

Fixed Income Insights

MONTHLY REPORT - May 2023 | EUROZONE EDITION

FOR PROFESSIONAL INVESTORS ONLY

Sticky inflation extends ECB tightening cycle, overshadowing longer Bunds

Prompt action by regulators restricted banking contagion, allowing the Fed to raise rates 25bp for inflation insurance, and the ECB may follow suit on May 4th, as labour markets tighten. Lower inflation allowed gov bonds and credits to retain Q1 gains in April, though euro strength turned overseas returns flat or negative.

Macro and policy backdrop – Modest IMF growth forecast upgrades. Markets see US debt ceiling as tail risk only

IMF Eurozone forecast was modestly upgraded. (pages 2-3). Muted reaction to US debt ceiling crisis may be due to 2011 outcome. (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. Stickier European inflation remains a challenge for Bunds and the ECB. (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, but overseas returns turned negative in euros

Bunds retained Q1 gains in April after modest gains elsewhere turned mostly negative in euros. JGBs and long gilts underperformed on weaker yen and the threat of higher UK rates. (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: Inflation breakevens stabilised since the Ukraine spike in Q1 2022, but longer Bunds face negative carry from ECB rates at 3.5%.

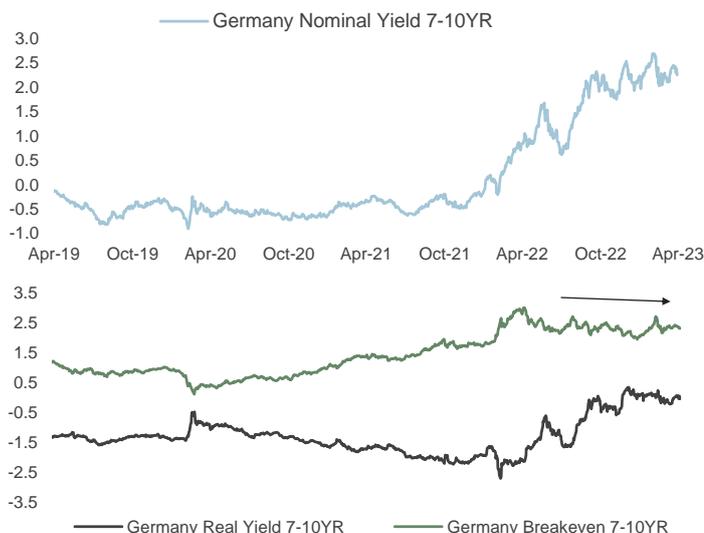
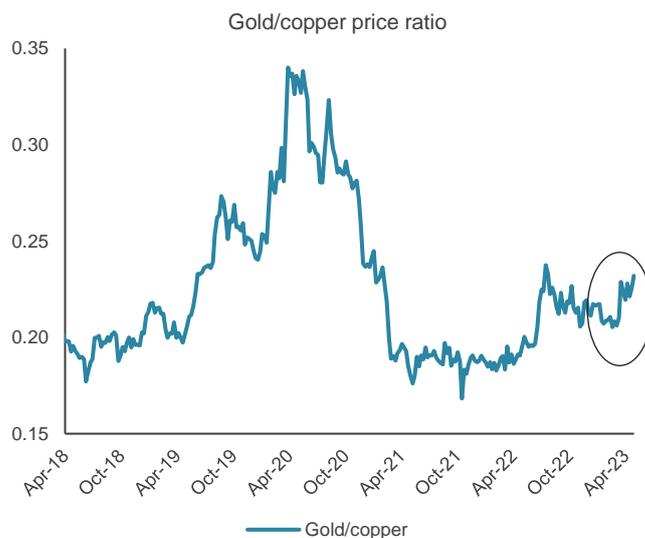


Chart 2: The gold price rallied sharply on banking woes in March, as it did during the early risk-off stages of Covid in 2020.



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

Since January, IMF April growth forecasts for 2023 show either modest upgrades or are unchanged, apart from Japan. Food prices and wage inflation prevented faster inflation falls in Europe, though base effects are favourable in Q2. 2024 inflation forecasts are stable at pre-Covid levels, despite late-cycle pressure on unit labour costs.

Since January, the IMF revised its real GDP growth figures modestly upward in April in the US, UK and Eurozone. The Euro area is projected to grow by only 0.8% y/y in 2023, a fall from 3.3% GDP in 2022. China is forecast to grow the fastest after reopening from lockdowns, but this hinges on a successful transition to domestic-led growth, with a weak property sector a key risk (Chart 1).

Consensus forecasts show inflation normalising at pre-Covid levels, in response to tightening in 2022/23. However a late start to monetary tightening means the ECB may need to keep raising rates for longer to reach its 2% target inflation, which, according to the central bank's estimates, it does not expect until 2025 (Chart 2).

Chart 3 shows a tight labour market has been a major driver of inflation (in addition to rising food & industrial goods and services prices) in the Eurozone, as wage inflation spiked up to 6.1%, despite base effects and lower energy prices.

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

Chart 1: Since January, IMF growth revisions for 2023 in April were mostly higher. Eurozone GDP predictions of 0.8% y/y remains modest compared to 3.3% y/y in 2022.

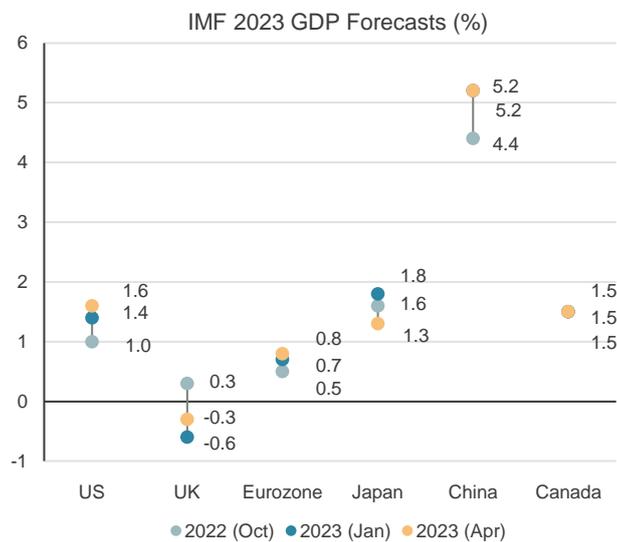


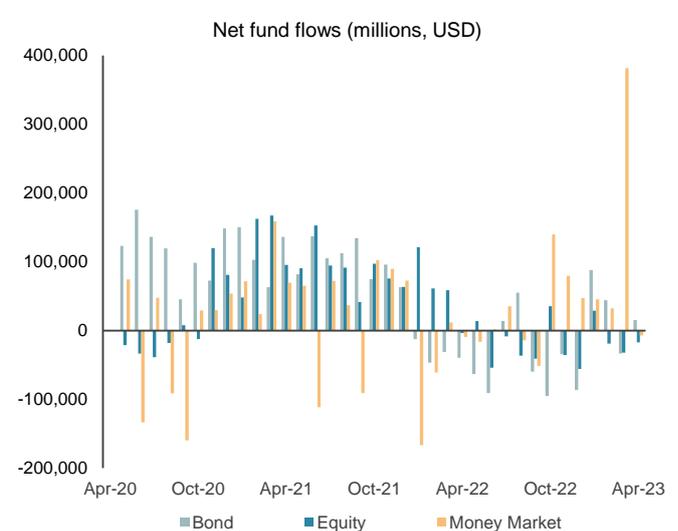
Chart 2: Inflation is predicted to remain “higher for longer” despite base effects of lower energy prices as labour markets remain tight. Eurozone’s CPI projection for 2023 remains among the highest.

	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. Eurozone wage growth at 6.1% increases cost-push inflation pressure, as unemployment reaches historic lows. Lower energy prices and base effects pulled headline inflation lower.



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



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Financial Conditions and Monetary Policy Settings

Regional inflation shows wide dispersion, due to differing food and energy shocks, but tight labour markets remain a global issue, extending policy tightening cycles, with the impact of QT on financial conditions remaining a wild card.

Chart 1 shows Eurozone M2 growth continues to slow sharply, after substantial monetary tightening (350bp in the Eurozone since July 2022). Bank loan terms are likely to tighten after recent regional bank collapses, tightening financial conditions further.

Regional inflation rates diverge widely, with Europe most affected by the 2022 food and energy shocks (Chart 2), and inflation falling more slowly in 2023. Asian inflation remains muted, notably in China. The speed of the fall in G7 inflation will also be influenced by how far weaker demand growth squeezes retail margins in 2023, as supply-chain disruptions unwind in goods markets.

Central banks remain determined to squeeze inflation back to target quickly, despite substantially more tightening in this cycle, reflecting a deeper inflation shock. Only the BoC has yet paused tightening in the G7, reflecting its “flexible inflation targeting” regime. Markets discount a further 25bp move from the ECB in May, after the Fed raised rates on May 3.

