

Fixed Income Insights

MONTHLY REPORT – NOVEMBER 2023 | US EDITION

FOR PROFESSIONAL INVESTORS ONLY

Growth rebound further defers Fed easing, as disinflation stalls

Wide dispersion of growth and inflation rates within the G7 shows little sign of ending, with stronger US growth driving US spreads wider. Markets project no Fed easing until 2024, despite some risk of more casualties of duration mis-matches (as in March). Only China and EM escaped the October sell-off at the long end.

Macro and policy backdrop – Higher yields tightened policy for the Fed in Q4, extending the FOMC policy pause

Q3 GDP growth near 5% mainly due to strong consumer. Mortgage rates near 8% but less negative equity in this cycle. (pages 2-3)

Yields, curves and spreads – Signs of capitulation in long Treasury sell-off, as US sovereign spreads widen

Longer Treasuries led G7 yields higher in October, reflecting stronger US growth, with little safe haven buying (pages 4-5)

Credit and MBS analysis – US IG and RMBS spreads widened, led by financials. European IG spreads more stable

Weaker US equities and risk appetite drove US sector spreads wider. UK and Eurozone IG spreads more resilient. (page 6)

Sovereign and climate bonds – US underperformance narrowed performance gap between climate WGBI and WGBI

Treasury weakness counterbalanced losses in JGBs, causing climate WGBI to close performance gap (page 7)

Performance – Another weak month for longs in October led by the US, gilts and JGBs. HY credit also falls back

Long Treasuries lost 6.4% in October, as the curve disinverted. China and EM remained safe havens (pages 9-10)

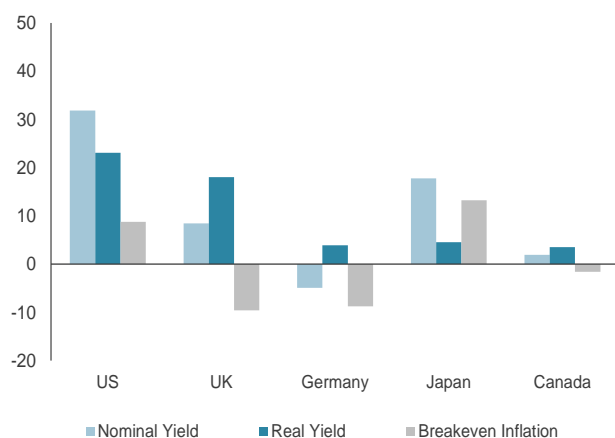
Appendix (from page 11)

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

Chart 1: Both US nominal and real yields rose sharply in October as growth surged, driving spreads wider. Breakevens moved modestly.

Chart 2: There was a modest safe haven effect in the gold price increasing relative to copper, in October, but the move was modest.

7-10yr Government Bond Yield Changes 29-09-2023 to 31-10-2023



Gold Bullion LBM \$/t oz vs Copper US\$/MT ratio



Source: FTSE Russell and Lipper. Data available as of October 31, 2023. Past performance is no guarantee of future results. This report should not be considered 'research' for the purposes of MIFID II. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix for list of indices used for each market.

Macroeconomic Backdrop – Growth and Inflation Expectations

IMF forecasts reflect the dispersion in GDP growth globally, with stronger US growth in Q3 driven by strong consumer spending, as the savings ratio fell to a post-Covid low of 3.8%. Disinflation has largely stalled, exc. Japan, and outright deflation fears continue in China. The US economy remains near full employment, despite the Fed's 525bp of tightening. Evidence of global economic and geo-political fragmentation may be a factor in dispersion of growth and inflation rates.

Overall, stronger North American growth but weaker European and Asian growth continued in Q3, due to the greater severity of the 2022-23 energy shock in Europe, particularly. Latest IMF forecasts reflect this (Chart 1). In Asia, the latest Chinese PMI remained weak, despite major policy support. US GDP growth of 4.9% in Q3 was driven by private consumption and inventory build, though Canadian consumer spending slowed in Q3. Both the UK and Eurozone remain close to recession, as higher rates bite.

G7 September inflation data was again mixed, with disinflation stalling in the US and UK, but resuming elsewhere. Chinese inflation of zero y/y remains too low for the PBOC (Chart 2). US and UK inflation remained at 3.7% and 6.7% y/y, respectively. Lower US used car and medical services inflation was notable. The disinflation stall since Q2 shows the impact of higher energy prices, and tight labour markets, and the risk of much weaker US growth and output recessions being required to achieve inflation targets of 2% yy.

The US labor market has cooled from the rapid payroll growth in H1, 2023, but unemployment remains below 4%, and below most estimates of the natural rate. Labour force participation remained at to 62.8% in September, the highest rate since Covid, suggesting some workers are being pulled back into the labour market by strong demand and wage inflation above the CPI (see Chart 3). The failure of wage inflation to accelerate reduces pressure on the Fed to tighten further.

Globalisation has stalled since the GFC, defined as import shares in global GDP, as Chart 4 shows, after a period of rapid growth between 1990 and 2008, helped by trade tariff reductions and EM economies supplying cheaper tradeable goods. Forecasts of a rapid decline in global trade post-Covid have not materialized, but evidence of policy-induced global economic fragmentation (eg, Brexit, Ukraine war) may be a factor in the higher dispersion of growth and inflation rates in this cycle.

Chart 1: The IMF's October growth forecasts upgraded the US outlook, after the consumer's resilience. There is little change to European forecasts, which remain sub-1% GDP growth, or China's, near 5%.

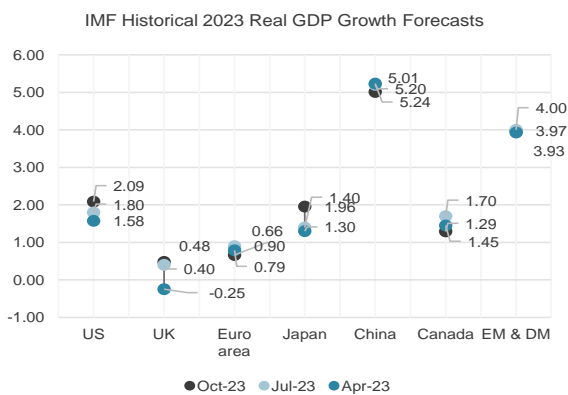


Chart 2: US and European disinflation has stalled, as consumer demand remained robust, notably in the US. However, disinflation resumed in Asia, amidst Chinese deflation fears.

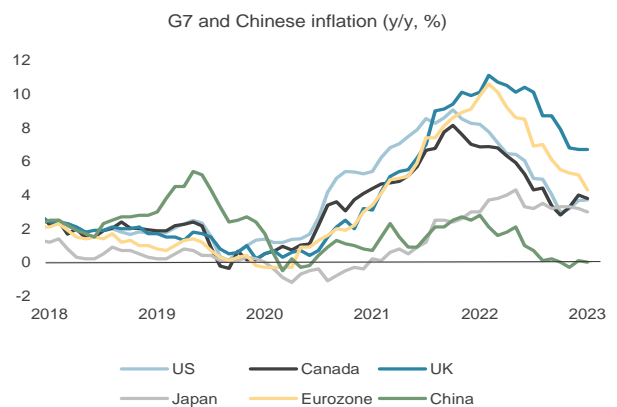


Chart 4: The US labour market has cooled from even faster employment growth in H1, 2023. However, with the economy near full employment (3.8% unemployment), the Fed is under no pressure to ease policy quickly.

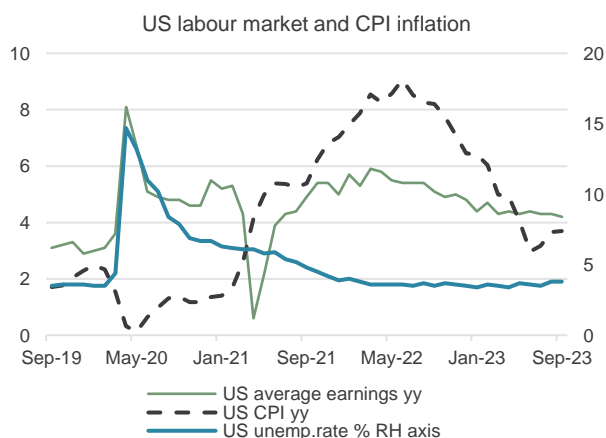


Chart 4: A golden era for globalization, helped by trade deals, ended in the GFC, when growth collapsed. More recent economic fragmentation may have contributed to higher dispersion in growth rates and inflation.



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

Financial Conditions and Monetary Policy Settings

Fed tightening has pushed mortgage rates above 7%, helping push US house prices sharply lower in 2022-23, though US home-owners are less exposed to negative equity than in 2008-09. The FOMC pause in November reflects the steep rise in yields since the last tightening move in July. The US dollar stabilised after Q3's rally, though yen and renminbi remain vulnerable to rate differentials. Foreign holdings of US Treasuries increased in 2023, despite fears of a buyer's strike.

Part of the transmission mechanism for Fed tightening is through US house prices, via mortgage rates, as Chart 1 shows. Rates of decline in house prices vary regionally, but national house prices are falling at similar rates to the GFC, though base effects from the run-up in prices post-Covid should be noted. Less sub-prime mortgages, more homeowners with positive equity and low unemployment also make the market less vulnerable to protracted weakness.

After the surge in Q3, the US dollar stabilised in October, even if the yen and RMB remained close to 2023 lows, as inflation weakened and rate differentials remained adverse. Higher ECB rates in September may have helped the Euro. Sterling's rally in H1, 2023 has reversed in Q3/4, after the BoE paused tightening and stagflation risks weigh on the currency.

The Fed left rates unchanged on November 1, despite strong Q3 growth, after a 100bp increase in bond yields since the tightening move in July, so markets have tightened a little for the Fed, with a weaker equity market as well in Q3. The BoE decision to pause policy in November was broadly discounted, although the tight labour market leaves the risk of a further move in Q4.

Foreign holdings of US Treasuries increased in 2022-23, despite fears higher US Treasury yields reflect overseas selling (Chart 4). Declines in Chinese and Japanese holdings may be due to dollar sales to support the yen and RMB. Increases in European holdings are marked since Covid, and may reflect yield differentials in favour of US Treasuries (also see Chart 1, page 5).

