Milliman Market Monitor - August 2021

Market Commentaries

Equities

- Despite further spread of the Delta-variant and further inflationary pressures, global equities continued to climb in August, thanks to strong earnings. US Fed meeting minutes show most officials see tapering occuring this year, leading to a sharp potential market drop. The S&P 500 index bounced back, ending the month up +3%.
- Australian equities were supported by strong earnings, but the market was weighed down by rising COVID cases across NSW and Victoria, extending the lockdown. The ASX200 closed up +2.5% in August.

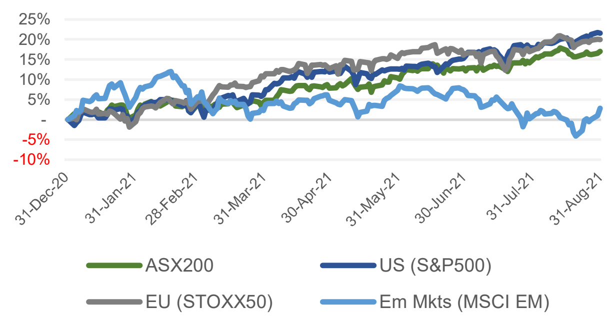
Fixed Income

- Bond yields across developed markets have climbed this month, and the August US Fed meeting minutes indicated that the majority of members will see some form of tapering occurring this year. Australian Government Bond[2] and Global Bond[2] returned +0.09% and -0.22% respectively in August.

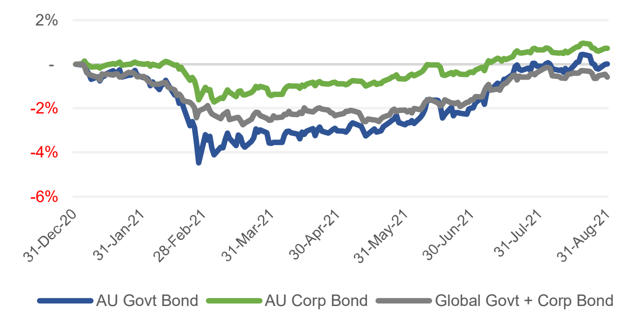
Currencies

- The other major currencies, including the US Dollar, continued to grow stronger against AUD. This was due to a combination of stronger economic conditions overseas, the continued impact of the lockdowns, as well as weaker Chinese data leading to a rout in commodities such as Iron Ore. The AUD/USD rate closed at 73.16 US Cents, a -0.4% depreciation against the USD.

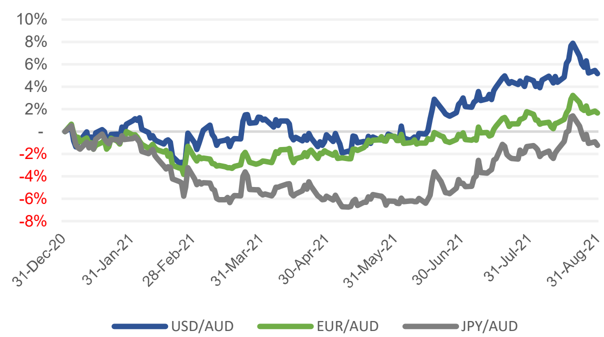
Equities: YTD Total Return[1] %



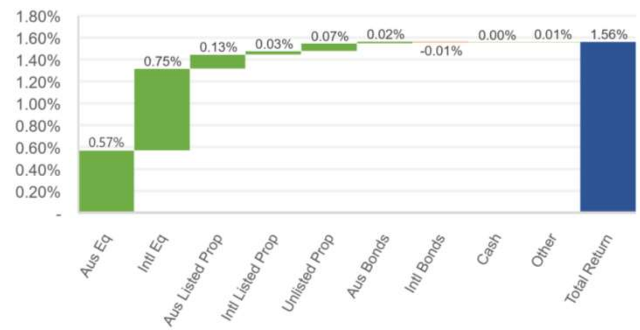
Fixed Income: YTD Return[2] %



Foreign Currencies: YTD Return %



Monthly Return Contribution by Asset Class: Morningstar Aus Multi-Sector Balanced Index



Returns ending 31 August 2021

	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	2.5%	3.0%	2.6%	2.6%	0.1%	0.1%	-0.2%	0.4%	-0.1%	0.1%
3 Month	6.0%	8.0%	4.1%	-4.1%	2.8%	1.4%	1.5%	5.7%	2.1%	5.3%
1 Year	28.1%	31.2%	30.5%	21.1%	0.9%	2.6%	0.6%	0.8%	-0.3%	-2.9%
CYTD	17.0%	21.6%	20.0%	2.8%	0.0%	0.7%	-0.6%	5.2%	1.7%	-1.2%

