

Fixed Income Insights

MONTHLY REPORT - February 2023 | US EDITION

FOR PROFESSIONAL INVESTORS ONLY

Fed caution on inflation, but Treasuries front-run easing, leaving tail risks?

Fed concerns about inflation persisting above target were evident at the February FOMC. The big rally and bull inversion of the Treasury curve has parallels with 2018/19, but is at risk if the labor market tightens again. Short-dated credit remains in a sweet spot, helped by evidence of a soft landing, and low default rates.

Growth & inflation expectations – US soft landing remains intact, but European inflation is sticky

Evidence of a soft landing for US inflation increases, but European inflation is stickier, and tight labor markets remain a challenge for central banks. Recession risks highest in Europe, while Covid fallout clouds China's outlook. (pages 2-3).

Yields, curves and spreads – The disconnect between cautious central banks and market optimism on rates widened

Curves flattened, or inverted more, as markets anticipate policy easing and 2018/19 re-run, but with tail risks? (pages 4-5).

Performance – Duration became the investor's friend in the January rally, but 12M returns remain deeply negative

Despite long January gains of up to 8%, losses of up to 49% on 12M show the extent of the 2022 drawdown. (pages 6-8).

Sovereign and climate bonds – Swings in relative performance in 2022/23 were led by duration and country weights

Climate WGBI failed to sustain Q4 recovery versus WGBI, after the underperformance of (overweight) JGBs. (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: Although US wage inflation has slowed from the peak, the Fed has stressed the tight labor market is a major driver of policy tightening.

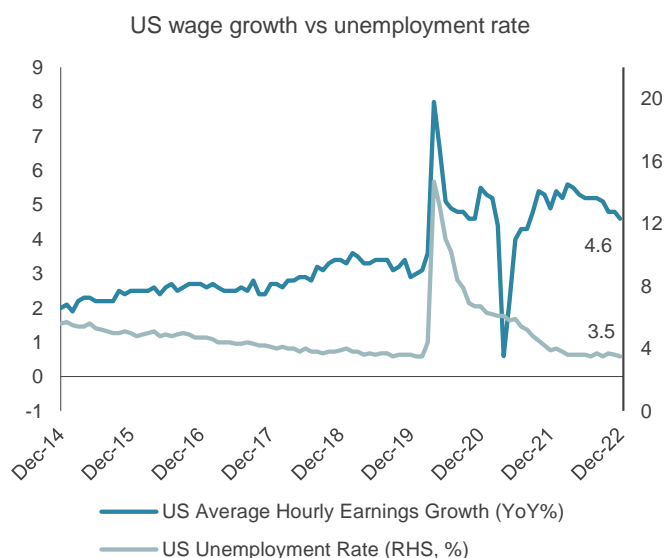
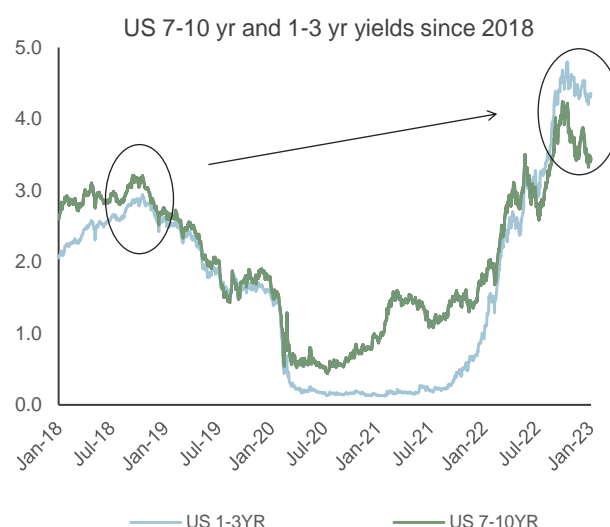


Chart 2: Front-running the Fed? Like 2018/19, 7-10yr US yields have fallen faster than 1-3yr, as markets anticipate Fed easing.



Macroeconomic Backdrop – Growth and Inflation Expectations

Consensus forecasts show G7 economies suffering mild recessions at worst in 2023, with Europe the worst hit by the 2022 energy shock and monetary tightening. Forecasters remain equivocal on recession in 2023, with US GDP growth tracking at 3.5% (Q4). Recent declines in inflation improve the growth outlook by reducing pressure on the Fed to tighten further.

GDP growth forecasts for 2023 continue to project a soft landing for the G7 economies, with outright contraction only forecast for the UK and Eurozone. The Atlanta Fed's GDP tracker puts growth at 3.5% in Q4, with consumers helped by much lower gasoline prices and solid wage growth. But much still hinges on how much further central banks tighten.

US CPI eased further in December to 6.5% y/y, and 5.7% (ex food and energy), as lower fuel prices offset higher shelter costs, and the latter should soon reflect lower rents. Base effects suggest further falls in H1 2023, helped by lower commodity prices, so forecasts project US CPI falling to sub-4% y/y by end 2023 (Chart 2), though core service inflation remains key for the Fed.

Chart 3 shows the transformation of the US labor market since Covid, with wage growth sharply higher, driving inflation higher. Wage growth slowed since April 2022's peak of 5.6% y/y to 4.6% y/y and the labor market is a lagging economic indicator. But Fed Chairman Powell has made clear cooler wage growth is required for the Fed to consider easing.

Lower inflation expectations, helped by declining commodity prices, are shown in breakevens in Chart 4. G7 7-10-year breakevens declined by 40-50bp, further highlighting that markets expect inflation to mean-revert towards pre-Covid levels in 2023-2024.

Chart 1: Consensus forecasts show sharp slowdowns but soft landings for G7 growth, with only the UK contracting. Labor shortages and Covid fallout restrict Japanese and Chinese growth.

Latest Consensus Real GDP Forecasts (% January 2023)			
	2022	2023	2024
US	2.1	0.5	1.3
UK	4.1	-0.9	0.8
Eurozone	3.3	0.1	1.3
Japan	1.6	1.1	1.1
China	3.0	4.9	5.0
Canada	3.5	0.5	1.5

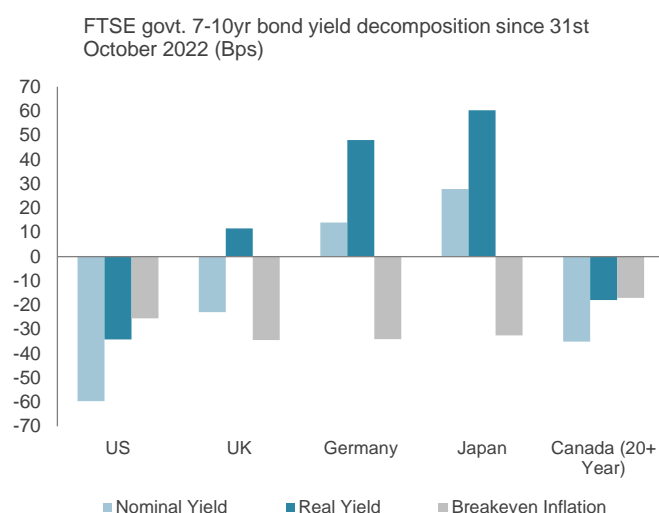
Chart 2: Inflation fell more quickly in the US since Q3, reflecting sharp falls in fuel prices. European inflation is falling more slowly due to administered price increases. China remains an outlier.

Consensus Inflation Forecasts (% January 2023)				
	2023	Change Since Jan-22 (Bps)	2024	Change Since Jan-22 (Bps)
US	3.7	130	2.5	20
UK	7.0	480	2.5	40
Eurozone	6.0	430	2.5	70
Japan	1.8	110	1.3	80
China	2.3	20	2.3	30
Canada	3.7	150	2.2	0

Chart 3: Cost-push pressures from wage inflation remain an issue for the Fed, even if it has slowed to 4.6% y/y. Note that wage inflation was only 3% pre-Covid, at similar unemployment rates.



Chart 4: Inflation breakevens fell steadily since Q4, moving lower with nominal yields. The relative stability of breakevens during the 2022 inflation shock is reassuring for central banks.



Financial conditions and monetary policy settings

Markets rallied further in January, as lower US inflation reinforced expectations that the Fed's tightening is nearly done, and of policy easing in Q4 2023, despite Fed caution on inflation at its February FOMC. Exchange rates reflect the view that the Fed will be first to finish tightening, a sharply contracting ECB balance sheet and possible further PBOC easing.

Monetary tightening, including QT, is now having an impact on M2 growth, which has slowed sharply in the G7, as Chart 1 shows. However unstable velocity, particularly in the US, has made M2 an unreliable indicator for future inflation.

Chart 2 shows the US dollar retreating further from its 2022 highs, as markets price in lower US interest rates, and risk appetite recovers. The BoJ did not widen the 10-year JGB yield band further in January, but there is still an expectation that curve control will be eased again, supporting the yen. The Canadian dollar fell back with lower energy prices and since the BoC's policy pause signal.

The Fed's 25bp tightening on Feb 1 (Chart 3) was well discounted, but markets project a lower terminal rate for Fed funds in 2023 than the Fed, by about 25bp, and easing later in 2023, unlike the Fed. The BoJ maintained its yield curve control policy, while the BoC raised overnight rates by another 0.25% to 4.50%, but confirmed a pause in tightening as it assesses its impact to date.

Chart 4 shows that the Fed's balance sheet is contracting at about \$1.1 trillion per annum, with Fed staffers estimating that a \$2.5 trillion reduction sheet equates to an extra 50bp on Fed Funds.

Chart 1: M2 growth has slowed sharply in the US, but has become a less reliable indicator of future inflation, given the decline in its velocity. Chart 1 shows M2 growth has trended lower since 2020.

