

Asset Price Monitor

Local Equity Markets

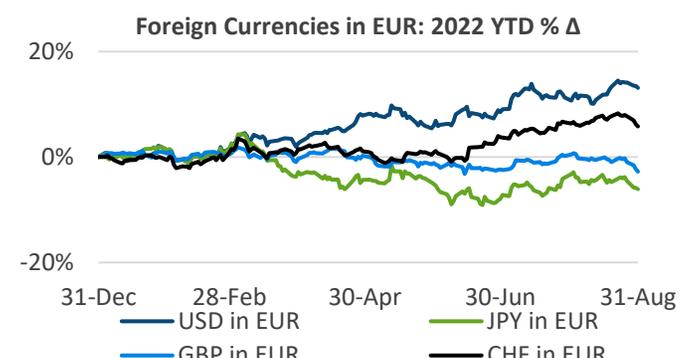
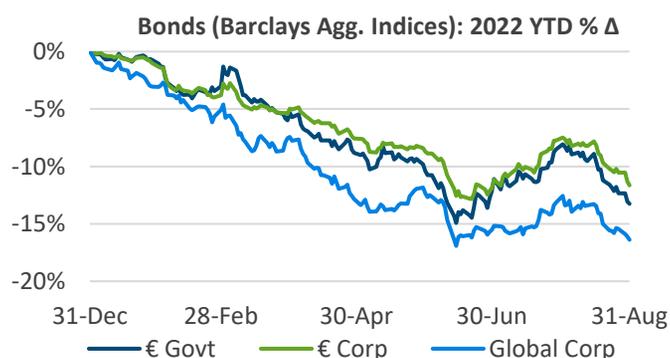
- Most major global equity indices made losses in August, as central banks continued to voice their commitment to tame inflation. This, coupled with weakening global PMIs which points to a slowing global economy, weighed on risk sentiment during the month.
- The Euro Stoxx 50 was down 5.1%.
- The FTSE 100 lost 1.1% in August.

Global Equity Markets

- The MSCI Emerging Market index gained 0.5% in August.
- The Japanese Topix ended the month up 1.2%. In contrast, the S&P 500 fell by 4.1%.

Bond/FX Markets

- Both the European corporate and government bond indices witnessed losses in August. The former was down 4.2% and the latter dropped by 5.2%.
- The Euro had a mixed performance in August. Gaining 2.3% and 2.9% against the Japanese Yen and the British Pound, respectively. Meanwhile it weakened by 1.7% against the US Dollar, as the greenback strengthened.



Total Returns as of August 31, 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	-5.1%	-1.1%	-2.6%	-4.1%	1.2%	0.5%	-5.2%	-4.2%	-0.7%	1.7%	-2.3%	-2.9%
3 Month	-6.9%	-3.1%	-6.5%	-3.9%	2.8%	-6.3%	-3.2%	-3.2%	4.9%	6.7%	-1.1%	-1.6%
1 Year	-13.3%	6.2%	-10.1%	-11.2%	2.5%	-21.5%	-14.7%	-12.8%	10.3%	17.4%	-6.9%	-0.7%
YTD	-15.8%	1.6%	-13.4%	-16.1%	0.0%	-17.2%	-13.2%	-11.6%	5.8%	13.1%	-6.1%	-2.8%

