Data sources: Bloomberg; Barclays; EIOPA; PRA; ONS; Milliman FRM

Market Price Monitor

Local Equity Markets

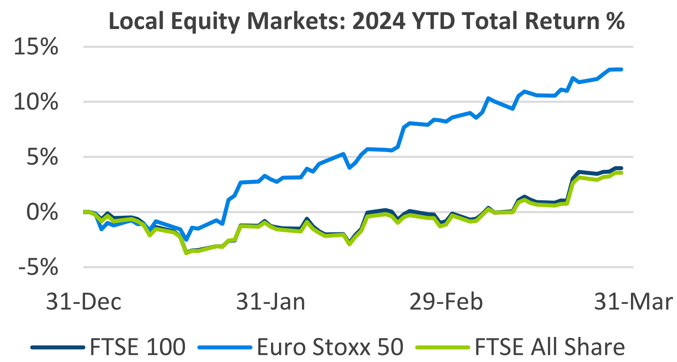
- The performance of major global equity markets was positive in March, driven by solid macroeconomic data that boosted investor sentiment.
- The FTSE 100 index gained 4.8% in March, returning 4.0% in the first quarter of the year.
- The Euro Stoxx 50 index was up 4.4% in March, returning 12.9% in the first quarter of the year.

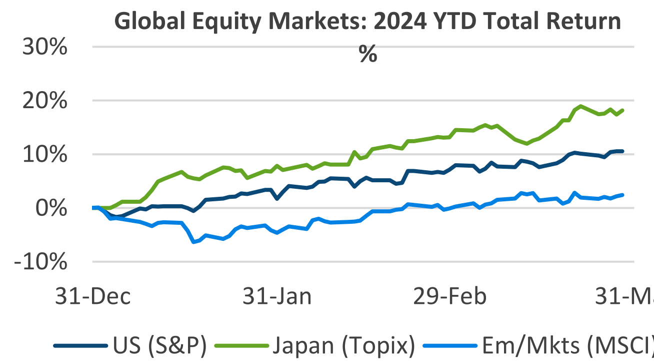
Global Equity Markets

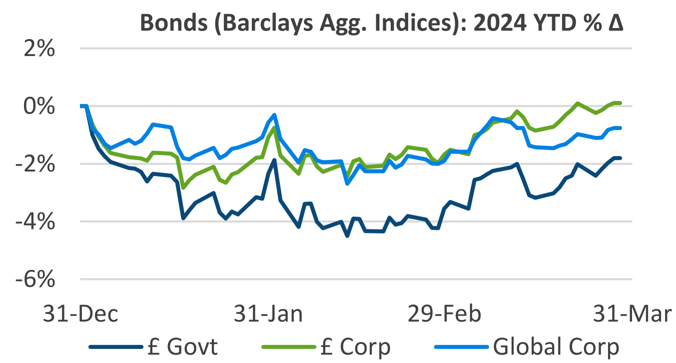
- The S&P 500 ended the month up 3.2%, and the Topix index gained 4.4%.
- The MSCI Emerging Markets index gained 2.5%.

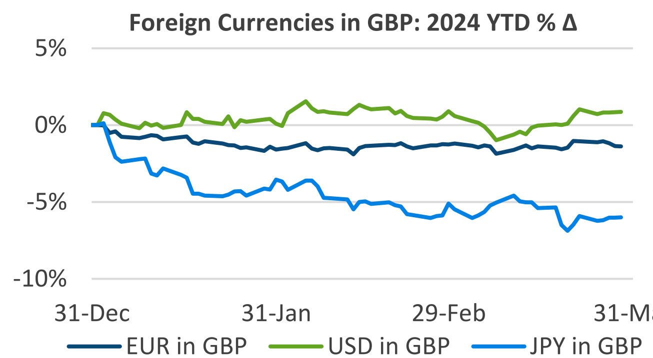
Bond/FX Markets

- The British government and corporate bond indices both advanced by 1.8%.
- The British Pound had a positive performance in March, gaining 0.9% against the Japanese Yen. Meanwhile, remaining relatively flat against the Euro and the US Dollar.









