

Market Price Monitor

Local Equity Markets

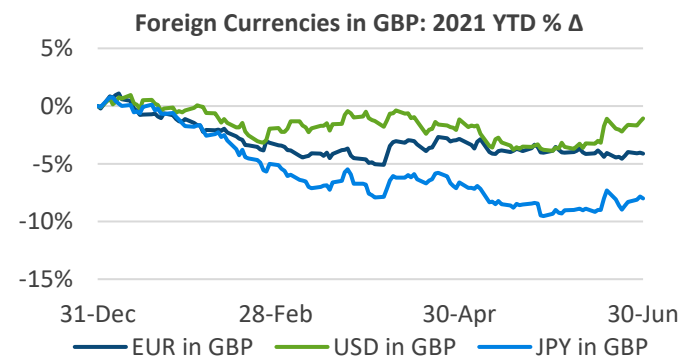
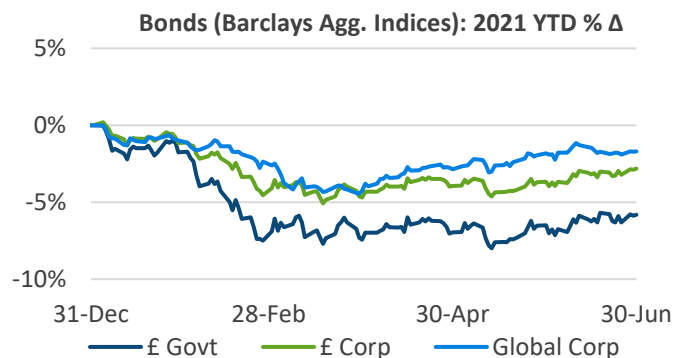
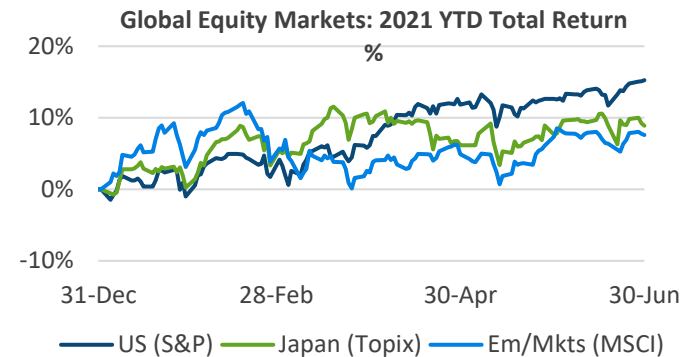
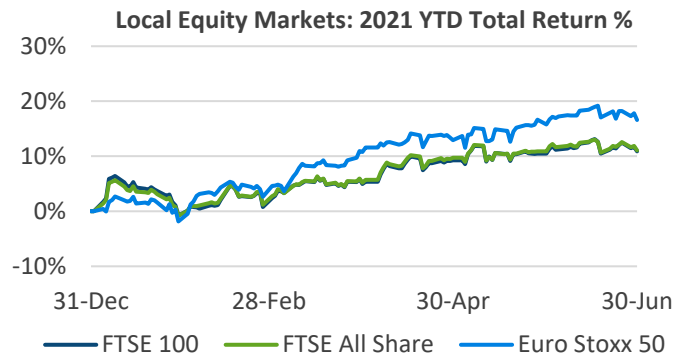
- Equity markets had another positive month, as economies around the globe continued to show signs of strong recovery from increasing activity levels.
- The FTSE 100 gained 0.4% in June, up 5.7% over the second quarter of 2021.
- The Euro Stoxx 50 index was up 0.7% at month-end, up by 5.2% over the second quarter.

Global Equity Markets

- Developed economies outperformed their emerging markets counterparts in June, with the S&P 500 returning 2.3% and the Japanese Topix index up 1.2%.
- The MSCI Emerging Markets index gained 0.2% over the month.

Bond/FX Markets

- The British government and corporate bond indices were up 0.7% and 0.9%, respectively.
- The global corporate bond index ended the month relatively flat.
- The British Pound had a mixed performance during the month, gaining 0.3% against the Euro, while weakening by 2.9% and 1.5% against the US Dollar and the Japanese Yen, respectively.



