

Fixed Income Insights

MONTHLY REPORT – AUGUST 2023 | EUROZONE EDITION

FOR PROFESSIONAL INVESTORS ONLY

Euro credit outperforms as long Bunds are struck by ECB tightening

G7 economies have withstood policy tightening to date, apart from a mild Eurozone recession. Fed tightening may be nearly complete, but sticky core inflation makes early easing unlikely, despite some inflation softening. IG credits are relatively cheap, after recent high yield outperformance, especially in Europe.

Macro and policy backdrop – ECB tightening efforts continue, despite falling inflation and economic slowdown

The ECB’s focus on inflation target was further evidenced after a ninth rate increase, despite softer inflation. (pages 2-3)

Yields, curves and spreads – Yield curve inversion remained near cycle highs, ex Japan as curve control eases

Deep curve inversion and negative carry remain, reflecting re-investment risk, as tightening cycles near end. (pages 4-5)

Sovereign and climate bonds – “Greenium” stabilises after duration and country weight changes in 2022

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

Performance – Euro corporate bonds returns held firm, while long govts sold off after ECB tightening

G7 government bonds traded in narrow ranges in July, except longs, which underperformed on the back of continued central bank tightening. Euro corporates gained, especially high yield, however. (pages 7-8)

Appendix (from page 10)

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

Chart 1: German breakeven inflation has been driving nominal yields higher in July, while real yields remain negative.

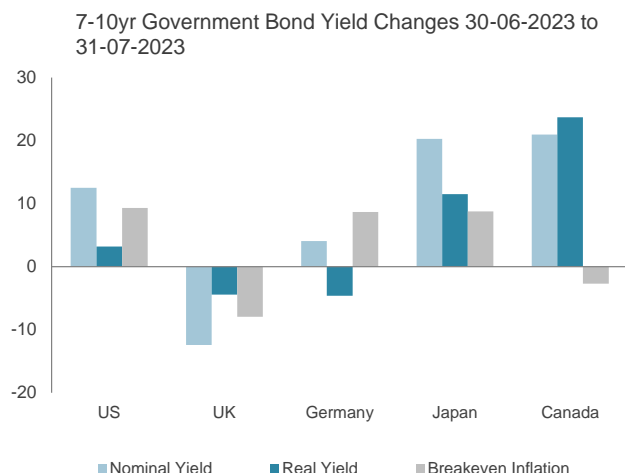
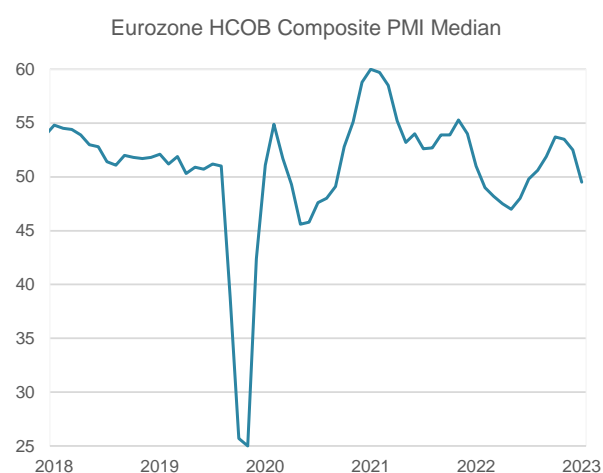


Chart 2: Services and manufacturing sentiments have weakened and returned to their historical averages as business confidence wanes.



Source: FTSE Russel and Refinitiv. All data as of July 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

Fighting the ‘greedy beast’ was the expression coined by Bundesbank President Joachim Nagel when referring to changing policy course too soon, despite the Eurozone being technically in recession, and inflation easing. Labour markets remain tight, but real wages have fallen – a key consideration for the ECB, though weaker oil prices signal a slowdown.

The Eurozone escaped recession in Q2, with weak growth of 0.3% q/q, and the US has avoided any recession, buoyed by services, and resilient consumers (Chart 1), though interest rate sensitive sectors, like real estate, remain weak. Europe is still at higher risk of a hard landing, given the deeper energy shock, with Consensus forecasts revising lower GDP growth for 2023 from 0.6% to 0.5%. China’s shift to domestic-led growth may help exporters like the Eurozone in 2023-24.

Eurozone inflation eased to 5.3% y/y in July, the lowest since January 2022, but well above the ECB target rate of 2.0% and is forecast to stay above target ‘for an extended period’. Further decline in Eurozone inflation is now expected to be gradual, given base effects. Headline US inflation fell to 3.0% y/y in June (from 4.1% y/y) and the UK to 7.9% y/y (from 8.7% y/y) (Chart 2).

Chart 3 shows divergence in oil and gold prices since the Ukraine shock in February 2022, as energy prices fell on the weak growth outlook, despite OPEC production cuts. Lower US inflation and the prospect of US rates peaking have helped gold prices.

Chart 4 shows Eurozone wage inflation has been robust, fuelled by historically low unemployment, but real wage growth remains negative, given higher inflation rates than nominal wages. Most recent data suggests tighter financial conditions are starting to impact consumers, even if GDP growth did turn positive in Q2.

Chart 1: Eurozone Consensus forecast growth for 2023 was modestly revised lower to 0.5% in July (from 0.6% in June), compared to upward revisions for the US and Canada.

Latest Consensus Real GDP Forecasts (% , July 2023)			
	2022	2023	2024
US	2.1	1.5	0.7
UK	4.1	0.2	0.7
Eurozone	3.3	0.5	1.0
Japan	1.6	1.1	1.1
China	3.0	5.5	4.8
Canada	3.5	1.3	1.0

Chart 3: Gold has recovered since the Ukraine shock and Fed tightening began, as lower inflation drives expectations of lower rates in 2023-24. Oil prices fell on the weaker growth outlook.



Chart 2: Favourable base effects from lower energy prices helped drive down G7 inflation in Q2, including the Eurozone. Even in the UK, inflation eased materially in June.

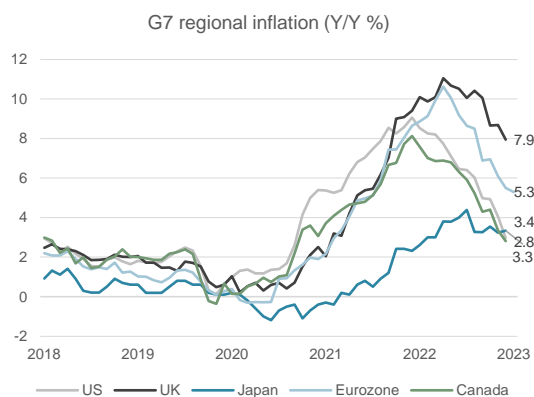
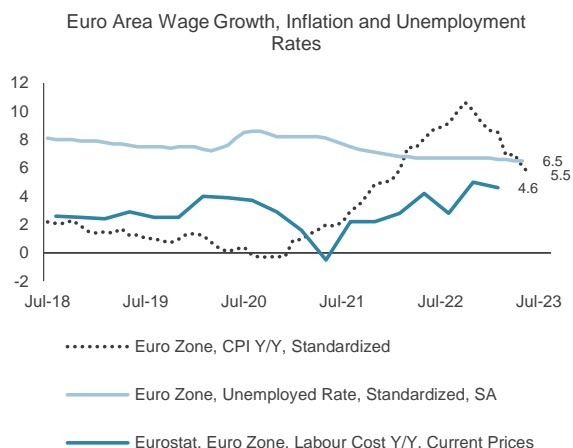


Chart 4: Eurozone wage growth has remained robust, as have labour markets, helping consumer demand recover, especially for services, but note that real wage growth remains negative.



Source: FTSE Russell and Refinitiv. Latest data available as of July 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

Some synchronised central bank tightening resumed in July, designed to squeeze consumer demand, which combined with rising food and energy prices, has helped sustain higher inflation. Despite QT and higher rates, Eurozone money supply growth is positive, but M2 fell on the month in July. Tightening rate differentials have helped the Euro recovery.

Higher ECB policy rates, bond yields, inverted yield curves, and the stronger Euro have all tightened Eurozone financial conditions, but credit spreads and stronger equity markets have offset this, and M2 growth has recovered y/y from the deeply negative levels as Chart 1 shows. However, M2 fell in July, as bank loan conditions tightened, and ECB policy tightening squeezed liquidity.

Exchange rates reflect disparate economic performance and policy settings globally (Chart 2). The yen rallied on the BoJ's flexing of curve control but rate differentials against it remain sizeable. Tightening rate differentials have weighed on the US dollar since the high in Q4 2022, and the Euro has strengthened as a result. Sterling has drawn support from higher UK rates (page 14).

Central banks resumed synchronised tightening in July, starting with the BoC at the beginning of the month, followed by the Fed and ECB at the end of July, each with a well-flagged 25bp rate rise, as consumer demand stayed strong. The ECB is in a unique position of raising interest rates, despite being technically in recession, after the economy contracted for two consecutive quarters. Also, the ECB dropped the minimum reserves to zero from 1% to ensure full pass-through of ECB rate decision (Chart 3).