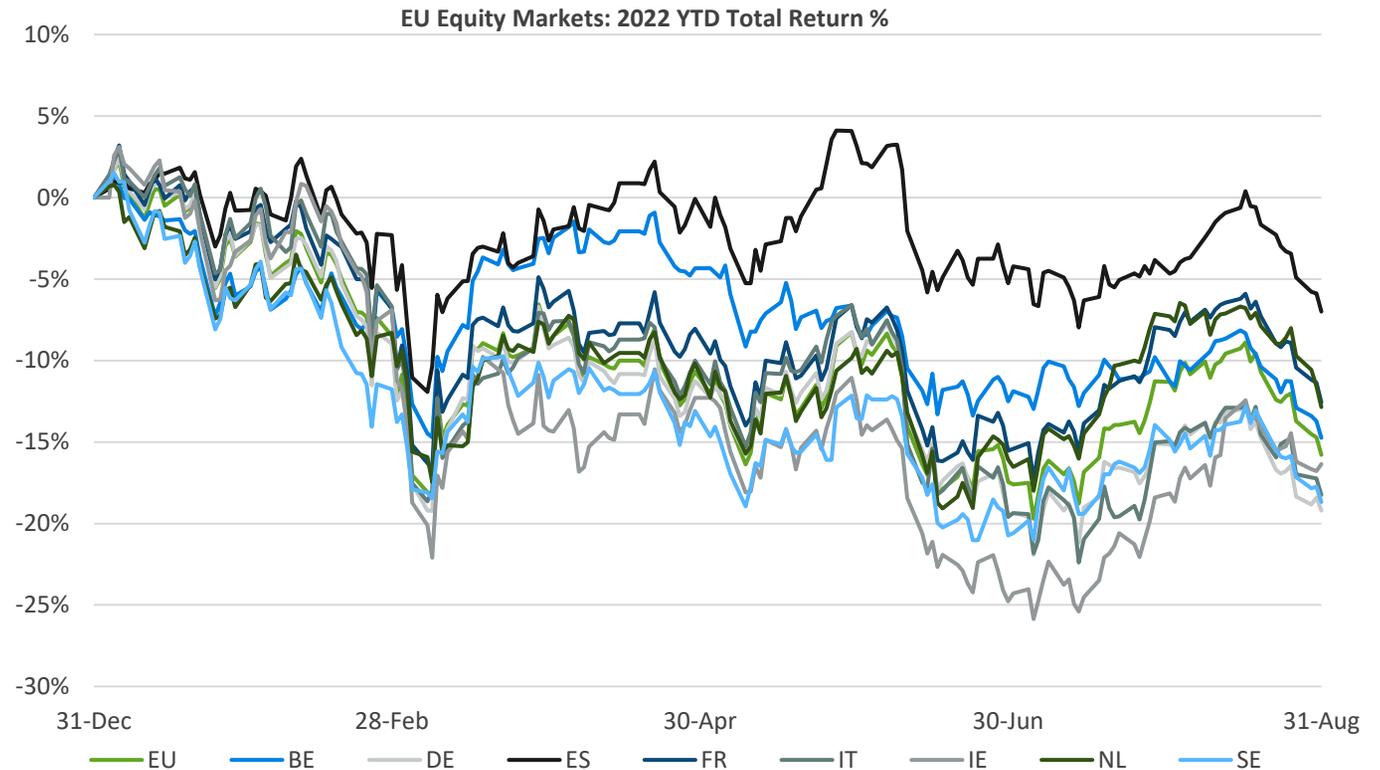
Milliman Financial Risk Management

EuroZone Market Monitor – 31 August 2022

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

Eurozone Equity

- All major European equity indices made losses in August, with the exception of the Irish equity market which gained 2.5%.
- The Dutch equity market was the worst performer of the month, down 6.2%.
- The Spanish equity index has suffered the smallest losses in the region year-to-date, down 7.0%.
- The German equity index is the worst performing equity market in the region year-to-date, having fallen by 19.2%.



Equity Returns as of August 31, 2022

	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	-5.1%	-5.5%	-4.8%	-3.3%	-5.0%	-3.8%	2.5%	-6.2%	-5.5%
3 Month	-6.9%	-7.4%	-10.8%	-9.8%	-5.0%	-11.4%	-4.5%	-3.9%	-6.0%
QTD	2.0%	-2.6%	0.4%	-1.8%	3.5%	1.7%	11.2%	3.8%	2.6%
YTD	-15.8%	-14.7%	-19.2%	-7.0%	-12.6%	-18.2%	-16.3%	-12.9%	-18.7%

