Fixed Income Insights

MONTHLY REPORT - APRIL 2023 | EUROZONE EDITION

FOR PROFESSIONAL INVESTORS ONLY

Banking woes drive reassessment of duration risk and ECB policy

The disconnect between market expectations on Fed rates and the dot plots has re-opened, despite the Fed downplaying systemic risks. Banking strains suggest tighter financial conditions than widely perceived. The wipe-out of AT1 bondholders in Credit Suisse signals the risks inherent in deeply subordinated bank debt.

Growth and inflation expectations - ECB downplays systemic risks but GFC memories re-awaken

US bank runs increase recession risks, as Fed's Powell conceded bank stresses may tighten credit conditions by 25-50bp. Global portfolio flows into money market funds, and out of bank deposits, reflect concerns about GFC re-run. (pages 2-3)

Yields, curves and spreads – Extent of curve inversion declined as 2-year yields fell sharply, bank spreads widened Collapse in G7 2-year yields signals financial stability concerns, despite central banks downplaying systemic risks. (pages 4-5)

Performance – Safe havens and duration dominate returns in March and Q1 as banking shock unfolds Flight to safe havens drove outperformance by government bonds in Q1, while inflation-linked bonds performed strongly, helped by duration. (pages 6-8).

Sovereign and climate bonds – "Greenium" more evident again in long climate-WGBI after March rally

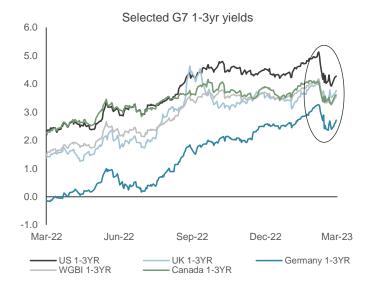
Climate-WGBI outperformed in March, despite the US underweight, as JGBs and Bunds performed strongly. (page 9)

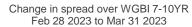
Appendix (from page 10)

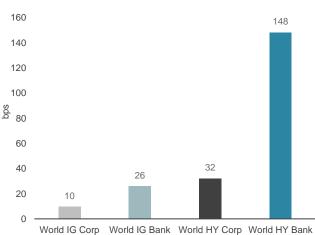
Global bond market returns, historical bond yields, bond market durations and market values and foreign exchange returns.

Chart 1: The collapse in G7 2-year yields reflects a re-appraisal of financial stability risks, and may also reflect inflows from bank deposits.

Chart 2: High yield bank spreads widened substantially after US banking woes and the bail-in of AT1 holders in Credit Suisse.







Source: FTSE Russell. All data as of March 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

Market focus shifted to the global banking system, in March, although growth forecasts do not yet show downgrades and there may be less tightening as a result. The latest inflation data showed the decline generally slowing and the labour markets remain tight. Fund flows indicate a surge in money market inflows, though flows are modest by Covid standards.

Economic data has yet to pick up the impact of recent banking collapses (also see page 3). The ECB revised up its own growth forecasts to 1.0% for 2023 in March, versus 0.5% previously, based on lower inflation, boosting real incomes and consumption, but a Eurozone credit crunch would put that at risk, particularly after the monetary tightening in 2022-23.

Eurozone inflation fell in March to 6.9% y/y (from 8.5%), the lowest level since February 2022, though strong food prices remain a key feature. Forecasts generally point to a steep fall in 2023, driven by weaker energy prices, including the ECB's (Chart 2). But the ECB does not project HICP inflation to be at the 2% target level until 2025.

Wage inflation jumped to a new cycle-high in Q4 2022, of 5.7% y/y, as the Eurozone labour market tightened, and unemployment fell to an all-time low of 6.7% (Chart 3). ECB President Lagarde cited wage inflation as a clear risk to achieving the inflation target.

March saw sizeable capital flows into global money market funds, which came mainly from bank deposits, unsurprisingly, though the flows are small to date, compared to Covid. Central banks moved quickly to increase US dollar liquidity (March 19), offering daily dollar swaps from March 20, to ease funding strains in global markets, and prevent tightening in credit conditions (Chart 4).

Chart 1: GDP forecasts do not yet show downgrades for the tightening in credit conditions in March. This increases downside risks, with the Fed noting it could be worth at least 25bp on rates.

Latest Consens	us Real GDP F	orecasts (%, N	larch 2023)
	2022	2023	2024
US	2.1	1.0	1.0
UK	4.1	-0.5	0.8
Eurozone	3.3	0.5	1.2
Japan	1.6	1.0	1.1
China	3.0	4.9	5.0
Canada	3.5	0.5	1.5

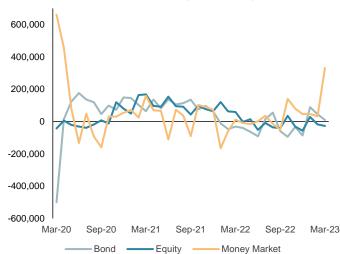
Chart 3. Wage inflation has moved higher in the Eurozone since the initial Covid shock in 2020, but the level is still short of the about 4% seen pre-covid and 1-2% levels in 2016-17.



Chart 2: Inflation fell to 6.5% y/y in March, though food prices remained strong, not helped in Europe by the absence of Ukrainian grain exports.

Consensus Inflation Forecasts (%, March 2023)												
	2023	Change Since Jan-23 (Bps)	2024	Change Since Jan-23 (Bps)								
US	4.1	40	2.5	0								
UK	6.6	-40	2.4	-10								
Eurozone	5.8	-20	2.5	0								
Japan	2.1	30	1.3	0								
China	2.3	0	2.3	0								
Canada	3.7	0	2.2	0								

Chart 4: Inflows into global money market funds, mainly out of bank deposits, show the impact of US regional bank woes and CSFB's collapse though flows are modest by Covid standards.



