

Fixed Income Insights

MONTHLY REPORT - MARCH 2023 | EUROZONE EDITION

FOR PROFESSIONAL INVESTORS ONLY

Higher for longer inflation and policy rates become more than a tail risk

The ECB has embarked upon QT by making net asset sales from March, and signalled more rate hikes to squeeze inflation. Interest rate expectations are more defensive, as markets adjust to “higher for longer” rate risks, but deep curve inversion gives no reward for duration risk. HY outperformed, helped by short duration.

Growth and inflation expectations – Doubts about soft landing for inflation increase?

Doubts about soft landing for G7 inflation re-emerge, despite easing in supply-chain pressure. (pages 2-3)

Yields, curves and spreads – Central bank caution prevails as bearish inversion develops

Yield curves are deeply inverted, but February’s bearish inversion was driven by sharp increases in 2-year yields. (pages 4-5)

Performance – Duration proves the unreliable friend again, in February

It was back to the negative performance of 2022 in February, as duration proved the investor’s enemy. (pages 6-8)

Sovereign and climate bonds – Relative performance dominated by country weights and duration

Climate-WGBI underperformed WGBI in February, reflecting the US underweight in climate-WGBI. (page 9)

Appendix (from page 10)

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

Chart 1: Deep inversion of 10s/2s yield curves continues (exc. Japan), leaving investors unrewarded for extra duration risk in 10 years.

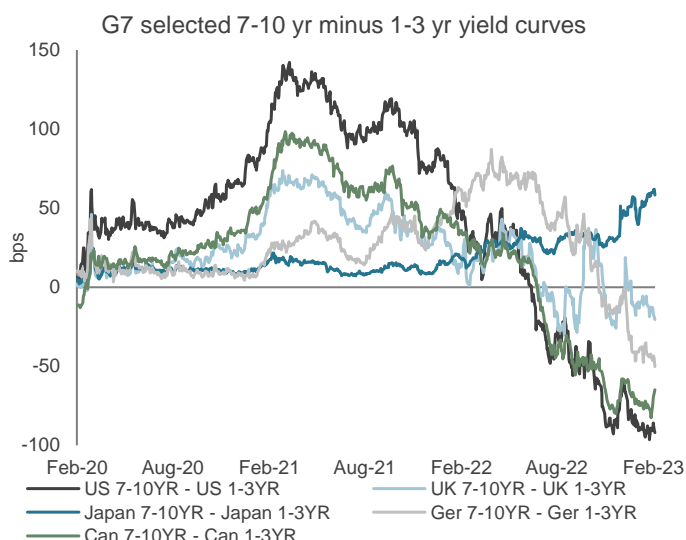
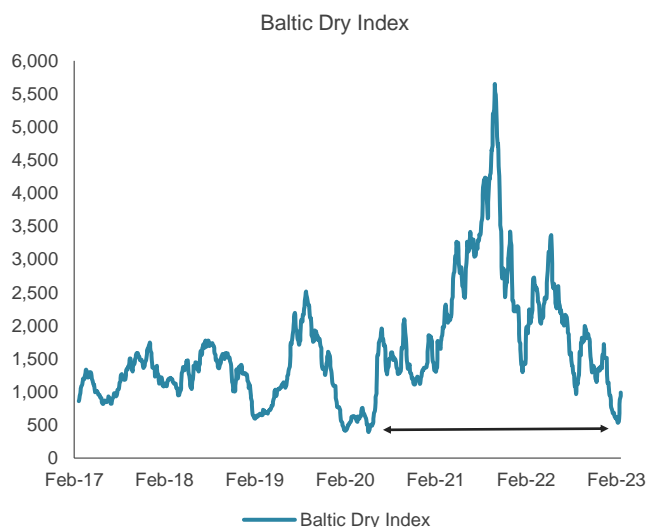


Chart 2: The Baltic Dry Index for shipping costs has returned to pre-Covid levels, as supply-chain pressures have eased sharply.



Source: FTSE Russell. All data as of February 28, 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 growth forecasts were upgraded for 2023, including the Eurozone, with only the UK projected to contract in 2023. Consumer confidence held up well and the G7 “soft landing” narrative on growth is intact, even if declines in inflation remain gradual. The collapse in the Baltic Dry index (see cover) suggests supply-chain issues are easing.

Chart 1 shows G7 growth expectations were modestly upgraded, including the Eurozone, after stronger Q4 data and despite higher rates. In the euro area, mild weather eased pressure on energy prices, while consumer confidence rose for the 5th month in a row.

Eurozone inflation rates fell, but only marginally, in January, as strong food price inflation remains a factor countering lower energy prices. CPI is expected to remain well above the ECB target through 2024 as Chart 2 shows.

The January unemployment rate of 6.7% stayed close to its October 2022 historic lows of 6.6% and may even have peaked (Chart 3). But unlike the US or UK, where tight labour markets have added to the inflation problem, strong wage growth is expected to restore some lost purchasing power and support consumption in the Eurozone (Chart 3).

G7 7-10-year inflation breakevens remain 20bp to 35bp below October 31, 2022 levels, despite the modest reversal in February, as Chart 4 shows. Relative stability of medium and longer term breakevens will be of some reassurance to central banks.

Chart 1: Apart from Canada (unchanged) and a revision down to the UK, all IMF growth forecasts for 2023 from January show modest revisions higher, in response to stronger Q4 data.

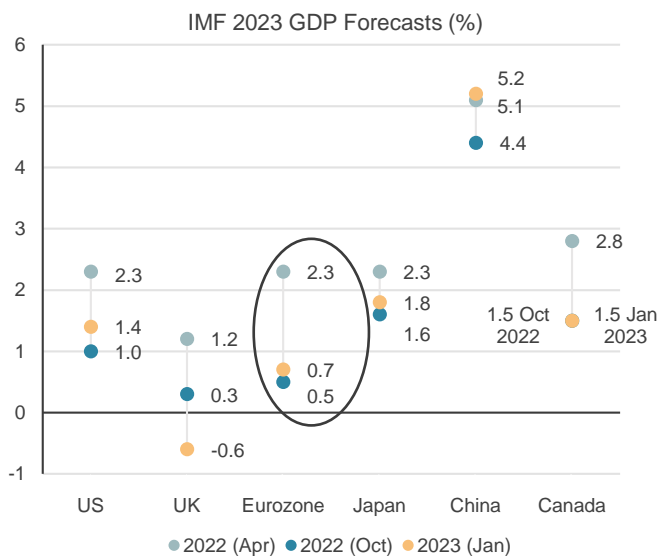


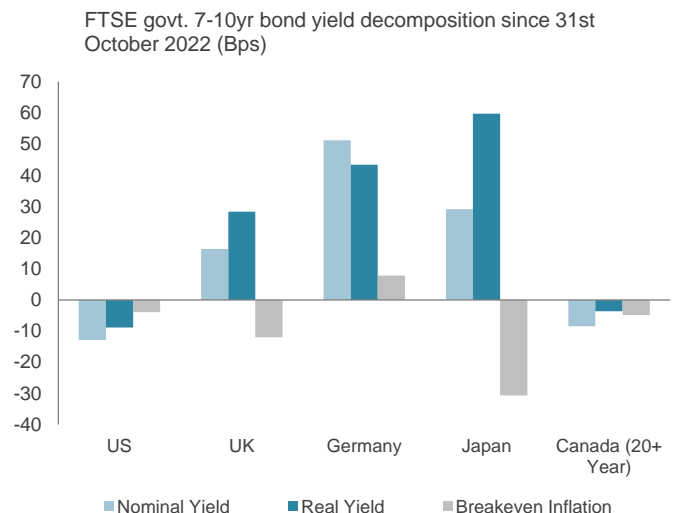
Chart 2: Eurozone inflation has remained persistently high but the ECB is relying on a combination of more aggressive QT from March and lower energy prices to drive inflation lower in 2023.

	2023	Change Since Jan-23 (Bps)	2024	Change Since Jan-23 (Bps)
US	3.8	10	2.5	0
UK	7.0	0	2.6	10
Eurozone	5.6	-40	2.5	0
Japan	2.0	20	1.4	10
China	2.3	0	2.3	0
Canada	3.7	0	2.2	0

Chart 3. Wage inflation has moved higher in the Eurozone since the initial Covid shock in 2020, but the level is still short of the 4% seen pre-covid, and about at par to levels in 2016-17.



Chart 4: Despite a modest increase in February, 7-10-year inflation breakevens have fallen back across the G7 since October 31, but still remain positive in Germany versus other nations.



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Financial Conditions and Monetary Policy Settings

Lower bond yields and tighter credit spreads, which eased financial conditions since October, reversed in February, as stronger data drove bond yields higher. Slowing M2 growth reveals the impact of Quantitative Tightening (QT), mainly via higher ECB rates to date and further planned rate hikes plus QT may risk a rapid liquidity reduction in 2023 (like 2011-12).

Monetary tightening, including QT, has impacted M2 growth, which has slowed sharply in the G7, including the Eurozone, as Chart 1 shows. Moreover, the ECB's monetary tightening has still some ways to go, having lagged other G7 central banks.

Chart 2 shows the US dollar rebounded modestly in February, in response to the stronger data, but that the US dollar's previous negative correlation with energy and commodity prices, broke down in 2022-23. The positive correlation of a strong US dollar with strong energy prices in 2022-23 increased inflation pressures in Europe and Japan, complicating inflation control.

The ECB duly raised rates again in February. The 0.50% increase brought rates to 3.0%, while a further well-flagged 50bp is also due in March. Only the BoC has signalled a pause in tightening to assess its impact.

The ECB is expected to accelerate its balance sheet reduction or QT, over time, having first stopped net asset purchases in July 2022 (Chart 4). The ECB will under-invest maturing bond holdings by €15 billion monthly from March to end-June 2023. But the ECB has made clear interest rates are its main policy tool for controlling inflation, given the uncertainties surrounding the impact of rapid balance sheet reduction (as was found in 2011-12).

