

## Asset Price Monitor

### Local Equity Markets

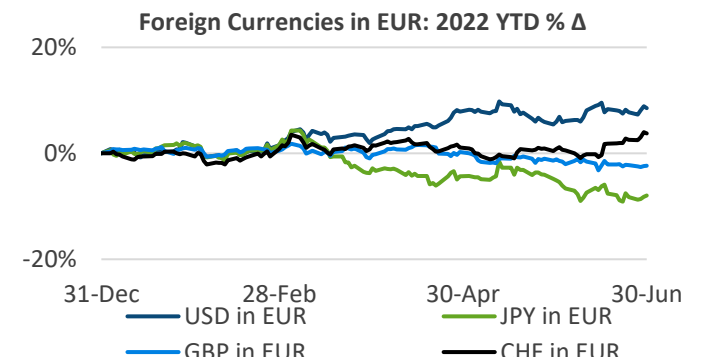
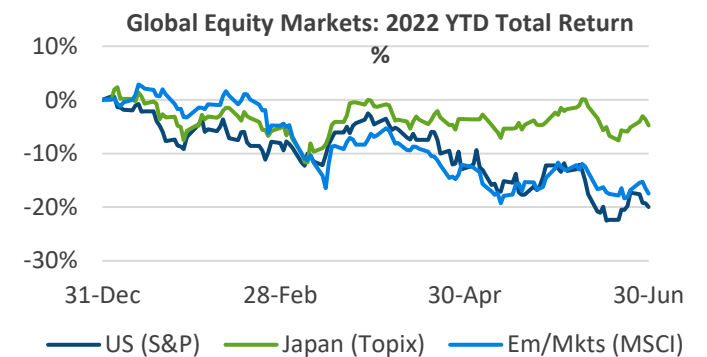
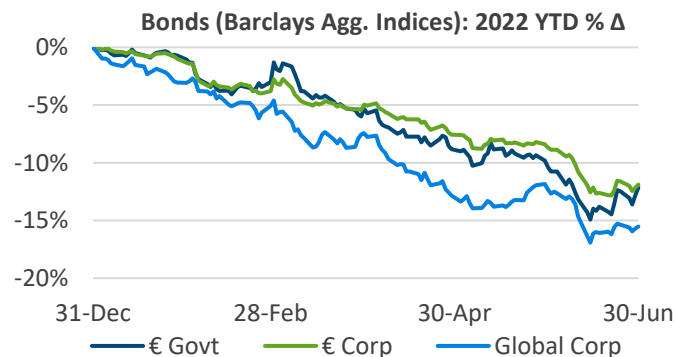
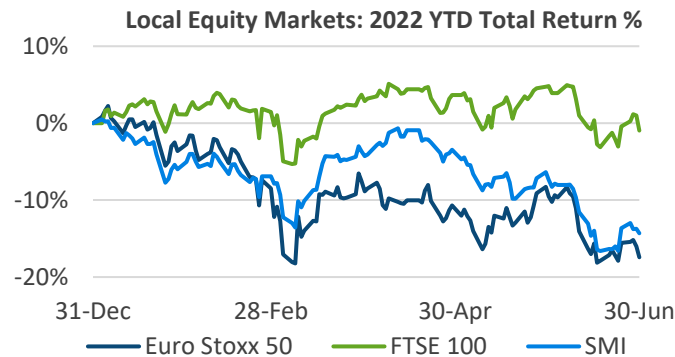
- Global equity markets ended the second quarter with material losses, as recession fears and continued expectation of further significant rate hikes to combat inflation continued to dampen investors' appetite for risk assets.
- The Euro Stoxx 50 index lost 8.7% in June, down 17.4% year-to-date.
- The FTSE 100 ended the month down 5.5%.

### Global Equity Markets

- The S&P 500 was down 8.3% at month-end, extending its losses to 20.0% year-to-date.
- The Japanese Topix fell by 2.1% and the MSCI Emerging Markets index dropped by 6.6%.