Net fund flows (millions, USD)

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

Financial Conditions and Monetary Policy Settings

A flight to quality drove government bond yields lower in March, after recent banking stress, even though the Fed, ECB and BoE still raised rates again. The suspicion remains financial conditions may be tighter than perceived and the bail-in of AT1 holders at Credit Suisse caused further weakness in junior bank credits. Short run inflation breakevens fell sharply.

Eurozone M2 growth continued to slow sharply (Chart 1), after substantial monetary tightening (475bp in the US since March 2022 & 350bp in the Eurozone since July 2022). Bank loan conditions are likely to tighten even further, after recent regional bank collapses.

Chart 2 shows updated Fed dot plots, after the March 22 FOMC meeting. The median projection is one more 25bp increase in Fed funds to a peak around 5.1% at end-year. But the market projects policy easing later in 2023, reflected in the decline in US 2-year yields in March (see page 1).

The ECB duly raised rates by 50bp on March 16, despite banking frailty in the US and Switzerland (Chart 3). President Lagarde stressed the contrast with 2008-09 in the better capitalised Eurozone banking system in 2023. Markets are pricing in a further 50bp of ECB tightening in 2023, by Q3, but clearly signs the banking crisis had widened to the Eurozone would make that difficult.

Global inflation breakevens fell back sharply in response to SVB's woes, as memories of the deflationary shock from the GFC were revived. Medium and longer breakevens remain more stable, on the view central banks would rapidly reverse recent tightening moves should systemic risk deepen.

Chart 1: Eurozone M2 growth has slowed sharply as QT impacts liquidity, but has become a less reliable indicator of future inflation, given its unstable velocity.

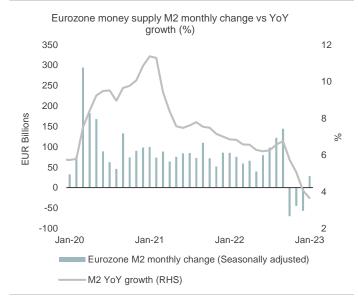


Chart 3: The Fed, BoE and ECB all tightening further in March, by 25-50bp, despite banking system woe. The ECB's Lagarde down - played systemic risks, but agreed to provide liquidity if needed.

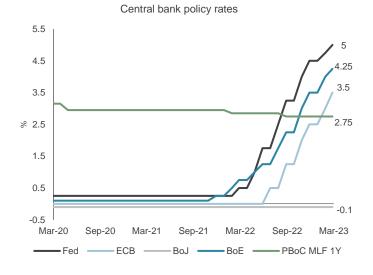


Chart 2: Updated Fed dot plots show rates peaking at 5.1% on the median, with no rate cuts until 2024. Markets project about 50bp of easing by end-2023, in response to recent banking woes.

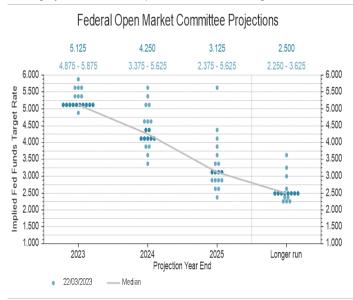


Chart 4: Global inflation breakevens show the impact of the deflationary shock from banking strains in the US and Switzerland. Medium and longer term breakevens remain more stable.



Short, medium and longer term global inflation b/evens

Source: FTSE Russell and Refinitiv. The Federal Reserve for Chart 2. All data as of March 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: Nominal 7-10-year yields declined sharply after the US banking crisis broke on March 8, and the flight to quality developed. Declines in Eurozone yields broadly matched those in the US.

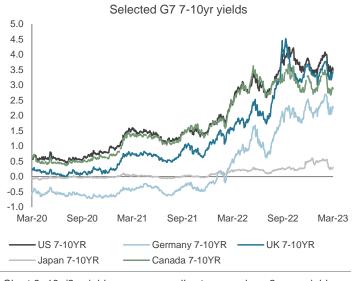
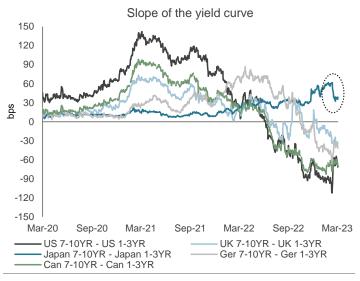
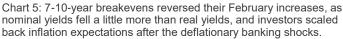


Chart 3: 10s/2s yield curves generally steepened, as 2-year yields collapsed on lower G7 rate expectations. Japan was an exception, with 2-year yields already at the lower bound, so the curve flattened.





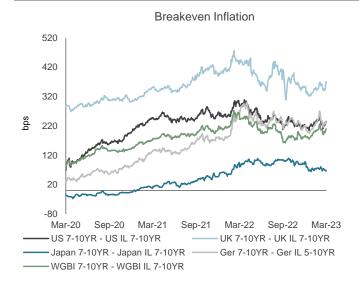


Chart 2: Real 7-10-year yields also fell sharply after the banking crisis, though not as much as conventionals, as the latter proved a safe haven of choice. Real yields remain well above 2020-22 levels.



Chart 4: The 20s+/2s yield curves steepened as 2-year yields fell, excluding Japan. But note that long-dated yields also fell, as the banking crisis was seen as a deflationary event.