[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

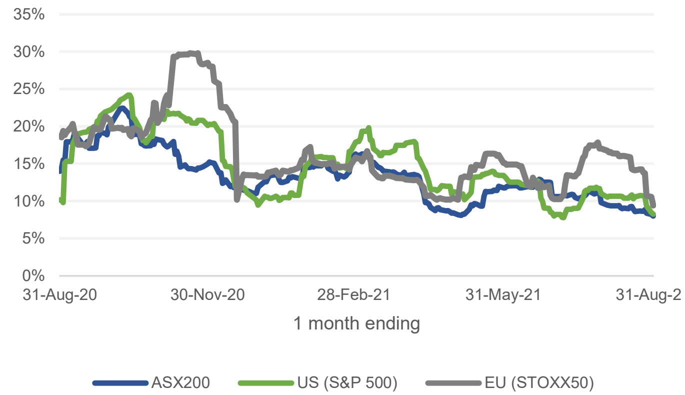
- Historical and implied volatility (1-month forecast) for AU, US and EU stock market continues to fall. The implied likelihood (estimated from option pricing) of S&P 500 falling more than 10% and 5% during the September month is 3% and 8% respectively, a reduction in risk compared to August.

- In September, key domestic events include the release of Q2 GDP, with the median consensus forecast expected to moderate to 0.5% QoQ growth (1.8% last quarter). The monthly RBA meeting will be held on 7 Sep. Also, RBA Governor Phil Lowe will be speaking at the Anika Foundation on 14 Sep. From offshore, the release of ISM PMI and Non-farm payroll in US on 2 Sep and 3 Sep should be closely watched.

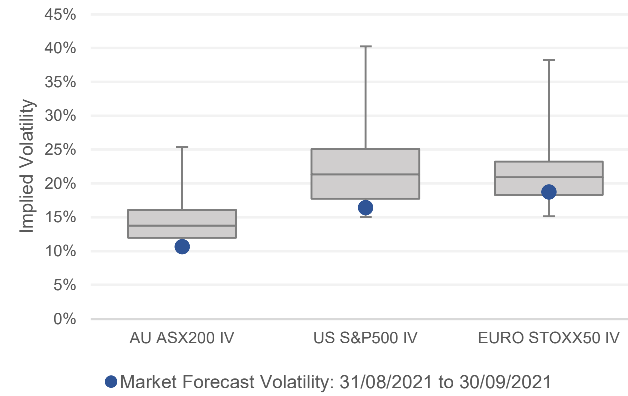
- Australian earnings season for H1 2021 finished in August and reported an average earning surprise of 25%. The positive performers are Industrials, Real Estate and Materials. Energy and Healthcare were the laggards. A few common themes were mentioned (headwind/inflation/wage cost/).

- The key messages from the much-anticipated Jackson Hole meeting in the US in late August were that the Fed has cleared the substantial progress test on price stability and will continually monitor progress on maximum employment. The Fed sees tapering of its QE program likely to start this year, but indicated that it would not directly lead to rate hikes. Inflationary pressure is still perceived by the market to be localised.

Realised 1 Month Equity Volatility (%)

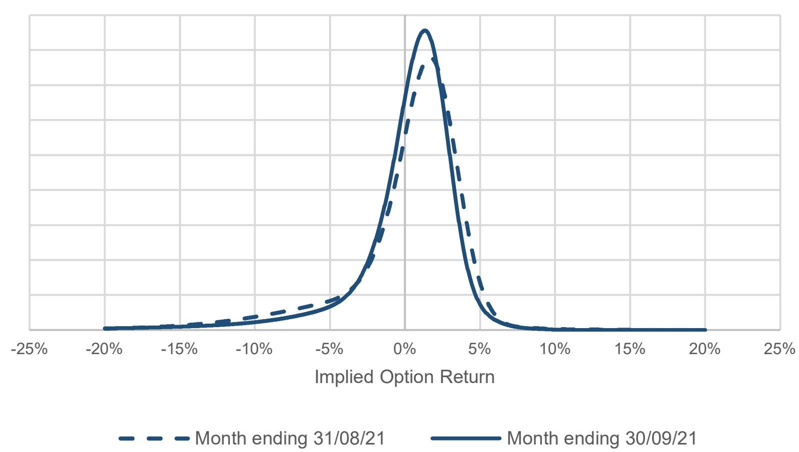


Implied Volatility[3,4] (IV)



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 30/09/21	Month ending 31/08/21
Falling more than 10%	~ 3%	~ 4%
Falling more than 5%	~ 8%	~ 11%

[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.