Chart 1: US house prices are falling at a similar rate as the GFC in 2008-09, and mortgage rates are higher. But tighter underwriting standards mean homeowners are less exposed to negative equity.

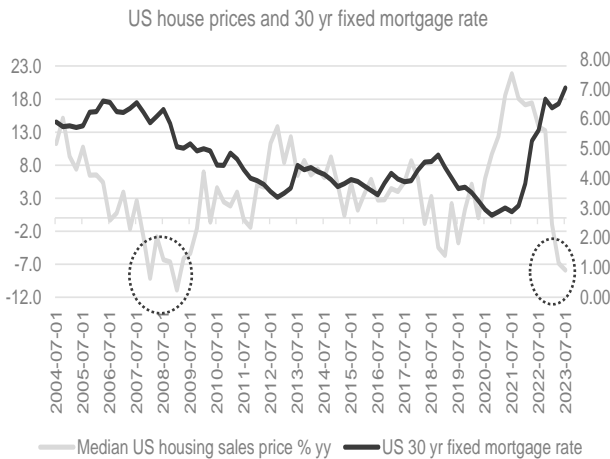


Chart 3: The FOMC decision to leave rates unchanged reflects the steep rise in bond yields since Q2 and weaker equities. With growth near zero, the BoE also paused, but the BoJ loosened curve control a little further.

Chart 2: The US dollar stabilised in October, after Q3's rally, despite strong growth data. Lower inflation weighed on the yen and renminbi, while the Euro gained from higher rates, despite weaker Q3 growth.

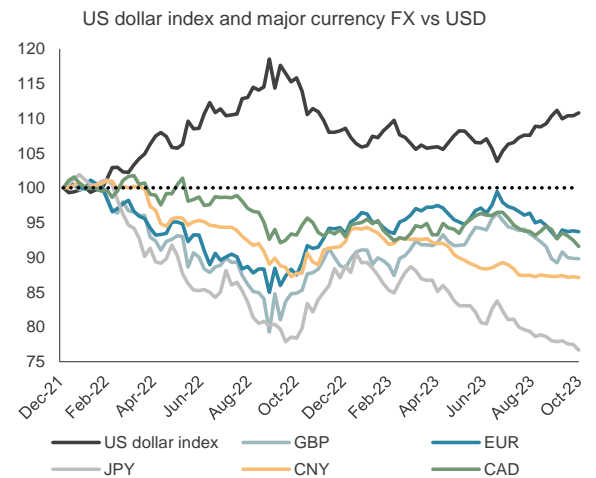
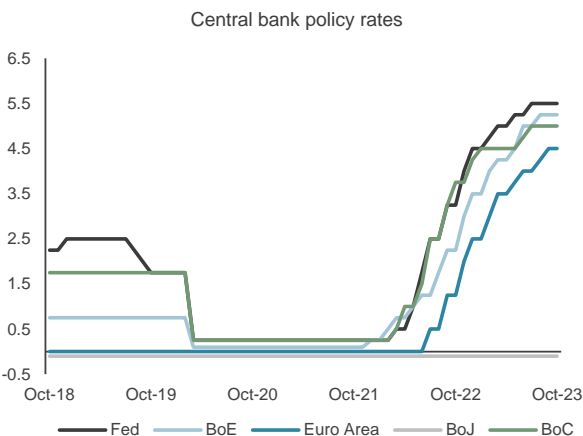
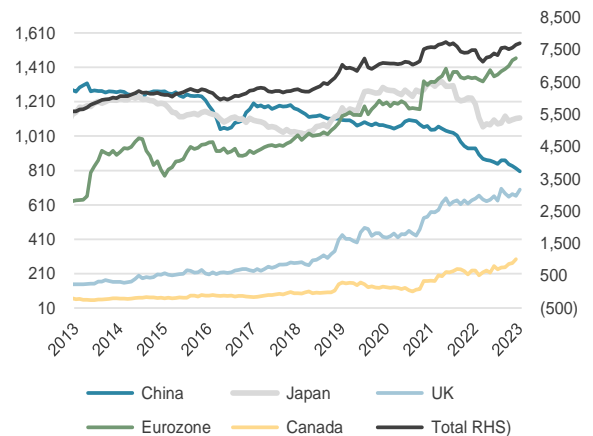


Chart 4: Foreign holdings of US Treasuries increased overall in 2022-23 with total foreign holdings now about 33% of issuance. Chinese holdings fell sharply suggesting official sales to support the RMB.

Foreign holdings of US Treasury securities (Bn, USD)



Source: FTSE Russell, LSEG, US Federal Reserve. Data available as of October 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 Breakevens

Chart 1: The US led yields higher in October, with the 10 yr trading briefly above 5%, in signs of a capitulation trade, with little evidence of safe haven buying of gov't bonds, despite conflict in the middle east.

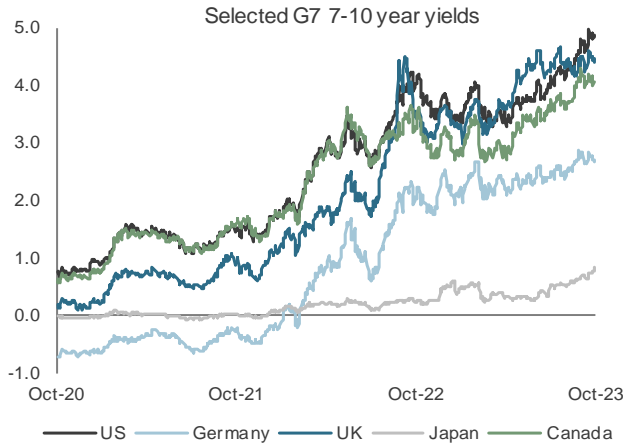


Chart 3: Curves oscillated, awaiting central bank policy decisions, with a bias towards dis-inversion, as 7-10 yr yields rose in October. The JGB curve steepened as markets mulled the end of curve control.

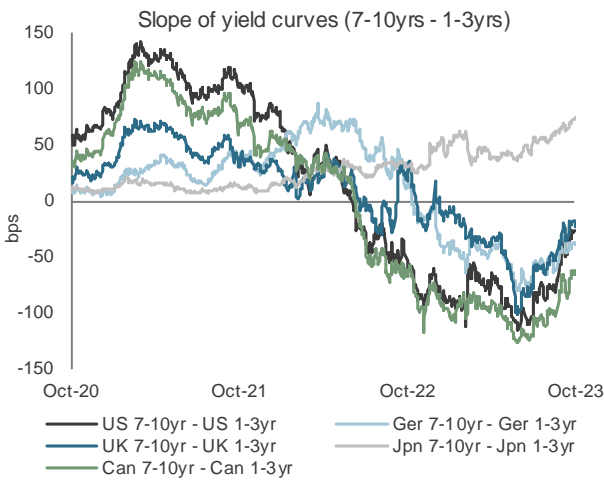


Chart 5: Breakevens edged higher in some markets in Q4, though moves are modest compared to the Ukraine spike in 2022. JGB breakevens are at post-Covid highs, but well below the 2% inflation target.

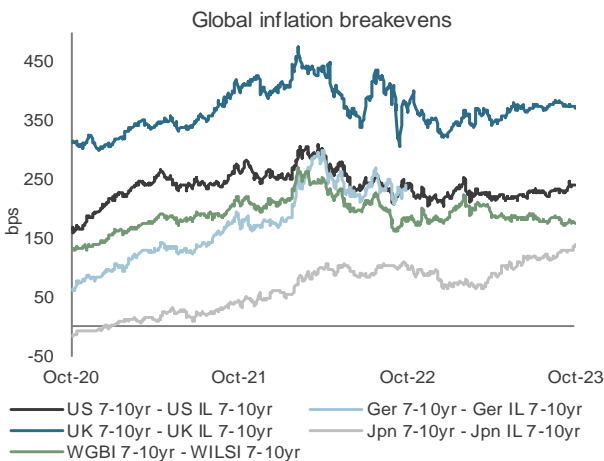


Chart 2: US Tips led other real yields higher, though US moves were more marked. Japanese yields largely resisted upward pressure as the BoJ retained yield curve control. UK linkers range traded.

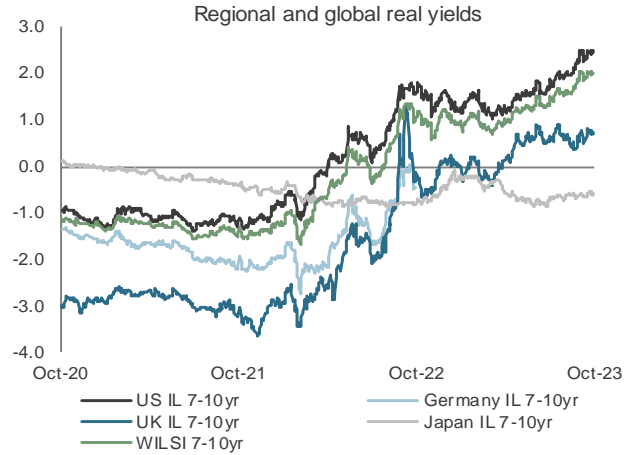


Chart 4: Apart from Canada, long yields have risen steadily versus short in recent months, as the higher for longer narrative has taken a grip of markets, and re-investment concerns have eased.

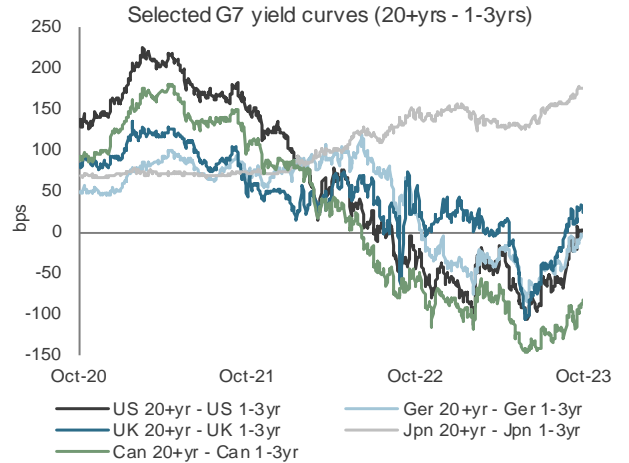
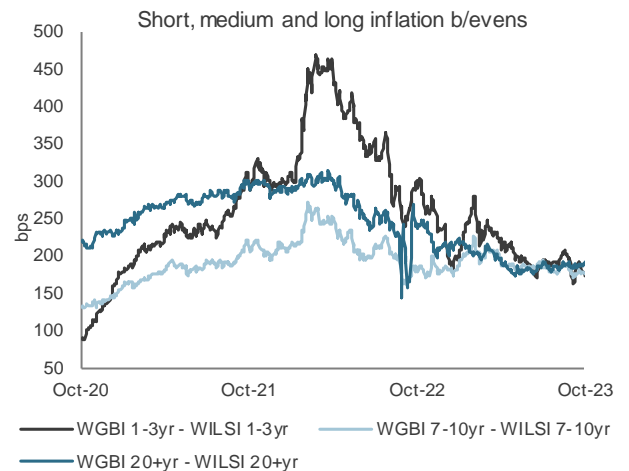


Chart 6: Global inflation breakevens of all tenors remain stable at around 2%. Neither the rebound in oil prices in Q3 nor the recent conflagration in the middle east de-stabilised inflation expectations.



