

Asset Price Monitor

Local Equity Markets

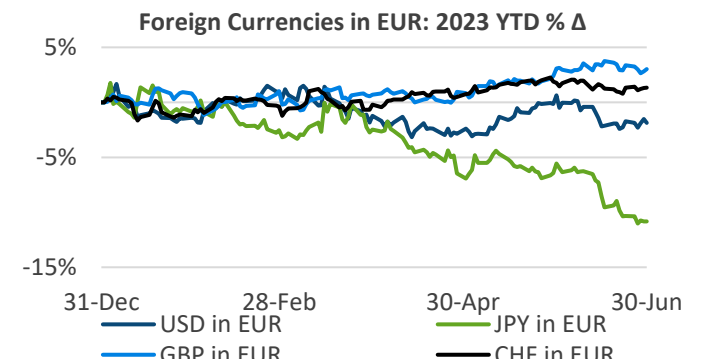
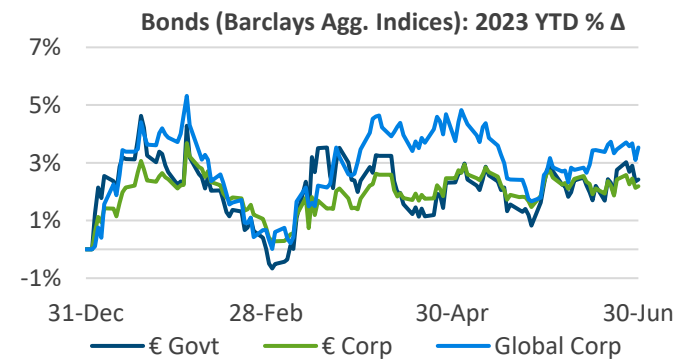
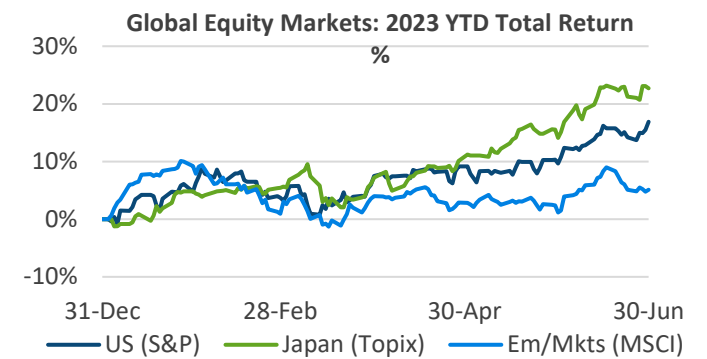
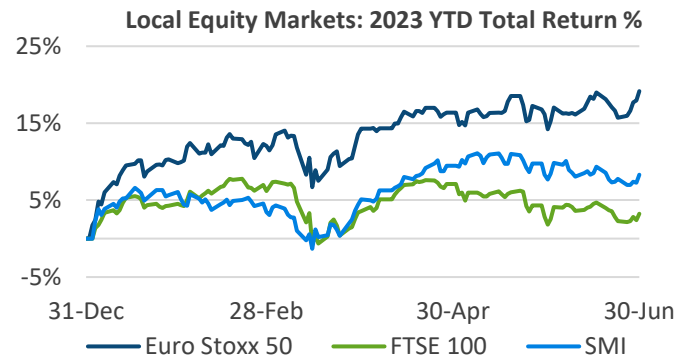
- Global equity markets had a positive performance in June.
- The Euro Stoxx 50 index was up 4.4% in June, gaining 4.2% in the second quarter.
- The FTSE 100 index gained 1.4%, returning -0.3% in the second quarter.

Global Equity Markets

- Developed market equities outperformed their emerging market counterparts in June, with the S&P 500 up 6.6% and the Topix index gaining 7.5%. Meanwhile, the MSCI Emerging Markets index was up 3.9%.

Bond/FX Markets

- The European government bond index ended the month down 0.3% and the European corporate bond index lost 0.4%.
- The Euro had a positive performance in June, gaining 2.5% against the US Dollar and 5.6% against the Japanese Yen.