Total Returns as of March 29, 2024

	FTSE 100	FTSE All Share	Euro Stoxx 50	US (S&P)	Japan (Topix)	Em/Mkts (MSCI)	£ Govt	£ Corp	Global Corp	EUR in GBP	USD in GBP	JPY in GBP
1 Month	4.8%	4.8%	4.4%	3.2%	4.4%	2.5%	1.8%	1.8%	1.2%	-0.1%	-0.1%	-0.9%
3 Month	4.0%	3.6%	12.9%	10.6%	18.1%	2.4%	-1.8%	0.1%	-0.8%	-1.4%	0.9%	-6.0%
1 Year	8.4%	8.4%	21.7%	29.9%	41.3%	8.6%	-0.5%	7.3%	5.1%	-2.7%	-2.3%	-14.3%
YTD	4.0%	3.6%	12.9%	10.6%	18.1%	2.4%	-1.8%	0.1%	-0.8%	-1.4%	0.9%	-6.0%

Milliman Financial Risk Management

London Market Monitor – 29 March 2024

Data sources: Bloomberg; Barclays; EIOPA; PRA; ONS; Milliman FRM

Insurance Monitor

Solvency II Risk Free Rates

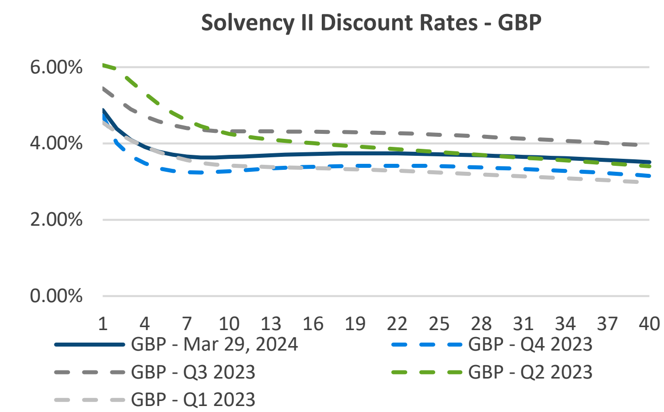
- GBP risk-free rates decreased for all tenors in March.
- The 5 and 10-year GBP risk-free rates decreased by 21 and 17 basis points, respectively.
- Similarly, EUR risk-free rates decreased for all tenors.
- The 5 and 20-year EUR risk-free rates both decreased by 13 basis points, whilst the 10-year rate fell by 14 basis points.
- The EUR CRA was unchanged and remains floored at 10 basis points.

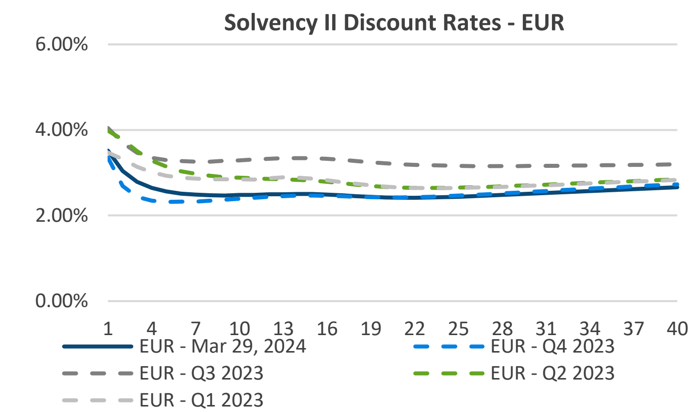
The **Solvency II risk-free discount rates** are calculated independently based on applying the Smith-Wilson Extrapolation to swap rates sourced from Bloomberg and applying the Credit Risk Adjustment as defined in the Technical Specs. For the official published curves please refer to EIOPA and PRA websites.