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

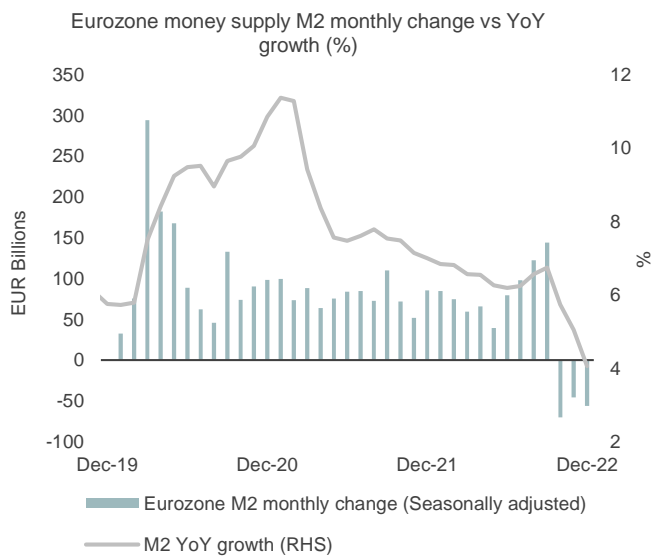


Chart 2: The US dollar's negative correlation with the oil price has weakened. The positive correlation of strong energy prices and US dollar reinforced inflation pressures in the Eurozone in 2022.

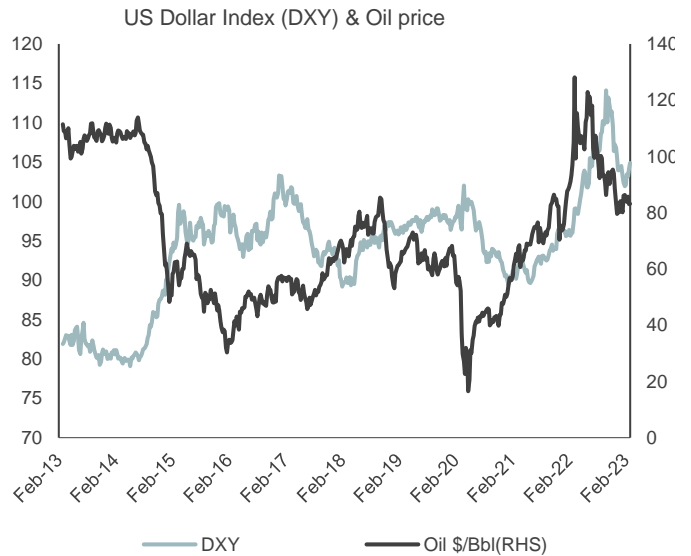


Chart 3: The ECB is catching up with peers, after the latest 50bp rise in February will be followed by another 50bp in March. Policies in Japan and China diverged, increasing the rate differentials.

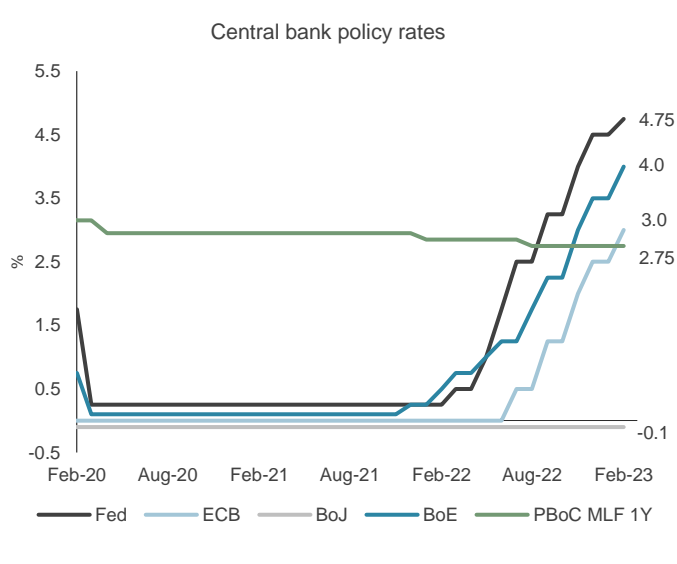
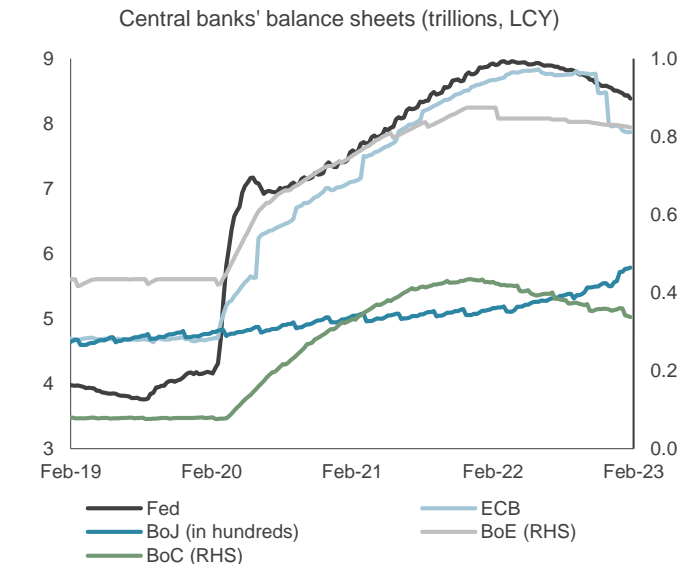


Chart 4: The ECB is rapidly reducing its balance sheet, with an acceleration expected from March, as it embarks on more rate hikes and adds to its aggressive APP programme.



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Global Yields, Curves and Spread Analysis

Chart 1: G7 bond yields reversed the January declines in February, led by Treasuries, as markets reacted to robust US employment growth, with rates now expected to peak nearer Fed dot plots.

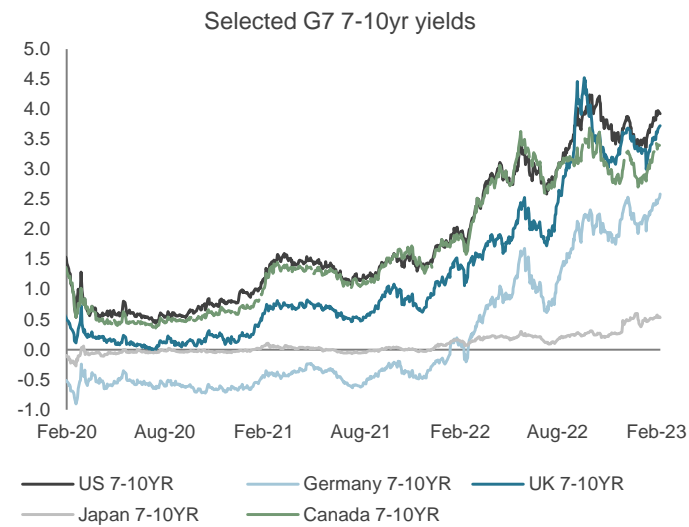


Chart 2: WGBI and US Inflation-linked yields are firmly positive, and just so in the UK and Germany. But real yields backed up less than nominal yields in February, as breakevens rose (see Charts 5 & 6).

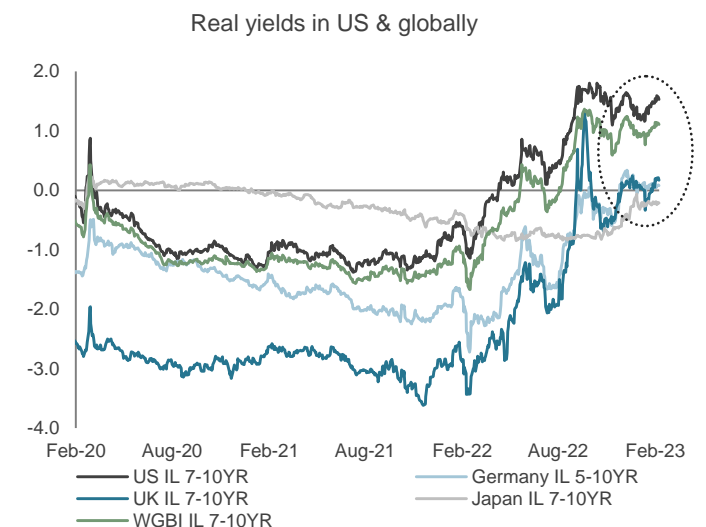


Chart 3: Deep inversion of 10s/2s yield curves continues (ex Japan) but this time a bear inversion (yields rising more in 2yrs than 10yrs). This leaves investors unrewarded for extra duration risk.

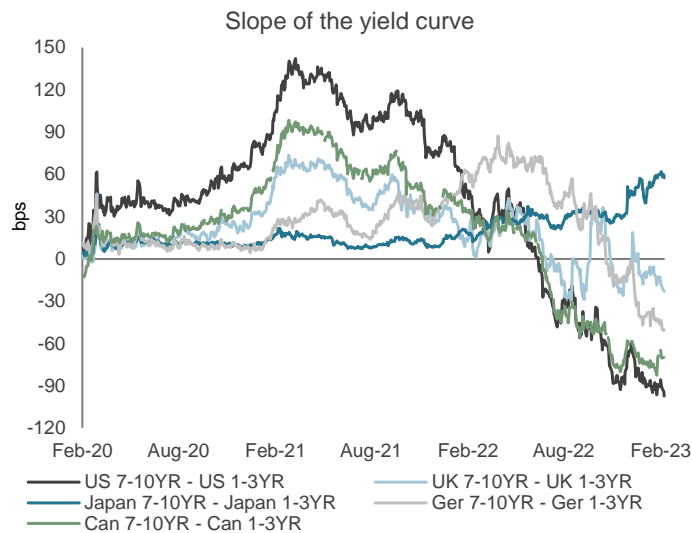


Chart 4: At the long end, only Japan and the UK have retained positively sloped yield curves, unlike the US, Germany and Canada, which, like 10/2s in Chart 3, have deeply inverted curves.

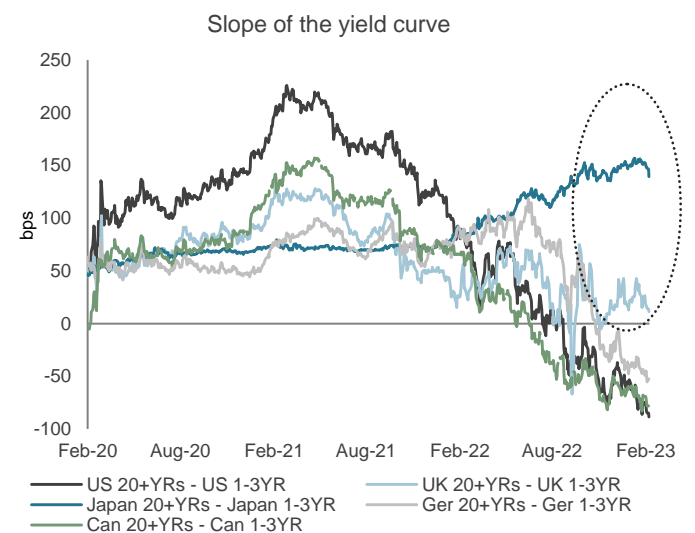


Chart 5: 7-10-year breakevens reversed their recent declines, and rose in February, as government yields rose after inflation showed little signs of easing sharply, despite monetary tightening in 2022-23.

