

Asset Price Monitor

Local Equity Markets

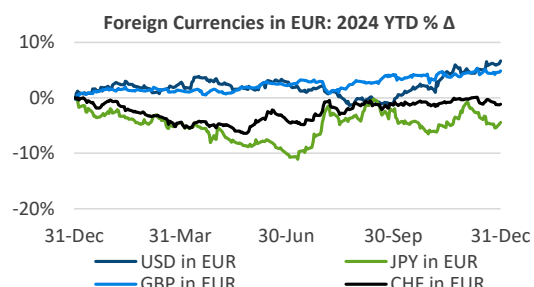
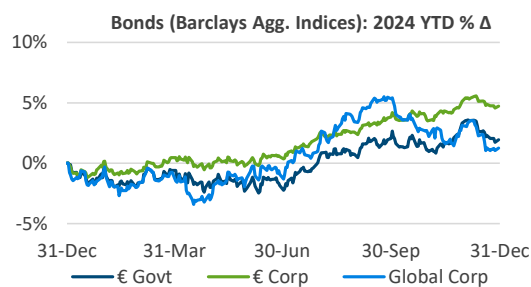
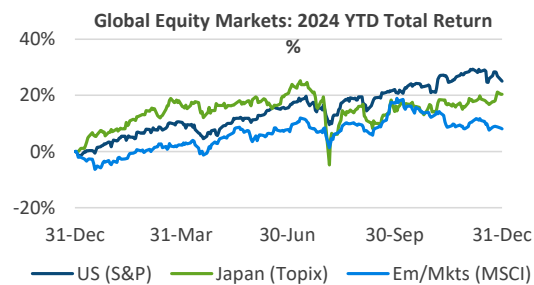
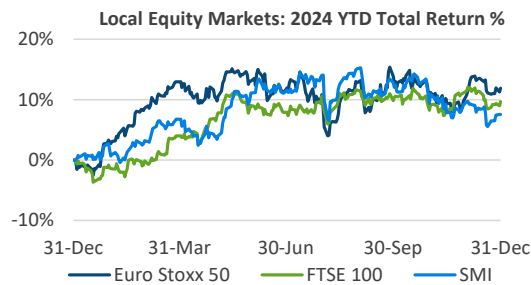
- Global equity markets had a mixed performance in December, as the US Federal Reserve projections showed fewer rate cuts in 2025.
- The Euro Stoxx 50 was up 1.9% in December, having gained 11.9% over 2024.
- The FTSE 100 ended the month down 1.3%.

Global Equity Markets

- Despite losing 2.4% in December, the S&P 500 outperformed in 2024, returning 25.0%.
- The Topix was up 4.0% in December.
- The MSCI Emerging Markets index ended the month relatively flat.

Bond/FX Markets

- Both the European government and corporate bond indices fell in December. The former was down 1.3% and the latter fell by 0.4%.
- The Euro had a mixed performance in December, gaining 2.8% against the Japanese Yen but weakening by 0.5% against the British Pound and 2.2% against the US Dollar.



	Euro Stoxx 50	FTSE 100	SMI	US (S&P)	Japan (Topix)	Em/Mkts (MSCI)	€ Govt	€ Corp	CHF in EUR	USD in EUR	JPY in EUR	GBP in EUR
1 Month	1.9%	-1.3%	-1.4%	-2.4%	4.0%	-0.1%	-1.3%	-0.4%	-0.8%	2.2%	-2.8%	0.5%
3 Month	-1.7%	-0.2%	-4.7%	2.4%	5.4%	-7.8%	-0.1%	0.9%	0.2%	7.7%	-2.0%	0.6%
1 Year	11.9%	9.7%	7.5%	25.0%	20.5%	8.1%	2.0%	4.7%	-1.1%	6.7%	-4.4%	4.9%
YTD	11.9%	9.7%	7.5%	25.0%	20.5%	8.1%	2.0%	4.7%	-1.1%	6.7%	-4.4%	4.9%