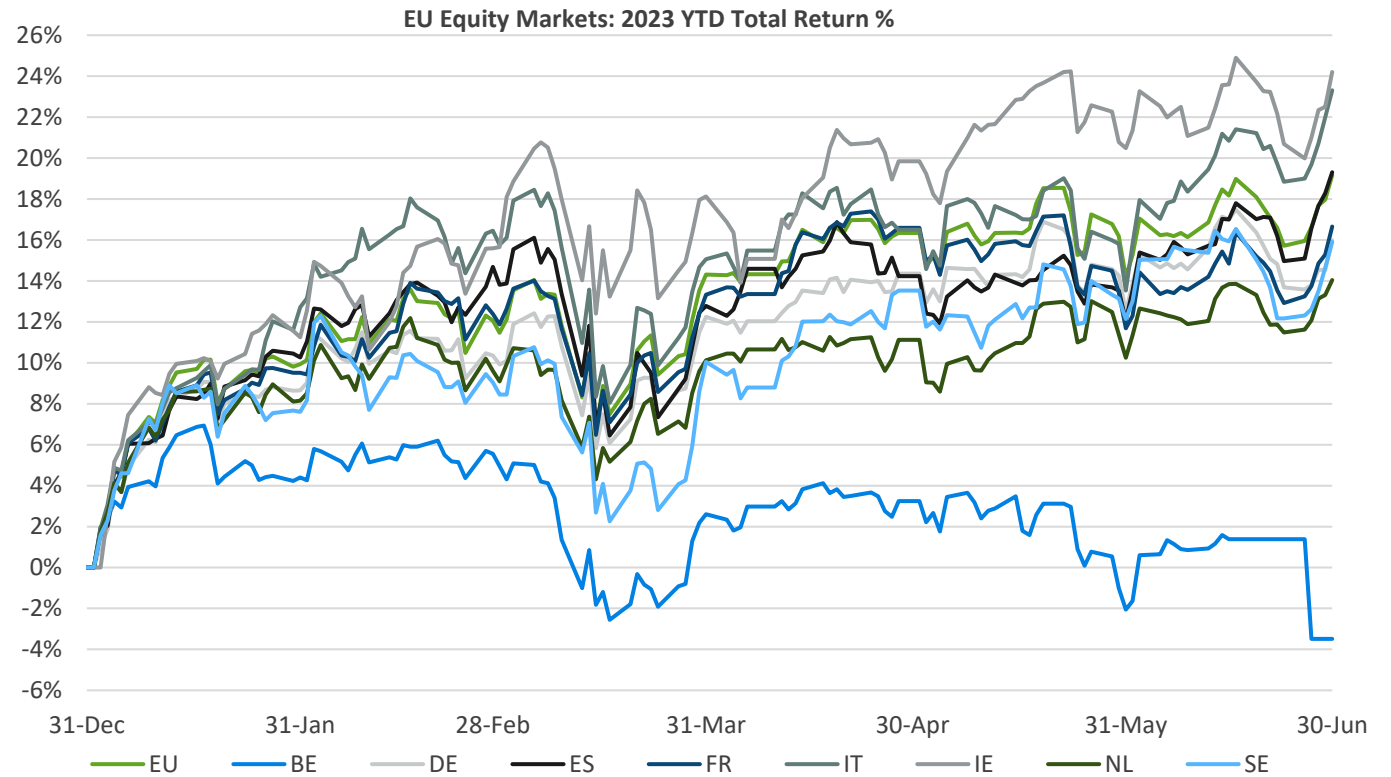


Total Returns as of June 30, 2023

	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	4.4%	1.4%	0.6%	6.6%	7.5%	3.9%	-0.3%	-0.4%	-0.4%	-2.5%	-5.6%	-0.1%
3 Month	4.2%	-0.3%	3.0%	8.7%	14.4%	1.0%	0.1%	0.4%	1.6%	-0.6%	-8.6%	2.3%
1 Year	31.6%	9.1%	8.3%	19.6%	25.7%	2.2%	-4.7%	0.1%	2.3%	-3.9%	-9.7%	0.2%
YTD	19.2%	3.2%	8.3%	16.9%	22.7%	5.1%	2.4%	2.2%	1.3%	-1.9%	-10.8%	3.0%