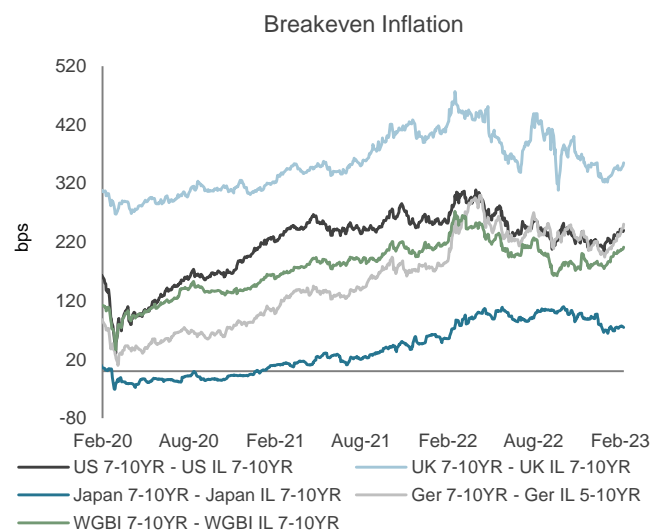
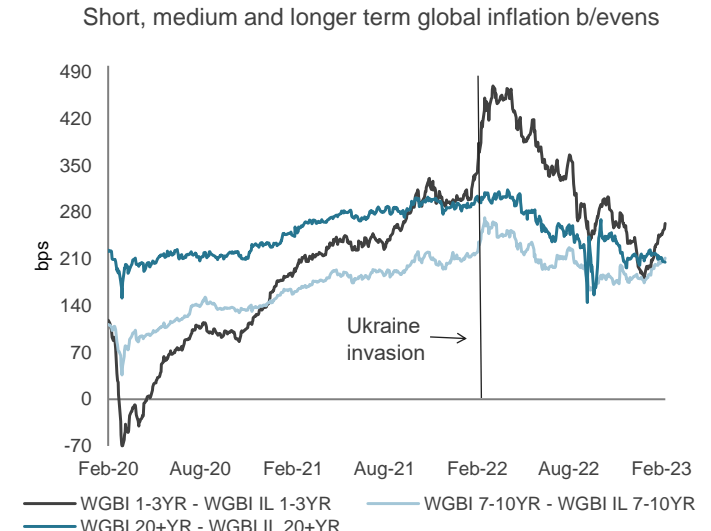


Chart 6: Short WGBI breakevens moved sharply higher in February, reversing falls since the 2022 Ukraine spike, as January data proved stronger than expected. Longer breakevens reacted less.



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Yield Spread and Credit Spread Analysis

Chart 1: US 7-10-year spreads have remained relatively flat against their G7 equivalents in February, except against Japan, where spreads widened after the BoJ kept its curve control policy.

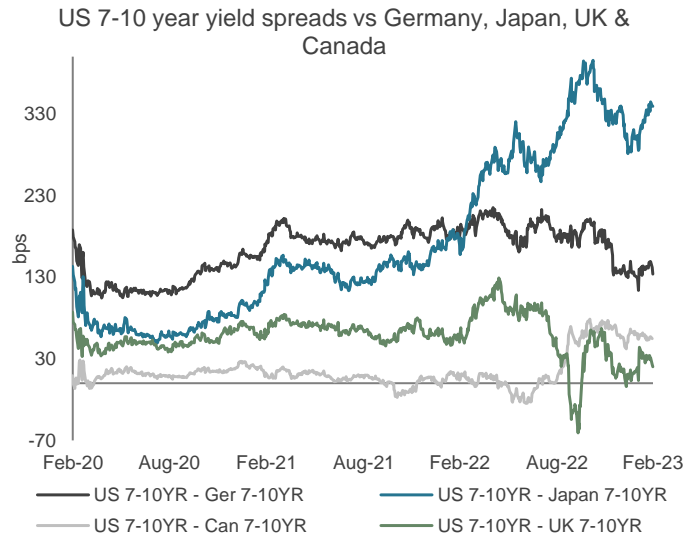


Chart 2: Italy 7-10-year spreads vs Germany, France and Spain have fallen rapidly since Q4 2022. This may reflect the ECB's huge potential sales of Bunds?

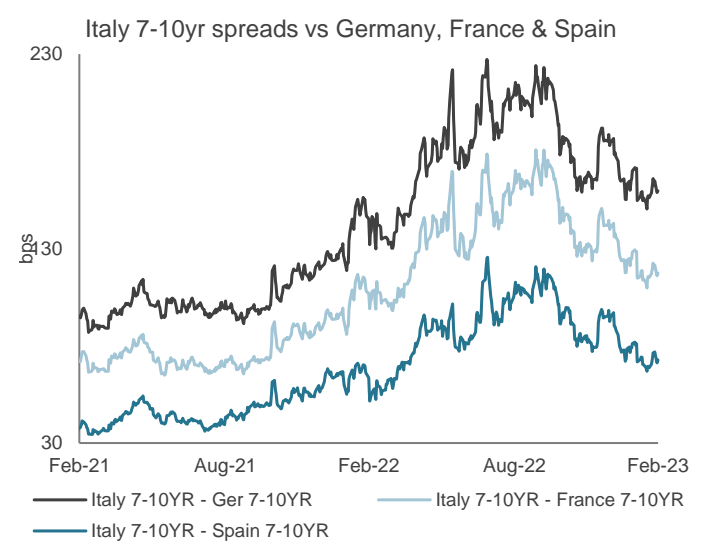


Chart 3: EM spread narrowing partly reflects higher G7 yields, but at no point have EM spreads spiked since Covid, as they did during genuine crises previously.

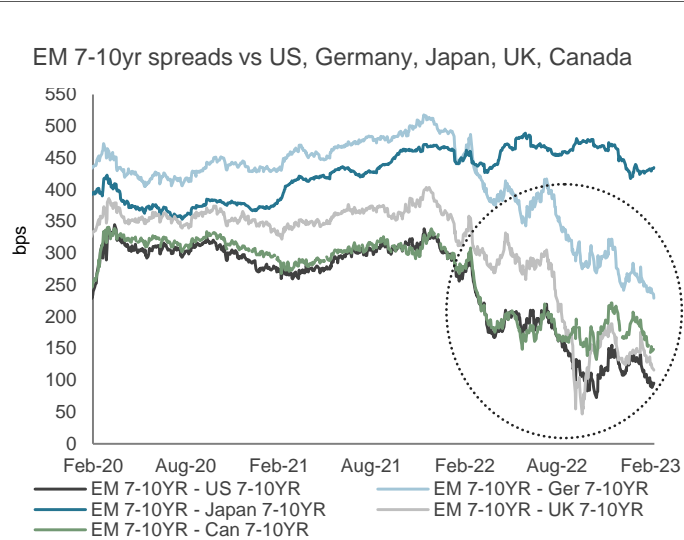


Chart 4: Low correlation of Chinese yields to G7 yields is well documented and does not appear directional, enhancing the portfolio diversification benefits of Chinese government bonds.

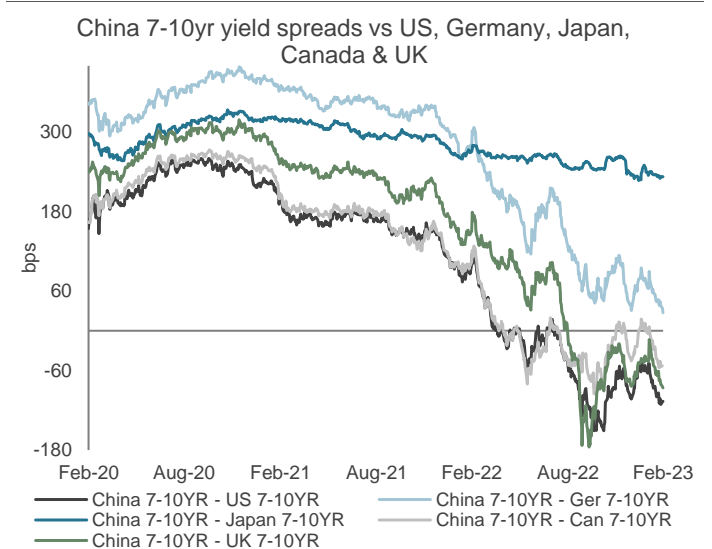


Chart 5: US and Eurozone credit spreads re-coupled in February after decoupling for much of 2022 as credit defaults remain low in both regions. The move is most noticeable in high yield credits.

