

# Fixed Income Insights

MONTHLY REPORT - May 2023 | UK EDITION

FOR PROFESSIONAL INVESTORS ONLY

## End of tightening cycle beckons but sticky UK inflation remains key

Prompt action by regulators restricted banking contagion, allowing the Fed to raise rates by 25bp for inflation insurance, and the MPC may follow suit on May 11. Lower inflation allowed most govts and credits to retain Q1 gains in April but longer gilts remain overshadowed by 10% y/y UK inflation, and the flat yield curve.

### Macro and policy backdrop – IMF still forecasts 2023 UK recession. Markets see US debt ceiling as tail risk only

IMF upgrades UK forecast but still a recession. Muted reaction to debt ceiling crisis may be due to successful 2011 resolution. (pages 2-3)

### Yields, curves and spreads – Yields show further signs of a cyclical peak

US Treasury yields remained near 2023 lows in April, buoyed by macro and policy backdrop, loss of growth momentum and weaker housing. Sticky UK inflation remains the key issue for longer gilts. (pages 4-5)

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

After a tough 2022, when issuance fell back sharply, both sovereigns and corporate issuance rebounded in Q1. (page 6)

### Performance – Sovereigns consolidated Q1 gains, and credit rallied on risk appetite, but JGBs and long gilts fell

Treasuries held onto Q1 gains, as inflation fell. JGBs and long gilts underperformed on weaker yen and higher UK rates threat. (pages 7-8)

### Appendix (from page 10)

Chart 1: Despite UK inflation at over 10% y/y, inflation breakevens fell since the Ukraine spike in Q1, 2022, after aggressive MPC tightening.

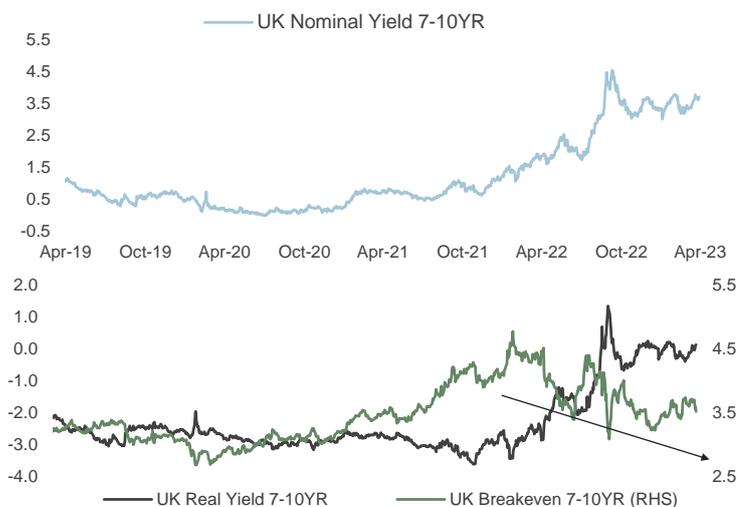
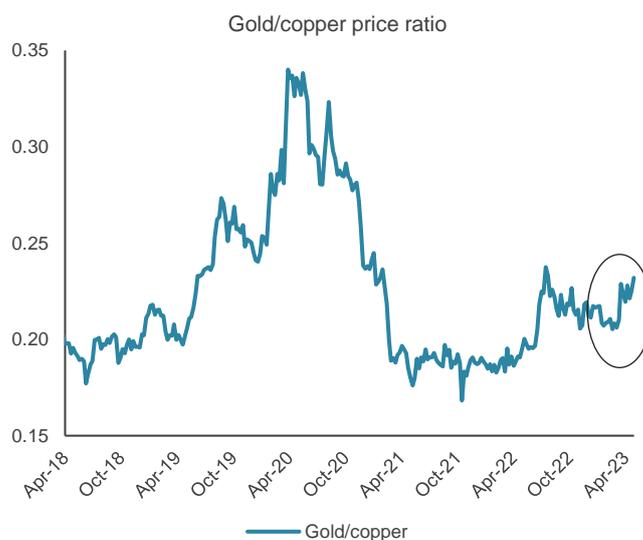


Chart 2: The gold price rallied sharply on US banking woes in March, as it did during the early risk-off stages of Covid in 2020.



Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. This report should not be considered 'research' for the purposes of MIFID II. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix for list of indices used for each market.

# Macroeconomic Backdrop – Growth and Inflation Expectations

IMF April growth forecasts generally show modest upgrades (since January) for 2023, though a UK recession is still forecast. Food prices and wage inflation are preventing faster declines in inflation rates in the UK, though Q2 base effects are favourable. Inflation forecasts for 2024 and breakevens remain stable around pre-Covid levels, close to 2%.

The UK continues to skirt recession, with growth close to zero, due to lagged effects of the energy price shock, negative real wage growth and fiscal tightening (Chart 1). US growth also slowed to 1.1% in Q1, due to weak housing, capex and manufacturing. Chinese growth out-turns in 2023/24 hinge on a successful transition to domestic-led growth, with a weak property sector a key risk.

Inflation in North America and Asia has fallen back quickly in 2023, helped by base effects and lower energy prices. European inflation has greater inertia, particularly the UK, increasing risks of more policy tightening, unless banking woes intervene (Chart 2).

Chart 3 shows UK wage growth slowing only modestly to 6.9% y/y in February, and unemployment at 3.8%, still near 50-year lows. Note that 400k workers have left the UK labour force since Covid, tightening the labour market further.

Inflows into money market funds, and out of bank deposits, were the main global fund flow after banking woes in March. Chart 4 shows the impact on money market inflows. However, neither equity nor credit markets have seen major impact, and money market flows normalised in April. However, March's banking turmoil may have tightened credit conditions.

Chart 1: IMF downgrades to UK and Japanese growth reflect labour shortages, and severe energy and inflation shocks. A stronger property sector may be needed for Chinese growth of 5%.

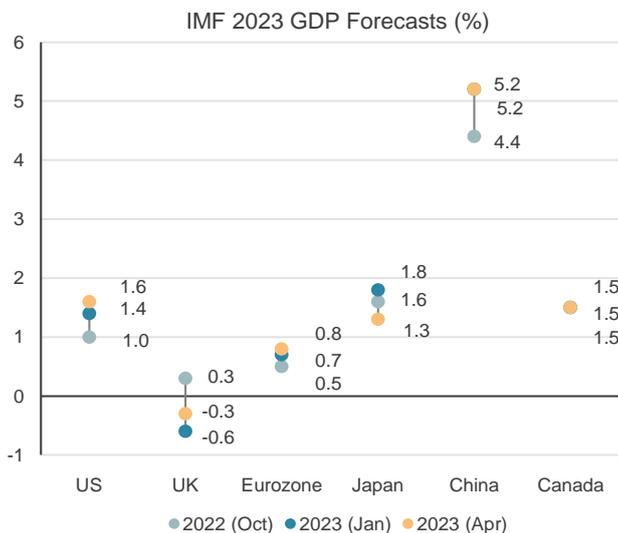


Chart 2: Sharp falls in US and Canadian inflation in Q1 2023 are at odds with sticky inflation in Europe, with UK inflation still above 10% y/y. Asian inflation remains more modest, notably in China.

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

Chart 3: UK average earnings has slowed a little to 6.0% y/y, and real wage growth remains strongly negative, constraining consumer spending, and increasing UK recession risks.

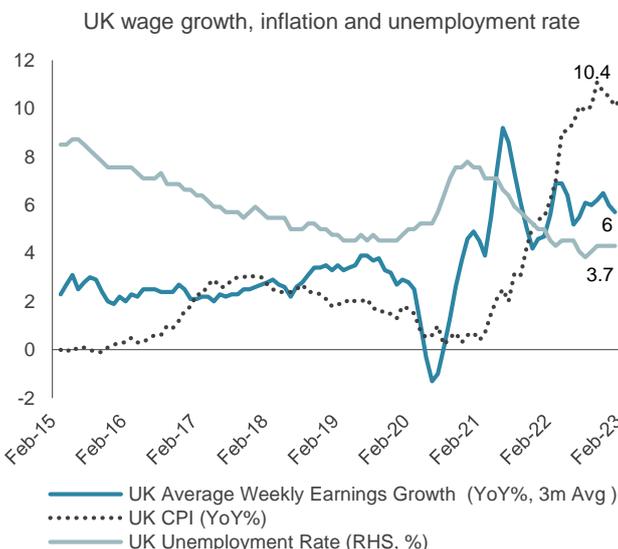
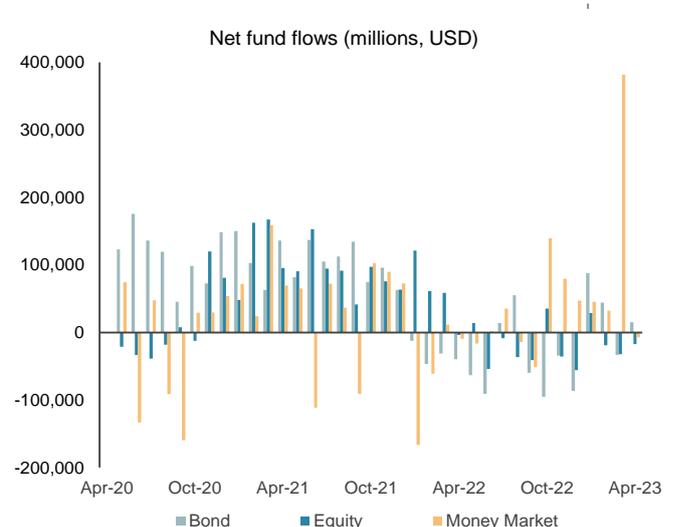


Chart 4: The main fund flow, since US banking woes emerged in March, has been out of bank deposits into money market funds. However, since March, money market flows have normalised.