Eurozone Equity

- All major European equity markets saw gains in June, except for the Belgian equity market which lost 1.5%, remaining the laggard performer in the region, down 3.5% year-to-date.
- The Italian equity market had the best performance, gaining 8.6% in June.
- The Irish equity market remains the best performing market year-to-date, having returned 24.2% thus far.

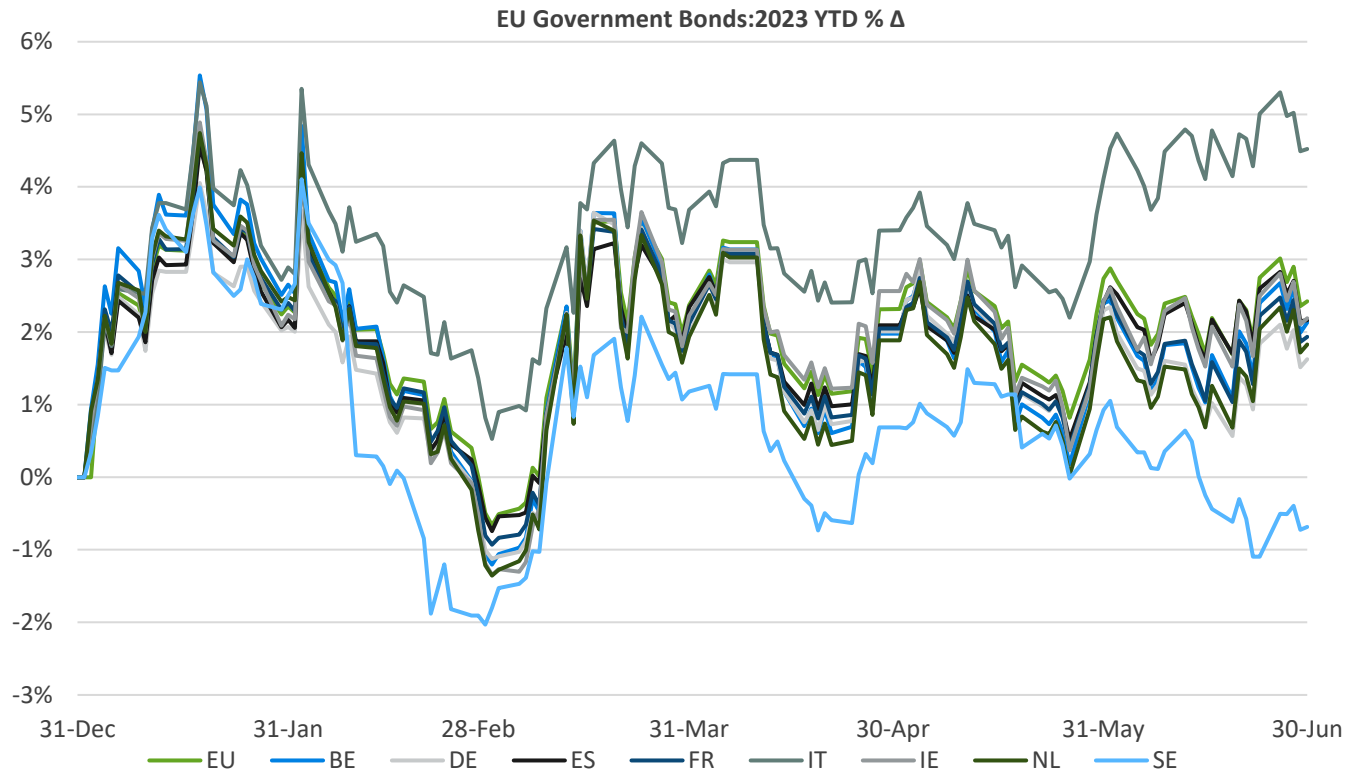


Equity Returns as of June 30, 2023

	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	4.4%	-1.5%	3.1%	6.5%	4.5%	8.6%	3.1%	3.4%	3.4%
3 Month	4.2%	-5.9%	3.3%	5.8%	2.9%	7.2%	5.1%	3.6%	5.3%
QTD	4.2%	-5.9%	3.3%	5.8%	2.9%	7.2%	5.1%	3.6%	5.3%
YTD	19.2%	-3.5%	16.0%	19.3%	16.7%	23.3%	24.2%	14.0%	15.9%