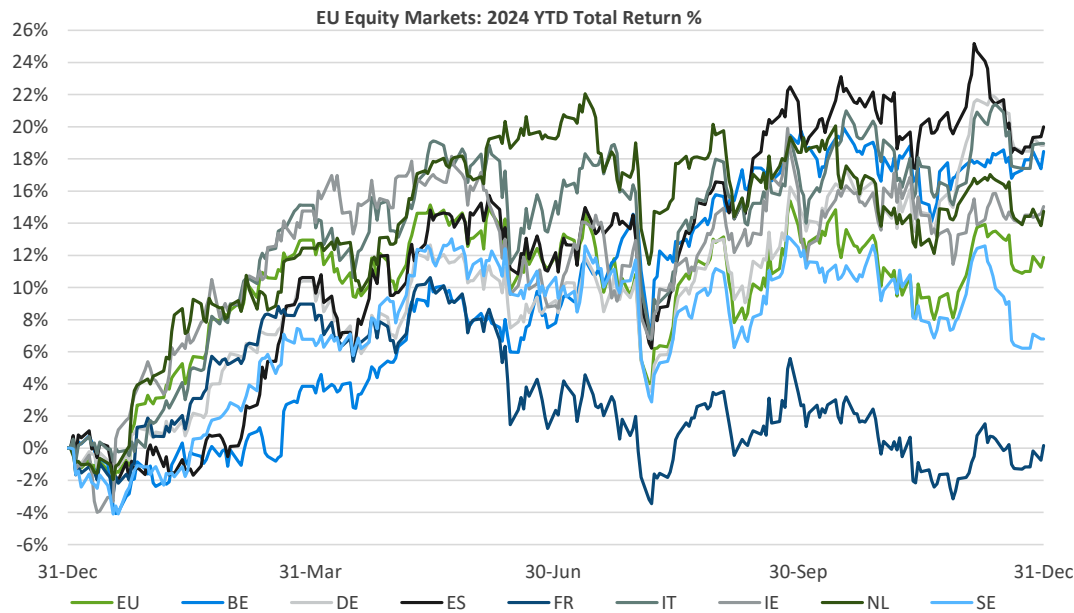
Milliman Financial Risk Management

EuroZone Market Monitor – 31 December 2024

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

Eurozone Equity

- Major European equity markets had a mixed performance in December.
- The Italian equity market outperformed, returning 2.3% over the month.
- The Swedish equity market suffered the largest losses in the region, down 1.2% for the month.
- The Spanish equity market was the best performing market in the region over 2024, having returned 20.0% during this period.
- The French equity index was the laggard performer over the year, having ended the year relatively flat.



Equity Returns as of December 31, 2024									
	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	1.9%	1.1%	1.4%	-0.2%	2.1%	2.3%	1.5%	-0.4%	-1.2%
3 Month	-1.7%	-0.4%	3.0%	-1.3%	-3.2%	1.4%	-0.9%	-3.1%	-5.1%
QTD	-1.7%	-0.4%	3.0%	-1.3%	-3.2%	1.4%	-0.9%	-3.1%	-5.1%
YTD	11.9%	18.5%	18.8%	20.0%	0.2%	19.0%	15.0%	14.7%	6.8%



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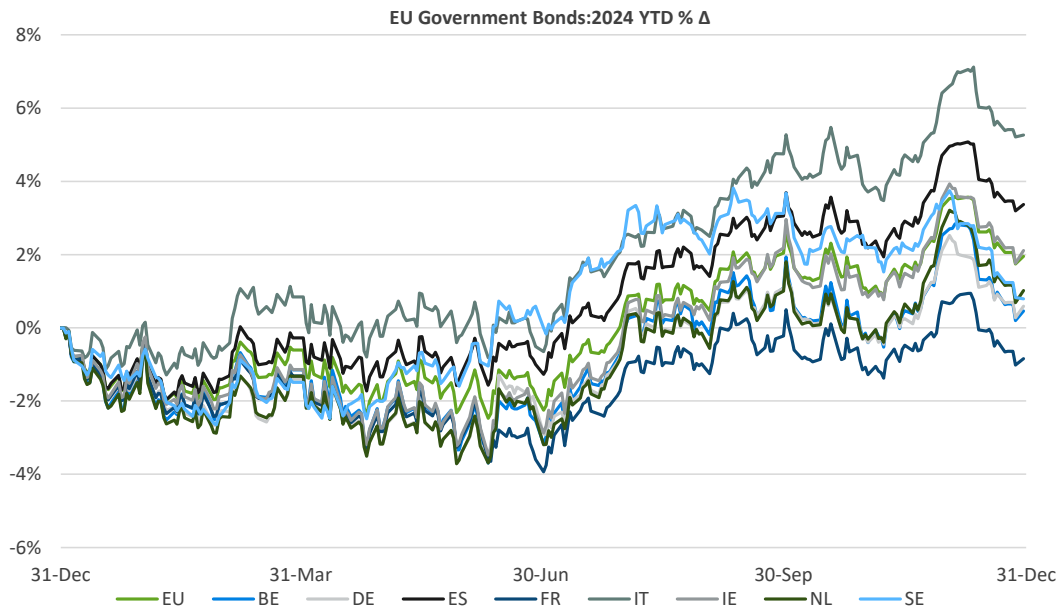
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Eurozone Government Bonds