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# Financial Conditions and Monetary Policy Settings

Limited contagion from the US banking crisis allowed risk assets to rally again in April, despite the risk of further duration mismatches, and evidence from Fed surveys of tighter credit conditions. Regional inflation shows wide dispersion, due to differing food and energy shocks, but tight labour markets remain a global issue, extending tightening cycles.

UK M2 money growth turned negative y/y in recent months, as Chart 1 shows. The broadest UK money measures, like M4, show negative growth for the first time since 2015, as higher rates squeeze loan demand hard, despite some distress borrowing.

Regional inflation rates diverge widely, and UK inflation remains uncomfortably high for the BoE, only falling modestly from the 40 year high above 11% y/y in October 2022 (Chart 2). The severe energy and food shock, and corporate pass-through to consumer prices are the main factors in the UK, but the tight labour market remains an issue, with wage growth still at 6.0% y/y..

After a 25bp Fed rate increase on May 3, and limited contagion from banking woes, markets price in a further 25bp tightening move from the BoE in May, despite UK growth flat-lining and the BoE's forecast decline in inflation. The BoE has revealed a preference to trade off recession risks for inflation control, and is focussed on tight labour markets and preventing a change in inflation regime.

Central banks continue Quantitative Tightening (QT) programmes to supplement tightening, apart from the BoJ. Uncertainty about QT's impact is high, and the Fed's emergency lending in Q1 disrupted the programme (Chart 4). The BoE targets £80 bn reduction in gilt holdings in 2023, though there are no UK published estimates of the tightening impact in bp terms.

Chart 1: UK monetary aggregates have slowed sharply of late, including M2 (nominal M4 growth is now negative y/y), in response to higher rates, and despite some distress borrowing.

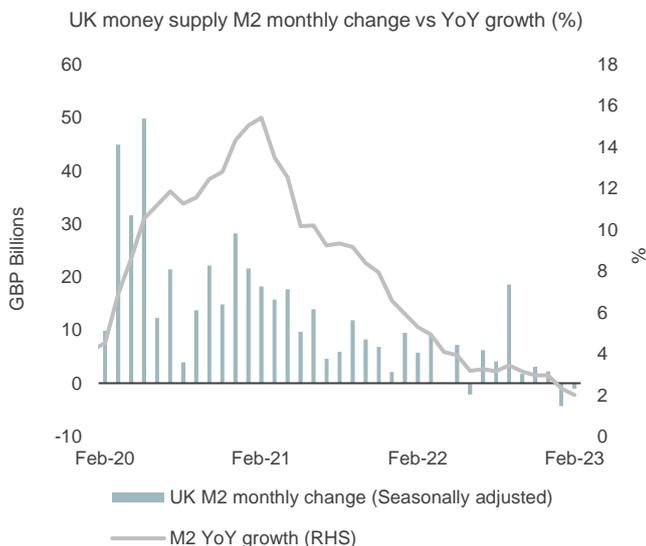


Chart 2: Wide dispersion in inflation rates continues. The stickiness of UK inflation above 10% y/y stands out, even if Q2 base effects should allow it to fall y/y, as the Ukraine index effect drops out.

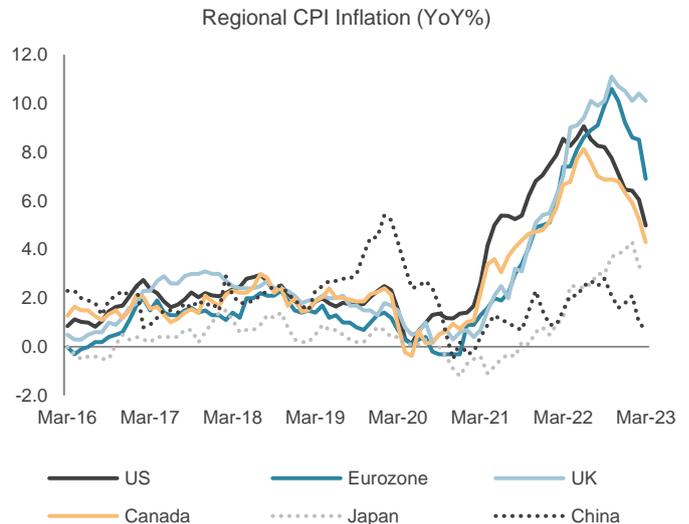


Chart 3: The Fed raised rates a further 25bps on May 3, and may be followed by the BoE and ECB in May, who remain prepared to risk recessions for inflation control. The BoJ retains negative rates.

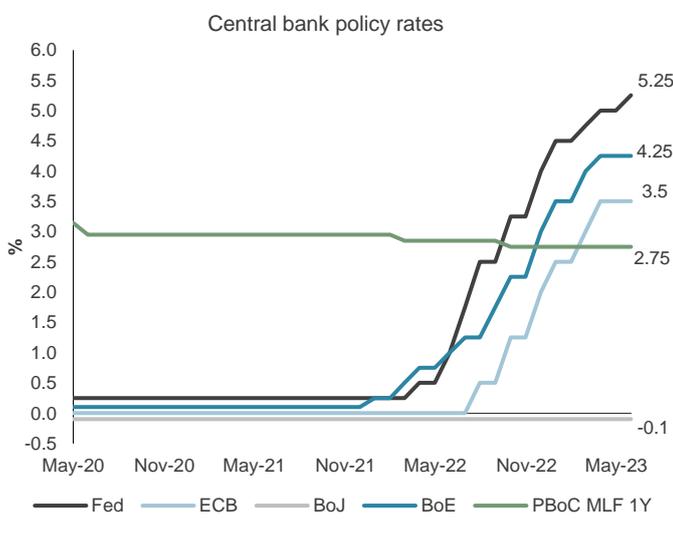
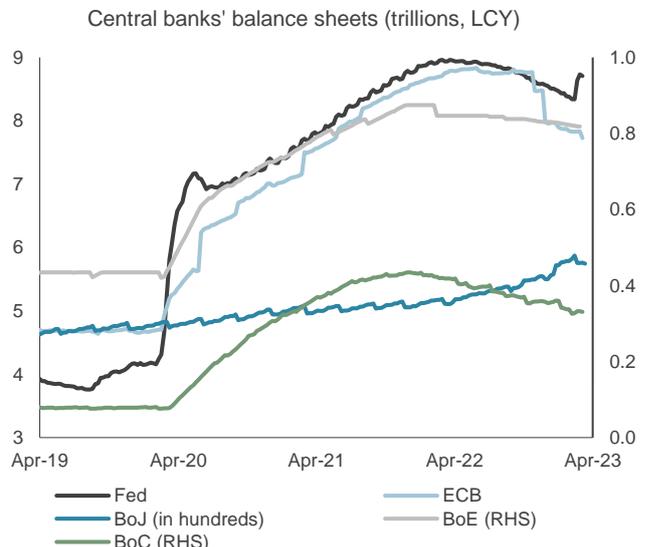


Chart 4: Central banks continue Quantitative Tightening (QT), apart from the BoJ, though the Fed's QT was interrupted by the provision of emergency liquidity to regional banks in March.



Source: FTSE Russell and Refinitiv. Chart 2 is sourced from Federal Reserve. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

# Global Yields, Curves and Spread Analysis

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

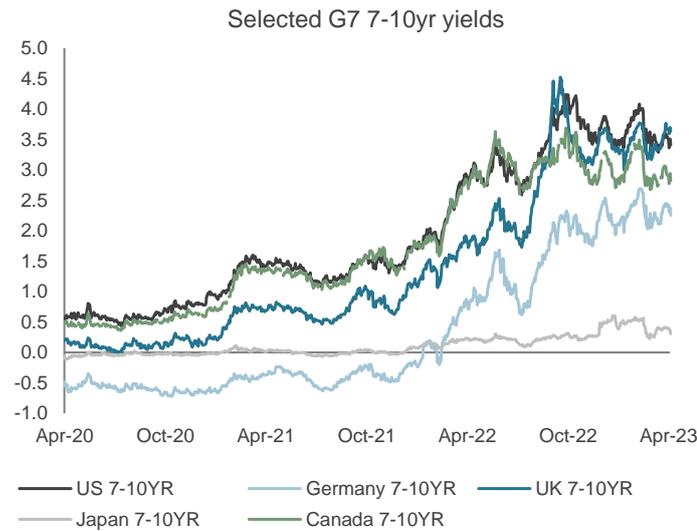


Chart 3: G7 10s/2s yield curves steepened after March's banking woes emerged, and 2-year yields collapsed. But curve inversion, and flattening in Japan, resumed in April as 2-yr yields rebounded.

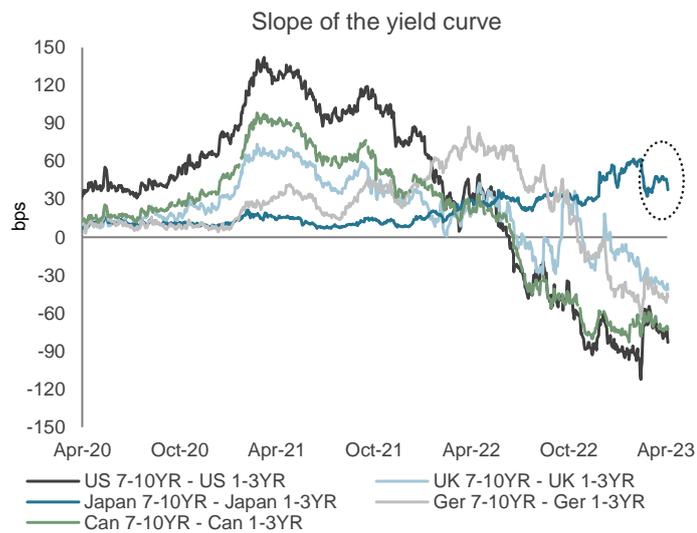


Chart 5: 7-10yr inflation breakevens stabilised near 2%, apart from the UK (due to the different RPI inflation index for accruals) & Japan. There has been little persisting impact from March's banking woes.