Eurozone Government Bonds

- All major European government bond indices had a negative performance in June, except for the Italian government bond index which gained 0.4%, remaining the outperformer in the region, up 4.5% year-to-date.
- The Swedish government bond index saw the largest decline, down 1.6% in June as it continues to underperform its European peers year-to-date, having lost 0.7% so far over the year.



Bond Returns as of June 30, 2023

	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	-0.3%	-0.3%	-0.7%	-0.2%	-0.5%	0.4%	-0.2%	-0.3%	-1.6%
3 Month	0.1%	0.0%	-0.4%	-0.2%	-0.2%	0.8%	0.0%	-0.1%	-1.8%
QTD	0.1%	0.0%	-0.4%	-0.2%	-0.2%	0.8%	0.0%	-0.1%	-1.8%
YTD	2.4%	2.1%	1.6%	2.2%	1.9%	4.5%	2.2%	1.8%	-0.7%

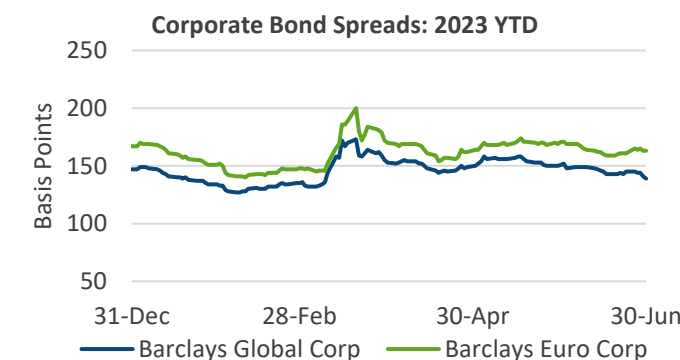
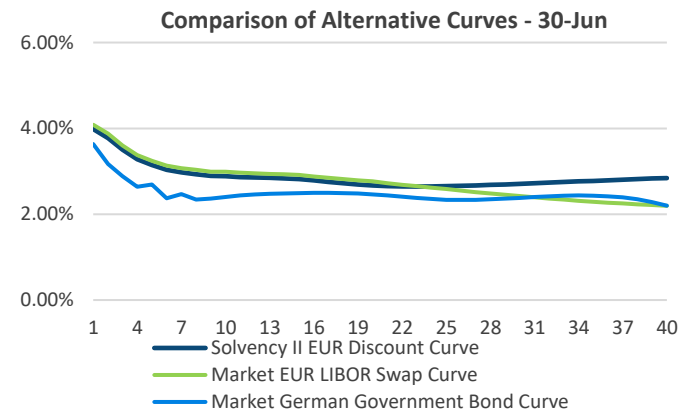
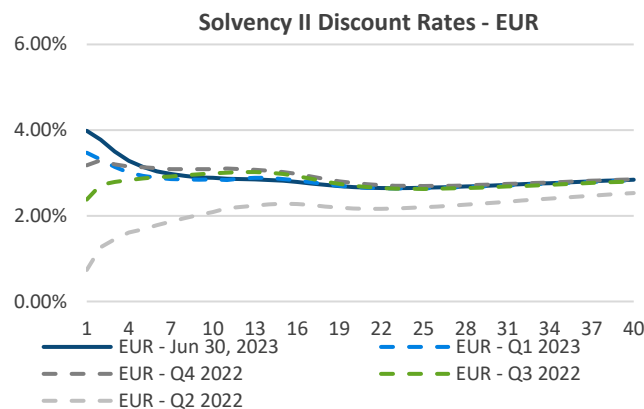
Liability Valuation Monitor

Risk Free Rates

- Short and medium-term EUR risk-free rates increased in June, whilst the longer-term risk-free rates declined.
- The 1-year EUR risk-free rate rose by 25 basis points. Meanwhile the 30-year rate declined by 7 basis points.