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Yield Spread and Credit Spread Analysis

Chart 1: The spike in Treasury yields in October, caused sovereign spreads to widen, as other markets moved less. US Treasuries trade above gilt yields again, as they did in most of the post-GFC period..

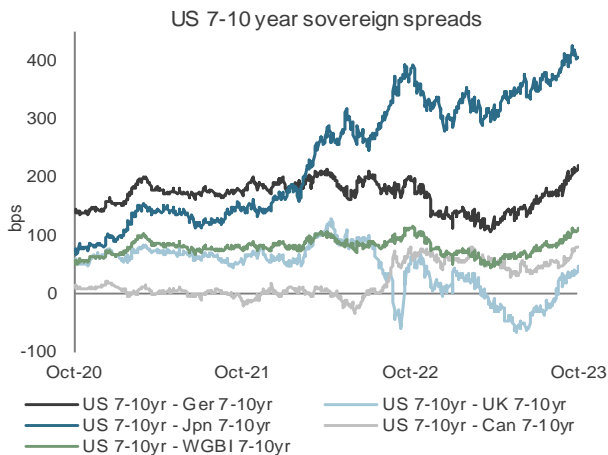


Chart 2: 7-10-year Italian sovereigns now trade through Treasuries again, after the US yield spike in October, but spreads moved out versus Bunds and other markets, showing the normal pro-cyclicality.

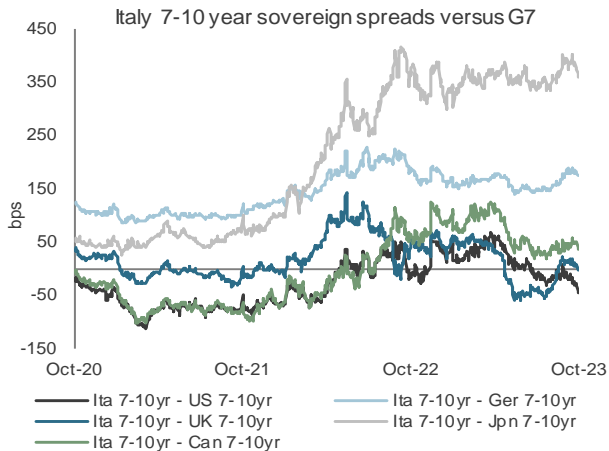


Chart 3: Helped by lower Chinese spreads, EM spreads remain at, or near post-Covid lows, benefitting from earlier counter-inflation policy than the G7. EM 7-10 yr spreads versus the US are now close to zero.

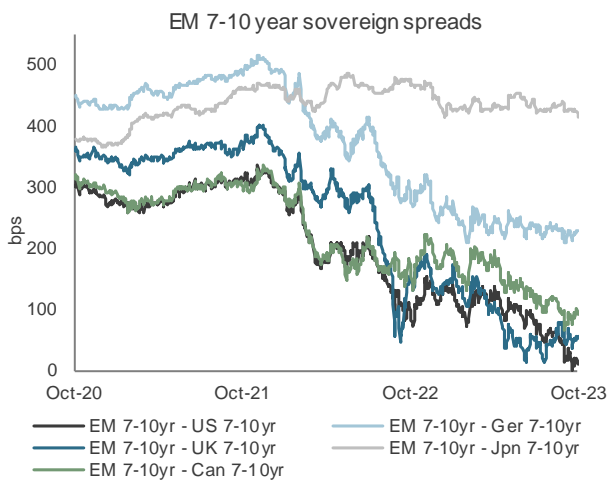


Chart 4: Chinese govt bonds now trade well through Treasuries and other G7 markets, apart from JGBs and Bunds. Divergence in policy rates and inflation performance are the main drivers.

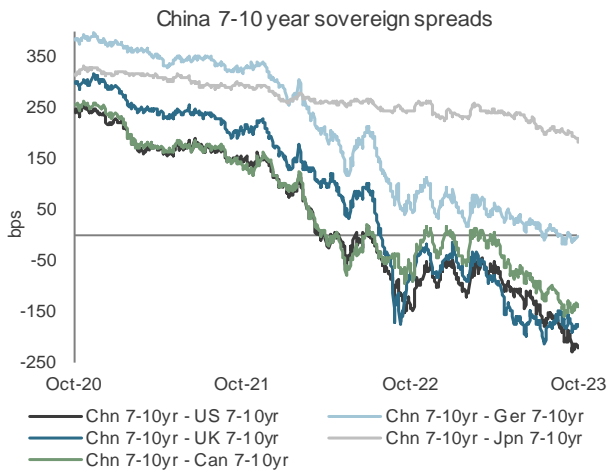


Chart 5: After a long period of tightening, HY spreads spiked higher in October, with Eurozone HY spreads moving more. IG spreads moved less in October, and remain relatively cheaper.

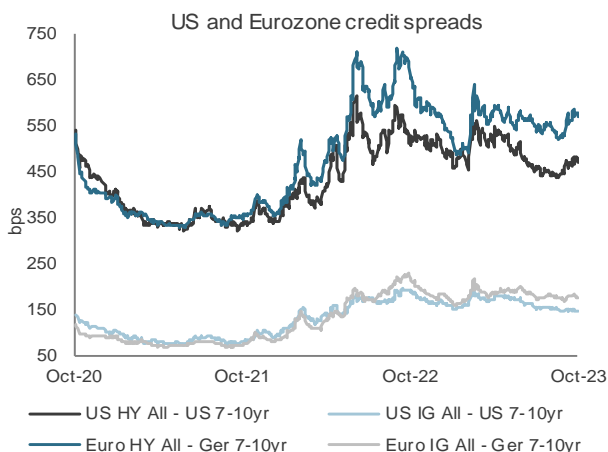
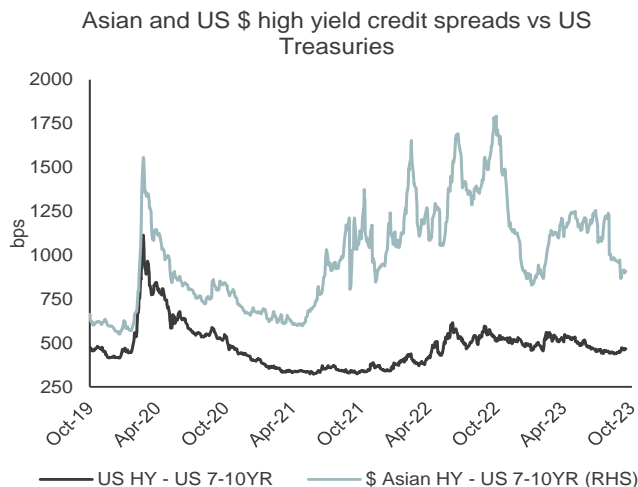


Chart 6: Asian dollar HY spreads largely reflect developments in the Chinese property sector, given the high proportion of property sector issuers. US dollar HY spreads remain much more stable.



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Credit sector and MBS analysis

Chart 1: US credit sector spreads widened in October, as Treasury yields rose and equities fell. But consumer and manufacturing sector spreads remain near post-Ukraine lows, helped by stronger growth.

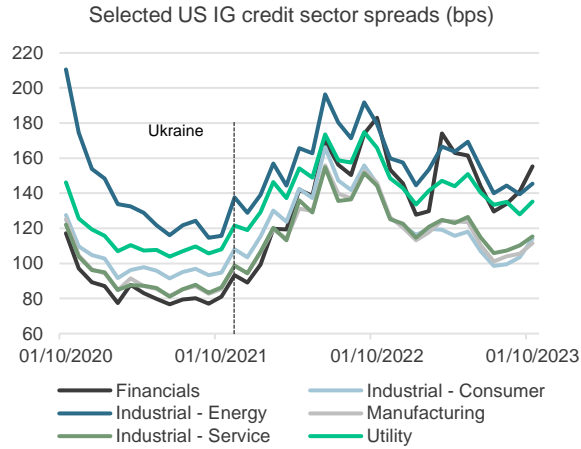


Chart 2: Euro credit sector spreads barely moved in October, helped by the outperformance of Bunds v Treasuries. Insurance spreads have stabilised but remain well above pre-Ukraine war levels.

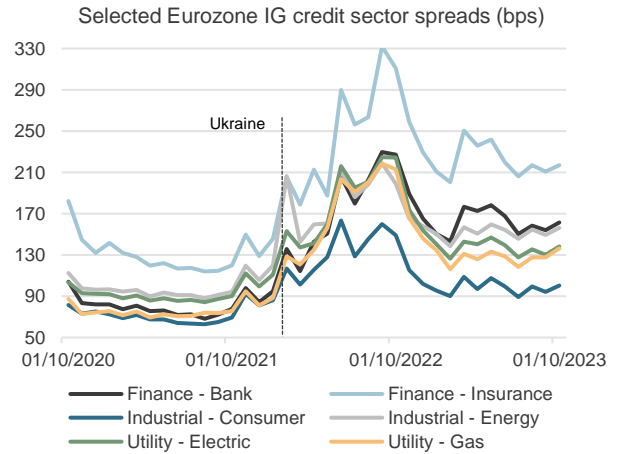


Chart 3: UK consumer sector spreads returned to pre-Ukraine war levels, and barely moved in October, despite other spreads edging out as gilt yields rose. The Telecom sector also outperformed.