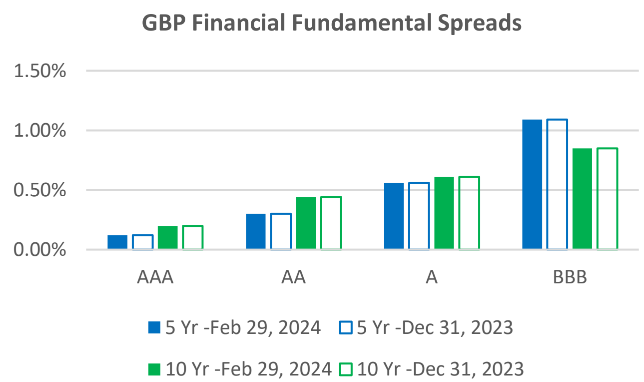
Solvency II Fundamental Spreads

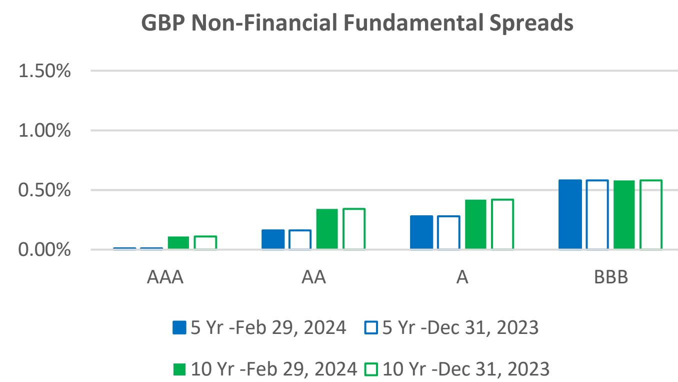
- There were no material changes since the start of the year.

EIOPA fundamental spreads show the credit spread corresponding to the risk of default or downgrading of an asset. This is shown here across financial and non-financial assets, credit quality steps 0-3 and durations of 1-30 years. The data is provided by EIOPA. **Fundamental spread** = maximum (probability of default + cost of downgrade; 35% of long-term average spread). For fundamental spreads on other tenors please refer to the EIOPA website.









Change in GBP Discount Rates (bps)

	1Y	Y5	Y10	Y20	Y30
Since Q4 2023	15	44	37	32	32
Since Q3 2023	-57	-79	-67	-55	-48
Since Q2 2023	-118	-125	-61	-16	1
Since Q1 2023	33	1	22	43	51

Change in EUR Discount Rates (bps)

	1Y	Y5	Y10	Y20	Y30	CRA
Since Q4 2023	16	24	9	0	-4	0
Since Q3 2023	-53	-73	-81	-80	-65	0
Since Q2 2023	-47	-58	-41	-25	-20	0
Since Q1 2023	4	-37	-37	-25	-19	0

