London Market Monitor – 29 November 2024

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



Market Price Monitor

Local Equity Markets

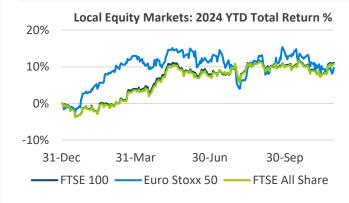
- Global equity markets had a mixed performance in November as US election results dominated market performance.
- The Euro Stoxx 50 ended the month down 0.3%.
- The FTSE 100 was up 2.6%.

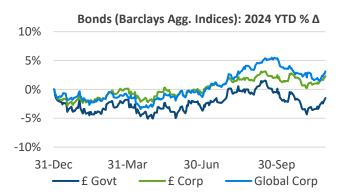
Global Equity Markets

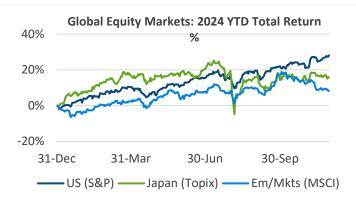
- US equities outperformed globally, boosted by the expectations of looser regulations on the back of the election results, with the S&P 500 gaining 5.9%.
- The Japanese Topix lost 0.5%, and the MSCI Emerging Markets index was down 3.6%.

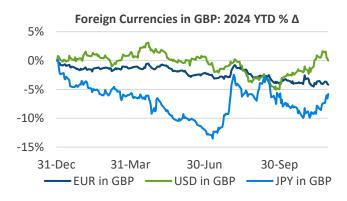
Bond/FX Markets

- Both the British government and corporate bond indices rose in November. The former was up 1.8% and the latter gained 1.5%.
- The British Pound had a mixed performance in November, strengthening against the Euro by 1.7%. However, the British Pound weakened against the US Dollar and the Japanese Yen by 1.0% and 2.6%, respectively.









Total Returns as of November 29, 2024													
	FTSE 100	FTSE All Share	Euro	US (S&P)	Japan (Topix)	Em/Mkts	£ Govt	£ Corp	Global	EUR in	USD in	JPY in	
		Share	Stoxx 50		(Topix)	(MSCI)			Corp	GBP	GBP	GBP	
1 Month	2.6%	2.5%	-0.3%	5.9%	-0.5%	-3.6%	1.8%	1.5%	0.6%	-1.7%	1.0%	2.6%	
3 Month	-0.4%	-0.5%	-2.7%	7.2%	-0.2%	-1.6%	-1.0%	0.6%	-0.3%	-1.3%	3.1%	0.7%	
1 Year	15.4%	15.7%	13.3%	33.9%	15.5%	12.4%	4.2%	7.4%	7.5%	-3.7%	-0.9%	-1.9%	
YTD	11.1%	10.7%	9.7%	28.1%	15.8%	8.1%	-1.5%	2.3%	3.1%	-4.2%	0.0%	-5.8%	



London Market Monitor – 29 November 2024

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

Insurance Monitor

Solvency II Risk Free Rates

- GBP risk-free rates declined at all terms in November.
- Both the 5 and 10-year GBP risk-free rates fell by 22 basis points.
- EUR risk-free rates fell at all terms in November.
- The 5 and 10-year EUR risk-free rates fell by 29 and 26 basis points, respectively.
- The EUR CRA was unchanged and remains floored at 10 basis points.

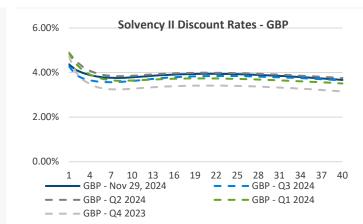
The **Solvency II risk-free discount rates** are calculated independently based on applying the Smith-Wilson Extrapolation to swap rates sourced from Bloomberg and applying the Credit Risk Adjustment as defined in the Technical Specs. For the official published curves please refer to <u>EIOPA</u> and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

Solvency II Fundamental Spreads

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

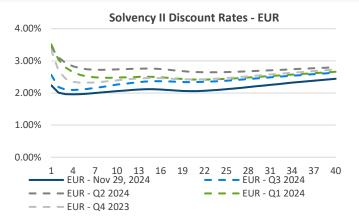
EIOPA fundamental spreads show the credit spread corresponding to the risk of default or downgrading of an asset. This is shown here across financial and nonfinancial assets, credit quality steps 0-3 and durations of 1-30 years. The data is provided by EIOPA.

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.









GBP Non-Financial Fundamental Spreads



Change in EUR Discount Rates (bps)										
	1Y	Y5	Y10	Y20	Y30	CRA				
Since Q3 2024	-32	-14	-20	-28	-24	0				
Since Q2 2024	-119	-81	-67	-60	-47	0				
Since Q1 2024	-127	-60	-42	-36	-28	0				
Since Q4 2023	-111	-35	-33	-36	-33	0				

