Milliman Market Monitor - June 2022

Market Commentaries

Equities

● Markets around the world fell sharply through June as investors reacted to multiple surprisingly large rate hikes from key central banks, such as the US Fed and the RBA. Inflation remains a key topic, with the war in Ukraine and lockdowns in China, both ongoing concerns.

Equity markets sank as investors priced further large rate hikes in the near future, as well as an increased probability of the US entering into a recession this year. The ASX 200 fell -8.8%, while in the US the S&P 500 closed the month down -8.3%.

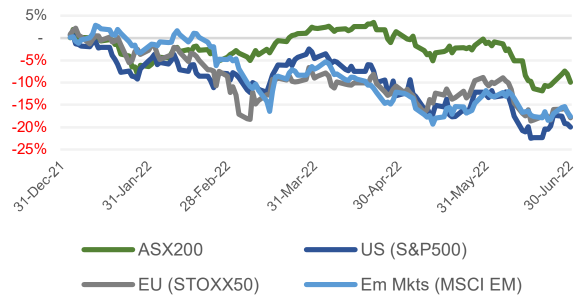
Fixed Income

● There were major moves in Fixed Income markets this past month, following the large rate hikes by many central banks. The Australian Government Bond[2] and the Global Bond[2] generated a negative return of -1.5% and -1.6% respectively.

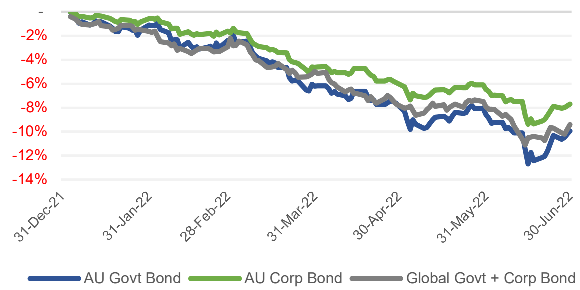
Currencies

● The Australian Dollar weakened significantly against the US Dollar this month following the surprise 0.5% rate hike by the RBA and a major fall in key commodities such as Iron Ore. The Aussie Dollar closed at 69.03 US Cents, a loss of -4.0%. This weakening of the Aussie Dollar actually helped to offset the big losses in global equities.

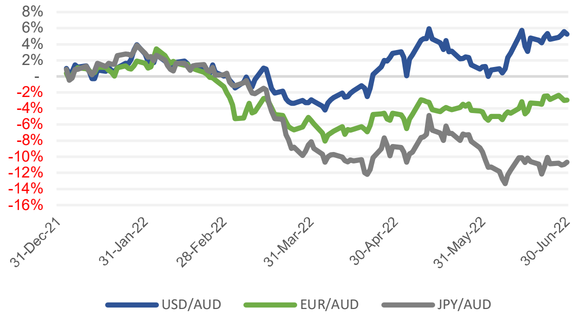
Equities: YTD Total Return[1] %



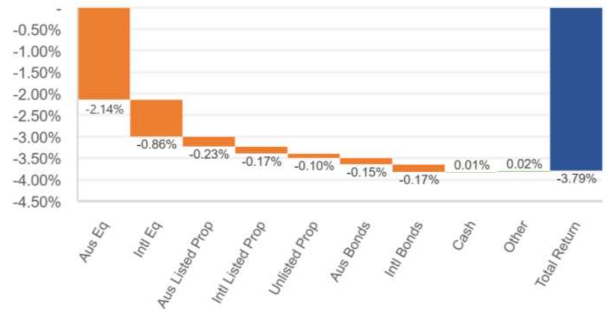
Fixed Income: YTD Return[2] %



Foreign Currencies: YTD Return %



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



Returns ending 30 June 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	-8.8%	-8.3%	-8.8%	-6.6%	-1.5%	-1.3%	-1.6%	4.0%	1.5%	-1.4%
3 Month	-11.9%	-16.1%	-9.9%	-11.5%	-4.0%	-3.2%	-4.7%	8.4%	2.7%	-2.8%
1 Year	-6.5%	-10.6%	-12.8%	-25.3%	-11.0%	-8.9%	-9.3%	8.6%	-4.0%	-11.1%
CYTD	-9.9%	-20.0%	-17.9%	-17.6%	-9.9%	-7.7%	-9.4%	5.2%	-3.0%	-10.7%

[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) remains elevated compared to historical levels. The implied likelihood of the S&P 500 falling more than 10% and 5% in July is 10% and 23% respectively, which represents an increase in risk compared to prior month.