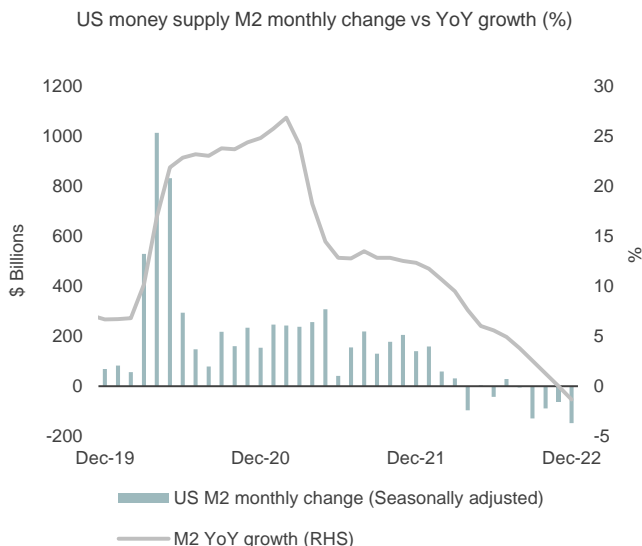


Chart 2: The dip in the US dollar, from the Q4 highs, reflects the revision down to Fed tightening expectations as US inflation fell. The yen stabilized after the BoJ lifted the 10yr JGB yield band.

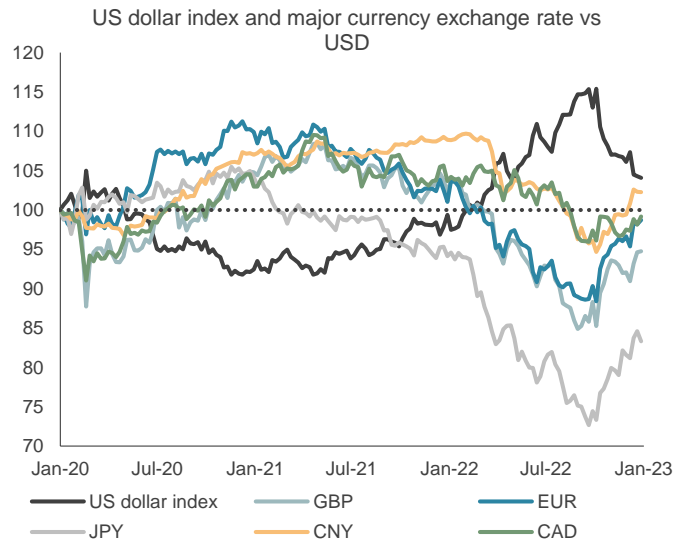
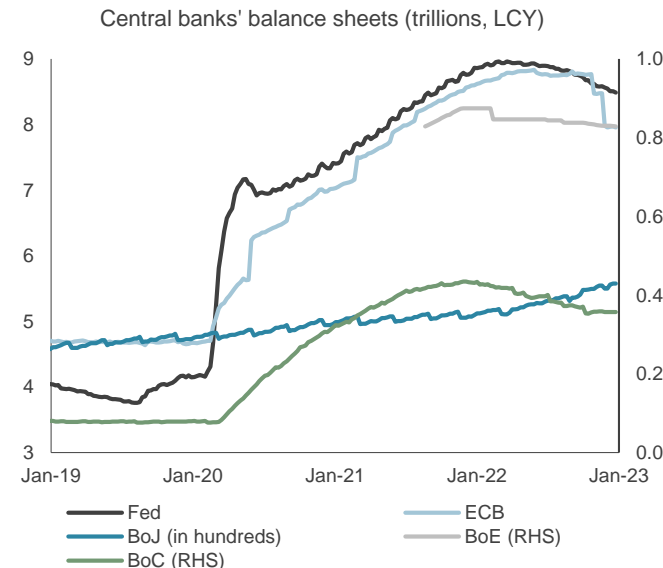
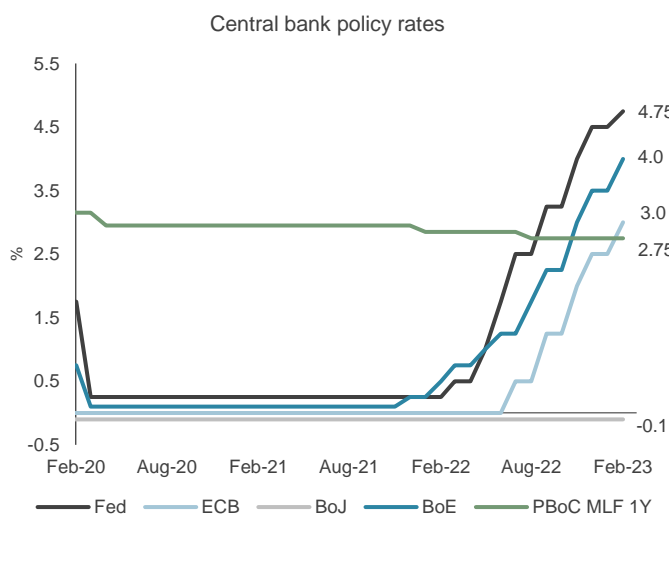


Chart 3: Steep G7 central bank rate rises were main drivers of the tightening in financial conditions in 2022. But policies in Japan and China diverged, increasing the rate differentials with other nations.

Chart 4: Getting slimmer? The Fed's balance sheet is contracting at about \$1trn per annum. Fed staffers estimate a \$2.5 trillion reduction sheet equates to an extra 50bp on Fed Funds.



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

Global Yields, Curves and Spread Analysis

Chart 1: G7 conventional bond yields declined sharply in January as inflation weakened further, led by US Treasuries, as markets anticipated a pause, or even a reversal, in policy tightening.

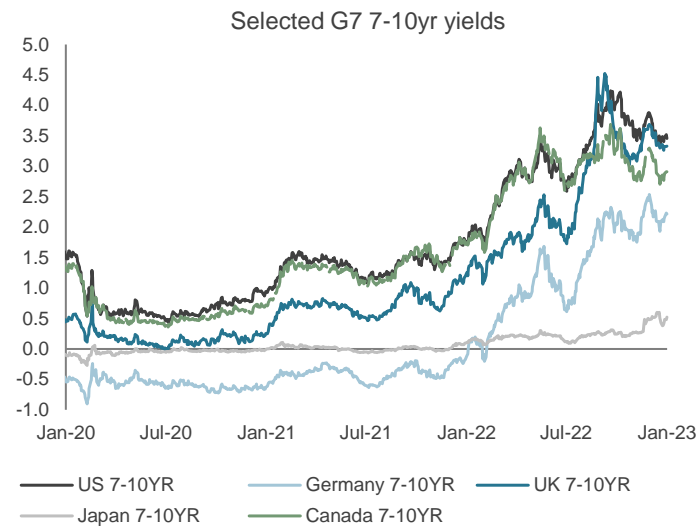


Chart 2: Inflation-linked (IL) real yields have turned positive in most G7 markets, including the UK and Germany. In Japan, inflation-linked bond yields are still just negative.

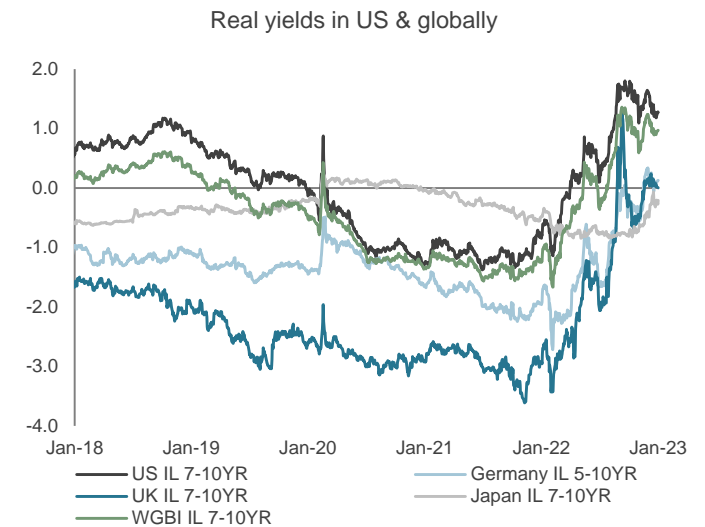


Chart 3: G7 10/2s yield curves remained inverted, or deeply inverted (except in Japan) in January, notably in the US. A bull inversion of 10s/2s (falling yields) has been a strong recession signal previously.

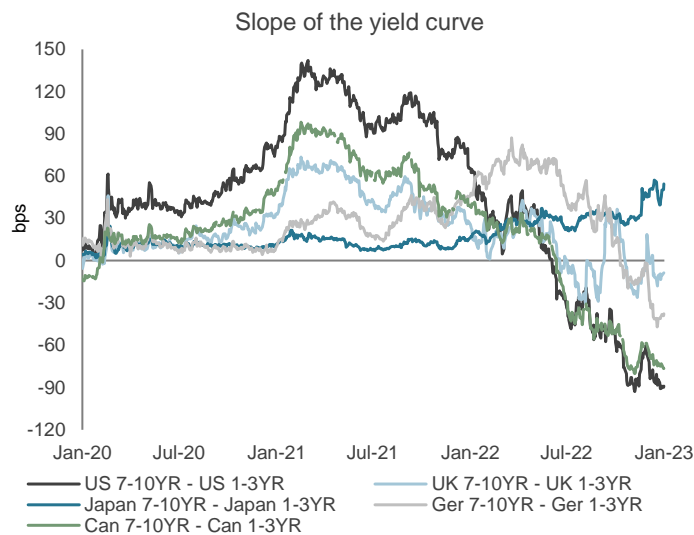


Chart 4: For 20/2s, only Japan and the UK have retained normally-shaped curves, unlike the US, Germany and Canada, which, like 10/2s in Chart 3, have deeply inverted curves.