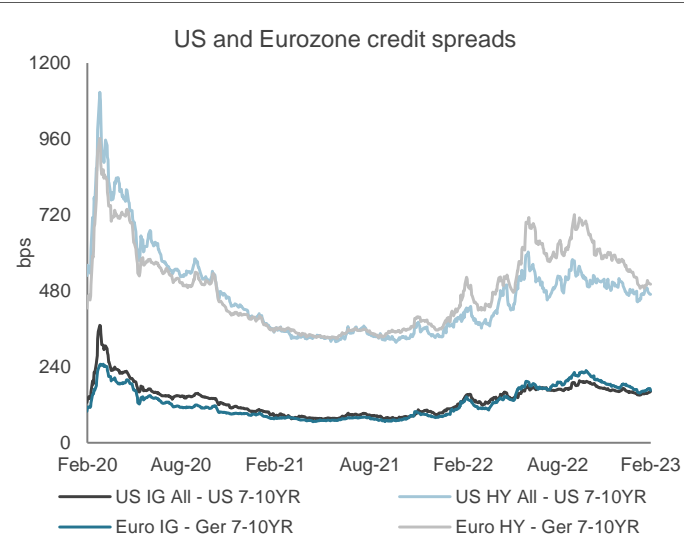
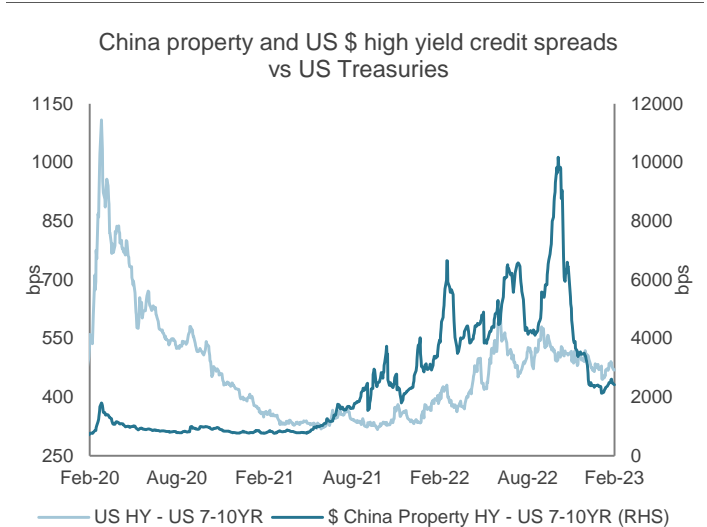


Chart 6: The sharp fall in Chinese \$ HY spreads stabilised in February, as investors reflected on property fundamentals and high yield risk appetite fell back on US inflation concerns.



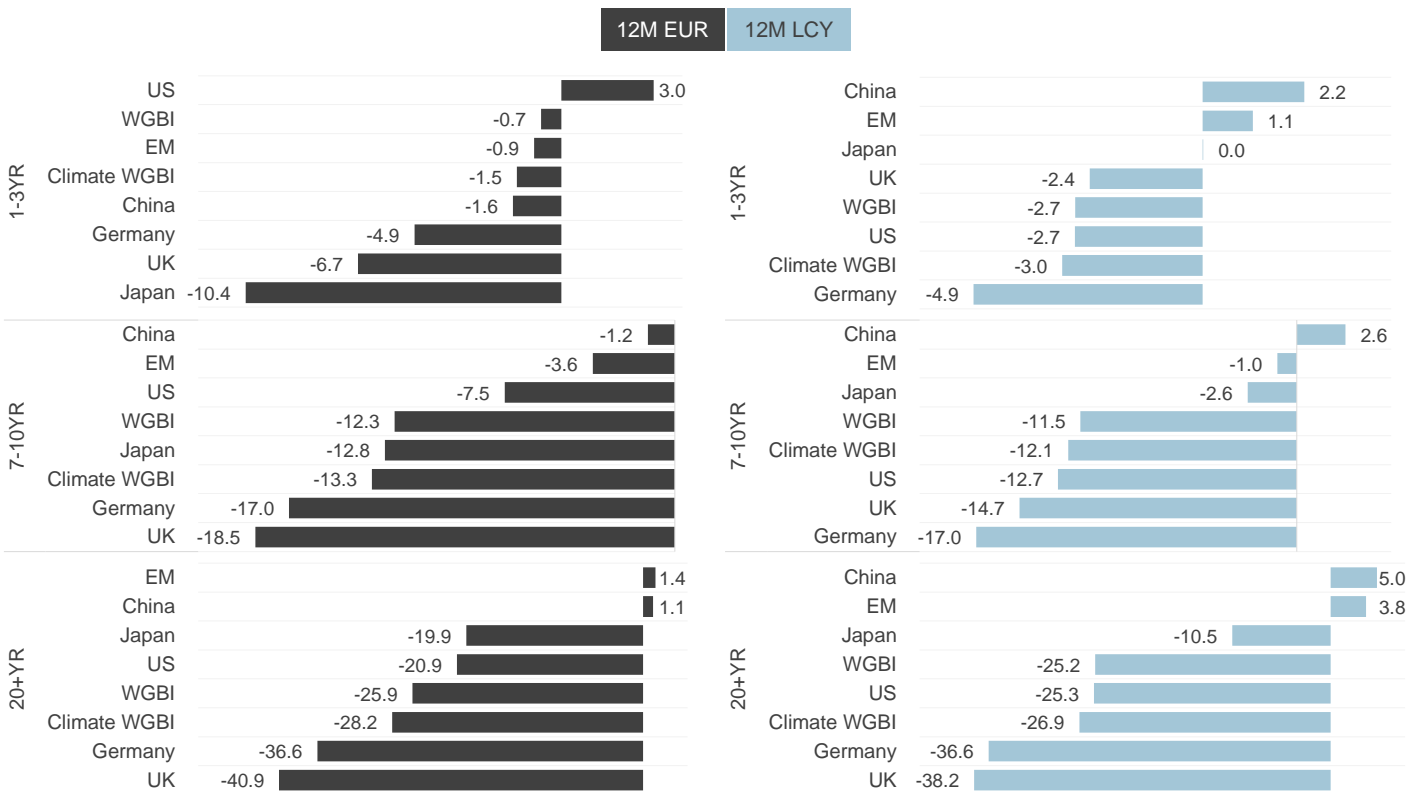
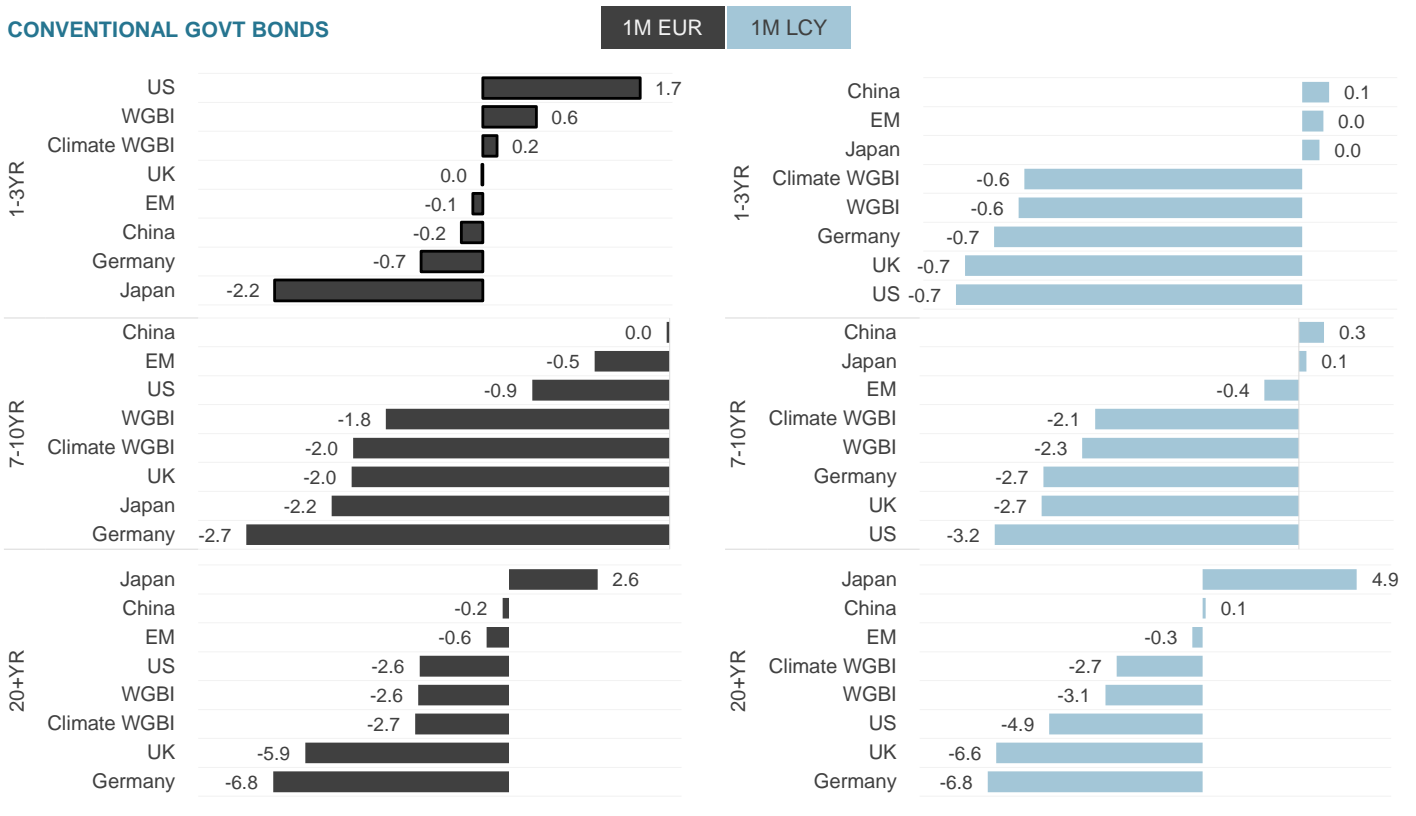
Global Sovereign Bond Returns – 1M and 12M % (EUR & LC, TR) as of February 28, 2023

Global bonds reversed their January gains in February after markets were unnerved by robust US employment and disappointing inflation data, increasing concerns about higher for longer rates. A weaker EUR boosted overseas returns for a euro-based investor. 12M returns remained very weak, led by Gilts, Bunds and climate-WGBI. China outperformed.

Long-duration conventionals were hit hardest in February though returns were negative across most regions and durations, in euros.

A perfect storm of policy rate increases, sterling weakness and sizeable duration drove losses of 41% in long Gilts on 12M, in euro terms, but long-dated Bunds and climate-WGBI also suffered losses of 28-37%.

CONVENTIONAL GOVT BONDS



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Global Inflation-Linked Bond Returns – 1M & 12M % (EUR, LC, TR) as of February 28, 2023

Global inflation-linked (IL) bonds fell back with conventionals in February, though not generally as much. The weak yen pulled down returns in medium-dated JGBs in US dollars, despite BoJ curve control. Credits fell with IG underperforming high yield, and dollar strength depressed overseas returns. 12M returns remain deeply negative, though HY outperformed.

Long IL fell back sharply, as extra duration amplified losses, and long UK IL lost 9% in February in euro terms, as a result.

