Fixed Income Insights

MONTHLY REPORT - JULY 2023 | UK EDITION   FOR PROFESSIONAL INVESTORS ONLY

Long gilts re-price to 'higher for longer' on UK inflation and rates

The more severe energy shock in Europe forced the Eurozone into a shallow recession, led by manufacturing, while lower core UK inflation without a recession seems unlikely. Long gilts underperformed after re-pricing to higher rates. Sterling squeezed overseas returns but euro HY credit outperformed.

Macro and policy backdrop – Wide dispersion in inflation and de-synchronised cycles predominate, as Fed pauses
Differing Covid policies helped de-synchronise G7 cycle, as QT shrank liquidity. Services more buoyant. (pages 2-3)

Yields, curves and spreads – Structural flattening continues, US Treasuries range-trade, and credit finds sweet spot
Deep curve inversion continues, as investors focus on re-investment risk. IG begins to benefit from relative value. (pages 4-5).

Sovereign and climate bonds – Sovereign re-weighting drives WGBI spreads tighter versus climate-WGBI
Japan's reduced overweight in Climate WGBI and an increase in UK's overweight most notable in the June re-weightings, after the UK issued more green gilts. (page 6)

Performance – Gilt yield spike and currency moves dominated Q2, led by weak yen and RMB. HY credit outperformed
JGBs lost up to 10%, on currency weakness. Long gilts fell sharply as they re-priced to a higher UK rate profile. (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 1: Since the post-Covid rebound, manufacturing sectors were squeezed by G7 tightening moves and demand shifting to services.
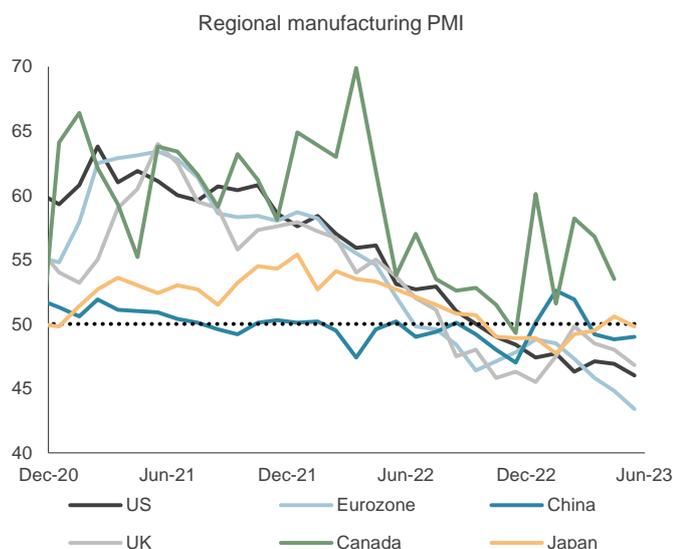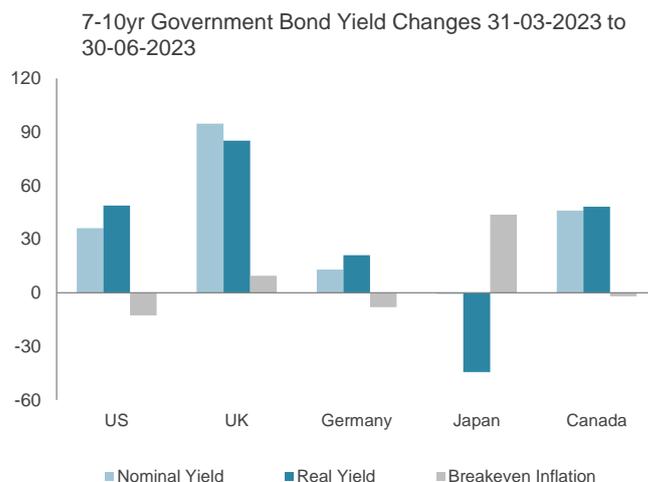
Chart 2: Nominal and real yield increases in the UK, US and Canada in Q2, and higher Japanese breakevens stand out.

Regional manufacturing PMI

7-10yr Government Bond Yield Changes 31-03-2023 to 30-06-2023

Macroeconomic Backdrop – Growth and Inflation Expectations

Evidence of a de-synchronised economic cycle is manifest in divergent growth and inflation data, particularly. This reflects different Covid timing and lockdown policy. UK inflation remains obdurate and a global outlier, though China's recovery is fragile enough for the PBoC to ease policy further, with inflation near zero, and Japan's growth rebound is noteworthy.

G7 growth remains weak, as policy tightening has its impact, though service sectors are more robust than tradeable goods, and interest rate sensitive sectors like housing the weakest. The end of Covid lockdowns boosted Chinese and Japanese growth in 2023. De-synchronised cycles are a feature with Europe weaker than the US. The UK has just avoided recession to date (Chart 1).

The UK lags the decline in G7 inflation, as Chart 2 shows, and core inflation increased to 7.1% y/y for May. UK labour shortages and service sector inflation are key drivers, with airline fares up sharply in May. China is now skirting outright deflation, although Japanese inflation remains above 3%, helped by stronger services, post-Covid. US shelter costs are now falling back.

Chart 3 shows the negative correlation between the dollar and commodity prices broke down since the Ukraine shock and Fed tightening. Instead, dollar strength was combined with higher commodity prices, increasing G7 inflation, but this may be unwinding.

Global supply chain pressures have eased considerably in 2022-23, since the Covid lockdowns ended in Asia, and shipping costs fell sharply as Chart 4 shows. This may reflect the impact of consumer demand shifting towards services, as sectors like tourism re-open in Asia post-lockdown.

Chart 1: Growth forecasts show the impact of policy tightening, ex China and Japan. Services are propping up US growth as manufacturing is recessionary, and boosting Japanese growth.

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 2: Headline US inflation continues to fall, though core inflation is stickier around 5%, reflecting shelter costs, which have scope to fall further. The UK and China remain the global outliers.

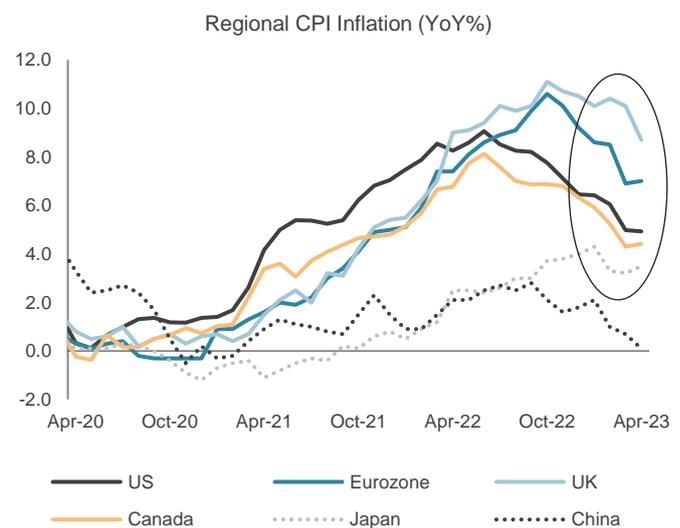
Regional CPI Inflation (YoY%)

Chart 3: Negative correlation between commodity prices and the US dollar has broken down since the Ukraine shock in 2022, and the Fed began tightening.

Commodities vs US Dollar

Ukraine shock, followed by Fed tightening

- Refinitiv/CoreCommodity CRB Total Return Index (LHS)
- Nominal Trade-Weighted USD (RHS, inverted)

Chart 4: Global supply chain pressures eased considerably in 2022-23 due to lower shipping costs and a shift in demand away from goods, as lockdowns are lifted, with services rebounding.

Supply Chain Pressure

— Global Supply Chain Pressure Index

Source: Federal Reserve Bank of New York

Financial Conditions and Monetary Policy Settings

Tight labour markets are a major inflation challenge for the G7, and particularly for the BoE, with wage inflation rebounding in May, helping to drive the BoE's aggressive, 50bp move in June. This also drove sterling higher, with the dollar falling back on the Fed pause. Policy rates are the dominant tool, given the uncertainties surrounding QT.

Evidence of re-acceleration in UK wage inflation in the three months to May, to 6.5%, is further evidence of the steepening in the UK Phillips curve since Covid (the Phillips curve describes the trade-offs between unemployment and inflation rates). Unemployment rates remain near 50 year lows, reflecting the contraction in the labour force, despite the economy barely growing in Q1 (Chart 1).

The US dollar fell 2-3% June, as markets priced in a Fed policy pause, after softer US data for May, and a less hawkish tone on the labour market from Fed Chairman Powell. Further easing from the PBoC weakened the renminbi, while sterling rallied on higher UK inflation and rates. Yen weakness continues as the BoJ retains curve control (Chart 2).

Monetary policy has diverged more materially, both within the G7 and including China, reflecting dispersion in inflation rates, as Chart 3 shows. The PBOC's easing in the cost of credit reinforces earlier easing measures, with Chinese inflation near zero.

Central bank balance sheets continue to contract, apart from the BoJ. Chart 4 shows the Fed's balance sheet contraction resumed after the brief interlude in March, 2023. Japan's economic rebound questions the sustainability of QE and yield curve control.

Chart 1: More cost-push pressure from the labour market emerged in June, as average earnings growth increased to 6.5%. Headline inflation remained at 8.7% y/y, despite helpful base effects.

UK wage growth, inflation and unemployment rate

Chart 2: The US dollar fell in June, on the Fed policy pause, after softer US inflation. The renminbi also fell on PBoC easing. But sterling gained on the UK's 50bp tightening move.