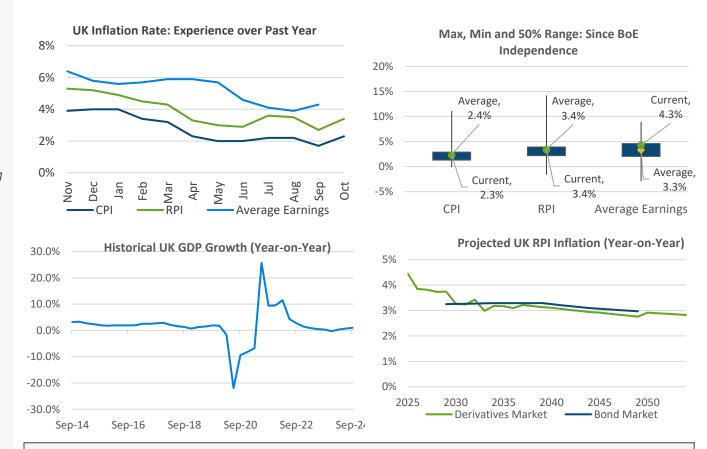


London Market Monitor – 29 November 2024

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

UK Inflation Monitor

- UK's CPI rose by 60 basis points to 2.3% in October.
- UK's RPI measure increased by 70 basis points to 3.4% in October.
- According to the ONS: "The largest upward contribution came from housing and household services, mainly because of electricity and gas prices; the largest offsetting downward contribution came from recreation and culture."
- Average earnings rose by 40 basis points to 4.3% in September.
- The projected RPI curve rose at the very short-end but the rest of the curve shifted lower from the previous month.
- UK Q3 2024 GDP grew by 1.0%, an increase of 30 basis points from the previous quarter.



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.

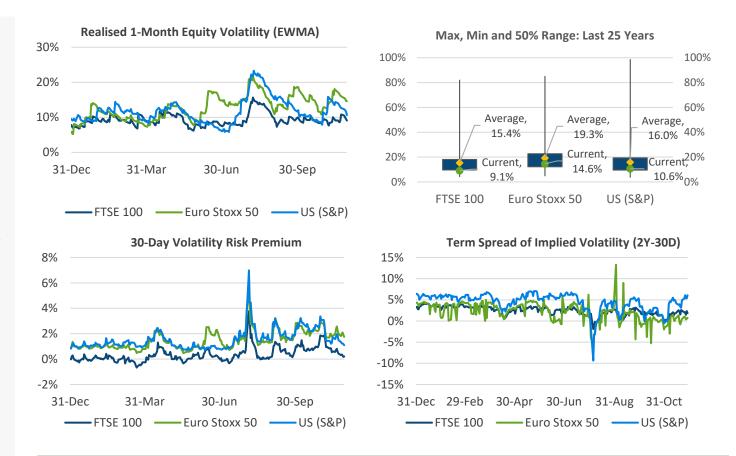


London Market Monitor – 29 November 2024

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

Volatility and Hedging Cost Monitor

- Realised volatility of the FTSE 100 was relatively unchanged, whilst the realised volatility of the Euro Stoxx 50 rose and in contrast, the realised volatility of the S&P 500 decreased.
- The FTSE 100 ended the month with a realised volatility of 9.1%. The same measure stood at 14.6% and 10.6% on the Euro Stoxx 50 and the S&P 500, respectively.
- Volatility risk premiums on major indices decreased. The FTSE 100 had a volatility risk premium of 0.2% at month-end. The volatility risk premium on the Euro Stoxx 50 was 1.7%, and 1.1% on the S&P 500.
- The change in spread between implied volatility of 2-year and 30-day at-the-money options was mixed but remained positive for the 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.



London Market Monitor – 29 November 2024

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

Milliman Financial risk management

Chicago

71 South Wacker Drive Chicago, IL 60606 +1 855 645 5462

London

11 Old Jewry London EC2R 8DU UK +44 0 20 7847 1557

Sydney

Level 5, 60-62 Clarence St Sydney, NSW 2000 Australia +610 2 8090 9100

Amsterdam

Haaksbergweg 75 Amsterdam, 1101 BR Netherlands +31 6 211 70 583

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).

Established in 1998, the practice includes professionals operating from four trading platforms around the world (Chicago, London, Amsterdam and Sydney).

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in healthcare, property & casualty insurance, life insurance and financial services, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

MILLIMAN.COM/FRM

Recipients must make their own independent decisions regarding any strategies or securities or financial instruments mentioned herein.

The products or services described or referenced herein may not be suitable or appropriate for the recipient. Many of the products and services described or referenced herein involve significant risks, and the recipient should not make any decision or enter into any transaction unless the recipient has fully understood all such risks and has independently determined that such decisions or transactions are appropriate for the recipient.

Past performance is not indicative of future results. Index performance information is for illustrative purpose only, does not represent the performance of any actual investment or portfolio, and should not be viewed as a recommendation to buy/sell. It is not possible to invest directly in an index. Any hypothetical, backtested data illustrated herein is for illustrative purposes only, and is not representative of any investment or product.

Any discussion of risks contained herein with respect to any product or service should not be considered to be a disclosure of all risks or a complete discussion of the risks involved.

The recipient should not construe any of the material contained herein as investment, hedging, trading, legal, regulatory, tax, accounting or other advice. The recipient should not act on any information in this document without consulting its investment, hedging, trading, legal, regulatory, tax, accounting and other advisors.

The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.

Milliman Financial Strategies Ltd. is authorised and regulated by the Financial Conduct Authority. Firm Registration Number 539399



The recipient should not construe any of the material contained herein as investment, hedging, trading, legal, regulatory, tax, accounting or other advice. The recipient should not act on any information in this document without consulting its investment, hedging, trading, legal, regulatory, tax, accounting and other advisors. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.