Corporate Bonds

- Both European and global corporate bond yields increased in June. The former increased by 23 basis points and the latter by 16 basis points.
- Global credit spreads tightened by 12 basis points, and European credit spreads tightened by 8 basis point.
- The increase in risk-free rates was partially offset by the tightening in corporate bond spreads, resulting in small 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 Q1 2023	51	21	4	-1	1	1	32	22	-14	-7
Since Q4 2022	81	1	-20	-10	-2	-1	10	12	-8	-4
Since Q3 2022	161	27	-10	-3	4	4	-10	20	-41	-62
Since Q2 2022	325	146	80	50	40	31	94	120	-36	-55

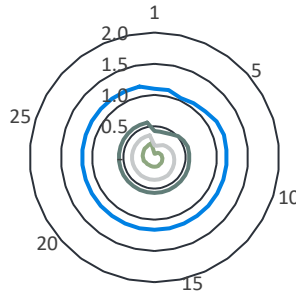
Solvency II Monitor - Spreads

Fundamental Spreads

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

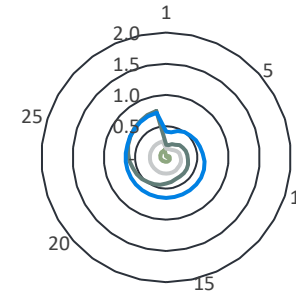
Fundamental Spreads %

EUR: Financial



— AAA — AA — A — BBB

EUR: Non-Financial



— AAA — AA — A — BBB

EUR Financial Fundamental Spread %						EUR Non-Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30		1Y	Y5	Y10	Y20	Y30
AAA	0.06	0.10	0.13	0.16	0.23	AAA	0.02	0.02	0.06	0.08	0.12
AA	0.19	0.26	0.33	0.36	0.36	AA	0.14	0.17	0.25	0.26	0.26
A	0.42	0.51	0.57	0.57	0.57	A	0.20	0.29	0.37	0.52	0.76
BBB	1.10	1.10	1.16	1.16	1.16	BBB	0.41	0.52	0.64	0.65	0.73
EUR Financial 'Before Floor' %						EUR Non-Financial 'Before Floor' %					
	1Y	Y5	Y10	Y20	Y30		1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.04	0.08	0.16	0.23	AAA	0.00	0.01	0.04	0.08	0.12
AA	0.04	0.07	0.11	0.18	0.26	AA	0.00	0.04	0.09	0.17	0.26
A	0.06	0.12	0.19	0.32	0.42	A	0.04	0.15	0.27	0.52	0.76
BBB	0.14	0.22	0.32	0.45	0.57	BBB	0.11	0.21	0.34	0.55	0.73

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 30/06/23) 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 31/05/23. **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.