Central banks continue Quantitative Tightening (QT) programmes to supplement tightening, apart from the BoJ (Chart 4). ECB balance sheet contraction reflects the unwinding of its asset purchases (APP) portfolio, at €15 billion monthly until end-June 2023. The Fed’s QT was disrupted by emergency discount window lending in March, causing balance sheet expansion, and financial stability concerns may yet disrupt QT again.

Chart 1: Eurozone M2 growth has slowed sharply as QT impacts liquidity, but has become a less reliable indicator of future inflation, given its unstable velocity.

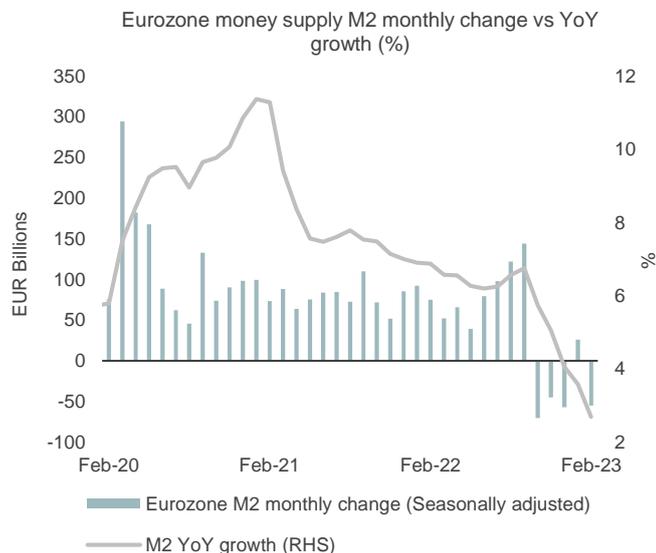


Chart 3: The Fed raised rates a further 25bp on May 3, and may be followed by the ECB and UK in May, while the BoJ retains its yield curve control policy, and negative rates.

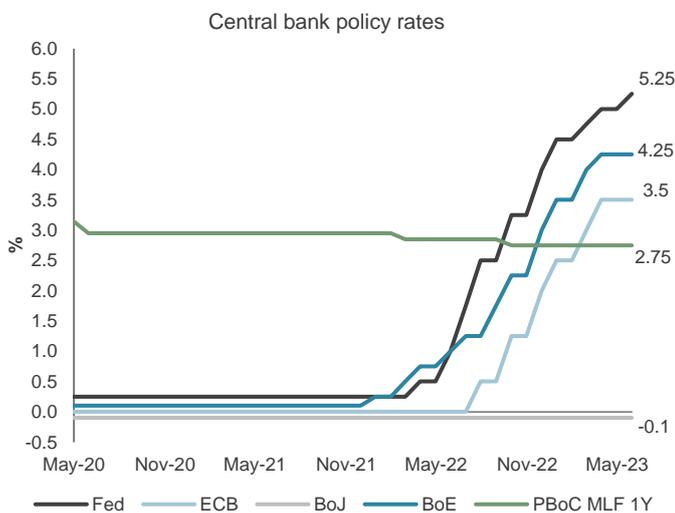


Chart 2: Inflation has fallen sharply from the summer 2022 peak due to lower energy prices and tighter financial conditions. The UK is an exception, where the drop in CPI remains modest.

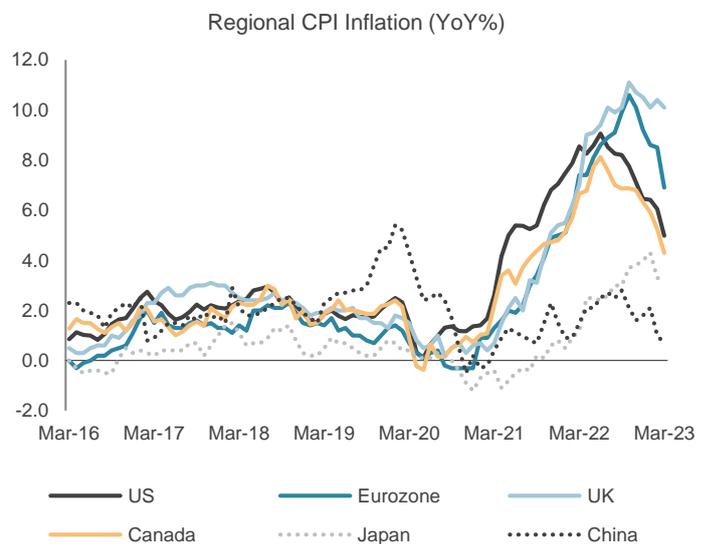
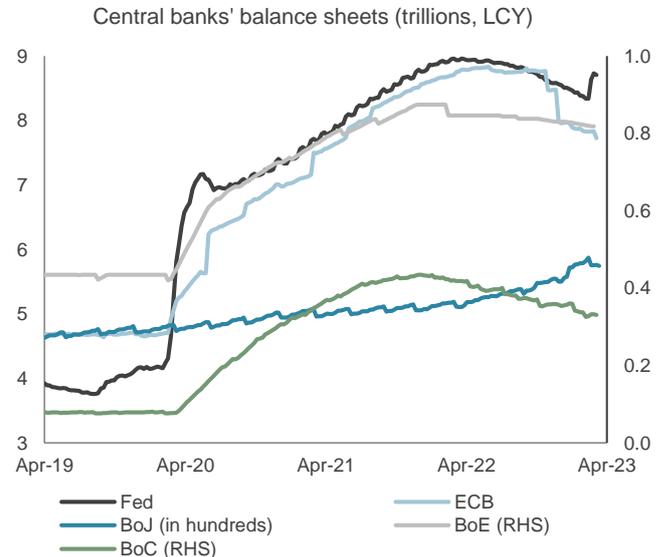


Chart 4: The reduction in central banks’ balance sheets show the impact of quantitative tightening (QT), apart from the BoJ, with the ECB showing a steeper decline compared to the Fed. QT.



Source: FTSE Russell and Refinitiv. The Federal Reserve for Chart 2. 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 mostly declined after banking woes in March, and a flight to quality developed. Markets stabilised in April, though the yield downtrend since October is intact.

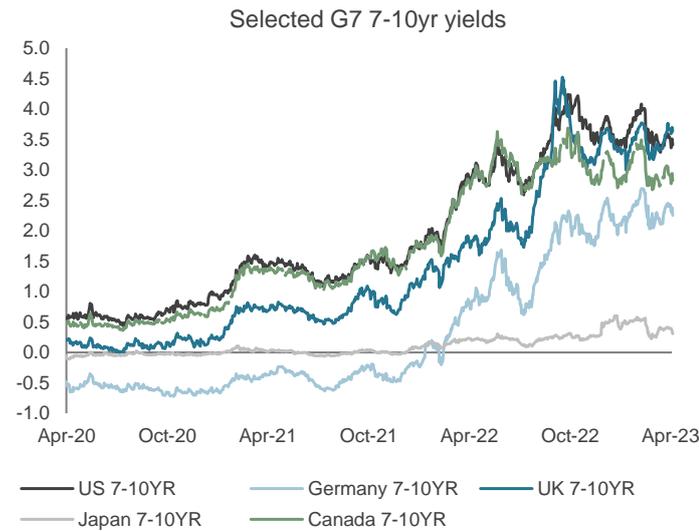


Chart 2: Real 7-10-year yields have also generally fallen since March despite a modest uptick in April, as conventionals proved a safe haven of choice. Real yields remain above 2020/22 levels.

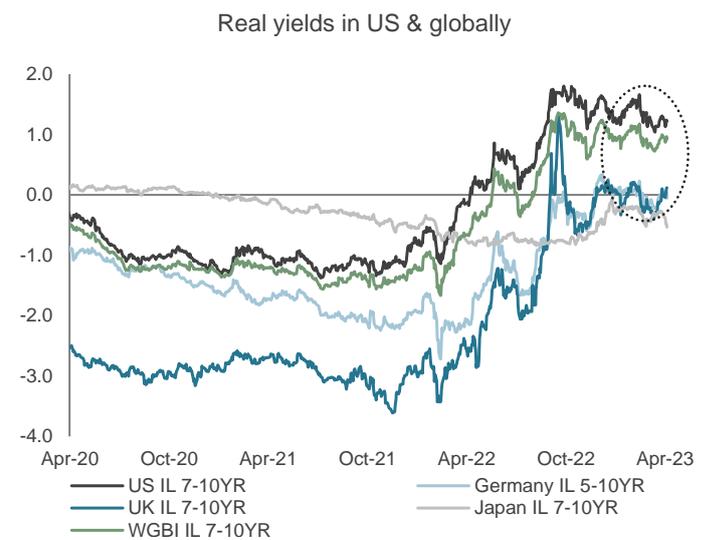


Chart 3: G7 10s/2s yield curves steepened after March's banking woes emerged, and 2-year yields collapsed. But curve inversion, or flattening (Japan), resumed in April as 2yr yields rebounded a little.