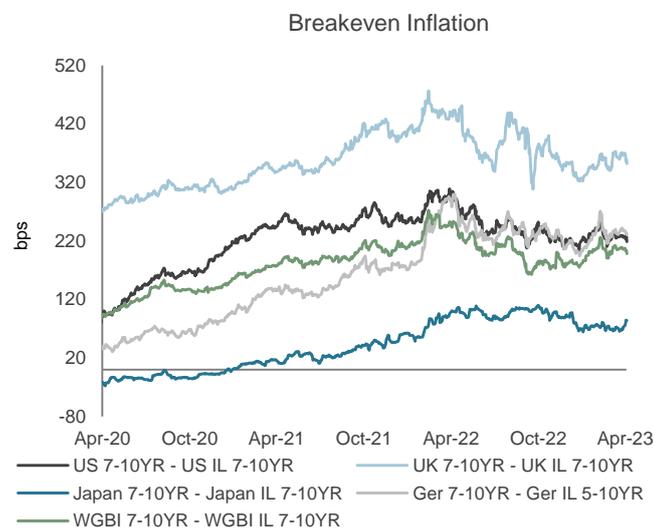


Chart 2: Real yields have also fallen since the banking crisis, though not as much as conventionals, as the latter proved a safe haven of choice. Real yields remain well above 2020/22 levels.

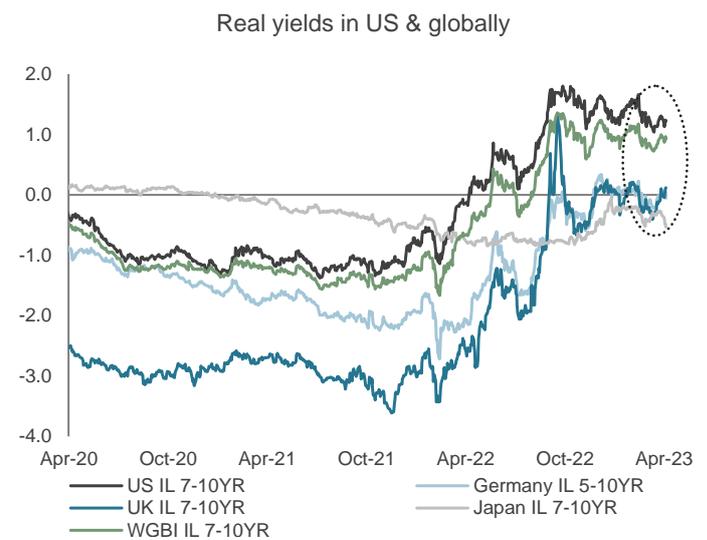


Chart 4: Like 10s/2s, the 20s+/2s yield curves resumed the 2021/23 flattening/inversion trend in April, after the brief March steepening. 2 year yields recovered as central banks signaled more tightening.

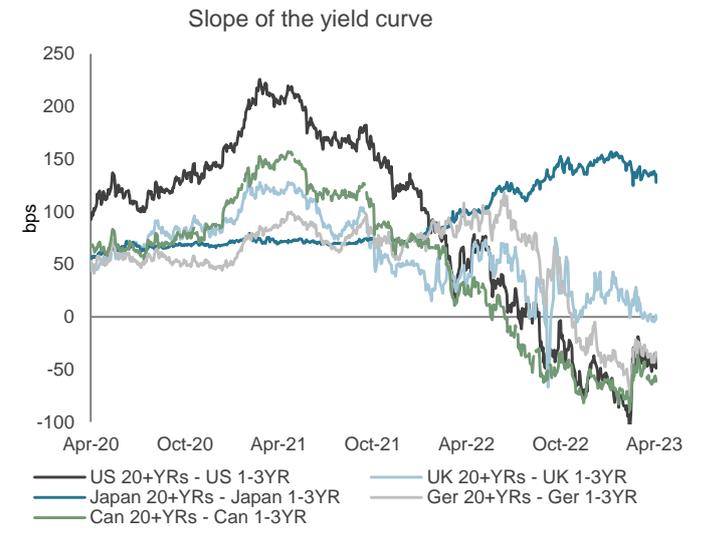


Chart 6: Short run inflation breakevens reacted more to March turmoil, and lower inflation prospects, if a credit crunch develops, though lower inflation rates in 2023 are also a factor.



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# Yield Spread and Credit Spread Analysis

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

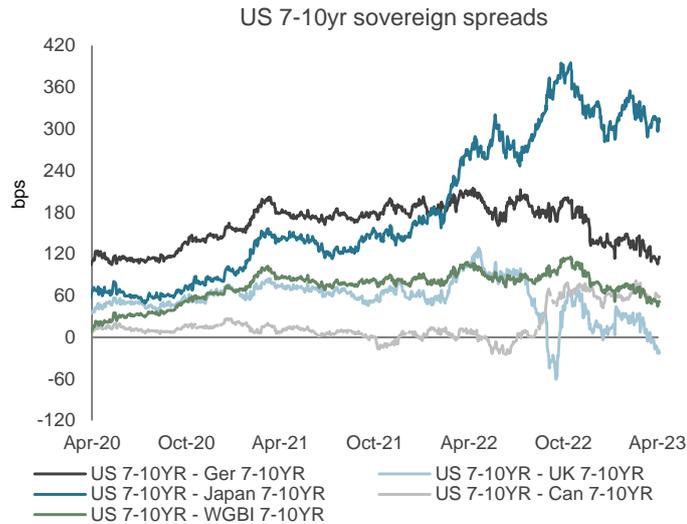


Chart 2: Peripheral Eurozone 7-10-year yield spreads reacted little to March's banking woes, though Italian spreads have widened since the ECB began signalling higher rates in Q2 2022.

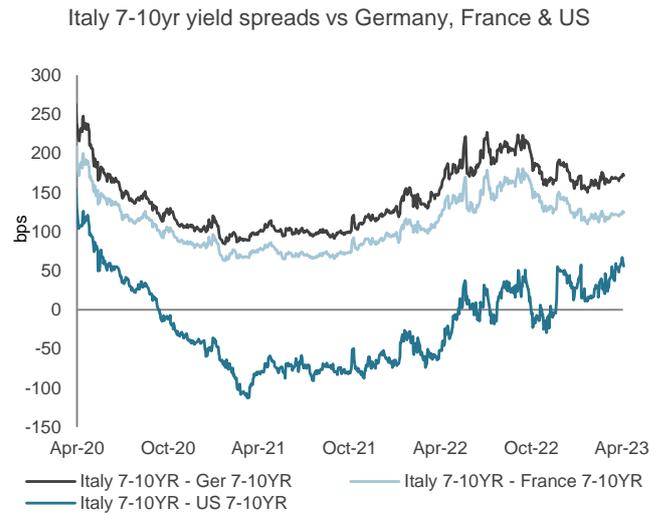


Chart 3: EM 7-10-year yield spreads widened a little in March, on fears cross-border flows may fall in a banking crisis, but moves were modest, and fell since, helped by a Fed offer of dollar swaps.

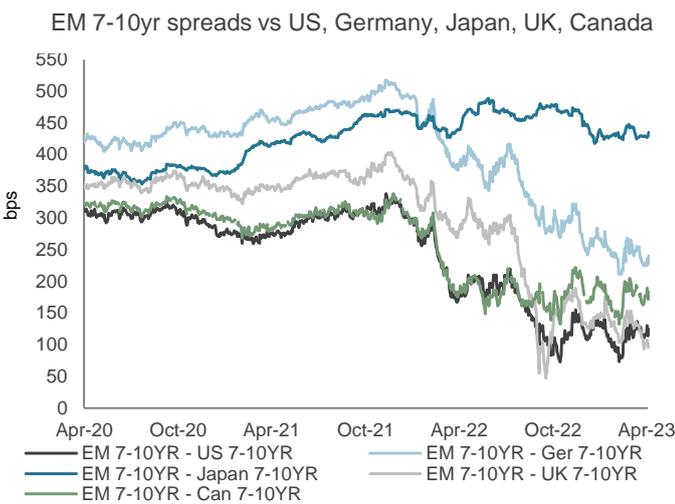


Chart 4: The modest spread widening in China 7-10-year sovereigns in March reversed in April, as Chinese inflation fell further, and nominal yields declined as a result.

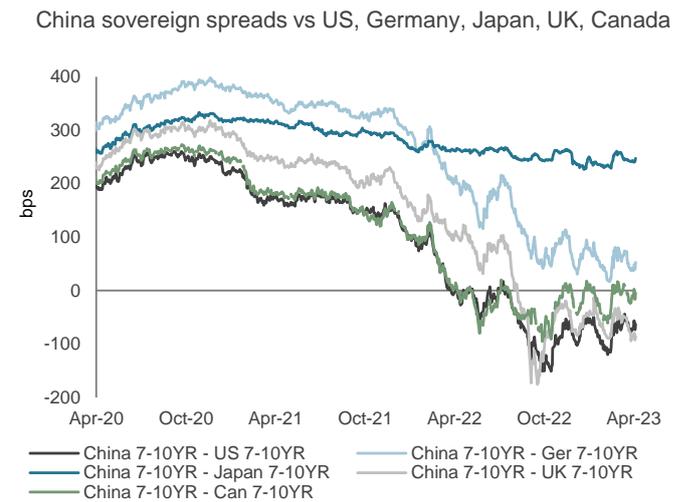


Chart 5: Lack of contagion, and prompt US regional bank takeovers, helped financial spreads stabilise in April, after the March spike on initial fears of a broader banking crisis.