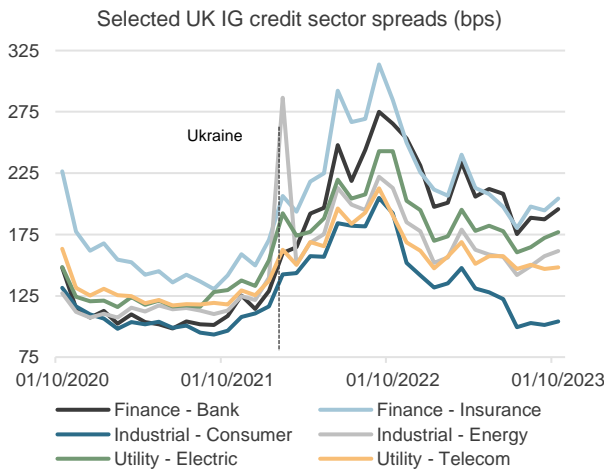


Chart 4: US agency-MBS traded through 7-10-year Treasuries in the early Covid period, after aggressive Fed QE, but have widened about 100bp since then, after Fed QT and the run-down of Fed holdings.

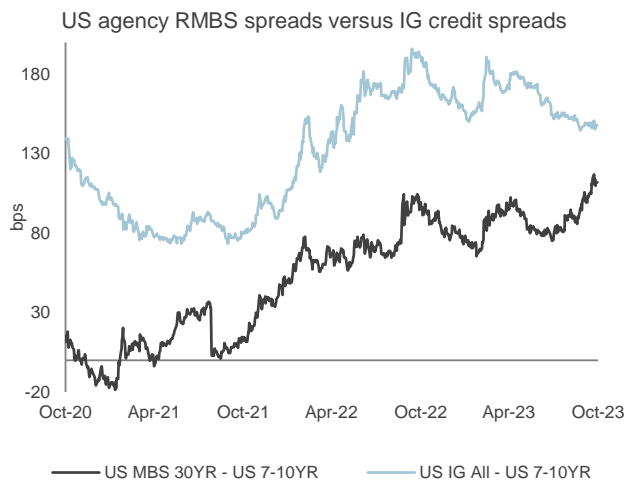


Chart 5: Mortgage refinancings and prepayments have collapsed in 2022-23, as the Fed raised rates steadily, leaving mortgage holders on lower borrowing rates no incentive to refinance mortgages.

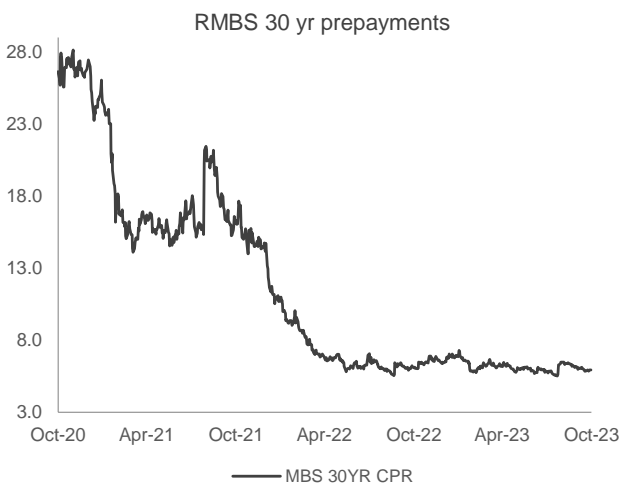
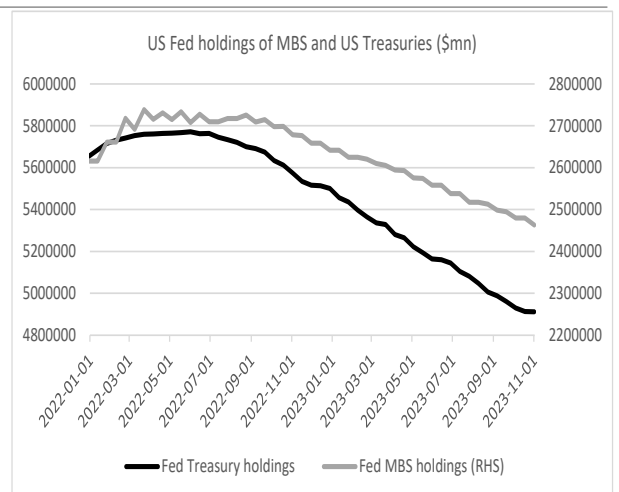


Chart 6: Fed holdings of MBS have fallen at a slower pace than US Treasuries, since QT began in 2022. This partly reflects slow MBS prepayments for low coupons, and the Fed's coupon stack.



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Sovereign and Climate Bonds Analysis

Chart 1: Since the bear market in bonds developed in early 2022, climate WGBI has underperformed WGBI, due to the extra duration US underperformance of late has narrowed the performance gap..

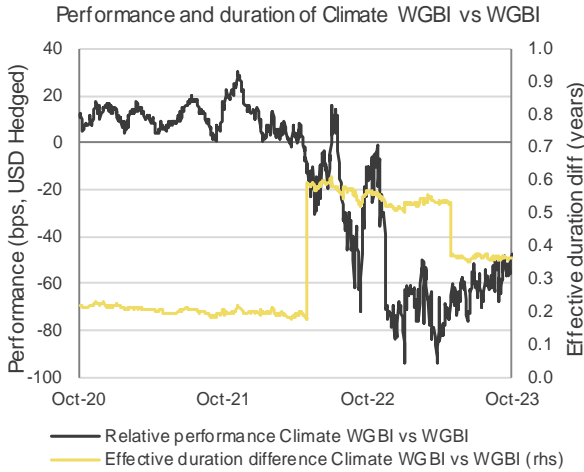


Chart 2: US underweight in the Climate WGBI fell in July's re-weighting, reducing the duration difference vs WGBI. China's 15% underweight prevented lower Chinese yields impacting Climate-WGBI significantly.

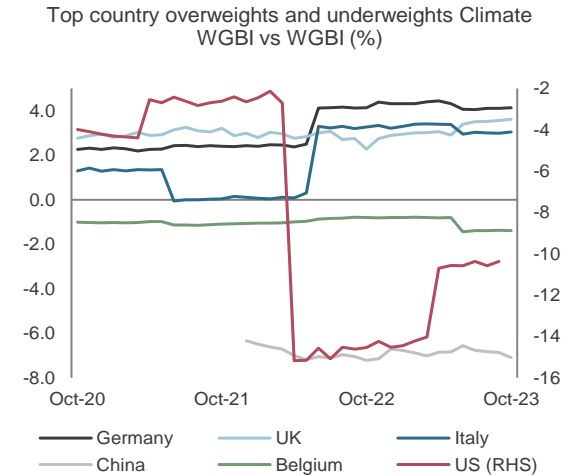


Chart 3: The increase in JGB yields in 2023 and high Japan country weight drove Climate-WGBI yields higher, versus WGBI, though climate-WBI yields remain lower, even if the 'greenium' is modest.

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

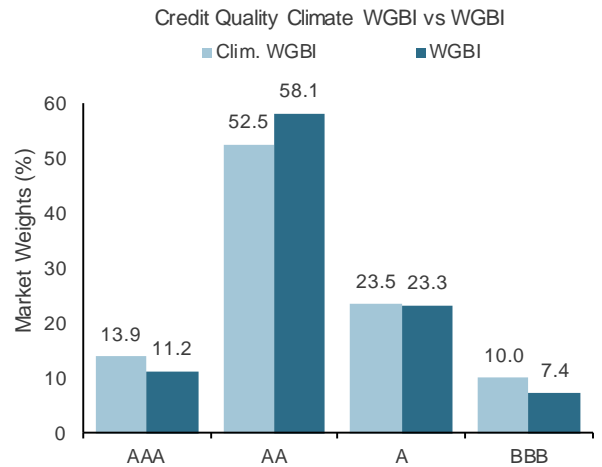
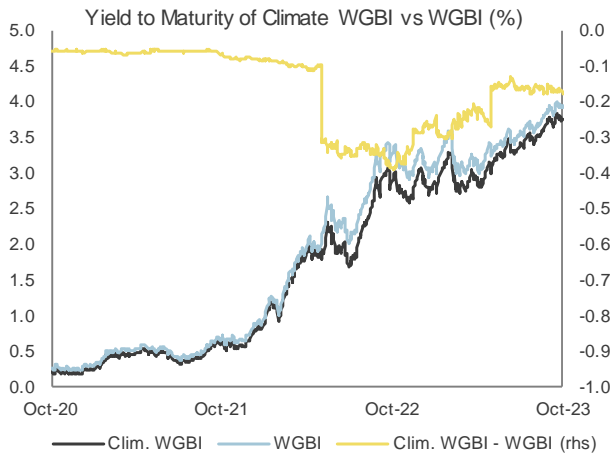
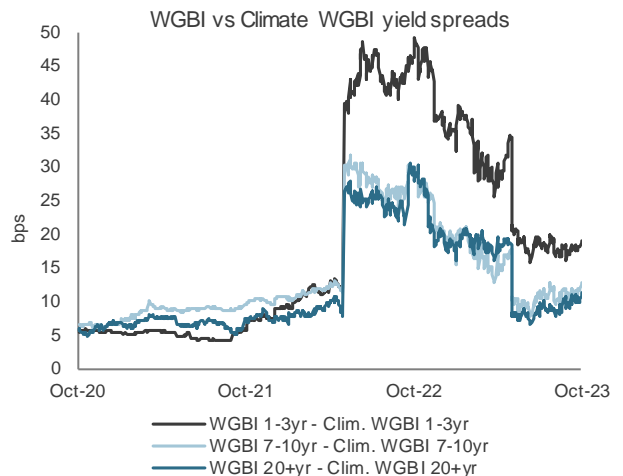
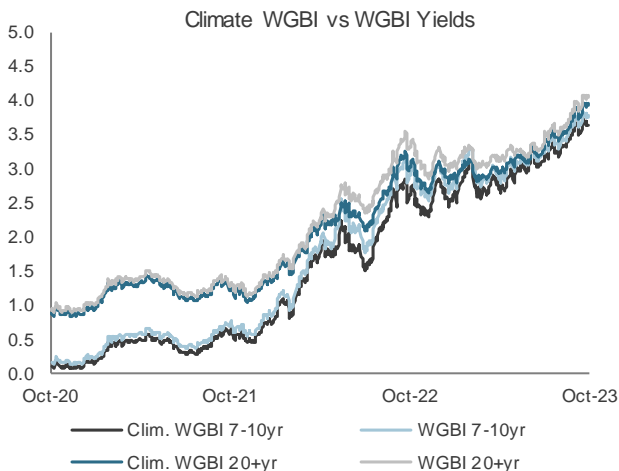


Chart 5: Yield curves in climate WGBI and WGBI remain extremely flat, with yields converging at about 3.5% for both medium maturities and longs, squeezing out most of the 'greenium' in Climate WGBI.