	Total Returns as of June 30, 2021											
	FTSE 100	FTSE All Share	Euro Stoxx 50	US (S&P)	Japan (Topix)	Em/Mkts (MSCI)	£ Govt	£ Corp	Global Corp	EUR in GBP	USD in GBP	JPY in GBP
1 Month	0.4%	0.2%	0.7%	2.3%	1.2%	0.2%	0.7%	0.9%	0.1%	-0.3%	2.9%	1.5%
3 Month	5.7%	5.6%	5.2%	8.5%	-0.3%	5.1%	1.8%	2.0%	2.7%	0.8%	0.0%	-0.4%
1 Year	18.0%	21.5%	29.0%	40.8%	27.3%	41.4%	-6.5%	2.7%	5.7%	-5.5%	-10.3%	-12.9%
YTD	10.9%	11.1%	16.6%	15.3%	8.9%	7.6%	-5.8%	-2.8%	-1.7%	-4.1%	-1.1%	-8.0%

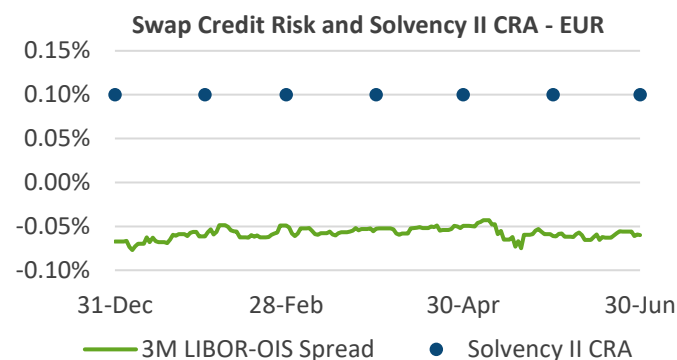
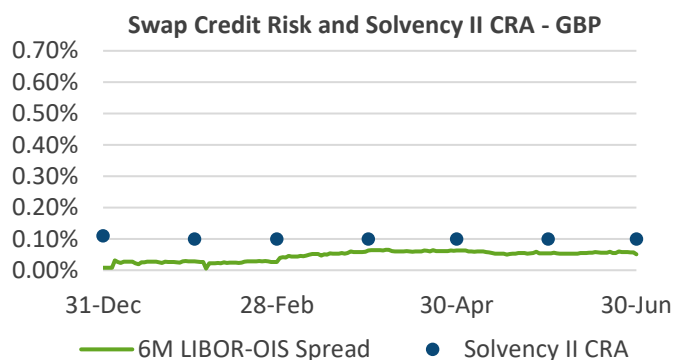
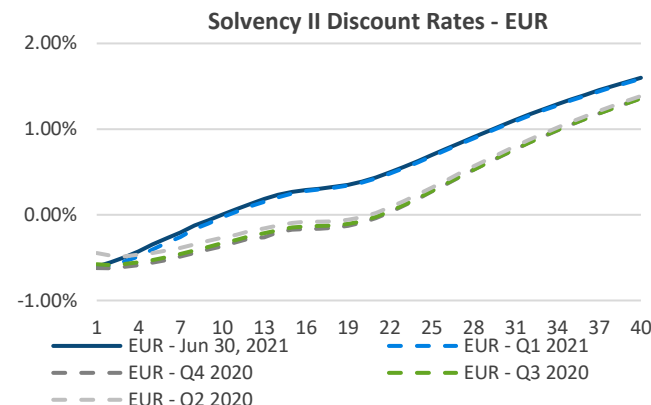
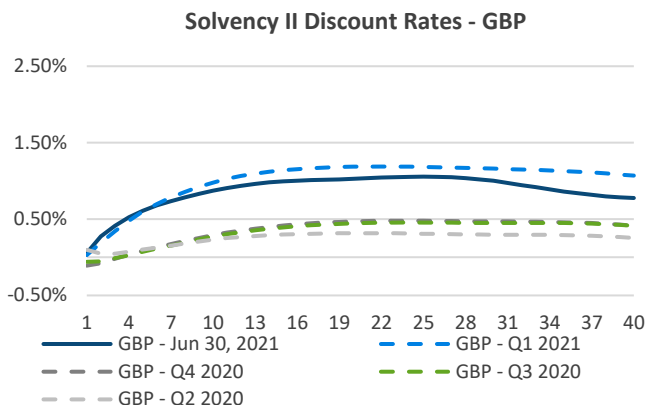
Solvency II Monitor - Rates

