

# **Fixed Income Insights**

MONTHLY REPORT - APRIL 2024 | US EDITION

FOR PROFESSIONAL INVESTORS ONLY

## Higher for longer rates returns as the dominant narrative

Government bonds stabilized in March but failed to match equity market gains, as early easing prospects receded. Resilient US growth, early signs of European recovery, a disinflation stall and the end of BoJ curve control capped G7 govt. bond rallies. High yield credit's closer correlation to equities drove further gains in Q1.

Macro and policy backdrop - US soft landing and disinflation stall herald return of "higher for longer" rates Easing in financial conditions, low unemployment and a disinflation stall reduced pressure for early policy easing. (pages 2-3) Yields, curves and spreads – Curves revert to bear inversion in Q1 after brief bull steepening in Q4

As markets reduce easing expectations, 10s/2s curves re-invert. End of BoJ curve control has little initial impact. (pages 4-5)

Credit and MBS analysis - Spreads tighten further, and IG spreads converge on RMBS despite agency guarantee Higher govt bond yields in Q1 and the risk rally drove spreads tighter. Fed RMBS divestment weighs on RMBS. (page 6)

High yield credit analysis - CCC credits have outperformed in the 2023-24 rally

HY spreads have returned to pre-Covid levels, after a period of high volatility, and strong performance in 2023-24. (page 7) Sovereign and climate bonds - SI bonds broadly tracked parent indices in Q1, though Green WBIG outperformed Green WBIG recovery continues. The most striking sovereign SI outperformer in 2023-24 has been the EM index. (page 8) Performance - HY credit again outperformed in Q1, as G7 govt bonds de-coupled from equity market rallies HY credit's higher correlation to equities drove further gains in Q1. JGBs were again weakest performers. (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: Treasuries range-traded in March as the market scaled backed easing expectations. Gilts and Bunds benefited from lower inflation.

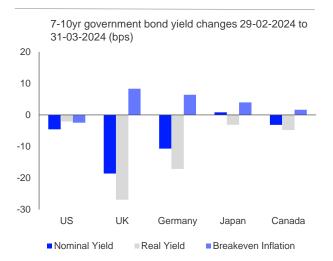
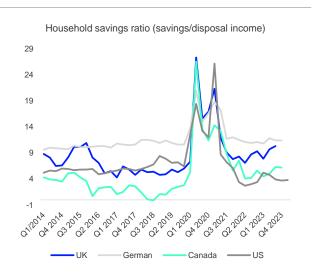


Chart 2: Recovery in US consumer confidence has driven the US savings ratio to below pre-Covid levels, buoyed by high employment, and disinflation.



Source: FTSE Russell and Lipper. Data available as of March 31, 2024. 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

There are few compelling signs of a US recession, with growth tracking at 2-3% in Q1, 2024. European growth is weaker, though the strong labor market is helping prop up growth. G7 disinflation stalled in Q1, confirming the complexity of the move to 2% inflation, particularly with tight labor markets. Post-Covid correlations of asset returns appear less predictable, as shown by the relationship between real yields and the gold price.

US growth has proved more resilient than the rest of the G7 to the 2022-23 policy tightening, and easing in US financial conditions may have offset the impact (Chart 1). The latest Atlanta Fed Now forecast for Q1 GDP shows growth at 2.8%, confirming the very strong January data was probably boosted by mild weather. European growth remains weak, despite relatively high employment, as Covid windfalls are largely spent, but there are some signs of recovery in manufacturing.

Chart 2 shows how the sharp disinflation in 2023, helped by base effects, stalled around 3-4% y/y in Q1, aside from China. Service sector inflation and the stickiness of OER are the main factors delaying achievement of 2% inflation, given tight labor markets, and the dominant share of wage costs in service sector inflation. With the US housing market showing signs of turning up, there is also a risk the expected fall in OER does not materialize, delaying the disinflation further, given its 25% CPI weight.

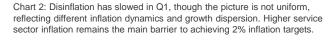
The February payroll report showed strong employment gains of 275,000. December and January gains were revised lower by 167,000, perhaps reflecting problems with seasonals. But with average earnings increasing to 4.3% growth y/y, and "very, very" low claims, according to Fed Chairman Powell, the labor market may be constraining Fed easing. The participation rate is also stuck at 62.5%, where it has been for almost a year, suggesting low labor supply elasticity at these low unemployment levels.

Chart 4 shows that the reliable negative correlation between real yields on US Tips and the gold price has become less reliable since Covid, with the gold price continuing to rise despite Tips real yields increasing in 2023-24. Changes in the correlations of asset returns has been a notable feature since the post-Covid inflation shock emerged in 2021 (also see "A marriage of inconvenience? The remarkable harmony between stocks and bonds", FTSE Russell, April 2023).

Chart 1: Consensus GDP forecasts continue to show weaker growth in 2024, after the 2022-23 policy tightening, and growth divergences between Europe and North America narrowing in 2025, surprisingly.

Consensus Real GDP Forecasts (Avg., %, March 2024)										
	2023	2024	2025							
US	2.5	2.1	1.7							
UK	0.1	0.3	1.2							
Eurozone	0.5	0.5	1.3							
Japan	1.9	0.7	1.0							
China	5.2	4.6	4.5							
Canada	1.1	0.5	2.0							

Chart 3: The US labor market shows no significant signs of loosening, even if unemployment ticked up to 3.9%. Unemployment claims remain very low, and average earnings growth ticked up to 4.3% in February.



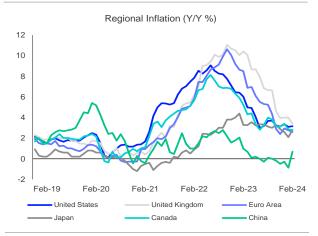
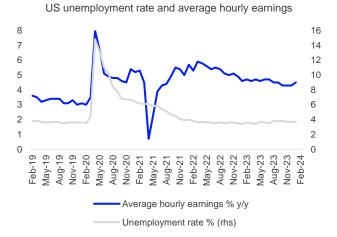


Chart 4: The gold price has reached new highs in 2023-24, despite the surge in US real yields, and the negative correlation of the pre-Covid era has broken down. This may reflect geo-political uncertainty, or a new era?





## **Financial Conditions and Monetary Policy Settings**

Market expectations for Fed rate cuts were scaled back by about 75bp in Q1, after disappointing inflation data, but increased risk appetite has driven easier financial conditions, as the risk rally continues, and the cost of capital falls. More buoyant US growth underpins the US dollar, reinforced by Fed caution, weak growth in Europe and easy monetary policy in China and Japan, despite the BoJ's move to end negative short rates and formal yield curve control.

Chart 1 shows the extent of de-coupling between US financial conditions and the Fed funds rate. Since markets tend to anticipate, or front-run, Fed easing cycles, this is not unprecedented, as the 2016-18 directional de-coupling also shows. That de-coupling ended in a significant equity market sell-off in Q4 2018. The Fed did refer to "exuberant markets" in the March FOMC statement, but Chairman Powell has not re-iterated former Chairman Greenspan's warning of "irrational exuberance".

Diminishing prospects of early Fed easing, and buoyant growth helped the dollar rally in the second half of March, with a break above the Y150 level. The BoJ decision to end negative rates and curve control on March 19 was well discounted, with no sign of when tightening might begin, and "broadly the same amount" of JGB purchases as before. Adverse rate differentials weigh on the CNY, as the PBoC eases policy, though the shift to fiscal stimulus in China reduces pressure on monetary policy to stimulate growth (Chart 2).

Apart from the BoJ pivot, other G7 central banks remain on hold, after mixed Q1 inflation data. The Fed appears relaxed by the easing in US financial conditions, with 5% y/y US service sector inflation a major constraint on policy easing, and the 75bp gap between market and Fed expectations on policy easing in 2024 has now disappeared (Chart 3).