### Bond/FX Markets

- Bond markets also had a poor month, with the European government bond index down 1.9% in June, and 12.1% year-to-date.
- The European corporate bond index fell 3.5%.
- The Euro had a mixed performance in June, losing 2.4% against the US Dollar. Meanwhile, it gained 3.0% and 1.2% against the Japanese Yen and the British Pound, respectively.



	Total Returns as of June 30, 2022											
	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	-8.7%	-5.5%	-7.5%	-8.3%	-2.1%	-6.6%	-1.9%	-3.5%	2.9%	2.4%	-3.0%	-1.2%
3 Month	-9.4%	-3.7%	-10.5%	-16.1%	-3.7%	-11.3%	-7.2%	-7.3%	2.2%	5.7%	-5.3%	-2.0%
1 Year	-12.1%	5.8%	-7.5%	-10.6%	-1.4%	-25.0%	-12.6%	-12.4%	9.7%	13.0%	-7.5%	-0.3%
YTD	-17.4%	-1.0%	-14.3%	-20.0%	-4.8%	-17.5%	-12.1%	-11.9%	3.8%	8.5%	-7.9%	-2.3%

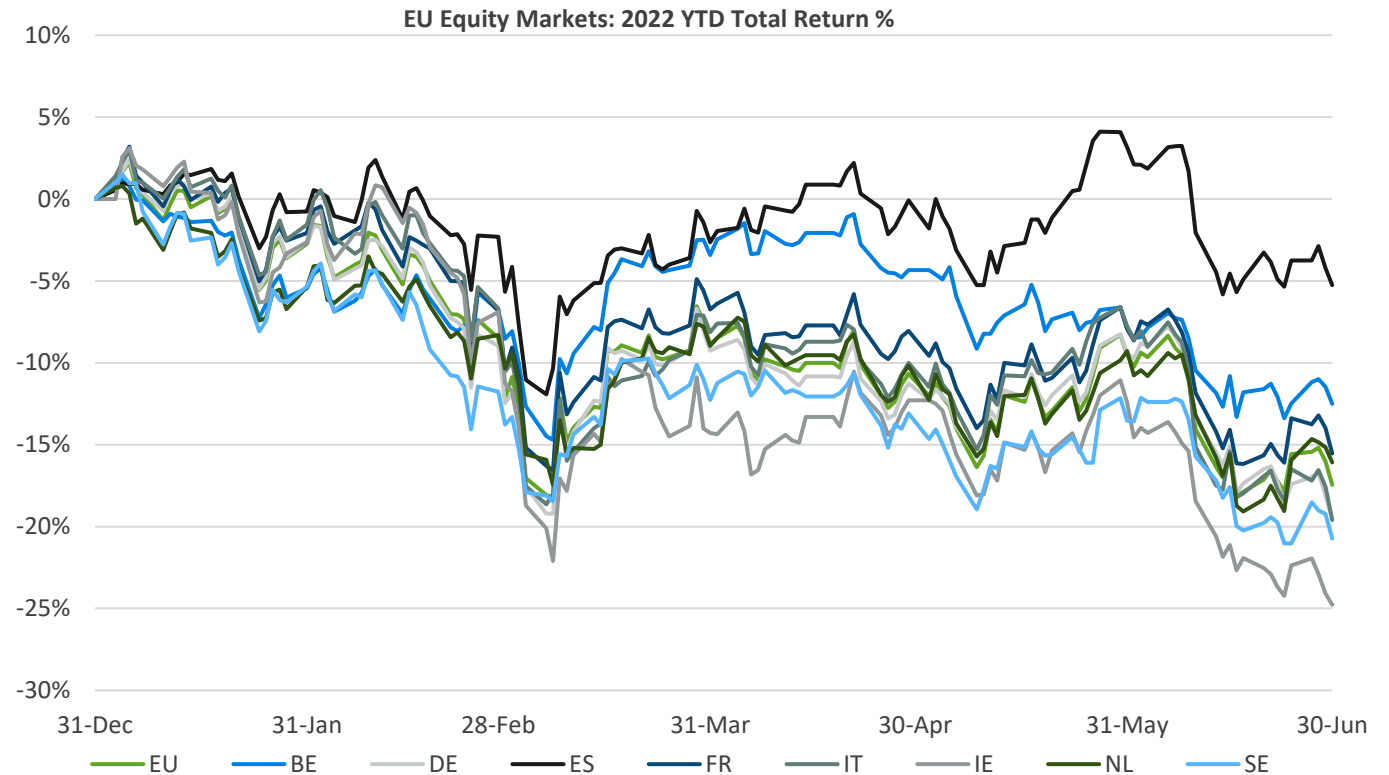
## Milliman Financial Risk Management

EuroZone Market Monitor – 30 June 2022

Data sources: Bloomberg; Barclays; EuroStat; Oxford-Man Institute; Milliman FRM

### Eurozone Equity

- European equity markets suffered material losses in June.
- The Irish equity index ended the month down 14.1%, having lost 24.8% year-to-date. This made it the worst performing equity market in the region during the month of June and for the year so far.
- The Belgian equity market fell by 5.0% in June, witnessing the smallest loss in comparison to its European peers.
- The Spanish equity market has been the outperformer of 2022 so far, having dropped 5.3% year-to-date.