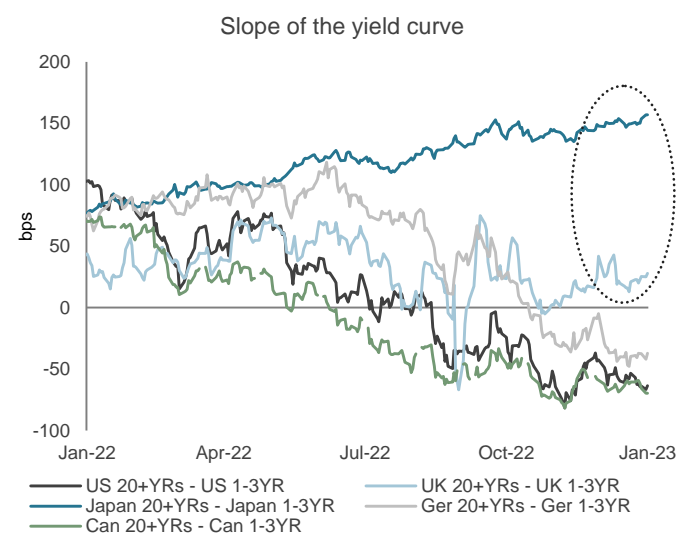


Chart 5: The rate of decline in 7-10yr breakevens has differed across regions, but the trend to lower inflation expectations appears intact globally, even in the UK where inflation is still above 10% y/y.

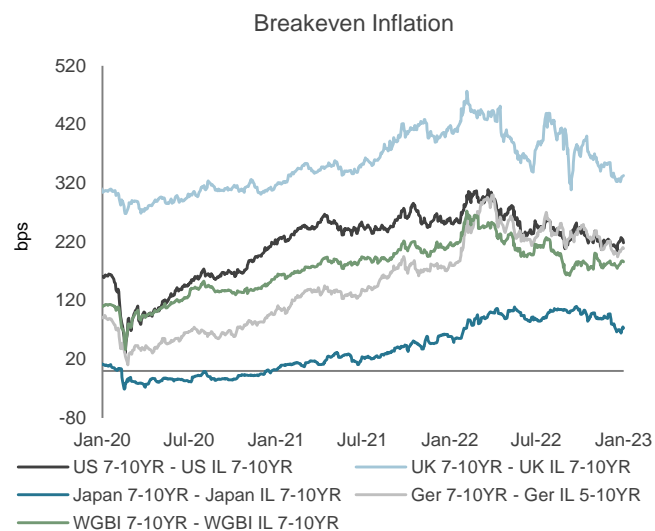
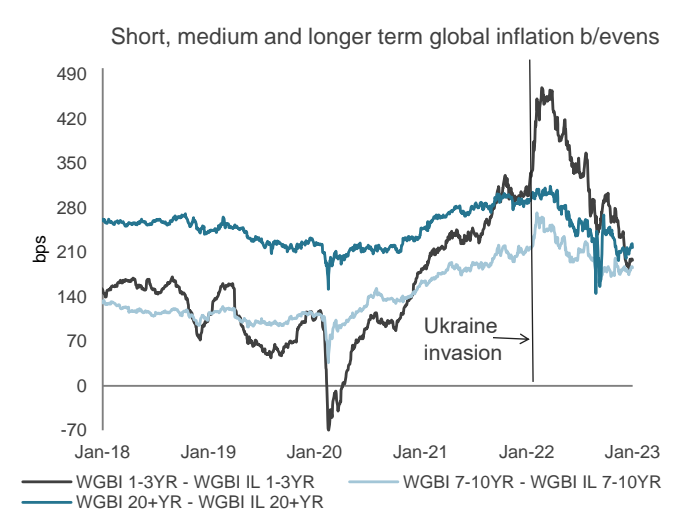


Chart 6: Short breakevens fell on lower commodity prices and policy tightening since the 2022 Ukraine spike. Note short b/evens dipped below longs in January, like the pre-Covid, low inflation era.



Yield Spread and Credit Spread Analysis

Chart 1: US 7-10-yr spreads have narrowed pro-cyclically in most G7 markets as yields fell since the Treasury rally began in October, even against Japan, despite BoJ retaining some yield curve control.

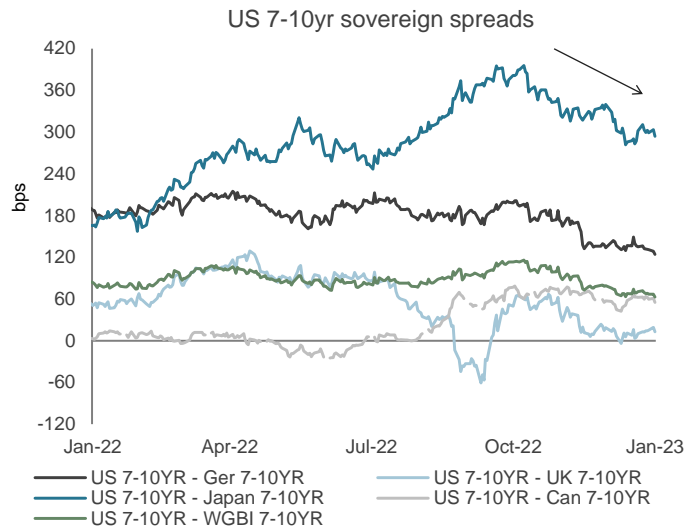


Chart 2: Increased risk appetite and lower US inflation particularly have helped Italian spreads tighten a little as Treasury and Bund yields fell since Q4, despite the ECB moving towards QT.

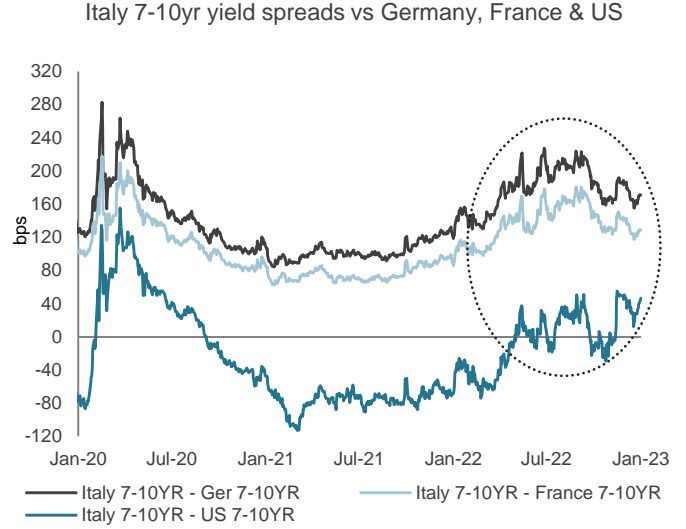


Chart 3: Crisis, what EM crisis? Spread narrowing partly reflects higher G7 yields in 2022, but at no point have EM spreads spiked since Covid, as they did in genuine crises previously.

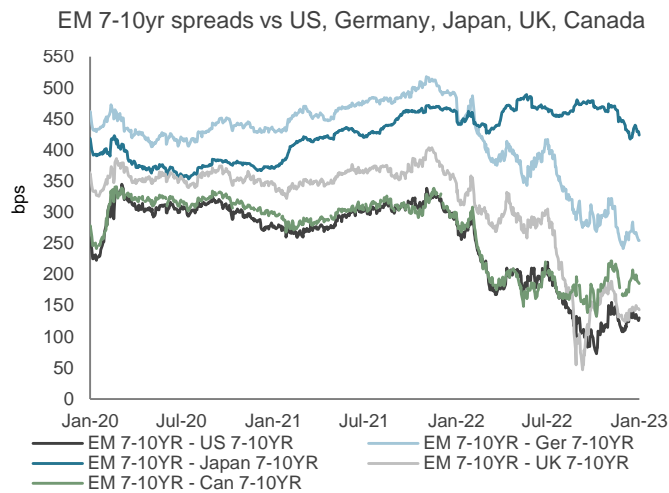


Chart 4: Low correlation of Chinese yields to G7 yields is well established, and is not directional, as the Chart shows, enhancing the portfolio diversification benefits of Chinese government bonds.

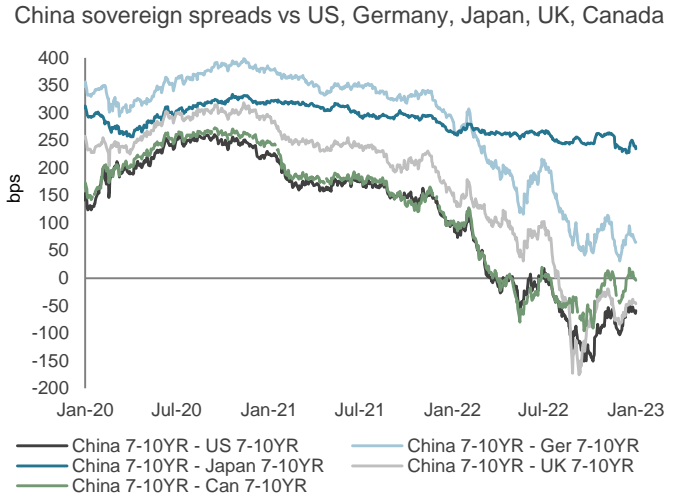


Chart 5: Credit spreads fell since the US Treasury rally began in October 2022, with Eurozone HY spreads the biggest movers. Low default rates and renewed risk appetite have helped drive the rally.

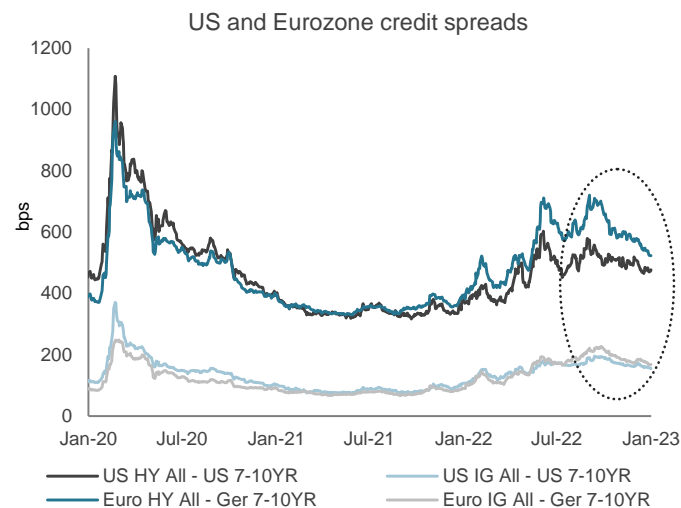


Chart 6: Chinese \$ HY spreads tightened further vs Treasuries in January, to about 2300bps (last seen pre-Ukraine), helped by support measures for the property sector, and the US HY rally.