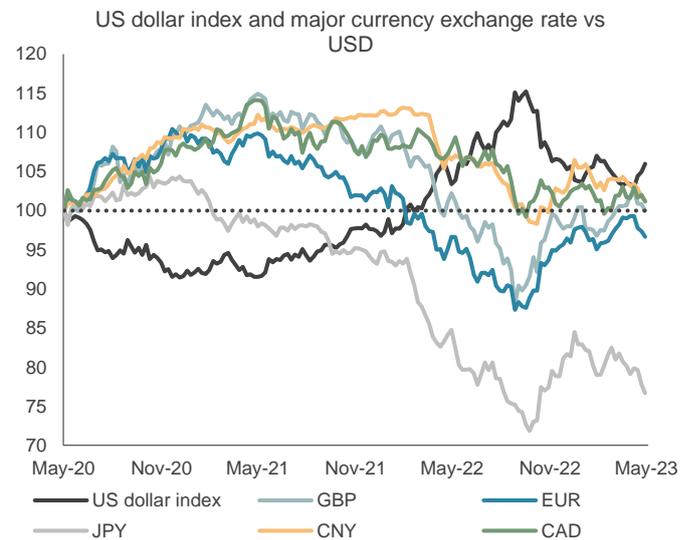US dollar index and major currency exchange rate vs USD

Chart 3: Policy rates diverged in June, reflecting inflation performance. The Fed pause and ECB tightening move were well flagged, but the 50bp BoE move suggests a more hawkish stance.
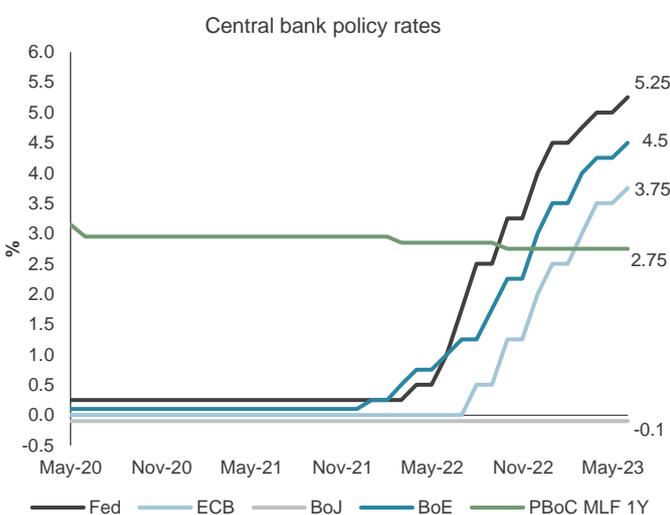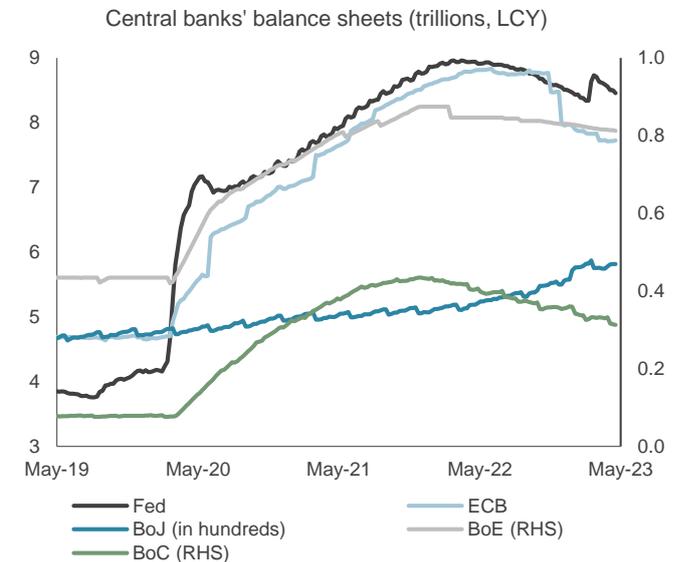

Central bank policy rates

Chart 4: The BoE is unwinding gilt holdings at a pace of about 10% of its balance sheet per annum, but policy rates are the key instrument. Japan's rebound raises questions about curve control.

Central banks' balance sheets (trillions, LCY)

Global Yields, Curves and Spread Analysis

Chart 1: G7 7-10yr yields edged higher in June. The biggest move was in gilts, which spiked on higher inflation and the BoE's 50bp rate move. Treasury yields range traded after the Fed policy pause.

Selected G7 7-10 yr yields

Legend: US 7-10YR, Germany 7-10YR, UK 7-10YR, Japan 7-10YR, Canada 7-10YR
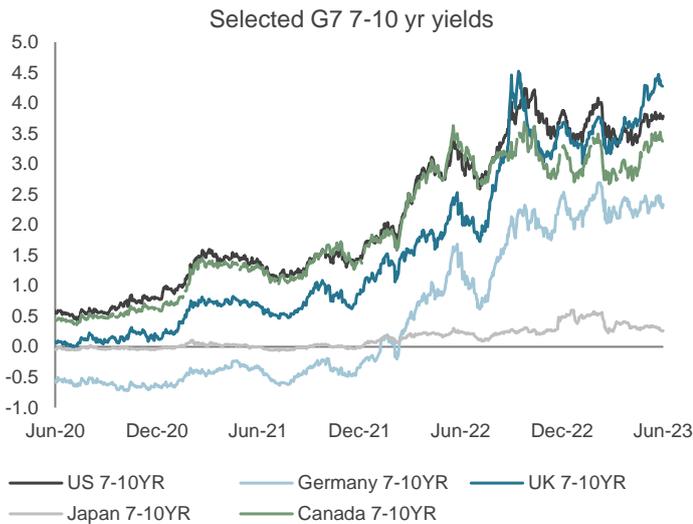
Chart 2: Real yields generally tracked nominals a little higher in June, but the biggest increase was in UK inflation linked bonds. US and UK real yields remain close to the cycle highs of 2022.

Real yields in US & globally

Legend: US IL 7-10YR, Germany IL 5-10YR, UK IL 7-10YR, Japan IL 7-10YR, WGBI IL 7-10YR

Chart 3: Deep inversion of G7 yield curves continues, led by the US 10s/2s, and the March steepening after the banking crisis reversed. BoJ curve control continues to keep the JGB curve positively sloped.

Slope of the yield curve

Legend: US 7-10YR - US 1-3YR, UK 7-10YR - UK 1-3YR, Japan 7-10YR - Japan 1-3YR, Ger 7-10YR - Ger 1-3YR, Can 7-10YR - Can 1-3YR
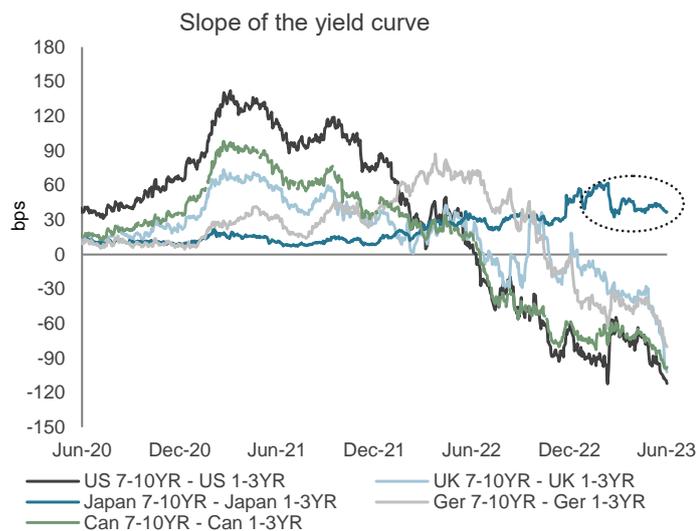
Chart 4: It is a similar story with inversion in long maturities, with Japan the exception. With yields near 15-year highs, investor concern over re-investment risks may be keeping curves inverted.

Slope of the Yield Curve

Legend: US 20+YRs - US 1-3YR, UK 20+YRs - UK 1-3YR, Japan 20+YRs - Japan 1-3YR, Ger 20+YRs - Ger 1-3YR, Can 20+YRs - Can 1-3YR
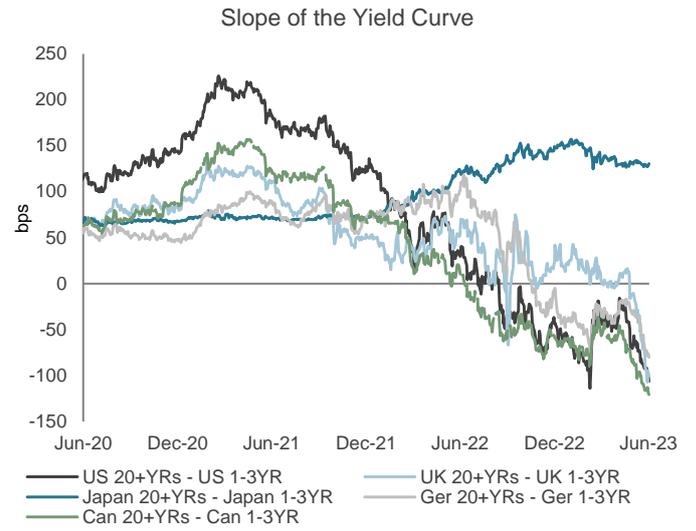
Chart 5: Inflation breakevens moved higher in the UK and Japan in June, while remaining stable near 2% elsewhere. This is in line with persistently higher inflation in the UK and Japan.