Fed QT continues, and with GDP growth around 2% and no sign of money market disruption, there is little pressure to end QT. The problems of New York Community Bancorp are not deemed a systemic risk by the Fed. The BoJ gave no indication on when it may shift to QT, suggesting it would like to see more sustained inflation above 2% before considering balance sheet shrinkage (Chart 4).

Chart 1: The Great De-coupling? US financial conditions eased sharply in recent months, despite unchanged Fed policy. But directional decoupling of financial conditions from Fed funds also occurred in 2017-18.

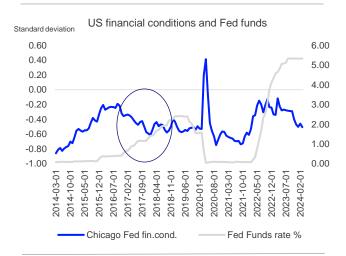
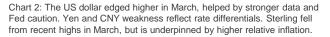


Chart 3: The BoJ finally ended negative rates, with a new target of 0-0.1% for short rates. The Fed remains firmly on hold, though dot plots still show 75bp of easing in 2024, in line with market expectations.



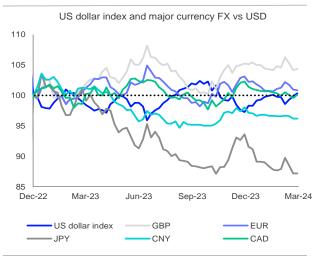
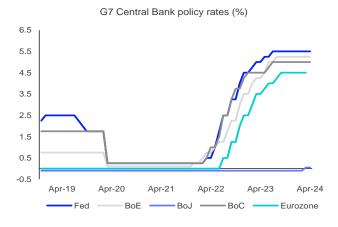
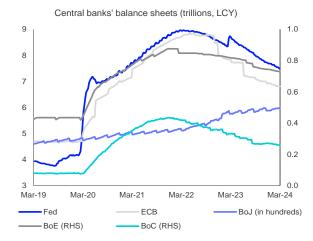


Chart 4: With financial conditions easing in the risk rally, inflation above target and buoyant growth, the Fed is under little pressure to end QT. Although the BoJ ended curve control on March 19, QE purchases slowed sharply already.





## Global Yields, Curves and Breakevens

Chart 1: G7 7-10 year yields were range-bound in March, but higher in Q1, as the market re-priced central bank easing prospects. UK gilt and US Treasury yields backed up more in Q1, after falling sharply in Q4.

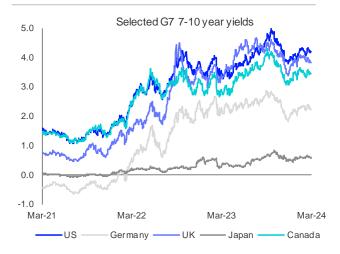


Chart 3: "Higher for longer" returned as the dominant G7 fixed income narrative, and curves remained deeply inverted, as markets scaled back easing expectations. JGBs reacted little to the end of curve control.

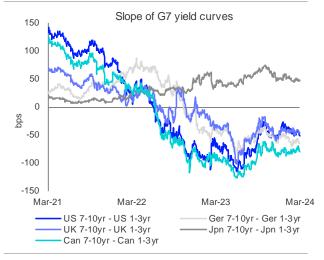


Chart 5: G7 7-10 year inflation breakevens backed up modestly in Q1, after dipping in Q4 2023, after the Fed pivot. This is the normal pro-cyclical pattern, whereby breakevens rise when yields rise, and vice versa.

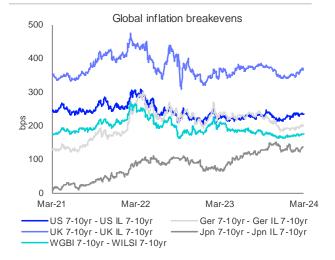


Chart 2: Real yields broadly tracked nominals in Q1, with inflation breakevens remaining stable. Stronger US growth data pushed Tips real yields higher. Real yields remain below the 2023 cycle highs.

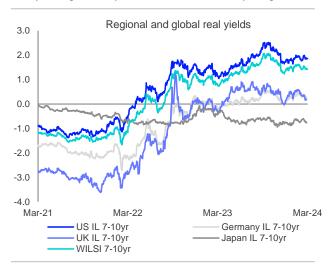


Chart 4: Longer dated curves are less inverted than 10s/2s, with the exception of Canada, and UK longs now show a tiny yield pick-up over 1-3 yrs. Re-investment risk may have kept curves flat in 2023-24.

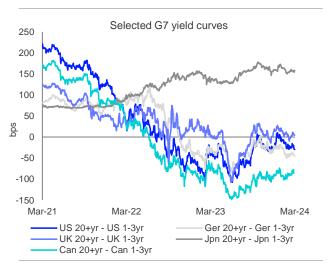


Chart 6: Inflation breakevens of all maturities have converged just below 2%, globally, which is strong evidence that inflation expectations have not de-stabilized and entered a new and higher regime.



Source: FTSE Russell and LSEG. All data as of March 31, 2024. 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.

## **Yield Spread and Credit Spread Analysis**

Chart 1: US sovereign spreads remain cyclical, rising sharply during the Fed tightening cycle in 2022-23, but falling since the Fed pivot in December. Recent doubts about Fed easing pushed spreads a bit wider.

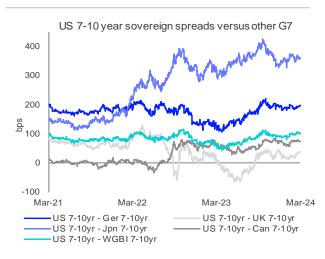


Chart 3: EM spreads widened during the Q4 rally in G7 govt bonds but the back-up in yields in Q1 has caused spreads to tighten again. 2022-24 has proved the G7 tightening cycle in which EM spreads have fallen the most.

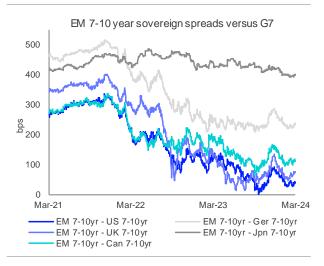


Chart 5: High yield (HY) spreads have tightened by over 200 bp since 2022, driven by the risk rally, with US HY spreads now close to pre-Ukraine shock levels. Eurozone spreads narrowed less after a bigger energy shock.

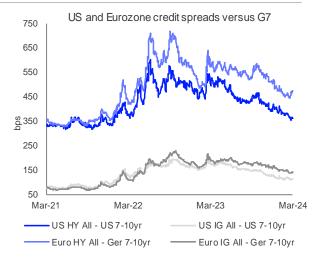


Chart 2: The ECB's TPI (transmission protection instrument) helped stabilize Italian spreads in 2022, which peaked around 200 bp vs Bunds. The risk rally has also helped BTP spreads tighten in 2023-24.

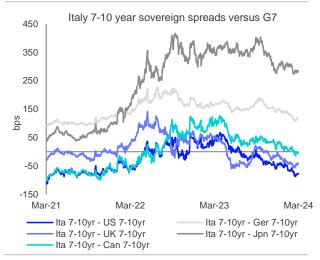


Chart 4: Chinese spreads remain near multi-decade lows versus the G7, after the PBOC eased rates during the period of rising G7 rates. Spreads have moved less versus JGBs, reflecting curve control in Japan.

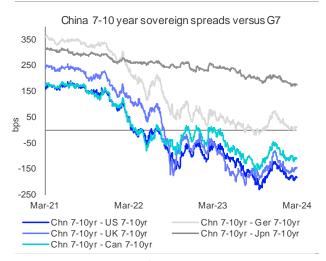


Chart 6: Both US and Chinese \$ HY spreads tightened in Q1, as US govt. yields backed up. China's property spreads reflect mixed performance – both rises and falls – as sector support was accompanied by further defaults.