Chart 6: Unlike mediums and longs, where spreads are tight, WGBI short yields are further above the climate WGBI, reflecting Japan's zero rate policy and high weighting in the climate WGBI.



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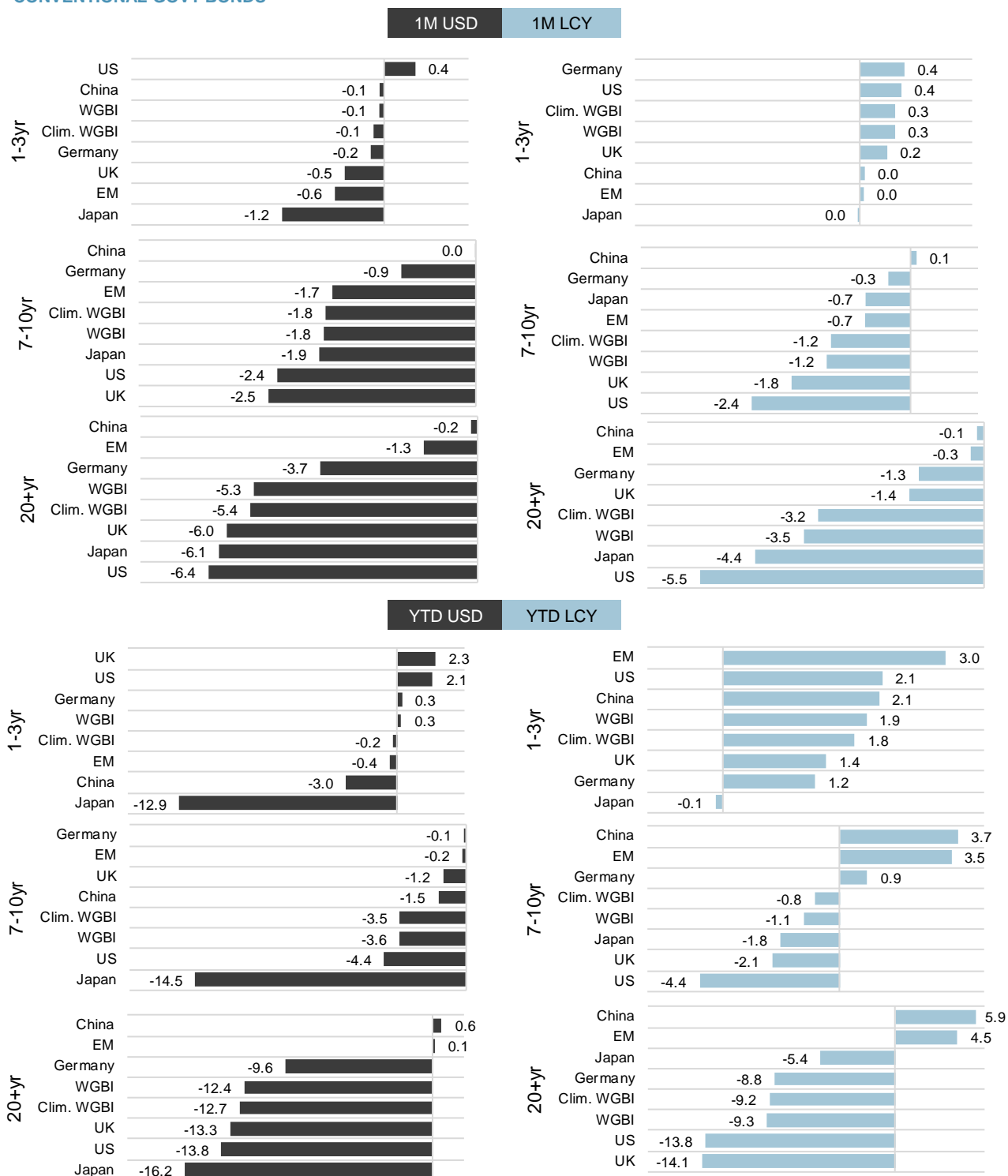
Global Sovereign Bond Returns – 1M and YTD % (USD & LC, TR) (Oct 31)

Longer maturity governments bore the brunt of the October sell-off, led by US Treasuries, gilts and JGBs, where losses reached 6%, for a dollar investor. Speculation about looser BoJ curve control hit longer JGBs. Chinese and EM bonds again proved safe havens, and currencies stabilized versus the US dollar. YTD, long gilts and JGBs have lost 13-16%.

Signs of a capitulation trade emerged in US Treasuries at one point in October, as 10 year yields spiked above 5%, though the market rallied, to leave 7-10 yr losses at 2.4% for the month, for a dollar investor, about in line with gilts.

Only short Treasuries and gilts, and longer Chinese govts. have managed small positive returns of 1-2.3%, YTD, in dollar terms. Higher running yields have bolstered short dated returns. JGBs losses dwarf all other markets, apart from long gilts and Treasuries.

CONVENTIONAL GOVT BONDS



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

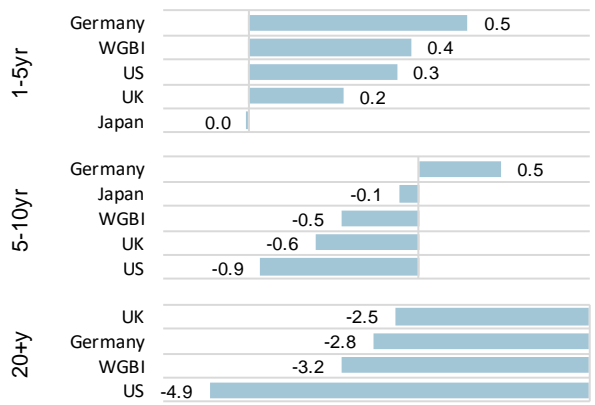
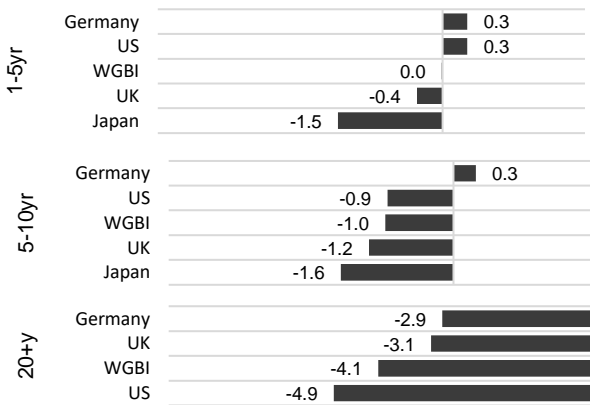
Longer inflation-linked fell further in October, with losses of 3-5% for a dollar investor in Bunds, Tips and UK linkers. Short maturities were broadly stable. Like 2022, duration has been the investor's enemy in 2023, and UK linkers lost 20%. Credit also lost ground in October, but strongly outperformed linkers YTD, with HY gaining up to 6% in Euro HY in dollars.

Only short Tips avoided losses in October, amidst signs of capitulation in longs to the higher for longer rates narrative, as central banks left further tightening options open. Credits lost 1-2%, with high yield largely matching IG losses, despite shorter duration.

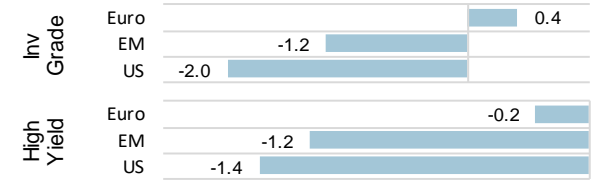
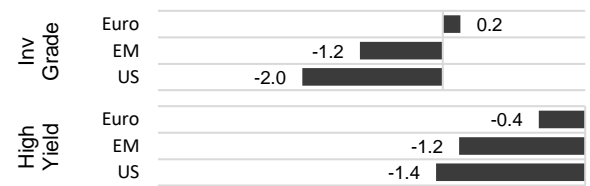
YTD yen weakness drove losses of 11% in shorter JGB linkers, in dollar terms, almost matching losses in longer Tips of 12%.

INFLATION LINKED BONDS

1M USD 1M LCY

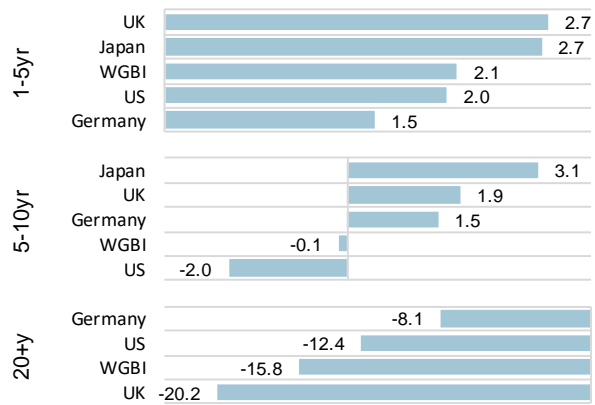
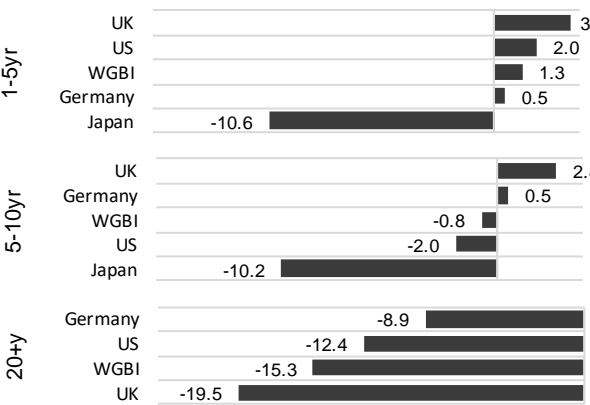


CORPORATE BONDS

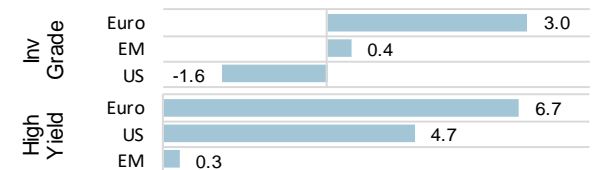
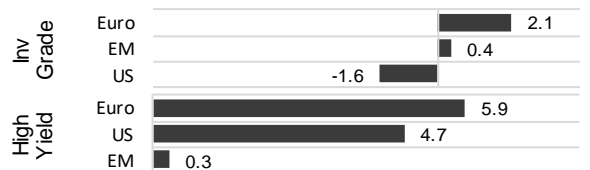


INFLATION LINKED BONDS

YTD USD YTD LCY



CORPORATE BONDS



Source: FTSE Russell. All data as of October 31, 2023. This analysis is taken from 100+ FTSE Russell sub-indices. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of Indices used for each market. For professional investors only.