Breakeven Inflation

Legend: US 7-10YR - US IL 7-10YR, UK 7-10YR - UK IL 7-10YR, Japan 7-10YR - Japan IL 7-10YR, Ger 7-10YR - Ger IL 5-10YR, WGBI 7-10YR - WGBI IL 7-10YR
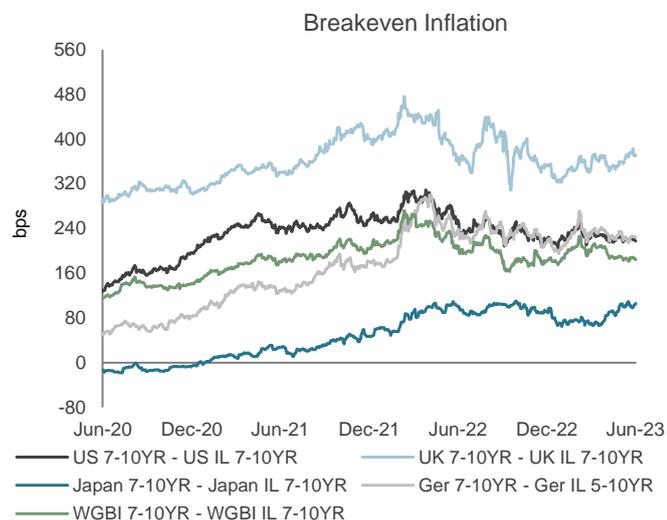
Chart 6: Global inflation breakevens of all tenors have converged near 2%, after a period of much higher short-dated breakevens. There is little evidence of inflation expectations de-stabilising.

Short, medium and longer term global inflation b/evens

Legend: WGBI 1-3YR - WGBI IL 1-3YR, WGBI 7-10YR - WGBI IL 7-10YR, WGBI 20+YR - WGBI IL 20+YR

Yield Spread and Credit Spread Analysis

Chart 1: US sovereign spreads widened versus Japan in Q2, but fell sharply versus the UK, after the spike in gilt yields, taking them to new post-Covid lows. Spreads widened versus Bunds.

US 7-10yr sovereign spreads

Legend:
- US 7-10YR - Ger 7-10YR
- US 7-10YR - Japan 7-10YR
- US 7-10YR - WGBI 7-10YR
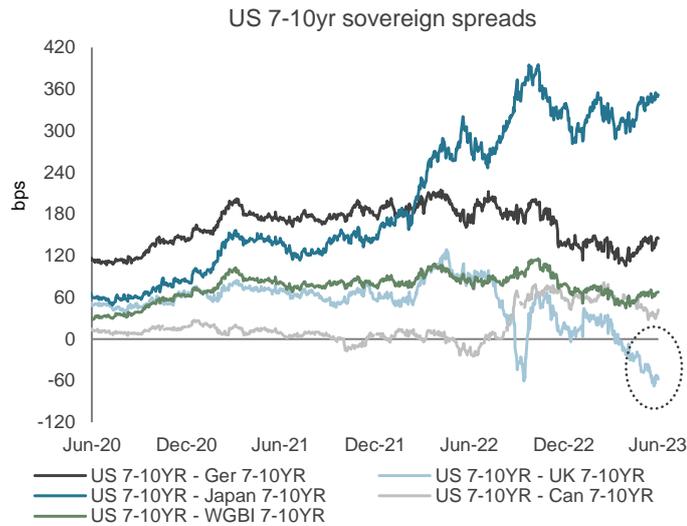- US 7-10YR - UK 7-10YR
- US 7-10YR - Can 7-10YR

Chart 2: Peripheral Eurozone spreads fell, with Italy a strong performer, helped by lower energy prices, political stability, and support from the ECB's transmission protection instrument.

Italy 7-10yr yield spreads v Germany, France & US

Legend:
- Italy 7-10YR - Ger 7-10YR
- Italy 7-10YR - US 7-10YR
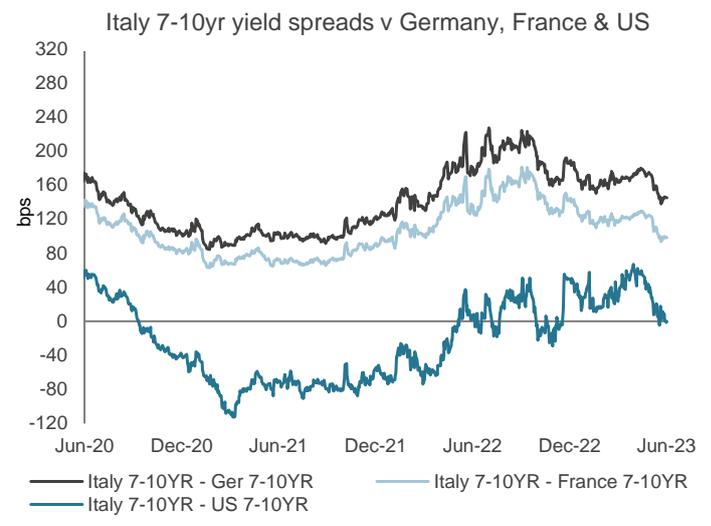- Italy 7-10YR - France 7-10YR

Chart 3: EM spreads remain at, or near post-Covid lows, reflecting early counter-inflation action by EM than the G7, reduced re-financing risks in EM debt, and favourable external accounts.

EM 7-10yr spreads v US, Germany, Japan, UK, Canada

Legend:
- EM 7-10YR - US 7-10YR
- EM 7-10YR - Japan 7-10YR
- EM 7-10YR - Can 7-10YR
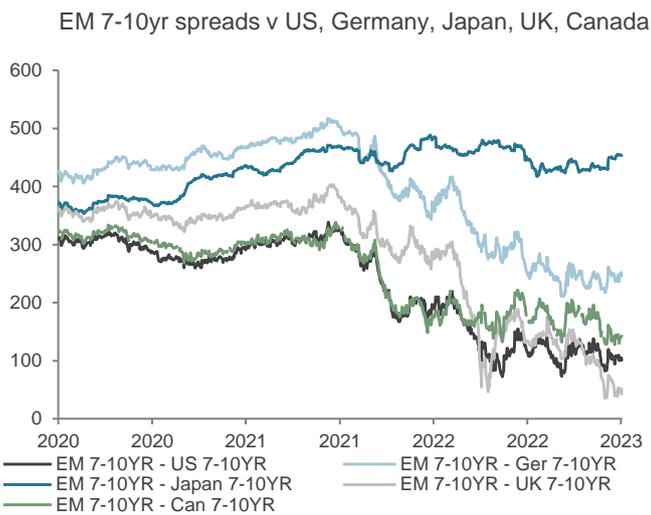- EM 7-10YR - Ger 7-10YR
- EM 7-10YR - UK 7-10YR

Chart 4: Chinese sovereign spreads tightened further in June, after the PBoC eased rates, and some G7 central banks raised rates. Very low inflation gives the PBoC room to ease rates further.

China sovereign spreads v US, Germany, Japan, UK, Canada

Legend:
- China 7-10YR - US 7-10YR
- China 7-10YR - Japan 7-10YR
- China 7-10YR - Can 7-10YR
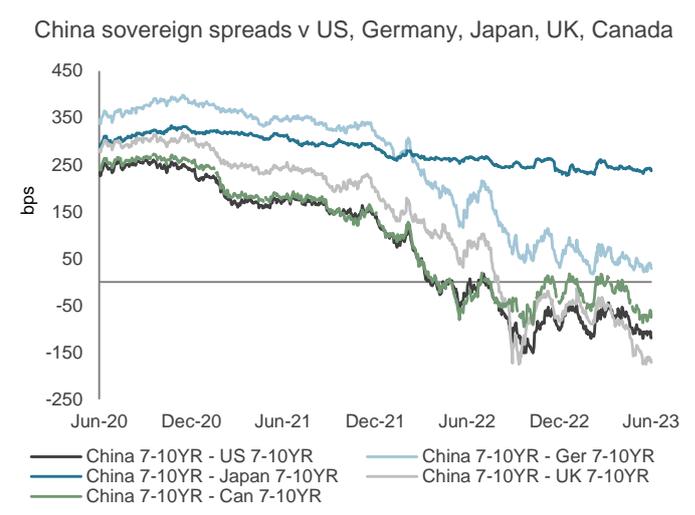- China 7-10YR - Ger 7-10YR
- China 7-10YR - UK 7-10YR

Chart 5: High yield spreads edged wider in June, led by Eurozone spreads, but they remain below Covid levels. US IG credits fell in June, perhaps reflecting the fact spreads are relatively high vs HY.
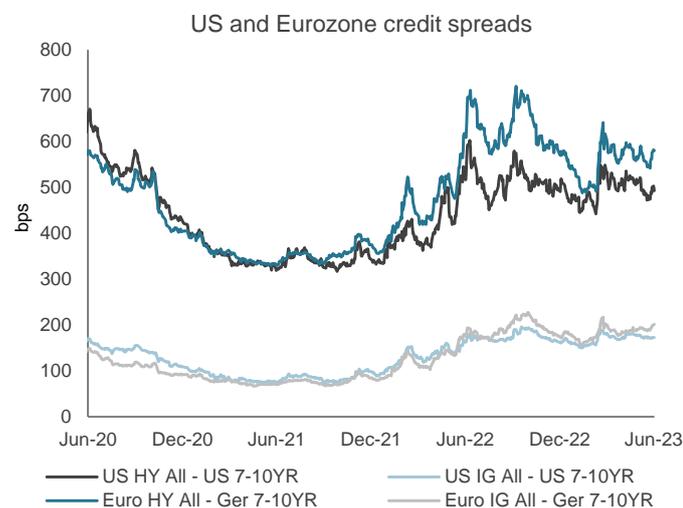
US and Eurozone credit spreads

Legend:
- US HY All - US 7-10YR
- Euro HY All - Ger 7-10YR
- US IG All - US 7-10YR
- Euro IG All - Ger 7-10YR

Chart 6: Chinese $ HY spreads tightened in early June before backing up to 6000bps, after defaults by property developers and a lack of new property stimulus measures. Restructurings made little progress.