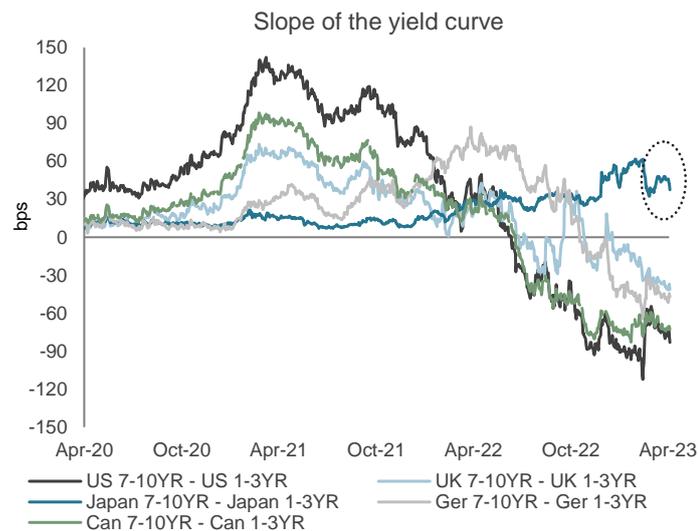


Chart 4: Like 10s/2s, the 20s+/2s yield curves resumed the 2021/23 flattening/inversion trend in April, after the brief March steepening. 2yr yields recovered as central banks signaled more tightening.

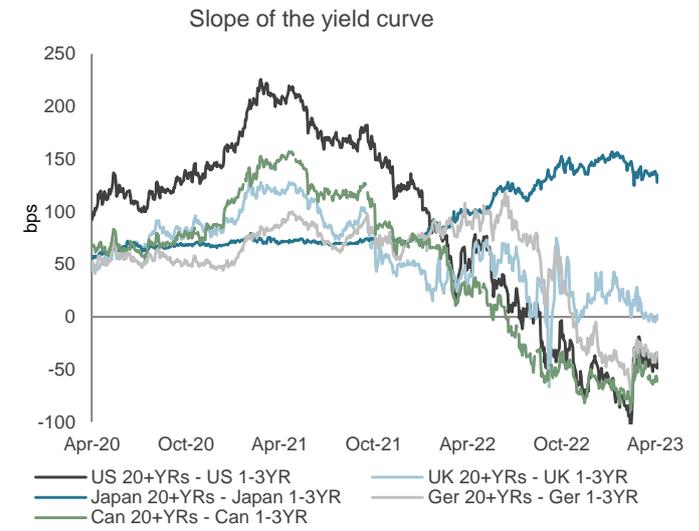


Chart 5: 7-10yr inflation breakevens stabilised near 2%, apart from the UK (due to the different RPI inflation index for accruals) & Japan. There has been little persisting impact from March's banking woes.

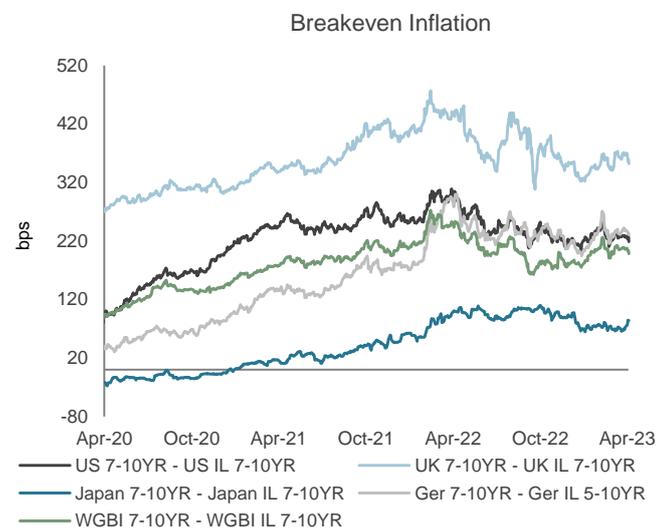


Chart 6: Short run inflation breakevens reacted more to March turmoil and lower inflation prospects, if a credit crunch develops, though lower inflation rates in 2023 are also a factor.



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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.

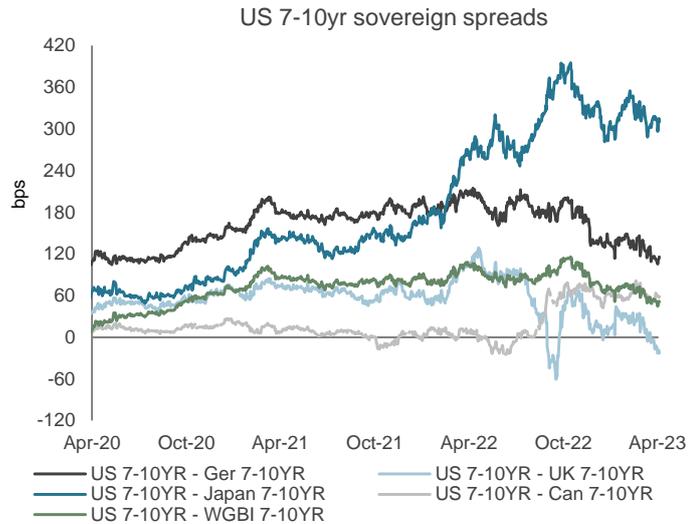


Chart 2: Peripheral Eurozone 7-10-year yield spreads reacted modestly to the March turmoil, though Italian spreads have widened since the ECB began signaling higher rates in Q2 2022.

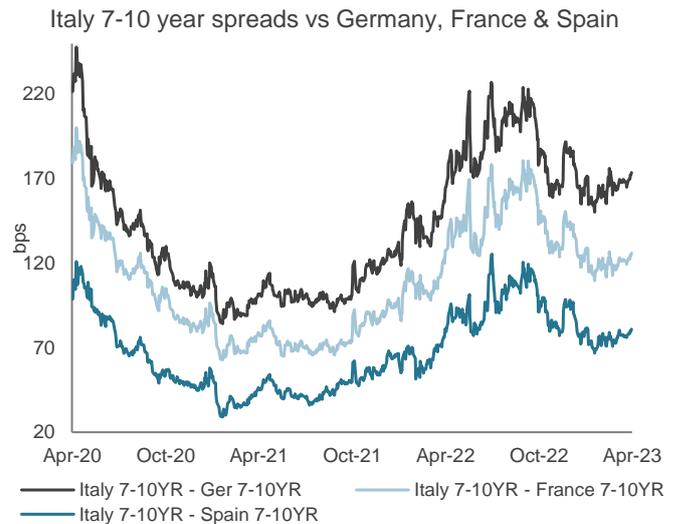


Chart 3: EM 7-10-year yield spreads widened a little in March, on fears cross-border flows may fall in a banking crisis, but moves were modest, and fell since, helped by a Fed offer of dollar swaps.

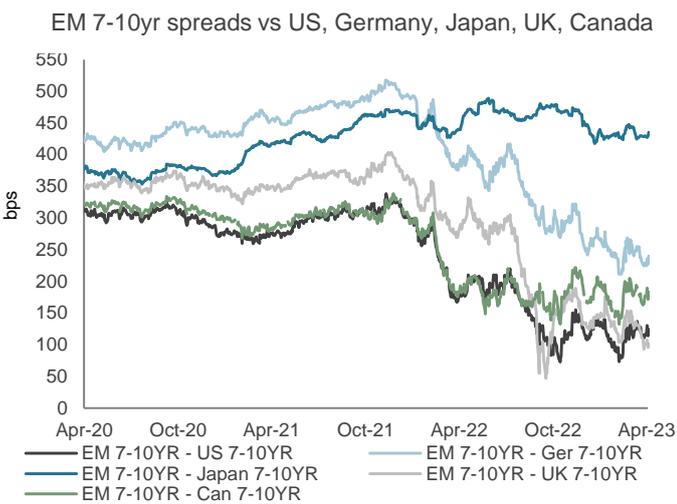


Chart 4: The modest spread widening in China 7-10-year sovereigns in March reversed in April, as Chinese inflation fell further, and nominal yields declined as a result.

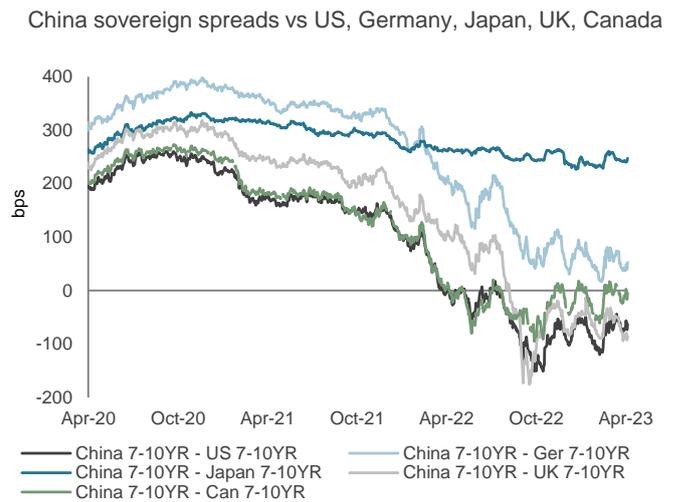


Chart 5: Lack of contagion, and prompt US regional bank takeovers, helped financial spreads stabilise in April, after the March spike on initial fears of a broader banking crisis.