Source: FTSE Russell and LSEG. All data as of March 31, 2024. 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.

## **Investment Grade Credit and RMBS analysis**

Chart 1: As the risk rally continued in March, US IG spreads narrowed again, though partly due to a modest back-up in US Treasury yields. HY continues to outperform IG credits, due to closer correlation with equities.

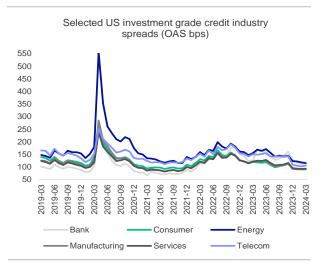


Chart 3. Eurozone spreads tightened again, though the Q1 move was driven by the back-up in Bund yields, with IG yields mostly unchanged. The insurance sector has unwound the 2022 Ukraine spike in spreads.

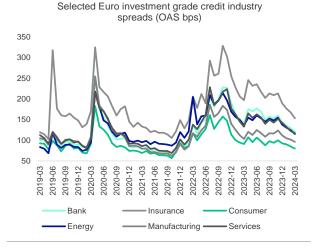


Chart 5: IG credit spreads have almost converged on RMBS spreads, despite the agency guarantee supporting RMBS. RMBS run-offs of up to \$35bn monthly from the Fed's balance sheet, with no re-investment, is a factor here.

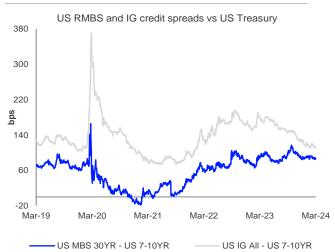


Chart 2: US real estate and financial spreads have been tightening since mid-2023, helped by a slightly steeper yield curve, receding recession risk and low mortgage defaults (helped by high employment).

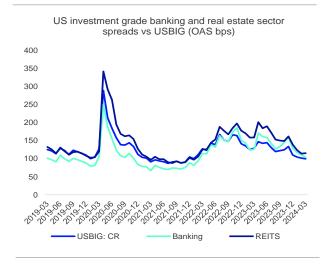


Chart 4: UK IG credit spreads have normalised at pre-Covid levels, though absolute yields are much higher. Spread tightening was largely uniform across sectors, helped by slightly higher gilt yields in Q1 and the risk rally.

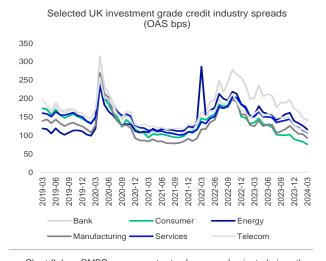
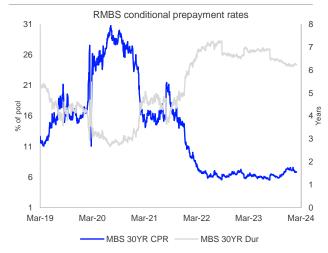


Chart 6: Low RMBS prepayment rates have pre-dominated since the Fed hiked rates in 2022-23, and the incentive to refinance mortgages disappeared. This has led to housing market turnover at low levels.



## **High Yield Credit Analysis**

Chart 1: US HY sector performance shows manufacturing performing strongly, despite the manufacturing recession, closely followed by financial and consumer issues. Energy remains the most volatile sector.

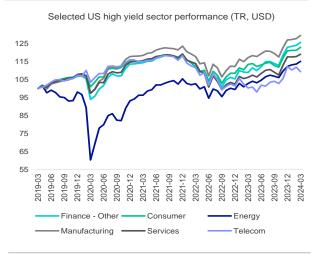


Chart 3: Reflecting the risk rally, CCC issues have outperformed in the year since Q1 2023, though they suffered the largest drawdowns in Covid, and the early stages of Fed tightening in H1 2022.

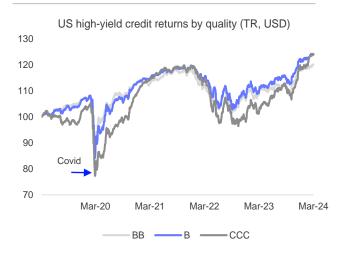


Chart 5: Expected cash flows and default risks can dominate performance of HY credit, causing duration to be less predictable than IG. US HY duration has fallen since the Fed began raising rates.

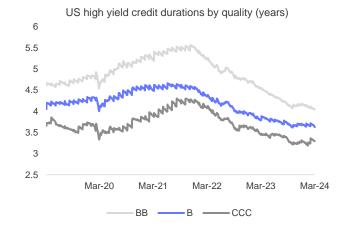


Chart 2: US HY sectors show financials have a low weighting, with crossovers like Prefs. and AT1 not included in straight HY indices. Services, manufacturing and energy dominate HY sector weights.

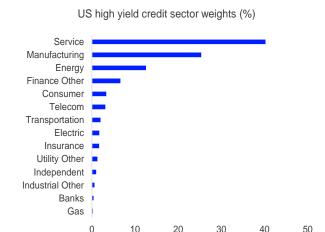


Chart 4: Higher quality BB spreads have remained more stable since pre-Covid. Spreads have mean-reverted to pre-Covid levels, after a period of high volatility, and strong performance in 2023-24.

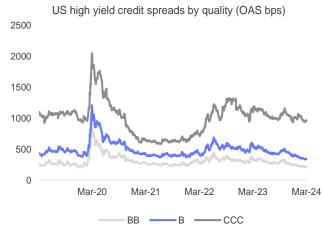
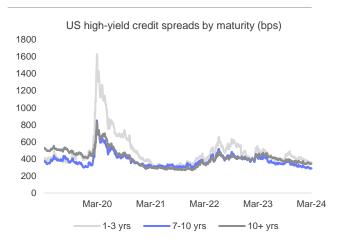


Chart 6:The sell-off on the outbreak of Covid drove short-dated HY spreads out most, reflecting higher yield sensitivity to a change in price and lower credit quality in short duration bonds. Spreads converged in 2023-24.



## Sovereign and Climate Bonds Analysis

Chart 1: SI sovereign performance shows the extra duration in the ESGWGBI, over the last 5 years, when yields backed up in 2022-23. Heavy weightings in Europe drove climate WGBI outperformance in 2023.

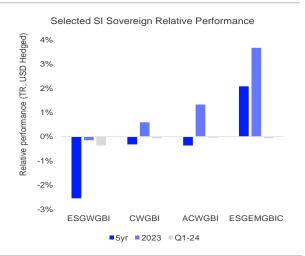


Chart 3: The most striking SI outperformer in 2023-24 has been the EM index, reflecting high weightings of Poland (25%), Hungary (10%) and Malaysia (9%). Longer duration drove underperformance of ESGWGBI.

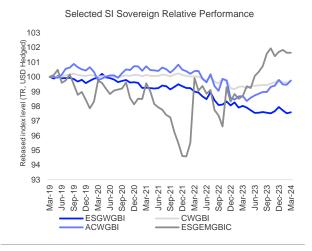


Chart 5: Recent outperformance by the EM ESG index is reflected in spreads as well. Yields fell in the climate WGBI relative to WGBI partly because of the high European weighting, which increased in Q1 2022.

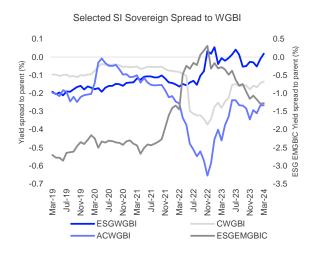


Chart 2: Compared to sovereign bonds, SI corporates outperformed a little in Q1. The Green WBIG showed a modest 0.2% relative gain, though the PAB (Paris aligned benchmark) lost 0.1%.