- European government bond indices had a poor performance in December.
- The Swedish government bond index saw the largest monthly loss, down 2.6%.
- The Italian government bond index experienced the smallest loss for the month, down 1.1%. The index outperformed in the region in 2024, gaining 5.3%.
- The French government bond index was the worst performer in the region over the year, having lost 0.8% during this period.



Bond Returns as of December 31, 2024									
	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	-1.3%	-2.0%	-1.5%	-1.3%	-1.5%	-1.1%	-1.4%	-1.7%	-2.6%
3 Month	-0.1%	-0.6%	-0.5%	0.3%	-0.6%	0.5%	-0.1%	0.0%	-2.3%
QTD	-0.1%	-0.6%	-0.5%	0.3%	-0.6%	0.5%	-0.1%	0.0%	-2.3%
YTD	2.0%	0.5%	0.6%	3.4%	-0.8%	5.3%	2.1%	1.0%	0.8%



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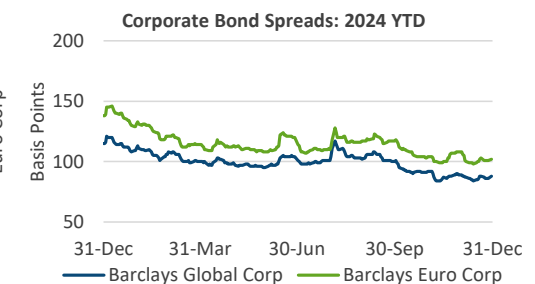
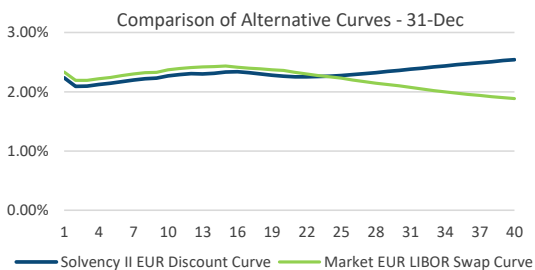
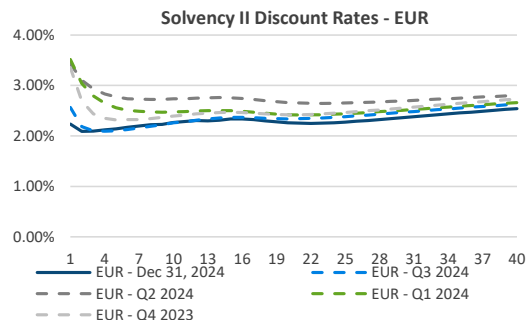
Liability Valuation Monitor

Risk Free Rates

- EUR risk-free rates rose at all terms in December, except for the 1-year rate which fell by 1 basis point.
- The 10 and 20-year risk-free rates increased by 21 and 20 basis points, respectively.

Corporate Bonds

- Global and European corporate bond yields rose by 21 and 12 basis points, respectively.
- Global spreads were unchanged, and their European counterparts tightened by 6 basis points.
- The increase in risk-free rates, partially offset by the tightening in European corporate bond spreads, resulted in losses for the European corporate bond index.