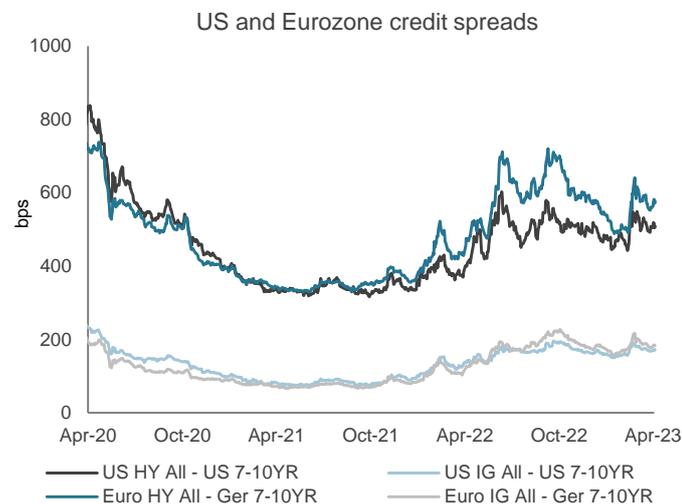


Chart 6: Although Chinese HY dollar spreads are well below the October 2022 peaks, helped by property sector support in China, they have widened sharply since March's US banking woes.



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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.

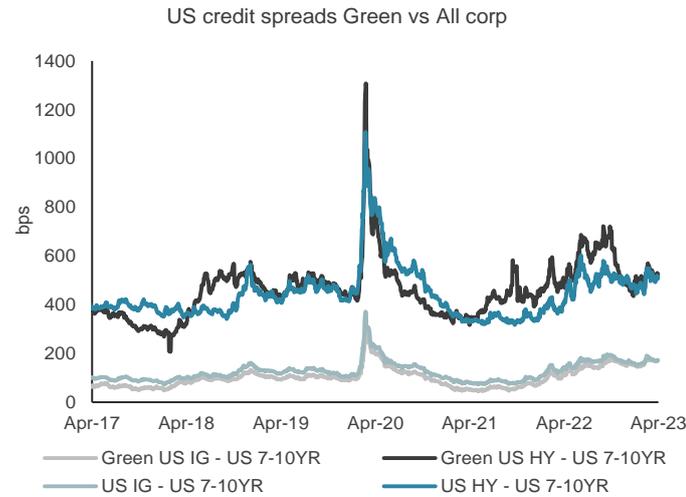


Chart 2: Unlike the US, the spread widening in HY Green Eurozone credits versus Bunds was modest in 2022, and there was no major spike. Spreads narrowed since the bond rally began in Q4 2022.

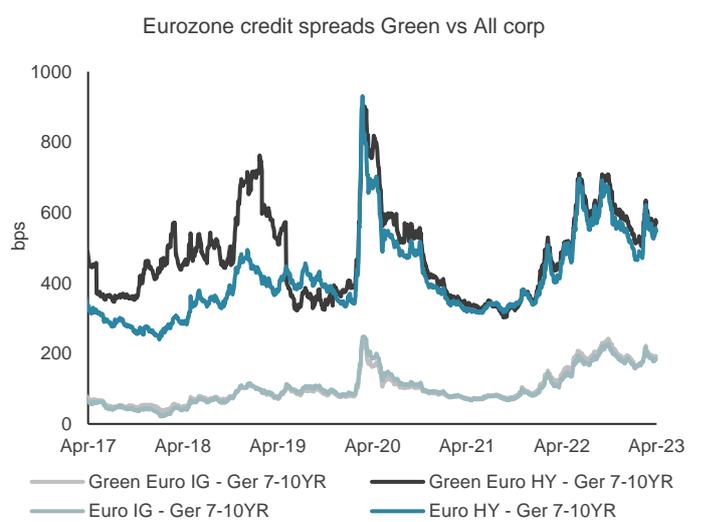


Chart 3: Overall, Green bond issuance fell more than other bonds in 2022, as yields and spreads rose. But Green issuance has rebounded in Q1 2023, and is at a new high versus total issuance.

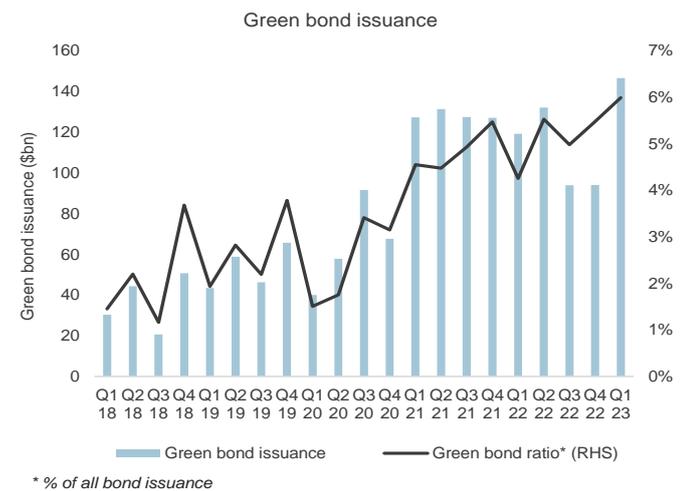


Chart 4: Within total Green bond issuance, Green corporates fell sharply, though issuance has recovered in Q1 2023, to an all-time high in absolute terms, as yields stabilized and spreads narrowed.

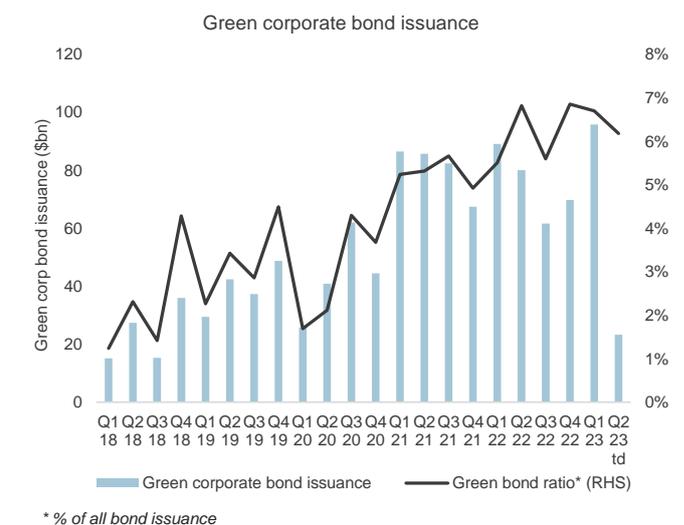


Chart 5: The currency composition of the FTSE Global Green index shows the high weighting of the Euro green bonds, at 68%, and the low US weighting, in contrast to the FTSE World BIG index.

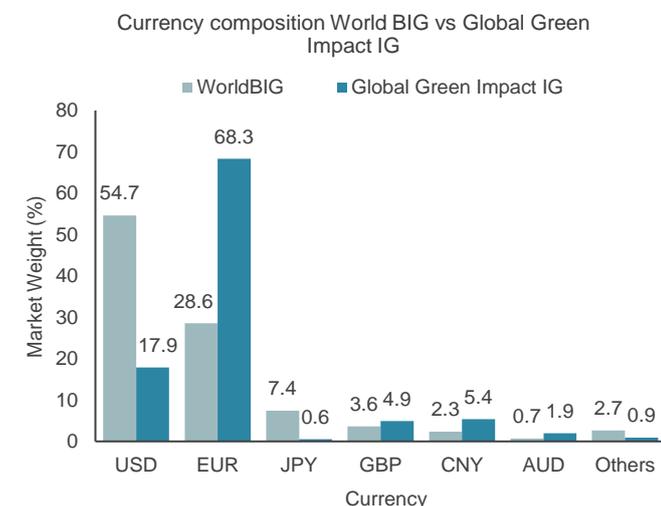
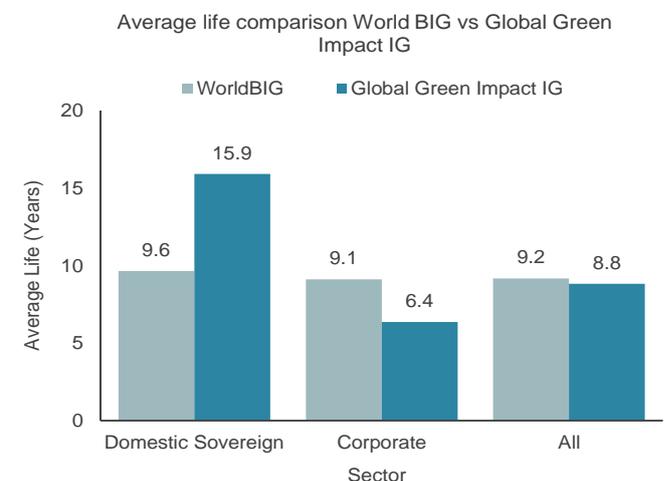


Chart 6: The higher Eurozone sovereign weighting in the Global Green (GG) index increases average life relative to World BIG, but this is offset by shorter average life of GG corporates.