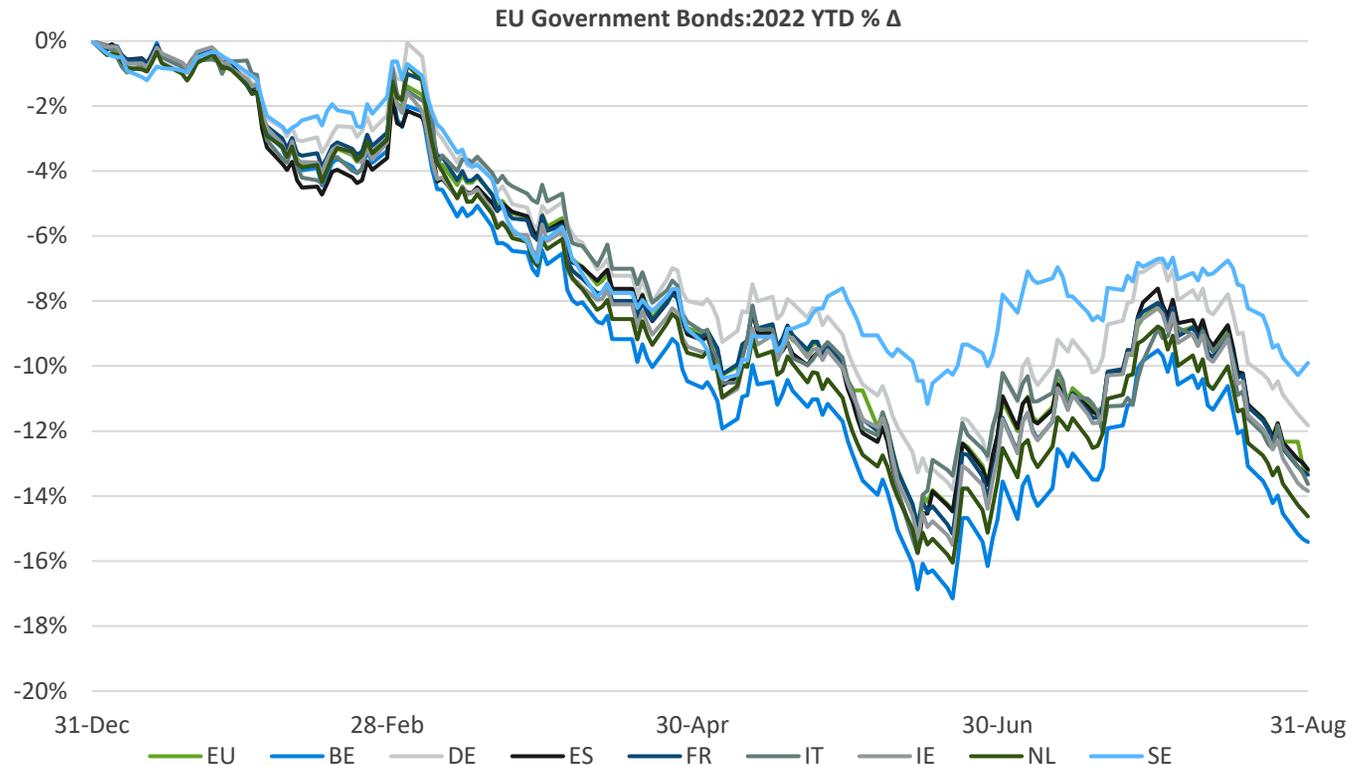
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EuroZone Market Monitor – 31 August 2022

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

Eurozone Government Bonds

- All major European government bond indices made material losses in August.
- The Swedish government bond index dropped the least in comparison to its peers, down 3.2%. Swedish government bonds have also suffered the smallest loss for the year, down 9.9% year-to-date.
- The Belgian government bond index saw the biggest fall, losing 6.2%. The index is also the worst performer year-to-date, down 15.4% for the year so far.



Bond Returns as of August 31, 2022

	EU	Belgium	Germany	Spain	France	Italy	Ireland	Netherlands	Sweden
1 Month	-5.2%	-6.2%	-5.1%	-5.6%	-5.5%	-4.2%	-5.8%	-6.0%	-3.2%
3 Month	-3.2%	-3.6%	-2.5%	-2.8%	-3.2%	-3.5%	-3.7%	-3.5%	-2.1%
QTD	-1.2%	-0.8%	-0.7%	-1.2%	-0.8%	-2.6%	-1.2%	-1.2%	-1.1%
YTD	-13.2%	-15.4%	-11.8%	-13.2%	-13.3%	-13.6%	-13.8%	-14.6%	-9.9%

