Milliman Market Monitor - August 2022

Market Commentaries

Equities

● Equity markets started strong this month, rallying as investors bet that the US Fed might pivot to less of a hawkish outlook. However markets then fell sharply, as the US Fed chair Jerome Powell indicated rates will need to remain high 'for some time' in order to curb the high inflation.

Aussie equities fared similarly to global markets, however poor earnings from local companies, alongside the threat of higher rates brought any gains back down. Across the month, the ASX 200 gained +1.2%, while in the US the S&P 500 returned negative -4.1%.

Fixed Income

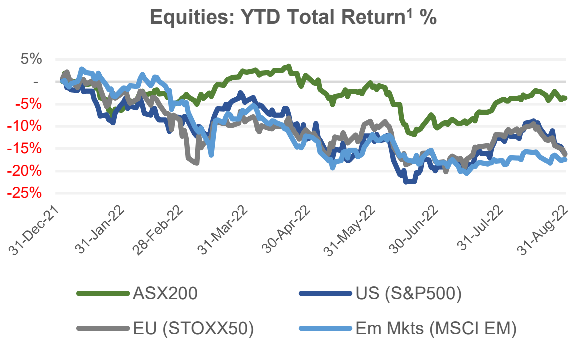
● Fixed Income markets weakened, with traders here taking more of a pessimistic view over the future global economic outlook, than those in the equity markets.

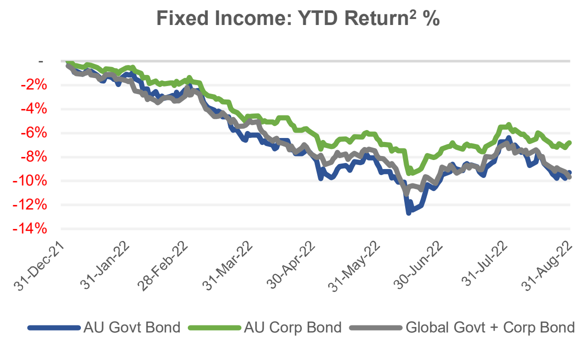
In Australia, the RBA raised interest rates by another 50bp, to 1.85%. The Australian Government Bond2 and the Global Bond2 generated a negative return of -2.8% and -2.7%, respectively.

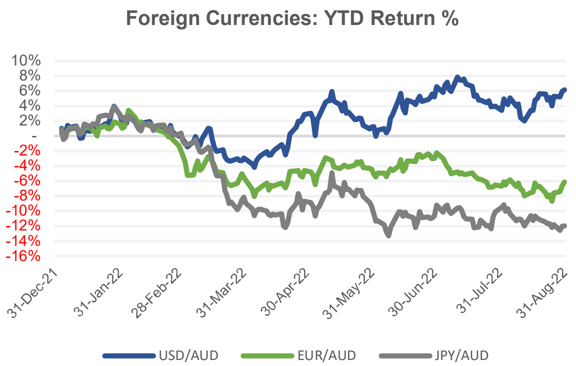
Currencies

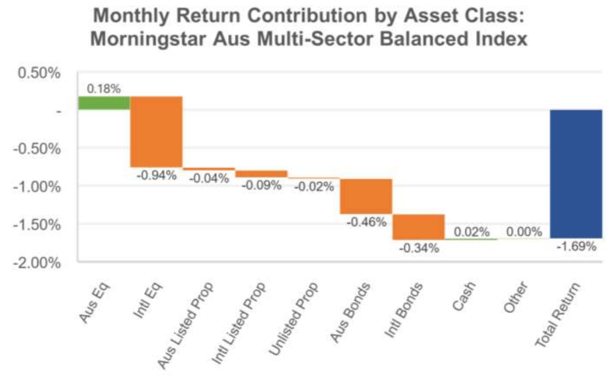
● The Australian Dollar weakened against the US Dollar, closely following the Iron Ore price. This helped soften the blow from overseas markets falling (in AUD terms).

The Aussie Dollar closed at 68.42 US Cents, a loss of -2.1%.









