An LSEG Business

# **Fixed Income Insights**

MONTHLY REPORT - JUNE 2023 | US EDITION

FOR PROFESSIONAL INVESTORS ONLY

### Markets re-focus on pace of inflation decline though US downgrade risks remain

Absent further US banking woes, govt bond markets re-focused on the pace of G7 inflation decline in May, and US downgrade risks in the debt ceiling crisis. Longer UK gilts were the worst performers, reflecting higher UK inflation. In contrast, China and EM bonds outperformed, helped by China's low inflation outlier status.

### Macro and policy backdrop - Lower energy prices drive disinflation, but wide dispersion of inflation persists

Headline inflation rates fell sharply versus core rates, but steeper Phillips' curves deepen G7 inflation challenge. (pages 2-3)

# Yields, curves and spreads – Yield curve inversion resumed. US spreads mostly widened on debt ceiling crisis US credit trading through Treasuries underscores US downgrade risk, after negative rating watch, in 2011 re-run. (pages 4-5)

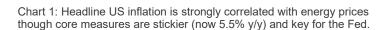
Sovereign and climate bonds – HY Green spreads edged out in May, reflecting surge in issuance in Q1 HY spreads dipped below Green spreads in May but Green spreads reversed most of the 2022 widening. (page 6)

### Performance - Duration became the investor's enemy again in May, with UK gilts hardest hit

Longer bonds fell back in May, led by UK gilts after poor inflation data. China and EM continue to outperform. (pages 7-8)

#### Appendix (from page 10)

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



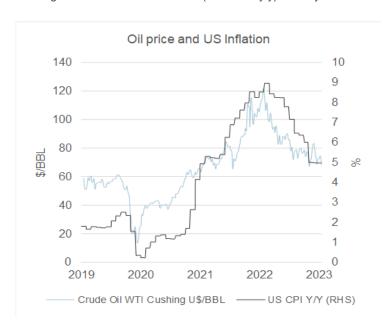
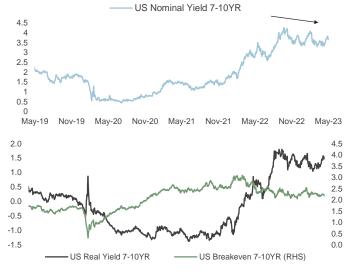


Chart 2: Re-investment risks and high yields support longer dated Treasuries, despite Fed tightening and the flat curve.



Source: FTSE Russell. All data as of May 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

Further declines in energy prices have eased the growth squeeze a little, and driven inflation lower, though G7 tightening restricts demand growth. The UK lags the general inflation decline, as in previous cycles, while China is also a global outlier. The high share of uninsured US bank deposits, in a higher rate environment, may threaten financial stability.

Resilience in US consumer spending prevented a Q1 GDP contraction, though personal savings crept back up to 5% of disposable income, versus a post-Covid low of 2.7%, suggesting some precautionary saving. G7 policy tightening in 2022-23 and the squeeze on real incomes from higher inflation are likely to constrain growth in 2023. PBoC reflation should support Chinese growth (Chart 1).

US core inflation remains stuck at 5.5% y/y, despite the decline in headline inflation to the current 5.0%, as energy prices fall. Much of this reflects the shelter component, and the lag in annual re-sets of leases, which bodes well for lower US core inflation later in 2023. The UK remains a global outlier on inflation, as Chart 2 shows, and UK declines have lagged the G7 in previous cycles.

Chart 3 shows how the gold price has risen relative to copper, as global growth has slowed in 2023, even if the Fed has continued to tighten and US inflation has fallen. Two major event risks have also helped gold, in the US banking crisis and debt ceiling crisis.

Recent US banking woes have highlighted the risk of rapid deposit runs with high speed communication technology, a higher rate environment, and high share of uninsured deposits (above \$250k). More competition from money market accounts, Tbills and new hi-tech entrants to the banking sector (like Apple) may also de-stabilise bank deposits, posing a threat to financial stability.

Chart 1: Growth forecasts show the G7 avoiding recessions, apart from the UK, though only just. US consumers propped up Q1 GDP growth but the Covid savings ratio windfall is largely spent.

Latest Consensus Real GDP Forecasts (%, May 2023)										
	2022	2023	2024							
US	2.1	1.1	0.8							
UK	4.1	-0.1	0.8							
Eurozone	3.3	0.7	1.0							
Japan	1.6	1.1	1.2							
China	3.0	5.4	5.0							
Canada	3.5	0.7	1.4							

Chart 3: The gold price rallied, relative to copper, since Q1 on weaker global growth and helped by US banking woes and the recent US debt ceiling crisis, despite further Fed tightening.

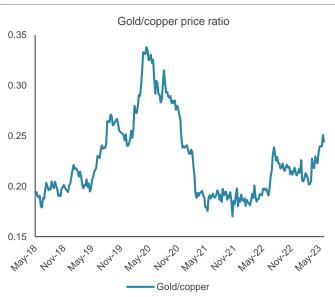


Chart 2: Wide dispersion in inflation continues, though headline inflation fell globally, as base effects have turned favorable, and energy prices fell. The UK and China remain global outliers.

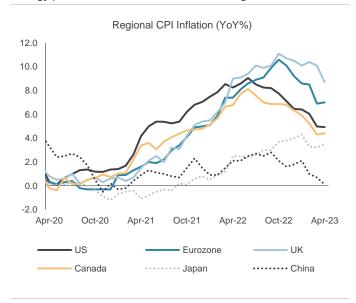
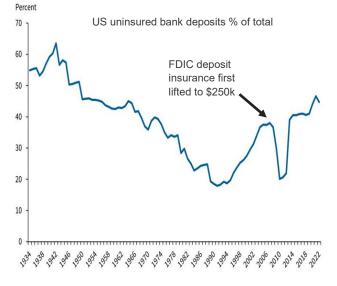


Chart 4: Since US deposit runs in March/April on smaller regional banks, focus has increased on the level of uninsured deposits in the banking system, and the stability of bank deposit franchises.