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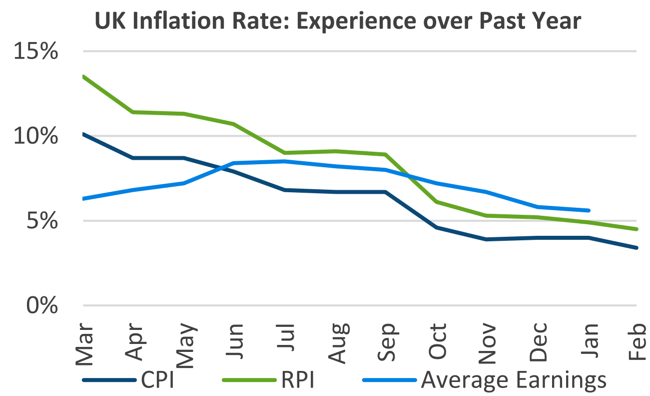
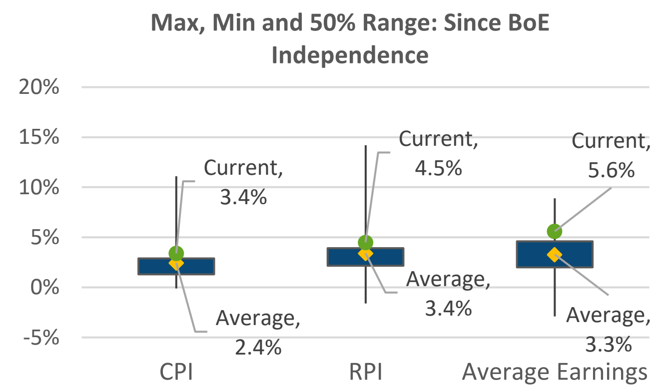
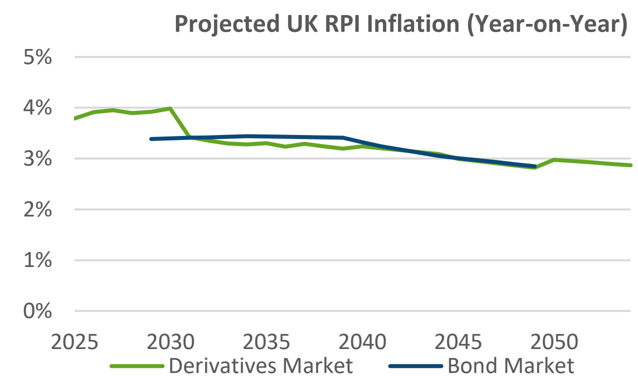
UK Inflation Monitor

- UK's CPI decreased in February to 3.4%, a 60 basis point decline compared to the previous month.
- UK's RPI measure decreased by 40 basis points to 4.5% in February.
- According to the ONS: *"The largest downward contributions came from food, and restaurants and cafes, while the largest upward contributions came from housing and household services, and motor fuels."*
- Average earnings fell by 20 basis points to 5.6% in January.
- The projected RPI curve was relatively unchanged in comparison to the previous month.





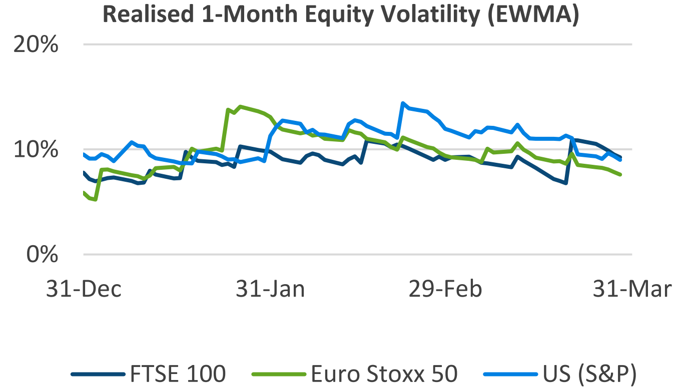


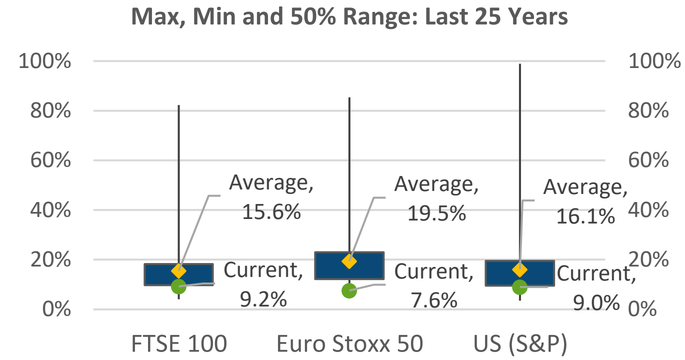
Historical year-on-year inflation rate is assessed by the % change on:
- **Consumer Price Index (CPI)** – measuring the monthly price of a basket of consumer goods and services
- **Retail Price Index (RPI)** – similar to CPI, but the main difference due the addition of mortgage payments, council tax and other housing costs
- **Average Earnings** – measuring the average total weekly employee remuneration over the previous 3 months.