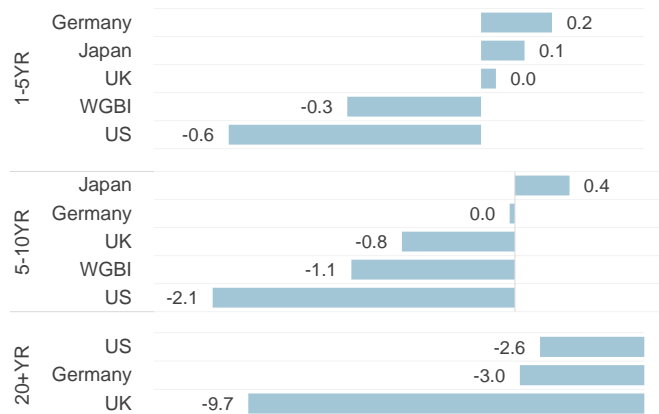
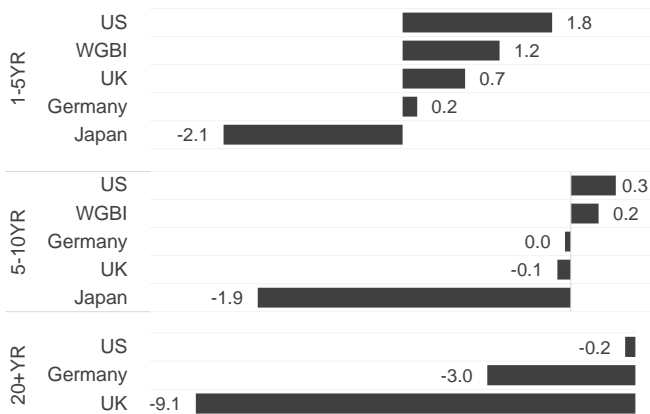
Similarly, 12-month returns still show losses of 23-51% from Tips to UK IL in long maturities, with higher discount rates on cashflows swamping stronger inflation accruals.

High yield credit benefited from decent spreads, lower duration than IG and low default rates, so 12-month losses are more modest.

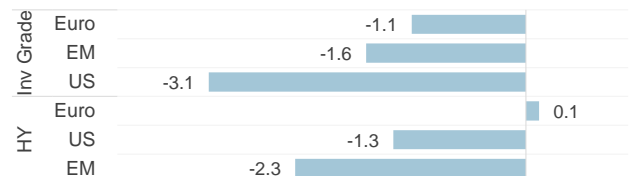
INFLATION LINKED BONDS

1M EUR

1M LCY



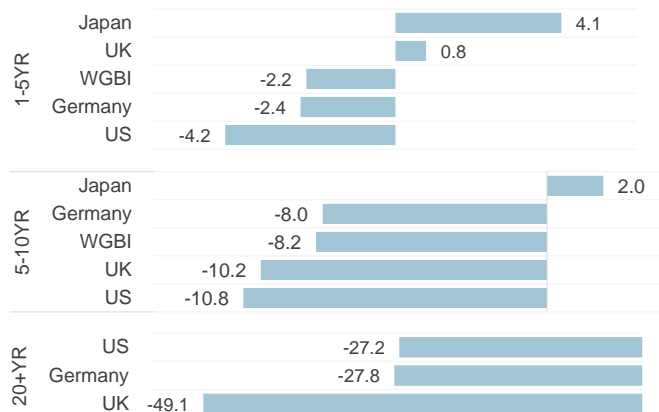
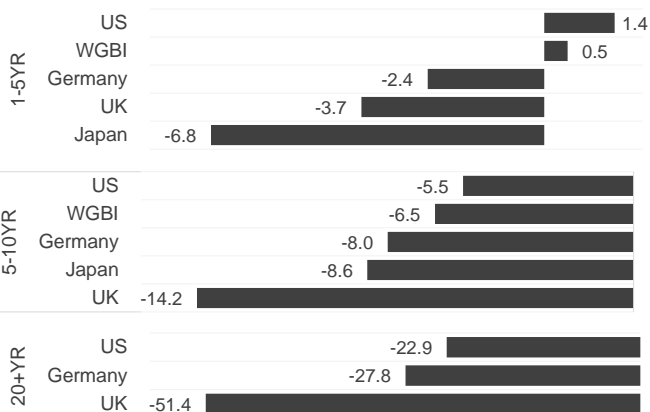
CORPORATE BONDS



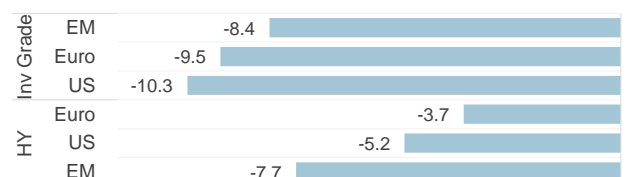
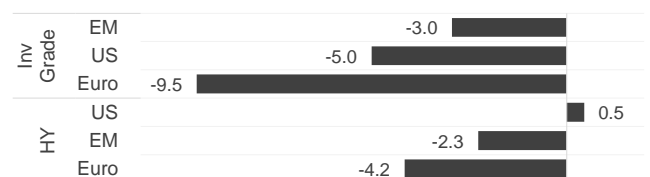
INFLATION LINKED BONDS

12M EUR

12M LCY



CORPORATE BONDS



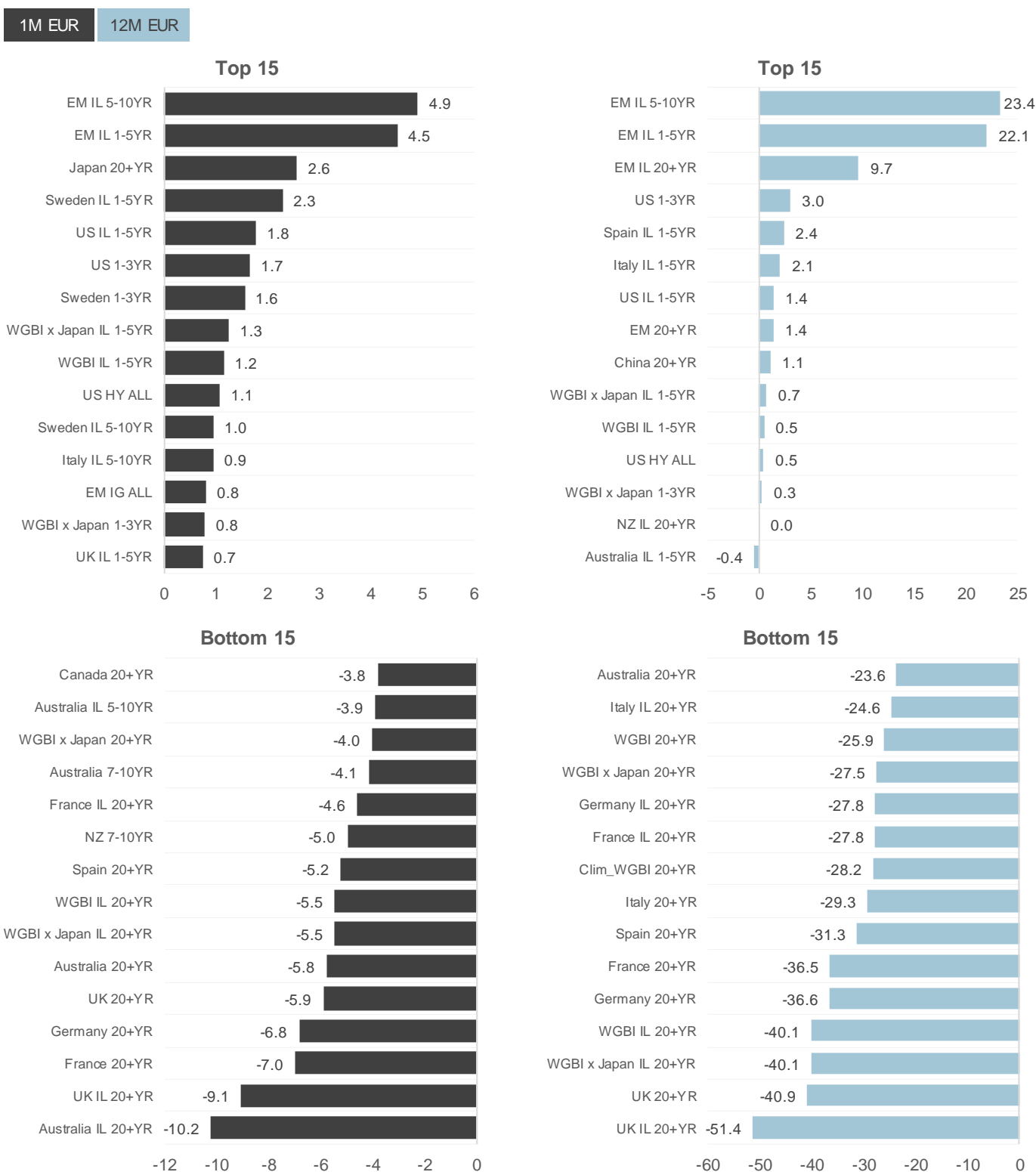
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Top and Bottom Bond Returns – 1M & 12M % (EUR,TR) as of February 28, 2023

The bottom 15 performers show February's sell-off was most acute in long duration inflation-linked (IL) bonds and conventionals, repeating the pattern of the last 12M. Australian and UK long IL lost 9-10% in euro terms, reversing January's rally. Emerging market IL again proved top performers, showing gains of 5%, helped by currency strength.

Besides a few short-dated government bonds, US HY and EM IL bonds, returns for most global bonds were negative in February. The best performance came from 1-5-year EM IL bonds, with a return of 5%, while conventional and IL bonds with long maturities lost 4-10% in euro terms.

Similarly over 12M, EM IL bonds have made substantial gains of up to 23%, while long DM government bonds have lost 24-51%.



Sovereign and Climate Bonds Analysis

Chart 1: Extra duration in the climate WGBI, since 2022's re-weighting, caused underperformance vs WGBI as yields increased.