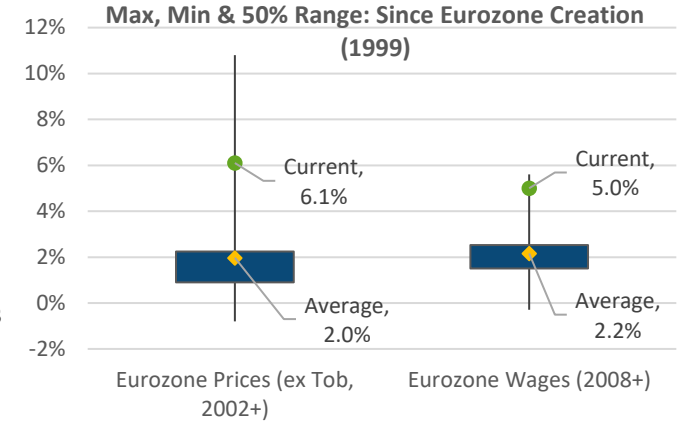
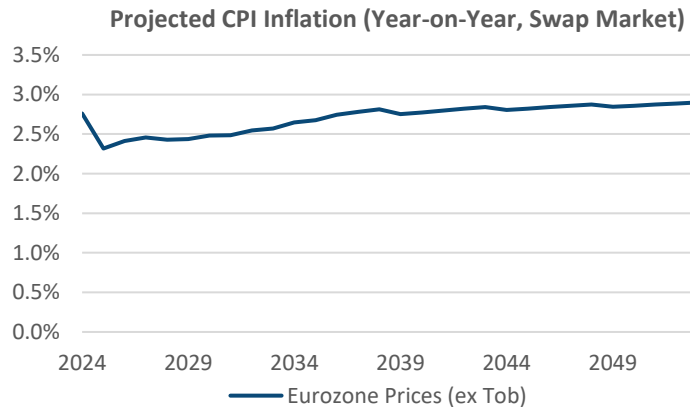
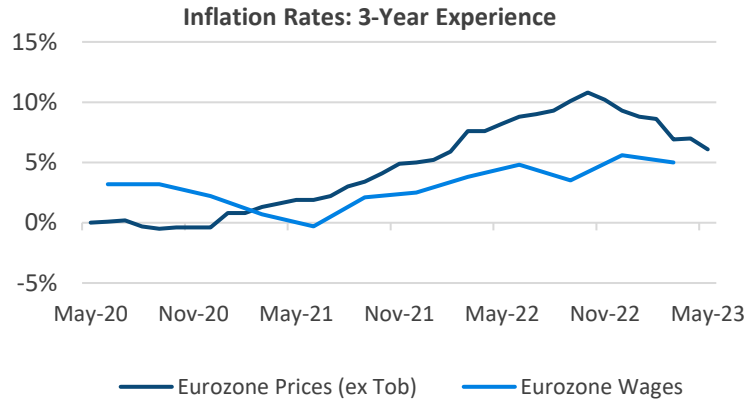
Milliman Financial Risk Management

EuroZone Market Monitor – 30 June 2023

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

Inflation Monitor

- Eurozone price inflation decreased by 90 basis points to 6.1% in May.
- Eurozone Q1 2023 wage inflation declined by 60 basis points to 5.0%, after the previous quarter's figure was revised lower by 10 basis points.
- Eurozone projected CPI curve was relatively unchanged in comparison to the previous month.