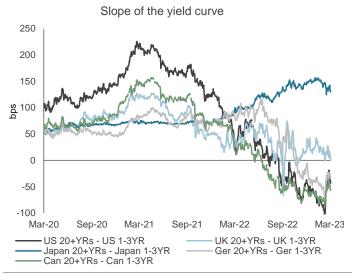


Chart 6: Short run inflation breakevens fell sharply, reflecting the collapse in 2-year nominal yields, and lower inflation prospects, if a credit crunch develops. Longer dated breakevens fell, but by less.



Short, medium and longer term global inflation b/evens

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Yield Spread and Credit Spread Analysis

Chart 1: G7 and global 7-10yr yields broadly fell together in March, so US spreads barely moved, despite banking woes being centered in the US. The demise of Credit Suisse in Europe may explain this.

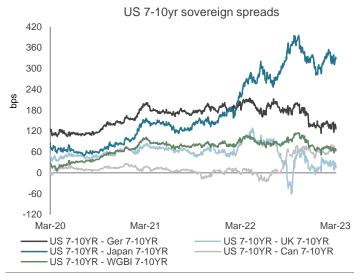


Chart 3: EM 7-10-year yield spreads widened in March, on the view cross border flows may fall in a banking crisis, but moves were modest, as the Fed agreed to offer overnight dollar swaps.

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

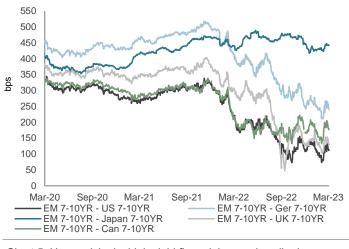


Chart 5: Unsurprisingly, high yield financial spreads spiked more than other credit spreads in the Eurozone and US, after the shock to the AT1 market from the bail-in of Credit Suisse AT1 holders.

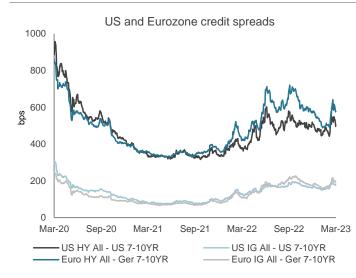


Chart 2: Peripheral Eurozone 7-10yr yield spreads were also quite stable in March, as Italian yields tracked core Eurozone yields lower. The ECB stated it would provide bank liquidity if needed.

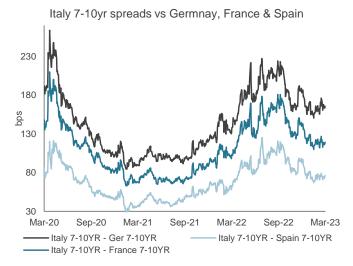


Chart 4: China 7-10-year sovereign spreads increased in March, as G7 yields fell more after the banking shocks. This demonstrates the low correlation between Chinese and G7 government bonds.

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

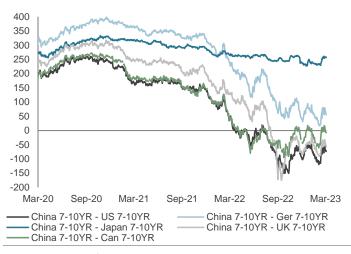
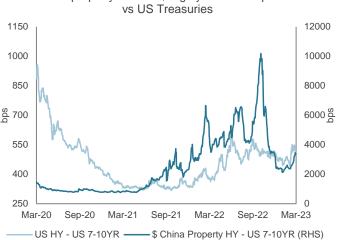


Chart 6: Chinese \$ HY spreads rose above 3000bps, tracking the widening spreads of US HY in March, as the flight-to-safely drove investors from risky HY bonds to the safety of Treasuries.



China property and US \$ high yield credit spreads

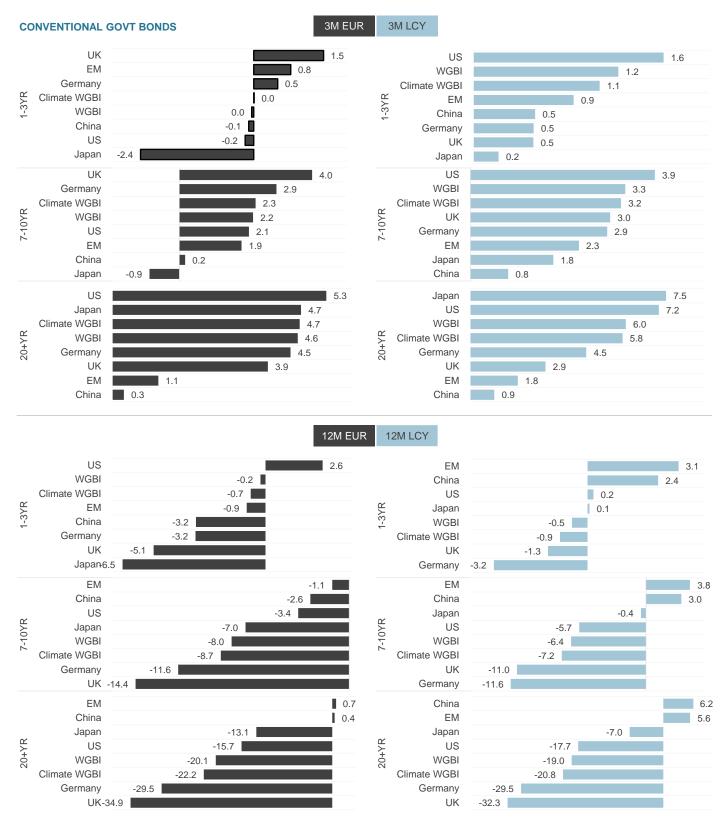
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Global Sovereign Bond Returns - 3M and 12M % (EUR & LC, TR) as of March 31, 2023

The March rally on banking woes meant Q1 returns turned positive for government bonds globally, led by longs, as markets lowered implied future tightening. Long JGBs, climate-WGBI and US Treasuries offered the best returns of 5%, in euro terms. 12M returns remained deeply negative, with losses of 16-35% in long Treasuries, Bunds, WGBI and gilts.