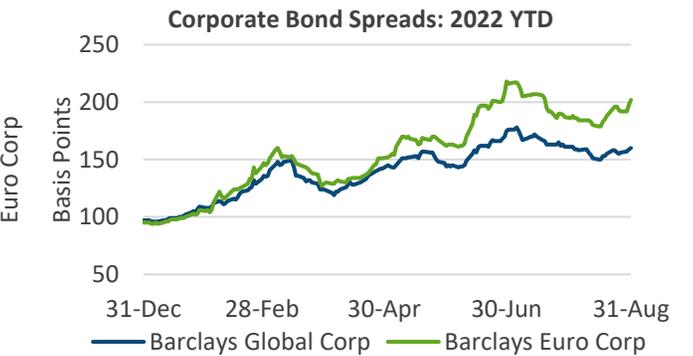
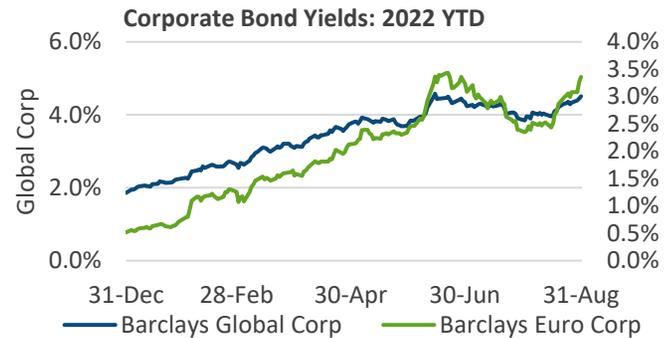
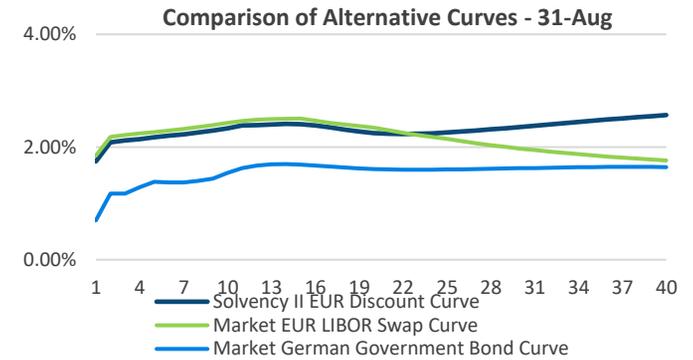
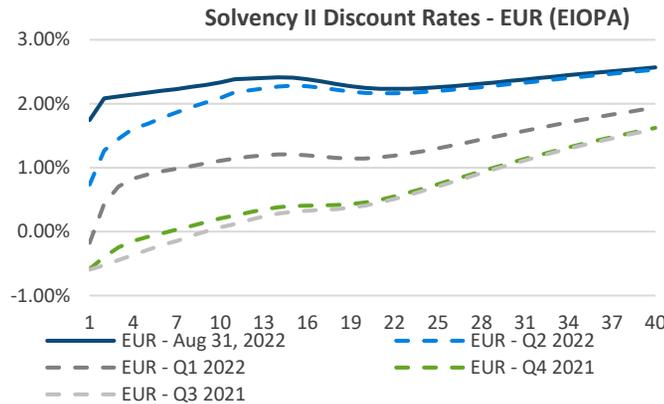
Liability Valuation Monitor

Risk Free Rates

- EUR risk-free rates rose at all terms in August, with the increases more pronounced in the shorter tenors.
- The 1 and 5-year risk-free rates increased by 89 and 93 basis points, respectively.

Corporate Bonds

- European and global corporate bond yields rose in August. The former increased by 97 basis points and the latter by 62 basis points.
- Global credit spreads tightened by 1 basis point in August, meanwhile their European counterparts widened by 15 basis points.
- 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 Q2 2022	101	49	24	8	5	4	17	12	-15	-16
Since Q1 2022	192	128	122	111	82	63	142	181	36	73
Since Q4 2021	233	226	213	179	128	95	265	284	63	107
Since Q3 2021	234	246	227	184	131	96	286	302	72	118

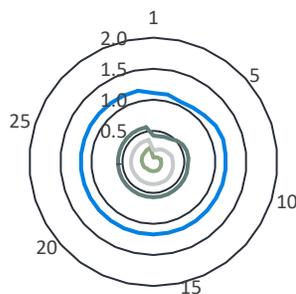
Solvency II Monitor - Spreads

Fundamental Spreads

- There were no material changes since the last report.