In its latest release, the ECB's balance sheet showed a contraction of 7.2% in 2022 (i.e., €613.3 billion) to €7,951 billion, as a result of its Eurosystem refinancing operations, which include maturing and early repayments of its targeted longer-term refinancing operations (TLTRO III) (Chart 4).

Chart 1: the recent downturn in liquidity in Q2 suggests ECB tightening is started to bite.

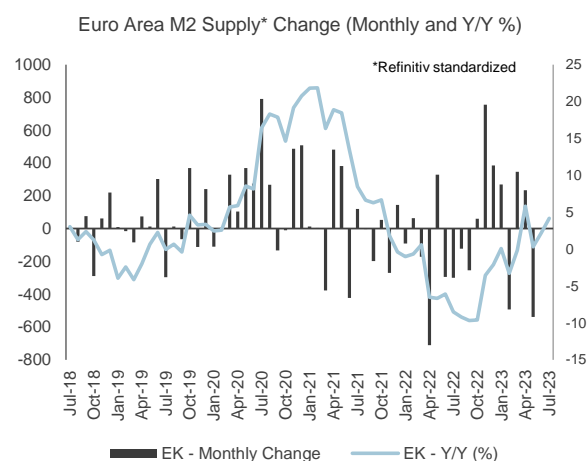


Chart 3: The ECB raised its main refinancing rate in July, for the ninth time in this cycle, by a well-flagged 0.25% to 4.25%, as inflation, while lower, has remained well above its 2% target.

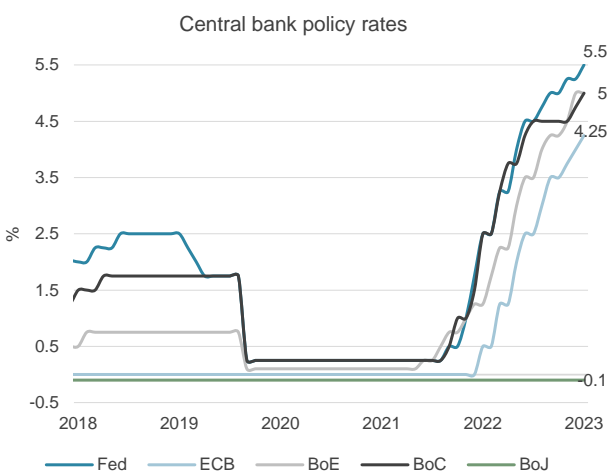


Chart 2: Exchange rate differences highlight tightening rate differentials. Most currencies were weaker versus the US dollar, which gained modestly in July.

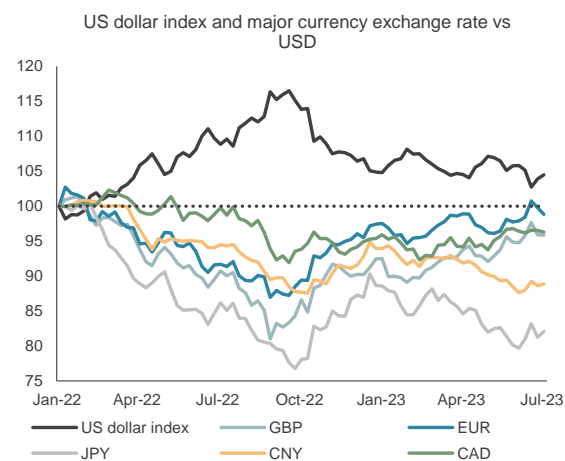
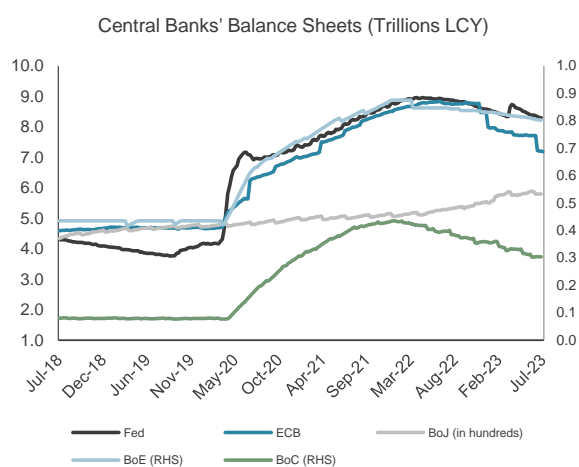


Chart 4: G7 central bank balance sheets continued to fall, with the ECB and BoC's balance sheet contraction the most marked since 2022.



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Global Yields, Curves and Spread Analysis

Chart 1: G7 7-10 yr yields mostly range traded in July, due to lower inflation but positive growth. Yields backed up a little at the end of July, after the Fed & ECB tightened, and BoJ flexed curve control.

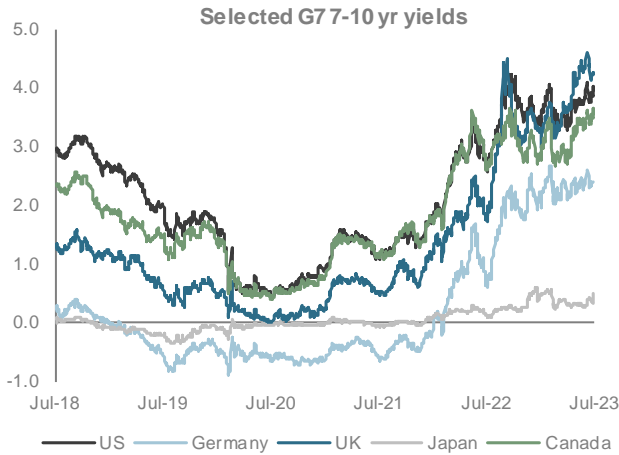


Chart 2: Real yields have tracked nominal yields modestly lower in July. In Japan, the combination of higher inflation accruals and zero rates helped demand for JGB inflation linked bonds.

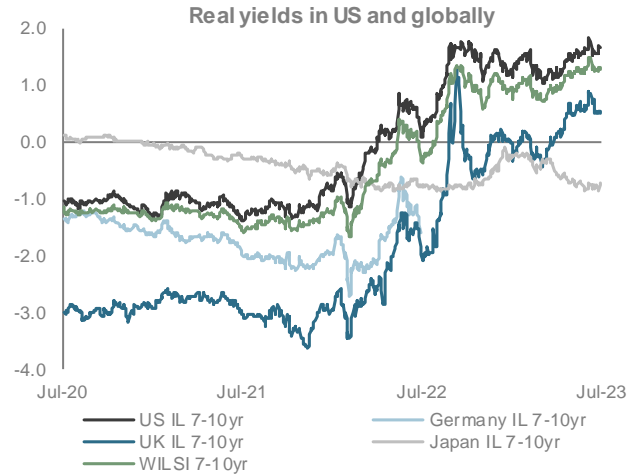


Chart 3: Yield curve inversion remains near cyclical lows, ex Japan, after further rate increases by the Fed and ECB. Canadian curve inversion deepened after the BoC's rate increases in June and July.

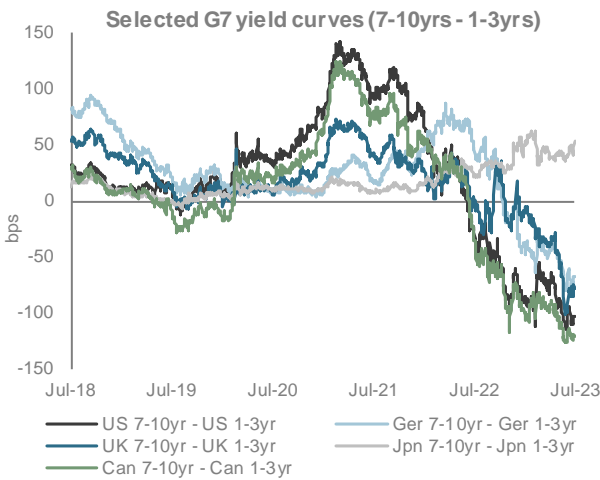


Chart 4: It is a similar story with inversion in long maturities, with Japan the exception. With yields near 15-year highs, investor concern over re-investment risks may be keeping curves inverted.

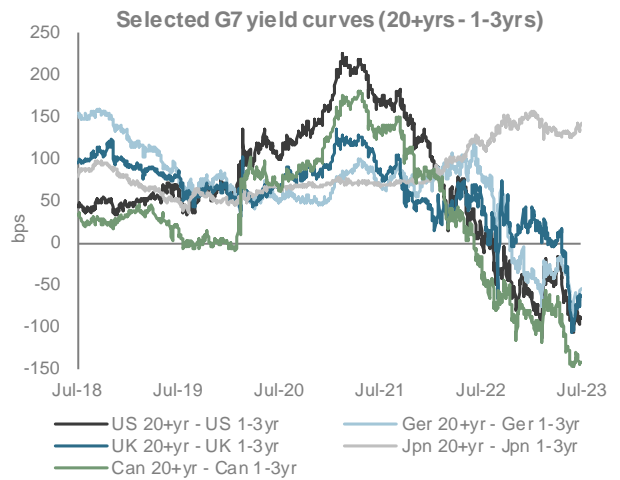


Chart 5: Inflation breakevens have moved most decisively higher in the UK and Japan, reflecting higher inflation (apart from the UK's June data). Eurozone breakevens have converged towards 2%.