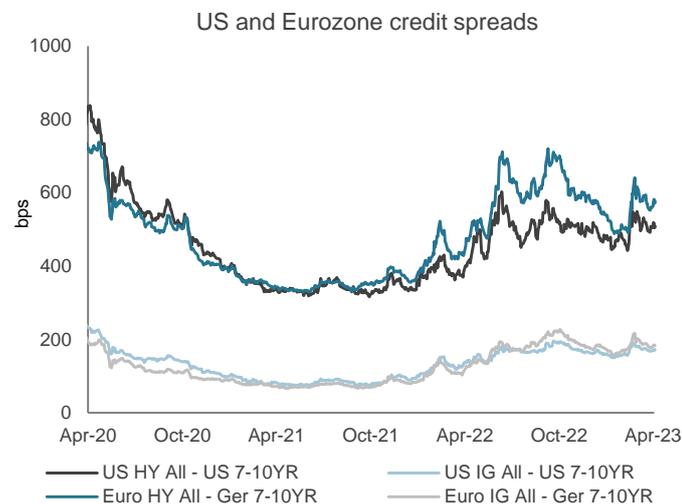


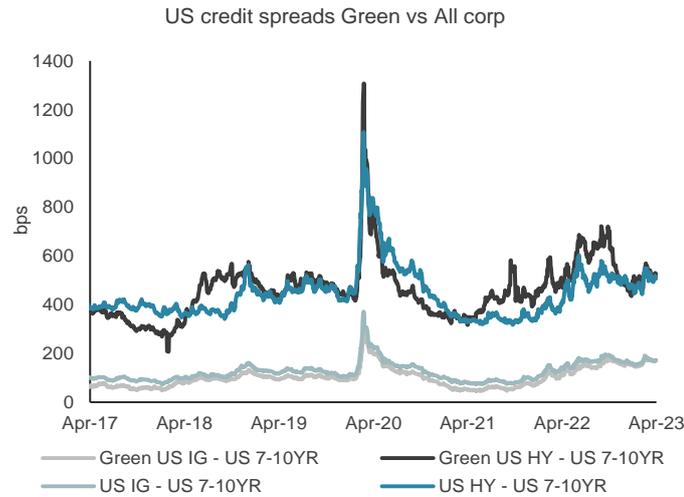
Chart 6: Although Chinese HY dollar spreads are well below the October 2022 peaks, helped by property sector support in China, they have widened sharply since March's US banking woes.



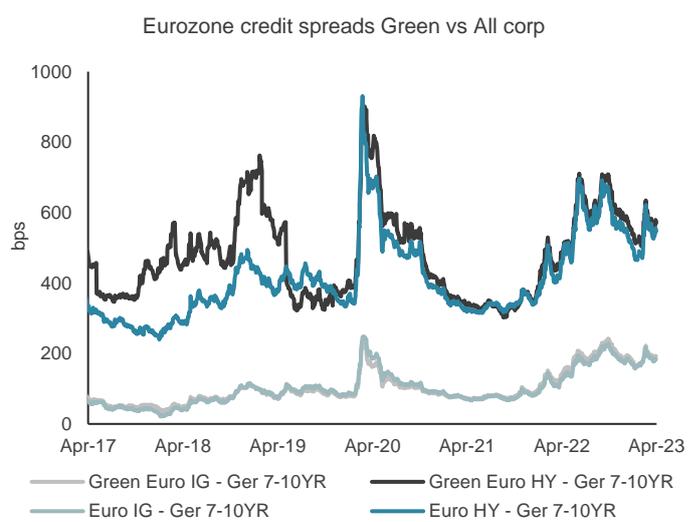
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# Sovereign and Climate Bonds Analysis

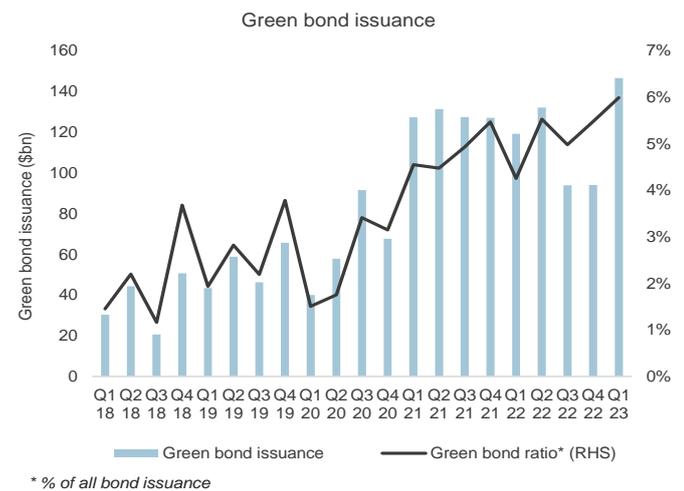
**Chart 1:** After a major stress test of green bonds in 2022, when US green spreads widened sharply, led by HY, spreads have mean-reverted in 2023 to more normal spread levels, near 500bp in HY.



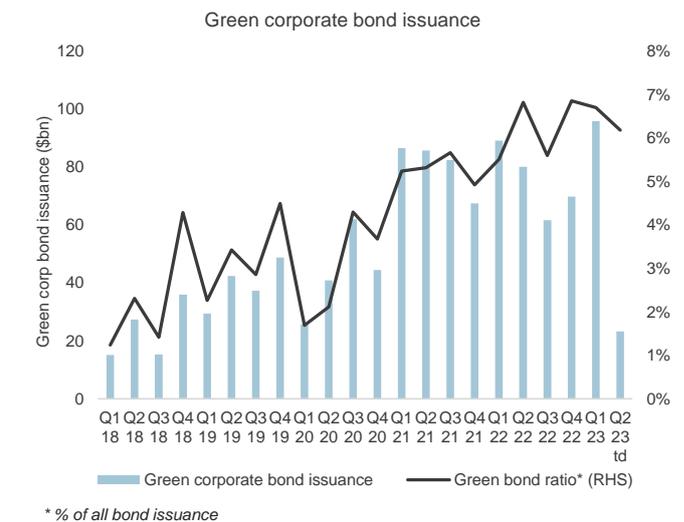
**Chart 2:** Unlike the US, the spread widening in HY Green Eurozone credits versus Bunds was modest in 2022, and there was no major spike. Spreads narrowed since the bond rally began in Q4 2022.



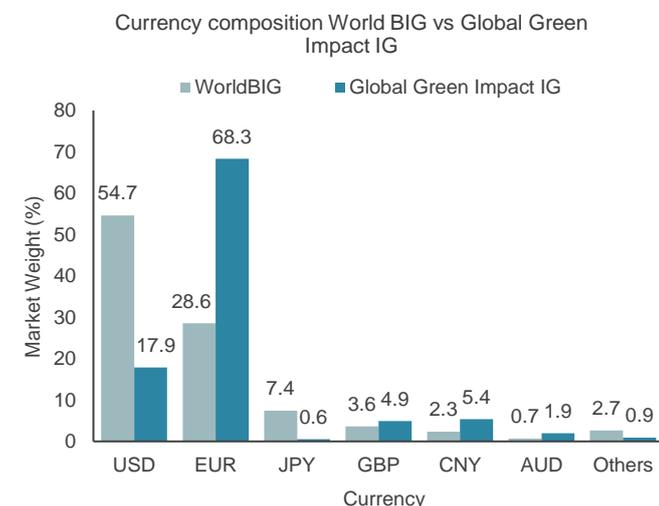
**Chart 3:** Overall, Green bond issuance fell more than other bonds in 2022, as yields and spreads rose. But Green issuance has rebounded in Q1 2023, and is at a new high versus total issuance.



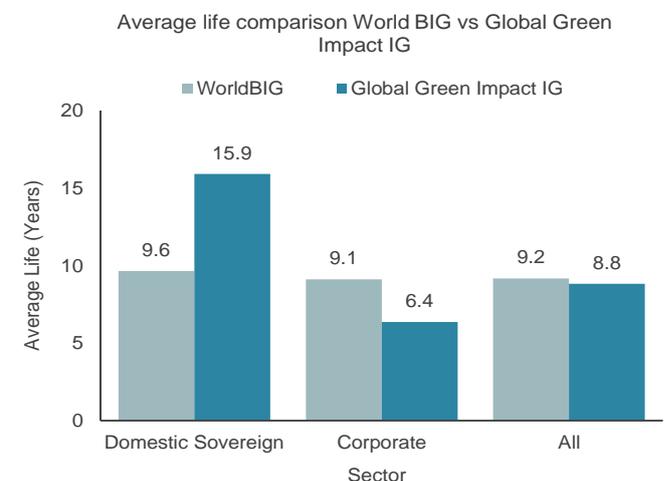
**Chart 4:** Within total Green bond issuance, Green corporates fell sharply, though issuance has recovered in Q1 2023, to an all-time high in absolute terms, as yields stabilized and spreads narrowed.



