Milliman Market Monitor - 30 April 2021

Market Commentaries

Equities

- Global equities continued their upward trajectory this month, led by the US S&P 500 appreciating by more than +5% due to strong reported earnings and increasing stimulus from the Biden administration.
- Aussie equities followed the US, with the ASX200 gaining +3.5% in April.
- Negative sentiment resurfaced towards the end of April as investors had renewed concerns over the large scale COVID outbreak in India, and markets receded on the news.

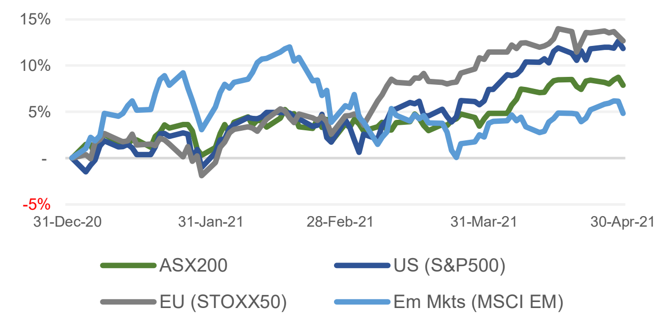
Fixed Income

- Bond yields in April have stabilised after the February surge, as central banks reaffirmed the market of their low inflationary expectation in the near future.
- RBA increased the cost of bond borrowing, causing bond traders to cover their short positions and drove down bond yield (increase bond price). The 5 year Australian government bond yield reduced from 0.88% to 0.83% p.a. by the end of April.

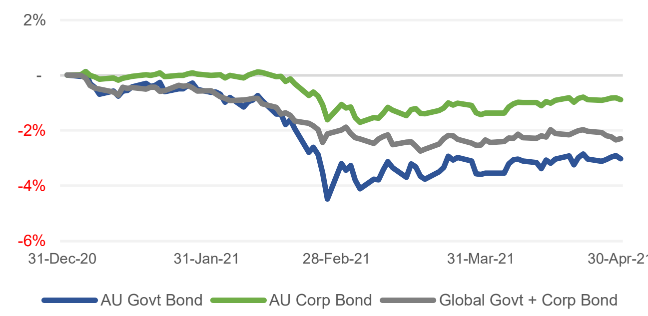
Currencies

- Iron ore prices continued to climb, which strengthened the Aussie Dollar. AUD appreciated +1.5% against the USD to close at 77.14 US Cents.

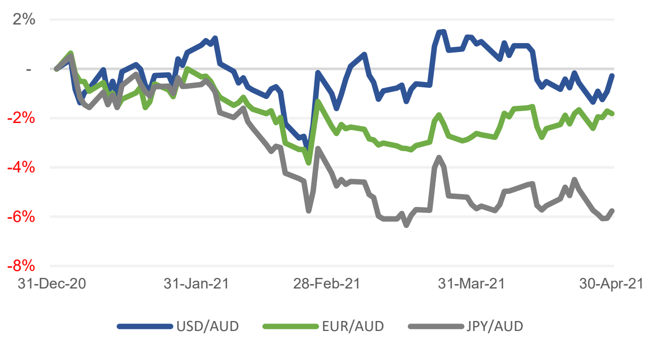
Equities: YTD Total Return[1] %



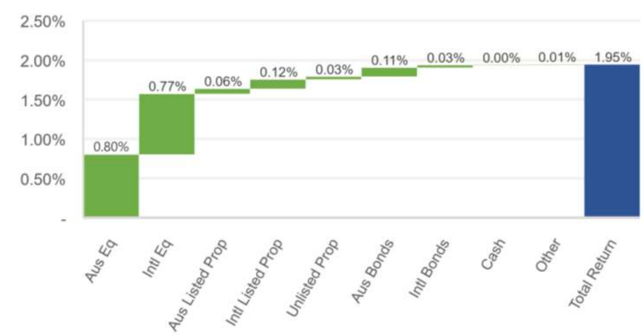
Fixed Income: YTD Return[2] %



Foreign Currencies: YTD Return %



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



Returns as of 30 April 2021

	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	3.5%	5.3%	1.8%	2.5%	0.6%	0.5%	0.2%	-1.5%	1.0%	-0.3%
3 Month	7.5%	13.0%	14.8%	1.7%	-2.5%	-0.9%	-1.7%	-0.9%	-1.8%	-5.1%
1 Year	30.8%	46.0%	38.7%	48.7%	-2.0%	3.5%	-0.1%	-15.6%	-7.3%	-17.2%
CYTD	7.9%	11.8%	12.7%	4.8%	-3.0%	-0.9%	-2.3%	-0.3%	-1.8%	-5.8%