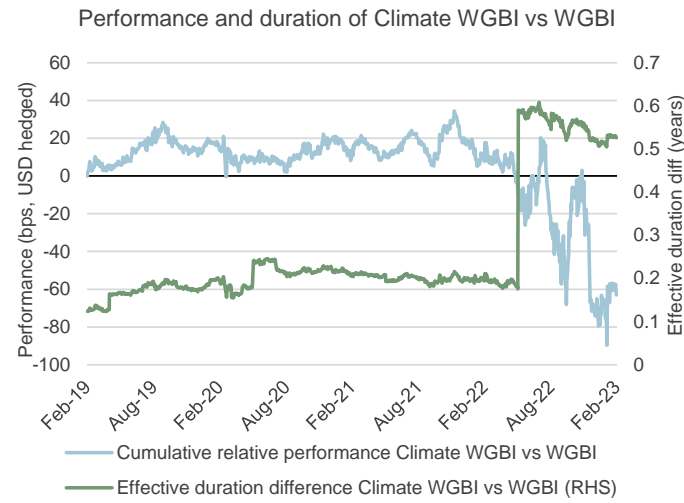


Chart 2: Germany's overweight, and the US underweight, are most significant in the climate WGBI, driving 2022/23 performance.

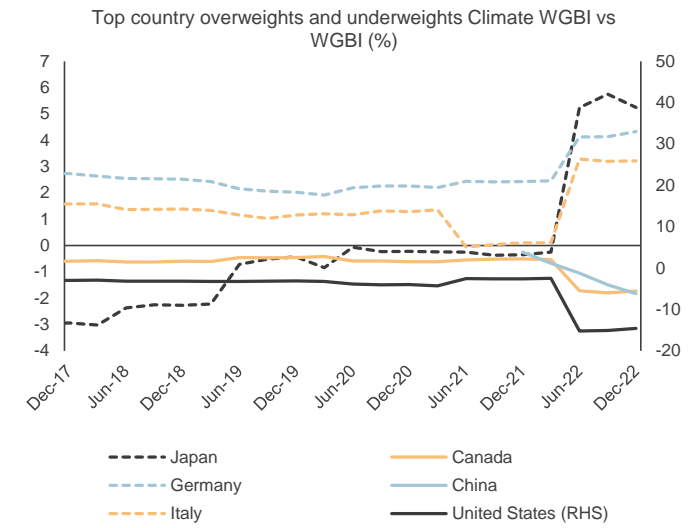


Chart 3: Climate WGBI has a lower yield to maturity versus WGBI, reflecting the higher weight of lower yielding Europe and Japan.

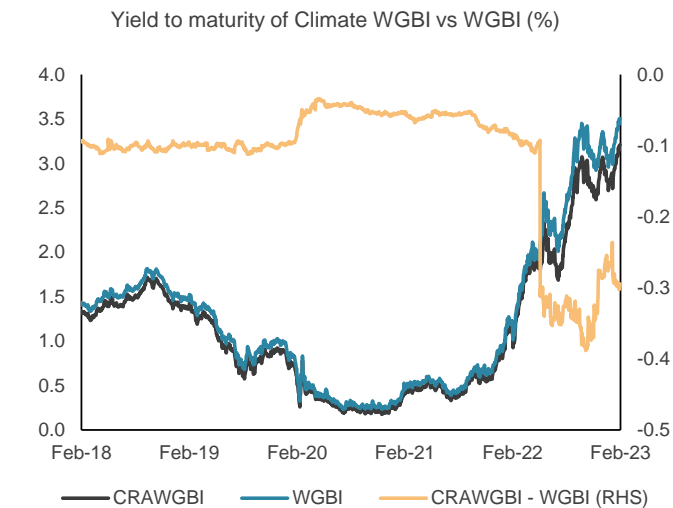


Chart 4: Big differences in Credit Quality: Climate WGBI has a lower weight in AA and a higher weight in AAA, A & BBB vs WGBI.

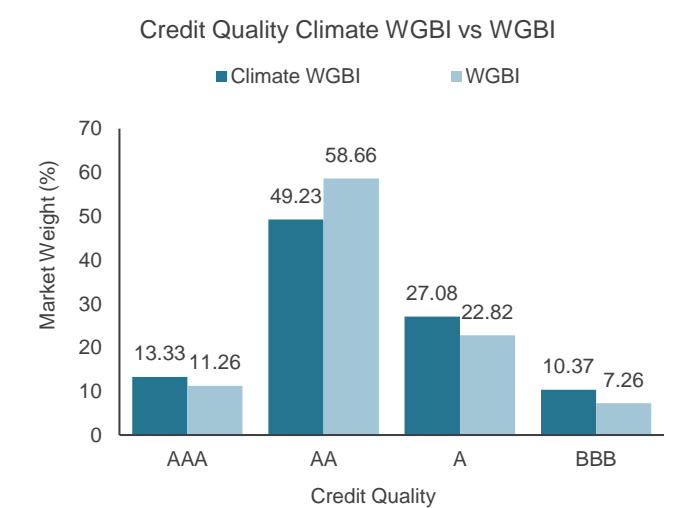


Chart 5: Despite yields increasing more in WGBI indices in 2022, led by US, climate WGBI's extra duration drove underperformance.

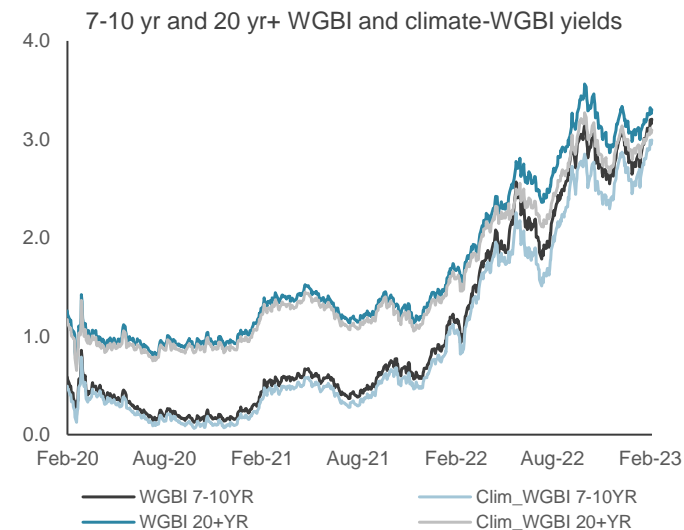
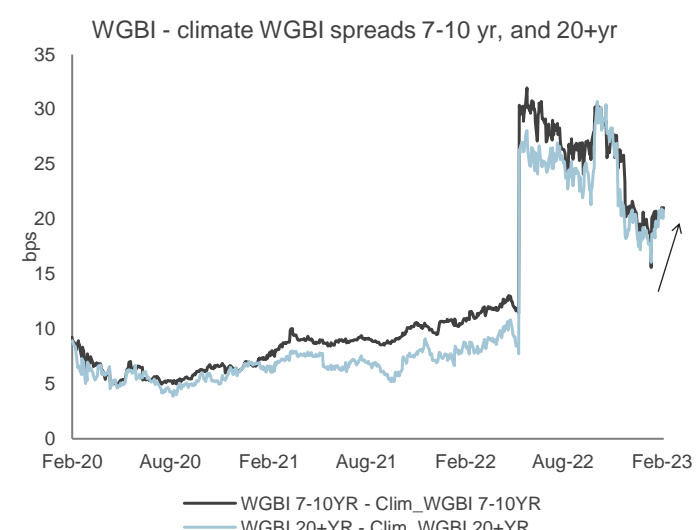


Chart 6: There was some reversal of recent spread narrowing in WGBI as US yields rose more in February (see Chart 1, page 5).



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Appendix – Global Bond Market Returns % (EUR & LC, TR) – February 28, 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	0.17	-2.74	-0.44	-5.60	0.02	0.65	-2.71	3.05
	7-10YR	-1.23	-4.10	-3.89	-8.87	0.23	0.87	-12.66	-7.50
	20+YR	-0.25	-3.15	-7.94	-12.71	2.37	3.02	-25.34	-20.93
	IG All	0.45	-2.47	-1.17	-6.29	0.92	1.56	-10.33	-5.03
	HY All	1.75	-1.21	1.95	-3.33	2.53	3.18	-5.15	0.45
UK	1-3YR	-0.16	-1.46	0.32	-1.04	-0.09	1.20	-2.39	-6.72
	7-10YR	-3.15	-4.41	-5.49	-6.77	0.31	1.60	-14.70	-18.49
	20+YR	-11.69	-12.84	-16.44	-17.56	-2.48	-1.23	-38.17	-40.91
EUR	IG All	-0.75	-0.75	-1.24	-1.24	1.11	1.11	-9.55	-9.55
	HY All	2.72	2.59	4.06	3.92	3.49	3.62	-3.75	-4.18
Japan	1-3YR	0.03	-0.51	-0.09	-3.59	0.14	-2.38	0.01	-10.44
	7-10YR	-1.70	-2.23	-2.23	-5.65	-0.15	-2.66	-2.60	-12.78
	20+YR	1.87	1.32	-4.59	-7.93	4.21	1.58	-10.53	-19.87
China	1-3YR	0.40	0.34	0.53	-5.31	0.20	1.01	2.16	-1.60
	7-10YR	0.90	0.84	0.02	-5.78	0.35	1.16	2.58	-1.19
	20+YR	1.21	1.15	-1.21	-6.94	-0.46	0.35	4.98	1.12
EM	1-3YR	0.78	0.49	1.26	-3.63	0.36	1.40	1.06	-0.90
	7-10YR	1.84	0.67	1.57	-4.21	1.13	1.72	-1.03	-3.61
	20+YR	1.80	0.73	0.48	-5.11	0.36	0.80	3.79	1.40
	IG All	2.13	-0.84	0.15	-5.04	0.96	1.60	-8.37	-2.96
	HY All	4.87	1.82	4.34	-1.07	1.39	2.03	-7.74	-2.28
Germany	1-3YR	-1.17	-1.17	-2.47	-2.47	-0.43	-0.43	-4.86	-4.86
	7-10YR	-4.61	-4.61	-7.77	-7.77	-0.06	-0.06	-17.00	-17.00
	20+YR	-14.37	-14.37	-17.23	-17.23	-0.79	-0.79	-36.61	-36.61
Italy	1-3YR	-0.75	-0.75	-0.97	-0.97	0.07	0.07	-3.89	-3.89
	7-10YR	-2.93	-2.93	-2.32	-2.32	2.34	2.34	-14.86	-14.86
	20+YR	-9.82	-9.82	-7.73	-7.73	3.64	3.64	-29.34	-29.34
Spain	1-3YR	-1.07	-1.07	-2.14	-2.14	-0.15	-0.15	-4.73	-4.73
	7-10YR	-4.45	-4.45	-5.96	-5.96	0.41	0.41	-15.56	-15.56
	20+YR	-11.68	-11.68	-11.44	-11.44	0.14	0.14	-31.29	-31.29
France	1-3YR	-1.13	-1.13	-2.46	-2.46	-0.12	-0.12	-5.03	-5.03
	7-10YR	-4.93	-4.93	-7.03	-7.03	0.22	0.22	-16.16	-16.16
	20+YR	-14.33	-14.33	-14.94	-14.94	-0.99	-0.99	-36.51	-36.51
Sweden	1-3YR	-0.92	-1.63	-0.69	-3.99	-0.36	0.19	-3.69	-7.68
	7-10YR	-5.57	-6.25	-4.94	-8.09	-1.88	-1.34	-14.78	-18.32
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	-0.19	-2.42	0.59	-6.18	0.17	0.25	-1.62	-3.17
	7-10YR	-1.65	-3.85	-0.21	-6.92	2.10	2.18	-9.37	-10.80
	20+YR	-3.91	-6.05	-4.27	-10.71	3.91	3.98	-22.37	-23.59
NZ	1-3YR	0.54	-2.62	0.03	-4.15	0.70	-0.73	-0.74	-3.76
	7-10YR	-2.48	-5.55	-2.66	-6.74	-0.13	-1.55	-9.40	-12.15
Canada	1-3YR	0.09	-3.23	0.69	-8.17	0.24	0.40	-2.85	-4.14
	7-10YR	-2.12	-5.37	-0.07	-8.85	0.23	0.38	-8.67	-9.88
	20+YR	-3.38	-6.58	-2.36	-10.95	1.60	1.76	-16.39	-17.50