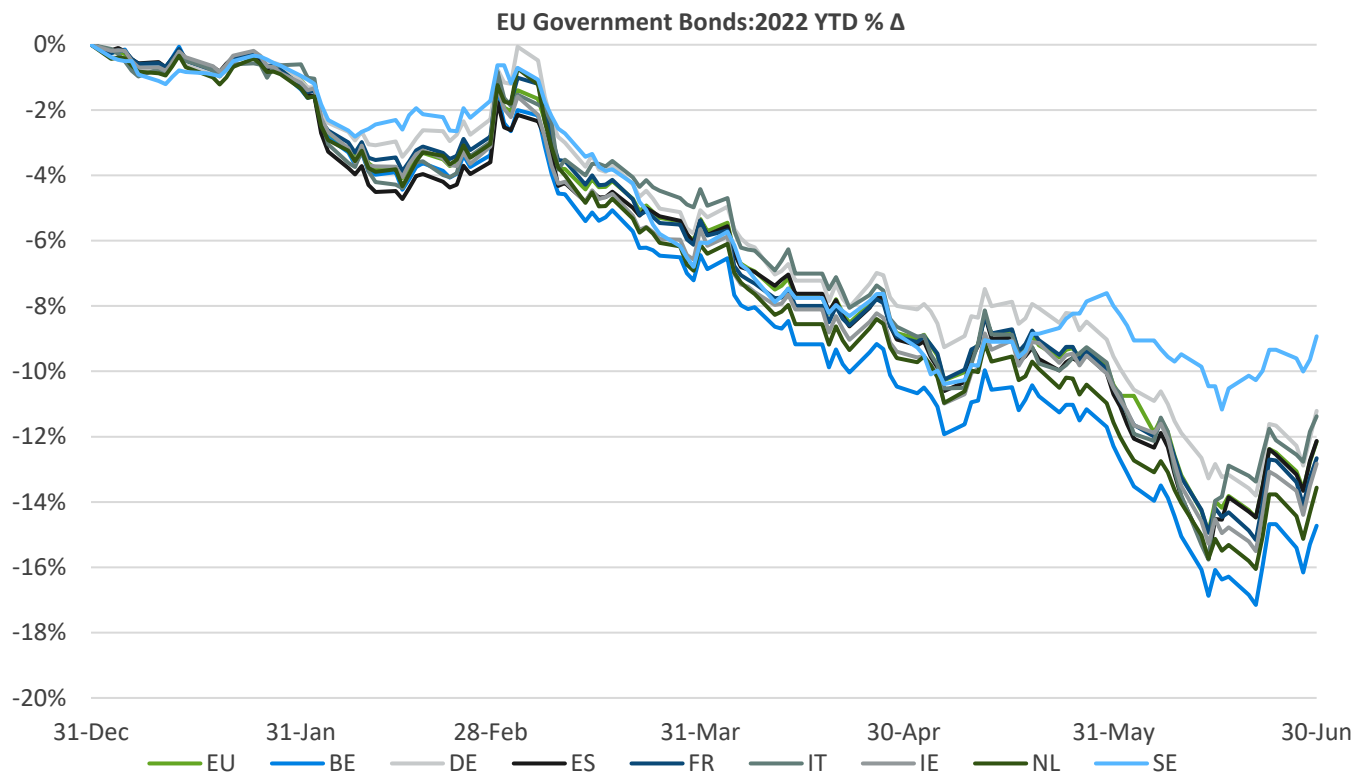


### Equity Returns as of June 30, 2022

	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	-8.7%	-5.0%	-11.2%	-8.2%	-8.3%	-12.8%	-14.1%	-7.5%	-8.3%
3 Month	-9.4%	-9.4%	-11.3%	-2.7%	-9.4%	-12.5%	-12.2%	-7.8%	-9.6%
QTD	-9.4%	-9.4%	-11.3%	-2.7%	-9.4%	-12.5%	-12.2%	-7.8%	-9.6%
YTD	-17.4%	-12.5%	-19.5%	-5.3%	-15.5%	-19.6%	-24.8%	-16.1%	-20.7%

### Eurozone Government Bonds

- European government bonds extended their losses in June.
- The Belgian government bond index was the worst performer of the month losing 2.8%, and remains the underperformer of the year, with the index down 14.7% year-to-date.
- Italian and Swedish government bond indices ended the month down 1.0%, outperforming the rest of the region.
