Milliman Market Monitor - September 2023

Market Commentaries

Equities

- US equities fell sharply as investors recalibrated their rate cut expectations for the US cash rate following this month's FOMC meeting. The S&P 500 was down 4.8% this month. In their September policy meeting, FOMC members voted to hold rates steady but suggested another quarter point rate hike may be possible this year.

- European equities were also weaker. The EuroStoxx 50 was down 2.8%. In the UK, FTSE 100 was up 2.3% thanks to a positive GDP print. Eurozone inflation remains above the ECB's target, with headline CPI at 4.3% YoY in the preliminary August print.

- Japanese equities were also weaker, with the Nikkei down 2.3%. The Bank of Japan announced a bond purchasing operation to manage surging Japanese yields. Other Asian equities followed suit, with the MSCI Asia Ex-Japan Index down 2.9%.

- Aussie Equities were weaker, with the ASX 200 down 2.8%. Energy sector stocks were the best-performing sector, up 1.7%, while IT and Property were the laggards this month, both dropping over 8%.

Fixed Income

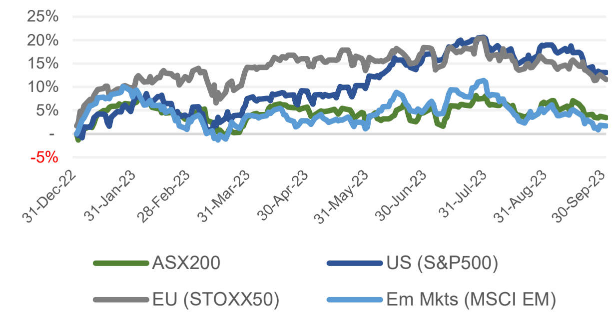
- Sovereign bond yields across the board were higher this month. US 10-year Treasury yields rose to 4.6% this month, while Aussie 10-year yields rose to 4.5%.

- The RBA kept rates steady again in their September meeting at 4.1%. Inflation in the August CPI print was higher, with a YoY growth of 5.2% (vs. 4.9% in July). Overall, Australian Bonds returned -1.5%, and Global Bonds returned -1.8%, respectively, as measured by Bloomberg Aggregate indices.

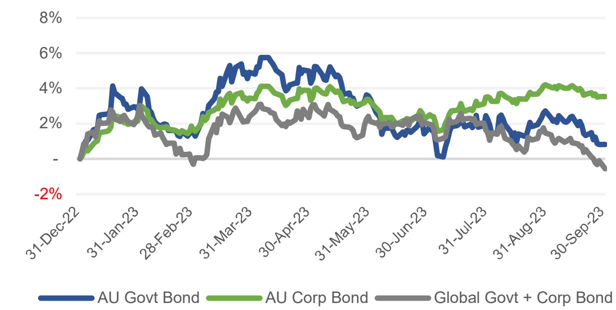
Currencies

- The Aussie dollar weakened further against the US Dollar, driven by higher yields and volatility. The AUD/USD rate fell by 0.8%, closing at 64.35 US cents. This depreciation of the AUD has provided a boost to the returns on unhedged global equities from an Australian investor's perspective.

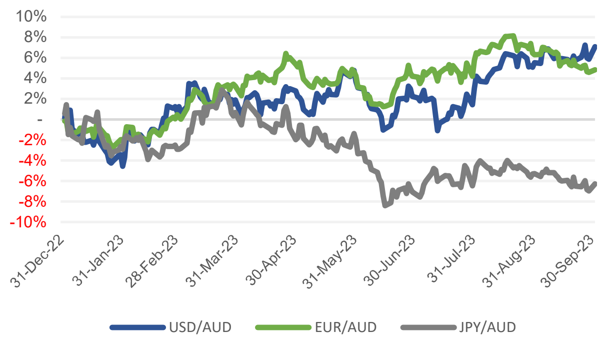
Equities: YTD Total Return[1] %



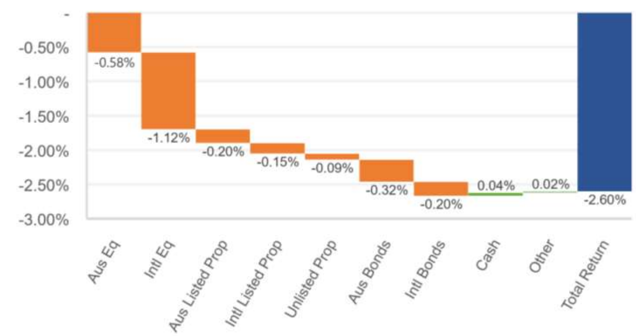
Fixed Income: YTD Return[2] %



Foreign Currencies: YTD Return %



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



Returns ending 30 September 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	-2.8%	-4.8%	-2.8%	-2.6%	-1.7%	-0.6%	-1.8%	0.8%	-1.7%	-1.8%
3 Month	-0.8%	-3.3%	-4.9%	-2.9%	-0.6%	1.3%	-2.1%	3.6%	0.4%	0.1%
1 Year	13.5%	21.6%	29.0%	11.7%	1.0%	4.7%	0.5%	-0.5%	7.3%	-3.5%
CYTD	3.7%	13.1%	12.6%	1.8%	0.8%	3.5%	-0.1%	5.9%	4.6%	-7.0%

