Milliman Market Monitor - February 2023

Market Commentaries

Equities

● February was a poor month for global markets as stronger US personal consumption expenditure figures led to investors reassessing their views on the resilience of the global economy. The S&P 500 lost -2.4%.

European equities faired better thanks to falling energy prices and softer inflation figures locally. The EuroStoxx 50 gained 1.9%.

Australian equities fell this month, with markets more pessimistic following hawkish comments from RBA Governor Phillip Lowe that suggested a cash rate of at least 3.85% would be required to combat high inflation. The ASX 200 returned -2.4%.

Fixed Income

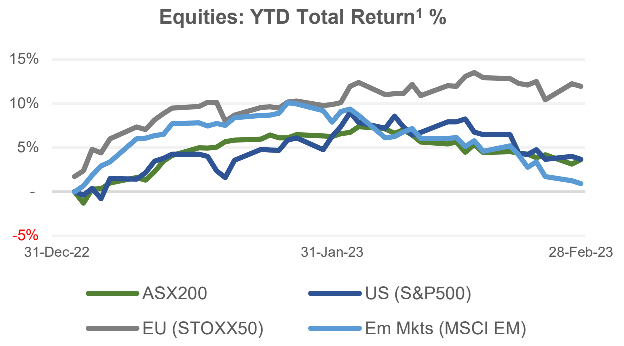
● Fixed income markets were jolted due to strong US inflation data. The January US Personal Consumption Expenditure (PCE) figure, which is one of the main gauges of inflation tracking household spending, was released in February and showed an increase versus the December figure. This suggests that inflation is still not under control. The PCE is the preferred method for measuring inflation by the US Federal Reserve, rather than the CPI.

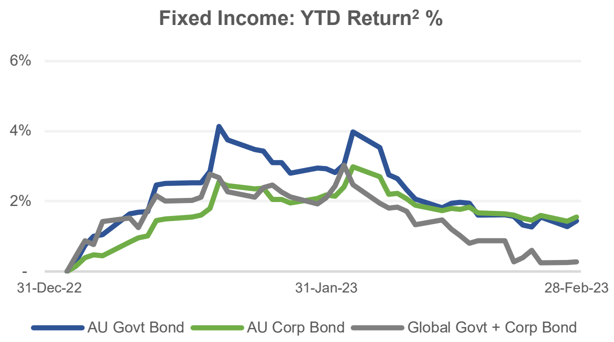
The Australian Government Bond and the Global Bond generated a return of -1.5% and -1.8%, respectively.

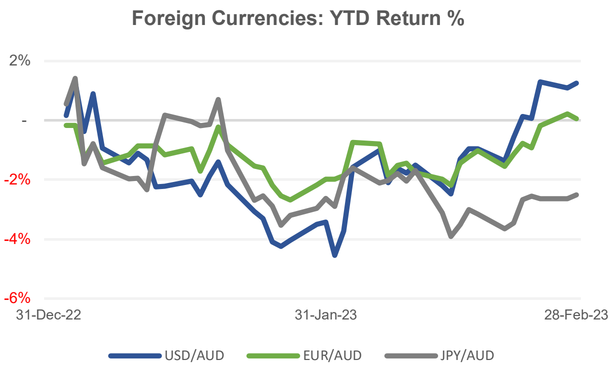
Currencies

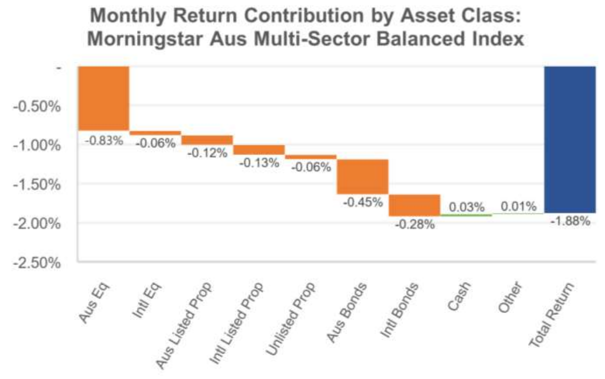
● The Aussie Dollar weakened against the other major currencies. It especially weakened against the US Dollar due to an upward shift in peak US interest rates predictions. The Aussie Dollar closed at 67.29 US Cents, a -4.8% loss.

The depreciation in AUD helped Australian investors offset the losses incurred from US equities, resulting in a positive return of +1.85% for the S&P500 in AUD unhedged terms.