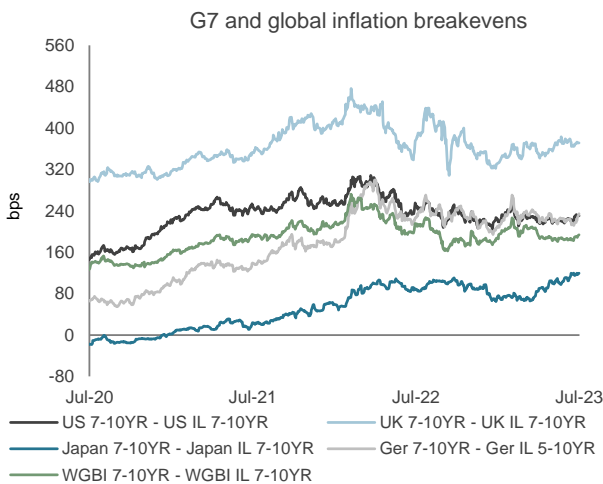


Chart 6: Global inflation breakevens of all tenors have converged near 2%, after a period of much higher short-dated breakevens. There is little evidence of inflation expectations de-stabilising.



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Yield Spread and Credit Spread Analysis

Chart 1: US 7-10 yr gov't spreads remained stable in July, awaiting clearer Fed signals that the tightening cycle is over. The sharp break lower versus the UK, after gilt yields spiked in Q2 remains a feature.

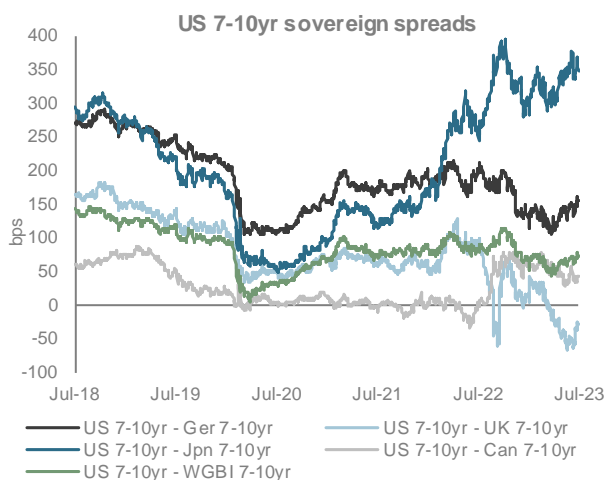


Chart 2: Italian spreads bounced back in July, after the risk rally drove them tighter in Q4 2022, supported by the ECB's transmission protection instrument (designed to prevent peripheral spreads).

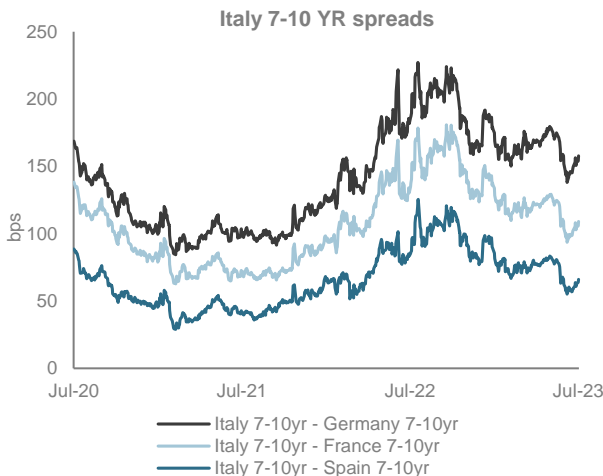


Chart 3: Predictions of an EM crisis failed to materialise after both Covid and the Ukraine shock and G7 tightening cycle in 2022-23. Spreads are consolidating near cycle lows, apart from versus JGBs.

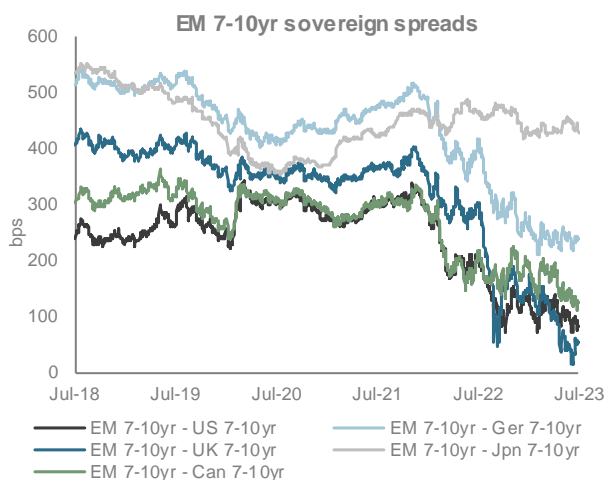


Chart 4: Low correlation of China with the G7 economic and policy cycle continues after different Covid policies and lockdown timings. Yield spreads have traded in wide ranges since Covid hit in 2020.

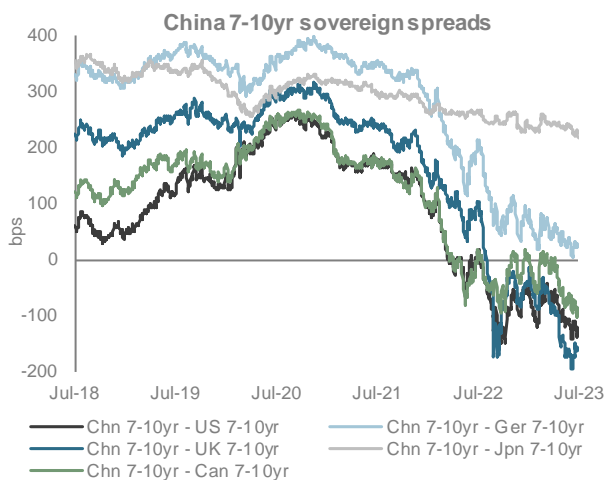


Chart 5: Although credit spreads are well above cycle lows, there is little sign of major stress, particularly in US high yield, which has mean-reverted to pre-Covid levels. Eurozone spreads remain wider

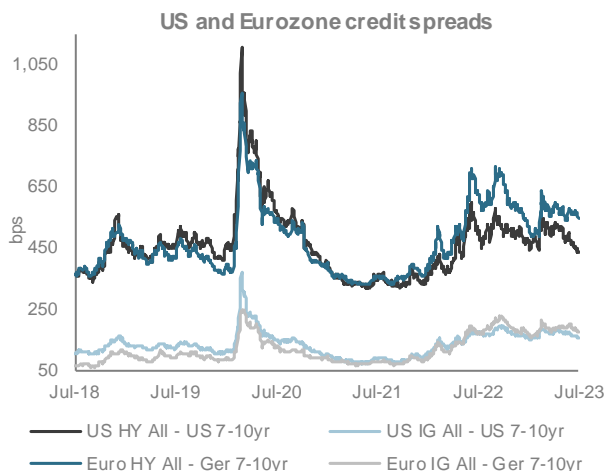


Chart 6: Chinese \$ HY spreads widened above 8000bps in July, after Evergrande delayed its financial results and debt restructuring. US HY spreads narrowed, benefiting from the risk rally.



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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 rates and yields rose sharply. This has stabilised in 2023.

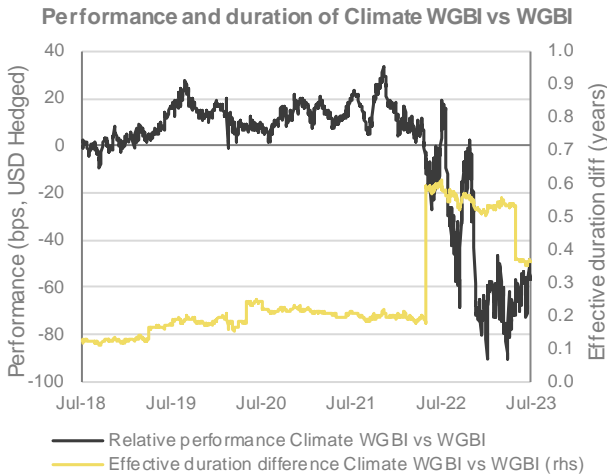


Chart 3: The increase in Japan's country weight in 2022 caused the yield on climate WGBI to drop sharply relative to WGBI. But this has fallen away with UK gilt yields rising sharply another factor in this.