Most government bonds offered positive returns in Q1 in euro terms, excluding short and medium JGB losses of 1-2%. Long China and EM bonds underperformed in the Q1 rally, though returns remained considerably higher than peers over 12 months.

Duration proved the investor's friend in the Q1 rally, but an enemy on 12 months, as longs were hit hard by higher interest rates. Long Bunds and gilts lost 30-35% over 12M, but short Treasuries managed a 3% gain in Euro terms, buoyed by the strong dollar.



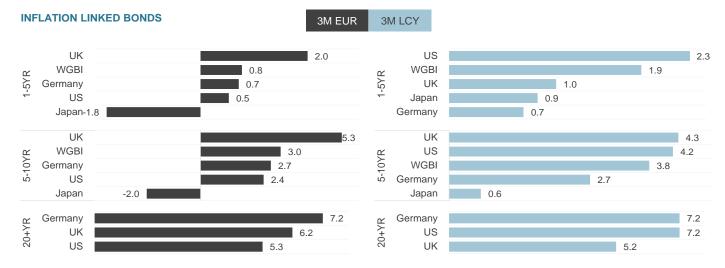
Global Inflation-Linked Bond Returns - 3M & 12M % (EUR, LC, TR) as of March 31, 2023

Global inflation-linked (IL) bonds joined the rally in conventional bonds in Q1, with the strongest returns in long IL of 6-7% in Bunds and the UK, for a euro investor, helped by extra duration. 12M returns remain strongly negative for IL however, led by the long end. Credit rallied on 3M. HY returns were reduced by recent bank woes, but outperformed IG on 12M.

Inflation-linked markets with most depressed end-2022 valuations rallied more in Q1, led by the UK, Bunds and Tips. US and Euro credit returned 2-3% in Q1 in euro terms, even if March's banking crisis squeezed HY financials.

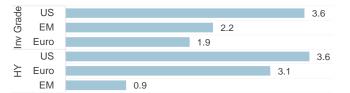
Losses of 22-44% in long US Tips, Bund and UK IL bonds on 12M for a euro-based investor show the risks in long duration assets, when discount rates on future cash flows rise sharply. JGB IL returns were squeezed hard by the weak yen.

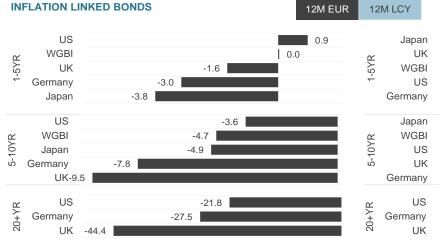
Euro high yield and investment grade credits significantly underperformed peers with losses of 5-8% over 12 months.

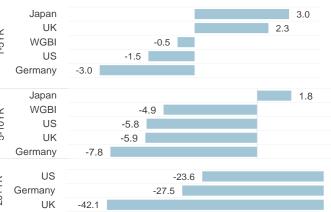


CORPORATE BONDS









CORPORATE BONDS

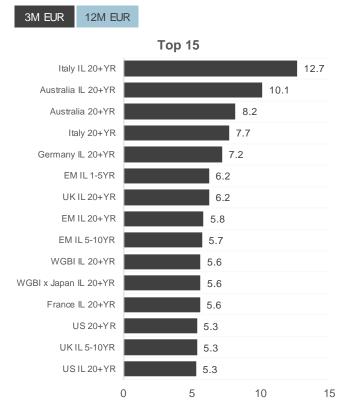


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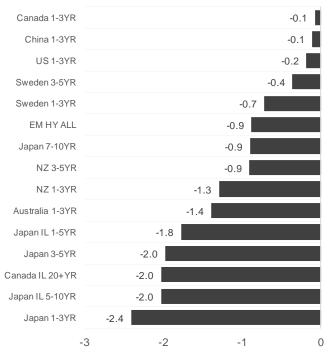
The rally in March reversed February losses in long duration assets, and left govt bond returns strongly positive for Q1, with long inflation-linked bonds showing returns of 6-13% in Italy, Australia and the UK in dollars. Some of the strongest Q1 performers were weakest on 12M, like long gilts, UK and Italian IL bonds. EM IL bonds offered the best 12M returns.

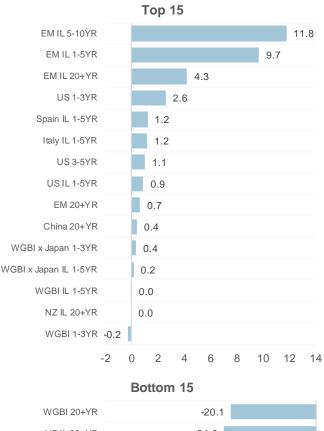
Long conventional and inflation-linked markets still show sizeable losses of 20-44% on 12M in euro terms, led by long UK indexlinked bonds, but the Q1 rally reduced these losses, helped by the flight to quality on banking woes.