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

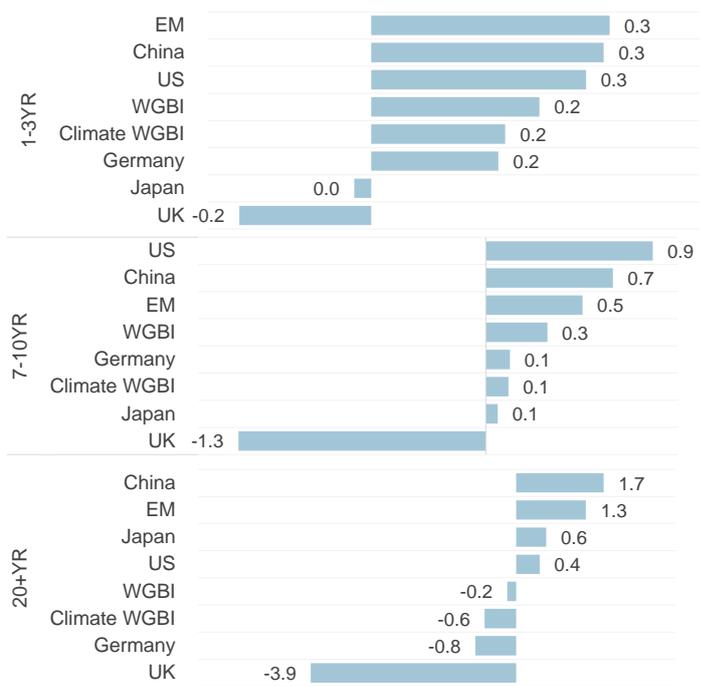
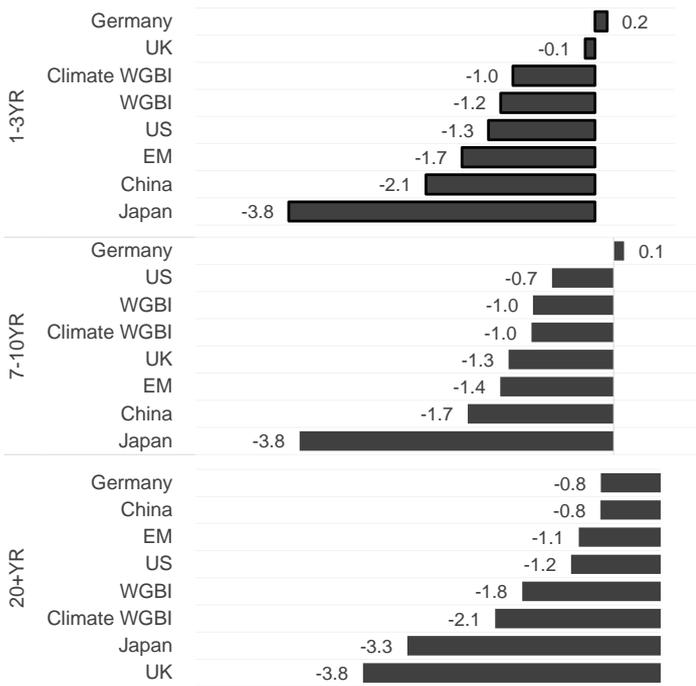
Government bonds stabilised in April, after the strong rally in March. Returns were modestly positive in local currency terms, apart from gilts, which lost up to 4%, though most returns turned negative, in euro terms, due to the strength of the euro. 12M returns continue to show the damage done by longer duration and higher policy rates in 2022.

Bund returns were flat or modestly negative in April, but outperformed peers as returns elsewhere were squeezed by the strong Euro. JGBs lost 3-4% across the curve, in euro terms, as the yen fell back on continuing BoJ curve control. Gilts were helped by the currency but long gilts lost 4%, as the MPC signaled more tightening.

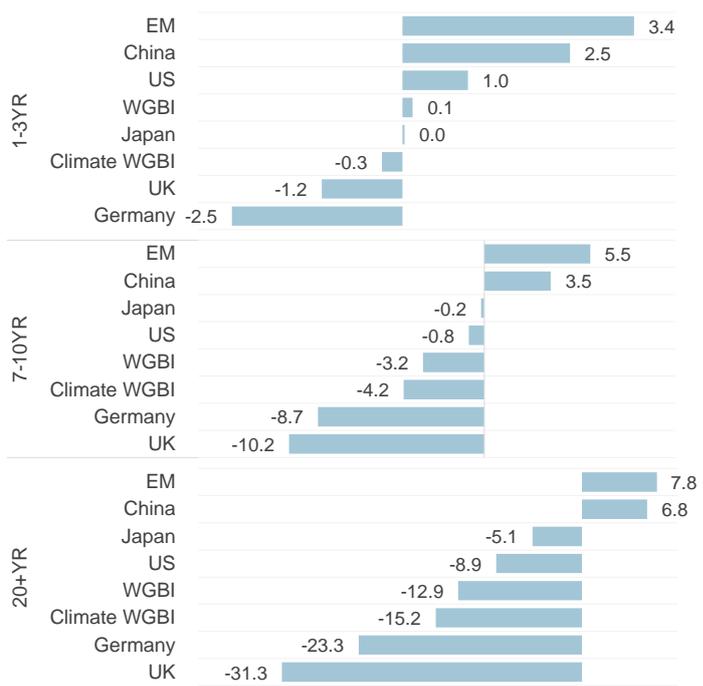
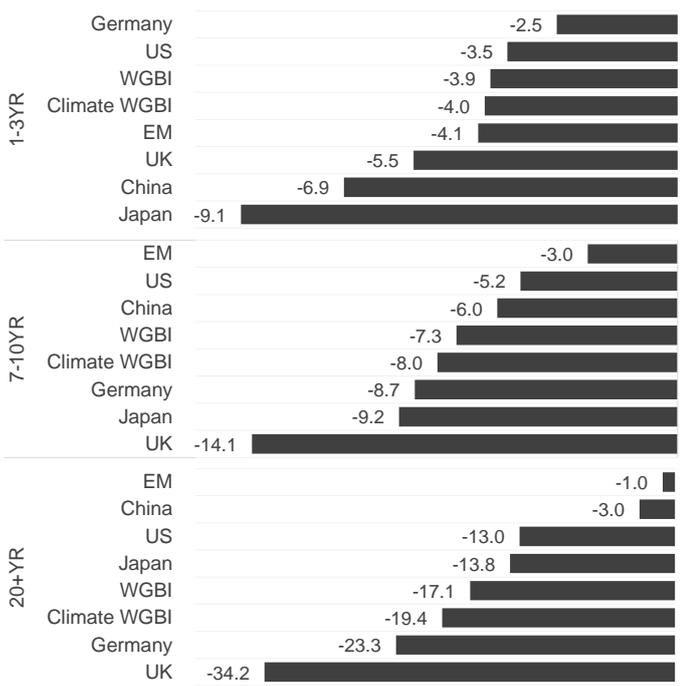
12M returns remained strongly negative, led by long government bonds, with Bunds losing 23% and long gilts 31%.

CONVENTIONAL GOVT BONDS

1M EUR 1M LCY



12M EUR 12M LCY



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

Global inflation-linked (IL) bond returns were mostly negative, apart from Bunds. Credit rallied modestly after limited contagion in March, led by the Eurozone. 12M IL returns are dominated by the negative impact of long duration and rising rates. Credits also made modest gains, but non-euro-based returns were eroded by euro appreciation during April.

Inflation-linked markets generally consolidated March gains in April, with gains for Bunds being broadly flat. Long UK IL suffered after poor inflation data raised the threat of more MPC tightening, causing longs to lose 6%.