China property and US $ high yield credit spreads vs US Treasuries

Legend:
- US HY - US 7-10YR
- $ China Property HY - US 7-10YR (RHS)

Sovereign and Climate Bonds Analysis

Chart 1: With yields surging in the UK, while near zero in Japan, and Japan's climate-WGBI weight falling, overall WGBI spreads narrowed sharply versus climate WGBI in June, led by 1-3 years.
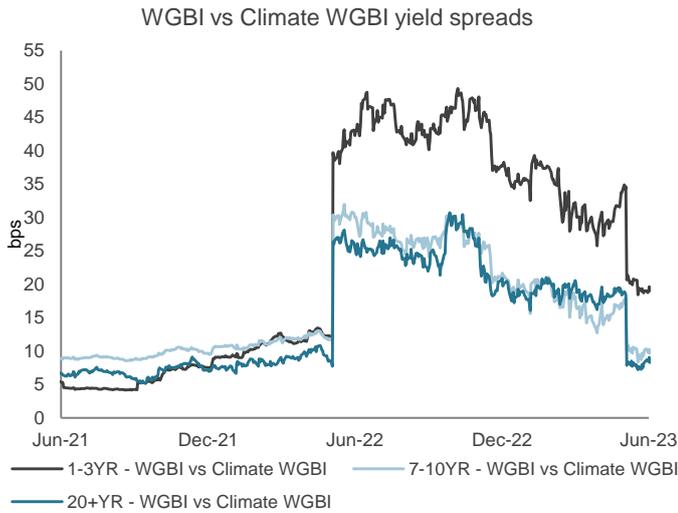
Chart 2: Both a decrease in Japan's overweight in Climate WGBI vs WGBI and an increase in UK's overweight were notable in the June re-weightings, after the UK issued more green gilts.
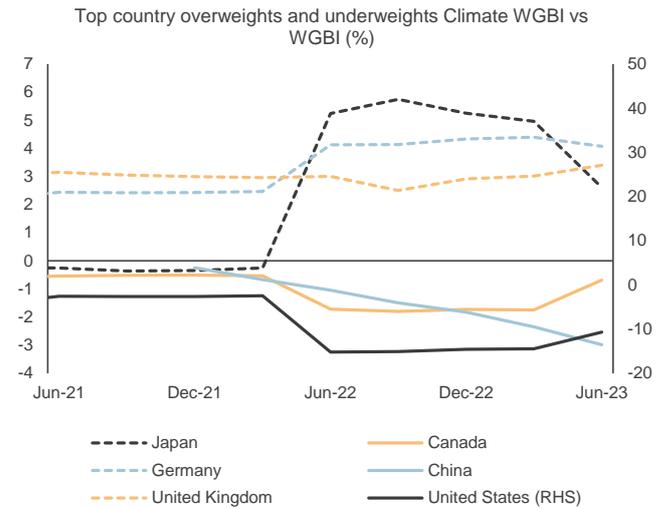
WGBI vs Climate WGBI yield spreads

Legend: 1-3YR - WGBI vs Climate WGBI; 7-10YR - WGBI vs Climate WGBI; 20+YR - WGBI vs Climate WGBI

Top country overweights and underweights Climate WGBI vs WGBI (%)

Legend: Japan; Germany; United Kingdom; Canada; China; United States (RHS)

Chart 3: Within IG credit, green corporates are underweight in higher-rated sectors of AAA/AA vs global peers, and overweight most in the BBB sector (54.7% vs 51.4%).
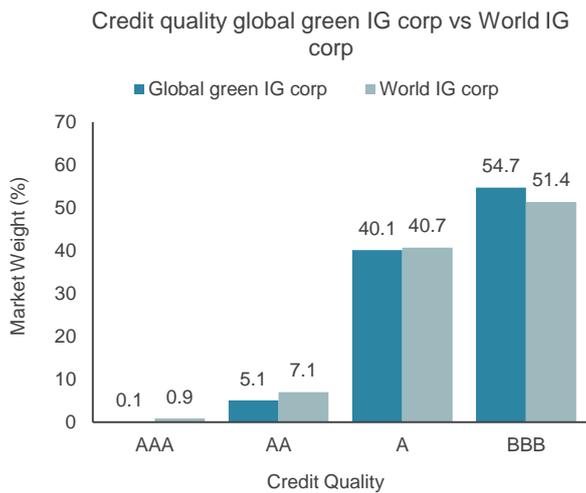
Chart 4: The opposite is seen in HY – higher rated BB bonds have a much larger share compared with global peers, 89.2% vs 54.5%, suggesting better credit quality for HY green corporates.
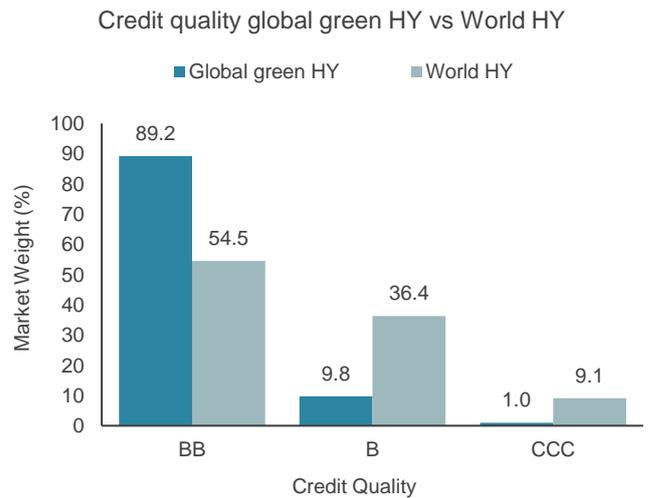
Credit quality global green IG corp vs World IG corp

Legend: Global green IG corp; World IG corp

Credit Quality	Global green IG corp	World IG corp
AAA	0.1	0.9
AA	5.1	7.1
A	40.1	40.7
BBB	54.7	51.4

Credit quality global green HY vs World HY

Legend: Global green HY; World HY

Credit Quality	Global green HY	World HY
BB	89.2	54.5
B	9.8	36.4
CCC	1.0	9.1

Chart 5: Euro green bonds dominate currency weights in the Global Green index at 68.3%, in contrast to the low USD weight (18%). This is reversed in WorldBIG with a USD weight of 55%.
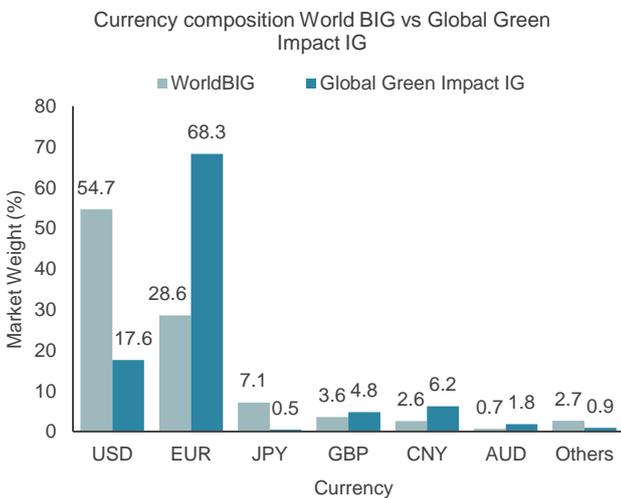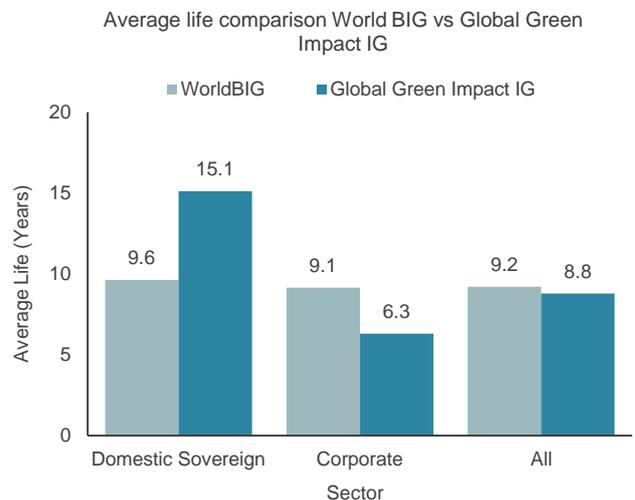
Chart 6: Breakdown of Global Green and WorldBIG indices shows differences in average life for different components. Corporates offset the Sovereign impact in boosting Global Green average life.

Currency composition World BIG vs Global Green Impact IG

Legend: WorldBIG; Global Green Impact IG

Currency	WorldBIG	Global Green Impact IG
USD	54.7	17.6
EUR	28.6	68.3
JPY	7.1	0.5
GBP	3.6	4.8
CNY	2.6	6.2
AUD	0.7	1.8
Others	2.7	0.9

Average life comparison World BIG vs Global Green Impact IG

Legend: WorldBIG; Global Green Impact IG

Sector	WorldBIG	Global Green Impact IG
Domestic Sovereign	9.6	15.1
Corporate	9.1	6.3
All	9.2	8.8

Global Sovereign Bond Returns − 3M and YTD % (GBP & LC, TR) as of June 30, 2023

Higher UK rates and sterling strength squeezed long gilts and overseas returns in sterling terms on 3M and YTD, with losses of up to 13% in JGBs, due to the weak yen. Renminbi weakness also turned Chinese bond returns negative by 6-7% on 3M. Only long Bunds showed positive returns, of 1% YTD.

3M returns show the impact of yen weakness with the currency falling over 10% versus sterling, though JGB returns were positive in yen terms. The euro held up better against sterling in 2023, so Bund returns held up better on both 3M and YTD.