Appendix – Global Bond Market Returns % (EUR & LC, TR) – February 28, 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	-0.17	-3.08	-2.11	-7.18	0.20	0.84	-4.23	1.43
	5-10YR	-1.05	-3.93	-4.97	-9.90	0.42	1.06	-10.81	-5.54
	20+YR	-0.96	-3.84	-10.02	-14.68	3.62	4.28	-27.20	-22.89
UK	1-5YR	-0.77	-2.06	-1.71	-3.04	-0.44	0.84	0.76	-3.71
	5-10YR	-1.82	-3.09	-5.84	-7.11	0.92	2.21	-10.20	-14.18
	20+YR	-12.16	-13.30	-22.71	-23.75	-3.96	-2.73	-49.13	-51.39
EUxUK	1-5YR	-1.55	-1.55	-3.48	-3.48	0.23	0.23	-2.36	-2.36
	5-10YR	-2.44	-2.44	-4.74	-4.74	1.46	1.46	-7.99	-7.99
	20+YR	-11.38	-11.38	-12.73	-12.73	3.12	3.12	-27.77	-27.77
Japan	1-5YR	0.46	-0.08	1.58	-1.98	0.60	-1.93	4.12	-6.76
	5-10YR	-1.85	-2.38	-1.27	-4.73	-0.75	-3.25	2.01	-8.65
EM	1-5YR	5.68	3.62	9.50	3.91	4.74	6.65	22.04	22.07
	5-10YR	4.91	3.37	10.30	5.82	3.26	5.64	23.27	23.36
	20+YR	-0.95	-2.06	0.69	-2.86	-0.88	1.54	3.74	9.66
Germany	1-5YR	-1.55	-1.55	-3.48	-3.48	0.23	0.23	-2.36	-2.36
	5-10YR	-2.44	-2.44	-4.74	-4.74	1.46	1.46	-7.99	-7.99
	20+YR	-11.38	-11.38	-12.73	-12.73	3.12	3.12	-27.77	-27.77
Italy	1-5YR	-0.55	-0.55	-0.21	-0.21	0.70	0.70	2.08	2.08
	5-10YR	-1.09	-1.09	1.42	1.42	3.45	3.45	-4.06	-4.06
	20+YR	-12.49	-12.49	-0.61	-0.61	8.07	8.07	-24.63	-24.63
Spain	1-5YR	-0.23	-0.23	-1.71	-1.71	0.62	0.62	2.40	2.40
	5-10YR	-1.99	-1.99	-2.40	-2.40	1.48	1.48	-4.54	-4.54
France	1-5YR	-1.38	-1.38	-2.68	-2.68	0.36	0.36	-1.53	-1.53
	5-10YR	-3.09	-3.09	-3.58	-3.58	1.50	1.50	-6.69	-6.69
	20+YR	-13.20	-13.20	-9.98	-9.98	1.61	1.61	-27.78	-27.78
Sweden	1-5YR	0.67	-0.06	1.28	-2.08	0.64	1.19	1.39	-2.81
	5-10YR	-2.88	-3.57	-4.05	-7.24	0.13	0.68	-7.14	-10.99
Australia	1-5YR	1.03	-1.22	2.66	-4.25	1.62	1.69	1.15	-0.44
	5-10YR	0.65	-1.60	2.28	-4.60	2.95	3.03	-3.52	-5.04
	20+YR	-5.81	-7.91	-0.59	-7.28	4.07	4.14	-21.30	-22.54
NZ	5-10YR	1.68	-1.52	2.97	-1.33	1.57	0.13	-2.48	-5.45
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	-1.68	-4.94	-0.63	-9.36	-1.01	-0.86	-8.99	-10.20

Appendix – Historical Bond Yields % as of February 28, 2023

Global Bond Yields

Top 15% Bottom 15%

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

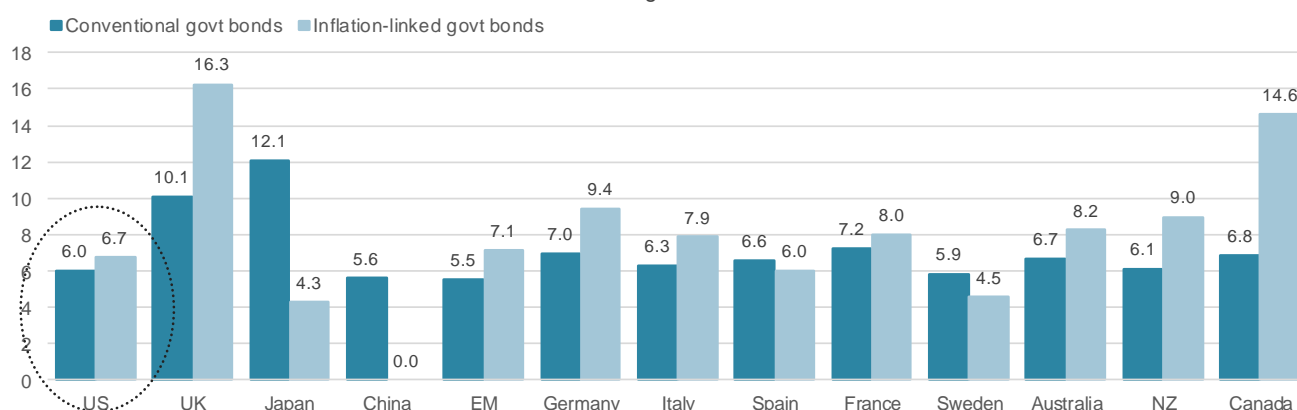
		Conventional government bonds				Inflation-linked bonds			Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.90	4.34	3.93	4.01	1.82	1.57	1.65	5.55	8.62
	3MAgo	4.47	3.97	3.64	3.95	1.76	1.40	1.59	5.38	8.81
	6MAgo	3.49	3.44	3.19	3.46	0.87	0.75	1.14	4.86	8.37
	12MAgo	1.38	1.71	1.82	2.26	-2.12	-1.01	-0.09	3.13	5.77
UK	Current	3.95	3.79	3.72	4.07	0.45	0.18	0.67		
	3MAgo	3.36	3.26	3.20	3.39	-1.95	-0.58	0.10		
	6MAgo	3.04	2.82	2.77	3.06	-3.47	-1.62	-0.45		
	12MAgo	1.02	1.01	1.11	1.41	-4.71	-3.55	-2.18		
Japan	Current	-0.04	0.11	0.53	1.35	-1.25	-0.36			
	3MAgo	-0.04	0.05	0.28	1.40	-1.44	-0.76			
	6MAgo	-0.10	-0.04	0.20	1.10	-1.23	-0.83			
	12MAgo	-0.04	0.00	0.11	0.80	-1.11	-0.83			
China	Current	2.38	2.62	2.86	3.32					
	3MAgo	2.26	2.54	2.87	3.34					
	6MAgo	1.96	2.30	2.68	3.16					
	12MAgo	2.18	2.49	2.86	3.45					
EM	Current	3.71	4.48	4.88	4.57	1.46	3.33	5.35	5.95	10.85
	3MAgo	3.72	4.51	4.89	4.89	2.45	3.14	5.10	6.08	12.18
	6MAgo	3.49	4.16	4.76	4.65	2.45	3.50	5.09	5.25	11.65
	12MAgo	3.39	4.03	4.58	4.90	2.17	3.01	4.91	4.00	10.39
Germany	Current	3.09	2.78	2.59	2.57	0.22	0.08	0.03		
	3MAgo	2.04	1.95	1.91	1.81	-0.59	-0.41	-0.54		
	6MAgo	0.97	1.25	1.41	1.62	-1.62	-0.97	-0.68		
	12MAgo	-0.57	0.23	0.48	0.60	-4.13	-2.15	-1.83		
Italy	Current	3.65	3.81	4.18	4.55	0.84	1.69	1.90		
	3MAgo	2.73	3.09	3.59	3.86	0.12	1.32	1.35		
	6MAgo	2.11	2.78	3.53	3.93	-1.97	1.08	1.73		
	12MAgo	-0.01	1.12	1.87	2.52	-3.56	-0.84	0.26		
France	Current	3.18	3.03	3.01	3.37	-0.05	0.24	0.69		
	3MAgo	2.25	2.19	2.27	2.59	-0.94	-0.39	0.09		
	6MAgo	1.21	1.53	1.88	2.52	-1.84	-0.60	0.15		
	12MAgo	-0.46	0.61	1.01	1.62	-3.85	-2.03	-0.92		
Sweden	Current	3.18	2.96	2.65		0.64	0.72			
	3MAgo	2.52	2.21	1.93		-0.29	-0.26			
	6MAgo	2.24	2.22	1.96		-1.11	-0.90			
	12MAgo	-0.05	1.26	1.45		-2.05	-1.61			
Australia	Current	3.66	3.65	3.83	4.19	0.50	1.26	1.78		
	3MAgo	3.12	3.22	3.49	3.92	-0.08	0.90	1.43		
	6MAgo	3.11	3.30	3.56	3.84	-0.19	0.81	1.56		
	12MAgo	1.05	2.60	3.00	3.50	-0.46	0.31	1.01		
NZ	Current	5.06	4.68	4.57	4.67	1.40	2.07			
	3MAgo	4.67	4.39	4.12	4.28	1.49	1.97			
	6MAgo	3.85	3.87	3.97	4.33	0.72	1.84			
	12MAgo	2.16	3.43	3.57	3.81	0.32	1.13			
Canada	Current	4.04		3.35	3.26			1.34	5.16	7.19
	3MAgo	3.70		2.96	3.02			1.20	5.07	7.37
	6MAgo	3.56		3.14	3.06			1.23	4.96	6.97
	12MAgo	1.44		1.79	2.12			0.07	3.13	4.93