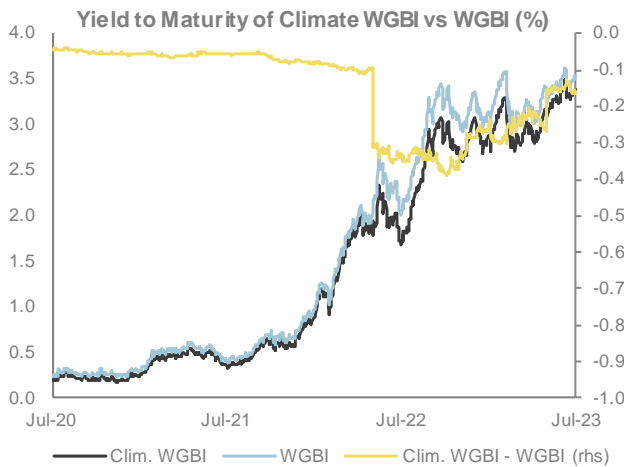


Chart 5: Yield curve flattening has caused yields to converge in the medium to long maturities at around 3% in both WGBI and climate WGBI in 2023, eliminating most of the greenium in climate WGBI.

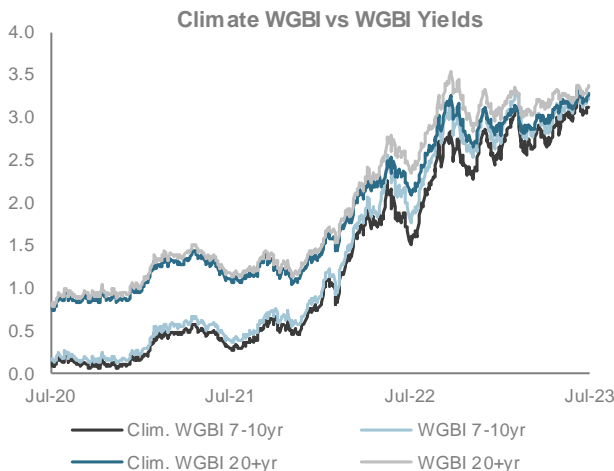


Chart 2: A reduction in US underweight in Climate WGBI vs WGBI and an increase in the UK's overweight were notable in the July re-weightings. Italy's overweight was slightly reduced.

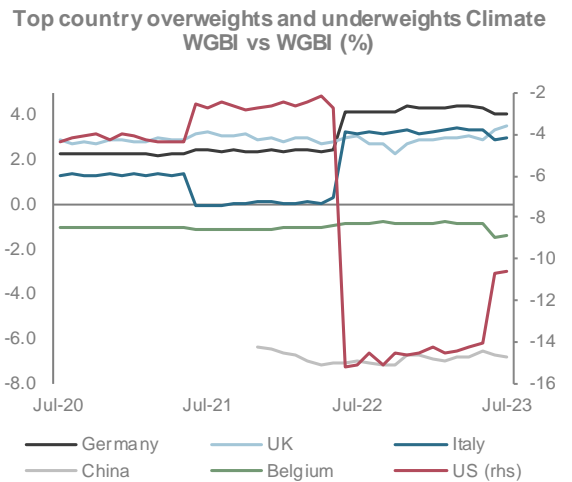


Chart 4: Climate WGBI's higher weighting in the Eurozone gives the index higher AAA weight, with Bunds rated AAA, but the lower US weighting in climate WGBI means the AA weight is notably lower.

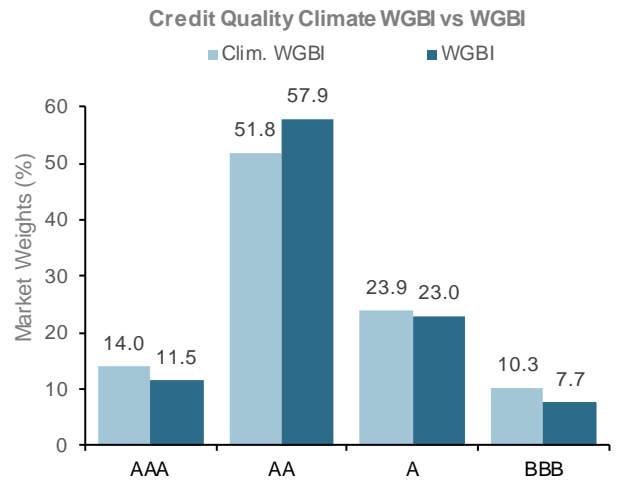
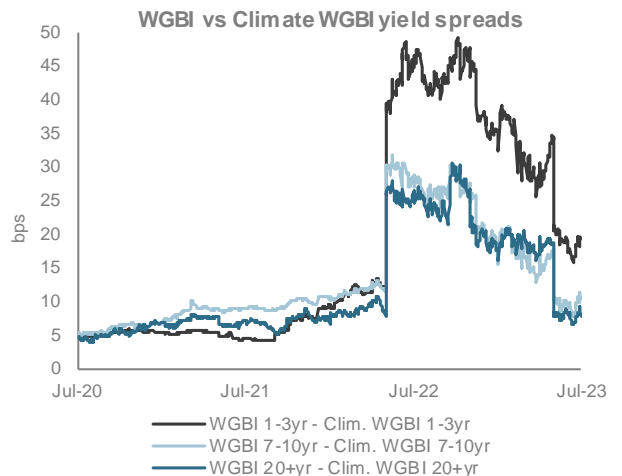


Chart 6: The "greenium" or yield discount on climate-WGBI versus WGBI has normalised in longer maturities, after increasing sharply when Japan's sovereign weight increased, and the US fell, in 2022



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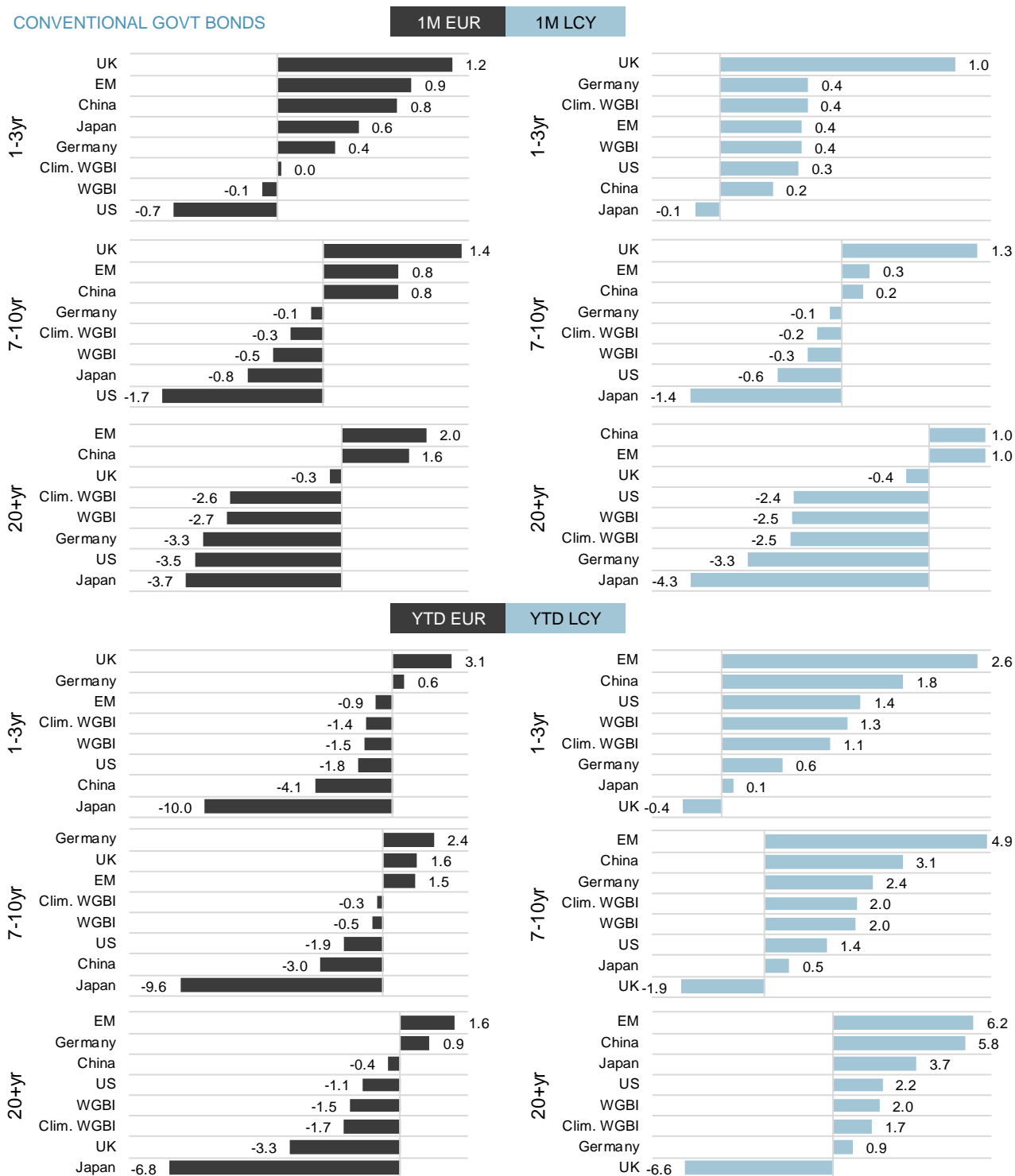
Global Bond Market Returns – 1M &YTD % (EUR, LC, TR) July 31

Government bonds traded in narrow ranges in July, although gilts recovered after better UK inflation data. EM bonds performed well year to date, but JGBs lost up to 10%, squeezed by yen weakness versus the euro.