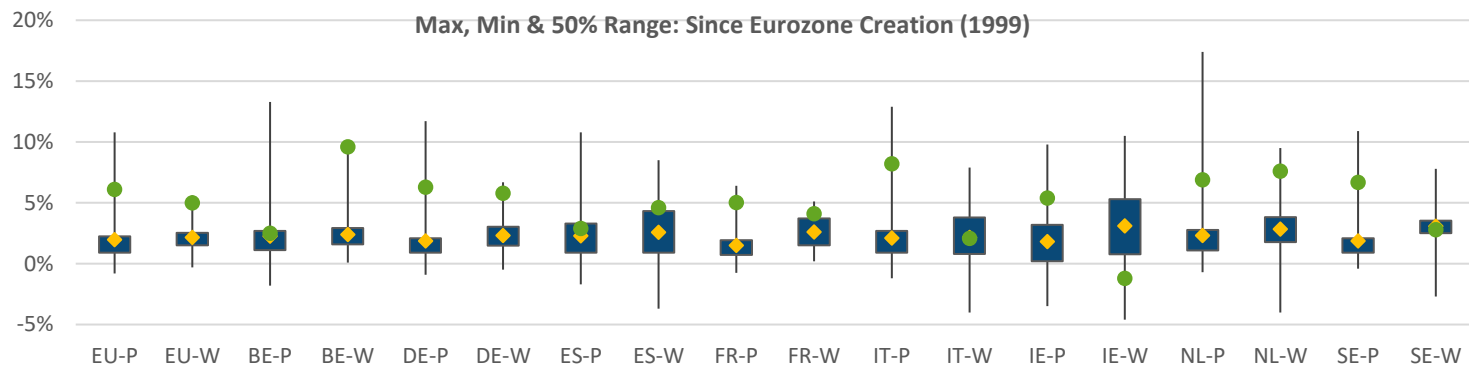
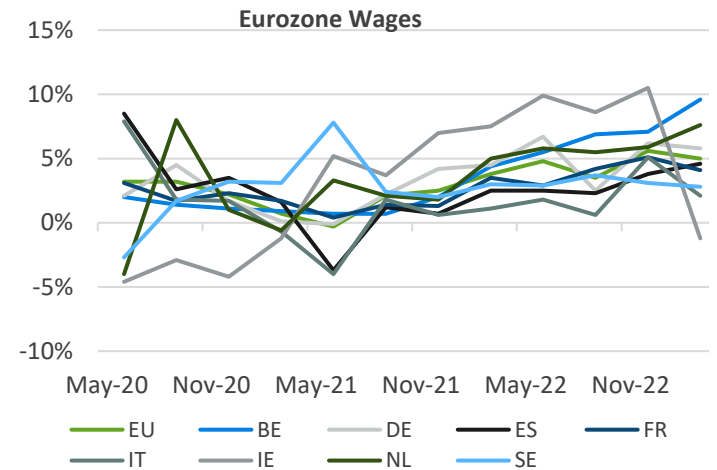
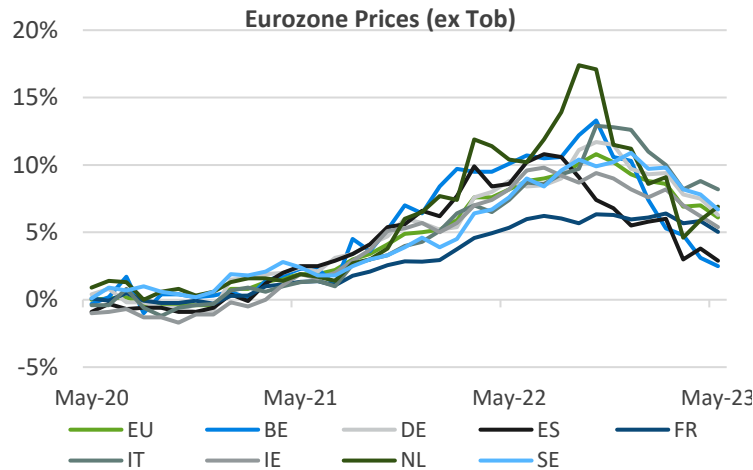
Milliman Financial Risk Management

EuroZone Market Monitor – 30 June 2023

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

Inflation Monitor

- All European economies saw their inflation ease in May, except for the Netherlands, which saw an increase of 100 basis points to 6.9%.
- German inflation decreased the most, falling by 120 basis points to 6.3%.
- Italian price inflation showed the highest level in the region in May, at 8.2%.
- Belgium was the country with the lowest inflation reading in May, at 2.5%, a 60 basis points decrease from the previous month.
- Q1 2023 wage inflation figures were mixed for major European countries.
- Ireland saw the largest decline in Q1 2023 wage inflation, decreasing by 1170 basis points to -1.2%, after the previous quarter's reading was revised higher by 60 basis points. This was the lowest reading in the region.
- Belgium's wage inflation saw the biggest increase, rising 250 basis points to 9.6%, which was also the highest reading in the region.