YTD, longer G7 and EM yields fell, excluding gilts, as curves inverted and inflation fell, with returns of up to 8% in local currencies.
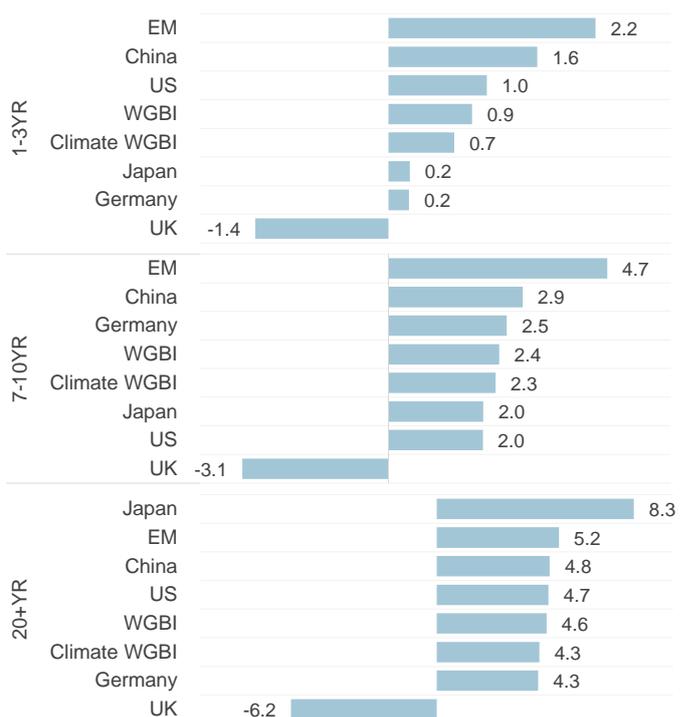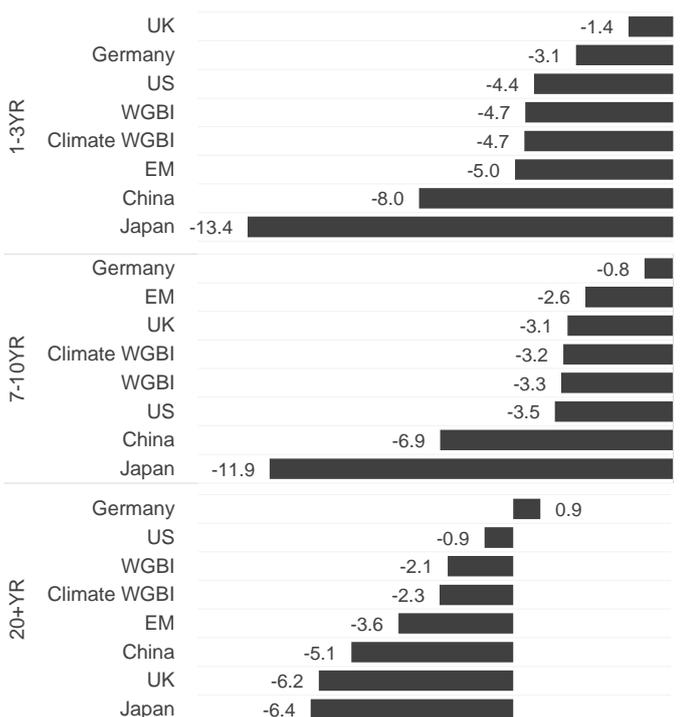
CONVENTIONAL GOVT BONDS
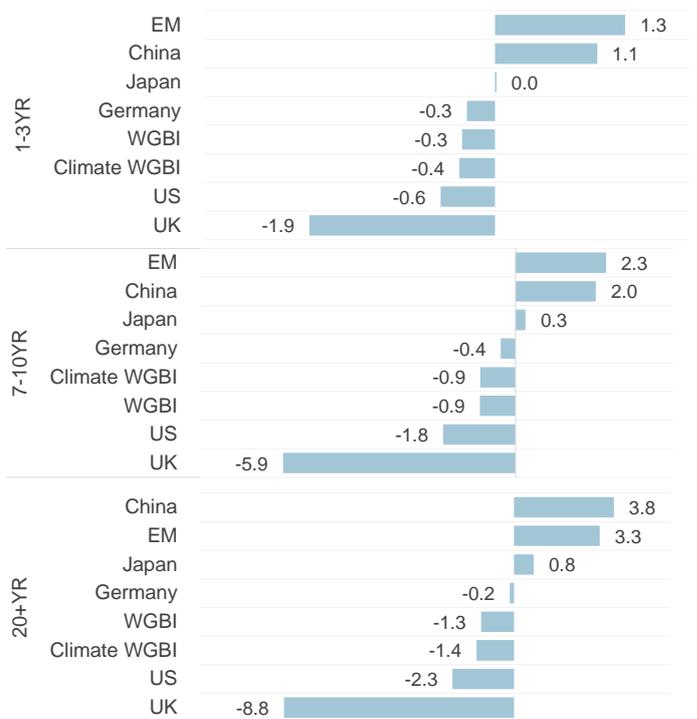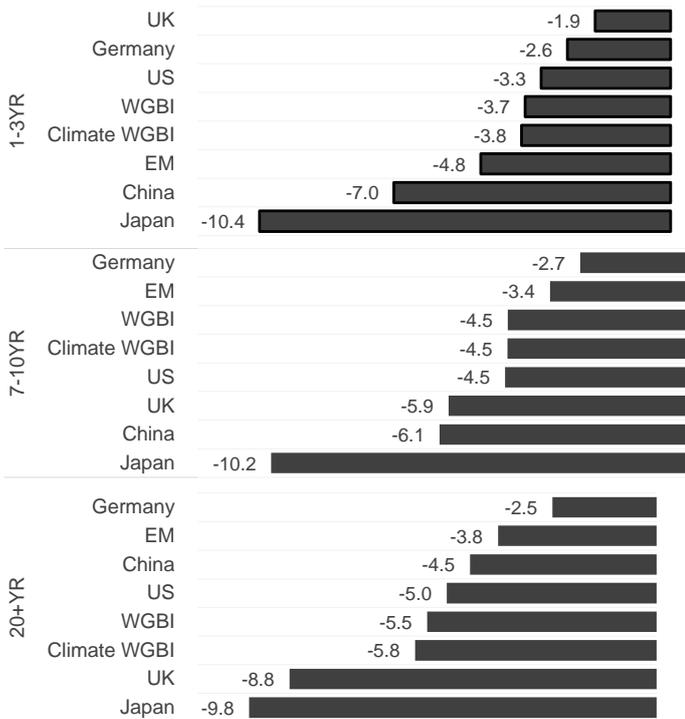
Source: FTSE Russell. All data as of June 30, 2023. Past performance is no guarantee of future results. Please see the end for important legal disclosures. Bond market data is derived from FTSE Fixed Income Indices. See Appendix Glossary for list of Indices used for each market. For professional investors only.

Global Inflation-Linked Bond Returns − 3M & YTD % (GBP, LC, TR) as of June 30, 2023
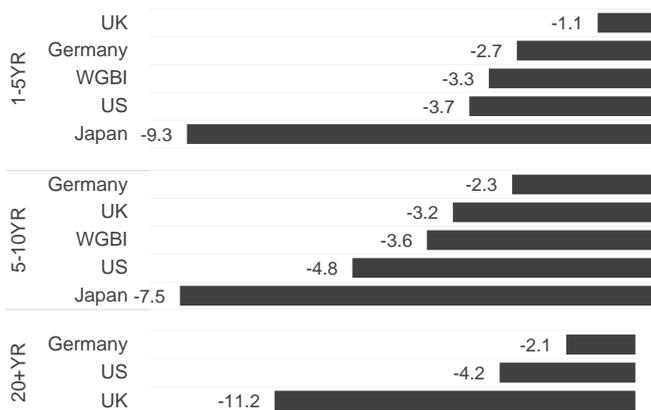
As with conventionals, JGB and longer UK IL were the weakest 3M performers, reflecting higher UK rates and yen weakness with losses of 8-11% in sterling. Bund and short UK IL were strongest, but still lost 1-3% on 3M, though long Bund and medium UK IL gained 1-4% YTD, helped by euro gains. Euro HY credits outperformed YTD, with positive returns of 2%, YTD.

