Milliman Market Monitor - December 2021

Milliman

Market Commentaries

Equities

- Global markets began December on a dour note, as persistent inflationary pressures and new Omicron variant fears weighed down the markets, which led to an increase in volatility. Towards the end of the month however, the markets seemed to shake off these concerns to rally. The S&P 500 index closed the month up 4.5%, while the EuroStoxx returned 5.8%.
- Australian equities had a strong month and despite surging case numbers across much of NSW, overall hospitalisation numbers remained low and stable. The ASX200 closed up 2.7%.

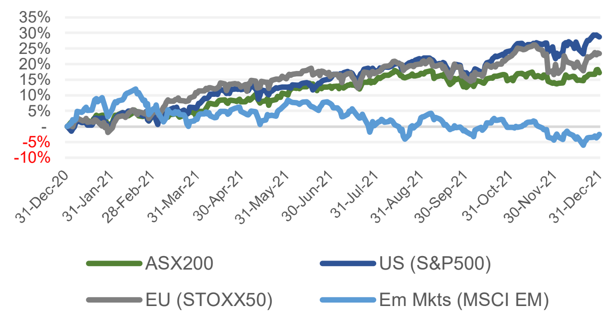
Fixed Income

- Aussie Bond yields remained stable as investors weighed up how current surging case numbers might influence QE tapering and rates next year. Similarly overseas, international yields remained steady as investors kept a close eye on how Omicron-related supply chain disruptions and potential worker shortages will impact central bank policy in 2022 and beyond. The Australian Government Bond[2] and Global Bond[2] returned 0.1% and -0.4% respectively.

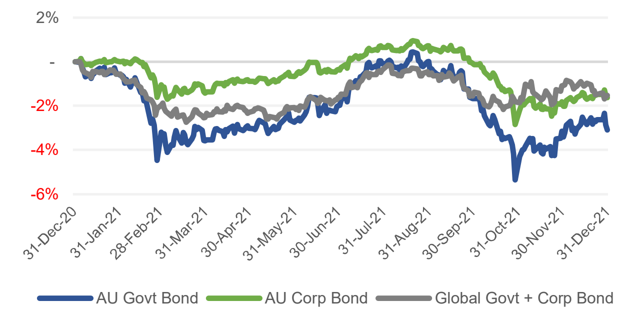
Currencies

- The Aussie Dollar pared back some of the recent losses against the other major currencies. The AUD/USD rate closed at 72.63 US Cents, which is a 1.9% gain against the USD.

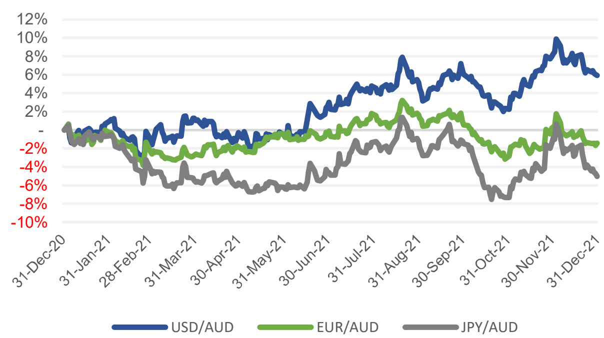
Equities: YTD Total Return[1] %



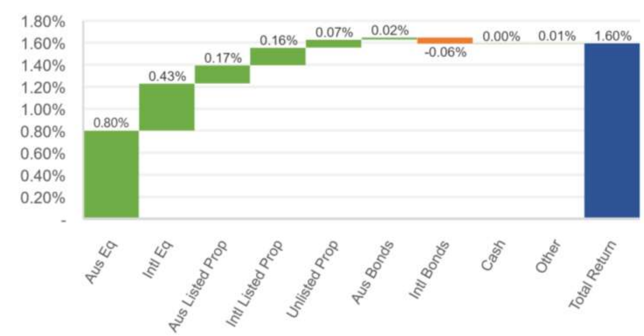
Fixed Income: YTD Return[2] %



Foreign Currencies: YTD Return %



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



Returns ending 31 December 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	2.7%	4.5%	5.8%	1.9%	0.1%	0.2%	-0.4%	-1.9%	-1.6%	-3.6%
3 Month	2.1%	11.0%	6.4%	-1.3%	-1.4%	-1.5%	0.0%	-0.5%	-2.3%	-3.9%
1 Year	17.2%	28.7%	23.3%	-2.5%	-3.1%	-1.6%	-1.5%	5.9%	-1.4%	-5.0%
CYTD	17.2%	28.7%	23.3%	-2.5%	-3.1%	-1.6%	-1.5%	5.9%	-1.4%	-5.0%