Source: FDIC, May 2023

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### Financial conditions and monetary policy settings

Tight labour markets and sticky core inflation remain key policy issues for the Fed and BoE, particularly, even if headline inflation fell. Market confidence in policy rates falling later in 2023 has faded, after the banking crisis stabilised and amid a US debt ceiling crisis. Surging Tbill issuance may disrupt the Fed's QE, if it follows resolution of the debt ceiling crisis.

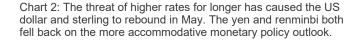
Evidence from the US labour market suggests the Phillips curve (showing trade-offs between inflation and unemployment) has steepened, with a higher NAIRU (non-accelerating inflation rate of unemployment), after the Covid shock reduced labour supply. US wage inflation is falling only slowly (Chart 1), but the impact of Fed tightening on financial stability may cap further moves.

The dollar rallied following Fed policy tightening in May, and the debt ceiling crisis and any US ratings downgrade appeared to have little impact (Chart 2). The slow fall in UK inflation and higher UK rate risk offer some support to sterling, though the stagflation outlook is less positive. New BoJ Governor Ueda's endorsement of curve control and zero rates leaves the yen vulnerable.

25-50bp in tightening was implemented in May, in the US, UK and Eurozone, whilst the BoJ retained curve control and the BoC continued its policy pause (Chart 3). The US labour market remains tight, so further Fed tightening moves cannot be ruled out.

The US debt ceiling crisis and aftermath may yet disrupt the Fed's QT program, if successful resolution leads to a surge in US Tbill issuance, draining money market liquidity. This would be the second delay in QT in the last three months, after the discount window lending to US regional banks in March (Chart 4). But policy rates remain the key policy instrument for G7 central banks.

Chart 1:Cost-push pressures from wage inflation are an issue for the Fed, even if wage growth slowed to 4.4% y/y. Unit labor costs increased however, after the growth and productivity slowdown.



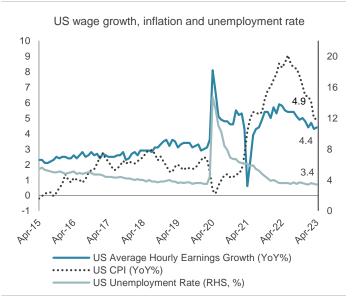


Chart 3: The Fed, BoE and ECB have left options open for further tightening moves, despite banking woes and falling inflation. The BoC is firmly on hold, while the BoJ retains curve control.

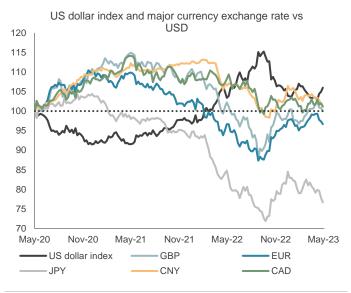
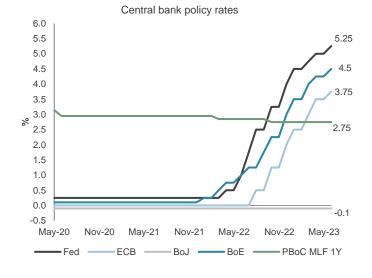
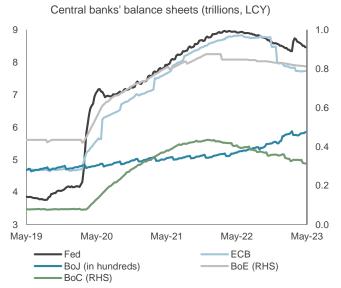


Chart 4: Fed QT was de-railed by discount window lending in the banking crisis, and further disruption may emerge in the aftermath of the debt ceiling crisis, if Tbill issuance surges.





Source: FTSE Russell and Refinitiv. Chart 2 sourced from Federal Reserve. All data as of May 31, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of indices used for each market. For professional investors only.

### Global Yields, Curves and Spread Analysis

Chart 1: 7-10yr G7 yields edged higher in May, though the UK spike on higher inflation is an outlier. US yields remain below the October 2022 peak, as investors focus on relative value & re-investment risk.

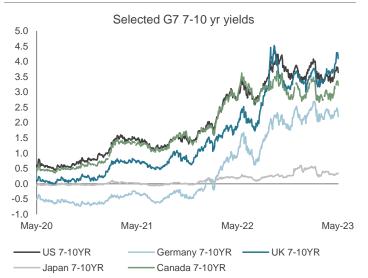


Chart 3: G7 10s/2s yield curves resumed their inversion in May, and have unwound much of the steepening that followed the US banking woes in March/April. JGBs remain an outlier on BoJ curve control.

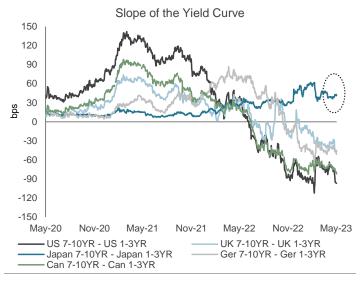


Chart 5: 7-10yr inflation breakevens remain stable near 2%, apart from the UK (due to the different inflation index for accruals) & Japan. There has been little enduring impact from March's banking woes.

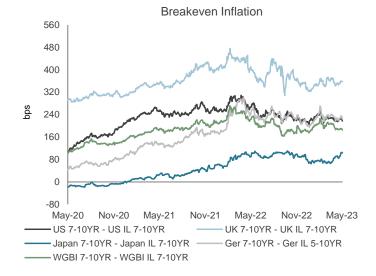


Chart 2: Real 7-10-year yields backed up in May, though JGB yields fell after the continuation of yield curve control was confirmed. UK real yields spiked after higher inflation threatened more rate hikes.