[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

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Upcoming Key Economic Events & Risk Commentaries

● Implied volatility, often viewed as the market's fear index, has increased for the ASX200, S&P 500, and Stoxx 50. The ASX200 and Stoxx 50 remain below the 35th percentile over the past year, while the S&P 500 remains below the 45th percentile. The implied likelihood of the S&P 500 falling more than 10% and 5% in October has increased from last month, currently sitting at 2% and 11%, respectively.

● Despite the FOMC keeping its official cash rate at 5.5%, the US Fed's comments were rather hawkish and led to rising bond yields, pushing global equities lower. The Dot plot indicated that the majority of its members believe that one more rate hike is necessary within this calendar year, and the number of rate cuts anticipated in 2024 was reduced from 4 to 2.

● The Fed's hawkish stance and rising US Treasury yields were driven by the better-than-expected economic backdrop, the deterioration of US fiscal budget health (resulting in higher credit spreads), and the loosening of the Japanese Yen yield curve control by the BoJ

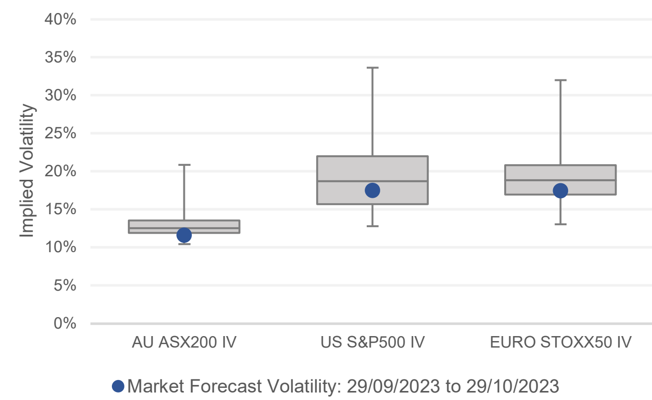
● The higher yields make bonds more attractive and encourage investors to switch allocations from equity to bonds. Another threat to risk assets is the stopgap plan to fund the government for another 45 days, until November 17. House Speaker McCarthy was voted out afterward, and this could make the 'government showdown' harder to avoid in the coming months.

● The RBA held its official cash rate at 4.1%, but the rise in US Treasury yields spilled over into the domestic funding market, with AUD interest rates increasing by around 38 bps beyond 3-year tenors. The Australian economy is more sensitive to higher interest rates because the majority of domestic private credit is on a floating rate basis. This could lead to the domestic economy slowing down more quickly than expected, potentially resulting in a policy mistake.

● The recent spike in the energy costs such as the crude and coal, could contribute further into future realised inflation and further tightening in the monetary policy globally.

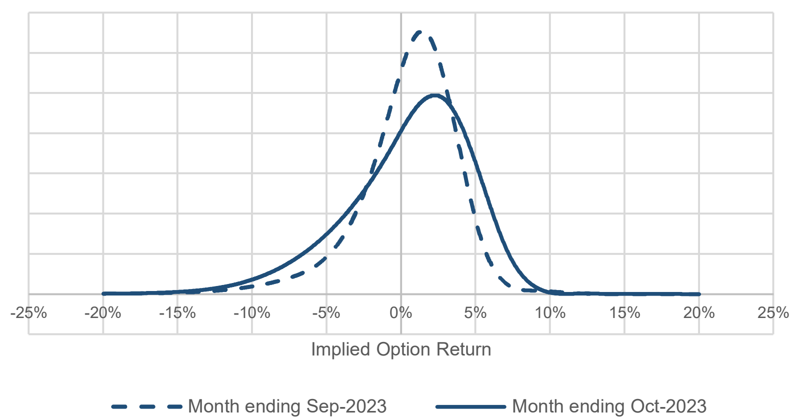
Realised 1 Month Equity Volatility (%)

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 Oct-2023	Month ending Sep-2023
Falling more than 10%	**~ 2%**	~ 1%
Falling more than 5%	**~ 11%**	~ 7%