[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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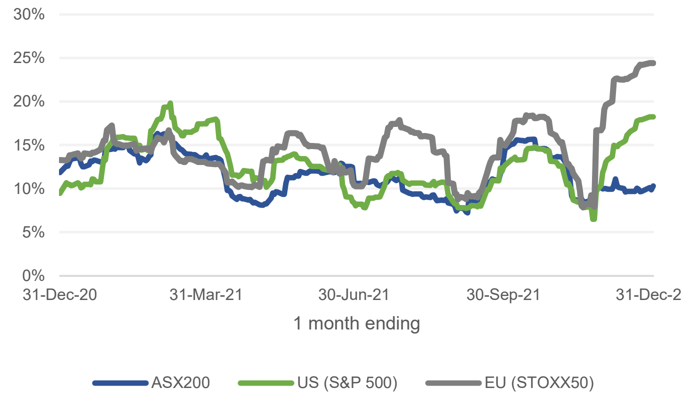
Upcoming Key Economic Events & Risk Commentaries

- The ramp up of cases arising from the new Omicron COVID-19 stream and possible profit taking towards year-end caused the realised 1 month volatilty across EU and US to rise substantially. The implied likelihood of the S&P 500 falling more than 10% and 5% estimated for the January month, is 3% and 10% respectively (as estimated from option pricing); a moderation after risk rose significantly during December 2021.

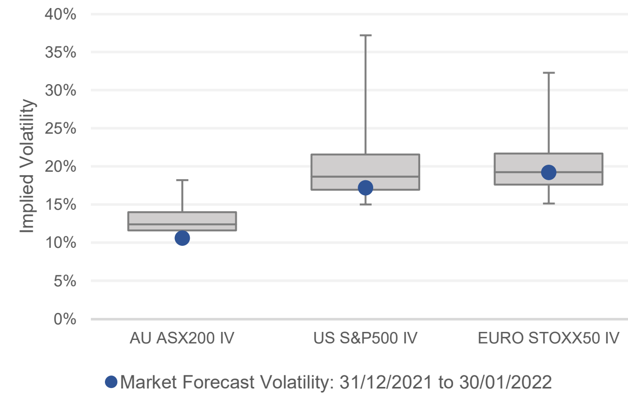
- In January, there is no monthly RBA meeting. Other key domestic events include the monthly Retail Sales figure, to be released on 11 Jan. Despite a pick up in the pace of COVID-19 cases, advanced reading of the Westpac Card Tracker suggests spending growth remains robust. Domestic employment data is due on 20 Jan and will be closely monitored following a very strong reading last month (+366.1k, participation rate +1.3ppt to 66.1%). Lastly, Q4 CPI will be released on 25 Jan. Details of these data will be carefully assessed as it will likely sway the RBA rates decision and the amount of QE tapering in Feb 2022.

- Offshore, in the US, most economists expect the change in non-farm payroll to show a sharp rise in employment by 424k and a lower unemployment rate. The FOMC rate decision, is expected to be released on 27 Jan. China, the US and the Eurozone will also be reporting their 4Q GDPs (official and advanced) on 17th, 28th and 31 Jan.

Realised 1 Month Equity Volatility (%)

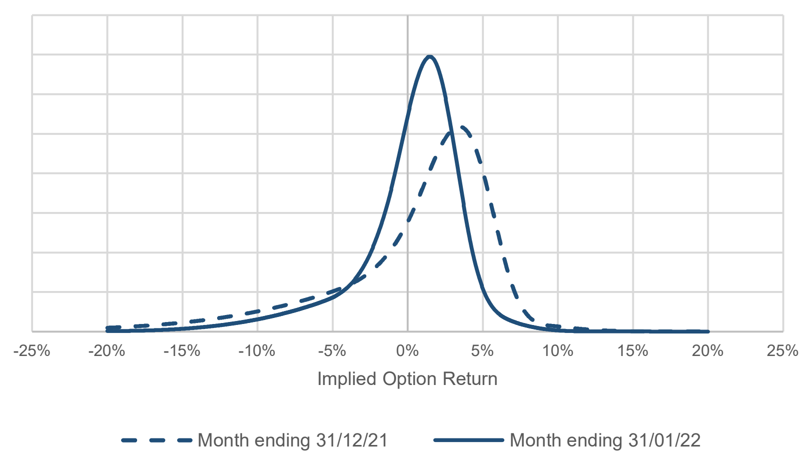


Implied Volatility[3,4] (IV)



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 31/01/22	Month ending 31/12/21
Falling more than 10%	~ 3%	~ 8%
Falling more than 5%	~ 10%	~ 16%

[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.