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



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



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# Global Sovereign Bond Returns – 1M and 12M % (GBP & LCY, TR) as of April 30, 2023

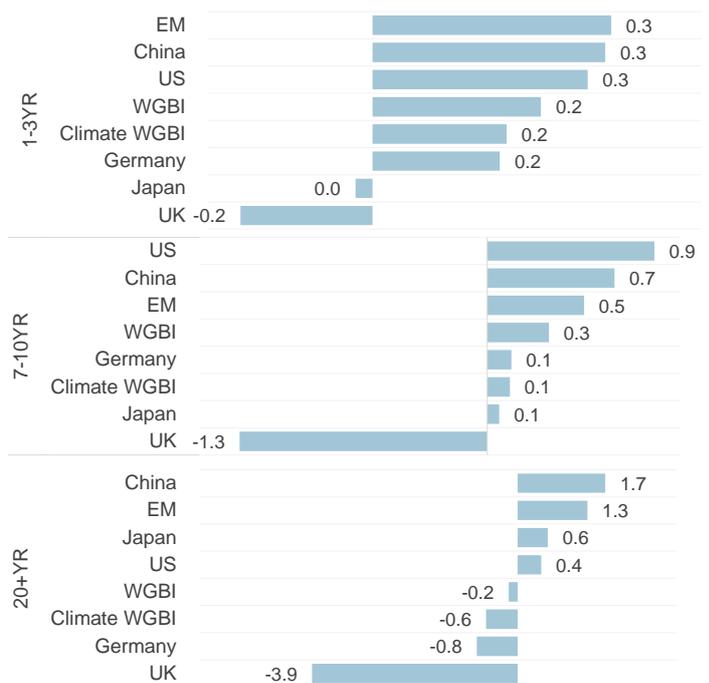
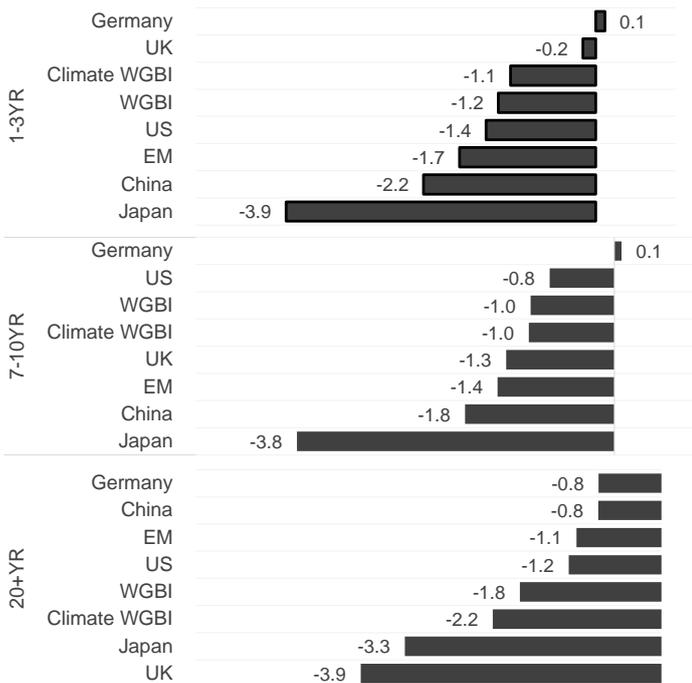
Sovereign bonds stabilised in April, after the strong rally in March. But sterling strength meant returns were mostly negative in shorts and mediums for a sterling-based investor, apart from JGBs, and longer gilts, which lost 3-4%. 12M returns show the damage from longer duration and higher policy rates in 2022, with losses of 9-31% in longs.

Only short Bunds avoided modest sterling losses in April, helped by the Euro. JGBs lost 3-4% across the curve, as the yen fell back on continuing BoJ curve control. Longer gilts lost up to 4%, as the MPC signaled more tightening.

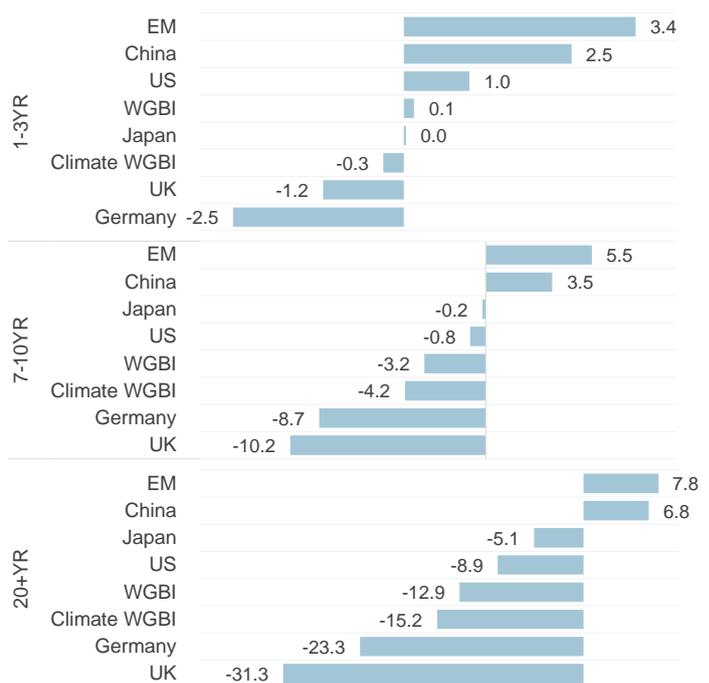
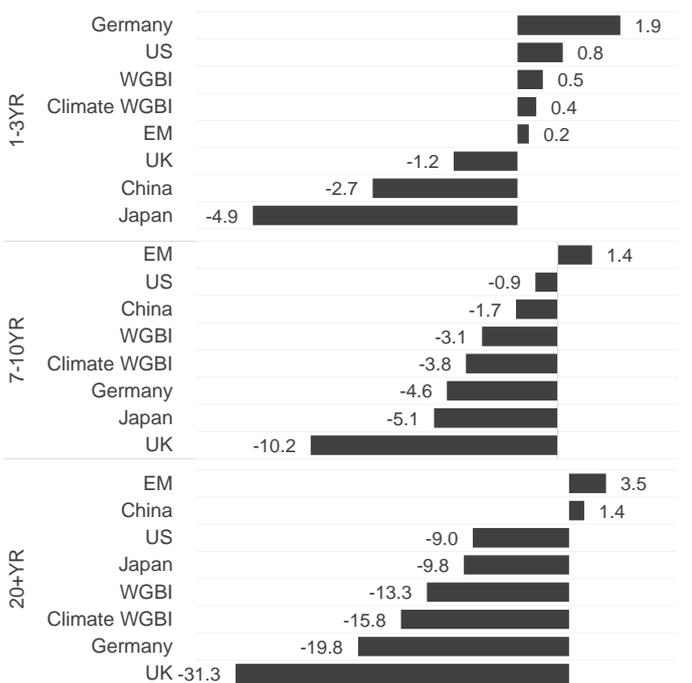
12M returns remain deeply negative, led by longs but EM and China largely escaped with positive returns of 2-4% in GBP terms.

## CONVENTIONAL GOVT BONDS

1M GBP 1M LCY



12M GBP 12M LCY



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# Global Inflation-Linked Bond Returns – 1M & 12M % (GBP, LC, TR) as of April 30, 2023

Global inflation-linked (IL) bonds showed modestly negative returns in April, in sterling terms, but long UK IL bonds and JGB IL bonds lost about 3-7%. Credit rallied a little after limited banking contagion, led by the Eurozone. 12M IL returns are dominated by the negative impact of long duration and rising rates. Shorter duration IG credits showed positive returns.

Although inflation-linked markets consolidated March gains in local currencies, only Bunds showed gains in sterling terms due to sterling strength. UK IL suffered after poor inflation data raised the threat of more MPC tightening, causing longs to lose 6.5%.

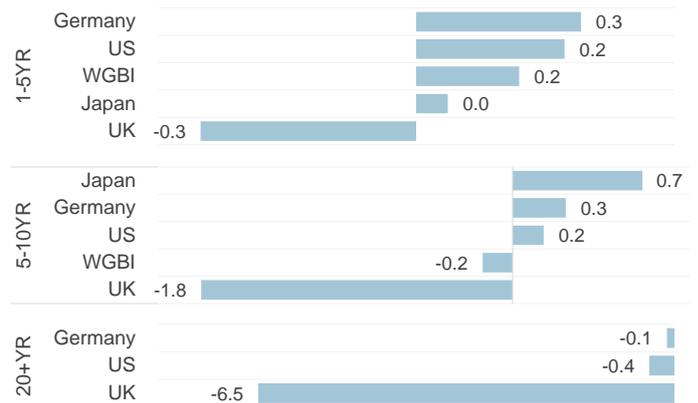
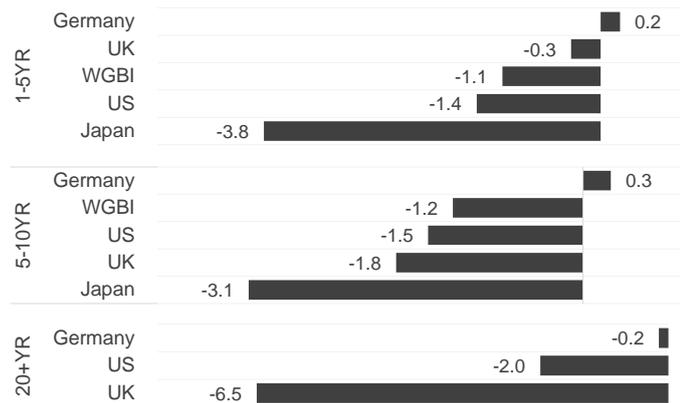
12M returns show losses of 17-40% in long IL bonds, in sterling terms, with ultra-long gilt index-linked bonds the worst performers.

Euro and US high yield credits outperformed investment grade corporates on 12M, helped by shorter duration.