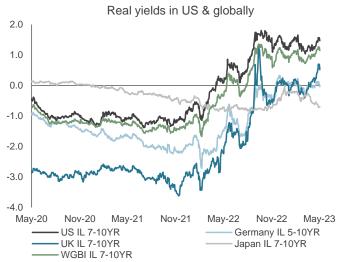


Chart 4: Like 10s/2s, the 20s+/2s yield curves extended their flattening/inversion trend in May, after the March steepening. 2-year yields were less affected by the debt ceiling crisis than US Tbills.

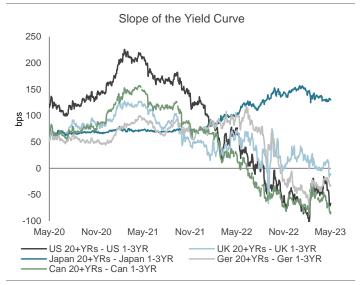


Chart 6: Global short and longer run inflation breakevens are falling, driven by policy tightening, lower energy prices, and lower inflation rates. Long run inflation breakevens are now below medium dated.



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

Chart 1: The US debt ceiling crisis caused US spread widening in May, apart from versus UK, where the spike in yields on higher UK inflation caused US Treasury spreads to fall towards the 2022 lows.

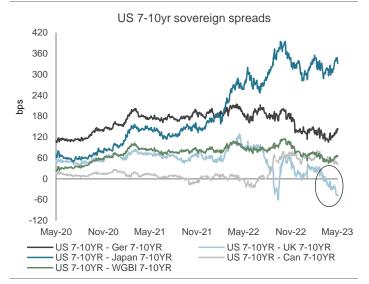


Chart 3: EM 7-10-year yield spreads remained at, or near, post-Covid lows in May, reflecting the increased robustness of the asset class, and earlier policy tightening to reduce inflation than in the G7.



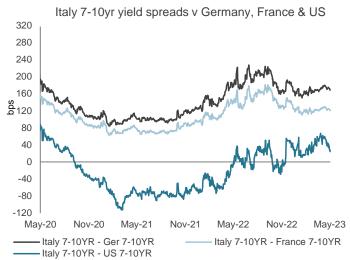


Chart 4: China 7-10-year yield spreads fell in May, after further policy tightening in the G7, and yet lower Chinese inflation (now <1% y/y). Spreads versus the UK are now close to cycle lows.

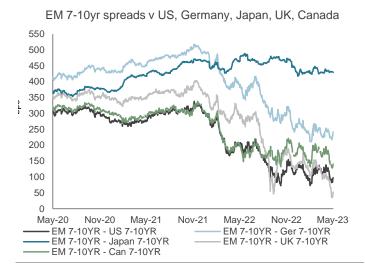


Chart 5: Credit spreads were broadly stable in May, with financials tightening after the March spike on US bank woes. IG spreads barely fell in 2022, whereas HY spreads narrowed in the risk rally.

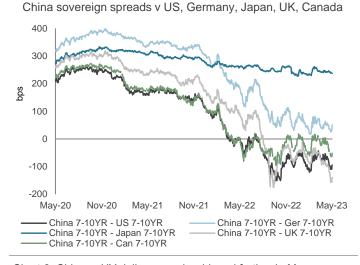
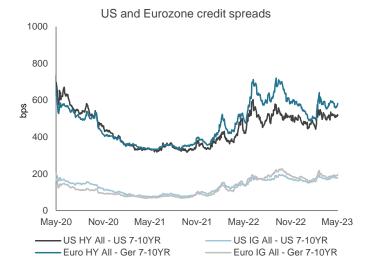
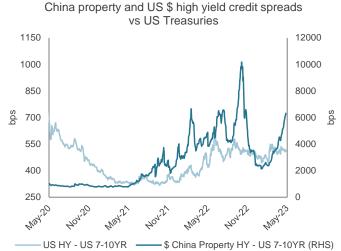


Chart 6: Chinese HY dollar spreads widened further in May, as investors fretted about debt restructurings in property, and widened relative to US HY, which recovered after the March/April sell-off.





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# **Sovereign and Climate Bonds Analysis**

Chart 1: HY spreads dipped below Green HY spreads in May after Green issuance surged, though spreads remain tight, after Green spreads reversed the widening in H1 2022, when issuance fell.

Chart 2: Unlike the US, spread widening in HY Green Eurozone credit spreads moved much less in 2022, and there was no major spike. Spreads narrowed since the bond rally began in Q4 2022.

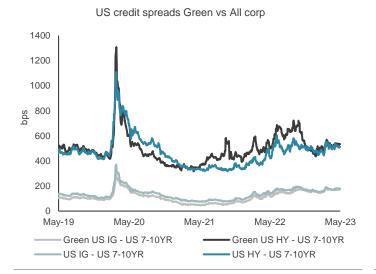


Chart 3: In 2022, Green bond issuance fell more than other bonds as yields and spreads rose. But Green issuance has rebounded in Q1 2023, and is at a new high versus total issuance.

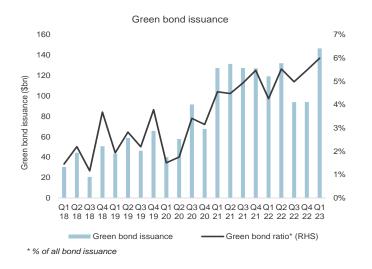
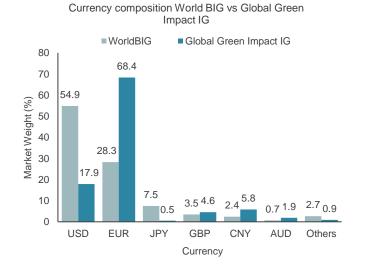


Chart 5: Euro green bonds dominate the currency weights in the Global Green index at 68.4%, in contrast to the low USD weight (18%). This is reversed in WorldBig with a USD weight of 55%.