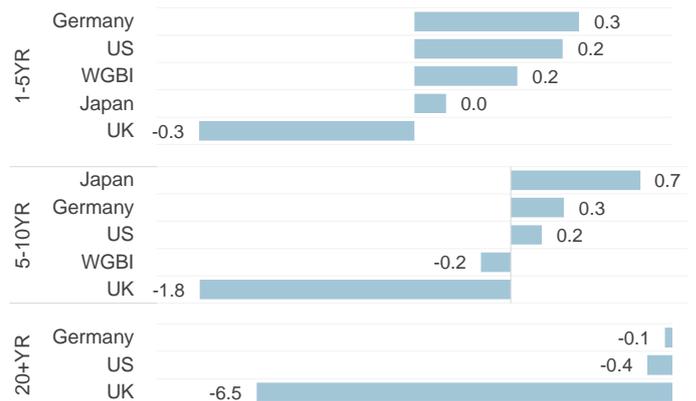
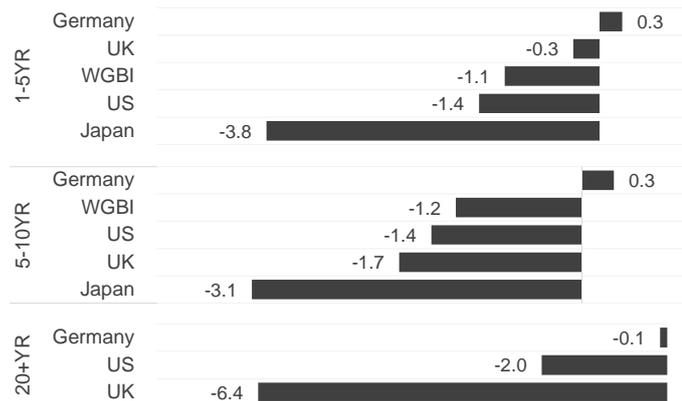
12M returns show losses of 20-42% in long IL bonds, in euro terms, with ultra-long UK index-linked bonds the worst performers.

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

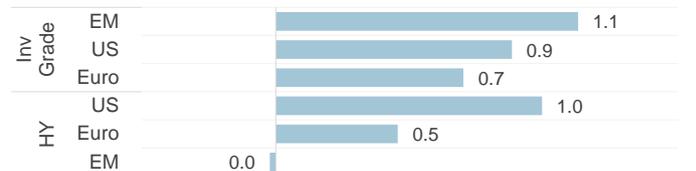
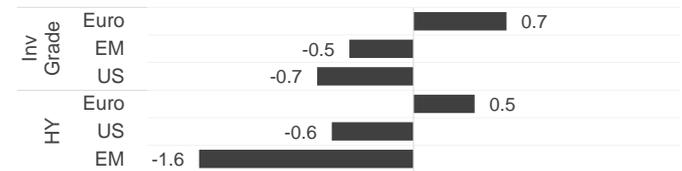
INFLATION LINKED BONDS

1M EUR

1M LCY



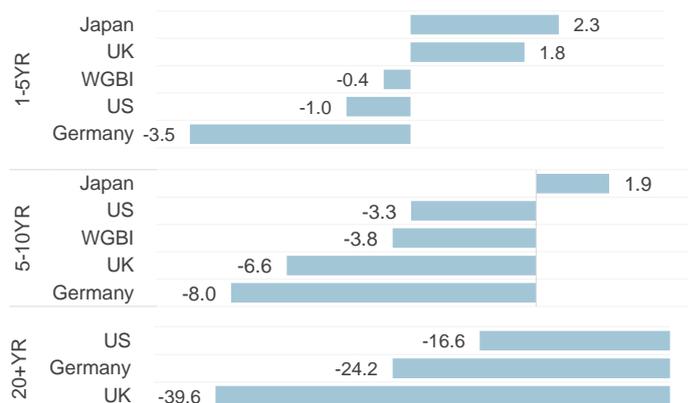
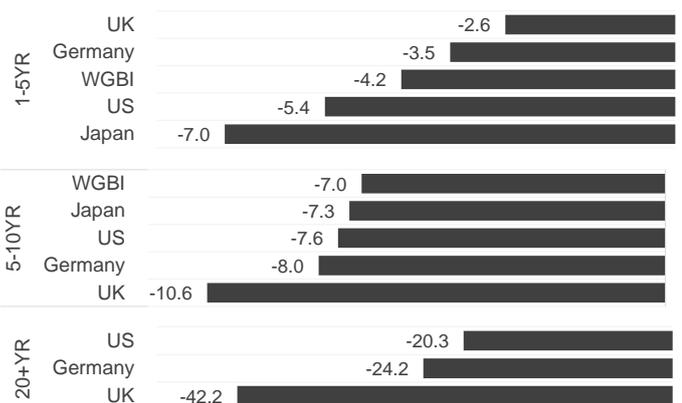
CORPORATE BONDS



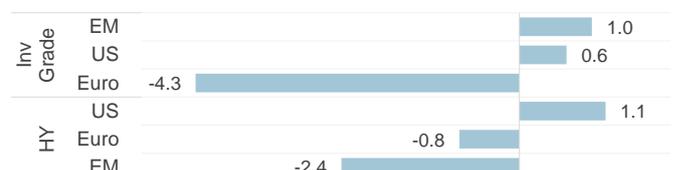
INFLATION LINKED BONDS

12M EUR

12M LCY



CORPORATE BONDS



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

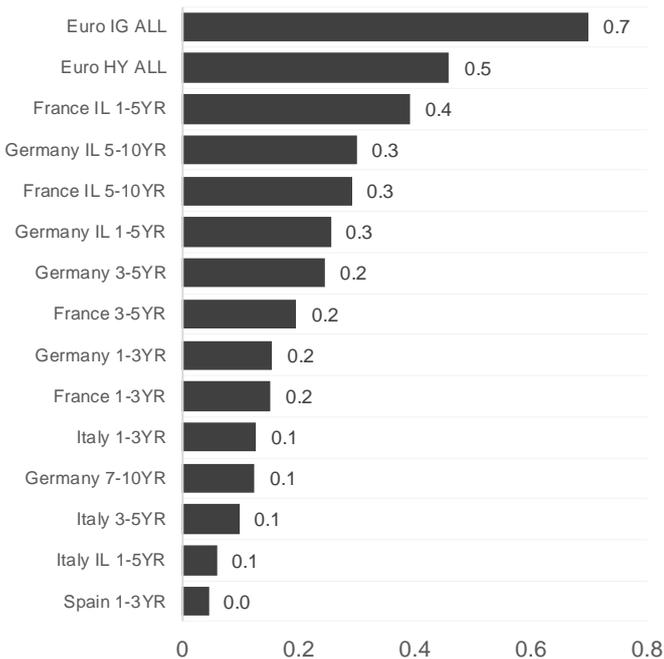
Euro HY credits and short inflation-linked bonds performed best in April. EM inflation-linked remain best performers on 12M. Longer UK gilts and JGBs showed the worst April returns, with losses of 4-6%. All bottom 15 performers on 12M are long-dated government bonds, with losses of up to 42%, in euro terms, as the dangers of long duration became apparent.

Short to medium maturity bonds consolidated March gains in April, and HY credits and peripheral Eurozone bonds benefited from risk appetite, as banking crisis contagion was limited.

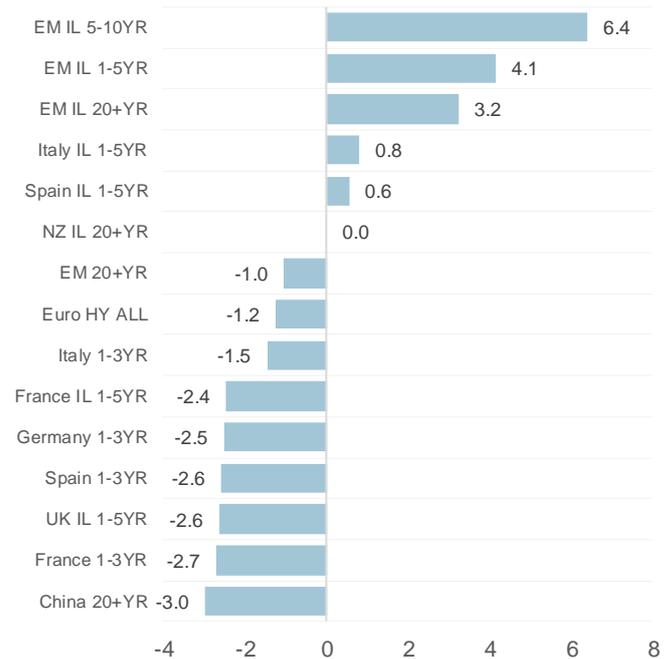
Ultra-long duration in long gilts and inflation-linked caused substantial losses in the 20+ year maturities, as rates rose, with losses of up to 42%, increased by weaker sterling on 12M. Long Tips and Eurozone bonds also lost 17-33%, in euro terms.