Returns ending 28 February 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	-2.4%	-2.4%	1.9%	-6.5%	-1.5%	-0.6%	-1.8%	4.8%	2.1%	0.1%
3 Month	0.3%	-2.3%	7.2%	-0.5%	-1.0%	0.9%	-1.0%	0.9%	2.5%	2.2%
1 Year	7.2%	-7.7%	10.8%	-15.3%	-6.9%	-3.7%	-9.4%	7.9%	1.7%	-8.9%
CYTD	3.6%	3.7%	12.0%	0.9%	1.4%	1.6%	0.3%	1.2%	0.0%	-2.5%

[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) has increased for the S&P500 and Stoxx 50. It has remained below the 25th percentile over the past year. The implied likelihood of the S&P 500 falling more than 10% and 5% in March has increased slightly from last month and is currently sitting at 5% and 17%, respectively.

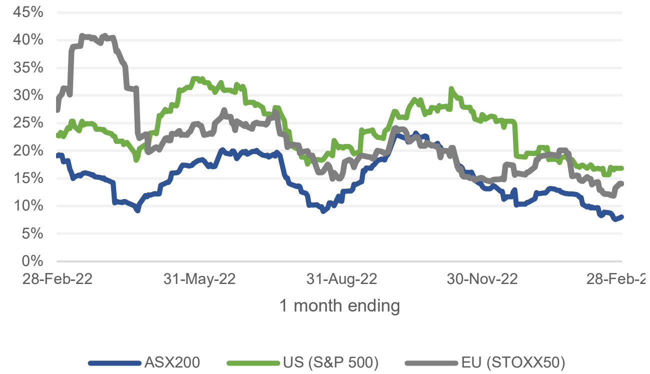
● Higher than expected inflation data in the US forced investors to dial back their optimism that the US economy was resilient enough to avoid a recession. The USD strengthened and commodities/equity assets performed poorly in February. Realised equity volatilities were mixed across the month, higher for the S&P500, flat for the ASX 200 and lower for the Stoxx 50.

● Domestically, the RBA held their latest policy meeting on 7 Mar and raised rates for the 10th straight meeting to 3.6%. The NAB Business surveys (Feb 2023) are due on 14 Mar and the Labour Force data is due on 16 Mar. The Retail Sales report for Feb will be released on 28 Mar.

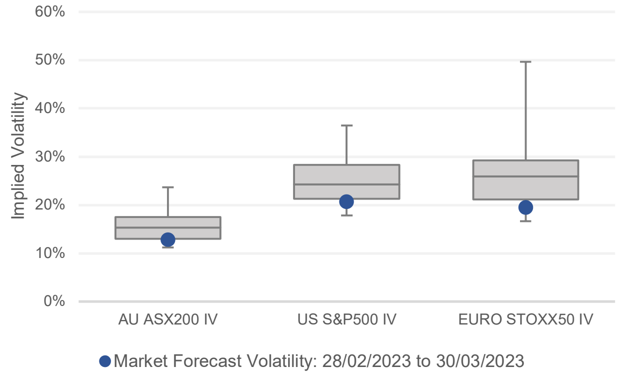
● Offshore in the US, the ISM Manufacturing PMI (Feb) was released on 3 Mar with a figure of 47.7 (f/c 48). The next FOMC meeting will also be held on 15 Mar. The Non-Farm Payroll (Feb) is released on 10 Mar (f/c 200k). US CPI (Feb) is due on 14 Mar. US Retail Sales (Feb) are out on 15 Mar. US industrial production data is out on 17 Mar.

● In Europe, the Feb 2023 CPI was released on Mar 1, at 8.5% YoY (f/c 8.2%). The ECB is expected to hike its refinancing rate by 50bp on 16 Mar. The Q4 GDP for Eurozone was up 1.8% YoY (f/c 1.9%) and S&P PMI data (Mar) will be out on 24 Mar. In China, the Feb Caixin PMIs figures were 51.6 for Manufacturing and 55 respectively. March Chinese CPI data is due on 9 Mar (f/c 1.9% YoY).

Realised 1 Month Equity Volatility (%)

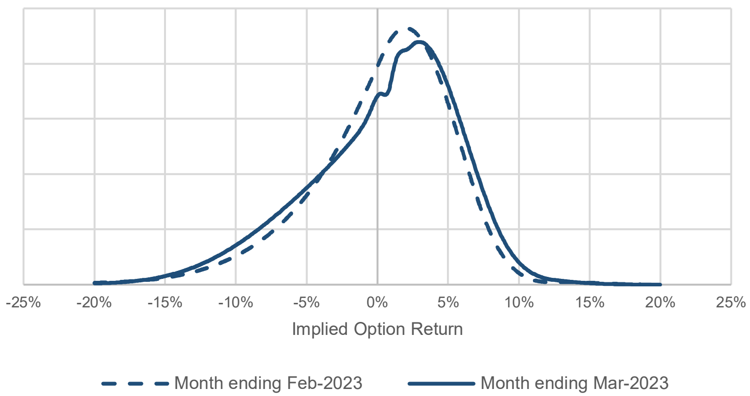


Implied Volatility[3,4] (IV)