Central bank moves in July were well discounted, and bonds generally range-traded, including Bunds, as lower inflation was offset by stronger consumer data and higher policy rates. Gilts rallied after improved June inflation data, following a very weak Q2.

YTD, G7 yields have fallen modestly, apart from gilts. Moves have been small compared to the brutal increases in yields in 2022, and currency moves often dominated returns, notably yen weakness and sterling and euro strength.

CONVENTIONAL GOVT BONDS



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

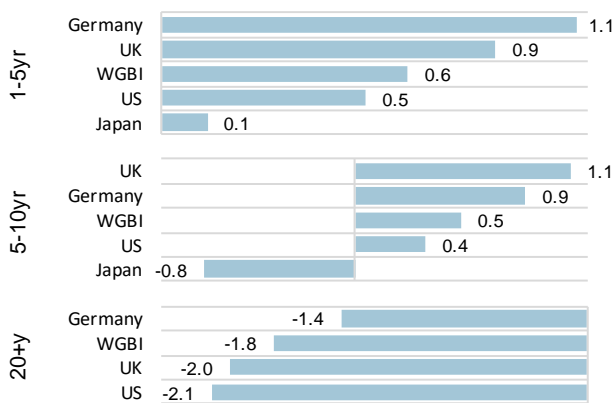
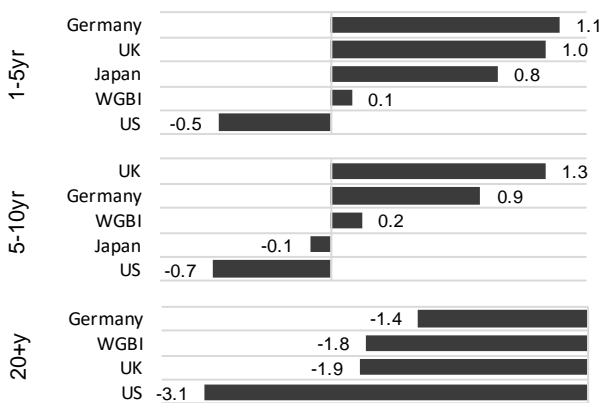
Inflation linked bonds were mixed in July, with outperformance led by index-linked gilts, after lower UK inflation eased rate expectations, and JGBs, while longs were down. YTD, long Bund IL gained 6%, while credit 3-7%, led by Euro HY.

Short to mid duration in UK index-linked gilts boosted returns in July, as yields fell, with returns of 1% in euro terms. Euro gains reduced overseas returns, with Tips returns, flat or lower in local currency, turning negative in euros.

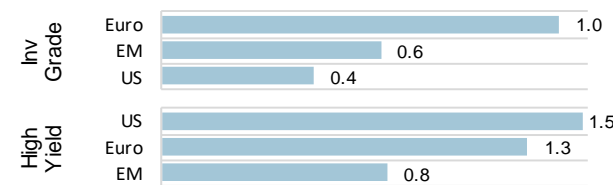
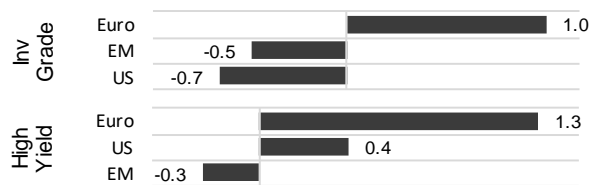
YTD, credit performed strongly, with HY outperforming, thanks to the stronger correlation of HY credit to equity market performance. Euro high yield bonds returned about 7% and Euro IG corporates gained 3%. Returns elsewhere were eroded by euro strength.

INFLATION LINKED BONDS

1M EUR 1M LCY

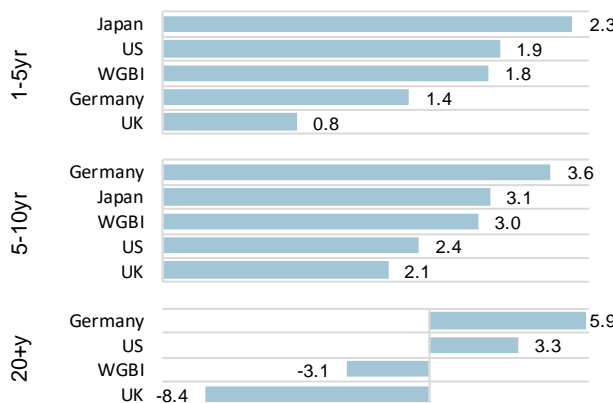
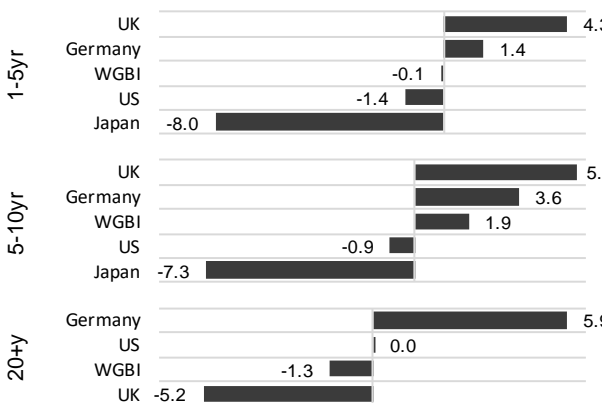


CORPORATE BONDS

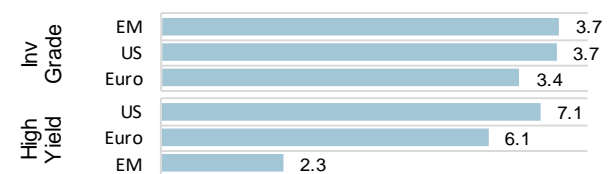
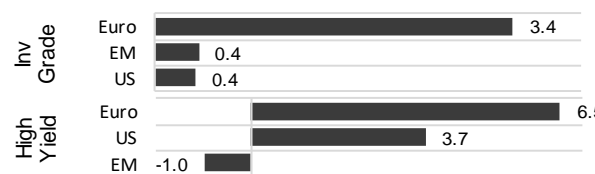


INFLATION LINKED BONDS

YTD EUR YTD LCY



CORPORATE BONDS



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

Shorter dated Swedish govt. bonds, and EM inflation linked (IL) bonds, were the strongest performers in July. In contrast, returns for long Canadian, US and Eurozone governments were negative after central bank tightening. 12M returns were dominated by big losses in long duration govt. bonds, but gains in EM IL, Euro HY and Eurozone peripherals.

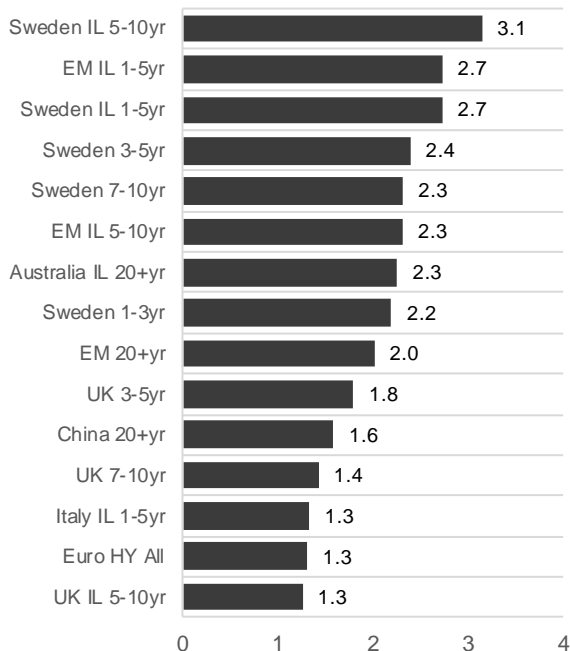
The stronger Swedish krona (see page 14) helped drive Swedish government bond gains in July, while easing inflation, boosted shorter conventional and index-linked gilts.

On 12M, long Eurozone governments, US Tips and gilts remained deeply negative, down -19-37%, amid higher ECB rates. EM inflation linked returned 11-17% in euros, continuing the outperformance in 2022-23.