Global Sovereign Bond Returns – 1M and 12M % (USD & LC, TR) as of January 31, 2023

Global bond markets rallied further in January as lower inflation reinforced expectations that policy tightening is nearing completion in the G7. The weaker USD boosted overseas returns in US dollar terms.

Long-duration conventional bonds benefited the most from the rally, with WGBI achieving a 6% return in January, while Bunds, up over 8% in US dollars, outperformed. Longer Gilts also benefited from their extra duration, gaining nearly 7% in the month.

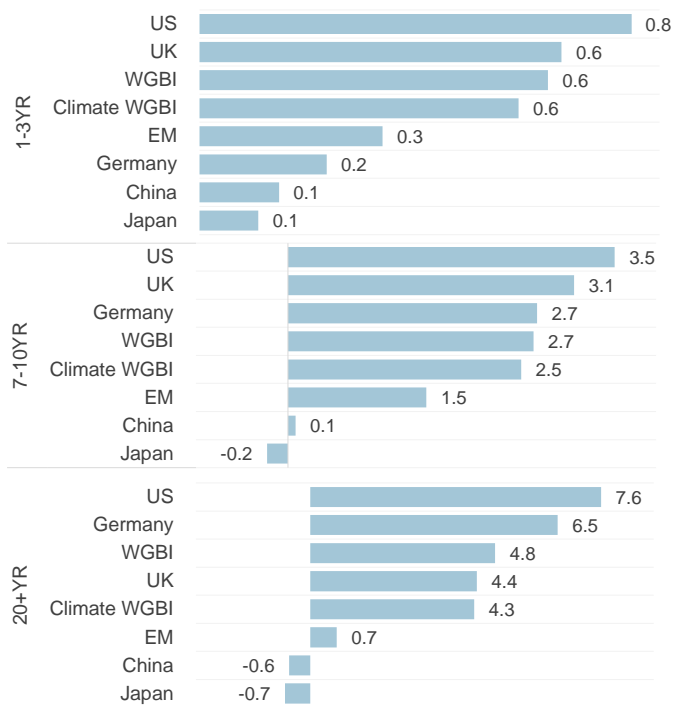
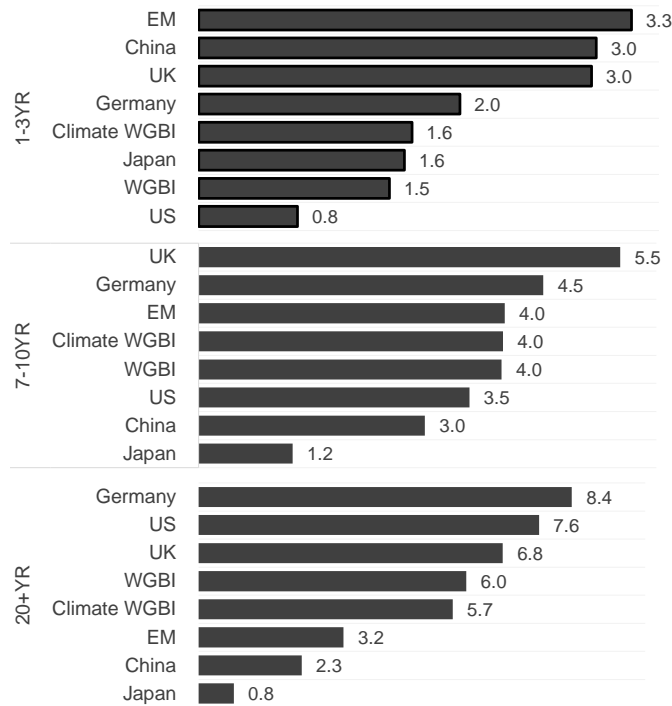
Despite the rally since October, 12M returns are still strongly negative, reflecting the steep rise in inflation and policy rates in 2022.

JGBs remained a laggard, as fears remained the BoJ's yield curve control might end soon, and 10yr+ yields failed to match declines elsewhere.

CONVENTIONAL GOVT BONDS

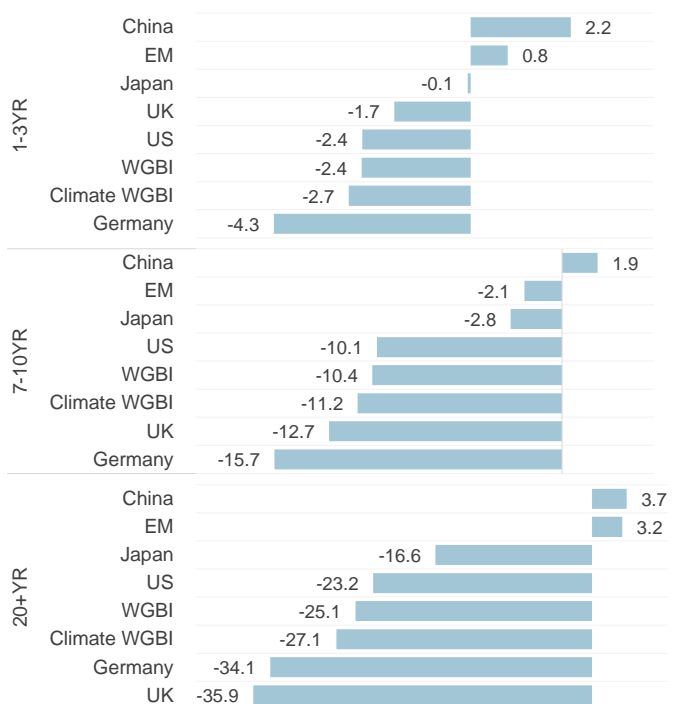
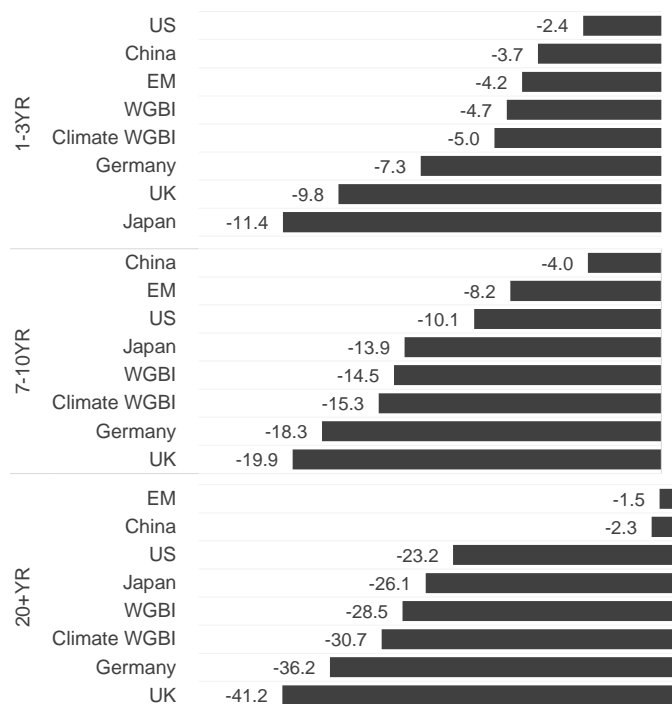
1M USD

1M LCY



12M USD

12M LCY



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Global Inflation-Linked Bond Returns – 1M & 12M % (USD, LC, TR) as of January 31, 2023

Global inflation-linked bonds also rallied further in January, as investors scaled back policy tightening expectations, and real yields fell. Long duration TIPS, Gilts and Bund inflation-linked bonds rallied 6-9% in US dollar terms, as duration became the investor's friend, in a reversal of 2022's brutal sell-off. Credit markets also gained 3-5%, led by Euro high yield credit.

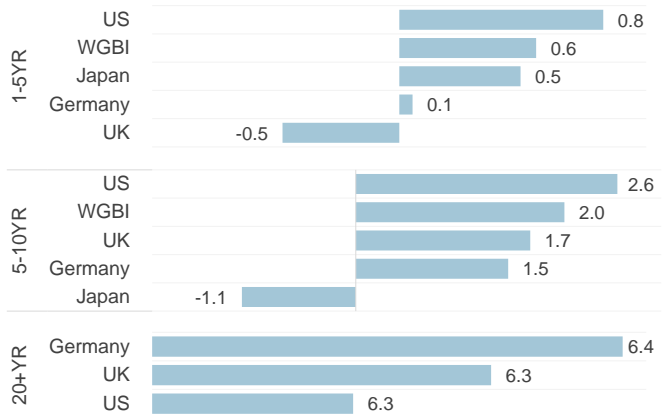
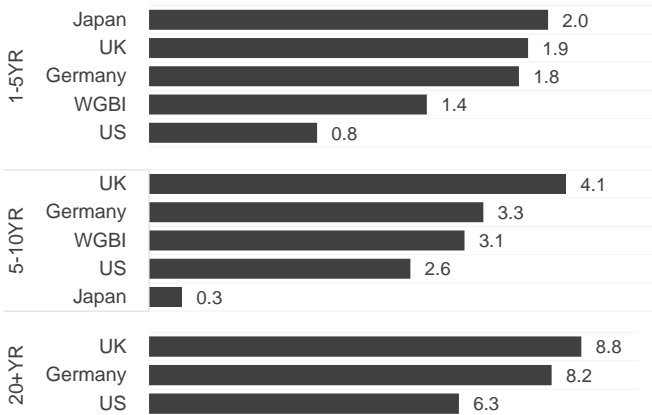
Only Japanese inflation-linked bonds failed to participate in the January rally, with a 2.3% sterling gain (see page 14) also boosting UK returns for a US dollar-based investor. Lower issuance after UK fiscal consolidation has helped UK index-linked bonds recover since Q3 2022.

But 12M returns still show losses of 26-49% in long maturities, with higher discount rates on cashflows swamping stronger inflation accruals, notably for long inflation bonds. Credit benefited from decent spreads and outright yields, and low default rates continue.