Few bonds showed positive returns on 12M, apart from EM inflation-linked bonds, in euro terms, helped by strong currencies. Returns for short Treasuries, Spanish and Italian inflation-linked bonds also gained 1.2%, boosted by inflation accruals.



Bottom 15





WGBI 20+YR		-20	0.1		
USIL 20+YR		-21.	8		
WGBI x Japan 20+YR		-22.	0		
Clim_WGBI 20+YR		-22.2	2		
Italy 20+YR		-25.7			
Spain 20+YR		-26.0			
Germany IL 20+YR		-27.5			
France IL 20+YR		-28.2			
Italy IL 20+YR	-	29.0			
Germany 20+YR	-2	29.5			
France 20+YR	-3	0.3			
UK 20+Y R	-34.9				
WGBI IL 20+YR	-35.1				
WGBI x Japan IL 20+YR	-35.1				
UK IL 20+YR-44	1.4				
-50	0 -40	-30	-20	-10	0

Source: FTSE Russell. All data as of March 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.

Sovereign and Climate Bonds Analysis

Chart 1: Climate-WGBI performed strongly in Q1, as extra duration boosted returns, after the marked 2022 underperformance.

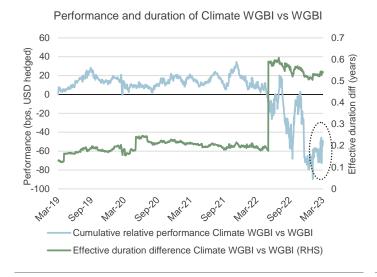
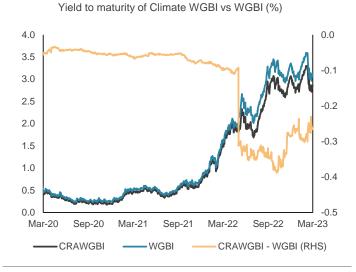
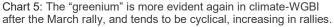


Chart 3: Climate WGBI has a lower yield to maturity versus WGBI, reflecting the higher weight of lower yielding Europe and Japan.





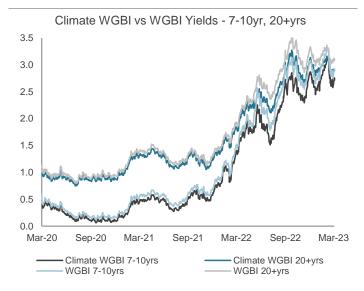


Chart 2: Japan's overweight, and the US underweight, are the most significant in the climate WGBI, driving 2022-23 performance.

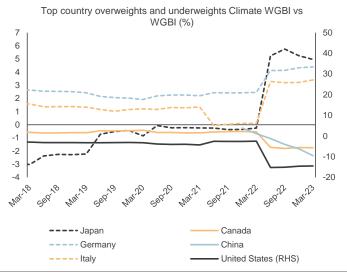


Chart 4: Big differences in Credit Quality: Climate WGBI has a lower weight in AA and a higher weight in AAA, A & BBB vs WGBI.

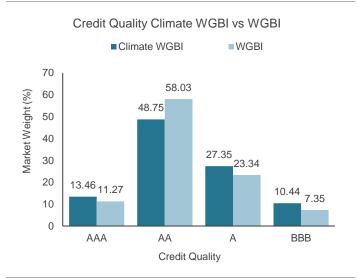


Chart 6: Long WGBI yields trade above long climate-WGBI yields, after the March rallies, after trading through for a protracted period.