Returns ending 31 August 2022

	ASX200	US (S&P500)	EU (STOXX)	EM Mkts (MSCI)	AU Govt Bond	AU Corp Bond	Global Bond	USD/AUD	EUR/AUD	JPY/AUD
1 Month	1.2%	-4.1%	-5.1%	0.4%	-2.8%	-1.4%	-2.7%	2.1%	0.4%	-2.1%
3 Month	-2.4%	-3.9%	-7.0%	-6.5%	-0.8%	-0.4%	-1.9%	4.9%	-1.8%	-2.9%
1 Year	-3.4%	-11.2%	-14.0%	-21.8%	-12.1%	-9.0%	-10.5%	6.9%	-9.0%	-15.4%
CYTD	-3.6%	-16.1%	-16.3%	-17.5%	-9.3%	-6.8%	-9.7%	6.2%	-6.1%	-12.0%

[1]Equities returns captures both the capital gains as well as any cash distributions, such as company dividends.

[2]AU Govt Bond uses the Bloomberg AusBond Govt 0+ Yr Index, which measures the return of Australian Treasury and Semi-government bonds maturing in 0+ years. AU Corp Bond uses the Bloomberg AusBond Credit 0+ Yr Index, which measures the return of Australian corporate/credit securities maturing in 0+ years. Global Govt + Corp Bond uses the Bloomberg Barclays Global Aggregate Index, which measures global investment grade debt from 24 countries, both developed and emerging markets issuers.

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Upcoming Key Economic Events & Risk Commentaries

● Implied volatility (often viewed as the market's fear index) has increased compared to last month, settling at the historical 1-year 75th percentile level. The implied likelihood of the S&P 500 falling more than 10% and 5% in August is 9% and 20% respectively, which represents an increase in risk compared to the prior month.

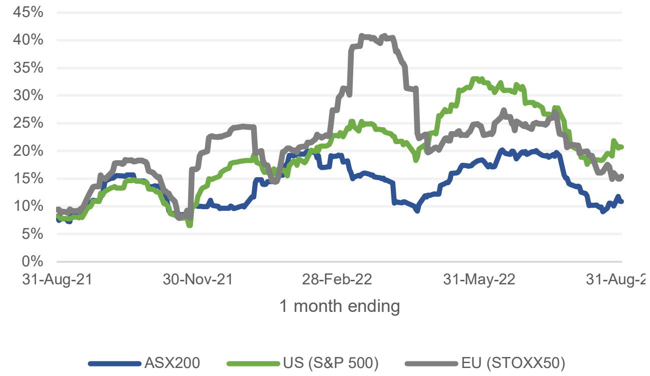
● The rebound in risk markets has come to an abrupt stop in late August as central bankers in US and Europe stepped up their hawkish stance and have reiterated the determination to bring inflation under control. As a result, risk assets underperformed and realised equity volatilties in general, bounced off the lows.

● Domestically, the monthly RBA meeting is 6 Sep with the market expecting rates to rise by another 50bps, in a further effort to curb inflation pressure.Following that, the Q2 GDP will be released on 7 Sep (f/c 3.4%). The NAB Business surveys (Aug) are due on 13 Sep and Labour force data (Aug) is due on 15 Sep.

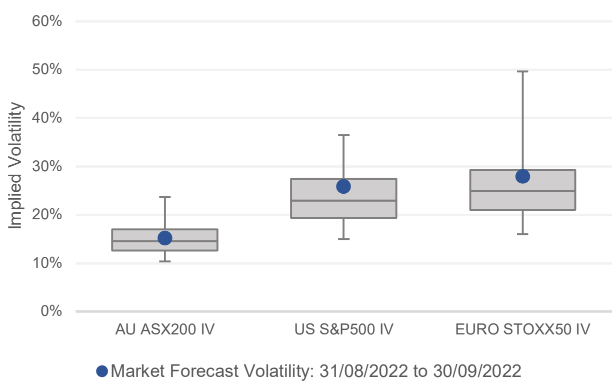
● Offshore in the US, the ISM PMI data is due on 2 Sep. (f/c 51.9) The Non-Farm Payroll data for Aug is released on 2 Sep (f/c 300k, prior 528k). US CPI (Aug) is due on 13 Sep (f/c 0% m/m headline, 0.4% m/m core). Industrial production (Aug) and Retail Sales (Aug) are out on 15 Sep. The September FOMC decision is revealed on 22 Sep, a 75bps hike is the current consensus, though there may be upside risk given Powell's speech at Jackson Hole.