	Change in Solvency II Discount (bps)						Change in Corporate Bond Yields (bps)		Change in Corporate Bond Spreads (bps)	
	1Y	Y5	Y10	Y20	Y30	Y40	Global Corp	Euro Corp	Global Corp	Euro Corp
Since Q3 2024	-33	4	1	-8	-11	-9	42	-3	-11	-15
Since Q2 2024	-120	-63	-47	-40	-33	-26	-29	-64	-15	-18
Since Q1 2024	-128	-42	-21	-16	-15	-12	-13	-48	-11	-12
Since Q4 2023	-112	-18	-12	-16	-19	-19	7	-37	-26	-36



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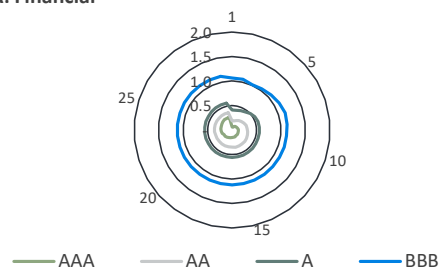
Solvency II Monitor - Spreads

Fundamental Spreads

- The fundamental spread data shown is for the end of November.
- There were no material changes since the last report.

Fundamental Spreads %

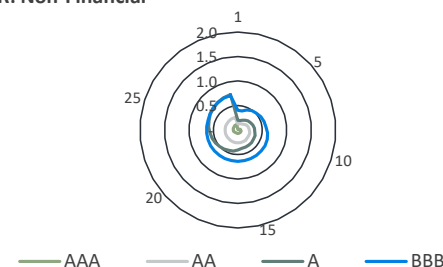
EUR: Financial



EUR Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.06	0.10	0.13	0.19	0.27
AA	0.19	0.26	0.33	0.35	0.36
A	0.41	0.50	0.56	0.56	0.56
BBB	1.06	1.07	1.12	1.12	1.12

EUR Financial 'Before Floor' %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.04	0.10	0.19	0.27
AA	0.04	0.07	0.11	0.18	0.26
A	0.05	0.11	0.17	0.29	0.40
BBB	0.11	0.19	0.28	0.41	0.52

EUR: Non-Financial



EUR Non-Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.01	0.02	0.07	0.07	0.11
AA	0.13	0.17	0.25	0.26	0.26
A	0.20	0.28	0.37	0.50	0.74
BBB	0.40	0.51	0.63	0.64	0.72

EUR Non-Financial 'Before Floor' %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.01	0.04	0.07	0.11
AA	0.00	0.04	0.09	0.17	0.26
A	0.04	0.15	0.27	0.50	0.74
BBB	0.10	0.21	0.33	0.54	0.72

The **Solvency II risk-free discount rates** are based on applying the Smith-Wilson Extrapolation to LIBOR swap rates sourced from Bloomberg (current curve is for 31/12/24) and applying the Credit Risk Adjustment as defined in the Technical Specs. For the official published curves please refer to the [EIOPA](#) website.

The **Credit Risk Adjustment** is a component of the risk-free discount curve defined by EIOPA. It is calculated from actual experience in the 'LIBOR-OIS' spread (3 months for EUR), and is bounded between 0.10 and 0.35. We show actual LIBOR-OIS spread levels and the defined CRA, for EUR.

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 and as of 30/11/24. **Fundamental spread** = maximum (probability of default + cost of downgrade; 35% of long-term average spread). In the tables we show the 'before floor' measure = probability of default + cost of downgrade.

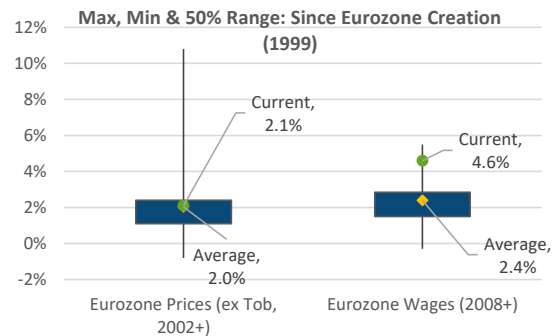
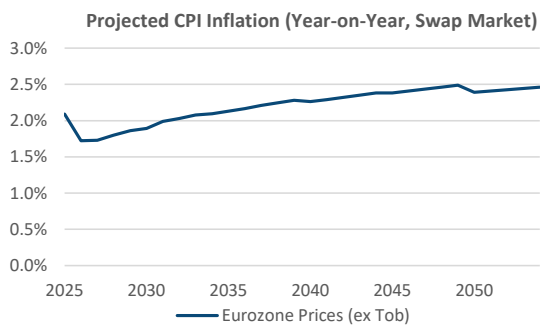
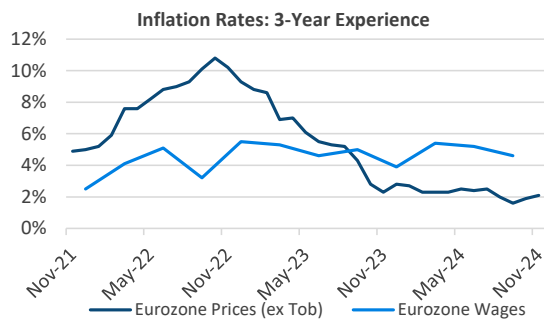
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EuroZone Market Monitor – 31 December 2024