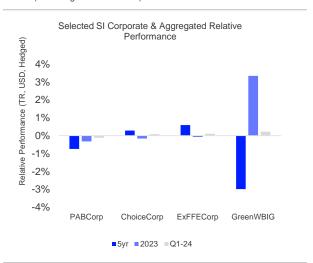


Chart 4:The Green WBÍG index fell sharply in the 2022-23 bond selloff, due to its extra duration versus parent WBIG. But the higher European sovereign weighting drove outperformance in 2023-24.

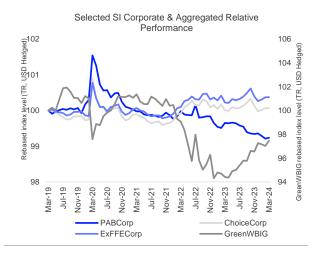
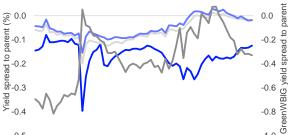
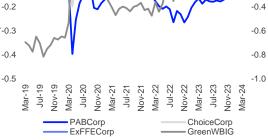


Chart 6: Heavy issuance as yields rose removed the "greenium" spread in 2022 in Green WBIG, but this returned in 2023-24. Yield spreads may not map precisely to performance because of index duration differences.

Selected SI Corporate & Aggregate Spread to WBIG





Source: FTSE Russell and LSEG. All data as of March 31, 2024. 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.

0.1

0.2 (%)

parent

# Global Sovereign Bond Returns - 3M and 12M % (USD & LC, TR)

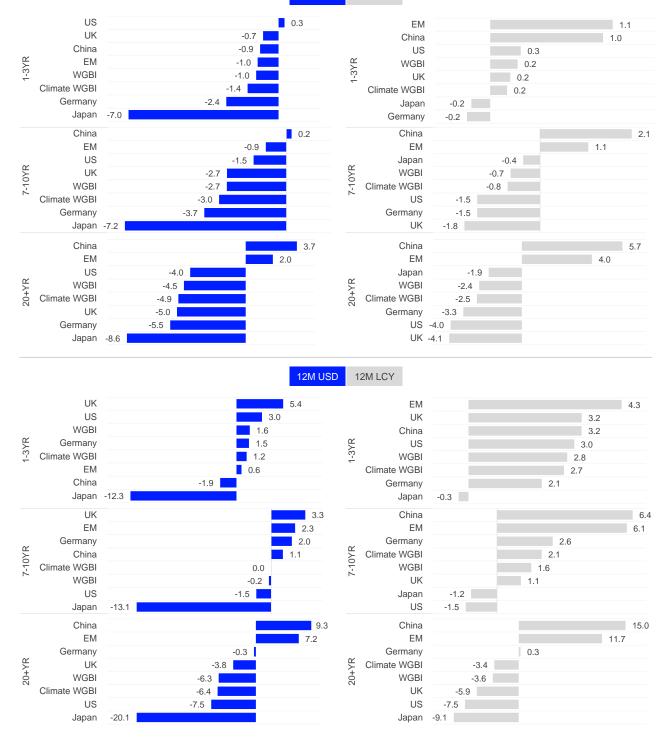
Conventional government bonds mostly show negative returns in dollars, for Q1, led by longs. Stronger data and a stall in disinflation caused re-assessment of policy easing prospects. Only China and EM govt bonds showed positive returns, and also outperformed on 12M, returning up to 9%. In contrast, JGBs were hit hard by yen weakness, losing up to 20% on 12M.

G7 sovereign bonds stabilized in March, though still showed losses in Q1 overall, led by JGB losses of 7-9%, with the yen falling below Y150 versus the US dollar. The BoJ decision to raise rates (March 19) was well discounted and failed to spark a yen rally.

Shorter UK gilts held up well on 12M, boosted by sterling strength, gaining 3-5%, though longs lost 4% in USD. PBoC easing and disinflation boosted China government bond returns on 3M and 12M, despite the weaker RMB versus the US dollar.

3M USD

3M LCY



Source: FTSE Russell and LSEG. All data as of March 31, 2024. 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.

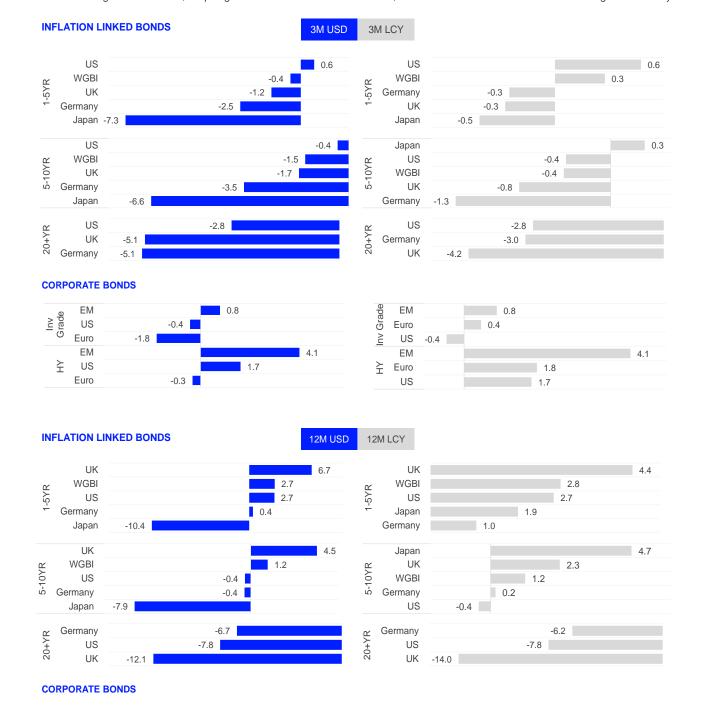
**CONVENTIONAL GOVT BONDS** 

# Global Inflation-Linked Bond Returns - 3M & 12M % (USD, LC, TR)

Inflation linked bonds fell with conventionals in Q1, as euphoria over the Fed pivot faded, and economic data strengthened. Longs gave up 3-5% in USD, on 3M led by the UK. JGBs were squeezed hard by yen weakness, losing 7-10% on 3M & 12M. Credit outperformed, particularly on 12M, with HY gains of 10-11% in dollars; the risk rally and strong equities boosted returns.

Only short US Tips showed positive returns in Q1. Extra duration meant longs lost more ground, led by the UK, with losses of nearly 13% on 12M. JGB inflation-linked losses, were solely due to yen weakness, which fell 12% versus the dollar.

EM HY credit gained 4% in Q1, eclipsing US HY returns of 2%. But on 12M, US and Euro HY benefitted most from the global risk rally.



Source: FTSE Russell and LSEG. All data as of March 31, 2024. 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.