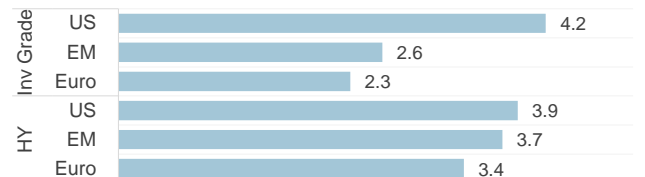
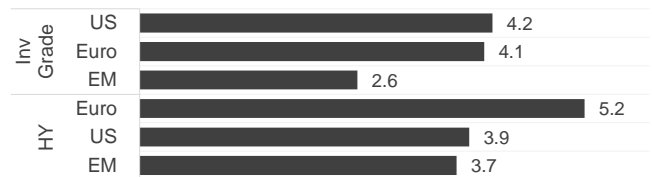
INFLATION LINKED BONDS

1M USD

1M LCY



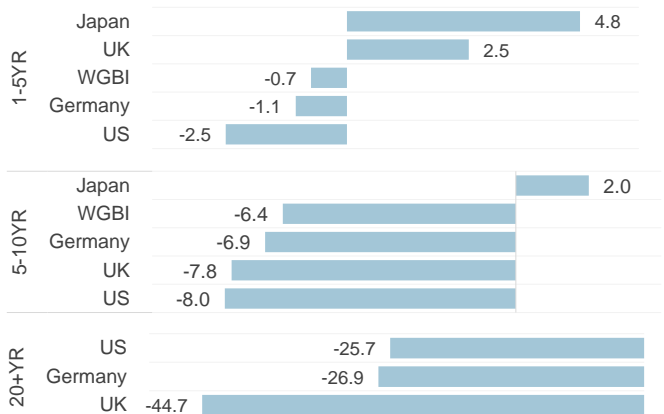
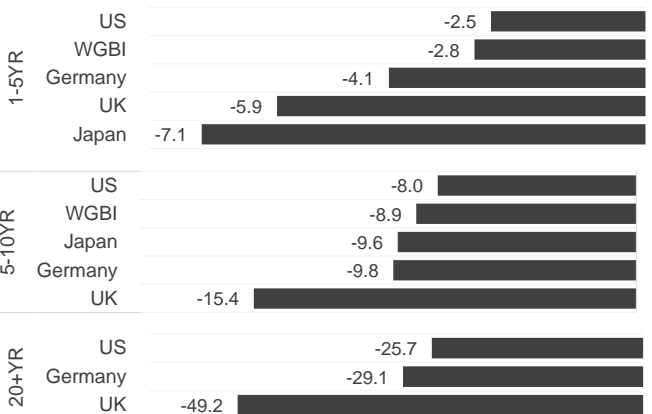
CORPORATE BONDS



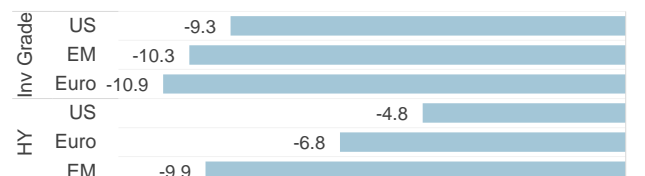
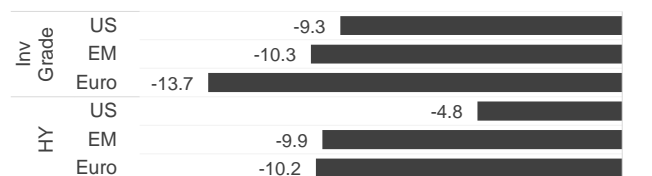
INFLATION LINKED BONDS

12M USD

12M LCY



CORPORATE BONDS



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Top and Bottom Bond Returns – 1M & 12M % (USD,TR) as of January 31, 2023

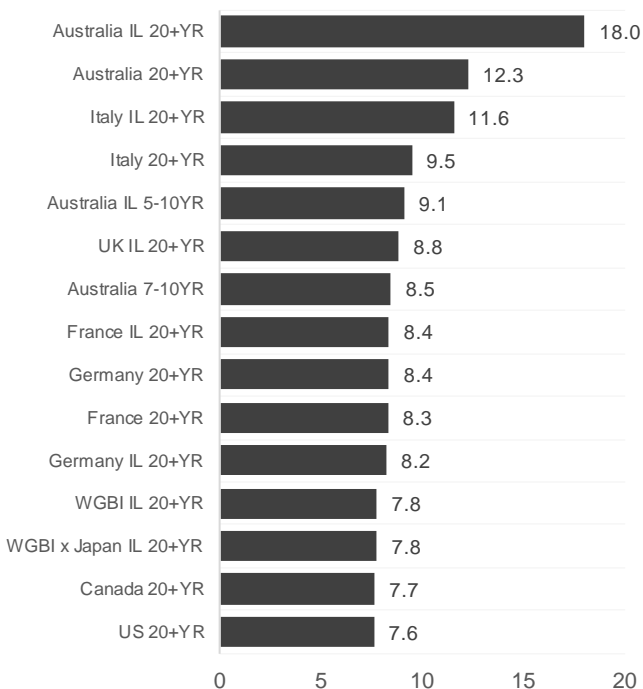
Long-dated conventional and inflation-linked (IL) bonds dominated the January rally, led by Australian IL bonds, which gained 18% in dollar terms, helped by currency gains. Short bonds and JGBs underperformed on central bank caution, and curves flattened further. Only EM IL and Canadian HY showed strong positive returns on 12M, with returns of 4-18%.

Despite the January rally in longs, short-dated government bonds offered modest negative returns, as cautious central banks provided little hope of early rate cuts, and increased rates again. JGBs underperformed as end of curve control fears increased.

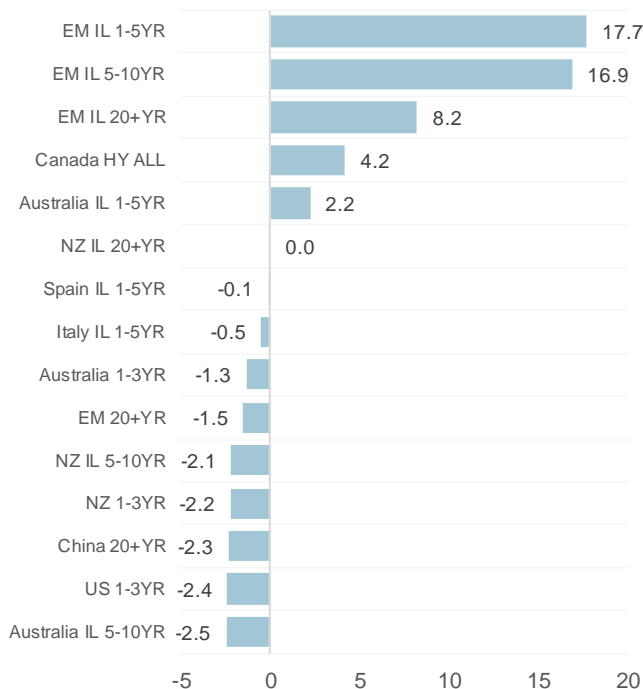
Long conventional and inflation-linked markets still show sizeable losses of 26-49% on 12M in dollar terms, led by long UK linkers.

1M USD 12M USD

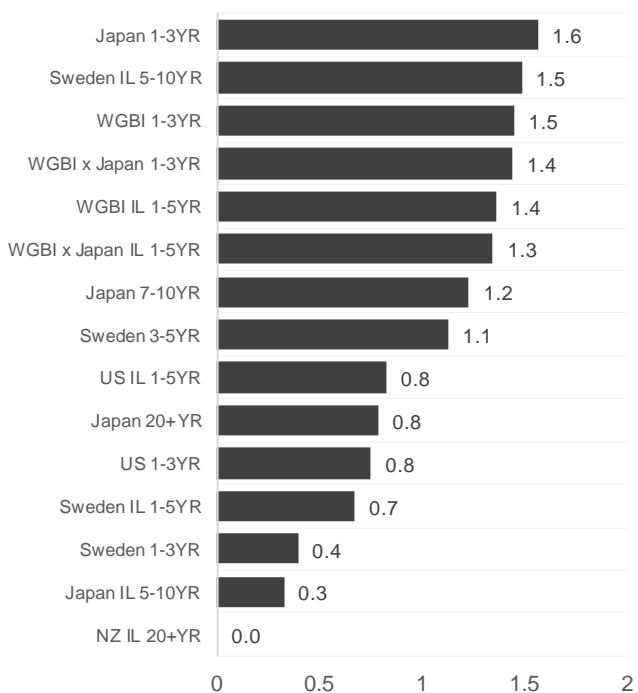
Top 15



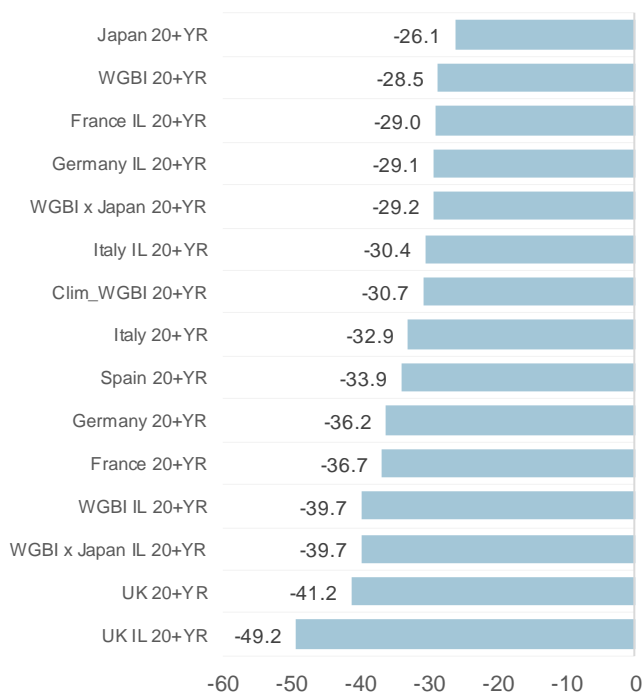
Top 15



Bottom 15



Bottom 15



Sovereign and Climate Bonds Analysis

Chart 1: Climate WGBI failed to sustain its Q4 recovery vs WGBI, after the underperformance of JGBs (given Japan's overweight).