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Government Bond Returns

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

		3M		6	М	Y	TD	12M		
		Local	EUR	Local	EUR	Local	EUR	Local	EUR	
US	1-3YR	1.61	-0.18	2.32	-7.74	1.61	-0.18	0.20	2.62	
	7-10YR	3.92	2.08	4.55	-5.72	3.92	2.08	-5.71	-3.44	
	20+YR	7.25	5.35	5.08	-5.25	7.25	5.35	-17.67	-15.68	
	IG All	3.58	1.74	7.07	-3.45	3.58	1.74	-5.56	-3.28	
	HY All	3.65	1.82	7.58	-2.99	3.65	1.82	-3.34	-1.01	
UK	1-3YR	0.51	1.48	3.16	3.03	0.51	1.48	-1.35	-5.12	
	7-10YR	2.97	3.97	7.71	7.57	2.97	3.97	-11.04	-14.44	
	20+YR	2.89	3.89	-0.44	-0.57	2.89	3.89	-32.32	-34.91	
EUR	IG All	1.86	1.86	2.93	2.93	1.86	1.86	-7.62	-7.62	
	HY All	3.06	3.17	8.09	8.07	3.06	3.17	-4.10	-4.47	
Japan	1-3YR	0.21	-2.41	0.05	-1.89	0.21	-2.41	0.07	-6.54	
	7-10YR	1.76	-0.90	0.14	-1.79	1.76	-0.90	-0.43	-7.01	
	20+YR	7.52	4.72	2.57	0.59	7.52	4.72	-6.97	-13.12	
China	1-3YR	0.52	-0.11	0.83	-6.18	0.52	-0.11	2.42	-3.18	
	7-10YR	0.80	0.17	1.15	-5.88	0.80	0.17	3.02	-2.61	
	20+YR	0.91	0.28	0.75	-6.26	0.91	0.28	6.23	0.42	
EM	1-3YR	0.85	0.79	1.83	-3.83	0.85	0.79	3.11	-0.86	
	7-10YR	2.30	1.86	4.38	-2.18	2.30	1.86	3.76	-1.14	
	20+YR	1.82	1.14	3.63	-3.01	1.82	1.14	5.58	0.67	
	IG All	2.21	0.40	5.71	-4.68	2.21	0.40	-2.85	-0.51	
	HY All	0.91	-0.88	9.47	-1.29	0.91	-0.88	-3.68	-1.36	
Germany	1-3YR	0.51	0.51	-0.58	-0.58	0.51	0.51	-3.20	-3.20	
	7-10YR	2.90	2.90	-0.53	-0.53	2.90	2.90	-11.56	-11.56	
	20+YR	4.45	4.45	-3.27	-3.27	4.45	4.45	-29.52	-29.52	
Italy	1-3YR	1.06	1.06	1.09	1.09	1.06	1.06	-2.40	-2.40	
	7-10YR	5.19	5.19	4.73	4.73	5.19	5.19	-10.62	-10.62	
	20+YR	7.70	7.70	2.78	2.78	7.70	7.70	-25.68	-25.68	
Spain	1-3YR	0.87	0.87	0.03	0.03	0.87	0.87	-3.24	-3.24	
	7-10YR	3.29	3.29	1.05	1.05	3.29	3.29	-11.15	-11.15	
	20+YR	4.39	4.39	-0.46	-0.46	4.39	4.39	-25.96	-25.96	
France	1-3YR	0.83	0.83	-0.42	-0.42	0.83	0.83	-3.41	-3.41	
	7-10YR	2.90	2.90	-0.24	-0.24	2.90	2.90	-11.46	-11.46	
	20+YR	3.49	3.49	-2.14	-2.14	3.49	3.49	-30.32	-30.32	
Sweden	1-3YR	0.59	-0.71	0.21	-3.29	0.59	-0.71	-1.60	-9.44	
	7-10YR	1.57	0.25	0.31	-3.21	1.57	0.25	-6.74	-14.16	
	20+YR					0.00	0.00	0.00	0.00	
Australia	1-3YR	1.64	-1.39	2.50	-3.72	1.64	-1.39	0.97	-7.78	
	7-10YR	6.97	3.78	6.72	0.24	6.97	3.78	-0.04	-8.70	
	20+YR	11.51	8.18	7.30	0.79	11.51	8.18	-6.20	-14.33	
NZ	1-3YR	1.58	-1.29	1.29	1.02	1.58	-1.29	0.73	-7.20	
	7-10YR	2.90	0.00	2.66	2.39	2.90	0.00	-3.60	-11.19	
Canada	1-3YR	1.60	-0.08	2.05	-7.04	1.60	-0.08	0.31	-5.19	
	7-10YR	4.07	2.35	3.96	-5.29	4.07	2.35	-0.87	-6.30	
	20+YR	5.68	3.93	2.60	-6.53	5.68	3.93	-8.64	-13.65	

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Inflation-Linked Bond Returns

Top 15% Bottom 15%

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

		3	M	6	М	Ŷ	TD	12M		
		Local	EUR	Local	EUR	Local	EUR	Local	EUR	
US	1-5YR	2.34	0.54	3.61	-6.58	2.34	0.54	-1.46	0.92	
	5-10YR	4.23	2.39	6.20	-4.24	4.23	2.39	-5.85	-3.58	
	20+YR	7.18	5.28	11.20	0.27	7.18	5.28	-23.62	-21.78	
UK	1-5YR	1.04	2.02	4.42	4.29	1.04	2.02	2.34	-1.58	
	5-10YR	4.33	5.35	7.26	7.12	4.33	5.35	-5.92	-9.52	
	20+YR	5.20	6.23	-10.19	-10.30	5.20	6.23	-42.15	-44.36	
EUxUK	1-5YR	0.72	0.72	0.89	0.89	0.72	0.72	-3.00	-3.00	
	5-10YR	2.66	2.66	2.78	2.78	2.66	2.66	-7.76	-7.76	
	20+YR	7.18	7.18	4.53	4.53	7.18	7.18	-27.52	-27.52	
Japan	1-5YR	0.86	-1.77	1.30	-0.66	0.86	-1.77	2.99	-3.81	
-	5-10YR	0.60	-2.03	0.09	-1.85	0.60	-2.03	1.81	-4.91	
EM	1-5YR	4.70	6.23	8.20	3.04	4.70	6.23	16.33	9.70	
	5-10YR	3.75	5.72	9.31	4.82	3.75	5.72	17.12	11.81	
	20+YR	2.94	5.85	5.34	2.99	2.94	5.85	5.33	4.25	
Germany	1-5YR	0.72	0.72	0.89	0.89	0.72	0.72	-3.00	-3.00	
2	5-10YR	2.66	2.66	2.78	2.78	2.66	2.66	-7.76	-7.76	
	20+YR	7.18	7.18	4.53	4.53	7.18	7.18	-27.52	-27.52	
Italy	1-5YR	1.42	1.42	4.02	4.02	1.42	1.42	1.21	1.21	
-	5-10YR	4.70	4.70	8.60	8.60	4.70	4.70	-4.55	-4.55	
	20+YR	12.66	12.66	14.30	14.30	12.66	12.66	-28.96	-28.96	
Spain	1-5YR	1.21	1.21	2.12	2.12	1.21	1.21	1.24	1.24	
-	5-10YR	2.73	2.73	4.53	4.53	2.73	2.73	-5.32	-5.32	
France	1-5YR	0.89	0.89	1.70	1.70	0.89	0.89	-2.04	-2.04	
	5-10YR	2.81	2.81	3.52	3.52	2.81	2.81	-6.52	-6.52	
	20+YR	5.58	5.58	5.61	5.61	5.58	5.58	-28.24	-28.24	
Sweden	1-5YR	1.33	0.02	3.21	-0.40	1.33	0.02	3.70	-4.55	
	5-10YR	1.80	0.49	2.07	-1.50	1.80	0.49	-2.29	-10.07	
Australia	1-5YR	3.94	0.84	7.36	0.84	3.94	0.84	5.92	-3.25	
	5-10YR	7.22	4.02	10.89	4.16	7.22	4.02	4.20	-4.82	
	20+YR	13.53	10.14	19.73	12.46	13.53	10.14	-6.44	-14.55	
NZ	5-10YR	4.80	1.84	7.73	7.45	4.80	1.84	2.58	-5.50	
	20+YR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Canada	20+YR	-0.38	-2.03	2.57	-6.56	-0.38	-2.03	-5.99	-11.14	