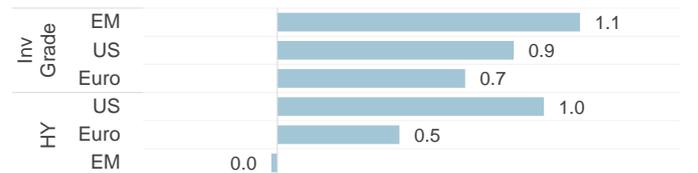
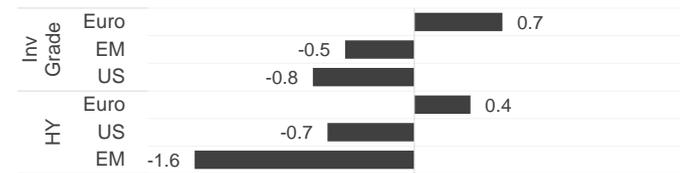
## INFLATION LINKED BONDS

1M GBP

1M LCY



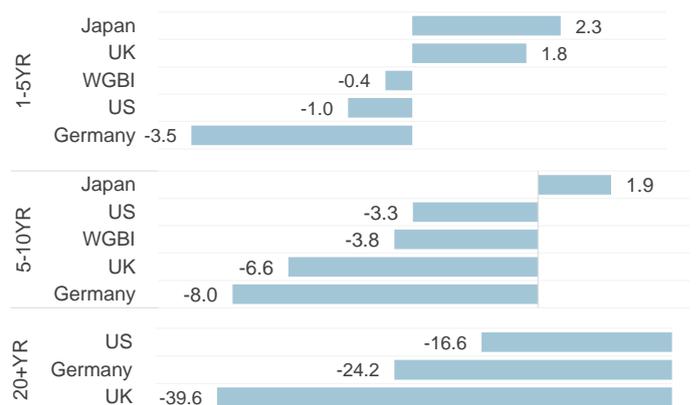
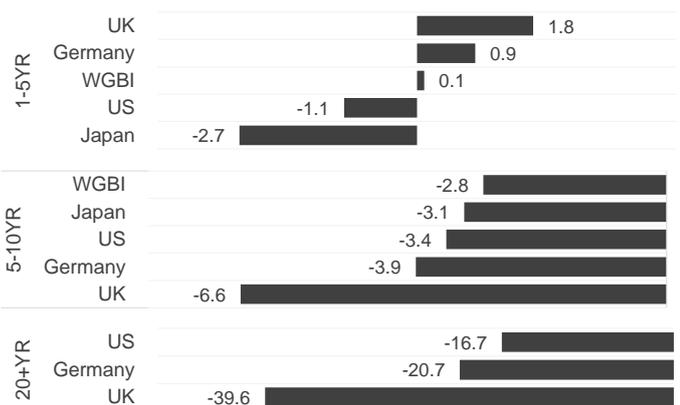
## CORPORATE BONDS



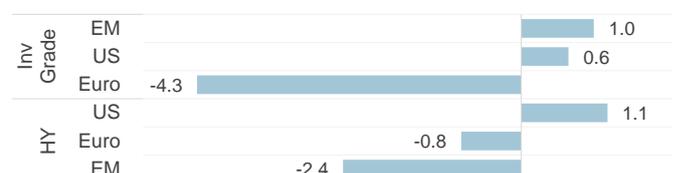
## INFLATION LINKED BONDS

12M GBP

12M LCY



## CORPORATE BONDS



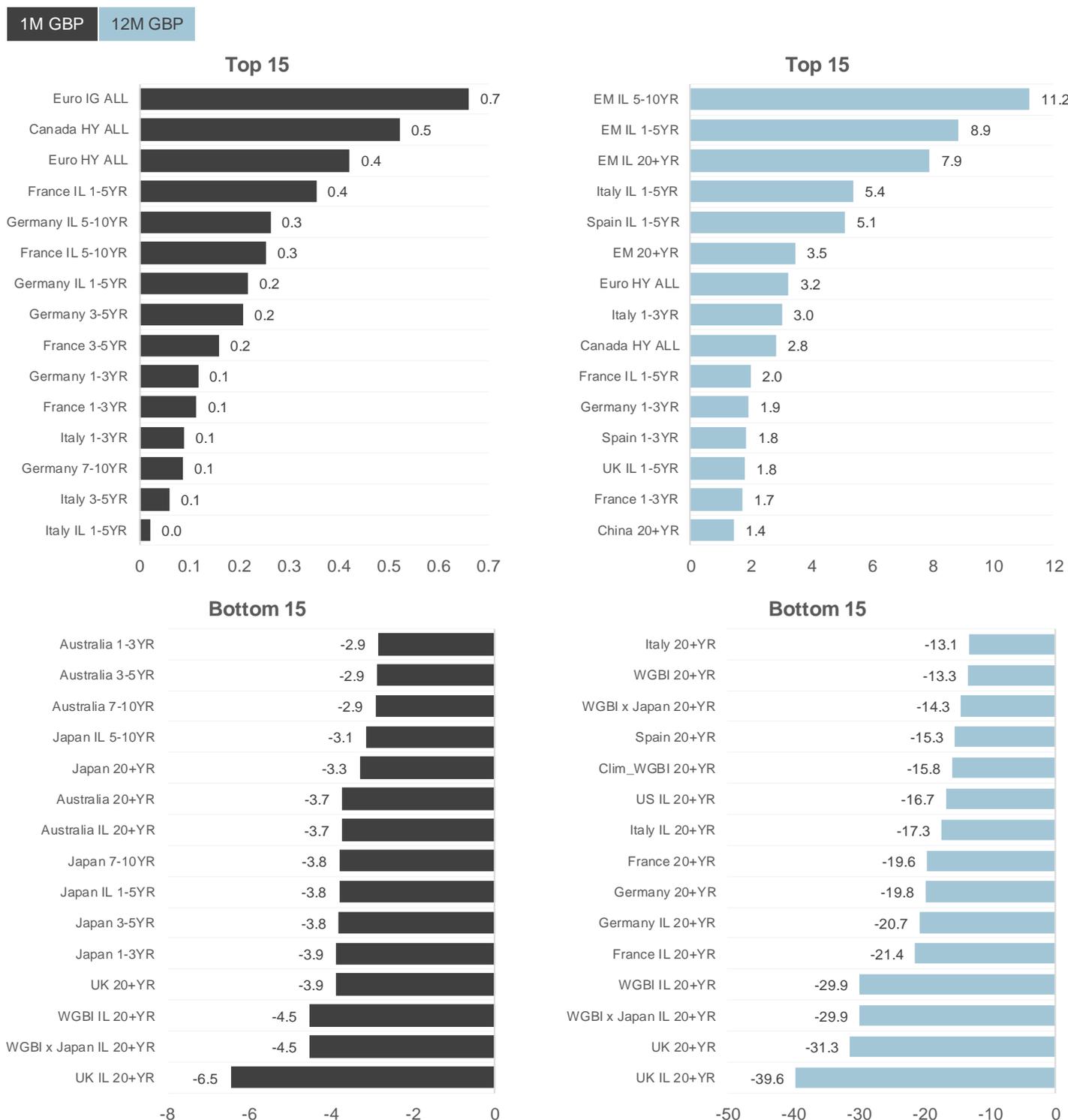
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## Top and Bottom Bond Returns – 1M & 12M % (GBP,TR) as of April 30, 2023

HY credits and short inflation-linked bonds performed best in April, led by Euro and Canada credits, though returns were only 0.4-1%, in GBP terms, due to sterling strength. EM inflation-linked remain best 12M performers. Longer IL gilts and JGBs showed the worst April returns, with losses of 4-7%. All bottom 15 performers on 12M are long-dated govt bonds.

Short to medium maturity bonds consolidated March gains in April, and HY credits and peripheral Eurozone bonds benefitted from risk appetite, as banking crisis contagion was limited. But sterling strength dampened overseas returns for a sterling investor.

On 12M, ultra-long duration in long gilts and inflation-linked bonds caused substantial losses in the 20+ year maturities, as rates rose, with losses of up to 40%. Long Tips and Eurozone bonds also lost 13-21% in sterling terms in the last twelve months.



Source: FTSE Russell. All data as of April 30, 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 % (GBP & LC, TR) – April 30, 2023