1M EUR 12M EUR

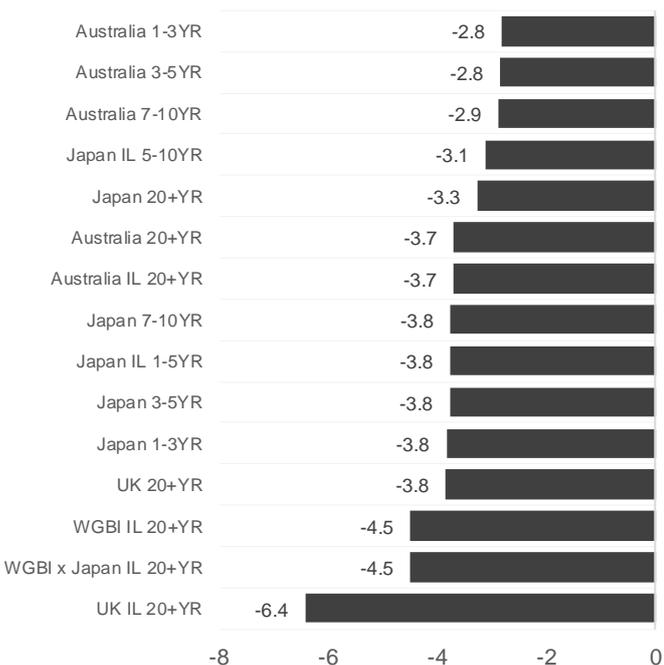
Top 15



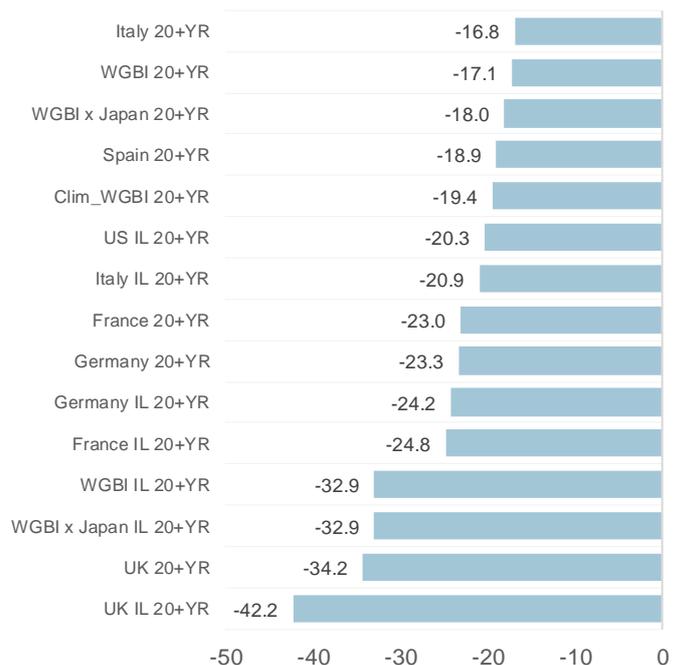
Top 15



Bottom 15



Bottom 15



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 % (EUR & 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	EUR	Local	EUR	Local	EUR	Local	EUR
US	1-3YR	1.12	-0.52	2.68	-8.08	1.88	-1.51	0.96	-3.53
	7-10YR	1.23	-0.42	7.00	-4.21	4.82	1.33	-0.81	-5.21
	20+YR	0.09	-1.54	12.59	0.80	7.72	4.13	-8.92	-12.97
	IG All	0.32	-1.31	9.17	-2.26	4.49	1.01	0.62	-3.85
	HY All	0.77	-0.87	5.33	-5.70	4.68	1.19	1.14	-3.35
UK	1-3YR	-0.28	0.15	0.62	-1.66	0.35	1.36	-1.19	-5.47
	7-10YR	-1.43	-1.00	1.19	-1.10	1.64	2.67	-10.23	-14.12
	20+YR	-5.24	-4.82	-6.30	-8.42	-1.10	-0.10	-31.26	-34.24
EUR	IG All	0.31	0.31	3.49	3.49	2.57	2.57	-4.28	-4.28
	HY All	0.17	0.22	6.71	6.46	3.53	3.64	-0.79	-1.23
Japan	1-3YR	0.09	-5.96	0.05	-2.23	0.19	-6.15	0.03	-9.05
	7-10YR	2.06	-4.12	-0.01	-2.29	1.82	-4.62	-0.18	-9.24
	20+YR	8.86	2.28	3.71	1.35	8.13	1.30	-5.15	-13.76
China	1-3YR	0.67	-3.42	0.69	-5.04	0.81	-2.22	2.46	-6.92
	7-10YR	1.39	-2.73	0.76	-4.97	1.47	-1.58	3.49	-5.98
	20+YR	3.16	-1.03	1.13	-4.63	2.58	-0.49	6.81	-2.96
EM	1-3YR	0.82	-2.36	1.82	-3.12	1.14	-0.89	3.40	-4.13
	7-10YR	1.30	-1.69	4.78	-0.89	2.82	0.48	5.55	-2.98
	20+YR	2.45	-1.36	4.27	-1.61	3.16	0.08	7.85	-1.03
	IG All	0.77	-0.86	9.26	-2.18	3.36	-0.08	0.96	-3.53
	HY All	-2.74	-4.32	11.93	0.21	0.88	-2.47	-2.35	-6.69
Germany	1-3YR	0.44	0.44	-0.12	-0.12	0.67	0.67	-2.50	-2.50
	7-10YR	0.32	0.32	-0.22	-0.22	3.03	3.03	-8.72	-8.72
	20+YR	-2.66	-2.66	-2.15	-2.15	3.65	3.65	-23.26	-23.26
Italy	1-3YR	0.54	0.54	0.82	0.82	1.19	1.19	-1.45	-1.45
	7-10YR	0.94	0.94	2.54	2.54	4.95	4.95	-6.11	-6.11
	20+YR	-1.29	-1.29	0.94	0.94	6.20	6.20	-16.85	-16.85
Spain	1-3YR	0.49	0.49	0.02	0.02	0.92	0.92	-2.57	-2.57
	7-10YR	0.40	0.40	0.31	0.31	3.18	3.18	-7.63	-7.63
	20+YR	-2.56	-2.56	-1.58	-1.58	2.95	2.95	-18.93	-18.93
France	1-3YR	0.47	0.47	-0.04	-0.04	0.99	0.99	-2.69	-2.69
	7-10YR	0.00	0.00	-0.54	-0.54	2.94	2.94	-8.45	-8.45
	20+YR	-3.77	-3.77	-2.82	-2.82	2.43	2.43	-23.04	-23.04
Sweden	1-3YR	-0.13	0.28	0.18	-3.38	0.75	-1.07	-0.82	-9.52
	7-10YR	-1.50	-1.09	0.09	-3.47	1.26	-0.56	-3.44	-11.90
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	0.88	-6.93	1.83	-5.78	1.73	-4.16	1.97	-9.39
	7-10YR	2.51	-5.43	5.07	-2.79	7.00	0.80	1.99	-9.37
	20+YR	2.34	-5.58	6.08	-1.85	10.60	4.19	-3.73	-14.46
NZ	1-3YR	0.88	-5.15	1.43	-3.45	1.88	-3.82	1.43	-7.76
	7-10YR	1.23	-4.82	2.88	-2.07	4.45	-1.39	0.47	-8.64
Canada	1-3YR	0.91	-2.34	2.38	-7.82	1.89	-1.60	1.35	-8.74
	7-10YR	1.39	-1.87	5.05	-5.42	4.69	1.10	3.17	-7.10
	20+YR	1.41	-1.85	8.15	-2.63	7.52	3.83	0.52	-9.49

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 % (EUR & 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	EUR	Local	EUR	Local	EUR	Local	EUR
US	1-5YR	1.74	0.09	2.76	-8.01	2.58	-0.83	-1.01	-5.41
	5-10YR	1.80	0.14	5.12	-5.90	4.41	0.94	-3.29	-7.59
	20+YR	0.40	-1.23	8.21	-3.13	6.76	3.21	-16.57	-20.28
UK	1-5YR	1.18	1.62	1.06	-1.24	0.70	1.72	1.79	-2.62
	5-10YR	0.77	1.21	3.43	1.08	2.50	3.53	-6.57	-10.63
	20+YR	-7.46	-7.05	-6.02	-8.16	-1.58	-0.59	-39.60	-42.22
EUxUK	1-5YR	0.93	0.93	-0.25	-0.25	0.98	0.98	-3.48	-3.48
	5-10YR	1.45	1.45	0.62	0.62	2.97	2.97	-8.04	-8.04
	20+YR	0.66	0.66	1.31	1.31	7.06	7.06	-24.17	-24.17
Japan	1-5YR	0.42	-5.66	1.09	-1.21	0.91	-5.47	2.34	-6.96
	5-10YR	2.48	-3.71	0.26	-2.02	1.34	-5.07	1.93	-7.32
EM	1-5YR	2.49	1.58	3.99	-2.60	3.39	3.66	13.30	4.15
	5-10YR	3.65	3.06	5.90	-0.41	3.42	3.78	15.12	6.39
	20+YR	4.66	4.64	6.46	1.79	4.15	5.82	6.48	3.23
Germany	1-5YR	0.93	0.93	-0.25	-0.25	0.98	0.98	-3.48	-3.48
	5-10YR	1.45	1.45	0.62	0.62	2.97	2.97	-8.04	-8.04
	20+YR	0.66	0.66	1.31	1.31	7.06	7.06	-24.17	-24.17
Italy	1-5YR	1.23	1.23	1.86	1.86	1.48	1.48	0.81	0.81
	5-10YR	2.06	2.06	3.84	3.84	4.59	4.59	-3.55	-3.55
	20+YR	1.10	1.10	4.14	4.14	10.85	10.85	-20.92	-20.92
Spain	1-5YR	1.10	1.10	1.16	1.16	1.21	1.21	0.55	0.55
	5-10YR	1.44	1.44	1.08	1.08	2.52	2.52	-5.00	-5.00
France	1-5YR	1.27	1.27	0.40	0.40	1.29	1.29	-2.45	-2.45
	5-10YR	1.76	1.76	0.60	0.60	3.11	3.11	-6.65	-6.65
	20+YR	-1.20	-1.20	0.03	0.03	5.22	5.22	-24.76	-24.76
Sweden	1-5YR	-0.57	-0.16	1.14	-2.45	0.58	-1.23	2.51	-6.48
	5-10YR	-1.85	-1.45	-0.83	-4.35	0.09	-1.71	-3.86	-12.28
Australia	1-5YR	2.27	-5.64	4.64	-3.19	4.35	-1.70	6.74	-5.15
	5-10YR	2.61	-5.33	7.13	-0.89	7.74	1.50	6.07	-5.74
	20+YR	-0.89	-8.56	8.69	0.56	12.60	6.07	-4.22	-14.89
NZ	5-10YR	3.50	-2.69	7.85	2.65	6.36	0.41	5.63	-3.94
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	-1.14	-4.32	2.89	-7.36	0.57	-2.88	0.02	-9.94