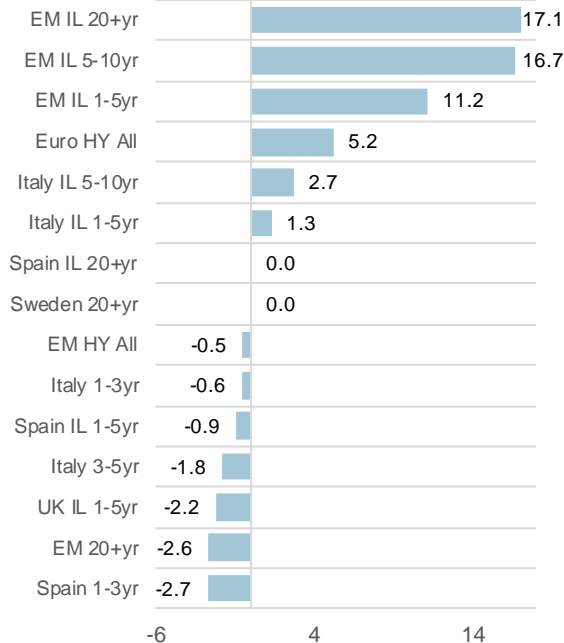
1M EUR

12M EUR

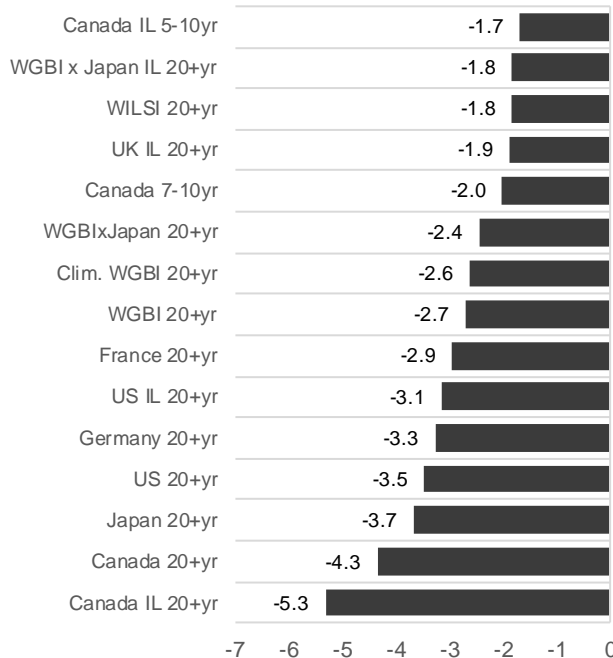
Top 15



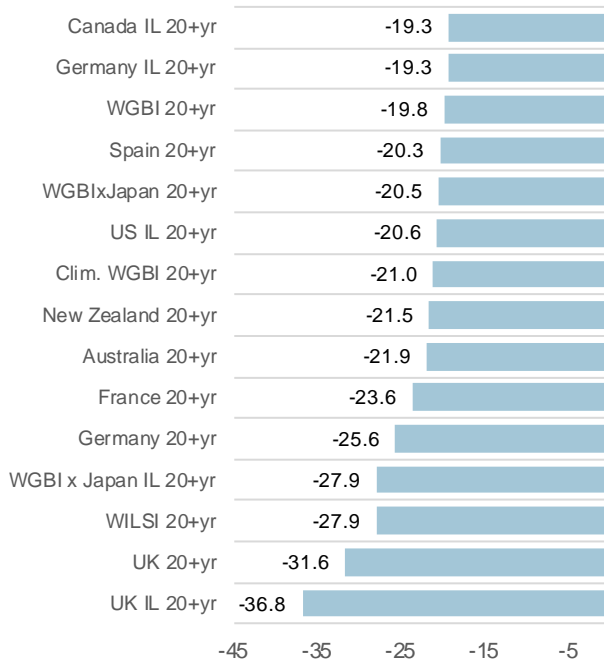
Top 15



Bottom 15



Bottom 15



Source: FTSE Russell. All data as of July 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 % (EUR & LC, TR) – July 31, 2023

Government Bond Returns

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

		3M		6M		YTD		12M	
		Local	EUR	Local	EUR	Local	EUR	Local	EUR
US	1-3yr	-0.47	-0.34	0.64	-0.87	1.40	-1.85	0.16	-7.37
	7-10yr	-3.29	-3.16	-2.10	-3.56	1.38	-1.87	-6.52	-13.55
	20+yr	-5.15	-5.02	-5.06	-6.49	2.17	-1.10	-12.19	-18.79
	IG All	-0.75	-0.62	-0.43	-1.92	3.71	0.39	-1.18	-8.61
	HY All	2.33	2.47	3.12	1.58	7.12	3.69	4.22	-3.62
UK	1-3yr	-0.73	1.75	-1.01	1.91	-0.39	3.13	-2.14	-4.31
	7-10yr	-3.45	-1.04	-4.83	-2.02	-1.87	1.60	-14.26	-16.17
	20+yr	-5.52	-3.16	-10.47	-7.83	-6.56	-3.25	-30.03	-31.59
Euro	IG All	0.78	0.78	1.09	1.09	3.36	3.36	-3.32	-3.32
	HY All	2.51	2.80	2.69	3.02	6.14	6.54	5.40	5.17
Japan	1-3yr	-0.08	-4.11	0.01	-9.83	0.12	-10.00	-0.12	-13.11
	7-10yr	-1.25	-5.24	0.78	-9.14	0.55	-9.62	-2.18	-14.90
	20+yr	-4.12	-7.99	4.38	-5.89	3.68	-6.80	-5.14	-17.47
China	1-3yr	1.01	-1.95	1.68	-5.30	1.82	-4.13	2.55	-10.60
	7-10yr	1.56	-1.42	2.97	-4.10	3.05	-2.97	3.79	-9.52
	20+yr	3.17	0.14	6.43	-0.88	5.83	-0.35	7.97	-5.87
EM	1-3yr	0.36	0.49	0.62	-0.88	2.58	-0.71	4.31	-3.54
	7-10yr	0.75	0.88	0.06	-1.44	3.01	-0.29	2.68	-5.04
	IG All	0.36	0.50	1.14	-0.37	3.73	0.41	2.37	-5.33
	HY All	1.41	1.54	-1.38	-2.85	2.30	-0.97	7.58	-0.50
Germany	1-3yr	-0.05	-0.05	0.39	0.39	0.61	0.61	-2.74	-2.74
	7-10yr	-0.62	-0.62	-0.31	-0.31	2.39	2.39	-10.83	-10.83
	20+yr	-2.67	-2.67	-5.26	-5.26	0.88	0.88	-25.58	-25.58
Italy	1-3yr	0.47	0.47	1.01	1.01	1.67	1.67	-0.57	-0.57
	7-10yr	1.94	1.94	2.90	2.90	6.99	6.99	-2.93	-2.93
	20+yr	2.73	2.73	1.40	1.40	9.10	9.10	-11.84	-11.84
Spain	1-3yr	0.02	0.02	0.52	0.52	0.94	0.94	-2.72	-2.72
	7-10yr	-0.13	-0.13	0.27	0.27	3.05	3.05	-9.35	-9.35
	20+yr	-0.11	-0.11	-2.67	-2.67	2.84	2.84	-20.28	-20.28
France	1-3yr	-0.06	-0.06	0.41	0.41	0.92	0.92	-3.00	-3.00
	7-10yr	-0.48	-0.48	-0.49	-0.49	2.44	2.44	-10.51	-10.51
	20+yr	-1.61	-1.61	-5.32	-5.32	0.78	0.78	-23.57	-23.57
Sweden	1-3yr	-0.03	-2.29	-0.17	-2.01	0.71	-3.33	-0.48	-10.70
	7-10yr	-1.44	-3.66	-2.91	-4.71	-0.19	-4.20	-7.43	-16.93
Australia	1-3yr	-1.00	1.09	-0.12	-5.92	0.72	-3.12	0.19	-10.53
	7-10yr	-4.46	-2.45	-2.07	-7.75	2.22	-1.68	-3.98	-14.25
	20+yr	-7.85	-5.91	-5.69	-11.16	1.92	-1.97	-12.51	-21.86
New Zealand	1-3yr	-0.29	0.60	0.58	-4.59	1.58	-3.24	0.01	-8.20
	7-10yr	-3.48	-2.62	-2.29	-7.31	0.82	-3.97	-5.96	-13.68
	20+yr	-9.57	-8.76	-5.70	-10.54	-3.15	-7.74	-14.52	-21.54
Canada	1-3yr	-0.82	2.33	0.14	0.00	0.75	0.39	0.36	-9.64
	7-10yr	-4.80	-1.77	-3.45	-3.59	-0.36	-0.71	-4.30	-13.84
	20+yr	-6.99	-4.04	-5.03	-5.16	0.51	0.16	-7.58	-16.79

Source: FTSE Russell. All data as of July 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 % (EUR & LC, TR) – July 31, 2023