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

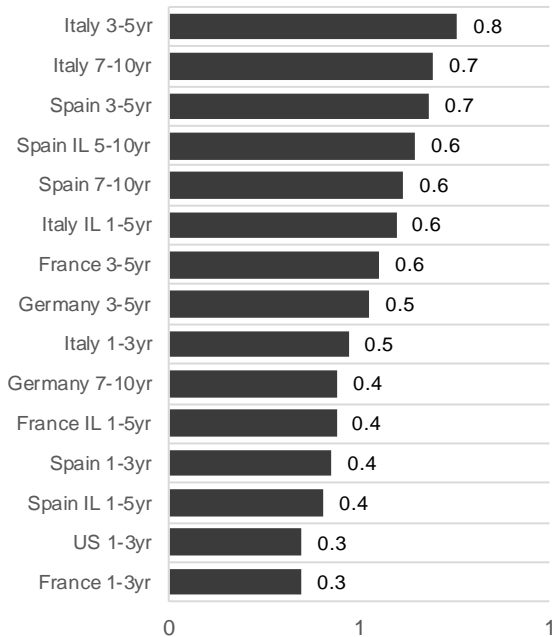
Shorter dated Euro govts, linkers, and Treasuries escaped the sell-off in longs in October and showed tiny gains for a dollar investor. 12 month returns capture a recovery in the Euro, with the dollar peaking in October 2022, and strong performance of Euro HY and EM linkers, but long gilts and linkers have fallen further in 2023, with losses of 14-20%.

The de-coupling of credit, particularly HY, from losses in govt bonds over the last 12M is shown in the top 15, with EM and Euro HY gaining 11-17% in dollar terms. All bottom 15 performers are 20+ yr issues.

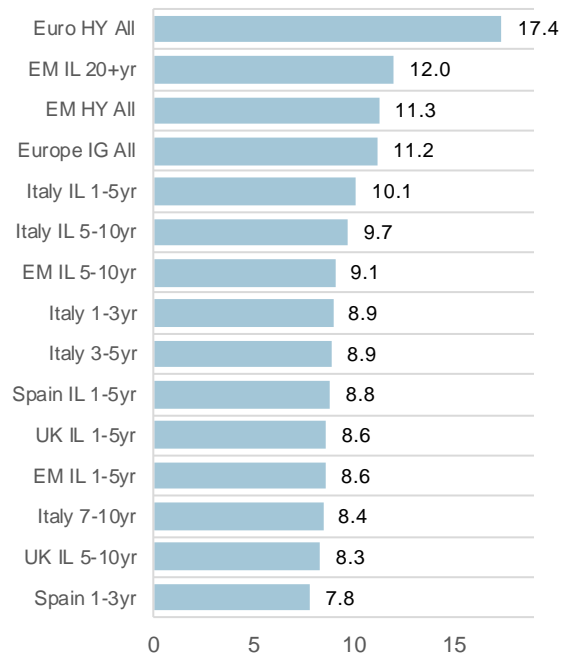
Euro credit returns eclipsed US on 12 months, helped by the Euro's recovery, for a dollar investor. IG Euro credits returned 11%.

1M USD 12M USD

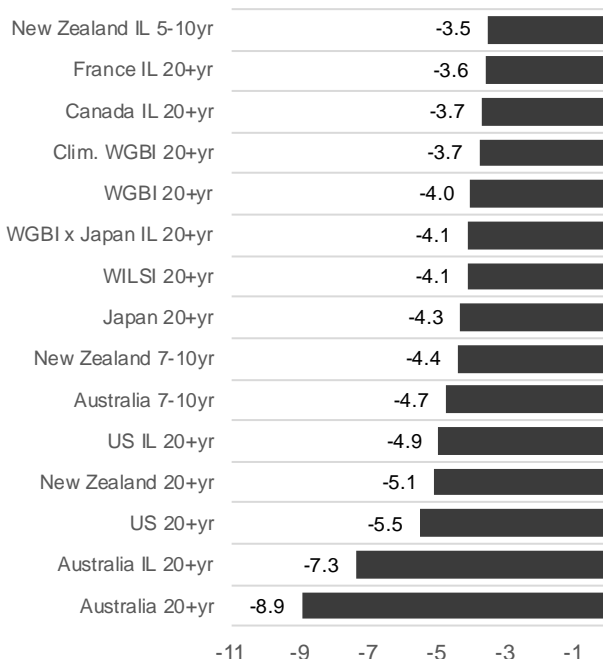
Top 15



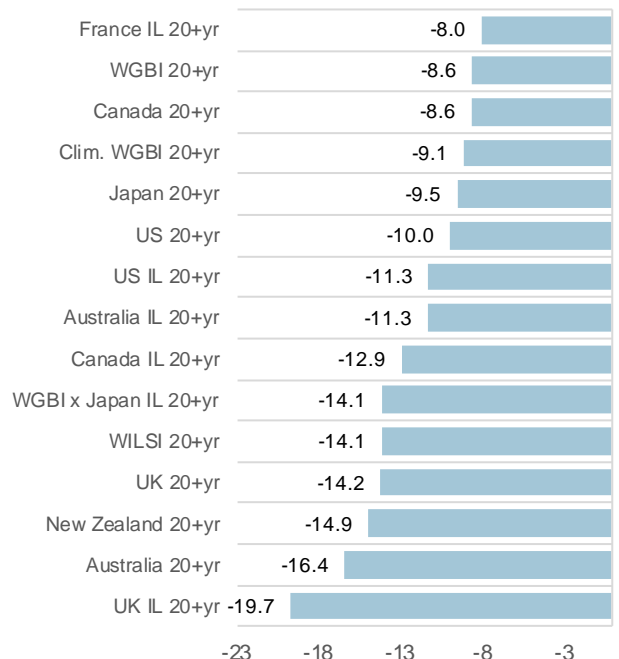
Top 15



Bottom 15



Bottom 15



Source: FTSE Russell. All data as of October 31, 2023. This analysis is taken from 100+ FTSE Russell sub-indices. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of Indices used for each market. For professional investors only.

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

Government Bond Returns

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

		3M		6M		YTD		12M	
		Local	USD	Local	USD	Local	USD	Local	USD
Australia	1-3yr	0.13	-5.92	-0.87	-5.02	0.85	-5.84	0.95	-0.04
	7-10yr	-5.12	-10.85	-9.35	-13.15	-3.01	-9.45	-4.76	-5.70
	20+yr	-13.63	-18.84	-20.40	-23.74	-11.97	-17.81	-15.56	-16.40
Canada	1-3yr	1.14	-4.11	0.31	-2.00	1.90	-0.55	2.41	0.63
	7-10yr	-3.02	-8.05	-7.67	-9.80	-3.36	-5.68	-2.71	-4.41
	20+yr	-9.36	-14.06	-15.70	-17.64	-8.89	-11.08	-7.00	-8.62
China	1-3yr	0.27	-2.08	1.28	-4.12	2.10	-3.02	1.98	1.71
	7-10yr	0.62	-1.74	2.19	-3.26	3.69	-1.50	2.97	2.69
	20+yr	0.03	-2.31	3.20	-2.30	5.87	0.57	4.36	4.09
Germany	1-3yr	0.63	-3.53	0.57	-3.71	1.24	0.27	0.46	7.43
	7-10yr	-1.49	-5.56	-2.10	-6.27	0.86	-0.10	-2.32	4.47
	20+yr	-9.55	-13.29	-11.97	-15.72	-8.76	-9.63	-13.86	-7.88
Spain	1-3yr	0.76	-3.40	0.79	-3.50	1.71	0.73	0.81	7.81
	7-10yr	-1.62	-5.68	-1.74	-5.93	1.39	0.41	-1.44	5.41
	20+yr	-8.45	-12.23	-8.55	-12.44	-5.85	-6.75	-10.00	-3.74
France	1-3yr	0.68	-3.48	0.62	-3.66	1.61	0.64	0.58	7.57
	7-10yr	-1.72	-5.78	-2.19	-6.36	0.68	-0.29	-2.72	4.04
	20+yr	-9.32	-13.07	-10.78	-14.58	-8.61	-9.49	-13.29	-7.27
UK	1-3yr	1.79	-4.00	1.04	-2.45	1.39	2.28	1.67	7.15
	7-10yr	-0.23	-5.91	-3.68	-7.01	-2.10	-1.24	-2.53	2.73
	20+yr	-8.04	-13.27	-13.12	-16.12	-14.07	-13.32	-18.59	-14.20
Italy	1-3yr	0.57	-3.59	1.04	-3.26	2.24	1.26	1.87	8.95
	7-10yr	-3.00	-7.01	-1.11	-5.32	3.78	2.78	1.40	8.44
	20+yr	-9.50	-13.24	-7.03	-10.99	-1.27	-2.22	-6.16	0.35
Japan	1-3yr	-0.20	-6.37	-0.27	-10.34	-0.08	-12.95	-0.23	-2.08
	7-10yr	-2.38	-8.42	-3.61	-13.33	-1.85	-14.49	-3.62	-5.41
	20+yr	-8.77	-13.02	-12.53	-20.07	-5.41	-16.25	-9.28	-9.51
New Zealand	1-3yr	0.69	-5.89	0.40	-5.46	2.28	-5.94	1.84	1.96
	7-10yr	-4.99	-11.20	-8.29	-13.64	-4.21	-11.91	-5.65	-5.54
	20+yr	-11.42	-17.21	-19.89	-24.56	-14.20	-21.09	-15.05	-14.95
Sweden	1-3yr	0.67	-5.32	0.64	-7.61	1.39	-5.44	0.82	-0.28
	7-10yr	-2.20	-8.03	-3.61	-11.51	-2.39	-8.97	-3.53	-4.58
US	1-3yr	0.73	0.73	0.25	0.25	2.14	2.14	2.94	2.94
	7-10yr	-5.68	-5.68	-8.78	-8.78	-4.38	-4.38	-2.40	-2.40
	20+yr	-15.68	-15.68	-20.02	-20.02	-13.85	-13.85	-9.95	-9.95
	IG All	-5.13	-5.13	-5.84	-5.84	-1.61	-1.61	2.80	2.80
US	HY All	-2.17	-2.17	-0.04	-0.04	4.71	4.71	5.66	5.66
Euro	IG All	-0.30	-4.42	0.47	-3.81	3.05	2.06	3.98	11.20
	HY All	0.51	-3.82	3.03	-1.26	6.67	5.86	9.95	17.42
EM	1-3yr	0.20	0.20	0.57	0.57	2.79	2.79	7.27	7.27
	7-10yr	-5.25	-5.25	-4.54	-4.54	-2.40	-2.40	7.08	7.08
	HY All	-1.95	-1.95	-0.57	-0.57	0.31	0.31	11.30	11.30
	IG All	-3.25	-3.25	-2.90	-2.90	0.36	0.36	6.09	6.09