High inflation and base rate increases depressed long UK IL in Q2, and YTD, notably underperforming due to ultra-long duration. But short UK index linked (IL) performed relatively better, with modest losses of up to 1%.
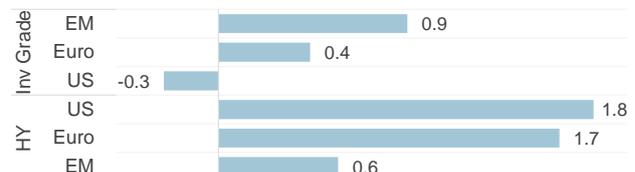
High yield credit outperformed YTD, led by euro credits, with stronger correlation of HY credit to equities a factor. Investment grade credits were weaker, and EM and US IG credit fell 2% YTD in sterling terms, not helped by higher US Treasury yields.
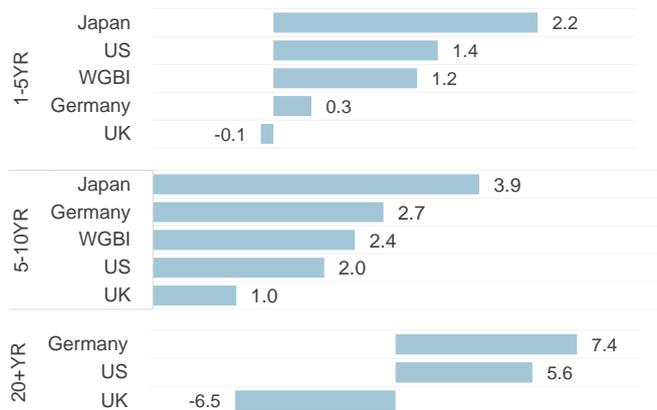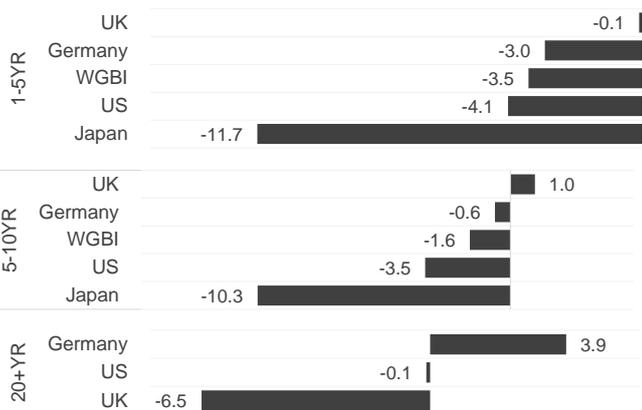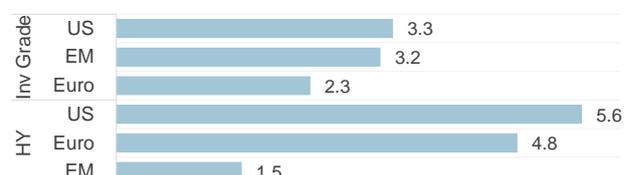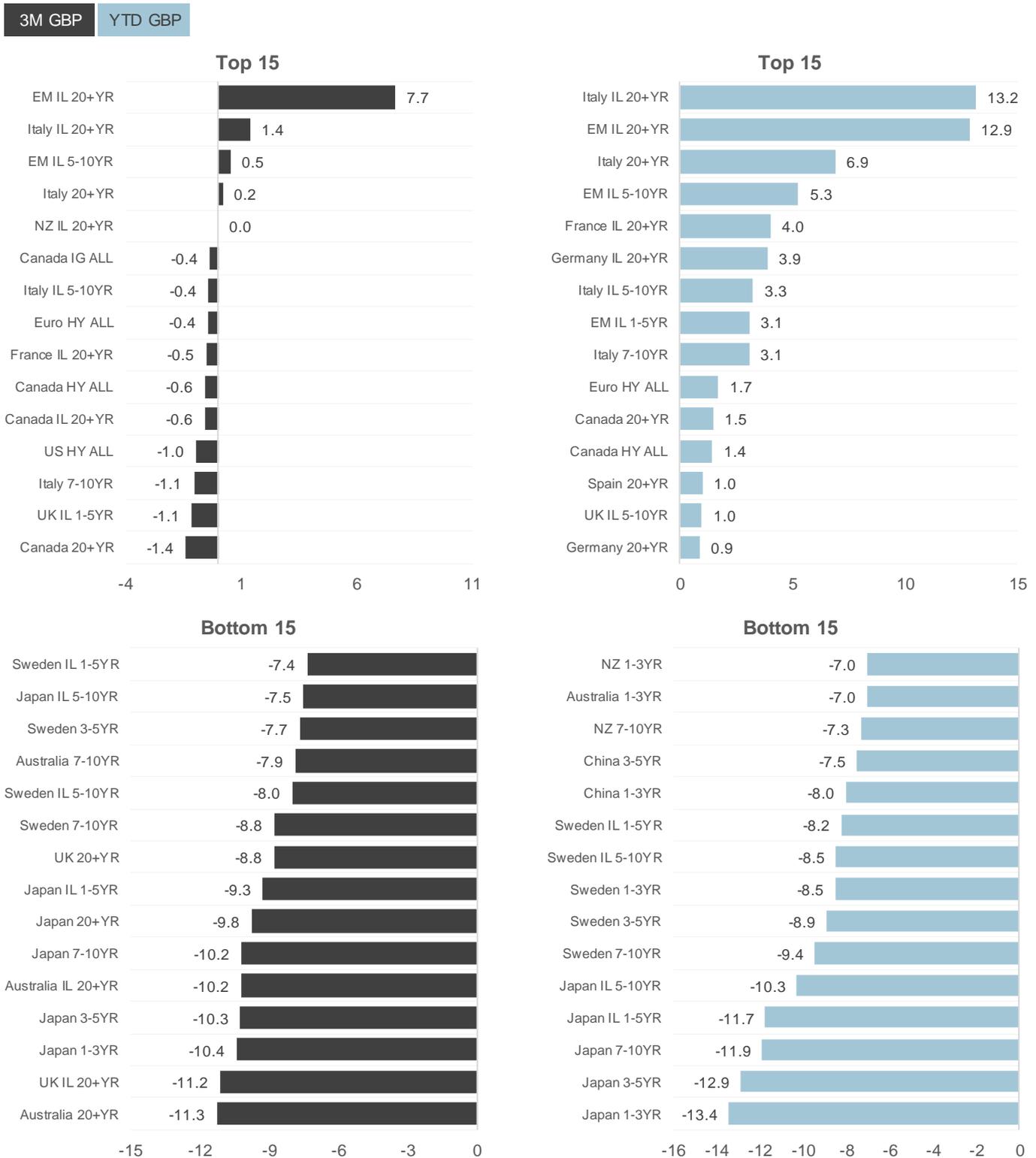
INFLATION LINKED BONDS

[3M GBP][3M LCY]

1-5YR (3M GBP)
UK	-1.1
Germany	-2.7
WGBI	-3.3
US	-3.7
Japan	-9.3

1-5YR (3M LCY)
Japan	1.3
Germany	-0.4
WGBI	-0.7
US	-1.0
UK	-1.1

5-10YR (3M GBP)
Germany	-2.3
UK	-3.2
WGBI	-3.6
US	-4.8
Japan	-7.5

5-10YR (3M LCY)
Japan	3.3
Germany	0.1
WGBI	-1.3
US	-2.1
UK	-3.2

20+YR (3M GBP)
Germany	-2.1
US	-4.2
UK	-11.2

20+YR (3M LCY)
Germany	0.2
US	-1.5
UK	-11.2

CORPORATE BONDS

Inv Grade (3M GBP)
EM	-1.8
Euro	-1.9
US	-3.0

HY (3M GBP)
Euro	-0.4
US	-1.0
EM	-2.2

Inv Grade (3M LCY)
EM	0.9
Euro	0.4
US	-0.3

HY (3M LCY)
US	1.8
Euro	1.7
EM	0.6

INFLATION LINKED BONDS

[YTD GBP][YTD LCY]

1-5YR (YTD GBP)
UK	-0.1
Germany	-3.0
WGBI	-3.5
US	-4.1
Japan	-11.7

1-5YR (YTD LCY)
Japan	2.2
US	1.4
WGBI	1.2
Germany	0.3
UK	-0.1

5-10YR (YTD GBP)
UK	1.0
Germany	-0.6
WGBI	-1.6
US	-3.5
Japan	-10.3

5-10YR (YTD LCY)
Japan	3.9
Germany	2.7
WGBI	2.4
US	2.0
UK	1.0

20+YR (YTD GBP)
Germany	3.9
US	-0.1
UK	-6.5

20+YR (YTD LCY)
Germany	7.4
US	5.6
UK	-6.5

CORPORATE BONDS

Inv Grade (YTD GBP)
Euro	-1.0
US	-2.3
EM	-2.4

HY (YTD GBP)
Euro	1.7
US	-0.1
EM	-4.0

Inv Grade (YTD LCY)
US	3.3
EM	3.2
Euro	2.3

HY (YTD LCY)
US	5.6
Euro	4.8
EM	1.5

Top and Bottom Bond Returns − 3M & YTD % (GBP, TR) as of June 30, 2023

Long Italian govt bonds and EM IL showed the best returns on 3M of up to 8%, and YTD of 7-13%, in sterling terms. The stronger euro boosted returns in the Eurozone. Pronounced currency weakness drove negative JGB and Australian government returns of 7-13% YTD.

Currencies have been big drivers of fixed income returns in 2023, reflecting differences in inflation and policy cycles. EM inflation-linked performed strongly, after early counter-inflation tightening. Canadian HY also benefited from short duration and the risk rally.

YTD, yen, renminbi and Swedish kroner weakness drove negative returns of 7-13% sterling terms. In contrast, long Eurozone govts benefited from spread convergence as risk appetite recovered, and inflation fell, even if the ECB continues to raise rates.

