Milliman Market Monitor - April 2023

Market Commentaries

Equities

● US Equity markets made modest gains this month as investors bolstered expectations that the US labour market was cooling, and that a peak in rates was near. Markets were particularly quiet during the week after the Easter break as investors awaited the latest US Inflation Data. Headline CPI met expectations, although markets reacted negatively to the slight increase YoY in core CPI. Ultimately, the S&P 500 returned 1.6% for the month.

● European equities continued to strengthen, bolstered by strong earnings from luxury retailer stocks and an improving global sentiment towards inflation. The EuroStoxx 50 gained 1.6% in April.

● Australian equities saw a modest gain in April, thanks to the strong performance of the Financials and Industrials sectors. While most sectors recorded positive returns, the Materials sector experienced a decline. The RBA elected to hold rates steady in April, breaking a cycle of 10 straight hikes. The ASX 200 gained 1.8% in April.

Fixed Income

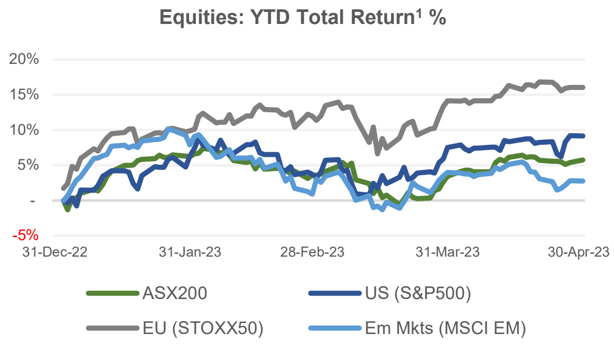
● Fixed income markets were flat this month, as investors cautiously awaited the latest US CPI print to guide where they thought rates may peak. Local markets were also flat, as the RBA decided to hold the cash rate steady at 3.6% after 10 straight hikes. Australian Government Bonds and Global Bonds generated a return of 0.1% and 0.4% respectively, as measured by Bloomberg indices.

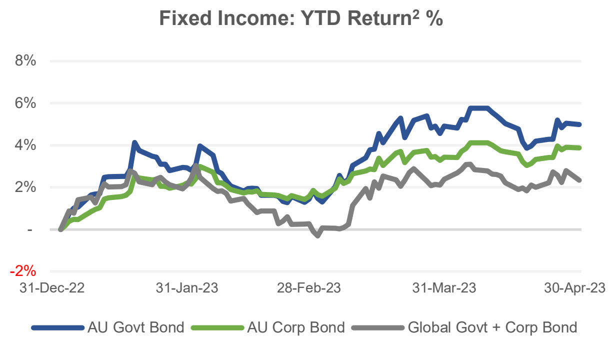
● The Federal Government's independent RBA review was released this month, with a list of 51 recommendations. One of the key recommendations was the separation of the RBA board into two bodies; one for setting interest rates and the other for general governance.

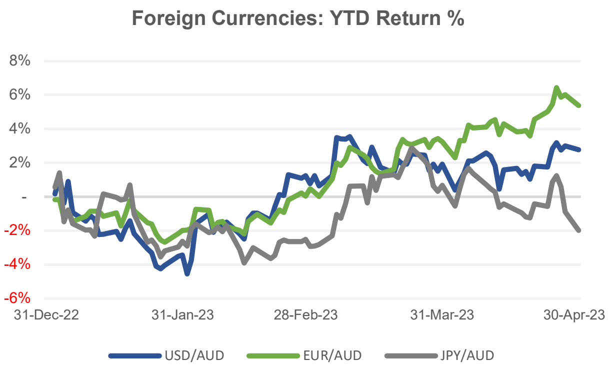
Currencies

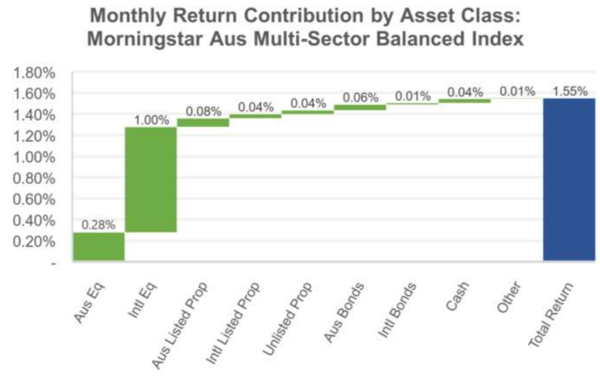
● Once again, AUD lost ground against the USD, ending the month at 66.15 US cents, which represents a decline of 1.1%. This was driven by the RBA's decision to pause rates, as well as a softer iron ore price.

● The weaker AUD had a positive impact on global equities when translated back into AUD terms. As a result, the MSCI World ex Australia AUD unhedged recorded a gain of 3.2% for the month.