11.4

11.3

10.0

Grade

2

 $\succeq$ 

Euro

ΕM

US

Furo

US

ΕM

6.2

6.1

4.5

Euro

EM

US

US

ΕM

Euro

Inv Grade

 $\succeq$ 

117

11.3

10.0

6.8

6.1

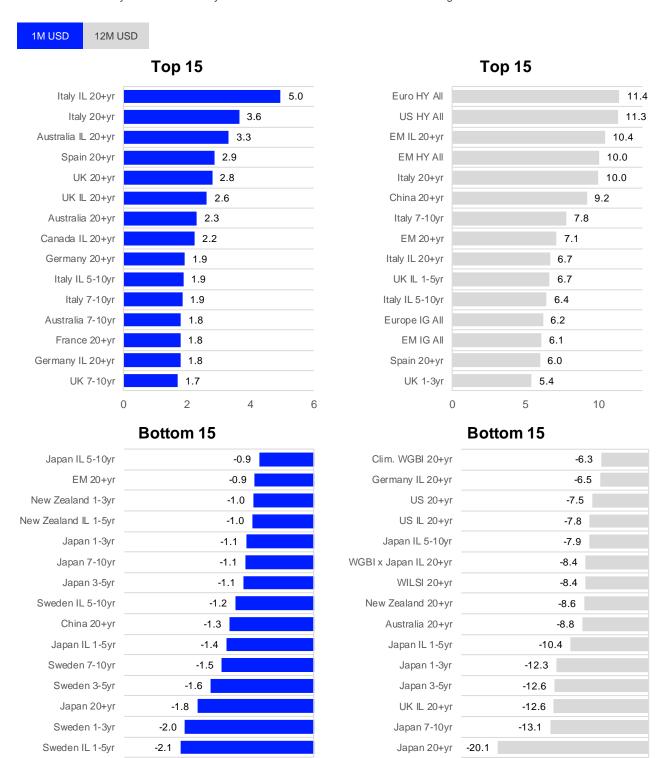
4.5

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

Despite the weaker Q1 overall, there were selective gains in bonds in March, of up to 5% in USD, notably in longer Eurozone and Australian govt bonds, helped by the risk rally, which also boosted HY credit on 12M. Swedish bonds fell on the weak kroner. JGBs and long UK linkers were again weakest 12M performers, driven by the UK's long duration and the weak yen.

The ECB's transmission protection instrument (introduced in 2022) and the risk rally helped peripheral Eurozone bond returns on both 3M and 12M with both BTPs and Spanish govt bonds outperforming Bunds in USD. Gilts rallied on lower UK inflation in March.

Climate WGBI longs crept into the Bottom 15 on 12M, with long Bund linkers, not helped by long duration, which caused long UK linkers to lose nearly 13% in USD. The yen's 12% loss on 12M versus the USD drove negative JGB returns of 10-20% in US dollars.



Source: FTSE Russell and LSEG. All data as of March 31, 2024. 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.

-3

-2

-1

-3

0

-5

-20

-15

-10

# Appendix - Global Bond Market Returns % (USD & LC, TR) - March 31, 2024

### **Government Bond Returns**

Top 15% Bottom 15%

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

		3M		61	6M		D	12M		
		Local	USD	Local	USD	Local	USD	Local	USD	
US	1-3yr	0.28	0.28	2.81	2.81	0.28	0.28	2.98	2.98	
	7-10yr	-1.47	-1.47	5.02	5.02	-1.47	-1.47	-1.46	-1.46	
	20+yr	-4.01	-4.01	8.81	8.81	-4.01	-4.01	-7.52	-7.52	
	IG All	-0.43	-0.43	7.85	7.85	-0.43	-0.43	4.51	4.51	
	HY All	1.66	1.66	8.72	8.72	1.66	1.66	11.33	11.33	
UK	1-3yr	0.18	-0.72	2.75	6.35	0.18	-0.72	3.19	5.43	
	7-10yr	-1.77	-2.66	6.09	9.80	-1.77	-2.66	1.13	3.32	
	20+yr	-4.09	-4.96	11.07	14.96	-4.09	-4.96	-5.87	-3.83	
Euro	IG All	0.42	-1.82	6.02	8.15	0.42	-1.82	6.82	6.19	
	HY All	1.80	-0.33	7.72	10.07	1.80	-0.33	11.75	11.43	
Japan	1-3yr	-0.17	-7.01	-0.10	-1.50	-0.17	-7.01	-0.28	-12.31	
-	7-10yr	-0.39	-7.22	1.16	-0.26	-0.39	-7.22	-1.21	-13.13	
	20+yr	-1.86	-8.58	-1.24	-2.62	-1.86	-8.58	-9.10	-20.06	
China	1-3yr	1.03	-0.86	1.76	2.83	1.03	-0.86	3.19	-1.89	
	7-10yr	2.14	0.23	3.86	4.96	2.14	0.23	6.37	1.14	
	20+yr	5.57	3.58	9.34	10.48	5.57	3.58	14.86	9.19	
EM	1-3yr	1.12	-0.98	2.31	3.46	1.12	-0.98	4.31	0.59	
	7-10yr	1.13	-0.93	4.87	5.72	1.13	-0.93	6.10	2.33	
	20+yr	3.84	1.90	8.38	9.39	3.84	1.90	11.55	7.13	
	IG All	0.81	0.81	6.79	6.79	0.81	0.81	6.09	6.09	
	HY All	4.11	4.11	9.40	9.40	4.11	4.11	10.05	10.05	
Germany	1-3yr	-0.21	-2.44	1.79	3.84	-0.21	-2.44	2.06	1.46	
	7-10yr	-1.47	-3.67	5.33	7.45	-1.47	-3.67	2.62	2.01	
	20+yr	-3.29	-5.45	13.32	15.60	-3.29	-5.45	0.26	-0.34	
Italy	1-3yr	0.18	-1.87	2.90	5.17	0.18	-1.87	3.44	3.02	
,	7-10yr	1.36	-0.72	10.65	13.08	1.36			7.80	
	20+yr	3.63	1.51	20.23	22.88	3.63			9.99	
Spain	1-3yr	0.13	-1.92	2.41	4.67	0.13			2.24	
<b>Opa</b>	7-10yr	-0.06	-2.11	8.13	10.51	-0.06		1.87     3.44       0.72     8.24       1.51     10.44       1.92     2.65       2.11     5.31	4.88	
	20+yr	0.38	-1.67	17.41	19.99	0.38	-1.67	6.42	5.98	
France	1-3yr	-0.28	-2.32	2.07	4.32	-0.28	-2.32	2.33	1.92	
Transc	7-10yr	-1.39	-3.59	6.07	8.20	-1.39	-3.59	3.28	2.66	
	20+yr	-2.60	-4.59	15.21		-2.60	-4.59	3.31	2.89	
Sweden	1-3yr	0.00	-5.02	2.14	4.58	0.00	-5.02	2.56	0.23	
ow cucii	7-10yr	-2.08	-7.00	6.41	8.95	-2.08	-7.00	1.73	-0.59	
Australia	1-3yr	0.87	-3.55	2.73	3.84	0.87	-3.55	2.24	-0.41	
Adotrana	7-10yr	0.96	-3.47	6.26	7.41	0.96	-3.47	-0.80	-3.37	
	20+yr	-0.66	-5.02	10.06	11.26	-0.66	-5.02	-6.40	-8.82	
New Zealand	1-3yr	0.78	-4.50	3.91	3.77	0.78	-4.50	3.91	-0.35	
New Zealand	7-10yr	-0.69	-5.89	8.43	8.28	-0.69	-5.89	2.17	-2.02	
	20+yr	-4.16	-9.18	13.44	13.28	-4.16	-9.18	-4.70	-8.61	
Canada	1-3yr	0.38	-2.19	3.04	2.94	0.38	-2.19	2.97	2.98	
Janaaa	7-10yr	-1.94	-4.45	6.25	6.15	-1.94	-4.45	-1.36	-1.36	
	20+yr	-5.60	-8.40	11.54	10.98	-5.60	-8.40	-3.05	-3.44	
	∠∪⊤yı	-3.00	-0.40	- 11.54	10.30	-5.00	-0.40	-3.03	-3.44	