Eurozone credit spreads Green vs All corp

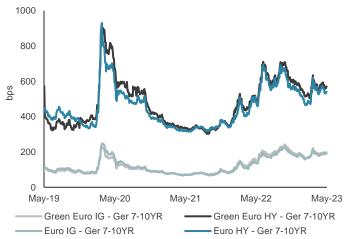


Chart 4: Within total Green bond issuance, Green corporates fell sharply, though issuance has recovered in Q1 2023, to an all-time high in absolute terms, as yields stabilized and spreads narrowed.

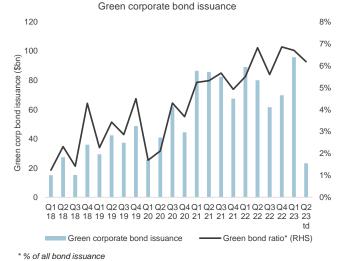
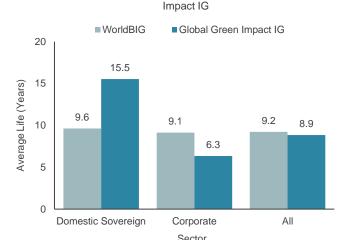


Chart 6: Breakdown of Global Green & World Big indices shows differences in average life for different components. Corporates offset the Sovereign impact in boosting Global Green average life.

Average life comparison World BIG vs Global Green



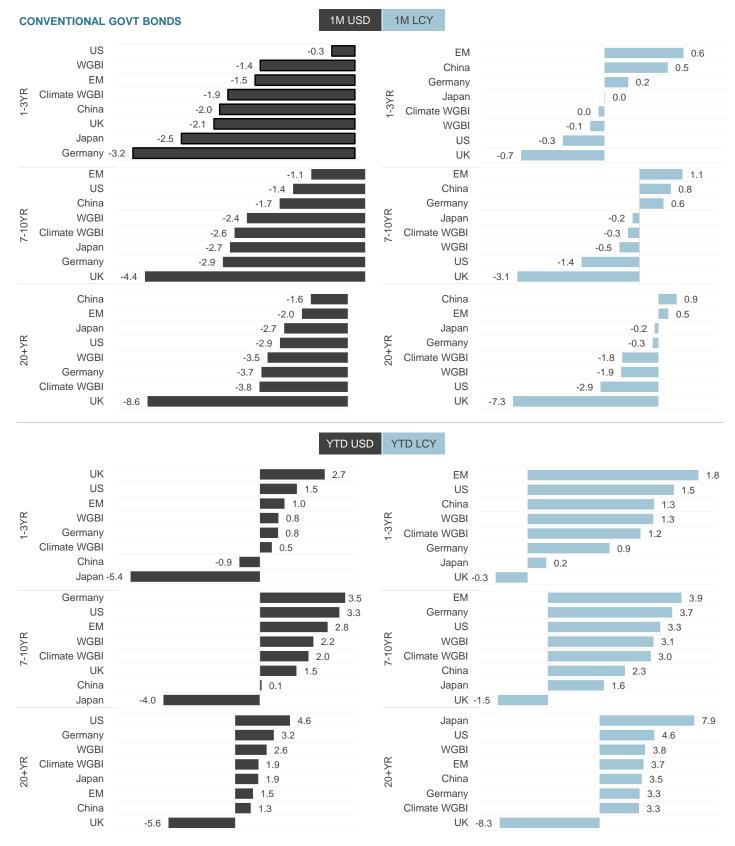
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### Global Sovereign Bond Returns - 1M and YTD % (USD & LC, TR) as of May 31, 2023

Sovereign bonds mostly fell back in May, with long gilts, climate-WGBI and Bunds losing 4-9%, in US dollars, after disappointing inflation data, led by the UK. EM and China outperformed, in May and YTD, though a weak yen squeezed JGB returns. Long duration bonds struggled as the prospect of early policy pivots in the US, Eurozone and UK receded.

Long gilts lost 9% in May, in US dollars, as core UK inflation increased to 6.8% y/y, and markets priced in further MPC tightening.

Most YTD returns are positive, with longer Bunds and US up 3-5%. But long gilts lost 6% YTD.



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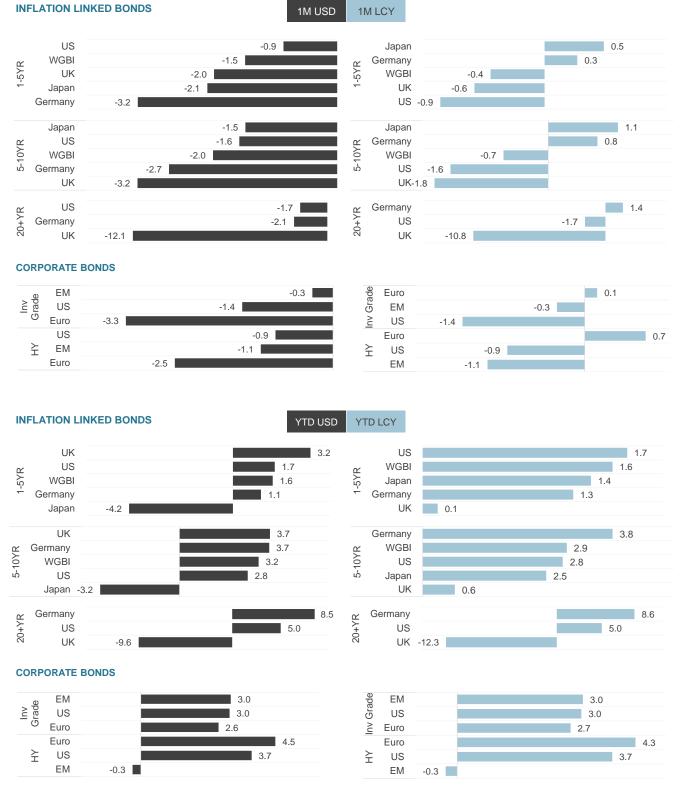
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### Global Inflation-Linked Bond Returns - 1M & YTD % (USD, LC, TR) as of May 31, 2023