3M GBP **YTD GBP**

Top 15 (3M GBP)

Index	Value
EM IL 20+YR	7.7
Italy IL 20+YR	1.4
EM IL 5-10YR	0.5
Italy 20+YR	0.2
NZ IL 20+YR	0.0
Canada IG ALL	-0.4
Italy IL 5-10YR	-0.4
Euro HY ALL	-0.4
France IL 20+YR	-0.5
Canada HY ALL	-0.6
Canada IL 20+YR	-0.6
US HY ALL	-1.0
Italy 7-10YR	-1.1
UK IL 1-5YR	-1.1
Canada 20+YR	-1.4

Top 15 (YTD GBP)

Index	Value
Italy IL 20+YR	13.2
EM IL 20+YR	12.9
Italy 20+YR	6.9
EM IL 5-10YR	5.3
France IL 20+YR	4.0
Germany IL 20+YR	3.9
Italy IL 5-10YR	3.3
EM IL 1-5YR	3.1
Italy 7-10YR	3.1
Euro HY ALL	1.7
Canada 20+YR	1.5
Canada HY ALL	1.4
Spain 20+YR	1.0
UK IL 5-10YR	1.0
Germany 20+YR	0.9

Bottom 15 (3M GBP)

Index	Value
Sweden IL 1-5YR	-7.4
Japan IL 5-10YR	-7.5
Sweden 3-5YR	-7.7
Australia 7-10YR	-7.9
Sweden IL 5-10YR	-8.0
Sweden 7-10YR	-8.8
UK 20+YR	-8.8
Japan IL 1-5YR	-9.3
Japan 20+YR	-9.8
Japan 7-10YR	-10.2
Australia IL 20+YR	-10.2
Japan 3-5YR	-10.3
Japan 1-3YR	-10.4
UK IL 20+YR	-11.2
Australia 20+YR	-11.3

Bottom 15 (YTD GBP)

Index	Value
NZ 1-3YR	-7.0
Australia 1-3YR	-7.0
NZ 7-10YR	-7.3
China 3-5YR	-7.5
China 1-3YR	-8.0
Sweden IL 1-5YR	-8.2
Sweden IL 5-10YR	-8.5
Sweden 1-3YR	-8.5
Sweden 3-5YR	-8.9
Sweden 7-10YR	-9.4
Japan IL 5-10YR	-10.3
Japan IL 1-5YR	-11.7
Japan 7-10YR	-11.9
Japan 3-5YR	-12.9
Japan 1-3YR	-13.4

Source: FTSE Russell. All data as of June 30, 2023. This analysis is taken from 100+ FTSE Russell sub-indices. Past performance is no guarantee of future results. Please see the end for

Government Bond Returns

| | | | | Top 15% | Bottom 15% |

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

		3M		6M		YTD		12M	
		Local	GBP	Local	GBP	Local	GBP	Local	GBP
US	1-3YR	-0.56	-3.29	1.04	-4.40	1.04	-4.40	0.16	-4.32
	7-10YR	-1.84	-4.53	2.01	-3.48	2.01	-3.48	-3.31	-7.64
	20+YR	-2.35	-5.03	4.73	-0.91	4.73	-0.91	-8.47	-12.56
	IG All	-0.27	-3.00	3.30	-2.26	3.30	-2.26	1.46	-3.08
	HY All	1.84	-0.96	5.55	-0.13	5.55	-0.13	9.06	4.18
UK	1-3YR	-1.91	-1.91	-1.42	-1.42	-1.42	-1.42	-2.68	-2.68
	7-10YR	-5.90	-5.90	-3.11	-3.11	-3.11	-3.11	-12.55	-12.55
	20+YR	-8.80	-8.80	-6.17	-6.17	-6.17	-6.17	-26.94	-26.94
EUR	IG All	0.45	-1.90	2.31	-1.04	2.31	-1.04	0.17	-0.14
	HY All	1.67	-0.45	4.78	1.71	4.78	1.71	9.23	8.95
Japan	1-3YR	0.01	-10.43	0.23	-13.43	0.23	-13.43	0.03	-10.18
	7-10YR	0.25	-10.22	2.02	-11.88	2.02	-11.88	0.33	-9.91
	20+YR	0.76	-9.77	8.34	-6.42	8.34	-6.42	0.03	-10.18
China	1-3YR	1.05	-7.03	1.58	-8.02	1.58	-8.02	2.76	-9.54
	7-10YR	2.04	-6.12	2.86	-6.87	2.86	-6.87	4.51	-8.00
	20+YR	3.83	-4.47	4.78	-5.13	4.78	-5.13	8.19	-4.75
EM	1-3YR	1.34	-4.82	2.20	-5.00	2.20	-5.00	4.22	-4.62
	7-10YR	2.29	-3.44	4.65	-2.59	4.65	-2.59	7.78	-1.60
	20+YR	3.29	-3.80	5.17	-3.64	5.17	-3.64	9.45	-1.41
	IG All	0.92	-1.85	3.15	-2.40	3.15	-2.40	2.82	-1.78
	HY All	0.59	-2.18	1.50	-3.97	1.50	-3.97	6.41	1.65
Germany	1-3YR	-0.29	-2.62	0.22	-3.07	0.22	-3.07	-2.40	-2.70
	7-10YR	-0.38	-2.70	2.52	-0.84	2.52	-0.84	-6.29	-6.58
	20+YR	-0.16	-2.49	4.29	0.87	4.29	0.87	-13.40	-13.67
Italy	1-3YR	-0.08	-2.42	0.98	-2.33	0.98	-2.33	-1.03	-1.34
	7-10YR	1.31	-1.05	6.57	3.07	6.57	3.07	-1.21	-1.51
	20+YR	2.61	0.21	10.52	6.89	10.52	6.89	-6.39	-6.69
Spain	1-3YR	-0.31	-2.64	0.56	-2.74	0.56	-2.74	-2.18	-2.48
	7-10YR	-0.12	-2.46	3.17	-0.22	3.17	-0.22	-4.52	-4.82
	20+YR	0.04	-2.30	4.43	1.01	4.43	1.01	-9.23	-9.51
France	1-3YR	-0.32	-2.65	0.51	-2.79	0.51	-2.79	-2.46	-2.77
	7-10YR	-0.28	-2.61	2.62	-0.75	2.62	-0.75	-5.42	-5.72
	20+YR	0.34	-2.01	3.83	0.43	3.83	0.43	-10.88	-11.16
Sweden	1-3YR	-0.34	-6.95	0.24	-8.51	0.24	-8.51	-0.67	-9.98
	7-10YR	-2.30	-8.78	-0.77	-9.44	-0.77	-9.44	-5.29	-14.16
	20+YR					0.00	0.00	0.00	0.00
Australia	1-3YR	-1.52	-4.81	0.10	-7.03	0.10	-7.03	0.66	-6.93
	7-10YR	-4.70	-7.88	1.95	-5.32	1.95	-5.32	0.74	-6.85
	20+YR	-8.22	-11.29	2.34	-4.96	2.34	-4.96	-4.75	-11.92
NZ	1-3YR	-0.14	-4.90	1.43	-7.03	1.43	-7.03	0.75	-5.17
	7-10YR	-1.74	-6.43	1.11	-7.33	1.11	-7.33	-1.57	-7.36
Canada	1-3YR	-1.00	-1.53	0.58	-2.55	0.58	-2.55	0.57	-6.35
	7-10YR	-2.54	-3.06	1.43	-1.73	1.43	-1.73	2.25	-4.78
	20+YR	-0.87	-1.40	4.75	1.49	4.75	1.49	3.60	-3.52

Appendix − Global Bond Market Returns % (GBP & LC, TR) – June 30, 2023

Inflation-Linked Bond Returns

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

		3M		6M		YTD		12M	
		Local	GBP	Local	GBP	Local	GBP	Local	GBP
US	1-5YR	-0.96	-3.68	1.36	-4.10	1.36	-4.10	-0.71	-5.15
	5-10YR	-2.11	-4.79	2.04	-3.46	2.04	-3.46	-1.73	-6.13
	20+YR	-1.49	-4.20	5.58	-0.11	5.58	-0.11	-5.97	-10.18
UK	1-5YR	-1.14	-1.14	-0.11	-0.11	-0.11	-0.11	1.01	1.01
	5-10YR	-3.20	-3.20	0.99	0.99	0.99	0.99	-4.18	-4.18
	20+YR	-11.15	-11.15	-6.53	-6.53	-6.53	-6.53	-29.11	-29.11
EUxUK	1-5YR	-0.41	-2.74	0.31	-2.98	0.31	-2.98	-2.06	-2.36
	5-10YR	0.07	-2.27	2.74	-0.63	2.74	-0.63	-1.92	-2.23
	20+YR	0.21	-2.14	7.40	3.88	7.40	3.88	-5.61	-5.91
Japan	1-5YR	1.32	-9.27	2.19	-11.74	2.19	-11.74	3.21	-7.33
	5-10YR	3.26	-7.53	3.88	-10.28	3.88	-10.28	4.33	-6.33
EM	1-5YR	1.29	-2.02	6.05	3.08	6.05	3.08	13.75	9.21
	5-10YR	2.81	0.55	6.67	5.28	6.67	5.28	17.24	14.67
	20+YR	6.56	7.68	9.69	12.88	9.69	12.88	14.96	19.96
Germany	1-5YR	-0.41	-2.74	0.31	-2.98	0.31	-2.98	-2.06	-2.36
	5-10YR	0.07	-2.27	2.74	-0.63	2.74	-0.63	-1.92	-2.23
	20+YR	0.21	-2.14	7.40	3.88	7.40	3.88	-5.61	-5.91
Italy	1-5YR	-0.01	-2.35	1.41	-1.91	1.41	-1.91	1.56	1.24
	5-10YR	1.97	-0.41	6.76	3.26	6.76	3.26	4.55	4.22
	20+YR	3.84	1.41	16.99	13.15	16.99	13.15	2.61	2.29
Spain	1-5YR	-0.43	-2.75	0.78	-2.53	0.78	-2.53	0.36	0.05
	5-10YR	0.04	-2.30	2.76	-0.60	2.76	-0.60	0.83	0.52
France	1-5YR	-0.36	-2.69	0.53	-2.77	0.53	-2.77	-2.61	-2.92
	5-10YR	-0.17	-2.51	2.63	-0.73	2.63	-0.73	-1.74	-2.05
	20+YR	1.86	-0.52	7.54	4.02	7.54	4.02	-2.58	-2.88
Sweden	1-5YR	-0.78	-7.36	0.54	-8.24	0.54	-8.24	2.77	-6.87
	5-10YR	-1.48	-8.02	0.30	-8.46	0.30	-8.46	-2.71	-11.83
Australia	1-5YR	-1.11	-4.41	2.79	-4.53	2.79	-4.53	4.14	-3.70
	5-10YR	-2.76	-6.00	4.26	-3.17	4.26	-3.17	6.14	-1.85
	20+YR	-7.14	-10.24	5.42	-2.09	5.42	-2.09	4.34	-3.52
NZ	5-10YR	-0.62	-5.36	4.15	-4.55	4.15	-4.55	6.62	0.36
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canada	20+YR	-0.05	-0.58	-0.43	-3.53	-0.43	-3.53	3.51	-3.61