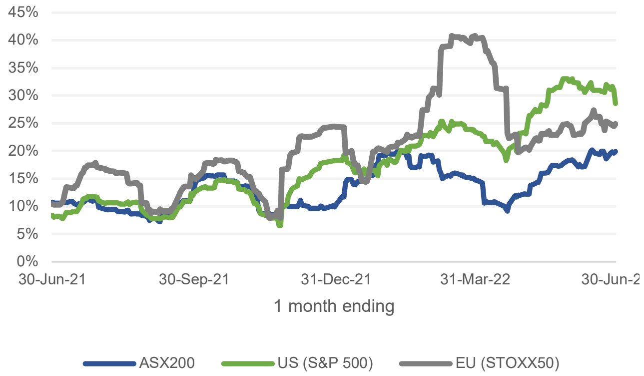
● Slowdowns in regional activity surveys and falling demand continued to fuel the idea that aggressive rate hikes in US will tip the economy in to recession by next year. Risk assets have sold off and rate hike expectations for terminal policy rates, have been pared back. We are observing higher realised equity volatility across all major markets.

● Domestically, we have the monthly RBA meeting on 5 July with the market expecting rates to rise by another 50bps in an effort to curb the inflation pressure — this is in line with the consensus forecast from economists. The NAB Business surveys (June) are due on 12 June and Labour force data (June) is due on 14 June. Q2 CPI will be released on 27 July.

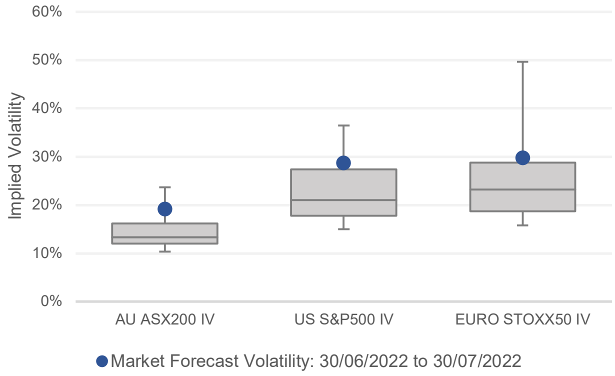
● Offshore in the US, the ISM PMI data is due on 2 July. Consensus expectations are for a moderation in both manufacturing and price paid index. The Non-Farm Payroll data for June is released on 8 July (f/c 250k, prior 390k). US CPI (June) is due on 13 July (f/c 1% m/m headline, 0.5% m/m core). The July FOMC rate decision is due on 28 July and consensus is for a back-to-back 75bps hike.

● The 1st reading of US GDP and core PCE for Q2, are due on 28 July and in Europe, we get the ECB rate decision on 21 July (the market is expecting the ECB to hike by either 25 or 50bps). In China, the PPI and CPI data for June are due on 9 July, while Q2 GDP is released on 15 July.

Realised 1 Month Equity Volatility (%)

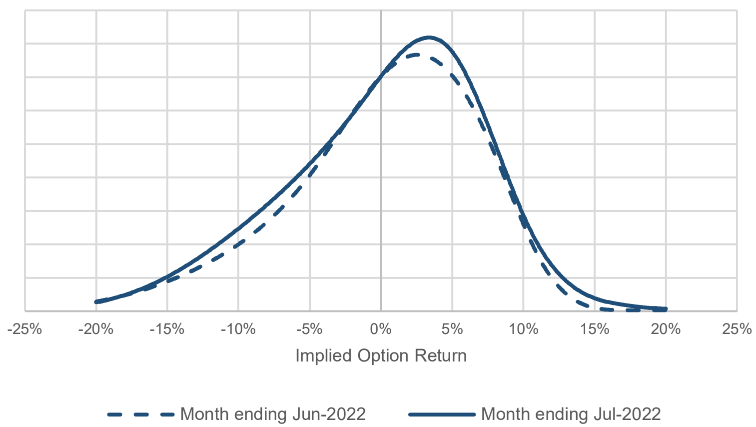


Implied Volatility[3,4] (IV)



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 Jul-2022	Month ending Jun-2022
Falling more than 10%	**~ 10%**	~ 9%
Falling more than 5%	**~ 23%**	~ 21%

[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.