The strong US dollar and fears of yet higher rates drove returns negative in overseas inflation-linked in US dollars in May, led by long UK linkers (down 12%), on poor inflation data. US credit fell with US Treasuries, as the Fed kept options open for more tightening, though downgrade fears narrowed spreads. YTD returns show positive credit returns, led by US HY.

Inflation-linked bonds generally gave up ground in May, as fears of further policy tightening re-emerged, and long duration squeezed returns hard, led by long duration UK IL, which have also lost 10% YTD in dollar terms. JGB IL lost 3-4% YTD, due to yen weakness.

Credit remains a stronger performing area in fixed income YTD, with positive returns of 4-5% in US and Euro HY, helped by the recovery in risk appetite, and correlation with the equity market rally. Only EM HY shows (modest) negative returns YTD of 0.3%.



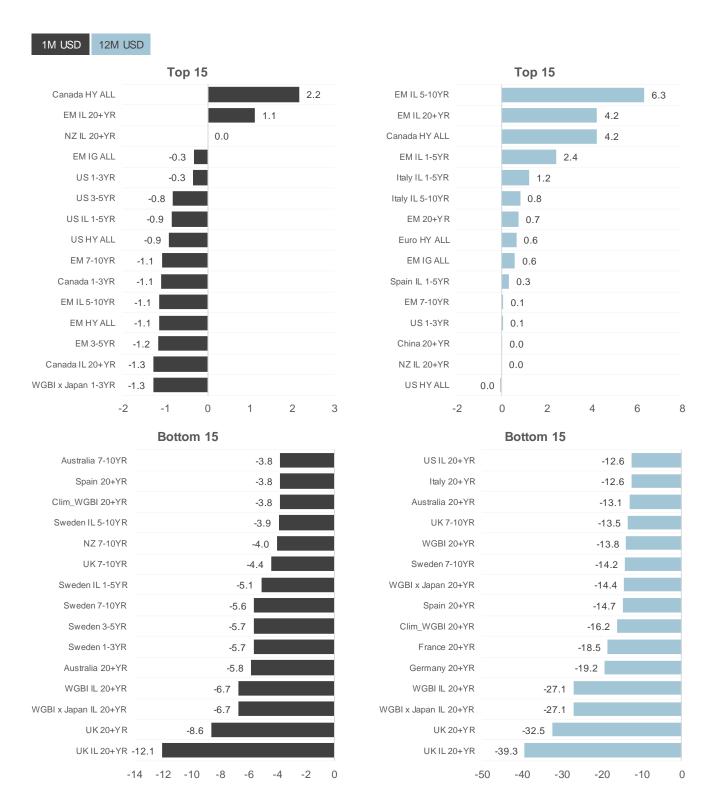
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### Top and Bottom Bond Returns - 1M & 12M % (USD,TR) as of May 31, 2023

Canadian HY credit and EM inflation linked showed the best returns in May and on 12M in US dollar terms. Long duration bonds again underperformed in May and on 12M, with WGBI ex Japan and long UK gilts losing 7-12% in May alone. Nearly all weakest 12M performers are long-dated government bonds, with losses of up to 39%, in US dollar terms.

Short to medium maturities were mainly stable in May, except gilts, though US dollar strength meant overseas returns were negative (apart from returns of 1-2% in Canadian HY and EM inflation linked).

On 12M, long duration in inflation linked (IL) drove sizeable losses in 20+ year maturities, in dollar terms, as rates rose, with 16-39% losses in long WGBI, Eurozone, WGBI ex-Japan, and UK IL. EM bonds and Canadian HY showed positive returns of 4-6%.



Source: FTSE Russell. All data as of May 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) - May 31, 2023