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 Mar-2023	Month ending Feb-2023
Falling more than 10%	**~ 5%**	~ 4%
Falling more than 5%	**~ 17%**	~ 14%

[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

Observations on Sustainable Withdrawal Rates

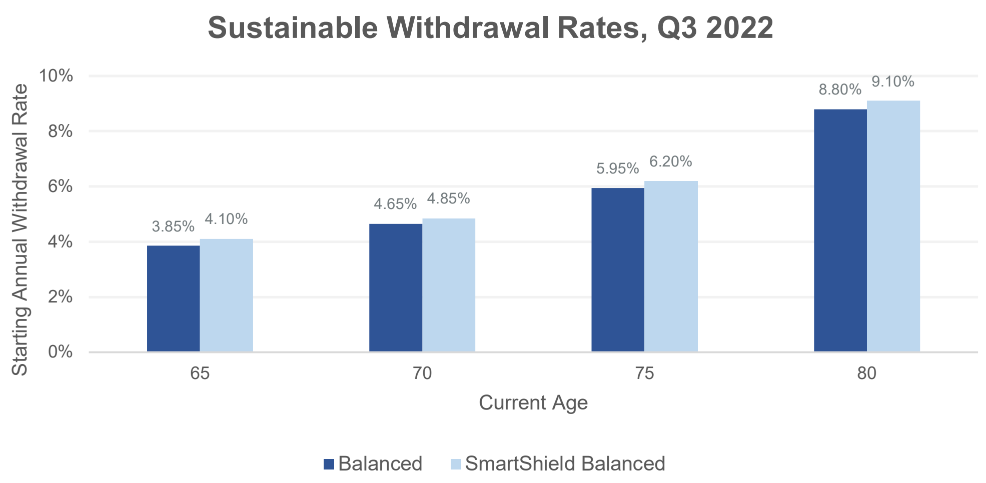
We observe that sustainable withdrawal rates at the end of Q4 2022, are lower compared to Q3 2022.

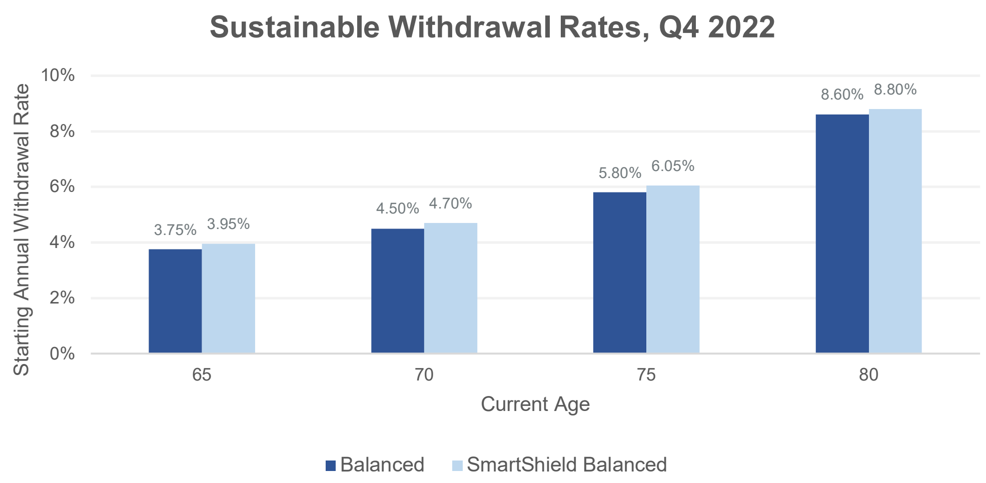
This was mainly driven by the increase in starting inflation levels.

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.

As the market fell in February, the equity hedge level within the SmartShield Portfolios has increased from approximately 21% at the beginning of the month, to 26% by the end of the month.





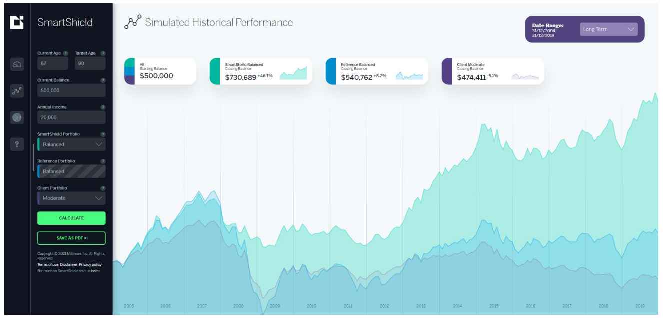
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be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

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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