.5	7.0	72.1	448.8	2610.9	3256.9	6388.7	4.0	1031.8
Europe	6.2	4.9	4.6	4.3	4.5	9.6	184.5	1188.1	1427.5	2809.7		
EM		5.7	4.8	5.1	5.0		45.0	220.0	320.1	585.1	3.4	186.0

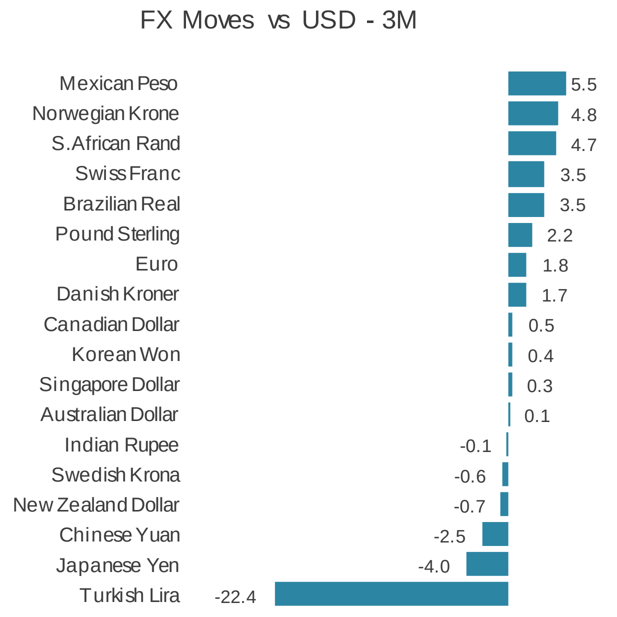


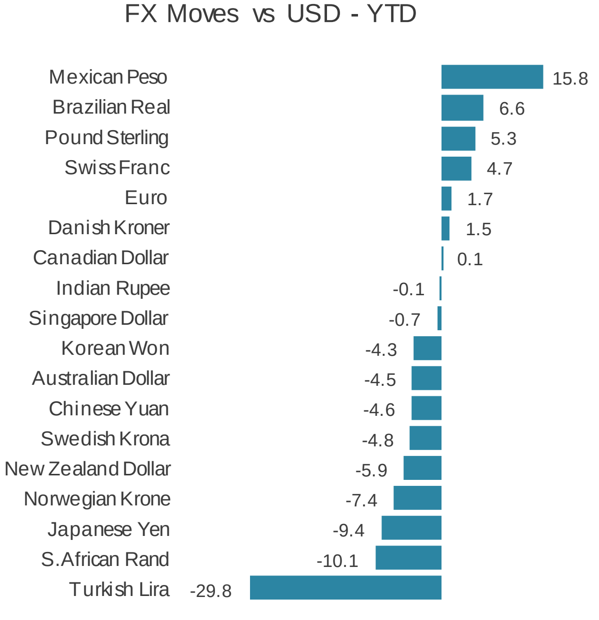


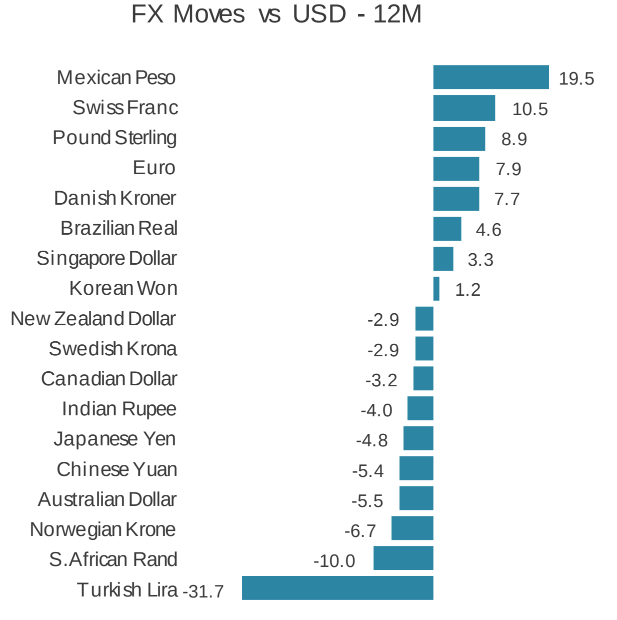
Source: FTSE Russell. All data as of August 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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









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 - Glossary

Bond markets are based on the following indices:

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 Government Bond Index (EMGBI) for the emerging markets government bond market. Please note that over 50% of this index is invested in China

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

FTSE ESG World Government Bond Index for the global government bond markets with an ESG tilt

FTSE Climate Risk-Adjusted World Government Bond Index (Climate WGBI) and FTSE Advanced Climate Risk-Adjusted World Government Bond Index (Advanced Climate WGBI) for each country's relative exposure to climate risk, with respect to resilience and preparedness to the risks of climate change

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

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.