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

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

Inflation-Linked Bond Returns

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

		3M		6M		YTD		12M	
		Local	JPY	Local	JPY	Local	JPY	Local	JPY
US	1-5yr	0.09	0.09	-0.58	-0.58	1.99	1.99	2.16	2.16
	5-10yr	-4.26	-4.26	-6.10	-6.10	-1.95	-1.95	-1.29	-1.29
	20+yr	-15.27	-15.27	-17.98	-17.98	-12.44	-12.44	-11.25	-11.25
UK	1-5yr	1.93	-3.87	1.98	-1.54	2.70	3.60	3.06	8.62
	5-10yr	-0.25	-5.93	-0.62	-4.06	1.86	2.75	2.78	8.33
	20+yr	-12.87	-17.83	-18.92	-21.72	-20.20	-19.50	-23.80	-19.69
Japan	1-5yr	0.33	-5.87	1.72	-8.54	2.65	-10.57	2.83	0.92
	5-10yr	0.06	-6.13	1.77	-8.50	3.13	-10.15	2.03	0.14
EM	1-5yr	0.55	-5.37	5.90	-0.18	9.49	7.04	10.13	8.59
	5-10yr	-2.02	-8.52	2.79	-1.97	6.30	5.24	8.85	9.05
	20+yr	-5.71	-11.58	-0.26	-1.48	3.88	7.85	6.18	12.02
Germany	1-5yr	0.09	-4.05	0.49	-3.79	1.48	0.51	0.24	7.20
	5-10yr	-2.08	-6.12	-1.44	-5.64	1.49	0.51	-0.83	6.06
	20+yr	-13.26	-16.77	-14.19	-17.77	-8.13	-8.93	-13.06	-6.94
Italy	1-5yr	-0.16	-4.28	1.10	-3.20	2.60	1.62	2.98	10.13
	5-10yr	-4.39	-8.34	-1.21	-5.42	3.32	2.33	2.58	9.71
	20+yr	-19.19	-22.53	-14.23	-17.88	-4.93	-5.84	-10.68	-4.47
Spain	1-5yr	0.04	-4.09	0.59	-3.69	1.81	0.83	1.76	8.83
	5-10yr	-1.93	-5.98	-0.70	-4.93	1.80	0.82	0.37	7.34
France	1-5yr	-0.11	-4.24	-0.08	-4.33	1.20	0.23	0.32	7.29
	5-10yr	-1.89	-5.94	-1.63	-5.82	1.42	0.45	-1.05	5.82
	20+yr	-14.96	-18.47	-13.99	-17.65	-9.50	-10.37	-13.97	-7.99
Sweden	1-5yr	0.35	-5.63	1.30	-7.00	1.89	-4.98	2.46	1.34
	5-10yr	-2.04	-7.87	-0.46	-8.62	-0.38	-7.09	-1.29	-2.37
Australia	1-5yr	0.39	-5.68	-0.41	-4.59	3.92	-2.98	4.20	3.18
	5-10yr	-2.35	-8.25	-4.84	-8.83	2.53	-4.28	1.94	0.94
	20+yr	-13.79	-19.00	-17.60	-21.06	-7.22	-13.38	-10.44	-11.33
New Zealand	5-10yr	-2.17	-8.57	-5.05	-10.59	0.99	-7.12	2.40	2.52
Canada	20+yr	-8.92	-13.64	-14.09	-16.06	-15.98	-17.99	-11.37	-12.92

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

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

Global Bond Yields

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

		Conventional government bonds				Inflation-linked bonds			Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	5.17	4.87	4.90	5.19	2.82	2.50	2.64	6.38	9.62
	3M Ago	5.01	4.33	3.97	4.11	2.44	1.72	1.80	5.50	8.51
	6M Ago	4.24	3.62	3.41	3.75	1.68	1.23	1.58	5.15	8.63
	12M Ago	4.58	4.37	4.05	4.34	1.76	1.65	1.84	5.97	9.17
UK	Current	4.67	4.45	4.43	4.91	0.65	0.71	1.51		
	3M Ago	5.04	4.69	4.25	4.39	1.86	0.65	1.00		
	6M Ago	4.05	3.77	3.64	4.02	0.39	0.14	0.63		
	12M Ago	3.38	3.55	3.56	3.62	-2.33	-0.13	0.24		
Japan	Current	0.09	0.34	0.83	1.81	-1.55	-0.65			
	3M Ago	-0.04	0.08	0.50	1.40	-1.70	-0.74			
	6M Ago	-0.07	0.02	0.30	1.20	-1.31	-0.63			
	12M Ago	-0.06	0.02	0.24	1.31	-1.37	-0.81			
China	Current	2.27	2.42	2.67	3.08					
	3M Ago	2.08	2.34	2.66	3.04					
	6M Ago	2.28	2.51	2.78	3.17					
	12M Ago	1.93	2.30	2.68	3.15					
EM	Current	8.36	7.47	7.52		4.20	4.73	5.46	6.68	11.30
	3M Ago	8.62	6.78	6.47		3.05	4.07	4.88	5.93	11.51
	6M Ago	8.03	6.85	6.44		3.84	4.04	5.15	5.61	11.71
	12M Ago	9.53	8.48	7.72		1.66	3.00	5.23	6.70	13.96
Germany	Current	3.09	2.66	2.70	3.05	0.90	0.45	0.68		
	3M Ago	3.09	2.60	2.41	2.53	0.60	0.07	0.01		
	6M Ago	2.72	2.35	2.25	2.37	0.16	-0.06	-0.11		
	12M Ago	1.94	1.95	2.07	2.22	-0.76	-0.35	-0.17		
Italy	Current	3.77	3.88	4.45	5.06	1.77	2.35	2.53		
	3M Ago	3.60	3.55	3.86	4.35	1.30	1.64	1.69		
	6M Ago	3.36	3.49	3.97	4.45	0.80	1.65	1.83		
	12M Ago	2.82	3.30	3.95	4.36	0.25	1.64	1.84		
France	Current	3.21	3.01	3.23	3.88	0.93	0.78	1.28		
	3M Ago	3.15	2.90	2.90	3.35	0.58	0.37	0.60		
	6M Ago	2.84	2.66	2.73	3.23	-0.06	0.17	0.58		
	12M Ago	2.15	2.20	2.44	3.02	-0.91	-0.16	0.46		
Sweden	Current	3.43	3.05	2.94		1.34	1.30			
	3M Ago	3.33	2.83	2.57		0.96	0.74			
	6M Ago	2.89	2.59	2.31		0.71	0.73			
	12M Ago	2.34	2.38	2.25		-0.59	-0.17			
Australia	Current	4.49	4.48	4.87	5.33	1.47	2.04	2.53		
	3M Ago	4.02	3.86	4.03	4.40	1.03	1.47	1.79		
	6M Ago	3.13	3.05	3.30	3.88	0.09	0.84	1.50		
	12M Ago	3.21	3.35	3.70	4.10	-0.01	1.05	1.67		
New Zealand	Current	5.49	5.37	5.55	5.69	2.47	3.05			
	3M Ago	5.21	4.80	4.70	4.87	1.94	2.39			
	6M Ago	4.89	4.15	4.08	4.23	0.95	1.61			
	12M Ago	4.31	4.28	4.18	4.44	1.43	2.04			
Canada	Current	4.70	4.18	4.09	3.88	2.25	2.32	2.21		
	3M Ago	4.76	4.02	3.56	3.33	2.11	1.80	1.69		
	6M Ago	3.81	3.09	2.82	2.93	1.12	1.06	1.32		
	12M Ago	3.95	3.56	3.29	3.34	1.43	1.32	1.38		

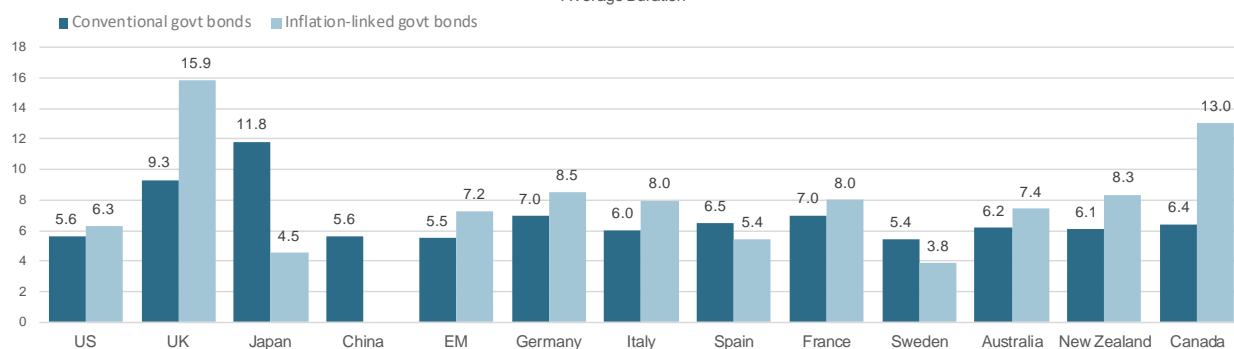
Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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