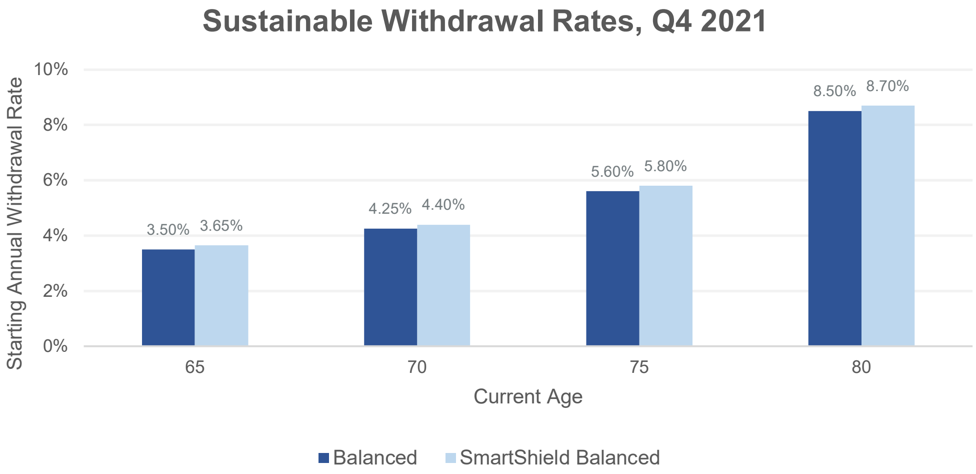
Observations on Sustainable Withdrawal Rates

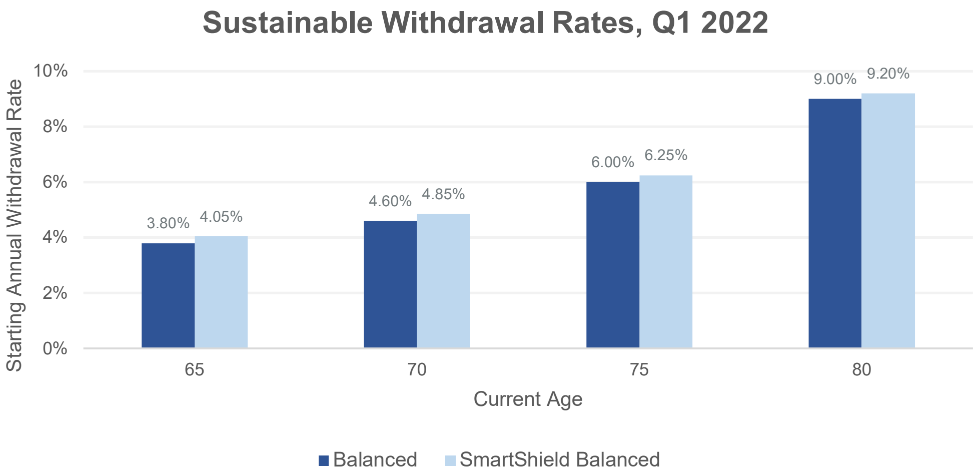
We observe that sustainable withdrawal rates at the end of Q1 2022 are higher compared to Q4 2021.

This was mainly driven by the change in interest rate levels over the period with 10 year government bond yields increasing by approximately 110bps, 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.





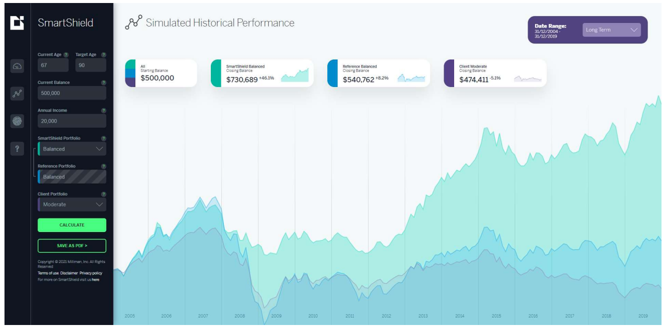
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be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



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