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 – 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

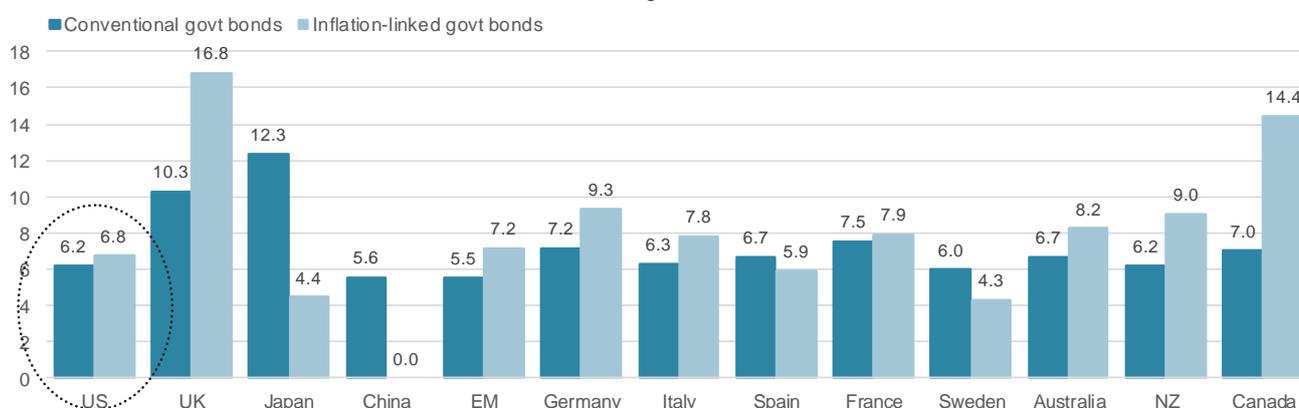
Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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

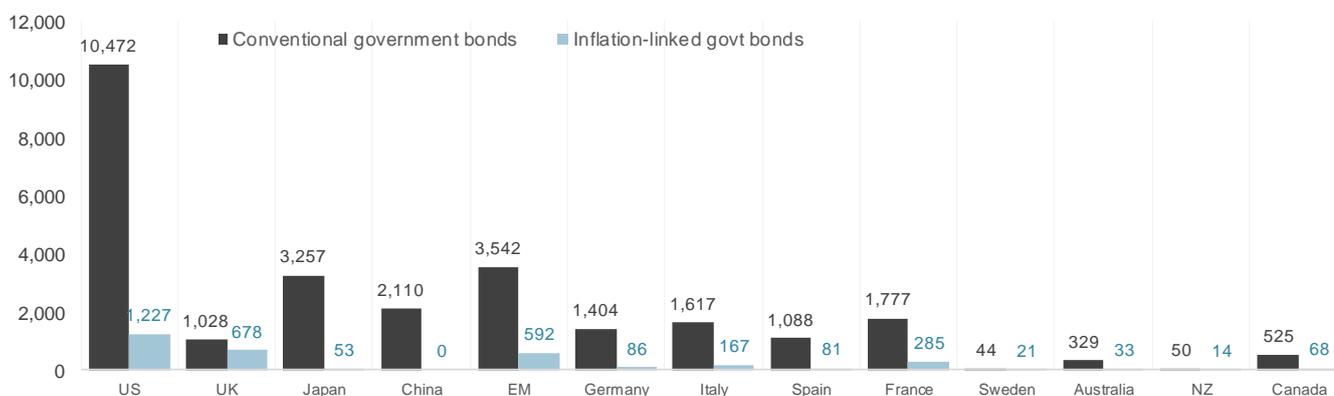
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.6	17.6	6.2	2,276.4	1,094.8	1,326.9	10,472.5	7.0	21.9	6.8	412.7	125.8	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

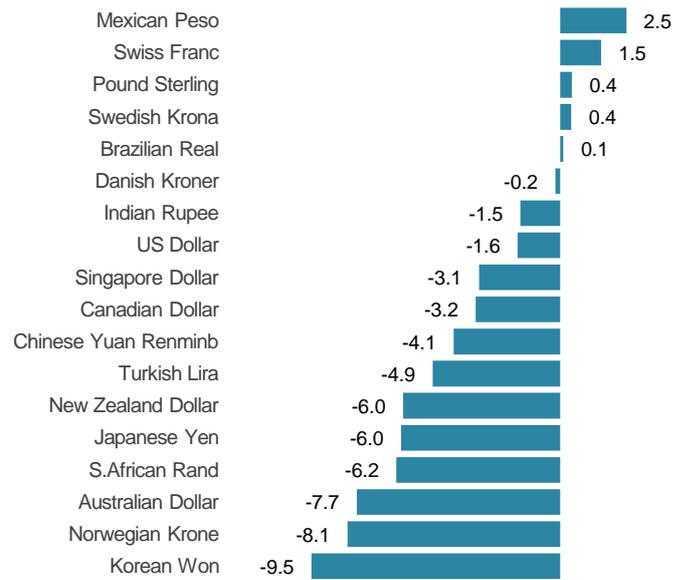
Source: FTSE Russell. All data as of April 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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

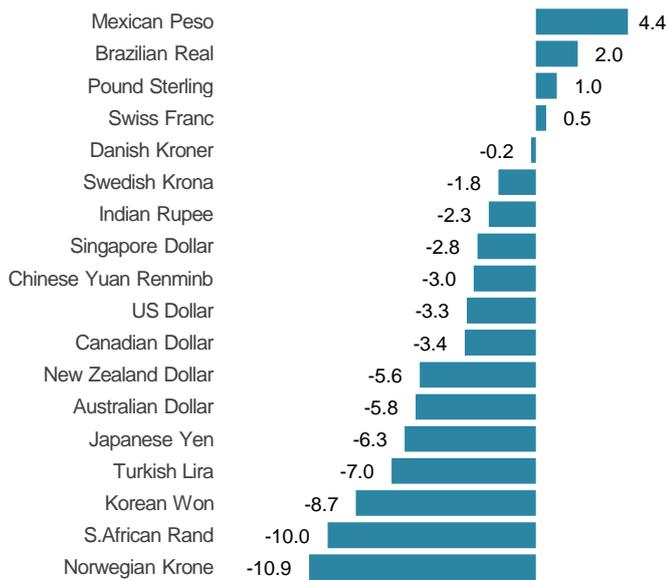
FX Moves vs EUR - 1M



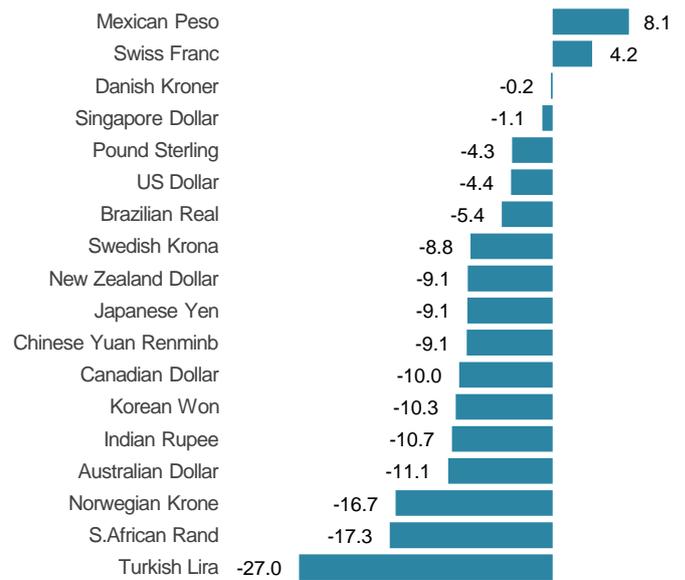
FX Moves vs EUR - 3M



FX Moves vs EUR - YTD



FX Moves vs EUR - 12M



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