- The Swedish government bond index remains the outperformer, having lost 8.9% year-to-date.



Bond Returns as of June 30, 2022

	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	-1.9%	-2.8%	-1.8%	-1.6%	-2.4%	-1.0%	-2.6%	-2.3%	-1.0%
3 Month	-7.2%	-8.9%	-6.5%	-7.1%	-7.7%	-7.3%	-7.6%	-7.9%	-3.1%
QTD	-7.2%	-8.9%	-6.5%	-7.1%	-7.7%	-7.3%	-7.6%	-7.9%	-3.1%
YTD	-12.1%	-14.7%	-11.2%	-12.1%	-12.7%	-11.4%	-12.8%	-13.6%	-8.9%

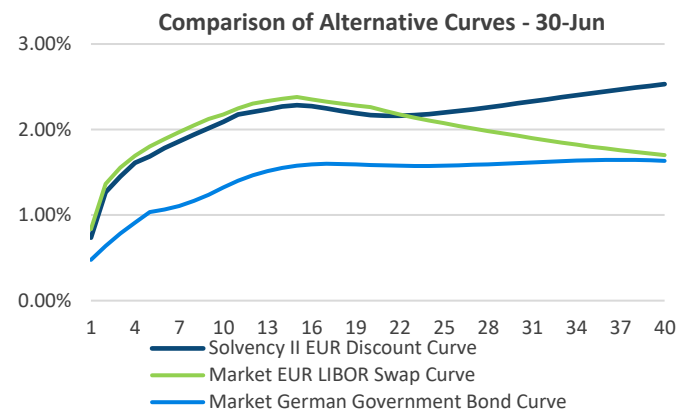
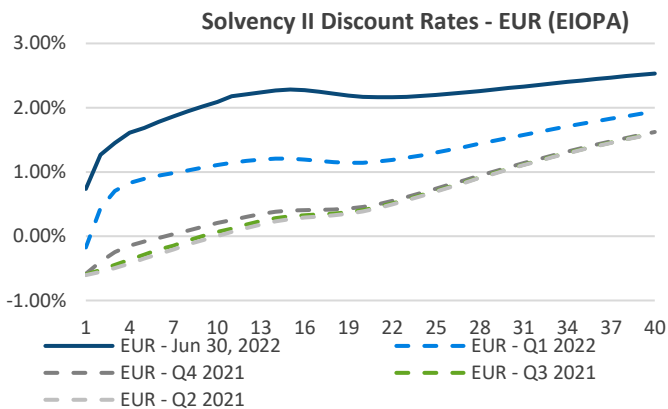
Liability Valuation Monitor

Risk Free Rates

- EUR risk-free rates rose at all terms for the fifth consecutive month.
- The 1-year risk-free rate saw the biggest increase, rising by 35 basis points.
- The 10 and 20-year risk-free rates increased by 32 and 31 basis points, respectively.