Fundamental Spreads %

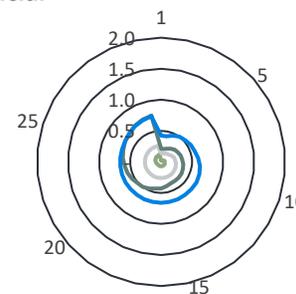
EUR: Financial



— 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	1.11	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	0.32	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	0.17	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	0.18	0.26
A	0.04	0.15	0.27	0.51	0.76
BBB	0.11	0.22	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 31/08/22.

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 31/08/22. **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.

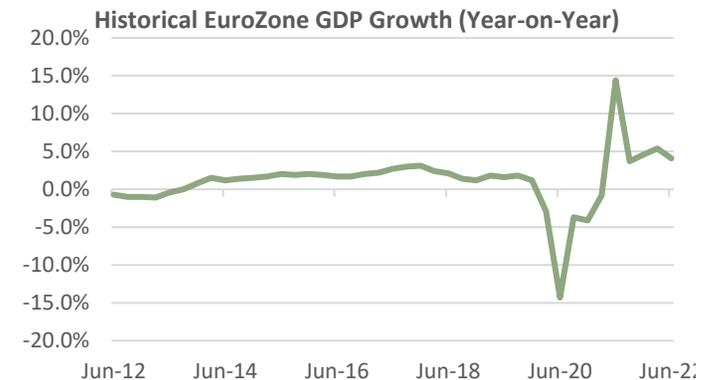
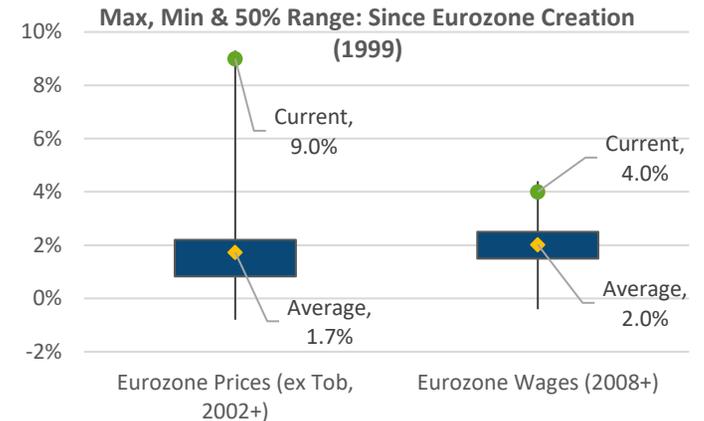
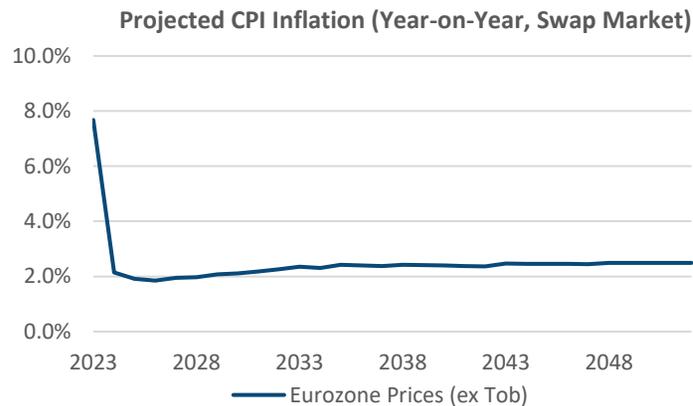
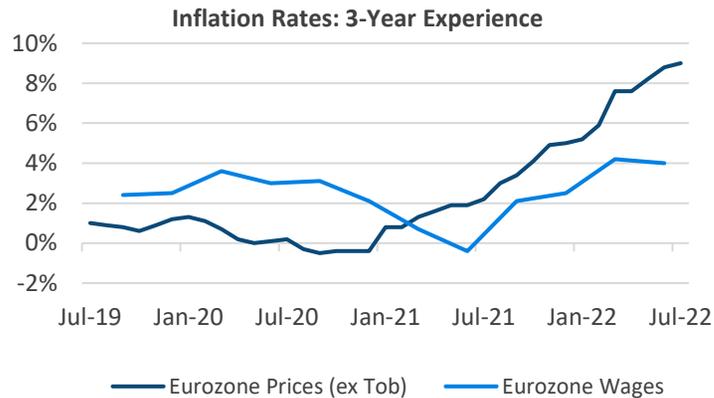
Milliman Financial Risk Management