Inflation-Linked Bond Returns

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

		3M		6M		YTD		12M	
		Local	EUR	Local	EUR	Local	EUR	Local	EUR
US	1-5YR	-0.67	-0.54	1.06	-0.45	1.90	-1.37	-2.15	-9.51
	5-10YR	-1.92	-1.79	-0.16	-1.65	2.41	-0.87	-6.31	-13.35
	20+YR	-3.21	-3.08	-2.82	-4.27	3.34	0.03	-14.15	-20.60
UK	1-5YR	0.05	2.55	1.23	4.22	0.76	4.32	0.01	-2.21
	5-10YR	-0.38	2.12	0.39	3.35	2.11	5.73	-6.92	-8.99
	20+YR	-6.94	-4.61	-13.88	-11.34	-8.41	-5.17	-35.37	-36.81
EUxUK	1-5YR	0.40	0.40	1.33	1.33	1.39	1.39	-4.44	-4.44
	5-10YR	0.65	0.65	2.11	2.11	3.64	3.64	-6.59	-6.59
	20+YR	-1.07	-1.07	-0.42	-0.42	5.91	5.91	-19.32	-19.32
Japan	1-5YR	1.39	-2.71	1.81	-8.21	2.31	-8.03	3.48	-9.97
	5-10YR	1.71	-2.40	4.24	-6.02	3.07	-7.35	2.78	-10.58
EM	1-5YR	5.32	5.61	7.94	7.28	8.89	9.48	17.15	11.15
	5-10YR	4.91	7.31	8.74	10.59	8.50	11.36	19.59	16.74
	20+YR	5.77	11.57	10.71	16.74	10.16	18.06	14.10	17.11
Germany	1-5YR	0.40	0.40	1.33	1.33	1.39	1.39	-4.44	-4.44
	5-10YR	0.65	0.65	2.11	2.11	3.64	3.64	-6.59	-6.59
	20+YR	-1.07	-1.07	-0.42	-0.42	5.91	5.91	-19.32	-19.32
Italy	1-5YR	1.26	1.26	2.51	2.51	2.76	2.76	1.28	1.28
	5-10YR	3.33	3.33	5.46	5.46	8.07	8.07	2.67	2.67
	20+YR	6.13	6.13	7.30	7.30	17.65	17.65	-5.04	-5.04
Spain	1-5YR	0.55	0.55	1.65	1.65	1.76	1.76	-0.92	-0.92
	5-10YR	1.25	1.25	2.71	2.71	3.81	3.81	-4.33	-4.33
France	1-5YR	0.03	0.03	1.30	1.30	1.32	1.32	-3.54	-3.54
	5-10YR	0.26	0.26	2.02	2.02	3.37	3.37	-6.31	-6.31
	20+YR	1.13	1.13	-0.08	-0.08	6.41	6.41	-17.32	-17.32
Sweden	1-5YR	0.95	-1.32	0.37	-1.48	1.53	-2.54	1.59	-8.84
	5-10YR	1.61	-0.68	-0.27	-2.12	1.70	-2.38	-4.97	-14.73
Australia	1-5YR	-0.80	1.29	1.46	-4.43	3.52	-0.43	3.40	-7.65
	5-10YR	-2.55	-0.50	-0.01	-5.81	4.99	0.99	2.29	-8.65
	20+YR	-4.43	-2.42	-5.28	-10.77	7.61	3.51	-3.87	-14.15
NZ	5-10YR	-2.95	-2.08	0.45	-4.72	3.23	-1.67	-0.64	-8.80
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	-3.76	-0.70	-4.86	-4.99	-3.21	-3.56	-7.17	-16.43

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Appendix – Historical Bond Yields % as of July 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	5.01	4.33	3.97	4.11	2.44	1.72	1.80	5.50	8.36
	3M Ago	4.24	3.62	3.41	3.75	1.68	1.23	1.58	5.15	8.50
	6M Ago	4.35	3.74	3.46	3.71	1.85	1.32	1.54	5.01	8.23
	12M Ago	2.93	2.78	2.66	3.19	-0.23	0.06	0.87	4.39	7.63
UK	Current	5.04	4.69	4.25	4.39	1.86	0.65	1.00		
	3M Ago	4.05	3.77	3.64	4.02	0.39	0.14	0.63		
	6M Ago	3.42	3.26	3.33	3.70	0.31	0.00	0.30		
	12M Ago	1.78	1.66	1.79	2.39	-3.22	-2.08	-0.92		
Japan	Current	-0.04	0.08	0.50	1.40	-1.70	-0.74			
	3M Ago	-0.07	0.02	0.30	1.20	-1.31	-0.63			
	6M Ago	-0.02	0.11	0.52	1.55	-1.33	-0.34			
	12M Ago	-0.11	-0.07	0.11	1.09	-1.17	-0.80			
China	Current	2.08	2.34	2.66	3.04					
	3M Ago	2.28	2.51	2.78	3.17					
	6M Ago	2.30	2.57	2.87	3.31					
	12M Ago	2.05	2.42	2.78	3.30					
EM	Current	8.62	6.78	6.47		3.05	4.07	4.88	5.93	11.51
	3M Ago	8.03	6.85	6.44		3.84	4.04	5.15	5.61	11.71
	6M Ago	7.54	6.61	6.18		3.11	3.37	5.25	5.52	10.25
	12M Ago	7.67	6.97	6.16		3.54	3.65	5.21	4.99	12.42
Germany	Current	3.09	2.60	2.41	2.53	0.60	0.07	0.01		
	3M Ago	2.72	2.35	2.25	2.37	0.16	-0.06	-0.11		
	6M Ago	2.59	2.31	2.21	2.22	0.38	0.13	-0.09		
	12M Ago	0.20	0.36	0.67	1.04	-2.37	-1.60	-1.16		
Italy	Current	3.60	3.55	3.86	4.35	1.30	1.64	1.69		
	3M Ago	3.36	3.49	3.97	4.45	0.80	1.65	1.83		
	6M Ago	3.17	3.42	3.92	4.29	1.18	1.87	1.85		
	12M Ago	1.37	2.00	2.80	3.35	-2.34	0.45	1.23		
France	Current	3.15	2.90	2.90	3.35	0.58	0.37	0.60		
	3M Ago	2.84	2.66	2.73	3.23	-0.06	0.17	0.58		
	6M Ago	2.71	2.58	2.64	3.01	0.24	0.30	0.52		
	12M Ago	0.40	0.67	1.13	1.95	-3.30	-1.52	-0.38		
Sweden	Current	3.33	2.83	2.57		0.96	0.74			
	3M Ago	2.89	2.59	2.31		0.71	0.73			
	6M Ago	2.50	2.27	2.05		-0.17	0.14			
	12M Ago	1.71	1.57	1.39		-1.66	-1.45			
Australia	Current	4.02	3.86	4.03	4.40	1.03	1.47	1.79		
	3M Ago	3.13	3.05	3.30	3.88	0.09	0.84	1.50		
	6M Ago	3.17	3.24	3.51	3.96	0.23	0.92	1.37		
	12M Ago	2.56	2.76	3.03	3.44	-0.75	0.40	1.24		
New Zealand	Current	5.21	4.80	4.70	4.87	1.94	2.39			
	3M Ago	4.89	4.15	4.08	4.23	0.95	1.61			
	6M Ago	4.67	4.18	4.11	4.41	1.28	1.79			
	12M Ago	3.28	3.28	3.40	3.75	0.07	1.03			
Canada	Current	4.76	4.02	3.56	3.33	2.11	1.80	1.69		
	3M Ago	3.81	3.09	2.82	2.93	1.12	1.06	1.32		
	6M Ago	3.92	3.14	2.91	3.00	1.29	1.13	1.16		
	12M Ago	2.96	2.71	2.61	2.79	0.48	0.51	0.97		

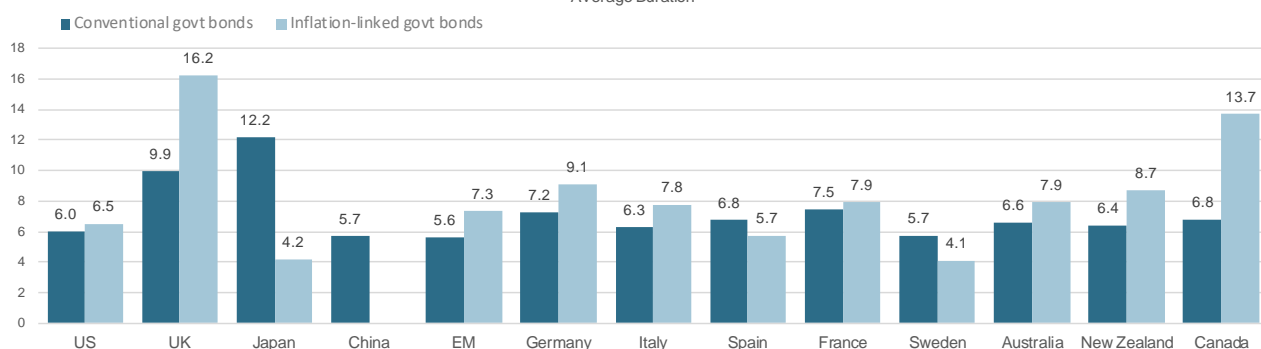
Source: FTSE Russell. All data as of July 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