Corporate Bonds

- European and global corporate bond yields rose in June. The former increased by 83 basis points and the latter by 57 basis points.
- Credit spreads widened further in June, with global and European corporate spreads widening by 31 and 56 basis points, respectively.
- The rise in risk-free rates combined with the widening in the 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 Q1 2022	91	79	98	103	77	59	125	169	51	89
Since Q4 2021	132	177	188	171	123	91	248	272	78	123
Since Q3 2021	133	197	202	176	126	93	269	289	87	134
Since Q2 2021	134	203	209	178	127	93	276	291	89	135

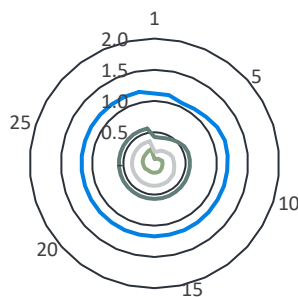
Solvency II Monitor - Spreads

Fundamental Spreads

- There were no material changes since the last report.

Fundamental Spreads %

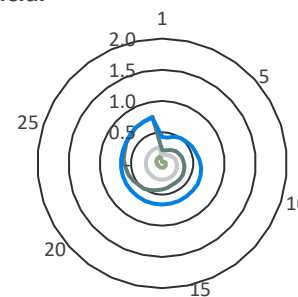
EUR: Financial



— AAA — AA — A — BBB

EUR Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.07	0.10	0.13	0.15	0.23
AA	0.19	0.26	0.33	0.36	0.36
A	0.42	0.51	0.57	0.57	0.57
BBB	1.12	1.11	1.17	1.17	1.17
EUR Financial 'Before Floor' %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.04	0.08	0.15	0.23
AA	0.04	0.07	0.11	0.18	0.26
A	0.06	0.12	0.18	0.31	0.43
BBB	0.15	0.24	0.33	0.48	0.59

EUR: Non-Financial



— AAA — AA — A — BBB

EUR Non-Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.02	0.03	0.06	0.07	0.12
AA	0.14	0.18	0.25	0.26	0.26
A	0.21	0.29	0.37	0.51	0.76
BBB	0.42	0.52	0.65	0.66	0.75
EUR Non-Financial 'Before Floor' %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.01	0.04	0.07	0.12
AA	0.00	0.04	0.09	0.17	0.26
A	0.04	0.15	0.27	0.51	0.76
BBB	0.11	0.21	0.34	0.55	0.75