## **Inflation-Linked Bond Returns**

Top 15% Bottom 15%

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

5yr 10yr 5yr 10yr +yr 5yr 10yr 5yr 10yr 5yr 10yr 5yr 10yr 10yr	0.55 -0.37 -2.80 -0.32 -1.01 -4.71 -0.49 0.32 2.29 0.47 -3.54 -0.27 -1.40	JPY 0.55 -0.37 -2.80 -1.22 -1.93 -5.60 -7.32 -6.57 -0.14 -1.93 -4.90	Local 3.40 4.90 7.29 2.94 3.89 9.93 0.12 2.05 4.96 5.63	JPY 3.40 4.90 7.29 6.54 7.50 13.75 -1.30 0.60 4.04	Local 0.55 -0.37 -2.80 -0.32 -1.01 -4.71 -0.49 0.32	JPY 0.55 -0.37 -2.80 -1.22 -1.93 -5.60 -7.32 -6.57	2.68 -0.40 -7.83 4.40 2.05 -14.46 1.90 4.74	JPY 2.68 -0.40 -7.83 6.66 4.24 -12.63 -10.41 -7.92
10yr	-0.37 -2.80 -0.32 -1.01 -4.71 -0.49 0.32 2.29 0.47 -3.54 -0.27	-0.37 -2.80 -1.22 -1.93 -5.60 -7.32 -6.57 -0.14 -1.93 -4.90	4.90 7.29 2.94 3.89 9.93 0.12 2.05 4.96 5.63	4.90 7.29 6.54 7.50 13.75 -1.30 0.60	-0.37 -2.80 -0.32 -1.01 -4.71 -0.49 0.32	-0.37 -2.80 -1.22 -1.93 -5.60 -7.32	-0.40 -7.83 4.40 2.05 -14.46 1.90 4.74	-0.40 -7.83 6.66 4.24 -12.63 -10.41
+yr 55yr 10yr +yr 55yr 10yr 55yr 10yr 55yr 10yr 10yr +yr 55yr	-2.80 -0.32 -1.01 -4.71 -0.49 0.32 2.29 0.47 -3.54 -0.27	-2.80 -1.22 -1.93 -5.60 -7.32 -6.57 -0.14 -1.93 -4.90	7.29 2.94 3.89 9.93 0.12 2.05 4.96 5.63	7.29 6.54 7.50 13.75 -1.30 0.60	-2.80 -0.32 -1.01 -4.71 -0.49 0.32	-2.80 -1.22 -1.93 -5.60 -7.32	-7.83 4.40 2.05 -14.46 1.90 4.74	-7.83 6.66 4.24 -12.63 -10.41
55yr 110yr 55yr 110yr 55yr 110yr 55yr 110yr 110yr 110yr 110yr	-0.32 -1.01 -4.71 -0.49 0.32 2.29 0.47 -3.54 -0.27	-1.22 -1.93 -5.60 -7.32 -6.57 -0.14 -1.93 -4.90	2.94 3.89 9.93 0.12 2.05 4.96 5.63	6.54 7.50 13.75 -1.30 0.60	-0.32 -1.01 -4.71 -0.49 0.32	-1.22 -1.93 -5.60 -7.32	4.40 2.05 -14.46 1.90 4.74	6.66 4.24 -12.63 -10.41
110yr 5yr 110yr 5yr 110yr 5yr 110yr 5yr 110yr	-1.01 -4.71 -0.49 0.32 2.29 0.47 -3.54 -0.27	-1.93 -5.60 -7.32 -6.57 -0.14 -1.93 -4.90	3.89 9.93 0.12 2.05 4.96 5.63	7.50 13.75 -1.30 0.60	-1.01 -4.71 -0.49 0.32	-1.93 -5.60 -7.32	2.05 -14.46 1.90 4.74	4.24 -12.63 -10.41
+yr 5yr 10yr 5yr 10yr +yr 5yr 10yr +yr 5yr	-4.71 -0.49 0.32 2.29 0.47 -3.54 -0.27	-5.60 -7.32 -6.57 -0.14 -1.93 -4.90	9.93 0.12 2.05 4.96 5.63	13.75 -1.30 0.60	-4.71 -0.49 0.32	-5.60 -7.32	-14.46 1.90 4.74	-12.63 -10.41
5yr 10yr 5yr 10yr +yr 5yr 10yr	-0.49 0.32 2.29 0.47 -3.54 -0.27	-7.32 -6.57 -0.14 -1.93 -4.90	0.12 2.05 4.96 5.63	-1.30 0.60	-0.49 0.32	-7.32	1.90 4.74	-10.41
10yr 55yr 10yr ++yr 55yr 10yr	0.32 2.29 0.47 -3.54 -0.27	-6.57 -0.14 -1.93 -4.90	2.05 4.96 5.63	0.60	0.32		4.74	
5yr 10yr +yr 5yr 10yr	2.29 0.47 -3.54 -0.27	-0.14 -1.93 -4.90	4.96 5.63			-6.57		-7.92
10yr +yr 5yr 10yr +yr	0.47 -3.54 -0.27	-1.93 -4.90	5.63	4.04	0.00			
+yr 5yr 10yr +yr	-3.54 -0.27	-4.90			2.29	-0.14	9.80	4.59
5yr 10yr +yr	-0.27			5.21	0.47	-1.93	8.56	5.37
10yr +yr		2.24	5.93	7.50	-3.54	-4.90	8.06	10.45
10yr +yr	-1.40	-2.31	0.79	3.00	-0.27	-2.31	1.02	0.61
•		-3.41	1.70	3.94	-1.40	-3.41	0.06	-0.35
•	-2.87	-4.85	6.49	8.83	-2.87	-4.85	-6.10	-6.48
5yr	0.29	-1.76	3.60	5.88	0.29	-1.76	4.01	3.59
10yr	1.70	-0.38	8.73	11.13	1.70	-0.38	6.88	6.45
+yr								6.68
5yr	-0.24		1.74			-2.28		1.35
10yr	0.38		5.07			-1.68		2.86
5yr	-0.54							0.69
10yr	-1.17							0.46
+yr								-1.64
5yr								-0.14
10yr								-0.60
5yr				4.41				0.59
10yr				6.95	_			-0.10
+yr								-3.95
10yr								-0.24
+yr								-0.73
5 10 5 10 5 10 1 1 1 1 1 1 1 1 1 1 1 1 1	yyr  Dyr  Dyr  Oyr  Oyr  Oyr  Oyr  Oyr	9yr 6.13 9yr -0.24 9yr 0.38 9yr -0.54 9yr -1.17 9yr -2.41 9yr -0.19 9yr -1.39 9yr 0.60 9yr 0.46 9yr -2.78 9yr 0.78	yr         6.13         3.96           yr         -0.24         -2.28           Oyr         0.38         -1.68           yr         -0.54         -2.57           Oyr         -1.17         -3.19           yyr         -2.41         -4.40           yr         -0.19         -5.21           Oyr         -1.39         -6.34           yr         0.60         -3.82           Oyr         0.46         -3.95           yr         -2.78         -7.05           Oyr         0.78         -4.50	yr         6.13         3.96         24.36           yr         -0.24         -2.28         1.74           Oyr         0.38         -1.68         5.07           yr         -0.54         -2.57         1.39           Oyr         -1.17         -3.19         2.74           -yr         -2.41         -4.40         11.31           yr         -0.19         -5.21         2.00           Oyr         -1.39         -6.34         3.95           yr         0.60         -3.82         3.29           Oyr         0.46         -3.95         5.80           Oyr         0.78         -7.05         13.95           Oyr         0.78         -4.50         7.63	byr         6.13         3.96         24.36         27.10           byr         -0.24         -2.28         1.74         3.98           coyr         0.38         -1.68         5.07         7.38           cyr         -0.54         -2.57         1.39         3.62           coyr         -1.17         -3.19         2.74         5.00           cyr         -2.41         -4.40         11.31         13.76           cyr         -0.19         -5.21         2.00         4.44           coyr         -1.39         -6.34         3.95         6.43           cyr         0.60         -3.82         3.29         4.41           coyr         0.46         -3.95         5.80         6.95           cyr         -2.78         -7.05         13.95         15.19           coyr         0.76         -4.50         7.63         7.47	Syr         6.13         3.96         24.36         27.10         6.13           Syr         -0.24         -2.28         1.74         3.98         -0.24           Oyr         0.38         -1.68         5.07         7.38         0.38           Syr         -0.54         -2.57         1.39         3.62         -0.54           Oyr         -1.17         -3.19         2.74         5.00         -1.17           Syr         -2.41         -4.40         11.31         13.76         -2.41           Syr         -0.19         -5.21         2.00         4.44         -0.19           Oyr         -1.39         -6.34         3.95         6.43         -1.39           Oyr         0.60         -3.82         3.29         4.41         0.60           Oyr         0.46         -3.95         5.80         6.95         0.46           Oyr         0.78         -4.50         7.63         7.47         0.78	Syr         6.13         3.96         24.36         27.10         6.13         3.96           Syr         -0.24         -2.28         1.74         3.98         -0.24         -2.28           Oyr         0.38         -1.68         5.07         7.38         0.38         -1.68           Syr         -0.54         -2.57         1.39         3.62         -0.54         -2.57           Oyr         -1.17         -3.19         2.74         5.00         -1.17         -3.19           Syr         -2.41         -4.40         11.31         13.76         -2.41         -4.40           Syr         -0.19         -5.21         2.00         4.44         -0.19         -5.21           Oyr         -1.39         -6.34         3.95         6.43         -1.39         -6.34           Syr         0.60         -3.82         3.29         4.41         0.60         -3.82           Oyr         0.46         -3.95         5.80         6.95         0.46         -3.95           Oyr         0.78         -7.05         13.95         15.19         -2.78         -7.05           Oyr         0.78         -4.50         7.63         7.47	Syr         6.13         3.96         24.36         27.10         6.13         3.96         7.11           Syr         -0.24         -2.28         1.74         3.98         -0.24         -2.28         1.76           Oyr         0.38         -1.68         5.07         7.38         0.38         -1.68         3.28           yr         -0.54         -2.57         1.39         3.62         -0.54         -2.57         1.10           Oyr         -1.17         -3.19         2.74         5.00         -1.17         -3.19         0.87           yr         -2.41         -4.40         11.31         13.76         -2.41         -4.40         -1.24           yr         -0.19         -5.21         2.00         4.44         -0.19         -5.21         2.18           Oyr         -1.39         -6.34         3.95         6.43         -1.39         -6.34         1.72           oyr         0.60         -3.82         3.29         4.41         0.60         -3.82         3.27           Oyr         0.46         -3.95         5.80         6.95         0.46         -3.95         2.56           oyr         -2.78         -7.05 </td