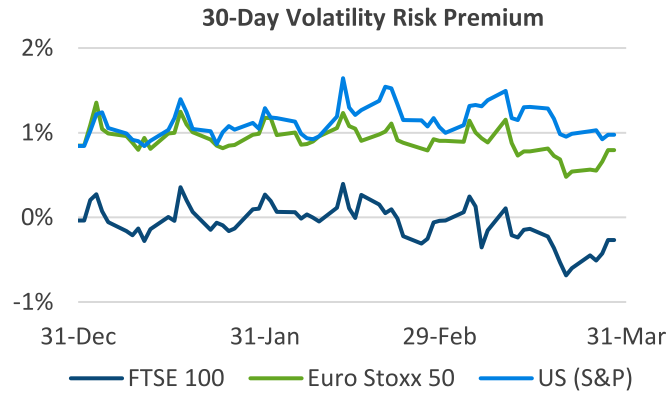
Projection year-on-year inflation rate is the forward rate calculated from market data:
- **Derivatives Market View** – constructed from zero coupon inflation par swap rates against the RPI index at various tenors
- **Bond Market View** – constructed from the difference between the nominal rates implied by the conventional gilts and the real rates implied by the index-linked (RPI) gilts.

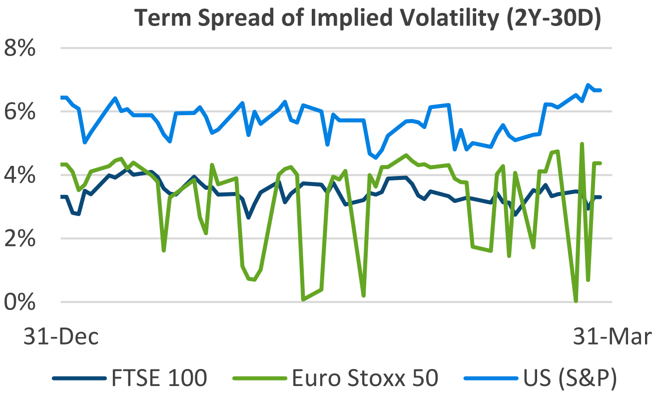
Volatility and Hedging Cost Monitor

- Realised volatilities increased in March for the FTSE 100, but decreased for the Euro Stoxx and S&P 500, remaining well below historical long-term averages.
- The FTSE 100 ended the month with a realised volatility of 9.2%. The same measure stood at 7.6% and 9.0% on the Euro Stoxx 50 and the S&P 500, respectively.
- Volatility risk premiums on major indices decreased in March. The FTSE 100 had a volatility risk premium of -0.3% at month-end. The volatility risk premium on the Euro Stoxx 50 and the S&P 500 were at 0.8% and 1.0%, respectively.
- The change in spread between implied volatility of 2-year and 30-day at-the-money options was mixed but remained positive for all major indices at month-end.









Actual realised equity volatility is measured by the weighted standard deviation of 1 month daily index change. The Exponentially Weighted Moving Average (EWMA) methodology places more importance to the recent returns in the calculation of the volatility.

Volatility Risk Premium is estimated as the difference between 30-day implied volatility and projected realised volatility. This reflects the additional cost of hedging from purchasing a basket of options, in comparison to managing a dynamic delta hedge with futures (ignoring rolling transaction costs).

Volatility Term Premium is calculated as the difference between the implied volatility of an at-the-money 2-year maturity option and the implied volatility of an at-the-money 30-day option. This gives an indication of market demand for protection over the longer term, relative to demand for protection in the shorter-term. Bloomberg as the source of the data interpolates between listed options to provide implied volatility data for these fixed terms.

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FINANCIAL RISK MANAGEMENT

Creating transformational improvement in the retirement savings industry.

Milliman Financial Risk Management LLC / Milliman Financial Strategies Ltd. is a global leader in financial risk management to the retirement savings industry. Milliman FRM provides investment advisory, hedging, and consulting services on approximately $176.1 billion USD in global assets (31 December 2021).

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