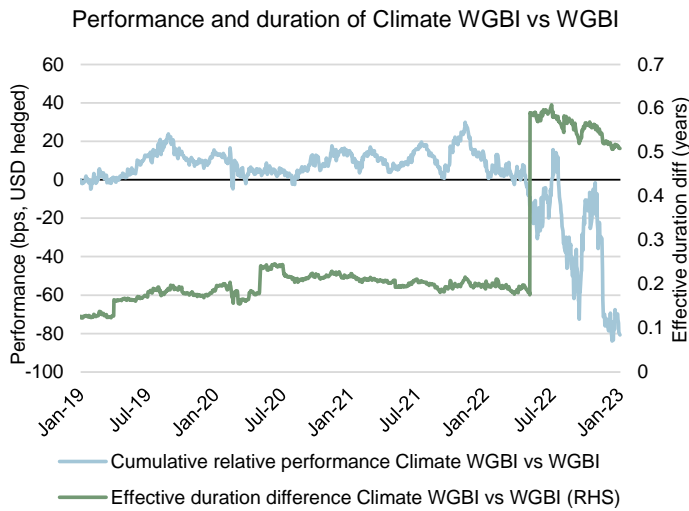


Chart 2: Japan's overweight, and the US underweight are the most significant in the climate WGBI, driving 2022/23 performance.

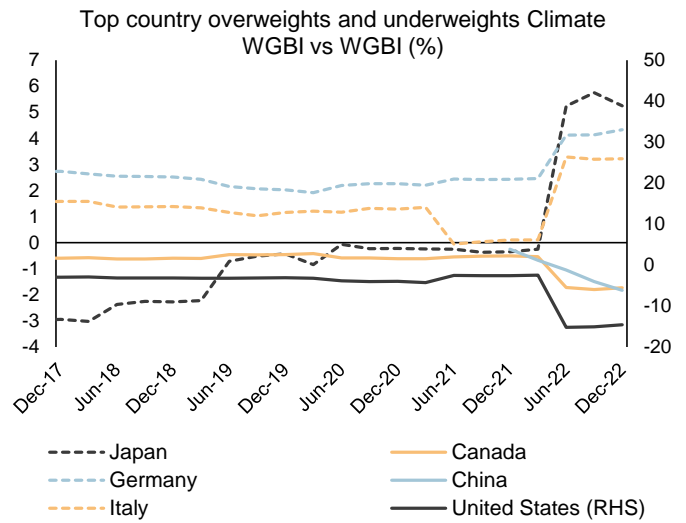


Chart 3: Climate WGBI has a lower yield to maturity versus WGBI, reflecting the higher weight of lower yield Europe and Japan.

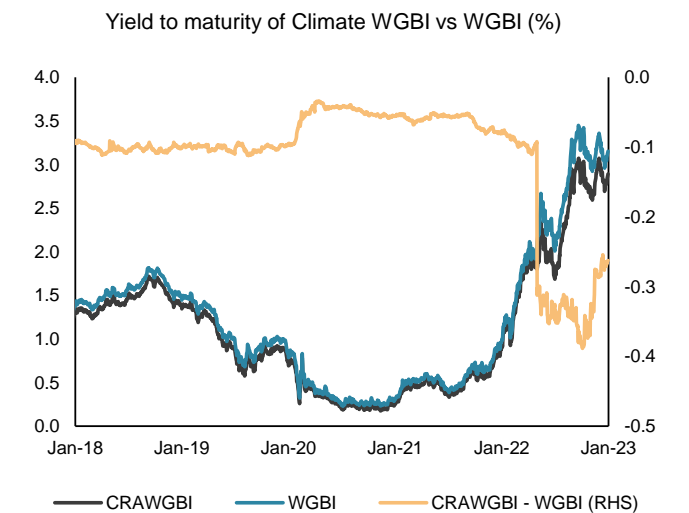


Chart 4: Big differences in Credit Quality: Climate WGBI has a lower weight in AA and a higher weight in AAA, A & BBB vs WGBI.

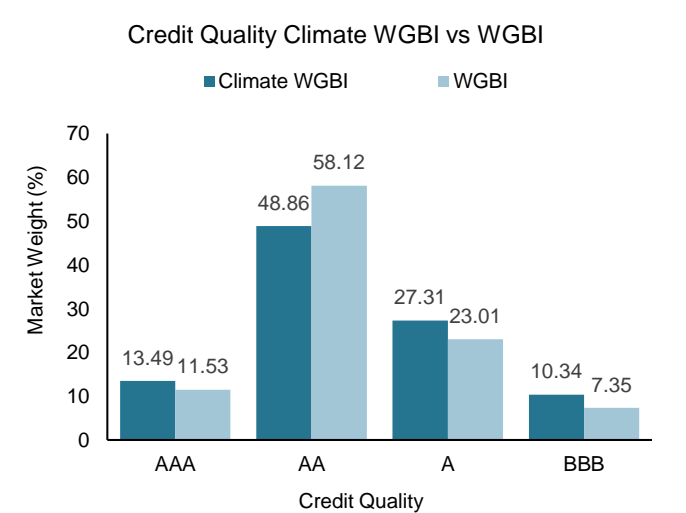


Chart 5: Yields increased more in WGBI indices in 2022, led by US, but climate WGBI's extra duration caused underperformance.

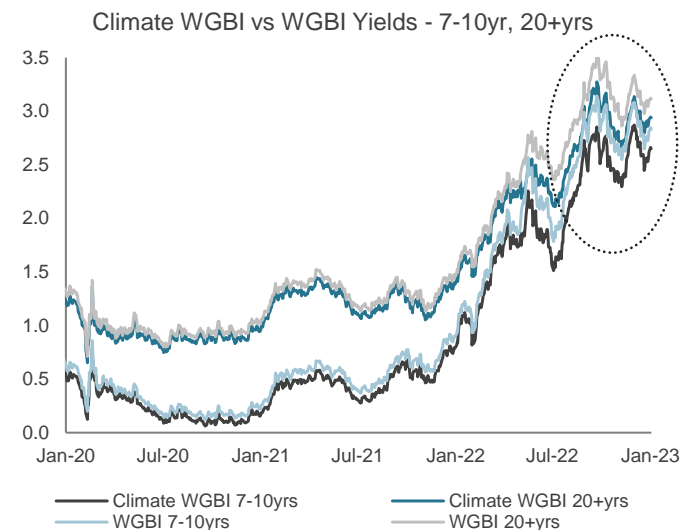
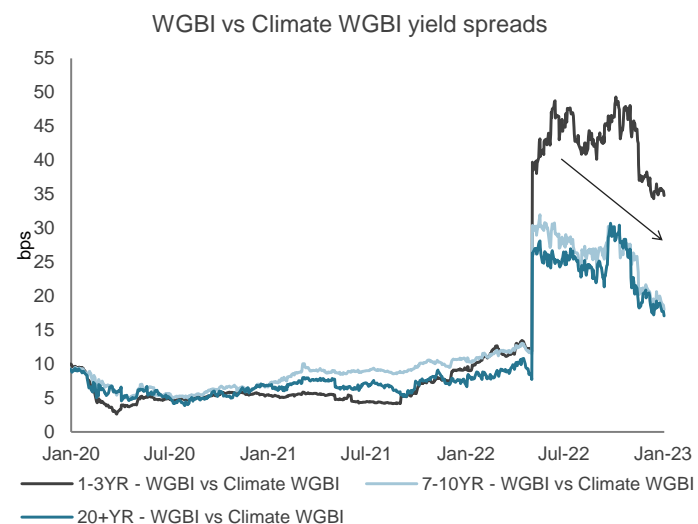


Chart 6: Yield spreads narrowed in the US rally, as US spreads have narrowed versus Europe and Japan (see Chart 1, page 5).



Appendix – Global Bond Market Returns % (USD & LC, TR) – January 31, 2023

Government Bond Returns

Top 15% Bottom 15%

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

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
US	1-3YR	1.54	1.54	-0.47	-0.47	0.75	0.75	-2.37	-2.37
	7-10YR	5.70	5.70	-4.52	-4.52	3.55	3.55	-10.11	-10.11
	20+YR	12.49	12.49	-7.50	-7.50	7.62	7.62	-23.21	-23.21
	IG All	8.82	8.82	-0.75	-0.75	4.15	4.15	-9.35	-9.35
	HY All	4.53	4.53	1.06	1.06	3.88	3.88	-4.80	-4.80
UK	1-3YR	0.90	7.89	-1.14	0.01	0.63	2.99	-1.67	-9.77
	7-10YR	2.66	9.77	-9.91	-8.86	3.11	5.53	-12.73	-19.92
	20+YR	-1.12	5.73	-21.85	-20.94	4.36	6.81	-35.93	-41.21
EUR	IG All	3.17	13.37	-4.36	1.86	2.25	4.05	-10.94	-13.72
	HY All	6.53	16.73	2.64	8.74	3.36	5.23	-6.76	-10.16
Japan	1-3YR	-0.04	14.25	-0.13	2.63	0.10	1.57	-0.06	-11.45
	7-10YR	-2.03	11.98	-2.93	-0.24	-0.23	1.23	-2.80	-13.88
	20+YR	-4.73	8.89	-9.11	-6.60	-0.67	0.78	-16.60	-26.11
China	1-3YR	0.02	8.04	0.85	0.56	0.14	3.02	2.19	-3.73
	7-10YR	-0.61	7.35	0.79	0.50	0.08	2.97	1.95	-3.96
	20+YR	-1.97	5.89	1.45	1.15	-0.56	2.31	3.69	-2.32
EM	1-3YR	0.99	9.03	1.68	3.01	0.32	3.29	0.81	-4.22
	7-10YR	3.44	10.78	2.83	3.34	1.50	4.01	-2.07	-8.16
	20+YR	1.77	9.61	2.91	3.52	0.69	3.25	3.21	-1.48
	IG All	8.42	8.42	1.22	1.22	2.56	2.56	-10.32	-10.32
	HY All	15.09	15.09	9.08	9.08	3.73	3.73	-9.94	-9.94
Germany	1-3YR	-0.56	9.27	-3.12	3.19	0.22	1.99	-4.30	-7.28
	7-10YR	-0.53	9.30	-10.56	-4.73	2.71	4.52	-15.72	-18.34
	20+YR	0.53	10.47	-21.44	-16.32	6.48	8.36	-34.13	-36.18
Italy	1-3YR	0.28	10.19	-1.57	4.84	0.65	2.42	-3.61	-6.61
	7-10YR	1.59	11.63	-5.66	0.48	3.97	5.81	-16.11	-18.73
	20+YR	2.26	12.36	-13.05	-7.39	7.59	9.48	-30.77	-32.93
Spain	1-3YR	-0.47	9.37	-3.22	3.08	0.42	2.19	-4.51	-7.49
	7-10YR	-0.08	9.79	-9.59	-3.70	2.78	4.59	-15.70	-18.33
	20+YR	1.01	10.99	-18.10	-12.76	5.66	7.52	-31.79	-33.92
France	1-3YR	-0.51	9.33	-3.39	2.90	0.51	2.28	-4.54	-7.52
	7-10YR	-0.54	9.30	-10.08	-4.22	2.94	4.75	-15.24	-17.88
	20+YR	0.99	10.97	-19.28	-14.02	6.44	8.31	-34.64	-36.68
Sweden	1-3YR	0.31	5.87	-0.32	-2.93	0.88	0.39	-2.52	-13.09
	7-10YR	1.60	7.24	-4.65	-7.15	2.80	2.31	-11.79	-21.36
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	0.95	11.24	0.31	1.29	0.84	4.78	-1.36	-1.34
	7-10YR	2.50	12.95	-1.95	-0.99	4.38	8.46	-9.21	-9.19
	20+YR	3.66	14.22	-7.23	-6.32	8.07	12.29	-21.87	-21.86
NZ	1-3YR	0.55	11.85	-0.57	2.48	0.99	3.19	-0.64	-2.23
	7-10YR	1.63	13.05	-3.75	-0.81	3.18	5.43	-7.39	-8.87
Canada	1-3YR	1.45	3.71	0.03	-3.94	0.97	2.53	-2.19	-6.77
	7-10YR	3.61	5.92	-0.86	-4.80	3.25	4.84	-6.21	-10.60
	20+YR	6.64	9.01	-2.79	-6.65	6.02	7.65	-13.80	-17.85