EuroZone Market Monitor – 31 August 2022

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

Inflation Monitor

- Eurozone price inflation rose to 9.0% in July, an increase of 20 basis points from the previous month.
- Eurozone Q2 2022 wage inflation fell by 20 basis points to 4.0%, after the previous quarter's figure was revised higher by 40 basis points.
- The Q2 2022 GDP growth figure for the Eurozone was revised higher by 10 basis points to 4.1%.
- The Eurozone projected CPI curve continued to rise at the very near-term, whilst the rest of the curve remained broadly unchanged from the month before.



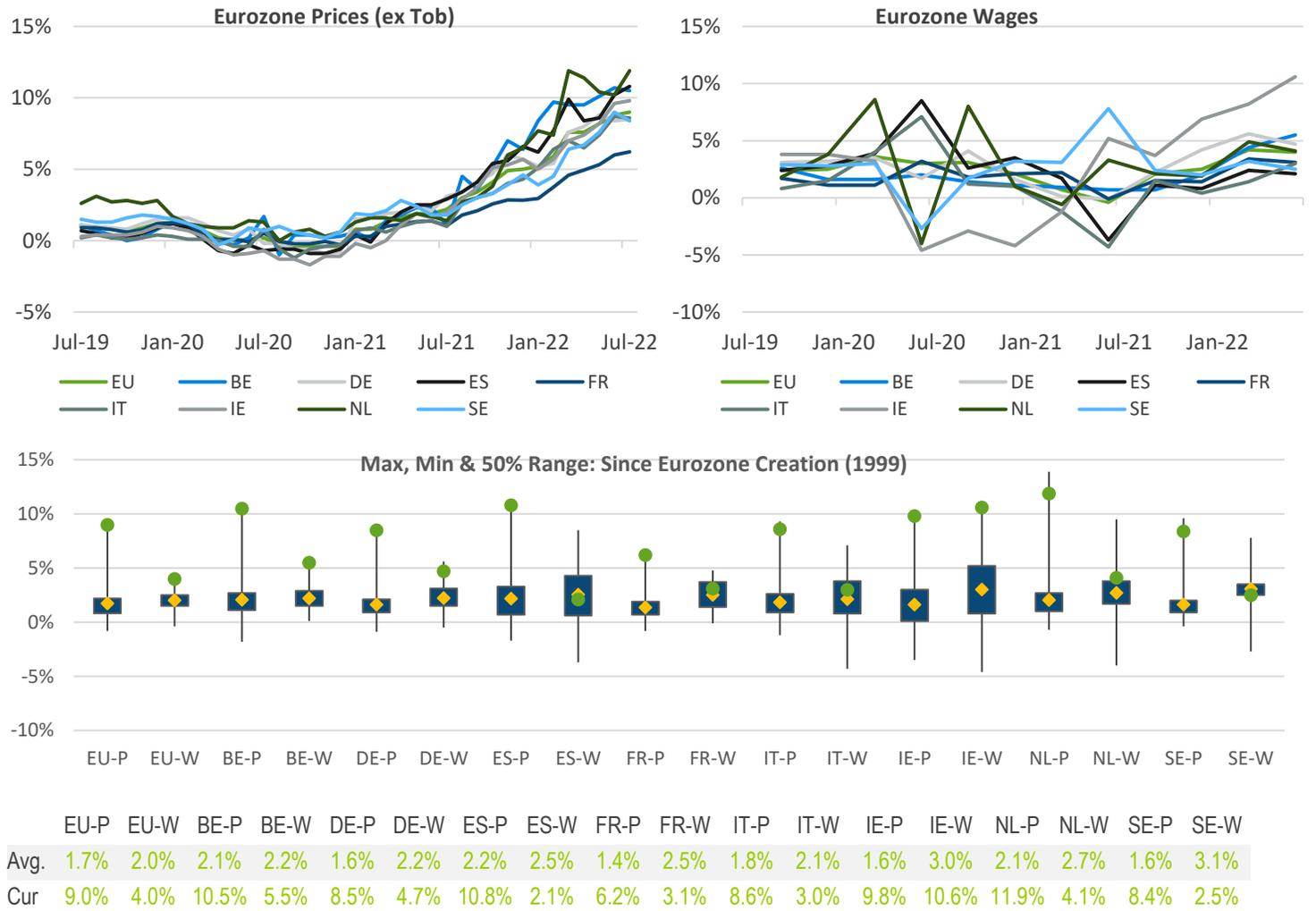
Milliman Financial Risk Management

EuroZone Market Monitor – 31 August 2022

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

Inflation Monitor

- Inflation figures for major European economies were mixed in July.
- Dutch price inflation saw the largest increase in the region in July, with the headline figure increasing by 170 basis points to 11.9%, which was the highest price inflation in the Euro area in July.
- Swedish prices fell by 60 basis points to 8.4%, the largest drop in comparison to the other European economies.
- France remained the country with the lowest price inflation in the Eurozone, at 6.2%.
- Q2 2022 wage inflation figures were also mixed for major European countries.