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

Inflation Monitor

- Eurozone price inflation increased by 20 basis points to 2.1% in November.
- The Eurozone projected CPI curve rose at the very short-end but the rest of the curve was relatively unchanged from the previous month.
- Eurozone Q3 2024 wage inflation fell by 60 basis points to 4.6% after the previous quarter's figure was revised higher by 50 basis points.



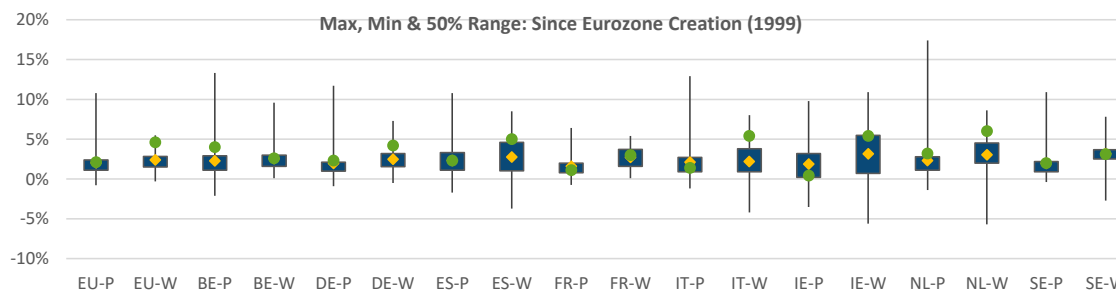
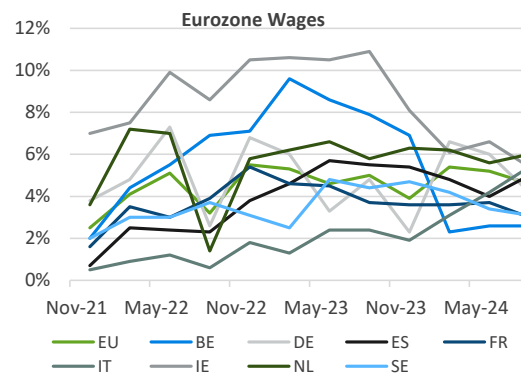
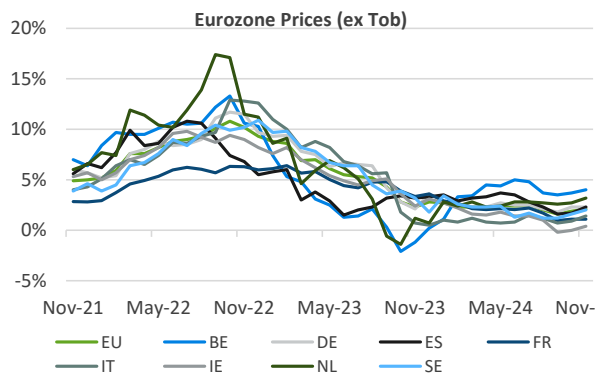
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EuroZone Market Monitor – 31 December 2024

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

Inflation Monitor

- All major European economies, except for Germany and France, saw their price inflation rise in November.
- Spain saw the largest increase in price inflation in November, rising by 60 basis points to 2.3%.
- Price inflation was unchanged in November for both France and Germany.
- Ireland continued to post the lowest reading in the region at 0.4%.
- Belgium continued to post the highest reading in the region at 4.0%.
- Italy witnessed the largest increase in Q3 wage inflation, rising by 120 basis points to 5.4%, after the previous quarter's figure was revised higher by 90 basis points.
- Germany saw the largest decline in Q3 2024 wage inflation, decreasing by 180 basis points to 4.2%, after the previous quarter was revised higher by 90 basis points.
- Netherlands posted the highest reading of the region for Q3 2024 wage inflation at 6.0%.
- Belgium posted the lowest reading of the region for Q3 2024 wage inflation at 2.6%.