[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

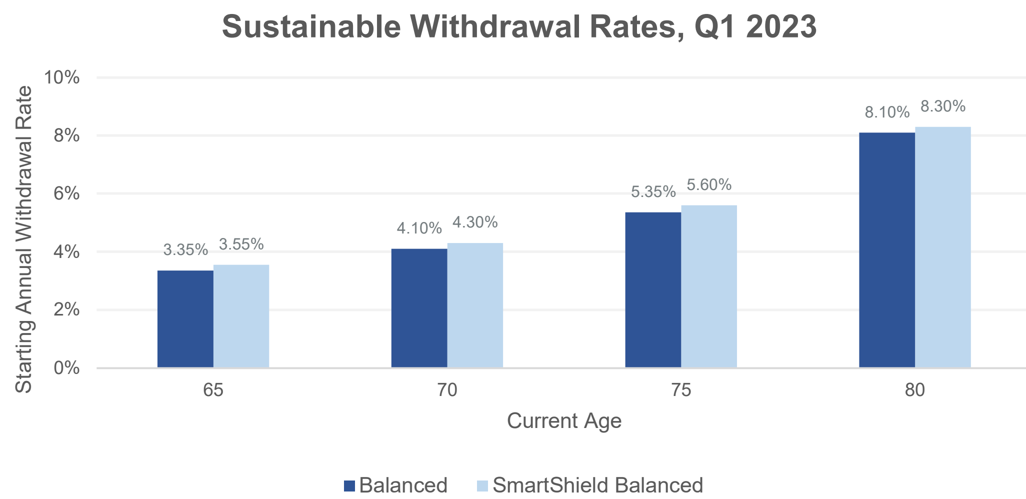
We observe that sustainable withdrawal rates at the end of Q2 2023, are higher compared to Q1 2023.

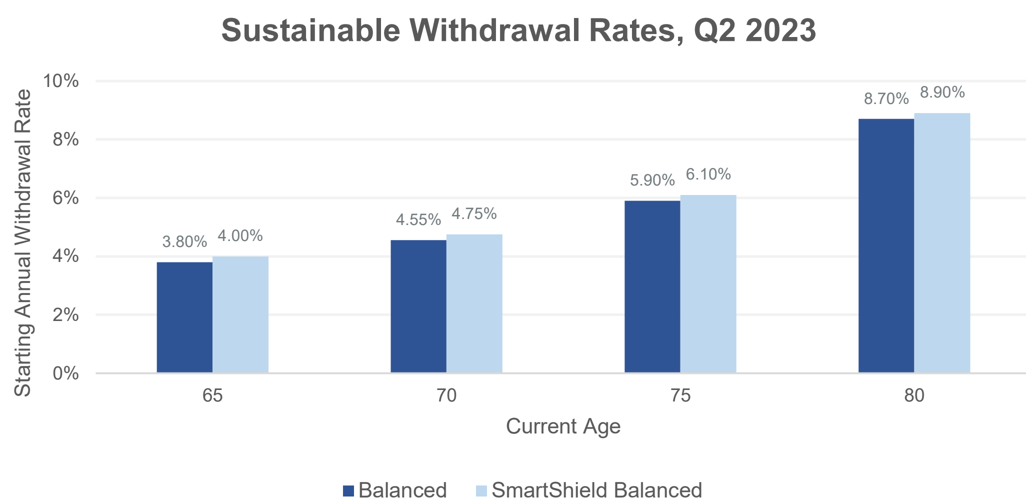
This was mainly driven by the change in interest rate levels over the period with 10-year government bond yields increasing by approximately 70bps, leading to higher simulated returns from all asset classes.

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

In September, Milliman's SmartShield portfolios maintained an average hedge level of approximately 23% for Australian equities and 14% for global equities.





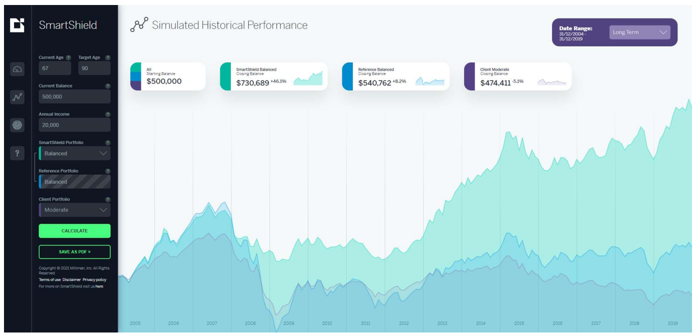
Sustainable Withdrawal Rate is defined as the maximum amount that can be withdrawn from a portfolio each year with a 90% certainty that this rate can be sustainably withdrawn (adjusted for inflation) until the target age of 90. An additional constraint introduced is for the potential shortfall to be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



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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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