Milliman Market Monitor - February 2022



Market Commentaries

Equities

- Tensions between Russia and Ukraine, escalating into a full-scale invasion of Ukraine, plus lingering pessimism over future US Fed moves, led to a negative month for global markets. The market dropped sharply which in turn, lead to a spike in implied volatility. The S&P 500 index closed the month down -3.0%, while the EuroStoxx dropped -5.9%.
- Volatility remains prominent, with Australian equities starting the month strongly — at one point up 5.5% — however it followed global equities down, following the conflict. The ASX200 ultimately closed up 2.1% for the month.

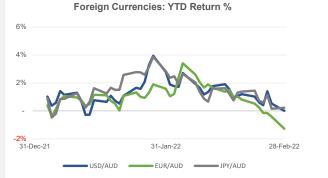
Fixed Income

• Similar to January, the Australian Government Bond² and the Global Bond² generated a negative return of -1.3% and -1.3% respectively. This was due to further yield increases as investors priced in an increased probability of rate hikes (potentially sooner than initially speculated) from central banks both here and overseas.

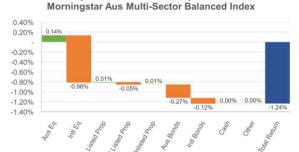
Currencies

• The Aussie Dollar grew stronger against the US Dollar this month. The AUD/USD rate closed at 72.63 US Cents, which was back to 2021 year end level. The Aussie Dollar was also stronger against the other major currencies.









Monthly Return Contribution by Asset Class:

Returns ending 28 February 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	2.1%	-3.0%	-5.9%	-3.0%	-1.3%	-1.1%	-1.3%	-2.7%	-2.8%	-2.5%
3 Month	-1.7%	-3.9%	-3.2%	-3.0%	-2.3%	-1.4%	-3.3%	-1.9%	-2.9%	-3.4%
1 Year	10.2%	16.4%	10.0%	-10.7%	-1.0%	-1.6%	-2.3%	6.1%	-1.4%	-1.7%
CYTD	-4.3%	-8.0%	-8.5%	-4.8%	-2.4%	-1.6%	-2.9%	-	-1.3%	0.2%

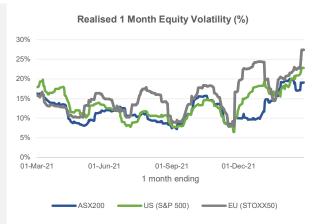
¹Equities returns captures both the capital gains as well as any cash distributions, such as company dividends.

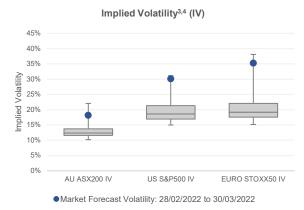
²AU Govt Bond uses the Bloomberg AusBond Govt 0+ Yr Index, which measures the return of Australian Treasury and Semigovernment bonds maturing in 0+ years. AU Corp Bond uses the Bloomberg AusBond Credit 0+ Yr Index, which measures the return of Australian corporate/credit securities maturing in 0+ years.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

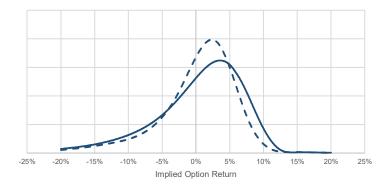
- A ramp-up in geopolitical tension and the conflict between Russia and Ukraine caused the one-month realised volatility in S&P500 and Euro Stoxx 50 to escalate. The implied likelihood of the S&P 500 falling more than 10% and 5% in February is 9% and 20% respectively (estimated from option pricing). This represents a material increase in risk.
- Domestically, the monthly RBA meeting takes place on 1 March. No stance change is expected but the RBA's thoughts on the recent wage print and the Ukraine will be closely watched. Minutes of the meeting are released on 15 March. Q4 2021 GDP is to be released on 2 March and is expected to grow at 3%QoQ (3.6% YoY). The RBA Governor Phil Lowe will be giving a speech on 9 March. In addition, we receive the February employment data on 17 March.
- Offshore in the US, most economists expect the change in non-farm payrolls on 5 March to show a rise in employment by 400k and for the unemployment rate to improve further to 3.9%. The Feb CPI is released on 11 March and is expected to show a 0.7% rise. The Fed is widely expected to hike the Fed Funds rate by 25bps at the March FOMC meeting on 17 March. In Europe, we get the final Q4 GDP on 8 March and the ECB meeting on 10 March. In China, the NPC will open its fifth annual session to examine draft plan for the national economic and social development for 2022 (4 March -11 March)





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 28/02/22

Implied likelihood ⁵ of S&P 500:	Month ending 31/03/22	Month ending 28/02/22		
Falling more than 10%	~ 9%	~ 7%		
Falling more than 5%	~ 20%	~ 16%		

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 31/03/22

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

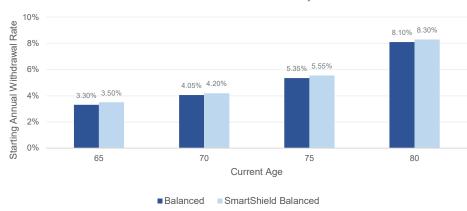
We observe that sustainable withdrawal rates at the end of Q4 2021 are higher compared to Q3 2021.

This was mainly driven by the change in interest rate levels over the period with 10 year government bond yields increasing by approximately 20bps, leading to higher simulated returns from all asset classes.

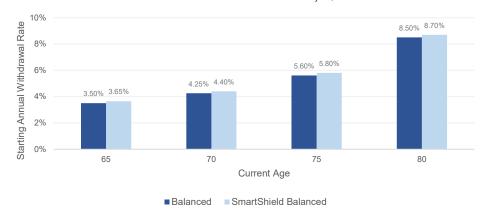
Using the SmartShield series of portfolios as an example, we have illustrated that additional sustainable withdrawal rates are achieved when we add a risk management strategy to the portfolios.

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 Rates, Q3 2021



Sustainable Withdrawal Rates, Q4 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 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





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