Risk Free Rates

- Short-term GBP risk-free rates increased, with the 1-year rate climbing by 2 basis points and the 5-year rate by 1 basis point.
- In contrast, medium and long-term GBP risk-free rates decline. The 20 and 30-year rates fell by 11 and 10 basis points, respectively.
- Medium and long-term EUR risk-free rates declined, while the 1-year risk-free rates was unchanged, and the 5-year rate increased by 1 basis point.
- The 30, 20 and 10-year EUR risk-free rates all declined by 2 basis points.

Credit Risk Adjustment

- Both the GBP and EUR CRAs were unchanged and remain floored at 10 basis points.



	Change in GBP Discount and CRA (bps)					
	1Y	Y5	Y10	Y20	Y30	CRA
Since Q1 2021	3	1	-11	-16	-16	0
Since Q4 2020	17	52	58	56	53	-1
Since Q3 2020	12	54	60	58	55	-3
Since Q2 2020	-4	51	64	71	71	-4

	Change in EUR Discount and CRA (bps)					
	1Y	Y5	Y10	Y20	Y30	CRA
Since Q1 2021	1	6	3	1	1	0
Since Q4 2020	2	21	37	48	36	0
Since Q3 2020	-3	18	33	46	35	0
Since Q2 2020	-16	10	27	41	32	0

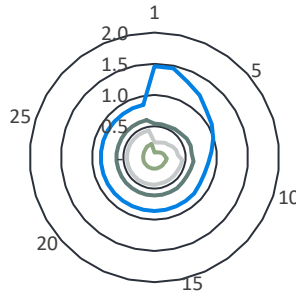
Solvency II Monitor - Spreads

Fundamental Spreads

- There were no material changes since the last report.

Fundamental Spreads %

GBP - Financial

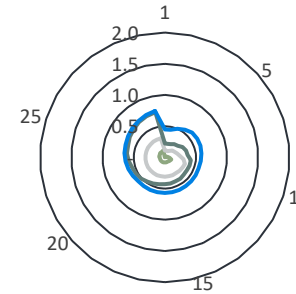


— AAA — AA — A — BBB

GBP Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.08	0.12	0.19	0.18	0.22
AA	0.24	0.30	0.44	0.44	0.44
A	0.54	0.57	0.61	0.61	0.61
BBB	1.46	1.12	0.84	0.86	0.86

GBP Financial 'Before Floor' %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.04	0.08	0.15	0.22
AA	0.04	0.07	0.11	0.19	0.26
A	0.06	0.12	0.20	0.33	0.44
BBB	0.15	0.24	0.34	0.48	0.60

GBP - Non-Financial



— AAA — AA — A — BBB

GBP Non-Financial Fundamental Spread %					
	1Y	Y5	Y10	Y20	Y30
AAA	0.00	0.01	0.11	0.08	0.11
AA	0.11	0.16	0.34	0.31	0.31
A	0.22	0.28	0.42	0.51	0.74
BBB	0.45	0.59	0.57	0.57	0.76

GBP 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	0.08	0.17	0.25
A	0.04	0.14	0.26	0.51	0.74
BBB	0.11	0.23	0.35	0.57	0.76