### Government Bond Returns

Top 15% Bottom 15%

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

		3M		6M		YTD		12M	
		Local	GBP	Local	GBP	Local	GBP	Local	GBP
US	1-3YR	1.12	-0.96	2.68	-5.94	1.88	-2.50	0.96	0.85
	7-10YR	1.23	-0.85	7.00	-1.99	4.82	0.32	-0.81	-0.92
	20+YR	0.09	-1.97	12.59	3.13	7.72	3.09	-8.92	-9.02
	IG All	0.32	-1.74	9.17	0.00	4.49	0.00	0.62	0.51
	HY All	0.77	-1.30	5.33	-3.51	4.68	0.18	1.14	1.03
UK	1-3YR	-0.28	-0.28	0.62	0.62	0.35	0.35	-1.19	-1.19
	7-10YR	-1.43	-1.43	1.19	1.19	1.64	1.64	-10.23	-10.23
	20+YR	-5.24	-5.24	-6.30	-6.30	-1.10	-1.10	-31.26	-31.26
EUR	IG All	0.31	-0.13	3.49	5.89	2.57	1.54	-4.28	0.05
	HY All	0.17	-0.22	6.71	8.93	3.53	2.60	-0.79	3.25
Japan	1-3YR	0.09	-6.37	0.05	0.04	0.19	-7.08	0.03	-4.93
	7-10YR	2.06	-4.53	-0.01	-0.02	1.82	-5.57	-0.18	-5.12
	20+YR	8.86	1.83	3.71	3.70	8.13	0.28	-5.15	-9.85
China	1-3YR	0.67	-3.84	0.69	-2.83	0.81	-3.20	2.46	-2.70
	7-10YR	1.39	-3.15	0.76	-2.76	1.47	-2.56	3.49	-1.72
	20+YR	3.16	-1.45	1.13	-2.41	2.58	-1.49	6.81	1.44
EM	1-3YR	0.82	-2.78	1.82	-0.87	1.14	-1.88	3.40	0.21
	7-10YR	1.30	-2.12	4.78	1.41	2.82	-0.53	5.55	1.42
	20+YR	2.45	-1.79	4.27	0.68	3.16	-0.92	7.85	3.46
	IG All	0.77	-1.29	9.26	0.09	3.36	-1.08	0.96	0.85
	HY All	-2.74	-4.74	11.93	2.53	0.88	-3.45	-2.35	-2.46
Germany	1-3YR	0.44	0.01	-0.12	2.20	0.67	-0.34	-2.50	1.92
	7-10YR	0.32	-0.12	-0.22	2.10	3.03	2.00	-8.72	-4.58
	20+YR	-2.66	-3.08	-2.15	0.12	3.65	2.61	-23.26	-19.78
Italy	1-3YR	0.54	0.11	0.82	3.16	1.19	0.18	-1.45	3.02
	7-10YR	0.94	0.50	2.54	4.92	4.95	3.90	-6.11	-1.86
	20+YR	-1.29	-1.72	0.94	3.28	6.20	5.14	-16.85	-13.08
Spain	1-3YR	0.49	0.06	0.02	2.35	0.92	-0.09	-2.57	1.85
	7-10YR	0.40	-0.04	0.31	2.64	3.18	2.15	-7.63	-3.44
	20+YR	-2.56	-2.98	-1.58	0.70	2.95	1.92	-18.93	-15.26
France	1-3YR	0.47	0.04	-0.04	2.29	0.99	-0.02	-2.69	1.72
	7-10YR	0.00	-0.44	-0.54	1.77	2.94	1.91	-8.45	-4.30
	20+YR	-3.77	-4.19	-2.82	-0.56	2.43	1.40	-23.04	-19.55
Sweden	1-3YR	-0.13	-0.15	0.18	-1.14	0.75	-2.06	-0.82	-5.42
	7-10YR	-1.50	-1.52	0.09	-1.23	1.26	-1.56	-3.44	-7.91
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	0.88	-7.33	1.83	-3.59	1.73	-5.12	1.97	-5.28
	7-10YR	2.51	-5.84	5.07	-0.53	7.00	-0.21	1.99	-5.26
	20+YR	2.34	-5.99	6.08	0.43	10.60	3.14	-3.73	-10.58
NZ	1-3YR	0.88	-5.56	1.43	-1.21	1.88	-4.78	1.43	-3.58
	7-10YR	1.23	-5.23	2.88	0.20	4.45	-2.38	0.47	-4.50
Canada	1-3YR	0.91	-2.76	2.38	-5.69	1.89	-2.59	1.35	-4.60
	7-10YR	1.39	-2.30	5.05	-3.22	4.69	0.09	3.17	-2.89
	20+YR	1.41	-2.28	8.15	-0.37	7.52	2.79	0.52	-5.38

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

## Appendix – Global Bond Market Returns % (GBP & LC, TR) – April 30, 2023

### Inflation-Linked Bond Returns

Top 15% Bottom 15%

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

		3M		6M		YTD		12M	
		Local	GBP	Local	GBP	Local	GBP	Local	GBP
<b>US</b>	1-5YR	1.74	-0.35	2.76	-5.87	2.58	-1.83	-1.01	-1.12
	5-10YR	1.80	-0.29	5.12	-3.71	4.41	-0.07	-3.29	-3.40
	20+YR	0.40	-1.66	8.21	-0.88	6.76	2.18	-16.57	-16.66
<b>UK</b>	1-5YR	1.18	1.18	1.06	1.06	0.70	0.70	1.79	1.79
	5-10YR	0.77	0.77	3.43	3.43	2.50	2.50	-6.57	-6.57
	20+YR	-7.46	-7.46	-6.02	-6.02	-1.58	-1.58	-39.60	-39.60
<b>EUxUK</b>	1-5YR	0.93	0.49	-0.25	2.06	0.98	-0.03	-3.48	0.90
	5-10YR	1.45	1.01	0.62	2.95	2.97	1.94	-8.04	-3.87
	20+YR	0.66	0.22	1.31	3.67	7.06	5.99	-24.17	-20.73
<b>Japan</b>	1-5YR	0.42	-6.06	1.09	1.08	0.91	-6.42	2.34	-2.74
	5-10YR	2.48	-4.13	0.26	0.25	1.34	-6.02	1.93	-3.12
<b>EM</b>	1-5YR	2.49	1.14	3.99	-0.34	3.39	2.63	13.30	8.87
	5-10YR	3.65	2.61	5.90	1.90	3.42	2.74	15.12	11.21
	20+YR	4.66	4.19	6.46	4.16	4.15	4.77	6.48	7.91
<b>Germany</b>	1-5YR	0.93	0.49	-0.25	2.06	0.98	-0.03	-3.48	0.90
	5-10YR	1.45	1.01	0.62	2.95	2.97	1.94	-8.04	-3.87
	20+YR	0.66	0.22	1.31	3.67	7.06	5.99	-24.17	-20.73
<b>Italy</b>	1-5YR	1.23	0.79	1.86	4.22	1.48	0.47	0.81	5.38
	5-10YR	2.06	1.62	3.84	6.25	4.59	3.54	-3.55	0.82
	20+YR	1.10	0.66	4.14	6.56	10.85	9.74	-20.92	-17.33
<b>Spain</b>	1-5YR	1.10	0.66	1.16	3.51	1.21	0.19	0.55	5.11
	5-10YR	1.44	1.00	1.08	3.43	2.52	1.50	-5.00	-0.70
<b>France</b>	1-5YR	1.27	0.83	0.40	2.73	1.29	0.27	-2.45	1.98
	5-10YR	1.76	1.32	0.60	2.93	3.11	2.08	-6.65	-2.42
	20+YR	-1.20	-1.62	0.03	2.35	5.22	4.17	-24.76	-21.35
<b>Sweden</b>	1-5YR	-0.57	-0.60	1.14	-0.19	0.58	-2.22	2.51	-2.24
	5-10YR	-1.85	-1.87	-0.83	-2.13	0.09	-2.70	-3.86	-8.31
<b>Australia</b>	1-5YR	2.27	-6.05	4.64	-0.94	4.35	-2.68	6.74	-0.85
	5-10YR	2.61	-5.75	7.13	1.41	7.74	0.48	6.07	-1.47
	20+YR	-0.89	-8.96	8.69	2.90	12.60	5.01	-4.22	-11.04
<b>NZ</b>	5-10YR	3.50	-3.11	7.85	5.03	6.36	-0.59	5.63	0.41
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Canada</b>	20+YR	-1.14	-4.74	2.89	-5.21	0.57	-3.85	0.02	-5.86

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# Appendix – Historical Bond Yields % as of April 30, 2023

## Global Bond Yields

Top 15% Bottom 15%

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

		Conventional government bonds				Inflation-linked bonds			Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.24	3.62	3.41	3.75	1.68	1.23	1.58	5.15	8.50
	3M Ago	4.35	3.74	3.46	3.71	1.85	1.32	1.54	5.01	8.23
	6M Ago	4.58	4.37	4.05	4.34	1.76	1.65	1.84	5.97	8.97
	12M Ago	2.60	2.93	2.90	3.07	-1.34	-0.20	0.46	4.33	6.98
UK	Current	4.05	3.77	3.64	4.02	0.39	0.14	0.63		
	3M Ago	3.42	3.26	3.33	3.70	0.31	0.00	0.30		
	6M Ago	3.38	3.55	3.56	3.62	-2.33	-0.13	0.24		
	12M Ago	1.63	1.62	1.87	2.08	-4.34	-2.71	-1.44		
Japan	Current	-0.07	0.02	0.30	1.20	-1.31	-0.63			
	3M Ago	-0.02	0.11	0.52	1.55	-1.33	-0.34			
	6M Ago	-0.06	0.02	0.24	1.31	-1.37	-0.81			
	12M Ago	-0.06	-0.01	0.22	0.95	-1.46	-0.85			
China	Current	2.28	2.51	2.78	3.17					
	3M Ago	2.30	2.57	2.87	3.31					
	6M Ago	1.93	2.30	2.68	3.15					
	12M Ago	2.21	2.47	2.83	3.36					
EM	Current	3.74	4.37	4.66	4.46	3.84	4.04	5.15	5.61	11.71
	3M Ago	3.59	4.30	4.76	4.57	3.11	3.37	5.25	5.52	10.25
	6M Ago	3.67	4.37	5.03	4.77	1.66	3.00	5.23	6.70	13.96
	12M Ago	3.49	4.30	4.85	4.95	1.88	2.93	4.94	4.58	10.52
Germany	Current	2.72	2.35	2.25	2.37	0.16	-0.06	-0.11		
	3M Ago	2.59	2.31	2.21	2.22	0.38	0.13	-0.09		
	6M Ago	1.94	1.95	2.07	2.22	-0.76	-0.35	-0.17		
	12M Ago	0.15	0.56	0.86	1.18	-2.14	-1.50	-1.01		
Italy	Current	3.36	3.49	3.97	4.45	0.80	1.65	1.83		
	3M Ago	3.17	3.42	3.92	4.29	1.18	1.87	1.85		
	6M Ago	2.82	3.30	3.95	4.36	0.25	1.64	1.84		
	12M Ago	0.82	2.13	3.00	3.54	-2.01	0.41	1.39		
France	Current	2.84	2.66	2.73	3.23	-0.06	0.17	0.58		
	3M Ago	2.71	2.58	2.64	3.01	0.24	0.30	0.52		
	6M Ago	2.15	2.20	2.44	3.02	-0.91	-0.16	0.46		
	12M Ago	0.32	1.18	1.67	2.35	-3.14	-1.32	-0.18		
Sweden	Current	2.89	2.59	2.31	0.00	0.71	0.73			
	3M Ago	2.50	2.27	2.05	0.00	-0.17	0.14			
	6M Ago	2.34	2.38	2.25	0.00	-0.59	-0.17			
	12M Ago	1.15	2.06	1.99	0.00	-1.48	-1.14			
Australia	Current	3.13	3.05	3.30	3.88	0.09	0.84	1.50		
	3M Ago	3.17	3.24	3.51	3.96	0.23	0.92	1.37		
	6M Ago	3.21	3.35	3.70	4.10	-0.01	1.05	1.67		
	12M Ago	2.31	3.78	4.05	4.30	0.09	1.32	1.94		
NZ	Current	4.89	4.15	4.08	4.23	0.95	1.61	0.00		
	3M Ago	4.67	4.18	4.11	4.41	1.28	1.79	0.00		
	6M Ago	4.31	4.28	4.18	4.44	1.43	2.04	0.00		
	12M Ago	3.11	3.80	4.00	4.28	0.86	1.83	0.00		
Canada	Current	3.55		2.83	2.94			1.26	4.84	7.37
	3M Ago	3.68		2.91	3.00			1.20	4.83	6.99
	6M Ago	3.81		3.29	3.35			1.38	5.42	7.60
	12M Ago	2.64		2.84	2.85			0.73	4.33	5.84