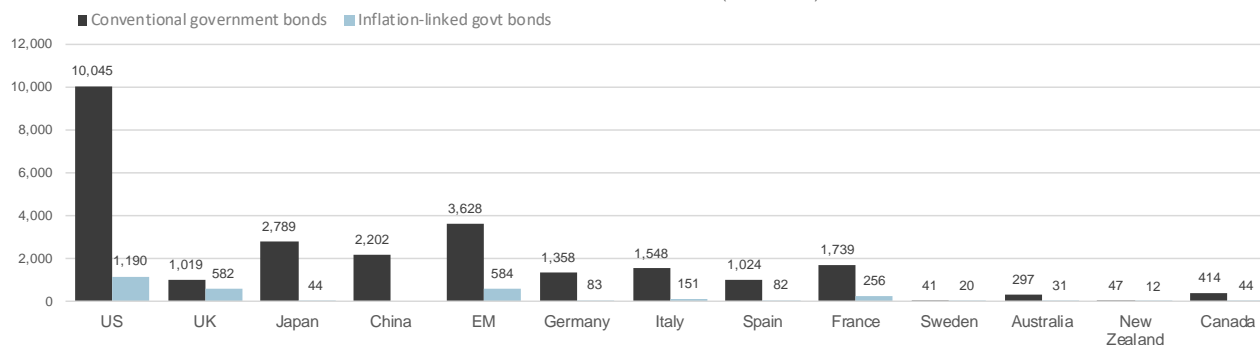
	Conventional government bonds								Inflation-linked government bonds					
	Duration				Market Value				Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.3	16.1	5.6	2,348.7	1,029.4	1,101.9	10,044.9	7.0	21.0	6.3	384.3	109.1	1,190.4
UK	3.4	7.4	17.7	9.3	135.3	182.2	274.1	1,019.0	6.8	27.0	15.9	96.1	214.7	582.4
Japan	3.9	8.1	23.6	11.8	338.1	332.8	592.8	2,788.9	7.2		4.5	18.3		43.6
China	3.7	7.5	17.6	5.6	479.1	364.1	253.0	2,202.3						
EM	3.5	6.9	15.9	5.5	754.1	655.5	345.6	3,628.4	5.7	13.2	7.2	104.9	156.9	584.2
Germany	3.7	7.5	20.2	7.0	299.9	210.3	144.9	1,358.1	7.0	21.5	8.5	41.8	16.4	83.0
Italy	3.7	7.2	15.8	6.0	298.3	251.5	126.5	1,548.0	7.7	26.0	8.0	54.8	4.5	151.2
Spain	3.7	7.5	17.2	6.5	199.2	175.2	86.9	1,023.8	6.6		5.4	22.3		81.7
France	3.7	7.5	19.2	7.0	281.5	308.8	189.1	1,739.1	6.5	24.1	8.0	100.9	17.9	256.4
Sweden	3.5	7.4		5.4	13.1	8.3		41.2	5.6		3.8	9.2		19.9
Australia	3.6	7.5	16.6	6.2	33.9	79.3	12.3	297.1	7.0	21.9	7.4	9.1	2.2	30.9
New Zealand	3.7	7.4	15.9	6.1	9.5	12.8	2.1	46.7	6.1		8.3	2.9		12.4
Canada	3.8	7.4	19.0	6.4	56.2	104.3	55.9	414.0	6.7	20.3	13.0	7.7	17.3	44.4

	Investment grade bonds										High Yield	
	Duration					Market Value					Duration	MktVal
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	9.8	7.8	6.7	6.2	6.6	66.5	419.2	2458.4	3156.0	6100.0	3.8	1130.4
Europe	5.4	4.7	4.5	4.2	4.4	12.2	179.1	1147.6	1398.3	2737.2		
EM		5.3	4.5	4.8	4.7		44.5	212.6	304.6	561.7	3.2	178.9

Average Duration



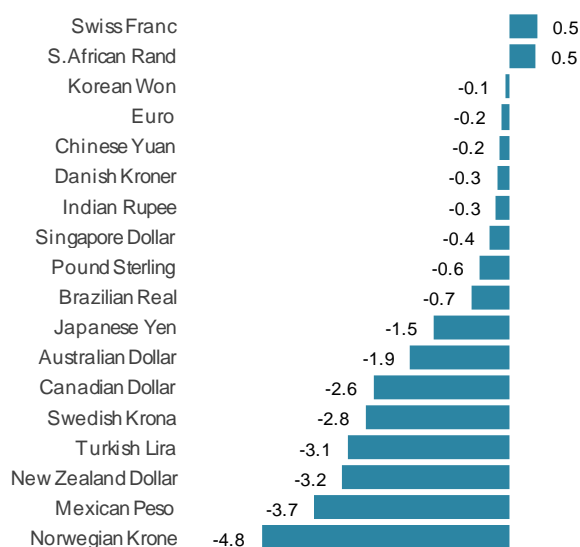
Total Market Value (USD Billions)



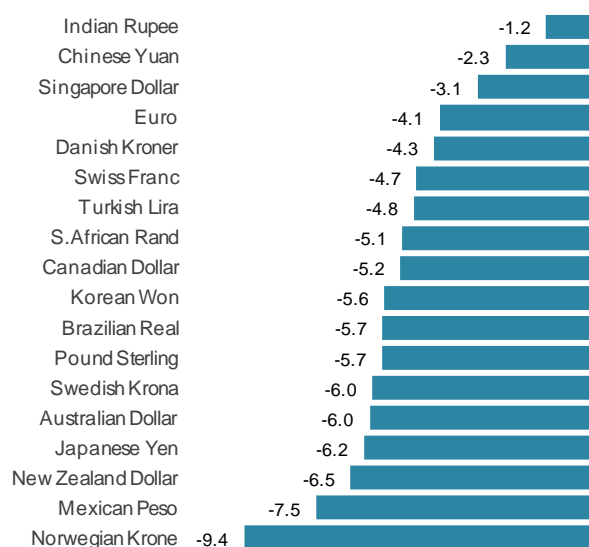
Source: FTSE Russell. All data as of October 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors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

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

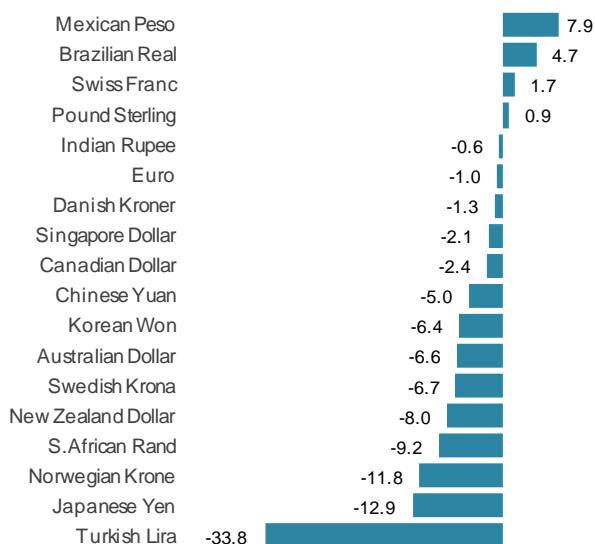
FX Moves vs USD - 1M



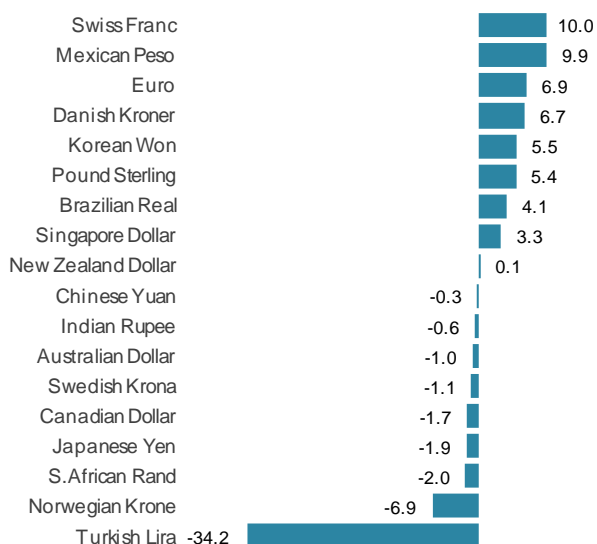
FX Moves vs USD - 3M



FX Moves vs USD - YTD



FX Moves vs USD - 12M



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

Appendix - Glossary

Bond markets are based on the following indices:

FTSE World Government Bond Index (WGBI) for all global government bond markets

FTSE World Inflation-Linked Securities Index (WorldILSI) for all global inflation-linked bond markets

FTSE US Broad Investment-Grade Bond Index (USBIG®) for the US corporate bond market

FTSE US High-Yield Market Index for the US high yield bond market

FTSE Euro Broad Investment-Grade Bond Index (EuroBIG®) for the Euro-denominated corporate bond market

FTSE European High-Yield Market Index for the European high yield market

FTSE Chinese Government and Policy Bank Bond Index (CNGPBI) for the Chinese government bond market

FTSE Emerging Markets Inflation-Linked Securities Index (EMILSI) for the emerging markets inflation-linked bond market

FTSE Emerging Markets Government Bond Index (EMGBI) for the emerging markets government bond market. Please note that over 50% of this index is invested in China

FTSE Emerging Markets Broad Bond Index (EMUSDBBI) for the emerging markets corporate bond market

FTSE ESG World Government Bond Index for the global government bond markets with an ESG tilt

FTSE Climate Risk-Adjusted World Government Bond Index (Climate WGBI) and FTSE Advanced Climate Risk-Adjusted World Government Bond Index (Advanced Climate WGBI) for each country's relative exposure to climate risk, with respect to resilience and preparedness to the risks of climate change

List of Abbreviations used in charts:

IL = Inflation-linked bonds

IG = Investment-grade bonds

HY = High-yield bonds

BPS = Basis points

EM = Emerging market

LC = Local currency

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