	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%	2.2%	2.3%	2.4%	1.9%	2.3%	2.3%	2.6%	1.5%	2.6%	2.1%	2.2%	1.8%	3.1%	2.3%	2.9%	1.9%	3.1%
Cur	6.1%	5.0%	2.5%	9.6%	6.3%	5.8%	2.9%	4.6%	5.0%	4.1%	8.2%	2.1%	5.4%	-1.2%	6.9%	7.6%	6.7%	2.8%

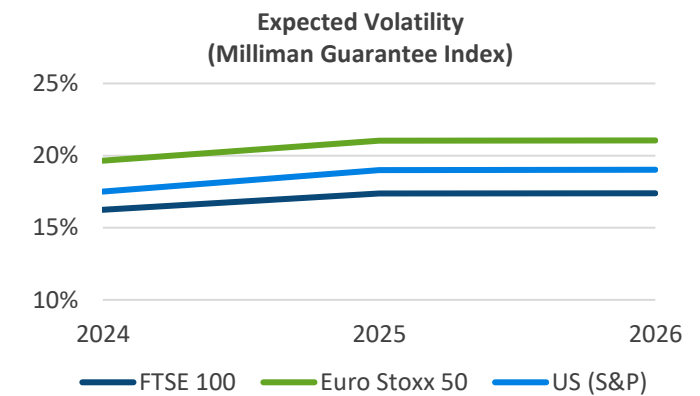
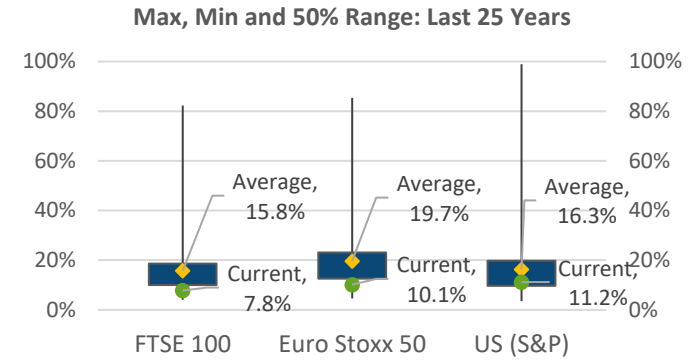
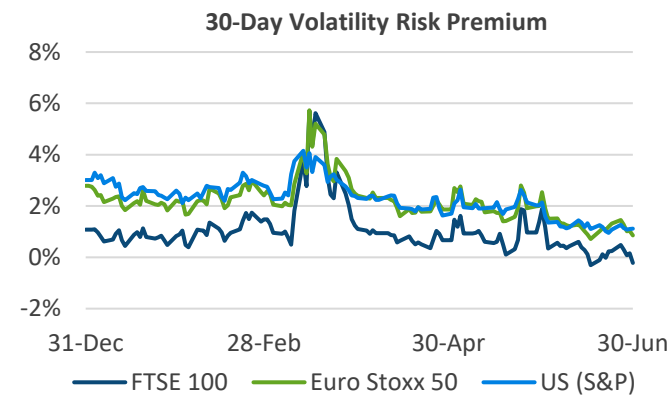
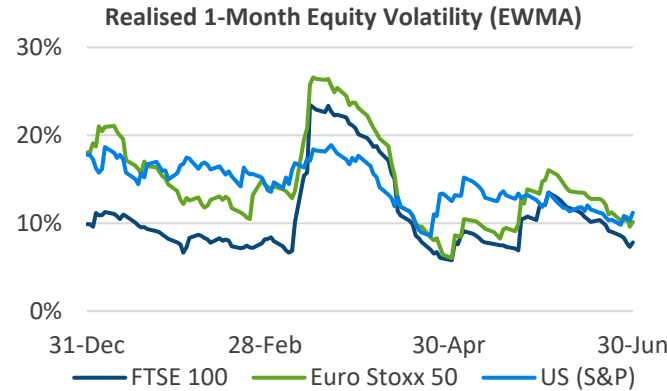


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Volatility and Hedging Cost Monitor

- Realised volatilities on major indices decreased in June and remain below historical averages.
- The FTSE 100 ended the month with a realised volatility of 7.8%. The same measure stood at 10.1% and 11.2% on the Euro Stoxx 50 and the S&P 500, respectively.
- Volatility risk premiums on major indices also decreased in June. The FTSE 100 had a volatility risk premium of -0.2% at month-end. The volatility risk premium on the Euro Stoxx 50 and the S&P 500 was 0.9% and 1.1%, respectively.

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



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).

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.

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

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