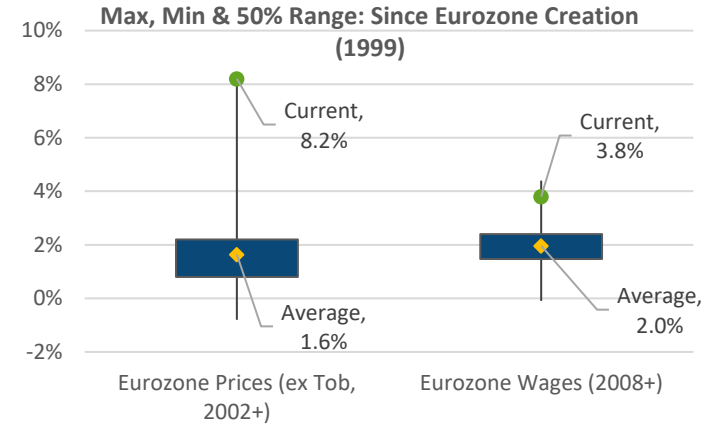
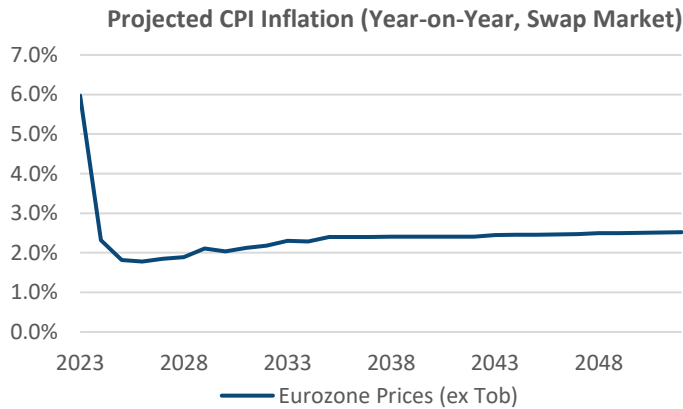
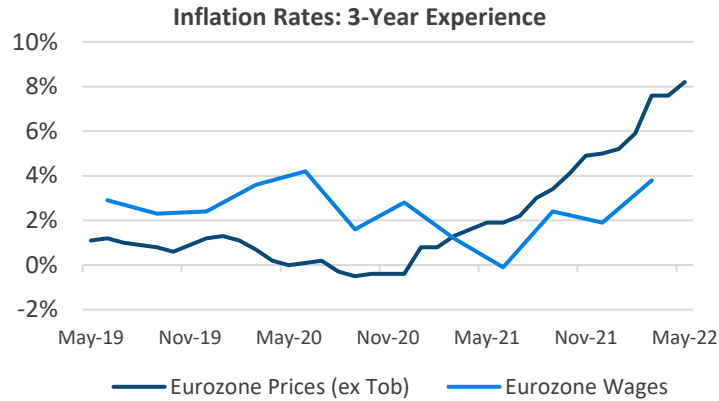
The **Solvency II risk-free discount rates** are based on applying the Smith-Wilson Extrapolation to LIBOR swap rates sourced from Refinitiv and applying the Credit Risk Adjustment as defined in the Technical Specs. The data is provided by EIOPA and as of 30/06/22.

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 30/06/22. **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.

**Inflation Monitor**

- Eurozone price inflation rose to 8.2% in May, an increase of 60 basis points from the previous month.
- Eurozone Q1 2022 wage inflation increased by 190 basis points to 3.8%.
- The Eurozone projected CPI curve declined at the short end.