● In Europe, we get the final Q2 GDP on 7 Sep and PMI data for Sep will be released on 23 Sep. Moreover, the ECB is widely expected to hike by 50bps on 8 Sep. In China, the PPI and CPI data for Aug are due on 9 Sep, while Industrial Production and Retail Sales is released 16 Sep.

Realised 1 Month Equity Volatility (%)

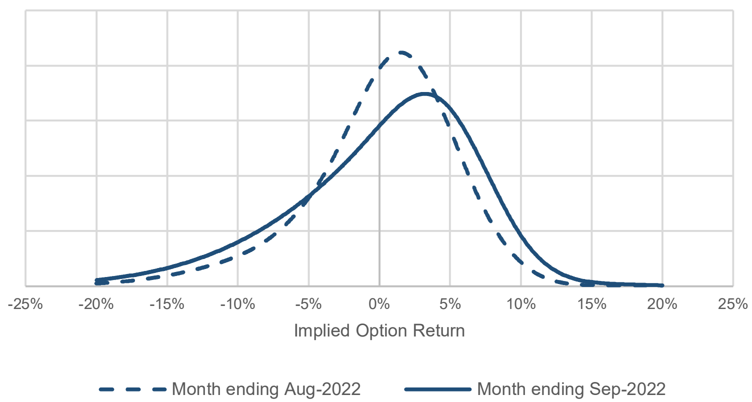


Implied Volatility[3,4] (IV)



The chart above shows the current market implied volatility for the next month, and compares it against the range of implied volatilities for the past 1 year.

1 Month S&P500 Implied Return Distribution[5]



Implied likelihood[5] of S&P 500:	Month ending Sep-2022	Month ending Aug-2022
Falling more than 10%	**~ 9%**	~ 5%
Falling more than 5%	**~ 20%**	~ 15%

[3]**Implied Volatility (VIX) r**epresents the expected volatility of the index over the next 30 days (starting from the effective date of this report), as derived from the market prices of index options traded on the exchange.

[4]**Box & Whisker Plot** is designed to give readers a quick sense of the range of implied volatility for the past year. The end of the whiskers indicate the maximum and minimum implied volatility for the past year. The box represents the interquartile range (from first to third quartile implied volatility values), and the middle line indicates the median implied volatility value for the past year.

[5]**Implied Return Distribution / Implied Likelihood r**epresents the forecasted return (and its likelihood) of the index over the next 30 days (starting from the effective date of this report), as implied from the market prices of index options traded on the exchange.

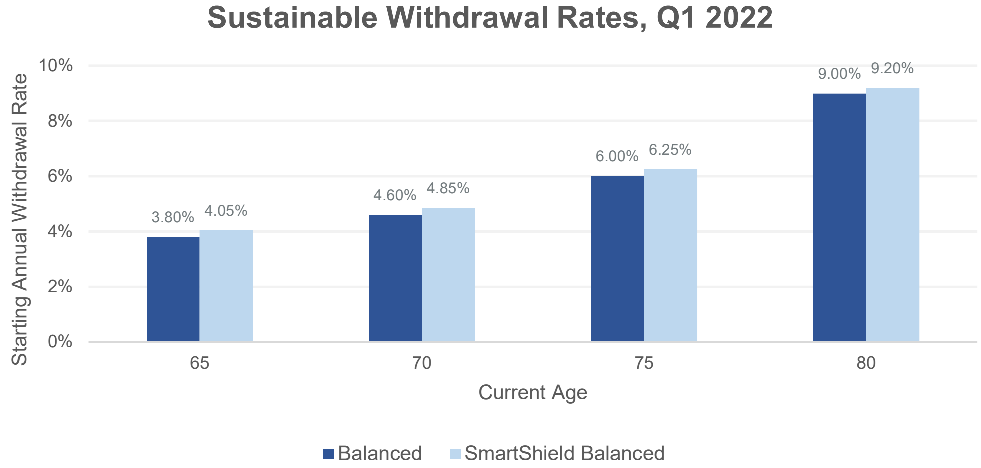
Observations on Sustainable Withdrawal Rates