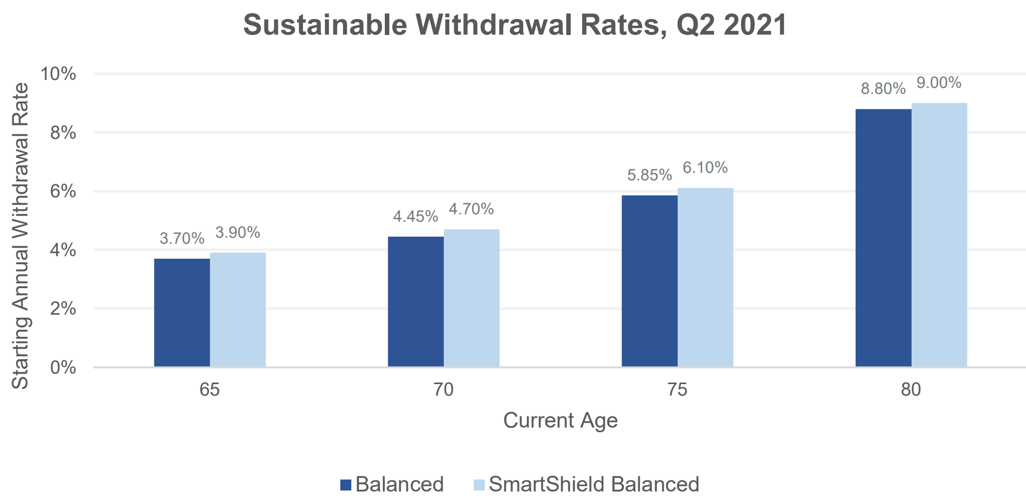
[5]**Implied Return Distribution / Implied Likelihood r**epresents the forecasted return (and its likelihood) of the index over the next 30 days (starting from the effective date of this report), as implied from the market prices of index options traded on the exchange.

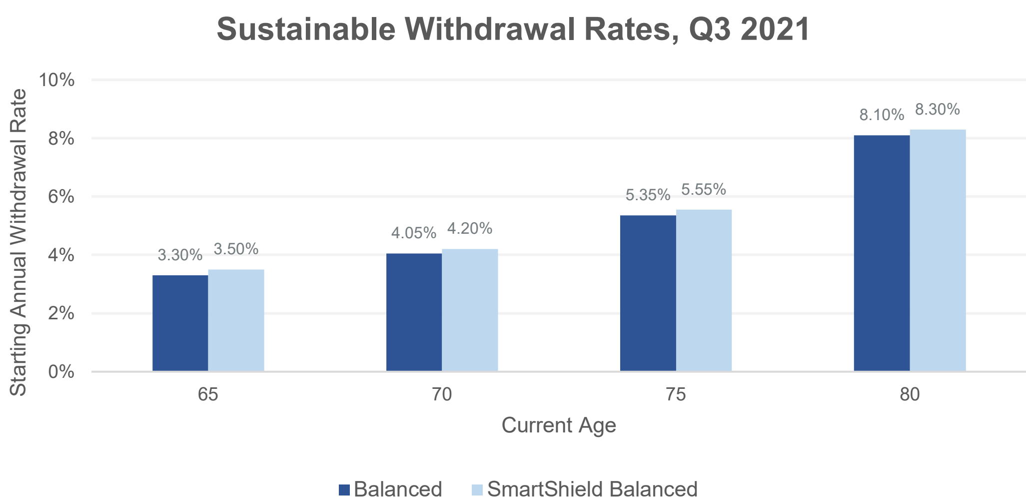
Observations on Sustainable Withdrawal Rates

We observe that sustainable withdrawal rates at the end of 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.





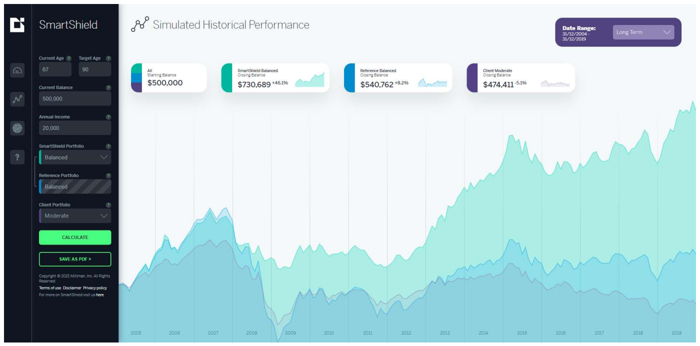
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be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

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