Appendix – Global Bond Market Returns % (USD & LC, TR) – January 31, 2023

Inflation-Linked Bond Returns

Top 15% Bottom 15%

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

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
US	1-5YR	1.00	1.00	-3.18	-3.18	0.83	0.83	-2.49	-2.49
	5-10YR	3.26	3.26	-6.16	-6.16	2.57	2.57	-8.00	-8.00
	20+YR	7.78	7.78	-11.66	-11.66	6.34	6.34	-25.66	-25.66
UK	1-5YR	-0.12	6.79	-1.21	-0.05	-0.47	1.86	2.51	-5.94
	5-10YR	2.64	9.75	-7.29	-6.21	1.71	4.10	-7.81	-15.41
	20+YR	1.55	8.58	-24.96	-24.08	6.35	8.84	-44.66	-49.22
EUxUK	1-5YR	-1.17	8.60	-5.70	0.44	0.05	1.82	-1.05	-4.14
	5-10YR	-0.82	8.98	-8.53	-2.57	1.50	3.29	-6.89	-9.79
	20+YR	0.65	10.60	-18.97	-13.70	6.36	8.23	-26.85	-29.13
Japan	1-5YR	0.67	15.06	1.64	4.46	0.49	1.96	4.79	-7.15
	5-10YR	-2.17	11.82	-1.39	1.34	-1.12	0.33	2.01	-9.61
EM	1-5YR	1.47	5.36	8.53	10.36	0.88	3.85	20.77	17.74
	5-10YR	2.16	6.19	9.98	12.43	-0.23	2.47	21.31	16.93
	20+YR	1.71	6.90	3.07	6.84	-0.49	2.91	4.57	8.24
Germany	1-5YR	-1.17	8.60	-5.70	0.44	0.05	1.82	-1.05	-4.14
	5-10YR	-0.82	8.98	-8.53	-2.57	1.50	3.29	-6.89	-9.79
	20+YR	0.65	10.60	-18.97	-13.70	6.36	8.23	-26.85	-29.13
Italy	1-5YR	0.62	10.56	-1.21	5.23	0.25	2.01	2.71	-0.49
	5-10YR	1.75	11.80	-2.64	3.70	2.48	4.28	-5.42	-8.37
	20+YR	3.01	13.19	-11.50	-5.73	9.64	11.58	-28.19	-30.42
Spain	1-5YR	0.06	9.95	-2.53	3.81	0.11	1.87	3.12	-0.09
	5-10YR	-0.36	9.49	-6.86	-0.79	1.07	2.85	-5.46	-8.41
France	1-5YR	-0.86	8.94	-4.78	1.42	0.02	1.78	-0.68	-3.78
	5-10YR	-1.15	8.62	-8.17	-2.19	1.32	3.11	-6.20	-9.13
	20+YR	1.24	11.25	-17.25	-11.86	6.49	8.37	-26.67	-28.95
Sweden	1-5YR	1.73	7.37	1.21	-1.44	1.16	0.67	3.81	-7.45
	5-10YR	1.04	6.64	-4.72	-7.21	1.98	1.49	-3.14	-13.65
Australia	1-5YR	2.31	12.74	1.92	2.92	2.03	6.02	2.22	2.23
	5-10YR	4.40	15.05	2.30	3.30	5.00	9.11	-2.48	-2.47
	20+YR	9.67	20.85	1.49	2.48	13.61	18.05	-18.52	-18.50
NZ	5-10YR	4.20	15.92	-1.08	1.95	2.77	5.01	-0.55	-2.14
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	4.08	6.39	-2.43	-6.31	1.73	3.30	-6.79	-11.16

Appendix – Historical Bond Yields % as of January 31, 2023

Global Bond Yields

Top 15% Bottom 15%

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

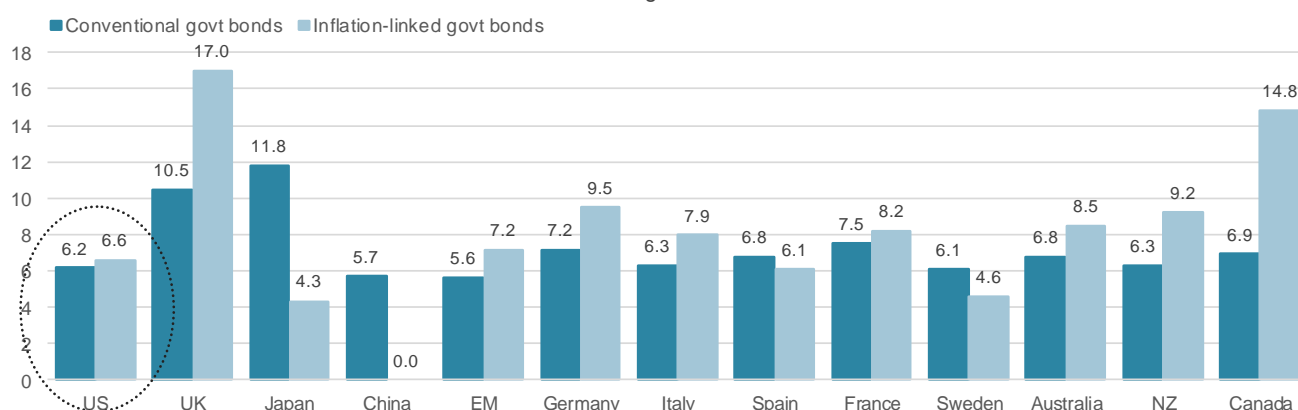
		Conventional government bonds				Inflation-linked bonds			Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.35	3.74	3.46	3.71	1.85	1.32	1.54	5.01	8.23
	3M Ago	4.58	4.37	4.05	4.34	1.76	1.65	1.84	5.97	8.97
	6M Ago	2.93	2.78	2.66	3.19	-0.23	0.06	0.87	4.39	7.63
	12M Ago	1.10	1.52	1.76	2.13	-1.84	-0.94	-0.13	2.83	5.55
UK	Current	3.42	3.26	3.33	3.70	0.31	0.00	0.30		
	3M Ago	3.38	3.55	3.56	3.62	-2.33	-0.13	0.24		
	6M Ago	1.78	1.66	1.79	2.39	-3.22	-2.08	-0.92		
	12M Ago	1.00	1.27	1.36	1.46	-3.26	-2.78	-2.05		
Japan	Current	-0.02	0.11	0.52	1.55	-1.33	-0.34			
	3M Ago	-0.06	0.02	0.24	1.31	-1.37	-0.81			
	6M Ago	-0.11	-0.07	0.11	1.09	-1.17	-0.80			
	12M Ago	-0.06	0.00	0.16	0.80	-0.54	-0.43			
China	Current	2.30	2.57	2.87	3.31					
	3M Ago	1.93	2.30	2.68	3.15					
	6M Ago	2.05	2.42	2.78	3.30					
	12M Ago	2.14	2.44	2.81	3.40					
EM	Current	3.59	4.30	4.76	4.57	3.11	3.37	5.25	5.52	10.25
	3M Ago	3.67	4.37	5.03	4.77	1.66	3.00	5.23	6.70	13.96
	6M Ago	3.45	4.27	4.77	4.77	3.54	3.65	5.21	4.99	12.42
	12M Ago	3.37	3.95	4.68	4.79	3.02	3.34	4.85	3.14	8.81
Germany	Current	2.59	2.31	2.21	2.22	0.38	0.13	-0.09		
	3M Ago	1.94	1.95	2.07	2.22	-0.76	-0.35	-0.17		
	6M Ago	0.20	0.36	0.67	1.04	-2.37	-1.60	-1.16		
	12M Ago	-0.58	-0.28	0.03	0.32	-3.33	-2.07	-1.69		
Italy	Current	3.17	3.42	3.92	4.29	1.18	1.87	1.85		
	3M Ago	2.82	3.30	3.95	4.36	0.25	1.64	1.84		
	6M Ago	1.37	2.00	2.80	3.35	-2.34	0.45	1.23		
	12M Ago	-0.14	0.46	1.26	2.18	-3.53	-1.23	0.14		
France	Current	2.71	2.58	2.64	3.01	0.24	0.30	0.52		
	3M Ago	2.15	2.20	2.44	3.02	-0.91	-0.16	0.46		
	6M Ago	0.40	0.67	1.13	1.95	-3.30	-1.52	-0.38		
	12M Ago	-0.50	0.12	0.50	1.24	-3.49	-2.08	-1.06		
Sweden	Current	2.50	2.27	2.05		-0.17	0.14			
	3M Ago	2.34	2.38	2.25		-0.59	-0.17			
	6M Ago	1.71	1.57	1.39		-1.66	-1.45			
	12M Ago	-0.06	0.69	0.83		-2.26	-1.91			
Australia	Current	3.17	3.24	3.51	3.96	0.23	0.92	1.37		
	3M Ago	3.21	3.35	3.70	4.10	-0.01	1.05	1.67		
	6M Ago	2.56	2.76	3.03	3.44	-0.75	0.40	1.24		
	12M Ago	0.86	2.31	2.68	3.16	-0.81	-0.02	0.87		
NZ	Current	4.67	4.18	4.11	4.41	1.28	1.79			
	3M Ago	4.31	4.28	4.18	4.44	1.43	2.04			
	6M Ago	3.28	3.28	3.40	3.75	0.07	1.03			
	12M Ago	1.96	3.07	3.33	3.56	0.06	0.82			
Canada	Current	3.68		2.91	3.00			1.20	4.83	6.99
	3M Ago	3.81		3.29	3.35			1.38	5.42	7.60
	6M Ago	2.87		2.60	2.77			0.80	4.44	6.84
	12M Ago	1.34		1.73	2.05			0.12	2.93	4.55