Global Bond Yields

Top 15% Bottom 15%

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

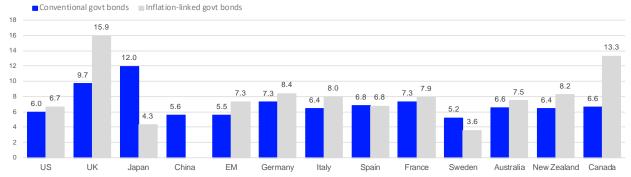
		Conve	ntional go	vernment	bonds	Inflation-linked bonds		Inv Grade	High Yld	
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.73	4.32	4.21	4.43	2.08	1.86	2.12	5.35	7.83
	3M Ago	4.37	3.92	3.87	4.14	2.20	1.72	1.96	5.11	7.79
	6M Ago	5.16	4.71	4.59	4.82	2.72	2.29	2.37	6.06	8.91
	12M Ago	4.20	3.72	3.49	3.76	1.44	1.17	1.53	5.25	8.43
UK	Current	4.31	3.88	3.85	4.35	0.08	0.14	1.07		
	3M Ago	3.94	3.45	3.46	4.07	-0.02	-0.02	0.91		
	6M Ago	4.73	4.46	4.35	4.81	0.55	0.53	1.39		
	12M Ago	3.79	3.55	3.43	3.80	0.00	-0.27	0.35		
Japan	Current	0.12	0.27	0.60	1.70	-1.43	-0.84			
	3M Ago	0.00	0.13	0.50	1.60	-1.67	-0.81			
	6M Ago	0.01	0.21	0.66	1.61	-1.75	-0.70			
	12M Ago	-0.09	0.02	0.30	1.22	-1.30	-0.51			
China	Current	1.90	2.13	2.38	2.62					
	3M Ago	2.18	2.33	2.58	2.90					
	6M Ago	2.24	2.42	2.70	3.06					
	12M Ago	2.31	2.56	2.84	3.25					
EM	Current	3.30	3.91	4.60	3.90	4.92	4.70	5.38	5.66	8.81
	3M Ago	3.44	3.95	4.70	4.34	4.27	4.23	4.82	5.57	10.03
	6M Ago	3.58	4.52	5.05	4.51	3.27	4.48	5.32	6.43	11.01
	12M Ago	3.62	4.37	4.69	4.52	2.59	3.67	5.15	5.77	11.18
Germany	Current	2.89	2.38	2.23	2.43	0.78	0.24	0.26		
	3M Ago	2.48	1.97	1.96	2.25	0.92	0.16	0.16		
	6M Ago	3.21	2.78	2.75	2.97	0.87	0.44	0.52		
	12M Ago	2.69	2.36	2.24	2.33	-0.02	-0.12	-0.15		
Italy	Current	3.27	3.12							
	3M Ago	2.99	2.88	3.45	4.17	1.23	1.62	1.88		
	6M Ago	3.94	4.03	4.50	5.02	1.68	2.31	2.43		
	12M Ago	3.27	3.43	3.88	4.34	0.45	1.50	1.74		
France	Current	2.98	2.65	2.70	3.18	0.57	0.42	0.73		
	3M Ago	2.49	2.23	2.43	3.00	0.56	0.32	0.64		
	6M Ago	3.33	3.14	3.26	3.79	0.82	0.75	1.12		
	12M Ago	2.83	2.66	2.70	3.17	-0.29	0.05	0.53		
Sweden	Current	2.93	2.40	2.33		1.55	0.88			
	3M Ago	2.59	2.04	2.01		1.12	0.59			
	6M Ago	3.50	3.18	2.98		1.42	1.28			
	12M Ago	2.85	2.56	2.25		0.09	0.32			
Australia	Current	3.75	3.61	3.92	4.36	1.11	1.37	1.78		
	3M Ago	3.71	3.63	3.90	4.30	0.85	1.27	1.61		
	6M Ago	4.14	4.10	4.43	4.86	1.30	1.78	2.24		
	12M Ago	3.03	3.00	3.27	3.82	0.01	0.82	1.43		
New Zealand	Current	4.91	4.41	4.53	4.91	1.87	2.29			
	3M Ago	4.71	4.24	4.31	4.60	1.45	2.12			
	6M Ago	5.63	5.35	5.32	5.54	2.50	2.89			
	12M Ago	4.78	4.37	4.23	4.37	1.04	1.72			
Canada	Current	4.28	3.64	3.48	3.37	1.66	1.65	1.61		
	3M Ago	3.94	3.26	3.10	3.04	1.31	1.35	1.51		
	6M Ago	4.88	4.37	4.07	3.85	2.35	2.29	2.13		
	12M Ago	3.85	3.19	2.89	3.05	1.11	1.08	1.37		