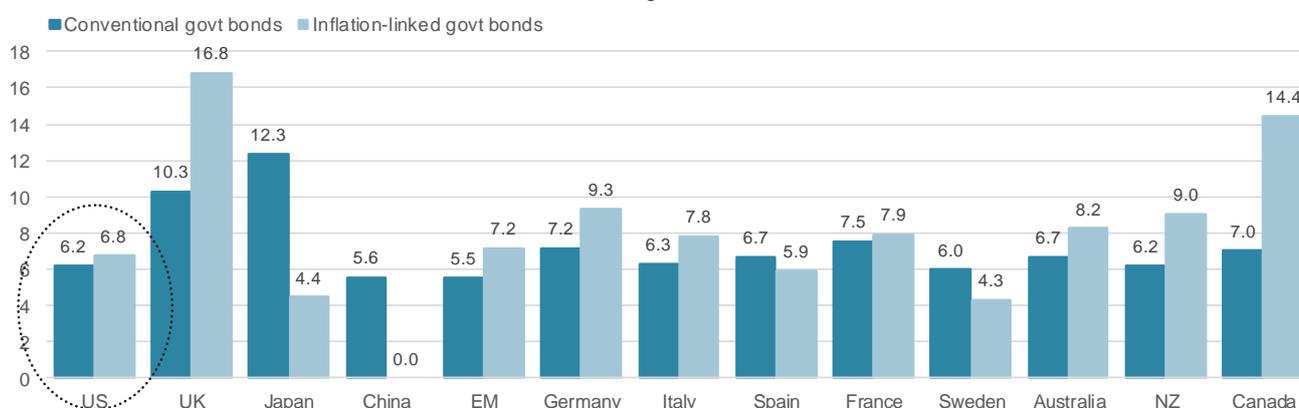
Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

## Appendix – Duration and Market Value (USD, Bn) as of April 30, 2023

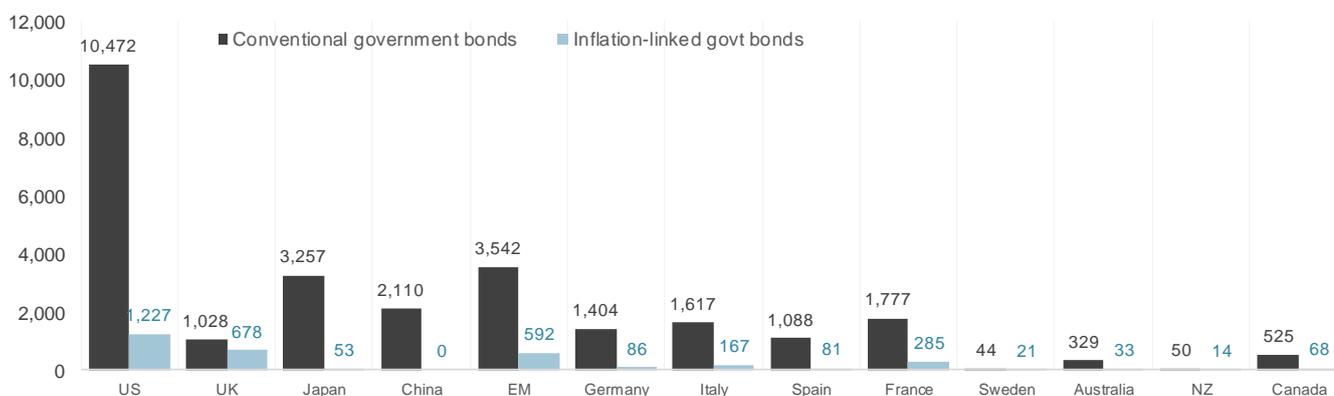
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.6	17.6	6.2	2,276.4	1,094.8	1,326.9	10,472.5	7.0	21.9	6.8	412.7	125.8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

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

Average Duration



Total Market Value (USD Billions)

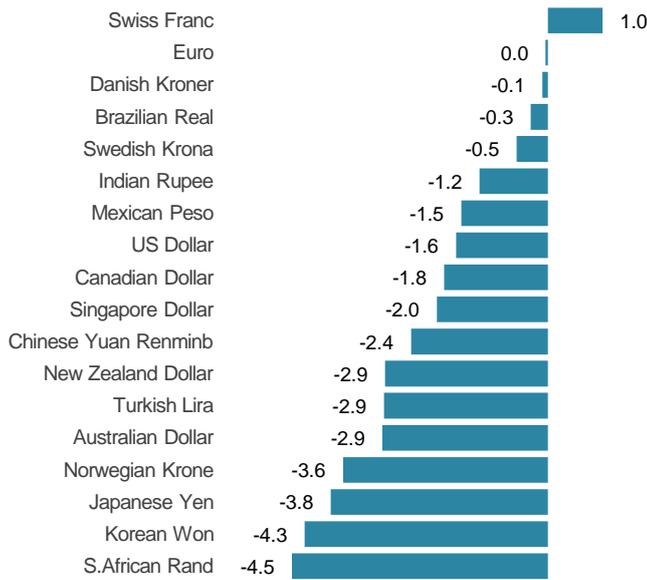


Data as of 2023-04-28

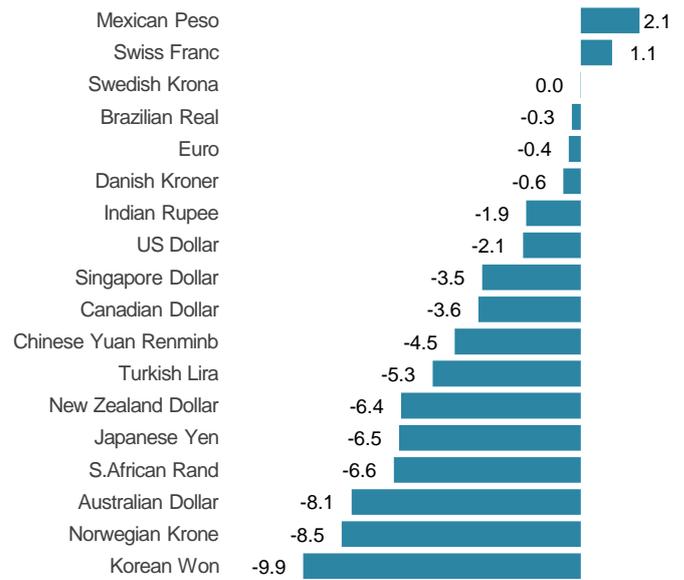
Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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

### FX Moves vs GBP - 1M



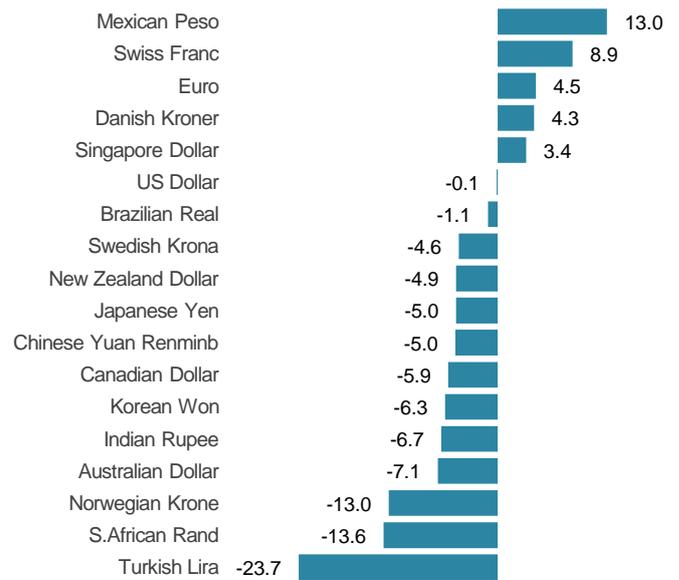
### FX Moves vs GBP - 3M



### FX Moves vs GBP - YTD



### FX Moves vs GBP - 12M



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## Appendix – Glossary

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### **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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