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

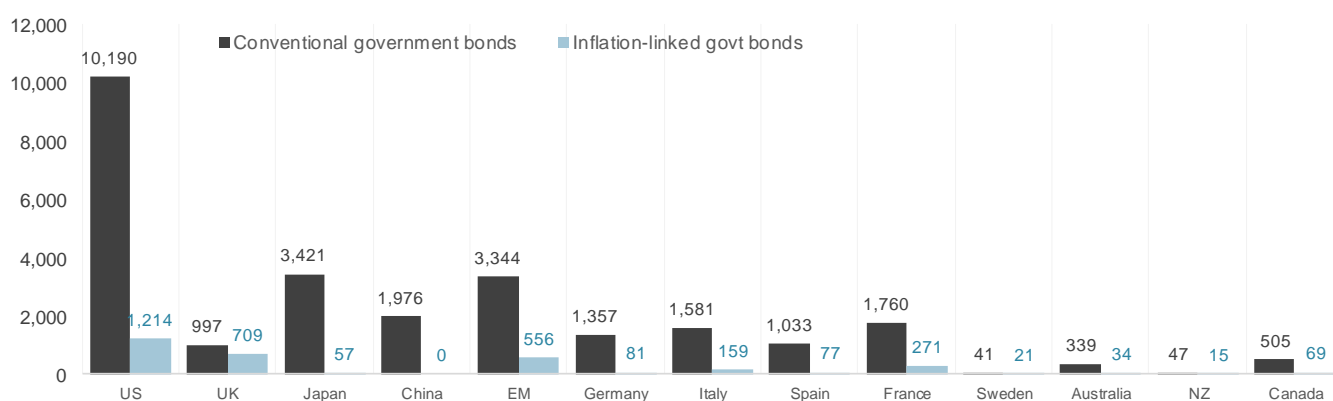
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.6	17.7	6.2	2,197.8	1,036.7	1,295.4	10,189.6	6.8	21.5	6.6	424.7	129.8	1214.3
UK	3.7	7.8	19.8	10.5	112.7	129.5	288.0	996.8	7.1	29.1	17.0	124.2	276.9	708.5
Japan	4.0	8.0	23.7	11.8	388.7	462.8	700.8	3,420.7	6.7		4.3	25.6		57.1
China	3.7	7.5	17.4	5.7	462.2	322.3	234.9	1,976.0						
EM	3.6	7.0	15.7	5.6	739.00	597.42	333.42	3,344.5	5.4	13.5	7.2	113.5	138.3	556.1
Germany	3.8	7.7	20.8	7.2	277.25	229.92	143.13	1,356.6	6.9	22.4	9.5	30.2	17.8	81.2
Italy	3.6	7.4	16.7	6.3	319.81	242.45	134.74	1,581.0	6.9	26.9	7.9	54.0	5.4	159.4
Spain	3.6	7.6	17.9	6.8	196.05	184.62	100.12	1,033.3	7.3		6.1	21.3		76.7
France	3.6	7.8	20.5	7.5	327.64	316.80	208.29	1,760.0	6.9	24.8	8.2	113.2	20.3	271.2
Sweden	3.6	8.2		6.1	7.66	9.23		41.4	6.4		4.6	9.8		20.9
Australia	3.7	7.9	18.1	6.8	58.38	93.04	16.73	339.1	7.7	23.1	8.5	9.9	3.0	34.5
NZ	3.5	7.9	17.7	6.3	8.95	6.79	2.36	47.1	6.7		9.2	3.3		14.6
Canada		7.4	18.4	6.9		170.90	91.60	505.4		14.8	14.8		69.2	69.2

	Investment grade bonds					High Yield						
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	11.1	8.8	7.4	7.0	7.3	78.5	447.7	2,402.8	3,384.9	6,313.9	4.3	1,158.0
Euro	6.5	5.0	4.7	4.4	4.6	8.8	179.0	1,067.1	1,445.9	2,700.8	3.2	435.8
EM		5.7	4.9	5.2	5.1		37.64	219.55	358.1	615.3	3.6	213.1

Average Duration



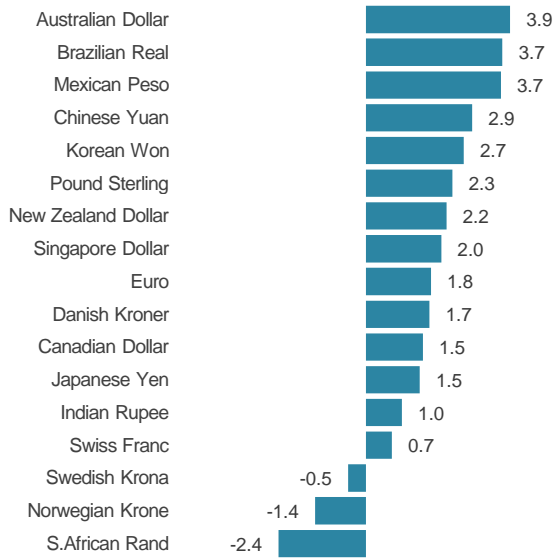
Total Market Value (USD Billions)



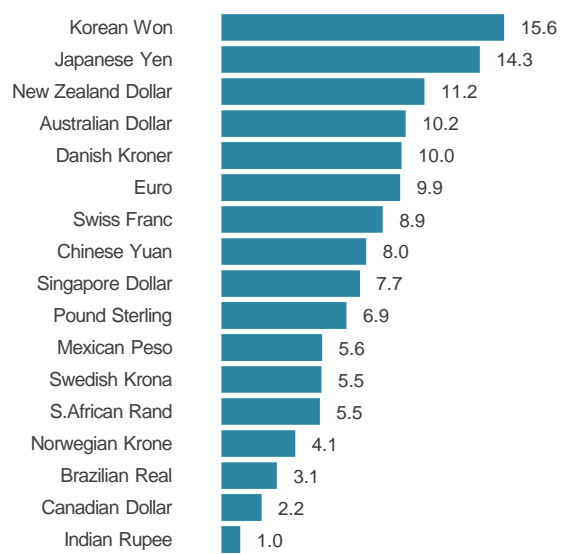
Data as of 2023-01-31

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

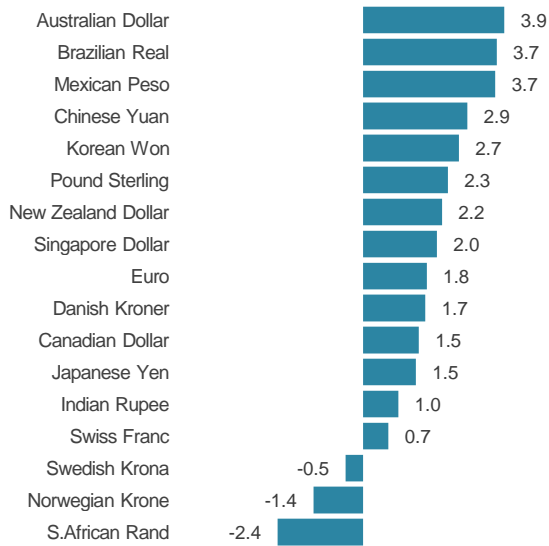
FX Moves vs USD - 1M



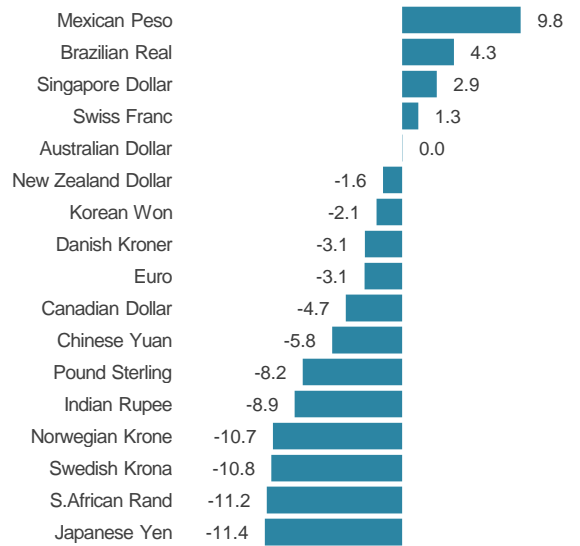
FX Moves vs USD - 3M



FX Moves vs USD - YTD



FX Moves vs USD - 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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