Returns ending 30 April 2023

	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	1.8%	1.6%	1.6%	-1.1%	0.1%	0.5%	0.4%	1.1%	2.7%	-1.6%
3 Month	-0.8%	2.7%	5.6%	-4.7%	2.1%	1.7%	0.7%	6.7%	8.2%	1.8%
1 Year	2.8%	2.7%	17.8%	-6.5%	1.9%	3.0%	-2.3%	6.7%	11.5%	1.6%
CYTD	5.4%	9.2%	16.0%	2.8%	5.0%	3.9%	2.8%	3.0%	6.0%	-0.9%

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 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

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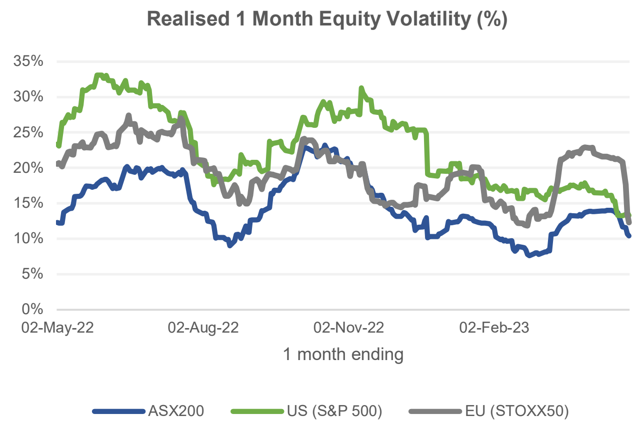
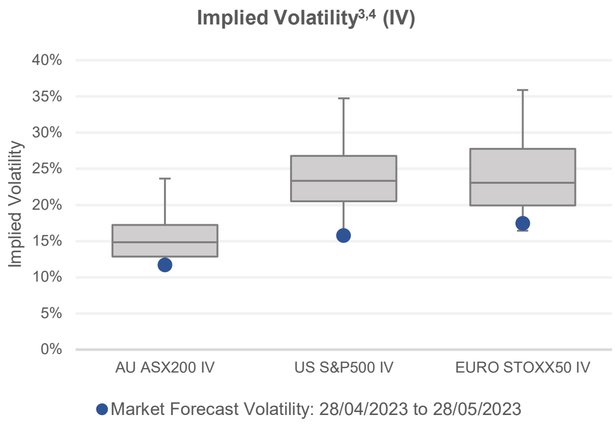
Upcoming Key Economic Events & Risk Commentaries

● Implied volatility (often viewed as the market's fear index) has decreased for the ASX, S&P500 and Stoxx 50, while remaining below the 25th percentile over the past 1 year. The implied likelihood of the S&P 500 falling more than 10% and 5% in April has decreased slightly from last month and is currently sitting at 3% and 10%, respectively.

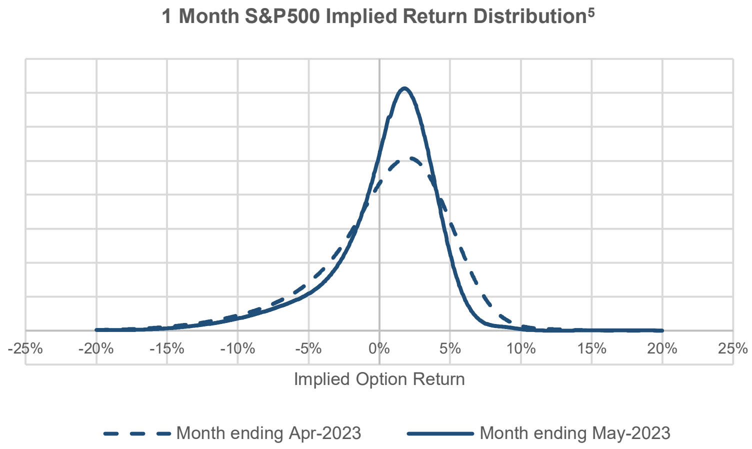
● Domestically, the RBA surprised the market with a 25-bps hike in May. Many investors felt the movement was not consistent with the forward guidance of "observation mode" after 10 consecutive rate hikes perceived back in April. This could suggest, the recent economic data observed were still better relative to what the RBA has been expecting against their anticipated course of economic "soft-landing" in Australia. While the market in general believes we are at the end of the tightening cycle, there is still a risk of even higher rates. The RBA believed the latest rate hike was necessary to continue applying pressure on inflation which it targets around 3% by mid-2025, whereas the last inflation print (Apr) was 7% YoY. The released unemployment rate of 3.5% (Apr) was also modestly below the RBA's estimate of NAIRU just above 4%. The correction in Australian housing prices has so far stalled, dimming negative wealth effects.

● Offshore in the US, the recent economic data suggested that business activities are continuing to slow. The Q1 2023 job claims were much higher than Q4 last year, and Q1 annualised QoQ GDP was 1.1% vs the expectation of 1.9%. However, several FOMC board members still remain hawkish and eager to see more solid evidence of inflation moderation. The last inflation print was 5% YoY (Mar) and the GDP Price Index Q1 (cost of goods for businesses) was higher than expected (4% vs 3.7%). The Fed raised its official funds target rate by 25 bps to 5.25% as expected.