Appendix − Historical Bond Yields % as of June 30, 2023

		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	5.01	4.31	3.85	3.95	2.45	1.72	1.68	5.53	8.61
	3M Ago	4.20	3.72	3.49	3.76	1.44	1.17	1.53	5.25	8.45
	6M Ago	4.54	4.13	3.88	4.11	2.09	1.68	1.82	5.50	9.00
	12M Ago	2.96	3.03	2.97	3.28	-0.04	0.64	1.14	4.74	8.86
UK	Current	5.36	5.04	4.38	4.35	1.78	0.72	0.90		
	3M Ago	3.79	3.55	3.43	3.80	0.00	-0.27	0.35		
	6M Ago	3.50	3.65	3.69	3.92	-0.68	0.15	0.49		
	12M Ago	1.94	1.73	2.01	2.51	-2.87	-1.70	-0.71		
Japan	Current	-0.10	-0.01	0.29	1.21	-1.64	-0.87			
	3M Ago	-0.09	0.02	0.30	1.22	-1.30	-0.51			
	6M Ago	0.03	0.15	0.48	1.50	-1.22	-0.54			
	12M Ago	-0.09	-0.02	0.21	1.19	-0.99	-0.67			
China	Current	2.09	2.33	2.66	3.08					
	3M Ago	2.31	2.56	2.84	3.25					
	6M Ago	2.28	2.53	2.85	3.26					
	12M Ago	2.19	2.47	2.82	3.34					
EM	Current	3.67	4.04	4.79	4.42	4.15	4.07	4.86	5.95	
	3M Ago	3.62	4.37	4.69	4.52	2.59	3.67	5.15	5.77	
	6M Ago	3.78	4.38	4.95	4.61	2.79	3.04	5.15	5.92	
	12M Ago	3.64	4.35	4.87	4.82	3.61	3.71	5.26	5.08	
Germany	Current	3.17	2.66	2.37	2.36	0.96	0.19	-0.06		
	3M Ago	2.69	2.36	2.24	2.33	-0.02	-0.12	-0.15		
	6M Ago	2.56	2.53	2.54	2.51	0.40	0.34	0.18		
	12M Ago	0.56	0.32	0.64	1.07	-2.33	-1.57	-1.07		
Italy	Current	3.79	3.71	3.87	4.25	1.74	1.78	1.70		
	3M Ago	3.27	3.43	3.88	4.34	0.45	1.50	1.74		
	6M Ago	3.34	3.72	4.38	4.72	1.16	2.19	2.18		
	12M Ago	1.34	1.90	2.69	3.18	-2.47	0.29	1.01		
France	Current	3.21	2.94	2.85	3.19	0.88	0.47	0.55		
	3M Ago	2.83	2.66	2.70	3.17	-0.29	0.05	0.53		
	6M Ago	2.85	2.82	2.97	3.30	0.15	0.44	0.77		
	12M Ago	0.81	0.85	1.25	2.02	-2.47	-1.28	-0.34		
Sweden	Current	3.43	2.94	2.61		1.18	0.91			
	3M Ago	2.85	2.56	2.25		0.09	0.32			
	6M Ago	2.80	2.65	2.37		-0.24	0.25			
	12M Ago	1.74	1.55	1.38		-1.59	-1.45			
Australia	Current	4.17	3.99	4.02	4.36	1.04	1.47	1.85		
	3M Ago	3.03	3.00	3.27	3.82	0.01	0.82	1.43		
	6M Ago	3.43	3.62	4.01	4.37	0.60	1.45	1.88		
	12M Ago	2.92	3.18	3.38	3.79	-0.41	0.75	1.51		
NZ	Current	5.08	4.67	4.61	4.77	1.53	2.15			
	3M Ago	4.78	4.37	4.23	4.37	1.04	1.72			
	6M Ago	5.00	4.62	4.46	4.54	1.54	2.06			
	12M Ago	3.54	3.77	3.89	4.29	0.39	1.65			
Canada	Current	4.34		3.34	3.13			1.54	5.36	
	3M Ago	3.58		2.87	3.03			1.28	5.00	
	6M Ago	3.90		3.30	3.31			1.33	5.27	
	12M Ago	3.08		3.21	3.18			1.23	4.83	

Appendix − Duration and Market Value (USD, Bn) as of June 30, 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	7.5	17.5	**6.1**	2,282.7	1,053.3	1,291.9	**10,379.5**	7.0	21.6	**6.7**	401.0	124.4	**1219.3**
UK	3.5	7.4	18.6	**10.1**	137.6	150.1	296.1	**1,021.6**	6.7	28.1	**16.5**	129.6	258.3	**672.2**
Japan	3.9	7.9	24.0	**12.3**	345.7	360.9	698.4	**3,117.1**	7.2		**4.3**	17.8		**49.7**
China	3.7	7.6	17.6	**5.6**	494.9	311.8	243.2	**2,066.2**						
EM	3.5	7.0	15.9	**5.6**	776.12	619.98	343.05	**3,530.8**	5.5	13.9	**7.4**	136.5	167.1	**640.8**
Germany	3.8	7.7	20.5	**7.2**	294.31	230.26	155.36	**1,399.1**	7.3	22.0	**9.2**	42.0	19.2	**86.5**
Italy	3.7	7.3	16.4	**6.4**	304.59	265.68	154.27	**1,613.1**	8.1	26.5	**7.9**	55.2	5.7	**178.1**
Spain	3.6	7.4	17.2	**6.7**	218.31	192.38	108.40	**1,078.9**	6.9		**5.8**	22.5		**81.8**
France	3.9	7.8	20.5	**7.6**	304.76	295.56	211.53	**1,747.8**	6.8	24.6	**7.9**	102.7	21.7	**286.1**
Sweden	3.9	7.8		**5.8**	13.15	8.61		**42.0**	5.9		**4.2**	9.4		**20.3**
Australia	3.7	7.8	17.6	**6.7**	50.66	87.55	15.00	**319.7**	7.3	22.5	**8.0**	9.5	2.6	**32.7**
NZ	4.0	7.7	17.2	**6.5**	9.23	10.46	2.29	**44.6**	6.4		**8.8**	3.1		**13.7**
Canada		7.3	18.9	**6.9**		186.00	88.00	**517.4**		14.4	**14.4**		67.0	**67.0**

| | Investment grade bonds | | | | | | | | | | High Yield | |
| | Duration | | | | | Market Value | | | | | Duration | MktVal |
	AAA	AA	A	BBB	Overall	AAA	AA	A	BBB	Overall		
US	11.0	8.8	7.4	6.7	**7.2**	74.0	451.3	2,591.1	3,292.0	**6,408.4**	4.0	1,162.9
Euro	6.4	4.9	4.7	4.3	**4.5**	9.5	186.1	1,160.6	1,445.9	**2,802.1**	3.1	418.8
EM		5.9	4.9	5.1	**5.1**		45.08	222.29	330.9	**598.2**	3.3	191.2

Average Duration

Total Market Value (USD Billions)

Data as of 2023-06-30

Appendix − Foreign Exchange Returns % as of June 30, 2023

FX Moves vs GBP – 1M

Currency	%
Brazilian Real	3.5
S.African Rand	2.3
Norwegian Krone	1.4
Mexican Peso	0.9
Australian Dollar	0.3
Canadian Dollar	0.1
Danish Kroner	-0.2
Euro	-0.2
New Zealand Dollar	-0.3
Swiss Franc	-0.4
Indian Rupee	-1.7
Swedish Krona	-1.8
Korean Won	-1.8
Singapore Dollar	-2.4
U.S. Dollars	-2.5
Chinese Yuan	-4.7
Japanese Yen	-5.8
Turkish Lira	-22.6

FX Moves vs GBP – 3M

Currency	%
Mexican Peso	2.4
Brazilian Real	2.2
Canadian Dollar	-0.5
Swiss Franc	-0.7
Danish Kroner	-2.3
Euro	-2.3
Indian Rupee	-2.6
U.S. Dollars	-2.7
Australian Dollar	-3.3
Korean Won	-3.9
Singapore Dollar	-4.5
New Zealand Dollar	-4.8
Norwegian Krone	-4.9
Swedish Krona	-6.6
Chinese Yuan	-8.0
S.African Rand	-8.7
Japanese Yen	-10.4
Turkish Lira	-28.4

FX Moves vs GBP – YTD

Currency	%
Mexican Peso	7.5
Brazilian Real	3.6
Swiss Franc	-2.2
Canadian Dollar	-3.1
Euro	-3.3
Danish Kroner	-3.4
Indian Rupee	-4.6
U.S. Dollars	-5.4
Singapore Dollar	-6.2
Australian Dollar	-7.1
New Zealand Dollar	-8.3
Swedish Krona	-8.7
Korean Won	-9.2
Chinese Yuan	-9.5
Norwegian Krone	-13.0
Japanese Yen	-13.6
S.African Rand	-14.8
Turkish Lira	-32.1

FX Moves vs GBP – 12M

Currency	%
Mexican Peso	12.4
Brazilian Real	3.6
Swiss Franc	2.2
Euro	-0.3
Danish Kroner	-0.4
Singapore Dollar	-1.8
U.S. Dollars	-4.5
Korean Won	-5.9
New Zealand Dollar	-5.9
Canadian Dollar	-6.9
Australian Dollar	-7.5
Indian Rupee	-8.0
Swedish Krona	-9.4
Japanese Yen	-10.2
Norwegian Krone	-11.9
Chinese Yuan	-12.0
S.African Rand	-17.2
Turkish Lira	-38.8

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