# Milliman Financial Risk Management

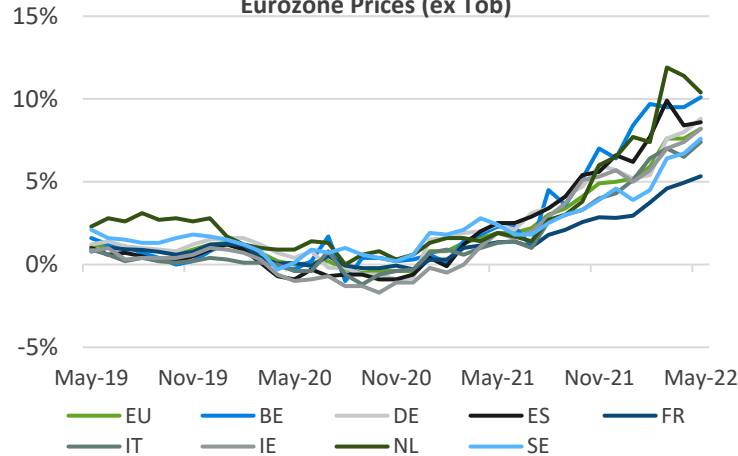
EuroZone Market Monitor – 30 June 2022

Data sources: Bloomberg; Barclays; EuroStat; Oxford-Man Institute; Milliman FRM

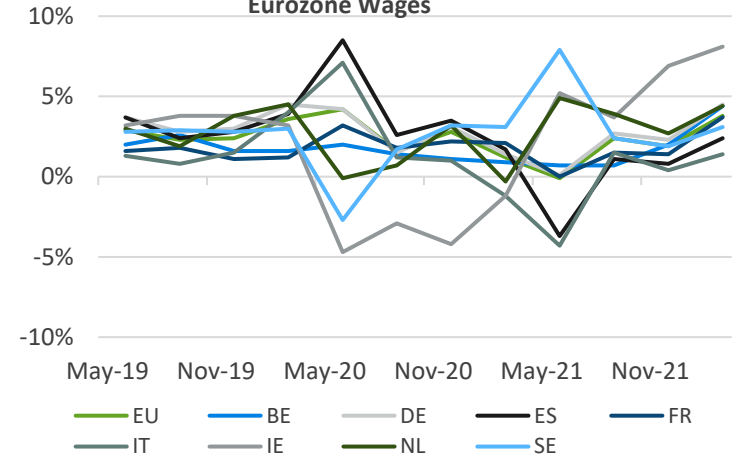
## Inflation Monitor

- All major European economies saw their price inflation rise in May, with the exception of the Netherlands which witnessed a 100 basis points decline in its headline figure. However, despite this fall, the Netherlands remains the country with the highest price inflation in the region, at 10.4%.
- Both Italy and Sweden saw their price inflation rise by 90 basis points in May, the biggest increase for the month.
- France remained the country with the lowest price inflation in the Eurozone, at 5.3%.
- Q1 2022 wage inflation figures increased for all major European countries.
- Ireland posted the highest wage inflation figure for Q1, coming in at 8.1%.
- The largest wage inflation increase was in Belgium, with a rise of 240 basis points to 4.4%.
- In contrast, Italian wages saw the smallest increase, rising by 100 basis points as the country posted the lowest headline figure for Q1 wage inflation at 1.4%, after its previous figure was revised higher by 10 basis points.

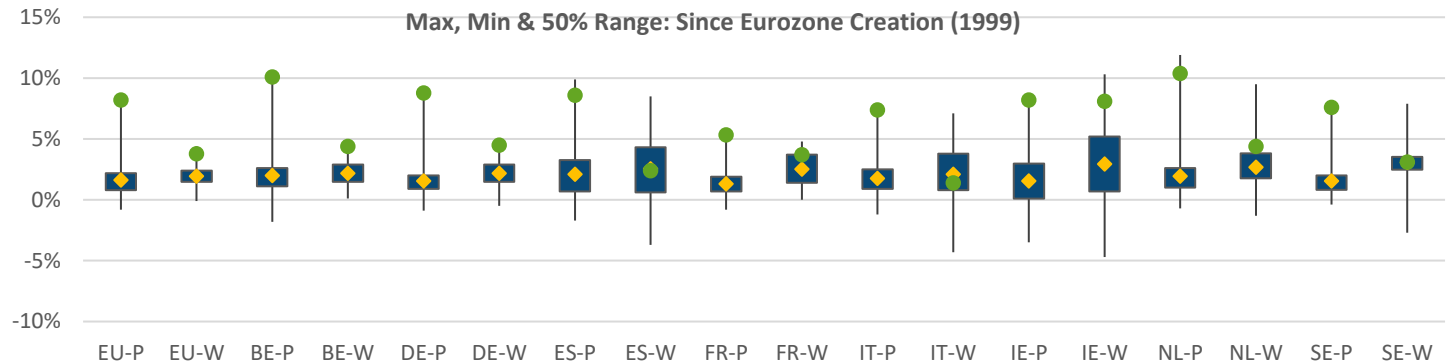
Eurozone Prices (ex Tob)



Eurozone Wages



Max, Min & 50% Range: Since Eurozone Creation (1999)



	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.	1.6%	2.0%	2.0%	2.2%	1.6%	2.2%	2.1%	2.6%	1.3%	2.5%	1.8%	2.1%	1.6%	3.0%	2.0%	2.7%	1.6%	3.1%
Cur	8.2%	3.8%	10.1%	4.4%	8.8%	4.5%	8.6%	2.4%	5.3%	3.7%	7.4%	1.4%	8.2%	8.1%	10.4%	4.4%	7.6%	3.1%