#### **Government Bond Returns**

Top 15% Bottom 15%

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

		3M		6	М	Υ	TD	12M		
		Local	USD	Local	USD	Local	USD	Local	USD	
US	1-3YR	1.52	1.52	1.70	1.70	1.54	1.54	0.05	0.05	
	7-10YR	3.07	3.07	1.80	1.80	3.30	3.30	-2.88	-2.88	
	20+YR	2.15	2.15	1.89	1.89	4.57	4.57	-9.46	-9.46	
	IG All	2.04	2.04	2.50	2.50	2.98	2.98	-1.57	-1.57	
	HY All	1.16	1.16	2.94	2.94	3.72	3.72	-0.02	-0.02	
UK	1-3YR	-0.25	2.12	-0.41	3.64	-0.34	2.69	-1.98	-3.60	
	7-10YR	-1.78	0.55	-4.87	-1.00	-1.47	1.52	-12.00	-13.46	
	20+YR	-6.01	-3.78	-17.00	-13.62	-8.35	-5.57	-31.32	-32.46	
EUR	IG All	1.59	2.13	0.83	4.40	2.72	2.61	-2.95	-3.42	
	HY All	0.76	1.50	3.51	7.25	4.28	4.52	1.23	0.64	
Japan	1-3YR	0.06	-2.45	0.09	-0.04	0.20	-5.38	0.02	-7.91	
	7-10YR	1.80	-0.75	0.07	-0.06	1.65	-4.01	-0.34	-8.24	
	20+YR	3.56	0.97	5.50	5.37	7.92	1.92	-4.41	-11.98	
China	1-3YR	1.13	-1.22	1.54	2.09	1.33	-0.85	2.62	-3.85	
	7-10YR	1.91	-0.46	2.83	3.38	2.26	0.07	3.68	-2.85	
	20+YR	4.00	1.58	5.25	5.83	3.52	1.30	6.74	0.02	
EM	1-3YR	1.42	0.26	2.22	3.77	1.79	1.02	3.75	-1.08	
	7-10YR	2.76	1.72	4.65	5.46	3.93	2.81	6.19	0.07	
	20+YR	3.30	1.32	5.16	5.12	3.67	1.48	7.30	0.74	
	IG All	2.04	2.04	4.21	4.21	3.02	3.02	0.59	0.59	
	HY All	-1.64	-1.64	3.15	3.15	-0.27	-0.27	-1.58	-1.58	
Germany	1-3YR	1.30	1.83	0.12	3.66	0.86	0.75	-2.11	-2.58	
	7-10YR	3.72	4.26	-1.07	2.43	3.65	3.54	-6.94	-7.39	
	20+YR	4.17	4.72	-10.81	-7.65	3.34	3.23	-18.86	-19.25	
Italy	1-3YR	1.46	2.00	0.70	4.27	1.54	1.43	-0.69	-1.17	
	7-10YR	3.63	4.18	0.59	4.16	6.05	5.94	-2.76	-3.23	
	20+YR	3.04	3.59	-7.08	-3.79	6.80	6.68	-12.19	-12.61	
Spain	1-3YR	1.32	1.85	0.23	3.78	1.16	1.05	-2.03	-2.50	
	7-10YR	3.33	3.88	-1.26	2.23	3.76	3.64	-5.58	-6.04	
	20+YR	2.43	2.97	-9.54	-6.34	2.57	2.46	-14.31	-14.72	
France	1-3YR	1.35	1.89	0.21	3.75	1.23	1.12	-2.27	-2.74	
	7-10YR	3.29	3.83	-1.81	1.67	3.52	3.41	-6.85	-7.29	
	20+YR	3.51	4.06	-11.33	-8.19	2.48	2.37	-18.08	-18.47	
Sweden	1-3YR	1.21	-3.03	0.28	-1.75	0.85	-3.45	-0.80	-10.82	
	7-10YR	3.35	-0.97	-2.40	-4.37	1.41	-2.92	-4.52	-14.17	
	20+YR					0.00	0.00	0.00	0.00	
Australia	1-3YR	0.94	-3.14	0.75	-2.64	1.11	-3.51	1.35	-8.57	
	7-10YR	2.96	-1.19	1.26	-2.15	5.13	0.32	1.63	-8.31	
	20+YR	2.37	-1.76	-1.63	-4.94	6.37	1.51	-3.66	-13.09	
NZ	1-3YR	1.31	-1.99	1.86	-1.70	2.02	-3.32	1.30	-6.73	
	7-10YR	3.44	0.07	0.88	-2.66	3.30	-2.11	-1.39	-9.20	
Canada	1-3YR	0.75	0.91	0.85	0.58	1.00	0.67	0.19	-6.77	
	7-10YR	1.83	1.99	-0.33	-0.59	2.06	1.73	0.62	-6.37	

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# Appendix - Global Bond Market Returns % (USD & LC, TR) - May 31, 2023

#### **Inflation-Linked Bond Returns**

Top 15% Bottom 15%

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

		3M		6	М	Υ	ΓD	12M		
		Local	USD	Local	USD	Local	USD	Local	USD	
US	1-5YR	1.50	1.50	1.32	1.32	1.70	1.70	-2.10	-2.10	
	5-10YR	2.36	2.36	1.28	1.28	2.79	2.79	-4.17	-4.17	
	20+YR	1.30	1.30	0.33	0.33	4.97	4.97	-12.56	-12.56	
UK	1-5YR	0.56	2.95	-0.22	3.85	0.13	3.16	0.50	-1.17	
	5-10YR	-0.27	2.10	-2.08	1.90	0.64	3.70	-6.91	-8.46	
	20+YR	-8.63	-6.46	-19.74	-16.48	-12.25	-9.59	-38.25	-39.28	
EUxUK	1-5YR	1.02	1.56	-0.54	2.98	1.25	1.14	-2.71	-3.17	
	5-10YR	2.28	2.82	-0.21	3.33	3.78	3.67	-4.21	-4.67	
	20+YR	5.30	5.85	-6.69	-3.38	8.58	8.46	-11.49	-11.92	
Japan	1-5YR	0.80	-1.73	1.27	1.14	1.40	-4.24	2.50	-5.62	
-	5-10YR	3.23	0.64	1.32	1.20	2.46	-3.24	3.04	-5.12	
EM	1-5YR	-0.84	-0.72	4.79	5.95	3.86	5.21	11.02	2.42	
	5-10YR	0.53	1.10	5.46	7.63	3.80	6.12	12.64	6.33	
	20+YR	7.83	9.71	6.81	10.67	6.88	10.70	8.39	4.24	
Germany	1-5YR	1.02	1.56	-0.54	2.98	1.25	1.14	-2.71	-3.17	
-	5-10YR	2.28	2.82	-0.21	3.33	3.78	3.67	-4.21	-4.67	
	20+YR	5.30	5.85	-6.69	-3.38	8.58	8.46	-11.49	-11.92	
Italy	1-5YR	1.20	1.74	0.64	4.21	1.91	1.80	1.70	1.21	
	5-10YR	2.40	2.94	1.27	4.86	5.93	5.81	1.30	0.82	
	20+YR	4.65	5.20	-8.42	-5.18	13.09	12.97	-3.91	-4.37	
Spain	1-5YR	1.04	1.57	0.81	4.38	1.67	1.56	0.81	0.32	
	5-10YR	1.89	2.42	-0.14	3.40	3.39	3.28	-1.49	-1.97	
France	1-5YR	1.11	1.65	-0.28	3.25	1.48	1.37	-2.37	-2.84	
	5-10YR	2.30	2.84	-0.86	2.64	3.84	3.73	-3.93	-4.39	
	20+YR	5.62	6.18	-8.32	-5.07	7.32	7.21	-10.50	-10.93	
Sweden	1-5YR	0.61	-3.60	1.28	-0.77	1.25	-3.07	2.74	-7.64	
	5-10YR	1.92	-2.34	-1.01	-3.01	2.05	-2.30	-2.29	-12.17	
Australia	1-5YR	2.38	-1.75	3.44	-0.04	4.04	-0.72	5.97	-4.40	
	5-10YR	3.89	-0.30	4.57	1.05	6.96	2.07	6.72	-3.73	
	20+YR	6.82	2.51	0.61	-2.77	11.16	6.08	3.57	-6.57	
NZ	5-10YR	3.86	0.48	5.61	1.91	5.49	-0.03	6.16	-2.25	
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Canada	20+YR	0.51	0.67	-1.17	-1.43	-0.51	-0.82	-0.35	-7.27	