Global Bond Yields

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

		Conv	entional go	overnment k	onds	Inflat	ion-linked b	onds	Inv Grade	High Yld
		1-3YR	3-5YR	7-10YR	20+YR	1-5YR	5-10YR	20+YR	All Mat	All Mat
US	Current	4.20	3.72	3.49	3.76	1.44	1.17	1.53	5.25	8.45
	3M Ago	4.54	4.13	3.88	4.11	2.09	1.68	1.82	5.50	9.00
	6M Ago	4.31	4.18	3.83	3.95	2.11	1.82	1.95	5.72	9.55
	12M Ago	2.20	2.49	2.35	2.54	-1.68	-0.66	0.01	3.64	6.10
UK	Current	3.79	3.55	3.43	3.80	0.00	-0.27	0.35		
	3M Ago	3.50	3.65	3.69	3.92	-0.68	0.15	0.49		
	6M Ago	4.39	4.44	4.16	3.72	-0.88	0.08	-0.16		
	12M Ago	1.38	1.52	1.66	1.80	-4.36	-2.98	-1.84		
Japan	Current	-0.09	0.02	0.30	1.22	-1.30	-0.51			
	3M Ago	0.03	0.15	0.48	1.50	-1.22	-0.54			
	6M Ago	-0.07	0.01	0.26	1.27	-1.37	-0.78			
	12M Ago	-0.06	-0.01	0.21	0.94	-1.22	-0.74			
China	Current	2.31	2.56	2.84	3.25					
	3M Ago	2.28	2.53	2.85	3.26					
	6M Ago	2.06	2.42	2.79	3.21					
	12M Ago	2.24	2.50	2.86	3.40					
EM	Current	3.62	4.37	4.69	4.52	2.59	3.67	5.15	5.77	11.18
	3M Ago	3.78	4.38	4.95	4.61	2.79	3.04	5.15	5.92	11.40
	6M Ago	3.70	4.31	5.05	4.78	2.51	3.42	5.19	6.09	13.35
	12M Ago	3.39	4.16	4.63	4.91	2.28	2.91	4.93	4.09	10.46
Germany	Current	2.69	2.36	2.24	2.33	-0.02	-0.12	-0.15		
,	3M Ago	2.56	2.53	2.54	2.51	0.40	0.34	0.18		
	6M Ago	1.66	1.82	2.03	2.11	-0.52	-0.10	-0.07		
	12M Ago	-0.17	0.52	0.81	1.00	-4.17	-2.12	-1.62		
Italy	Current	3.27	3.43	3.88	4.34	0.45	1.50	1.74		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3M Ago	3.34	3.72	4.38	4.72	1.16	2.19	2.18		
	6M Ago	2.87	3.45	4.16	4.37	-0.14	2.02	2.10		
	12M Ago	0.31	1.84	2.68	3.19	-3.37	-0.33	0.78		
France	Current	2.83	2.66	2.70	3.17	-0.29	0.05	0.53		
	3M Ago	2.85	2.82	2.97	3.30	0.15	0.44	0.77		
	6M Ago	1.91	2.12	2.46	2.99	-0.58	0.21	0.63		
	12M Ago	-0.08	0.77	1.32	1.93	-3.64	-1.60	-0.47		
Sweden	Current	2.85	2.56	2.25		0.09	0.32			
	3M Ago	2.80	2.65	2.37		-0.24	0.25			
	6M Ago	2.31	2.41	2.22		-0.72	-0.23			
	12M Ago	0.70	1.59	1.72		-1.55	-1.08			
Australia	Current	3.03	3.00	3.27	3.82	0.01	0.82	1.43		
	3M Ago	3.43	3.62	4.01	4.37	0.60	1.45	1.88		
	6M Ago	3.44	3.64	3.87	4.10	0.80	1.58	2.01		
	12M Ago	1.66	2.97	3.27	3.72	-0.38	0.63	1.30		
NZ	Current	4.78	4.37	4.23	4.37	1.04	1.72			
	3M Ago	5.00	4.62	4.46	4.54	1.54	2.06			
	6M Ago	4.20	4.25	4.30	4.62	1.21	2.13			
	12M Ago	2.68	3.39	3.47	3.85	0.35	1.41			
Canada	Current	3.58		2.87	3.03			1.28	5.00	7.37
Junduu	3M Ago	3.90		3.30	3.31			1.33	5.27	7.34
	6M Ago	3.65		3.19	3.13			1.43	5.20	7.38
	12M Ago	2.24		2.38	2.40			0.34	3.76	5.39
										2.00