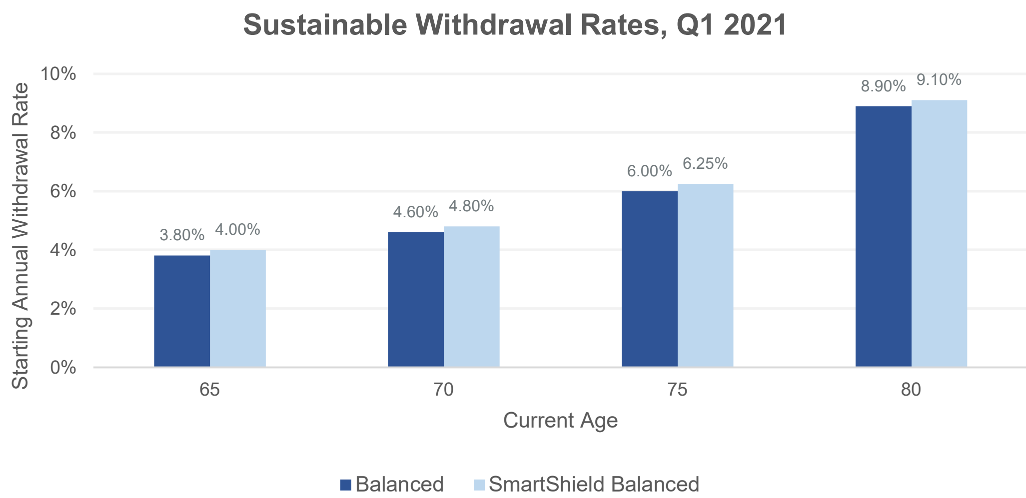
[5]**Implied Return Distribution / Implied Likelihood r**epresents the forecasted return (and its likelihood) of the index over the next 30 days (starting from the effective date of this report), as implied from the market prices of index options traded on the exchange.

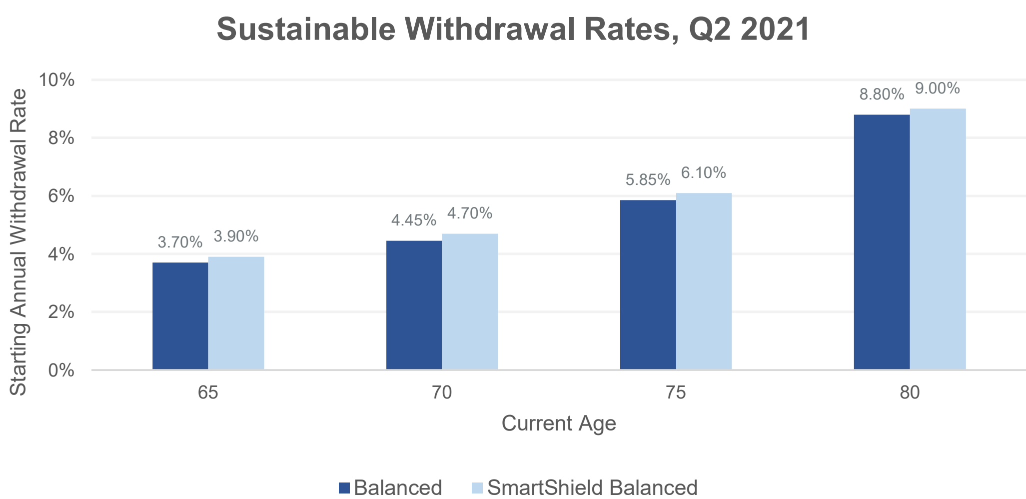
Observations on Sustainable Withdrawal Rates

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

This was mainly driven by the change in interest rate levels over the period with 10 year government bond yields decreasing by approximately 30bps, leading to lower simulated returns from all asset classes.

We have also illustrated the additional sustainable withdrawal rates that can be achieved by adding risk management into the portfolio using the SmartShield series of portfolios as an example. By controlling the level of volatility, and reducing the impact of sustained market drawdowns, risk management strategies can reduce the exposure to sequencing risk, and result in higher sustainable withdrawal rates for retirees.





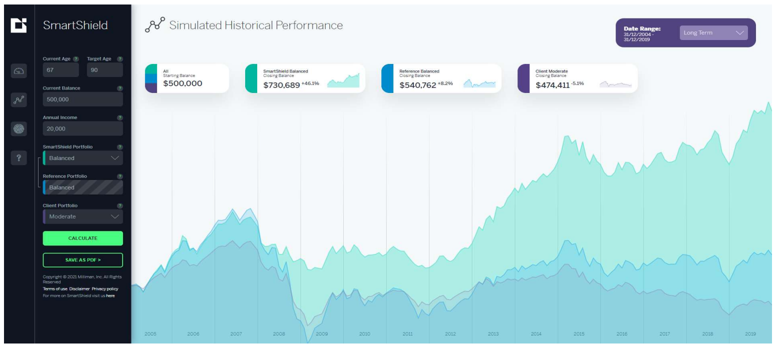
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be 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 withdrawal $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 ADVISERS

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

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



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