# Appendix - Historical Bond Yields % as of May 31, 2023

Global Bond Yields

Top 15% Bottom 15%

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

		Conv	entional go	vernment b	oonds	Inflat	ion-linked b	Inv Grade	High Yld	
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.61	3.92	3.65	3.94	2.08	1.52	1.68	5.43	8.86
	3M Ago	4.90	4.34	3.93	4.01	1.82	1.57	1.65	5.55	8.62
	6M Ago	4.47	3.97	3.64	3.95	1.76	1.40	1.59	5.38	8.81
	12M Ago	2.44	2.80	2.84	3.21	-0.87	0.08	0.81	4.25	7.09
UK	Current	4.55	4.33	4.10	4.45	1.18	0.54	1.06		
	3M Ago	3.95	3.79	3.72	4.07	0.45	0.18	0.67		
	6M Ago	3.36	3.26	3.20	3.39	-1.95	-0.58	0.10		
	12M Ago	1.64	1.85	2.14	2.46	-3.51	-2.20	-1.05		
Japan	Current	-0.08	0.01	0.33	1.22	-1.51	-0.77			
oupan	3M Ago	-0.04	0.11	0.53	1.35	-1.25	-0.36			
	6M Ago	-0.04	0.05	0.28	1.40	-1.44	-0.76			
	12M Ago	-0.07	-0.04	0.22	1.00	-1.46	-0.88			
China	Current	2.13	2.36	2.70	3.14					
Offilia	3M Ago	2.38	2.62	2.86	3.32					
	6M Ago	2.26	2.54	2.87	3.34					
	12M Ago	2.13	2.48	2.83	3.34					
EM	Current	3.74	4.16	4.62	4.44	4.34	4.24	5.00	5.78	12.12
⊏IVI	3M Ago	3.71	4.48	4.88	4.57	1.46	3.33	5.35	5.95	10.85
	6M Ago	3.72	4.51	4.89	4.89	2.45	3.14	5.10	6.08	12.18
	12M Ago	3.48	4.43	5.08	4.93	2.29	2.94	5.02	4.60	10.77
	Current	2.71	2.30	2.20	2.40	0.37	-0.04	-0.13	4.00	10.77
Germany	3M Ago	3.09	2.78	2.59	2.40	0.37	0.08	0.03		
	6M Ago									
		2.04	1.95	1.91	1.81	-0.59	-0.41	-0.54		
	12M Ago	0.32	1.25	1.54	1.81	-1.46	-0.84	-0.50		
Italy	Current	3.35	3.42	3.89	4.43	1.11	1.62	1.80		
	3M Ago	3.65	3.81	4.18	4.55	0.84	1.69	1.90		
	6M Ago	2.73	3.09	3.59	3.86	0.12	1.32	1.35		
	12M Ago	1.10	2.06	2.99	3.58	-2.21	0.64	1.44		
France	Current	2.83	2.63	2.68	3.24	0.22	0.20	0.53		
	3M Ago	3.18	3.03	3.01	3.37	-0.05	0.24	0.69		
	6M Ago	2.25	2.19	2.27	2.59	-0.94	-0.39	0.09		
	12M Ago	0.46	1.10	1.67	2.49	-3.03	-0.93	0.26		
Sweden	Current	2.97	2.62	2.31		0.74	0.55			
	3M Ago	3.18	2.96	2.65		0.64	0.72			
	6M Ago	2.52	2.21	1.93		-0.29	-0.26			
	12M Ago	1.17	1.69	1.57		-1.53	-1.31			
Australia	Current	3.51	3.38	3.58	4.12	0.42	1.03	1.59		
	3M Ago	3.66	3.65	3.83	4.19	0.50	1.26	1.78		
	6M Ago	3.12	3.22	3.49	3.92	-0.08	0.90	1.43		
	12M Ago	2.69	3.31	3.52	3.77	-0.27	0.91	1.70		
NZ	Current	5.08	4.35	4.28	4.46	1.23	1.85			
	3M Ago	5.06	4.68	4.57	4.67	1.40	2.07			
	6M Ago	4.67	4.39	4.12	4.28	1.49	1.97			
	12M Ago	3.41	3.53	3.60	3.84	0.46	1.42			
Canada	Current	4.04		3.22	3.18			1.44	5.24	7.61
	3M Ago	4.04		3.35	3.26			1.34	5.16	7.19
	6M Ago	3.70		2.96	3.02			1.20	5.07	7.37
	12M Ago	2.65		2.88	2.90			0.91	4.44	6.43

Source: FTSE Russell. All data as of May 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.