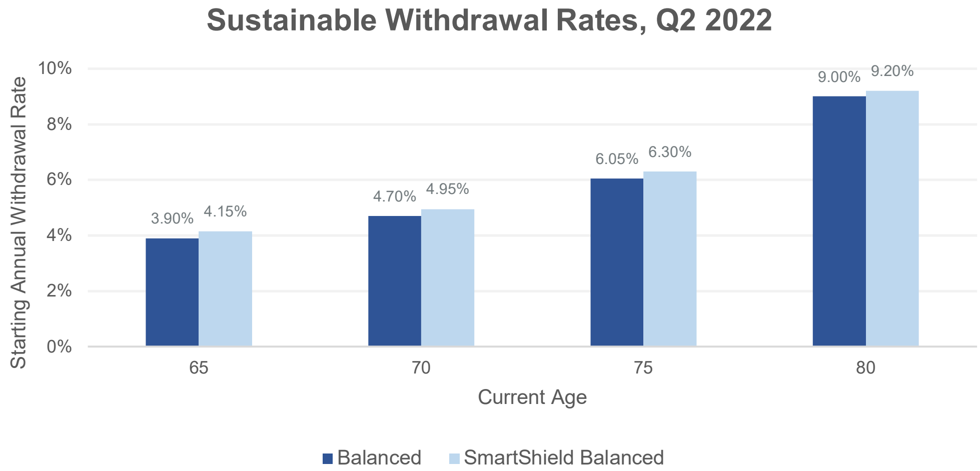
We observe that sustainable withdrawal rates at the end of Q2 2022 are higher compared to Q1 2021.

This was mainly driven by the change in interest rate levels over the period with 10 year government bond yields increasing by approximately 80bps, leading to higher simulated returns from all asset classes.

Using the SmartShield series of portfolios as an example, we have illustrated that additional sustainable withdrawal rates are achieved, when we add a risk management strategy to the portfolios.

By controlling the level of volatility and reducing the impact of sustained market drawdowns, solutions such as the SmartShield portfolios that employ a risk management strategy, can reduce the exposure to sequencing risk, resulting in higher sustainable withdrawal rates for retirees.





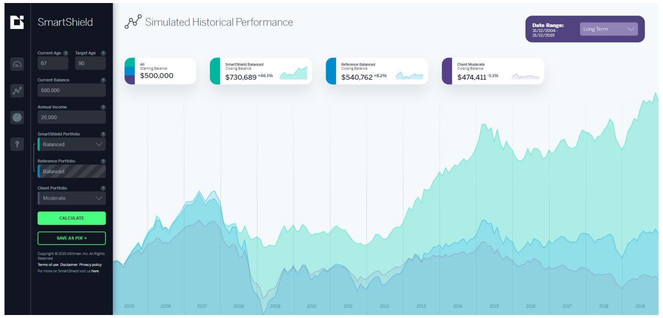
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be less than 5 years. Note the withdrawal rate is calculated with regards to future projections of 5,000 stochastic scenarios. Further information on the assumptions used to generate these scenarios can be found via our portfolio simulator, which is free to access at https://smartshield.millimandigital.com/.

For example, a 4% sustainable withdrawal rate for a 70 year old retiree with $500k balance means the retiree can withdraw $20k in the first year. And for each subsequent years, the amount the retiree can withdraw is $20k plus any increase due to projected inflation (CPI).

SMARTSHIELD™ SIMULATOR – FREE ACCESS FOR FINANCIAL ADVISERS

Built for financial advisers and complementary to Milliman's SmartShield portfolios, the Simulator strengthens your client conversation through:

- Calculating the likelihood of meeting retirement goals
- Illustrating the impact of experiencing a market crash scenario e.g. Covid-19



Simple to sign-up and FREE to access CLICK THIS LINK: https://smartshield.millimandigital.com/Identity/Account/Register

If you would like more information on the content in this report, or more information about our SmartShield Managed Account portfolios, please call us on +61 (0)2 8090 9100 | or visit **advice.milliman.com**

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