- Ireland posted the highest wage inflation figure for Q2, coming in at 10.6%, an increase of 240 basis points from the previous quarter, after the Q1 figure was revised higher by 10 basis points. This was also the largest increase in the region.
- In contrast, German wages saw the largest decline, falling by 90 basis points to 4.7%, after the previous quarter's figure was revised higher by 110 basis points.
- Spain posted the lowest headline figure for Q2 wage inflation at 2.1%.



Milliman Financial Risk Management

EuroZone Market Monitor – 31 August 2022

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

Volatility and Hedging Cost Monitor

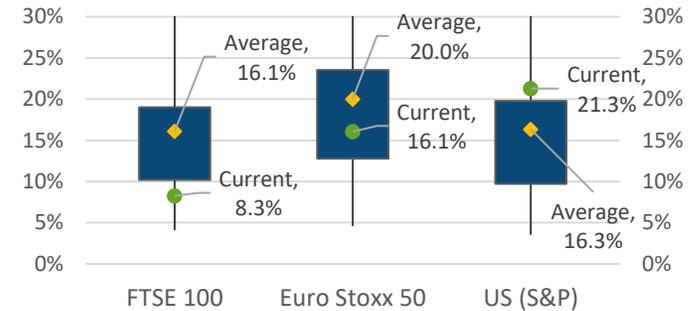
- Realised volatilities on major indices subsided at the start of the month but started to tick higher towards the end of the month.
- The FTSE 100 ended the month with a realised volatility of 8.3%. The same measure stood at 16.1% and 21.3% on the Euro Stoxx 50 and the S&P 500.
- ** Please note that due to some missing data the volatility risk premiums have only been updated to the 28th of June. **

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

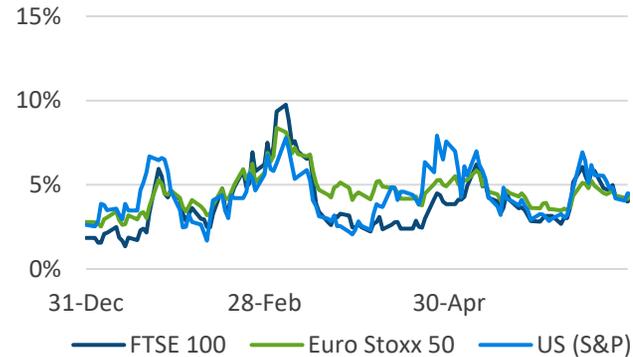
Realised 1-Month Equity Volatility (EWMA)



Max, Min and 50% Range: Last 25 Years



30-Day Volatility Risk Premium



Expected Volatility (Milliman Guarantee Index)



Creating transformational improvement in the retirement savings industry.

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