# Appendix - Duration and Market Value (USD, Bn) as of March 31, 2024

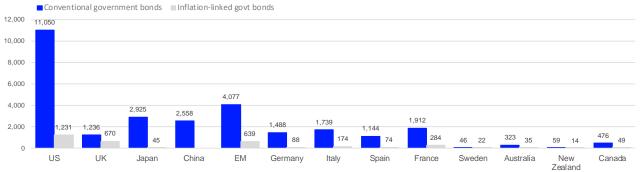
			Conv	entional go	vernment	Inflation-linked government bonds								
		Dura		Market Value				Duration			Market Value			
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.3	16.8	6.0	2,611.1	1,098.3	1,320.3	11,050.4	7.1	21.7	6.7	396.7	112.3	1,231.5
UK	3.8	7.5	18.6	9.7	174.8	191.5	321.2	1,235.8	6.8	26.9	15.9	117.6	255.4	670.1
Japan	3.8	8.1	23.6	12.0	345.2	369.6	627.7	2,924.9	7.1		4.3	19.7		44.8
China	3.7	7.5	17.9	5.6	569.0	388.9	297.9	2,558.5						
EM	3.5	6.9	16.4	5.5	858.3	709.4	390.0	4,077.4	6.0	13.4	7.3	105.7	163.0	638.8
Germany	3.8	7.8	20.5	7.3	344.6	193.0	186.8	1,487.7	6.7	21.2	8.4	43.7	18.6	87.7
Italy	3.7	7.1	16.7	6.4	318.3	282.0	161.7	1,739.4	7.2	25.9	8.0	64.5	5.8	174.0
Spain	3.7	7.4	17.8	6.8	224.6	203.2	113.8	1,144.5	7.7		6.8	47.8		74.2
France	3.8	7.4	19.6	7.3	336.2	316.4	245.6	1,911.6	6.1	24.1	7.9	111.2	21.6	283.5
Sweden	3.9	7.6		5.2	6.6	13.2		45.7	6.6		3.6	5.3		21.5
Australia	3.5	7.4	17.0	6.6	47.6	92.3	20.6	323.2	6.7	22.0	7.5	10.3	2.8	34.6
New Zealand	3.3	7.2	16.0	6.4	11.1	15.9	5.2	58.7	5.8		8.2	3.2		13.9
Canada	3.5	7.3	19.5	6.6	58.9	110.6	67.4	475.6	6.5	20.5	13.3	8.2	20.1	49.0

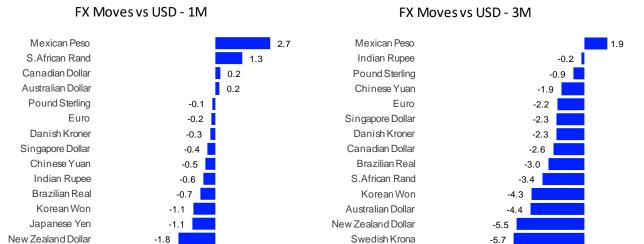
Investment grade bonds												High Yield		
			Duration					Duration	MktVal					
						AAA								
US	10.7	8.3	7.1	6.5	7.0	72.3	458.7	2767.5	3473.8	6772.4	3.8	1061.1		
Europe	5.5	4.9	4.6	4.2	4.4	10.8	221.7	1227.3	1545.0	3004.8				
EM		5.8	4.8	5.2	5.1		38.9	220.4	305.5	564.8	3.4	179.0		

#### Average Duration



#### Total Market Value (USD Billions)





Norwegian Krone

Swiss Franc

Turkish Lira

Japanese Yen

## FX Moves vs USD - YTD

-3.5

-2.3

Swiss Franc

Turkish Lira

Swiss Franc

Turkish Lira

Japanese Yen

Norwegian Krone

Swedish Krona

#### Mexican Peso 1.9 Indian Rupee -0.2 Pound Sterling -0.9 Chinese Yuan -1.9 Euro -2.2 Singapore Dollar -2.3 Danish Kroner -2.3 Canadian Dollar -2.6 Brazilian Real -3.0 S.African Rand -3.4 Korean Won -4.3 Australian Dollar -4.4 New Zealand Dollar -5.5 Swedish Krona Norwegian Krone -6 4

-6.6

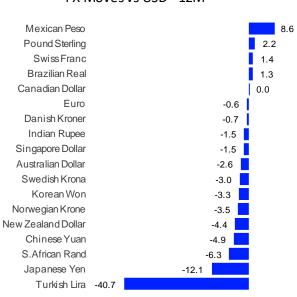
-6.8

-8 7

## FX Moves vs USD - 12M

-6.6

-6.8



## 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

# Global Investment Research Market Maps



#### ABOUT FTSE RUSSELL

FTSE Russell is a leading global provider of index and benchmark solutions, spanning diverse asset classes and investment objectives. As a trusted investment partner we help investors make better-informed investment decisions, manage risk, and seize opportunities.

Market participants look to us for our expertise in developing and managing global index solutions across asset classes. Asset owners, asset managers, ETF providers and investment banks choose FTSE Russell solutions to benchmark their investment performance and create investment funds, ETFs, structured products, and index-based derivatives. Our clients use our solutions for asset allocation, investment strategy analysis and risk management, and value us for our robust governance process and operational integrity.

For over 35 years we have been at the forefront of driving change for the investor, always innovating to shape the next generation of benchmarks and investment solutions that open up new opportunities for the global investment community.

#### **CONTACT US**

To learn more, visit Iseg.com/ftse-russell; email info@ftserussell.com; or call your regional Client Service team office:

EMEA +44 (0) 20 7866 1810 Asia-Pacific

North America +1 877 503 6437 Hong Kong +852 2164 3333

Tokyo +81 3 6441 1430 Sydney +61 (0) 2 7228 5659

© 2024 London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, "FTSE Canada"), (4) FTSE Fixed Income Europe Limited ("FTSE FI Europe"), (5) FTSE Fixed Income LLC ("FTSE FI"), (6) The Yield Book Inc ("YB") and (7) Beyond Ratings S.A.S. ("BR"). All rights re-served.

FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB and BR. "FTSE®", "Russell®", "FTSE Russell®", "FTSE4Good®", "ICB®", "The Yield Book®", "Beyond Ratings®" and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB or BR. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

All information is provided for information purposes only. All information and data contained in this publication is obtained by the LSE Group, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, however, such information and data is provided "as is" without warranty of any kind. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the accuracy, timeliness, completeness, merchantability of any information or of results to be obtained from the use of FTSE Russell products, including but not limited to indexes, data and analytics, or the fitness or suitability of the FTSE Russell products for any particular purpose to which they might be put. Any representation of historical data accessible through FTSE Russell products is provided for information purposes only and is not a reliable indicator of future performance.

No responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for (a) any loss or damage in whole or in part caused by, resulting from, or relating to any error (negligent or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering any such information or data or from use of this document or links to this document or (b) any direct, indirect, special, consequential or incidental damages whatsoever, even if any member of the LSE Group is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing in this document should be taken as constituting financial or investment advice. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any representation regarding the advisability of investing in any asset or whether such investment creates any legal or compliance risks for the investor. A decision to invest in any such asset should not be made in reliance on any information herein. Indexes cannot be invested in directly. Inclusion of an asset in an index is not a recommendation to buy, sell or hold that asset nor confirmation that any particular investor may lawfully buy, sell or hold the asset or an index containing the asset. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

The information contained in this report should not be considered "research" as defined in recital 28 of the Commission Delegated Directive (EU) 2017/593 of 7 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council ("MiFID II") and is provided for no fee. Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index inception date is back-tested performance. Back-tested performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back-tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.

This document may contain forward-looking assessments. These are based upon a number of assumptions concerning future conditions that ultimately may prove to be inaccurate. Such forward-looking assessments are subject to risks and uncertainties and may be affected by various factors that may cause actual results to differ materially. No member of the LSE Group nor their licensors assume any duty to and do not undertake to update forward-looking assessments.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group data requires a licence from FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB, BR and/or their respective licensors.

Refinitiv content is the intellectual property of Refinitiv. Any copying, republication or redistribution of Refinitiv content, including by caching, framing or similar means, is expressly prohibited without the prior written consent of Refinitiv. Refinitiv is not liable for any errors or delays in content, or for any actions taken in reliance on any content.