

Market Commentaries

Equities

- Global markets rallied through most of the month, as ongoing fears over the US Debt Ceiling did not eventuate and US company earnings helped to lift market sentiment. However, worries about new lockdowns in Europe and the latest Omicron variant impacted the markets towards the end of the month. The S&P 500 index closed the month down -0.7% while the EuroStoxx returned -4.3%.
- Australian equities rallied slightly through the month, however, the local equity market dropped sharply off the back of the wider market pessimism at the end of November. The ASX200 closed at -0.5%.

Fixed Income

 Aussie Bond yields eased from last month's rally after the RBA stated there would be no rate hikes in 2022. Yields eased slightly in other developed markets, as investors reacted to the US Fed indicating a less hawkish stance than expected. The Australian Government Bond² and Global Bond² returned 2.3% and 0.7% respectively.

Currencies

 The Aussie Dollar fell sharply against most other major currencies, following a repricing of rate increase probabilities for next year. The AUD/USD rate closed at 71.27 US Cents, which is a 5.5% loss against the USD; effectively reversing last month's gains.



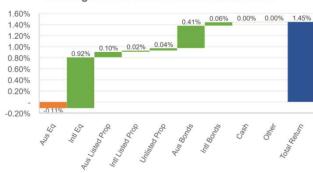
EU (STOXX50)

Em Mkts (MSCI EM)









Returns ending 30 November 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	-0.5%	-0.7%	-4.3%	-4.1%	2.3%	1.1%	0.7%	5.5%	3.5%	6.3%
3 Month	-2.5%	1.3%	-2.8%	-7.0%	-3.2%	-2.5%	-0.5%	2.7%	-1.4%	-0.2%
1 Year	15.5%	27.9%	18.6%	2.7%	-3.5%	-1.8%	-0.8%	3.0%	-2.0%	-5.0%
CYTD	14.1%	23.2%	16.6%	-4.3%	-3.2%	-1.8%	-1.1%	8.0%	0.2%	-1.5%

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

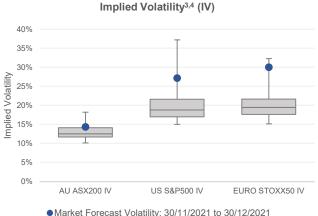
²AU Govt Bond uses the Bloomberg AusBond Govt 0+ Yr Index, which measures the return of Australian Treasury and Semigovernment bonds maturing in 0+ years. AU Corp Bond uses the Bloomberg AusBond Credit 0+ Yr Index, which measures the return of Australian corporate/credit securities maturing in 0+ years. 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.



Upcoming Key Economic Events & Risk Commentaries

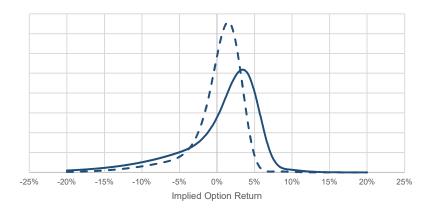
- The discovery of a new COVID-19 variant towards late November has caused both realised and implied volatility (1-month forecast) across the AU, US and EU stock markets to rise substantially. In particular, the implied volatility on the Stoxx50 is sitting close to a 1y high. The implied likelihood of the S&P 500 falling more than 10% and 5% during the November month, is 8% and 16% respectively (as estimated from option pricing); a significant increase in risk compared to November.
- In December, key domestic events include the monthly RBA meeting on Tuesday 7th, which will be the last RBA meeting until February next year. Their judgement on labour force strength and the recent discovery of Omicron COVID-19 variant, will be closely watched. Domestic employment data is due on 16 Dec and is expected to be strong based on weekly payroll data. The Treasurer will also be releasing Australia's Mid-Year Economic and Fiscal Outlook budget update.
- Offshore, both the ECB and Federal FOMC meetings on 16 Dec, will again be closely watched. Recent statements from Fed officials on the surge in inflation and strong economic growth, suggest it is likely the Fed will speed up its bond purchase reduction. The non-farm payroll print this year on 4 Dec will provide more insights to the strength of the US economy. In addition, the Nov Chinese PPI and CPI print release on 9 Dec, will be followed by the US CPI, on 11 Dec.





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 Distribution⁵



Month ending 29/11/21

Implied likelihood ⁵ of S&P 500:	Month ending 31/12/21	Month ending 30/11/21	
Falling more than 10%	~ 8%	~ 3%	
Falling more than 5%	~ 16%	~ 9%	

³Implied Volatility (VIX) represents 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.

Month ending 31/12/21

⁴Box & 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.

⁵Implied Return Distribution / Implied Likelihood represents 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.



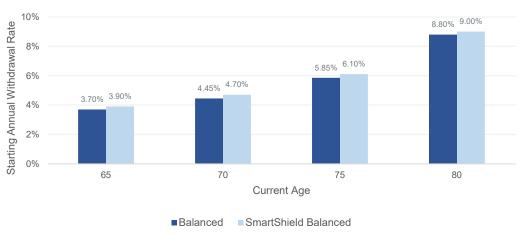
Observations on Sustainable Withdrawal Rates

We observe that sustainable withdrawal rates at the end of Q3 2021 are lower compared to Q2 2021.

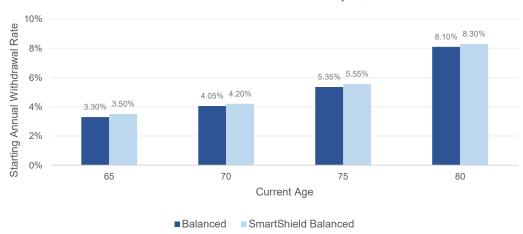
This was mainly driven by the change in inflation outlook. The latest CPI release prior to Q3 2021 saw CPI rising 0.8% over the June quarter, resulting in annual inflation of 3.8% over the twelve months preceding June 2021. In contrast, annual inflation over the same period up to March 2021 was 1.1%. As interest rate levels remained reasonably unchanged between Q2 and Q3 2021, the net impact is a decrease in forecasted real returns.

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, risk management strategies can reduce the exposure to sequencing risk, resulting in higher sustainable withdrawal rates for retirees.

Sustainable Withdrawal Rates, Q2 2021



Sustainable Withdrawal Rates, Q3 2021



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/.

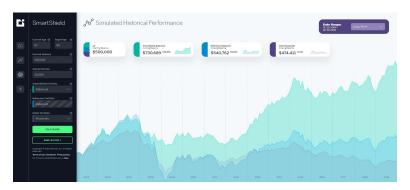
For example, a 4% sustainable withdrawal rate for a 70 year old retiree with \$500k balance means the retiree can withdraw \$20k in the first year. And for each subsequent years, the amount the retiree can withdraw is \$20k plus any increase due to projected inflation (CPI).



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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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