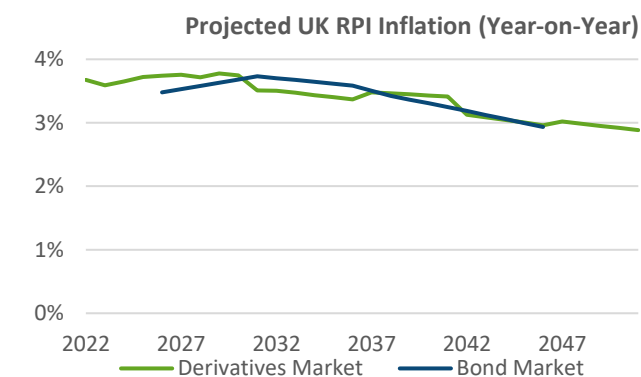
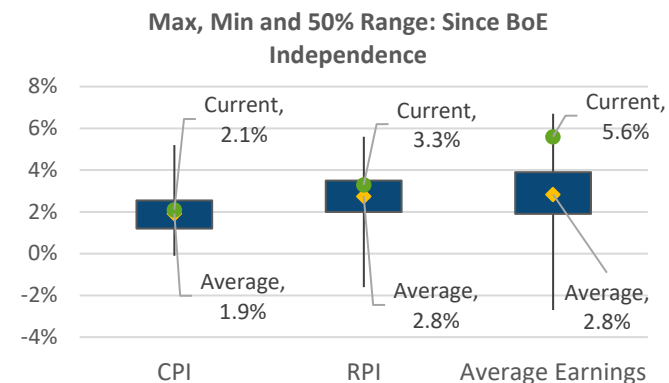
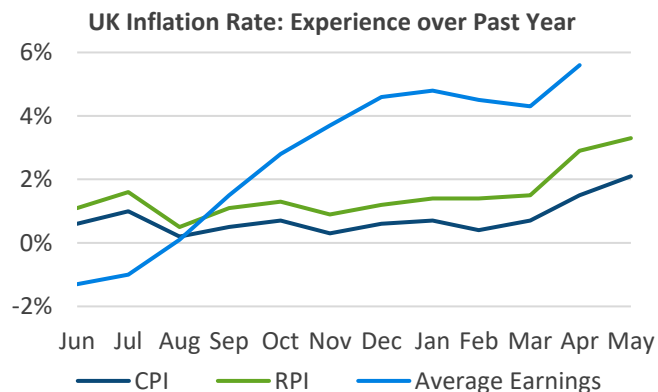
The **Solvency II risk-free discount rates** are based on applying the Smith-Wilson Extrapolation to LIBOR swap rates sourced from Refinitiv and applying the Credit Risk Adjustment as defined in the Technical Specs. The data is provided by EIOPA and as of 30/06/21.

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, 6 months for GBP), and is bounded between 0.10 and 0.35. We show actual LIBOR-OIS spread levels and the defined CRA, for both GBP and 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 30/06/21. **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.

UK Inflation Monitor

- UK's CPI increased by 60 basis points to 2.1% in May.
- UK's RPI inflation rose by 40 basis points, with the headline figure coming in at 3.3%.
- Both inflation measures are now above their long-term average levels.
- According to the ONS: "Rising prices for clothing, motor fuel, recreational goods, and meals and drinks consumed out resulted in the largest upward contributions to the change. These were partially offset by a large downward contribution from food and non-alcoholic beverages, where prices fell this year but rose a year ago, particularly for bread and cereals."
- UK's average earnings increased by 130 basis points in April to 5.6%, after the March reading was revised higher by 30 basis points.
- According to the ONS : "Annual growth in average employee pay has continued to increase, however this is driven by compositional effects of a fall in the number and proportion of lower-paid employee jobs and because the latest month is now compared with April 2020 when earnings were first affected by the coronavirus pandemic (the base effect)."
- The projected UK RPI inflation was marginally lower at month-end in comparison to the previous month, with the near term projected RPI dipping back below 4%.



Historical year-on-year inflation rate is assessed by the % change on:

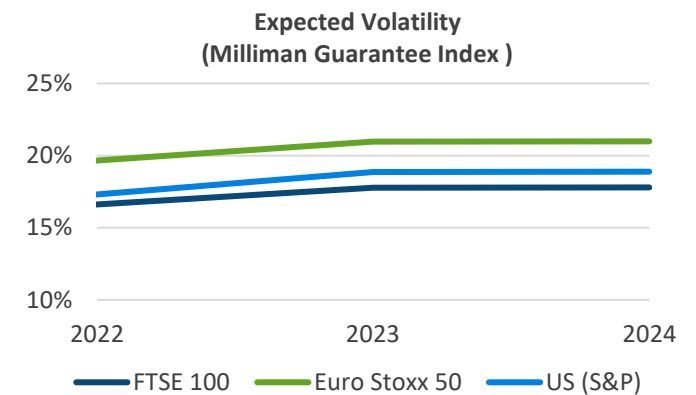
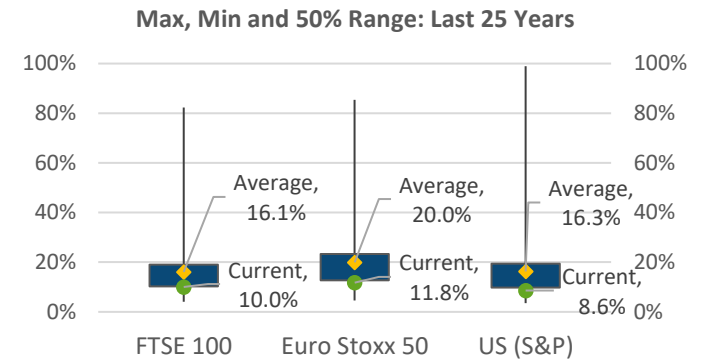
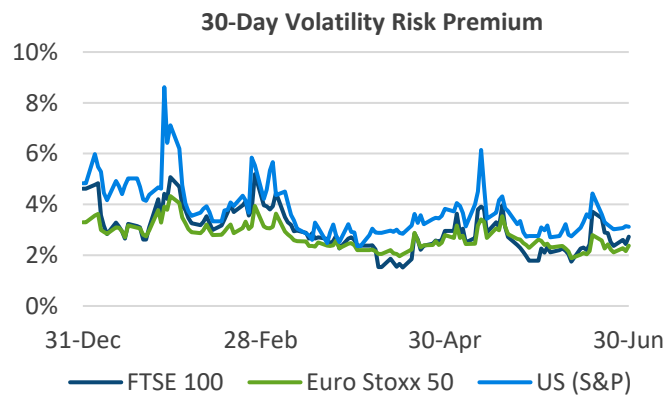
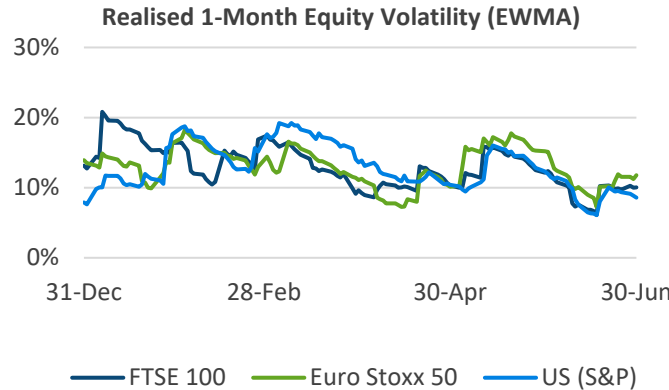
- **Consumer Price Index (CPI)** – measuring the monthly price of a basket of consumer goods and services
- **Retail Price Index (RPI)** – similar to CPI, but the main difference due the addition of mortgage payments, council tax and other housing costs
- **Average Earnings** – measuring the average 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.

Volatility and Hedging Cost Monitor

- Realised volatilities on major indices fell in June as equity markets continued to make gains.
- The FTSE 100 had a realised volatility of 10% at month-end. The measure stood at 11.8% and 8.6% for the Euro Stoxx 50 and the S&P 500, respectively.
- Volatility risk premium on the FTSE 100 was higher than the previous month at 2.7%, as its implied volatility increased during the month. The volatility risk premium on the S&P 500 increased marginally to 3.1%, while the volatility risk premium on Euro Stoxx 50 declined to 2.4%.



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 (on data from the Oxford-Man Institute). 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).

Expected realised volatility is an intermediate result from the [Milliman Guarantee Index™ \(MGI\)](#), which provides volatility parameters for variable annuity guarantee (VA) valuation and risk management. The levels shown are on an expected basis, and do not reflect any risk adjustment.



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