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.



Implied likelihood[5] of S&P 500:	Month ending May-2023	Month ending Apr-2023
Falling more than 10%	**~ 3%**	~ 4%
Falling more than 5%	**~ 10%**	~ 12%

[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.

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Observations on Sustainable Withdrawal Rates

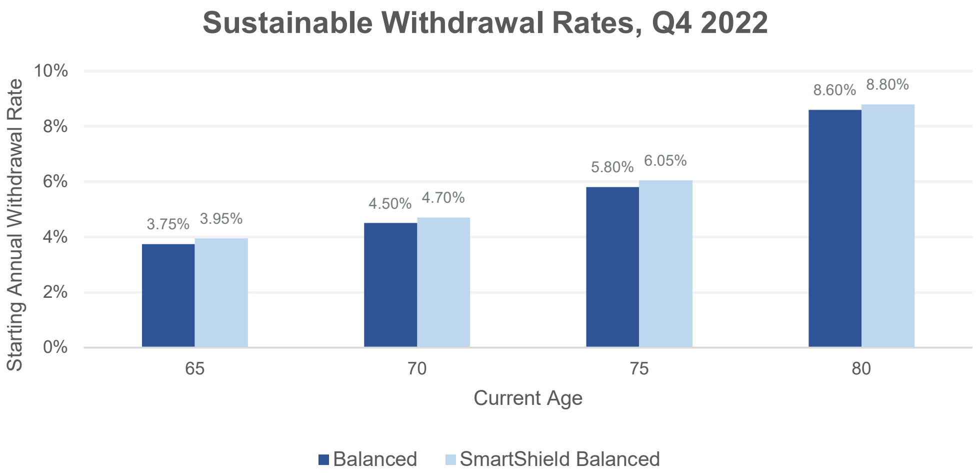
We observe that sustainable withdrawal rates at the end of Q1 2023, are lower compared to Q4 2022.

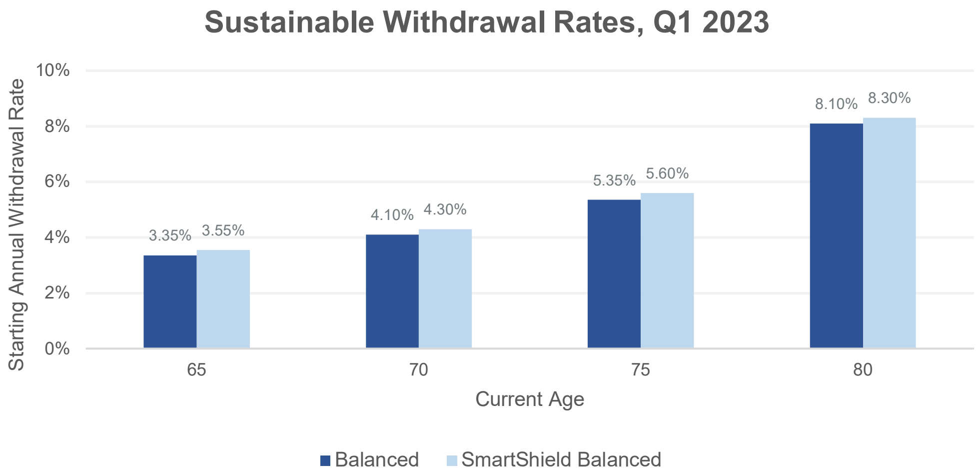
This was mainly driven by the change in interest rate levels over the period with 10-year government bond yields decreasing by approximately 75bps, leading to lower simulated returns from all asset classes.

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 which employ a risk management strategy, can reduce the exposure to sequencing risk and result in higher sustainable withdrawal rates for retirees.

In April, the equity hedge level within Milliman's SmartShield Portfolios were relatively subdued. The portfolios had an average hedge level of around 17% for Australian equities and 30% for global equities. This enabled the portfolios to optimise participation on the market gains in April, while still maintaining the flexibility to respond swiftly to potential market fluctuations.





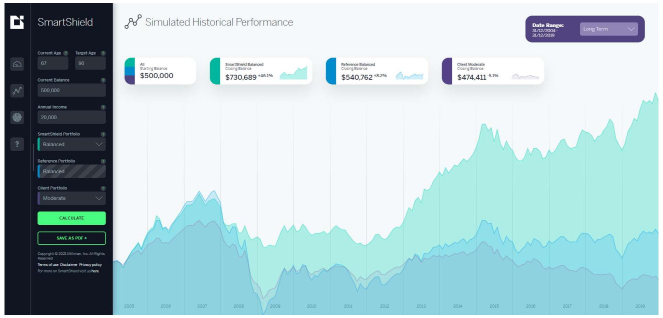
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be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

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



Simple to sign-up and FREE to access CLICK THIS LINK: https://smartshield.millimandigital.com/Identity/Account/Register

If you would like more information on the content in this report, or more information about our SmartShield Managed Account portfolios, please call us on +61 (0)2 8090 9100 | or visit **advice.milliman.com**

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