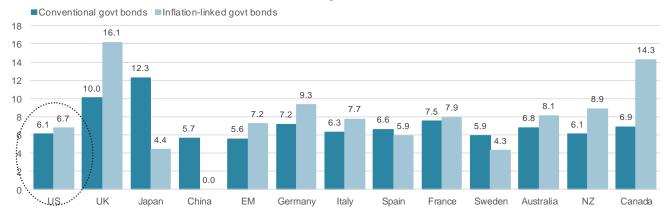
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# Appendix - Duration and Market Value (USD, Bn) as of May 31, 2023

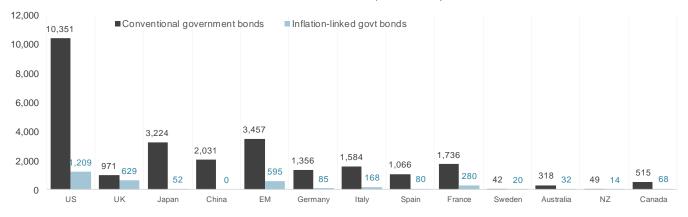
			Conve	ntional g	overnme	Inflation-linked government bonds								
		Durat	ion			Marke	t Value		Duration			Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.5	17.5	6.1	2,270.3	1,104.8	1,295.2	10,351.4	7.1	21.7	6.7	389.2	123.7	1208.8
UK	3.6	7.5	18.4	10.0	130.1	142.8	274.7	971.0	6.7	28.1	16.1	125.9	230.5	629.2
Japan	3.9	8.0	24.0	12.3	354.9	376.7	719.0	3,224.0	7.3		4.4	18.7		51.6
China	3.6	7.4	17.6	5.7	449.7	342.9	239.1	2,030.8						
EM	3.5	6.9	15.9	5.6	717.89	629.60	334.03	3,456.5	5.5	13.8	7.2	122.3	151.4	595.4
Germany	3.9	7.7	20.5	7.2	285.71	211.86	148.47	1,356.1	7.4	22.1	9.3	40.8	19.0	84.7
Italy	3.7	7.3	16.3	6.3	297.46	234.51	143.75	1,584.4	6.5	26.6	7.7	57.2	5.4	167.7
Spain	3.5	7.3	17.3	6.6	207.38	186.52	101.46	1,066.2	7.0		5.9	22.2		79.6
France	3.7	7.5	20.3	7.5	287.84	342.44	207.96	1,735.9	6.9	24.6	7.9	100.1	20.7	279.6
Sweden	3.3	7.9		5.9	7.34	8.73		41.8	6.0		4.3	9.5		20.4
Australia	3.6	7.7	17.8	6.8	41.13	101.68	15.27	317.6	7.3	22.7	8.1	9.5	2.7	32.4
NZ	3.3	7.5	17.6	6.1	8.95	12.57	2.32	48.6	6.5		8.9	3.1		13.7
Canada		7.1	16.4	6.9		162.00	110.70	515.4		14.3	14.3		67.7	67.7

Investment grade bonds												High Yield	
			Duration					Market Valu	Duration	MktVal			
	AAA	AA	Α	BBB	Overall	AAA	AA	Α	BBB	Overall			
US	11.0	8.5	7.2	6.7	7.1	74.1	448.0	2,487.3	3,322.3	6,331.7	4.0	1,140.6	
Euro	6.1	5.0	4.6	4.3	4.5	10.2	178.6	1,098.3	1,428.7	2,715.8	3.1	410.4	
EM		5.8	4.9	5.0	5.0		45.14	226.34	335.7	607.2	3.3	191.1	

#### Average Duration



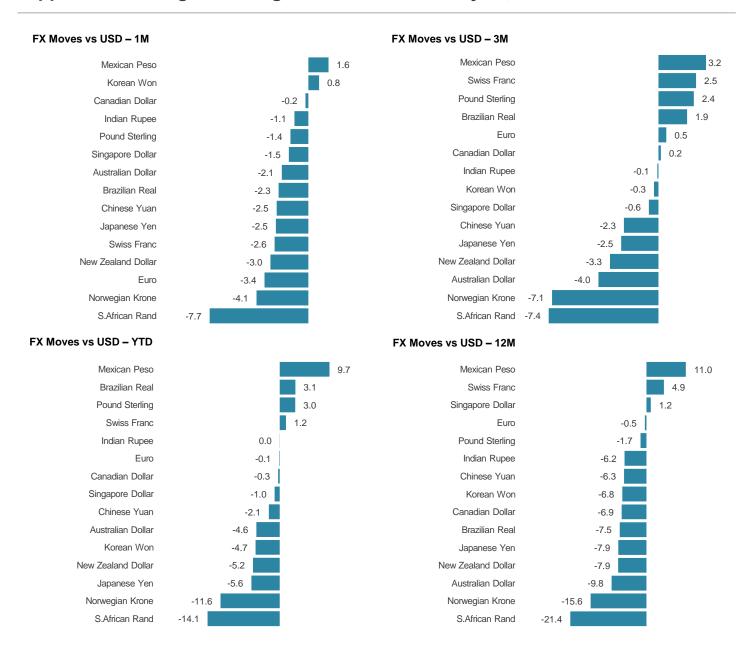
### Total Market Value (USD Billions)



Data as of 2023-05-31

Source: FTSE Russell. All data as of May 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 May 31, 2023



### 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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