	EU-P	EU-W	BE-P	BE-W	DE-P	DE-W	ES-P	ES-W	FR-P	FR-W	IT-P	IT-W	IE-P	IE-W	NL-P	NL-W	SE-P	SE-W
Avg.	2.0%	2.4%	2.3%	2.6%	2.0%	2.5%	2.3%	2.7%	1.6%	2.7%	2.1%	2.2%	1.9%	3.1%	2.3%	3.0%	1.9%	3.1%
Cur	2.1%	4.6%	4.0%	2.6%	2.3%	4.2%	2.3%	5.0%	1.1%	3.0%	1.4%	5.4%	0.4%	5.4%	3.2%	6.0%	2.0%	3.1%



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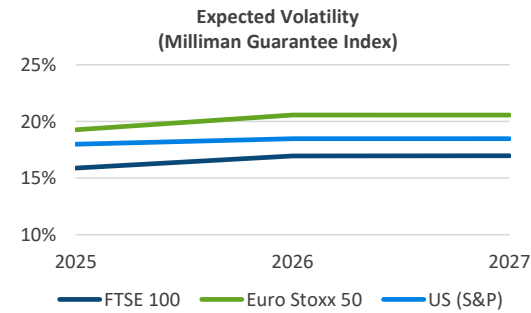
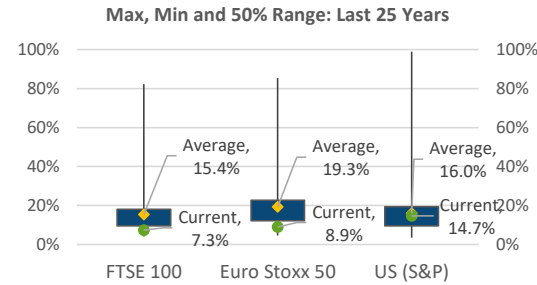
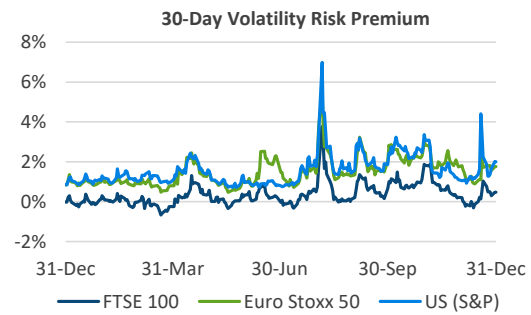
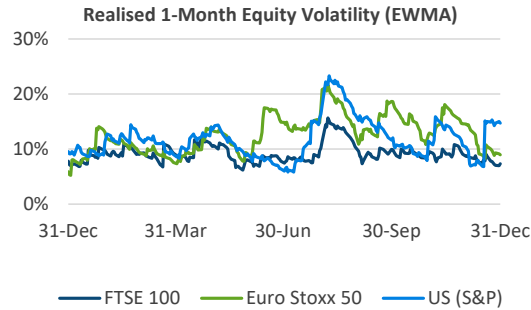
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Data sources: Bloomberg; Barclays; EuroStat; EIOPA; ONS; Milliman FRM

Volatility and Hedging Cost Monitor

- Realised volatilities of the FTSE 100 and the Euro Stoxx 50 fell and in contrast, the realised volatility of the S&P 500 rose in December.
- The FTSE 100 ended the month with a realised volatility of 7.3%. The same measure stood at 8.9% and 14.7% on the Euro Stoxx 50 and the S&P 500, respectively.
- Volatility risk premiums on major indices increased. The FTSE 100 had a volatility risk premium of 0.5% at month-end. The volatility risk premium on the Euro Stoxx 50 was 1.8%, and 2.0% on the S&P 500.

Please contact Milliman for more information on the basis and methodology used for these results.



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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).

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

MILLIMAN.COM/FRM

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Commented [JM1]: It would be good to update the value of global assets under management at some stage. The 2021 value is a bit stale.

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

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