Appendix – Duration and Market Value (USD, Bn) as of July 31, 2023

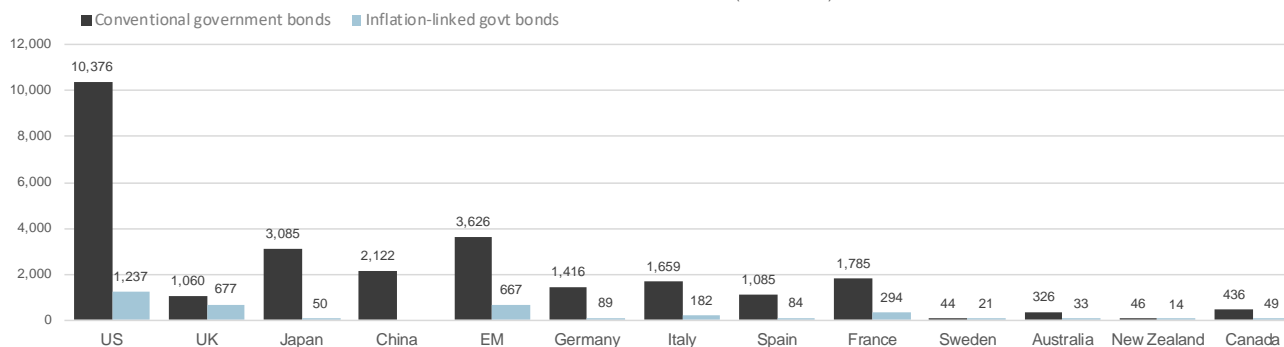
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.4	17.2	6.0	2,305.7	1,077.6	1,277.3	10,376.1	7.0	21.5	6.5	401.5	121.7	1,237.2
UK	3.5	7.4	18.6	9.9	147.2	158.9	300.9	1,060.0	6.6	27.9	16.2	132.3	256.2	676.7
Japan	4.0	8.1	23.9	12.2	353.4	357.0	677.2	3,085.2	7.1		4.2	17.7		50.2
China	3.7	7.5	17.6	5.7	474.9	329.7	252.5	2,121.6						
EM	3.5	6.9	15.9	5.6	769.0	652.8	352.5	3,625.6	5.5	13.9	7.3	141.7	172.8	666.9
Germany	3.8	7.6	20.5	7.2	297.7	236.8	161.0	1,415.6	7.3	21.9	9.1	43.3	19.4	88.6
Italy	3.7	7.3	16.2	6.3	286.4	262.9	155.6	1,659.3	8.0	26.4	7.8	56.5	5.8	181.8
Spain	3.7	7.4	17.2	6.8	205.1	192.1	108.5	1,085.1	6.8		5.7	23.0		84.2
France	3.8	7.7	20.2	7.5	314.1	305.3	210.1	1,785.4	6.8	24.6	7.9	105.2	22.0	293.8
Sweden	3.8	7.7		5.7	13.8	8.9		43.7	5.8		4.1	9.9		21.1
Australia	3.6	7.7	17.5	6.6	51.7	88.9	15.2	326.4	7.2	22.5	7.9	9.7	2.7	33.5
New Zealand	3.9	7.6	17.0	6.4	9.7	10.9	2.4	46.4	6.3		8.7	3.2		13.9
Canada	3.7	7.7	19.9	6.8	57.1	113.4	62.5	436.1	7.0	20.8	13.7	8.3	20.1	49.4

	Investment grade bonds										High Yield	
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	10.9	8.6	7.3	6.7	7.1	73.4	453.7	2630.7	3284.4	6442.3	4.0	1036.7
Europe	6.3	4.9	4.7	4.3	4.5	9.7	187.7	1205.3	1457.2	2859.9		
EM		5.9	4.9	5.1	5.1		44.6	221.3	326.8	592.7	3.3	190.1

Average Duration



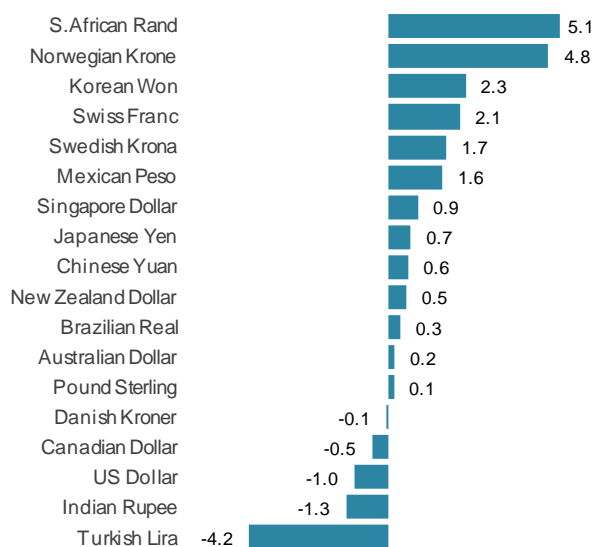
Total Market Value (USD Billions)



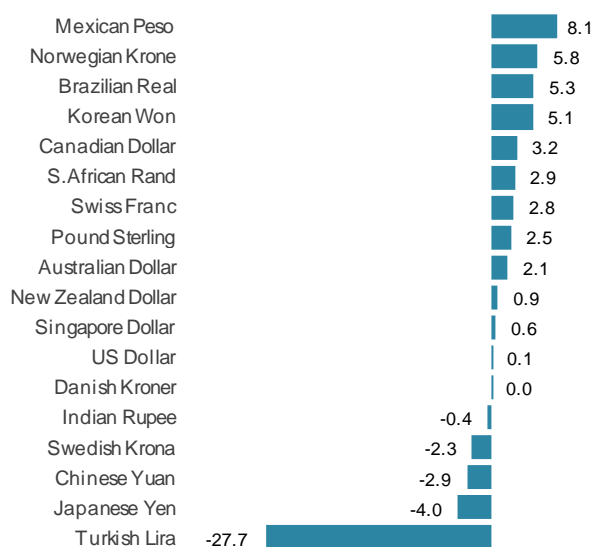
Source: FTSE Russell. All data as of July 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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

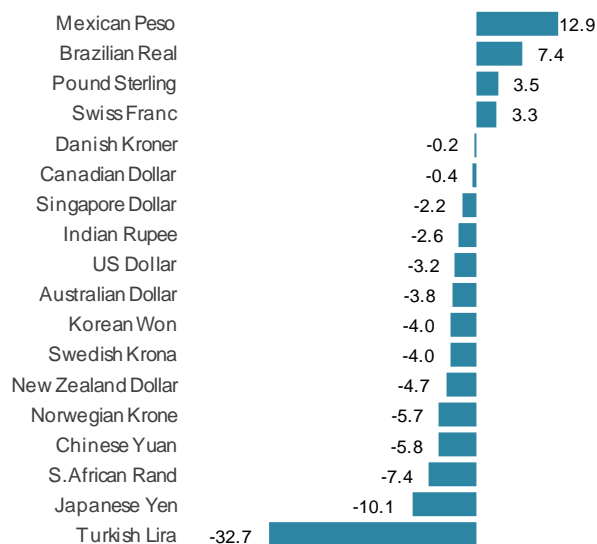
FX Moves vs EUR - 1M



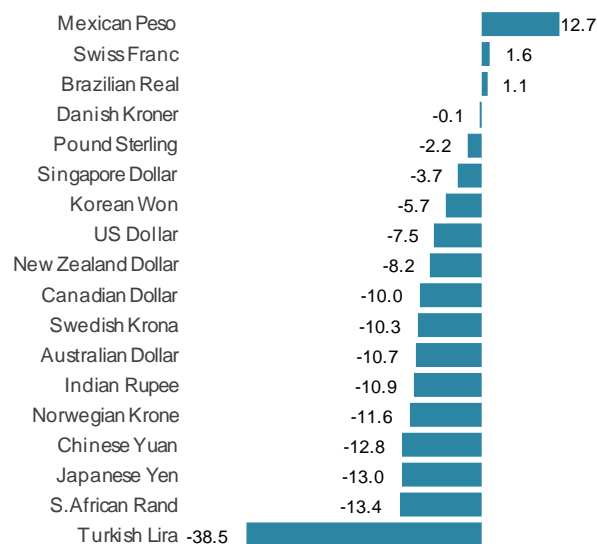
FX Moves vs EUR - 3M



FX Moves vs EUR - YTD



FX Moves vs EUR - 12M



Source: FTSE Russell and Refinitiv. All data as of July 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



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