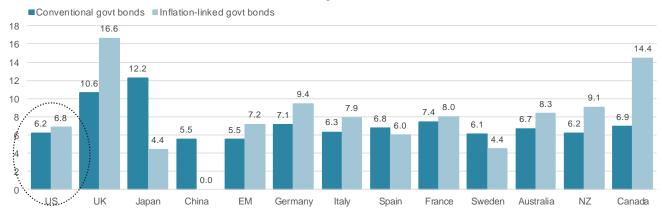
Top 15% Bottom 15%

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

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

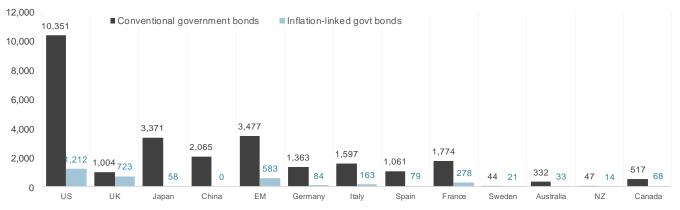
			Conve	ntional g	Inflation-linked government bonds									
		Durat	ion			Marke	et Value			Duration		Market Value		
	3-5YR	7-10YR	20+YR	Overall	3-5YR	7-10YR	20+YR	Total	5-10YR	20+YR	Overall	5-10YR	20+YR	Total
US	3.7	7.6	17.7	6.2	2,245.2	1,053.2	1,303.1	10,351.1	7.0	22.0	6.8	397.6	126.3	1211.8
UK	3.8	7.6	19.4	10.6	121.3	139.2	298.2	1,004.0	6.9	28.9	16.6	130.4	274.9	722.6
Japan	3.9	7.9	24.0	12.2	367.3	402.5	753.5	3,370.8	6.8		4.4	26.9		57.6
China	3.6	7.4	17.5	5.5	467.4	330.4	239.6	2,064.5						
EM	3.4	6.9	15.8	5.5	755.22	605.26	333.30	3,477.0	5.5	13.6	7.2	114.9	145.6	583.2
Germany	3.9	7.8	20.6	7.1	292.80	199.08	145.33	1,362.7	6.7	22.2	9.4	30.5	18.9	84.3
Italy	3.6	7.3	16.6	6.3	315.08	274.48	145.63	1,597.0	6.7	26.7	7.9	55.1	5.5	163.4
Spain	3.7	7.5	17.6	6.8	203.35	189.57	102.51	1,061.5	7.2		6.0	22.4		79.3
France	3.7	7.6	20.1	7.4	328.23	338.37	212.79	1,774.1	6.7	24.6	8.0	118.0	20.2	278.1
Sweden	3.5	8.0		6.1	7.69	9.21		43.7	6.2		4.4	9.9		21.2
Australia	3.5	7.8	18.2	6.7	56.56	90.63	16.39	331.8	7.5	23.0	8.3	9.8	2.9	33.4
NZ	3.4	7.7	17.6	6.2	8.92	6.63	2.37	46.9	6.6		9.1	3.2		14.2
Canada		7.4	17.1	6.9		160.20	104.50	517.1		14.4	14.4		67.7	67.7

	Investment grade bonds											
			Duration						Duration	MktVal		
	AAA	AA	А	BBB	Overall	AAA	AA	А	BBB	Overall		
US	11.3	8.7	7.2	6.9	7.2	75.2	454.2	2,437.4	3,362.5	6,329.3	4.1	1,161.3
Euro	6.2	5.0	4.7	4.3	4.5	10.3	180.2	1,095.2	1,453.7	2,739.4	3.1	426.1
EM		5.6	4.8	5.0	5.0		37.91	219.94	350.3	608.1	3.5	203.3









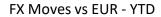
Data as of 2023-03-31

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FX Moves vs EUR - 3M S.African Rand 1.0 Mexican Peso 6.0 Brazilian Real 0.5 Brazilian Real 2.3 Swiss Franc Pound Sterling 0.1 1.0 Danish Kroner Danish Kroner -0.2 -0.1 Japanese Yen -0.1 Swiss Franc -0.5 Pound Sterling -0.3 Chinese Yuan Renminb -0.6 Korean Won -0.8 Singapore Dollar -0.9 -0.9 Indian Rupee Mexican Peso -1.1 Singapore Dollar Swedish Krona -1.2 -1.3 New Zealand Dollar -1.4 Canadian Dollar -1.7 US Dollar Chinese Yuan Renminb -1.4 -1.8 Canadian Dollar -1.8 Japanese Yen -2.6 New Zealand Dollar Indian Rupee -1.8 -2.8 Swedish Krona Australian Dollar -1.8 -3.0 US Dollar -2.4 Turkish Lira -4.2 Australian Dollar Korean Won -3.1 -4.6

6.0

FX Moves vs EUR - 1M

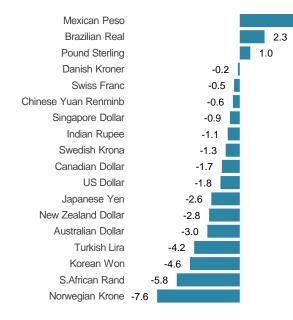


-3.6

-4.0

Norwegian Krone

Turkish Lira

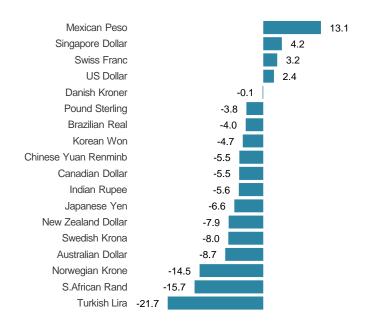


FX Moves vs EUR - 12M

-5.8

S.African Rand

Norwegian Krone -7.6



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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