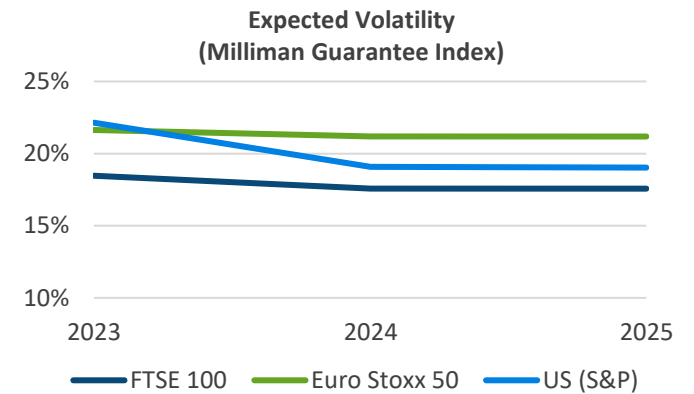
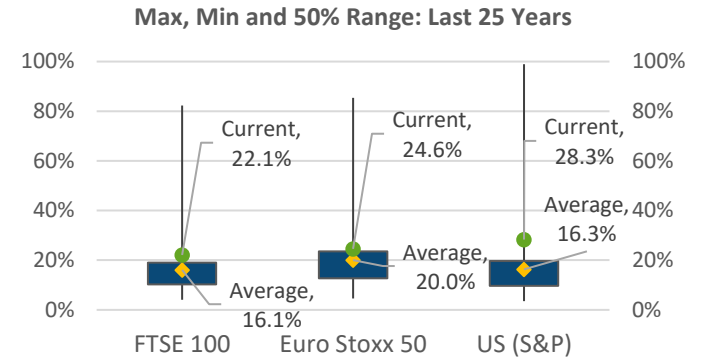
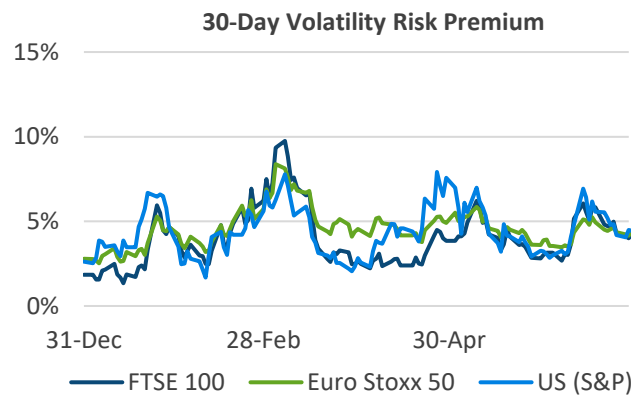
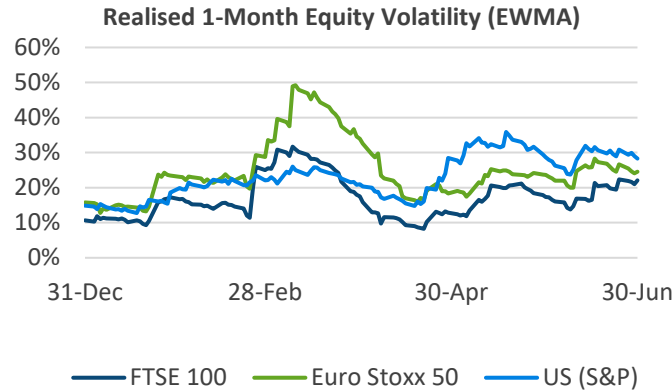


The recipient should not construe any of the material contained herein as investment, hedging, trading, legal, regulatory, tax, accounting or other advice. The recipient should not act on any information in this document without consulting its investment, hedging, trading, legal, regulatory, tax, accounting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

**Volatility and Hedging Cost Monitor**

- Realised Volatility on major equity indices increased in June. The FTSE 100 ended the month with a realised volatility of 22.1%. The same measure stood at 24.6% and 28.3% on the Euro Stoxx 50 and the S&P 500, respectively.
- Volatility risk premiums rose during the month. The volatility risk premium on the FTSE 100 was 4.0% at month-end. The Euro Stoxx 50 and the S&P 500 had a volatility risk premium of 4.2% and 4.5% at month-end, respectively. **\*\* Please note that due to some missing data the volatility risk premiums have only been updated to the 28<sup>th</sup> of June for this month. \*\***

*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).

[MILLIMAN.COM/FRM](https://www.milliman.com/frm)

### 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

32 Walker Street  
North Sydney, NSW 2060  
Australia  
+610 2 8090 9100

### Amsterdam

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

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