Appendix – Duration and Market Value (USD, Bn) as of February 28, 2023

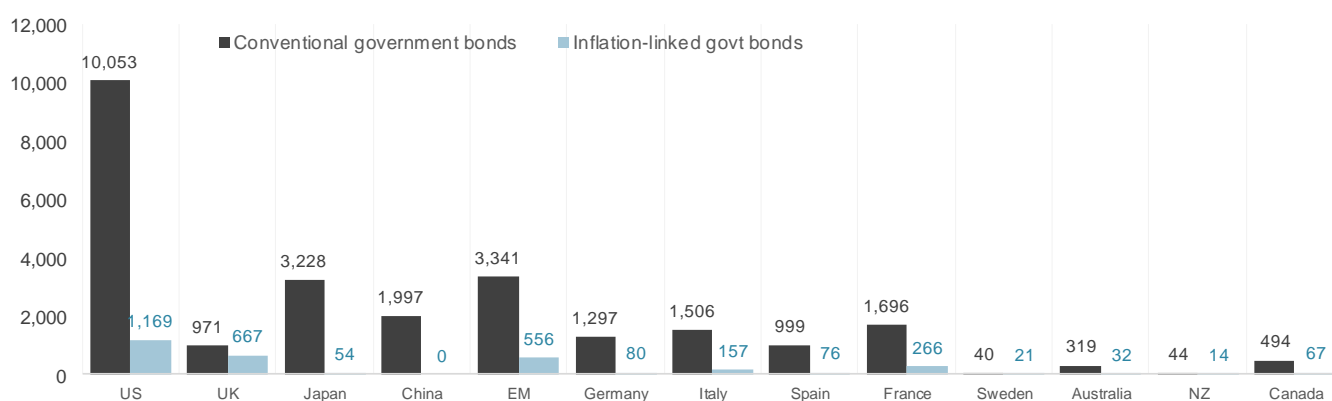
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.6	17.5	6.0	2,171.5	1,031.7	1,240.4	10,052.7	7.1	21.5	6.7	383.1	126.0	1169.4
UK	3.7	7.7	19.1	10.1	98.0	124.6	275.3	971.1	7.0	28.7	16.3	123.5	245.9	667.1
Japan	3.9	7.9	23.8	12.1	357.0	383.5	705.7	3,227.8	6.7		4.3	24.4		54.3
China	3.6	7.5	17.3	5.6	462.0	326.1	232.2	1,997.0						
EM	3.5	7.0	15.8	5.5	744.42	596.98	321.79	3,341.4	5.5	13.5	7.1	110.9	135.2	555.9
Germany	3.8	7.7	20.5	7.0	286.68	203.20	132.11	1,296.9	6.8	22.3	9.4	29.5	17.5	80.0
Italy	3.6	7.3	16.1	6.3	298.46	232.85	134.04	1,506.1	6.8	26.8	7.9	53.2	5.2	156.6
Spain	3.5	7.5	17.5	6.6	191.89	177.51	93.99	999.0	7.2		6.0	20.8		75.8
France	3.5	7.7	20.0	7.2	315.47	308.87	192.07	1,695.9	6.8	24.7	8.0	112.3	18.9	265.8
Sweden	3.5	8.0		5.9	7.52	8.85		40.1	6.3		4.5	9.7		20.8
Australia	3.6	7.8	17.8	6.7	55.19	87.10	15.39	318.6	7.6	22.8	8.2	9.3	2.7	32.2
NZ	3.4	7.8	17.3	6.1	8.46	6.37	2.17	44.4	6.6		9.0	3.1		13.6
Canada		7.2	17.3	6.8		165.90	95.40	494.2		14.6	14.6		67.3	67.3

	Investment grade bonds					High Yield						
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	10.8	8.5	7.1	6.8	7.1	74.7	444.9	2,351.4	3,285.9	6,156.8	4.2	1,146.1
Euro	6.3	4.9	4.7	4.3	4.5	8.4	172.2	1,045.3	1,420.3	2,646.1	3.1	422.3
EM		5.7	4.8	5.0	5.0		36.40	217.15	351.2	604.7	3.6	203.6

Average Duration



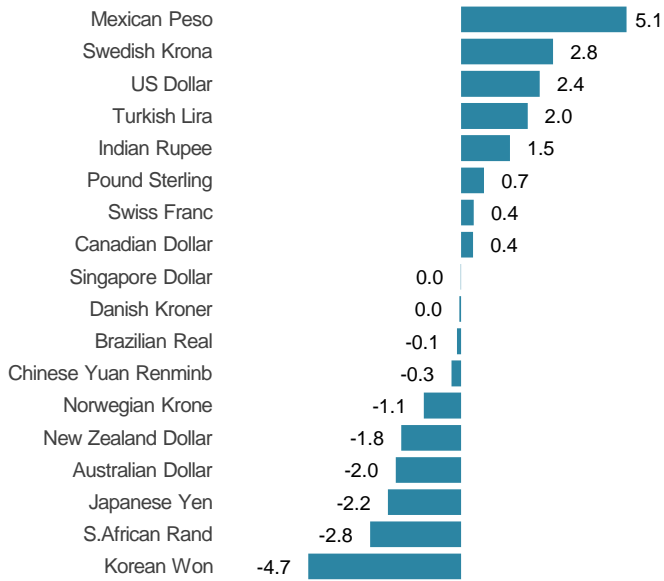
Total Market Value (USD Billions)



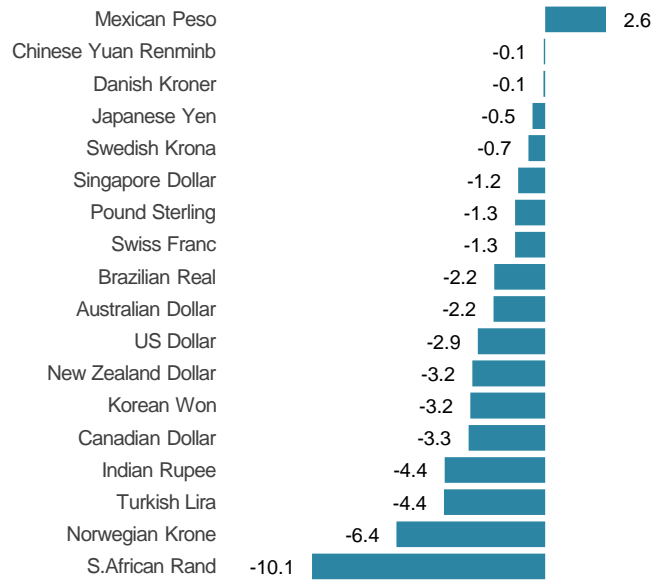
Data as of 2023-02-28

Appendix – Foreign Exchange Returns % as of February 28, 2023

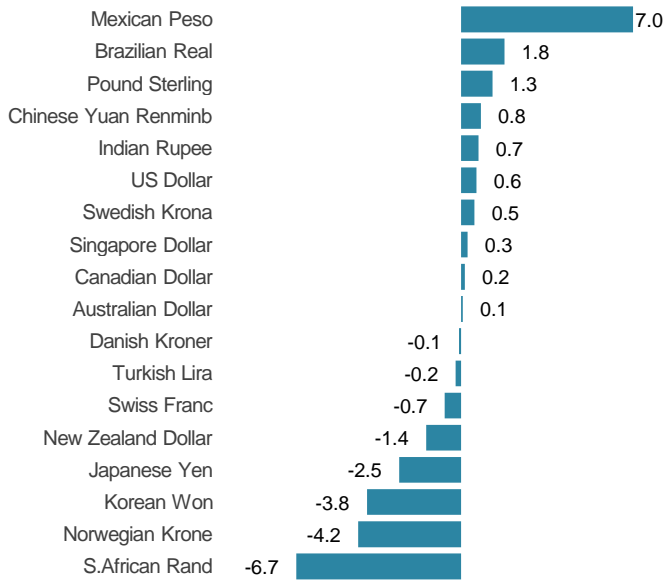
FX Moves vs EUR - 1M



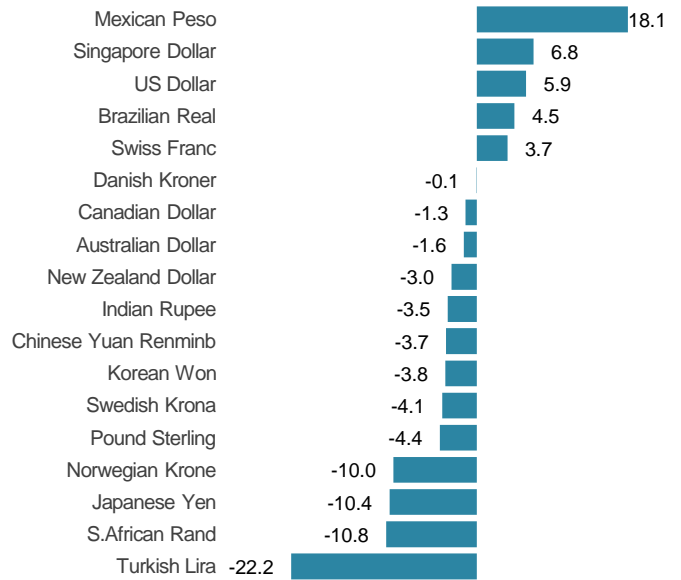
FX Moves vs EUR - 3M



FX Moves vs EUR - YTD



FX Moves vs EUR - 12M



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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