[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

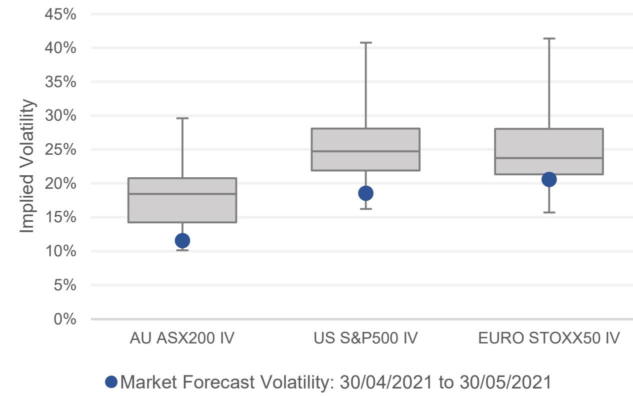
- In the month of May, key domestic events that may impact our markets include the Australian Budget on 11th May where markets will be hopeful of additional fiscal support. Strong employment numbers could see higher tax payroll and roaring iron ore price both helping to reduce the deficit. The Statement of Monetary Policy to be released by the RBA on 7th May, is expected to see the central case for GDP growth rate revised higher and unemployment lower to 5% by the end of the year. This could signal continued bond purchases and low cash rates to help reduce unemployment and bring inflation within the target band.

- Key risks to watch out for this month will include the COVID-19 virus development worldwide, in particular the recent rise in cases and mutation variants in India and other EM countries worldwide.

- Surges in commodity prices due to supply shortage and the rise in price at FMCG firms due to input cost increases could see bond yields on the rise again on the reflation theme. A too rapid rise could see growth stocks again suffering.

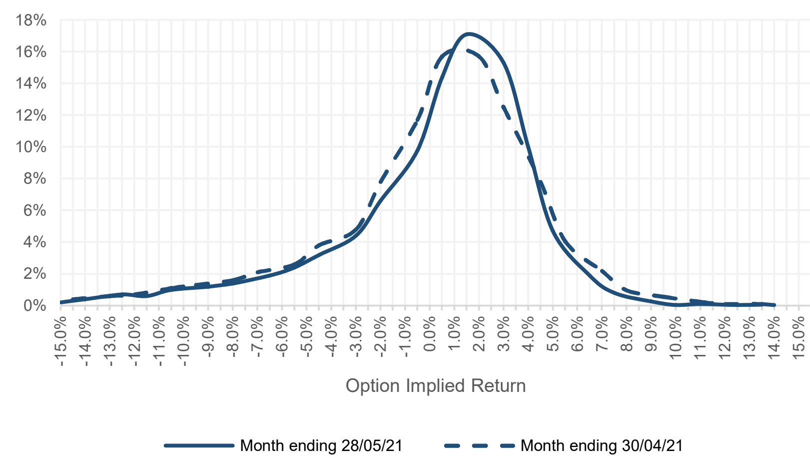
Realised 1 Month Equity Volatility (%)

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.

S&P500 Implied Return Distribution[5]



Implied likelihood[5] of S&P 500:	Month ending 28/05/21	Month ending 30/04/21
Falling more than 10%	~ 3%	~ 3%
Falling more than 5%	~ 8%	~ 9%

[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 volaility 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.

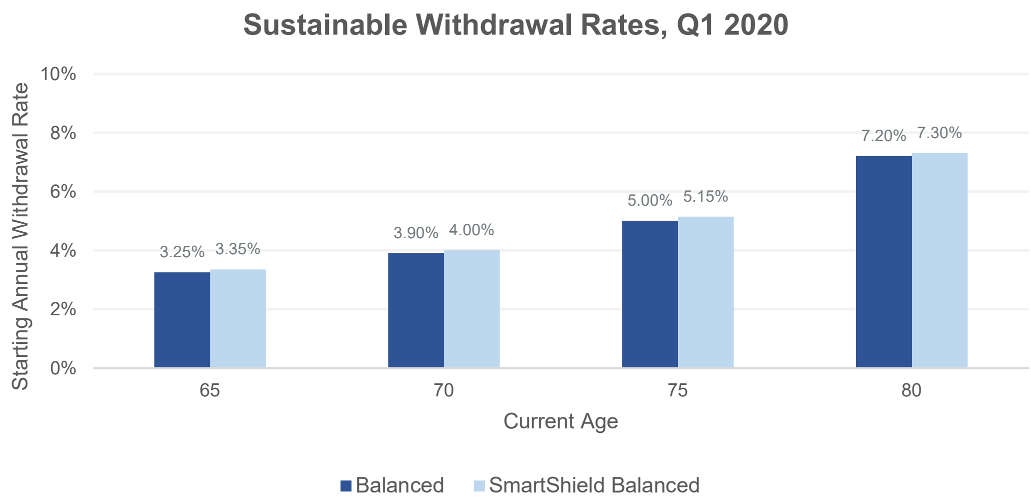
[5]**Implied Return Distribution / Implied Likelihood r**epresents the forecasted return (and its likelihood) of the index over the next 30 days (starting from the effective date of this report), as implied from the market prices of index options traded on the exchange.

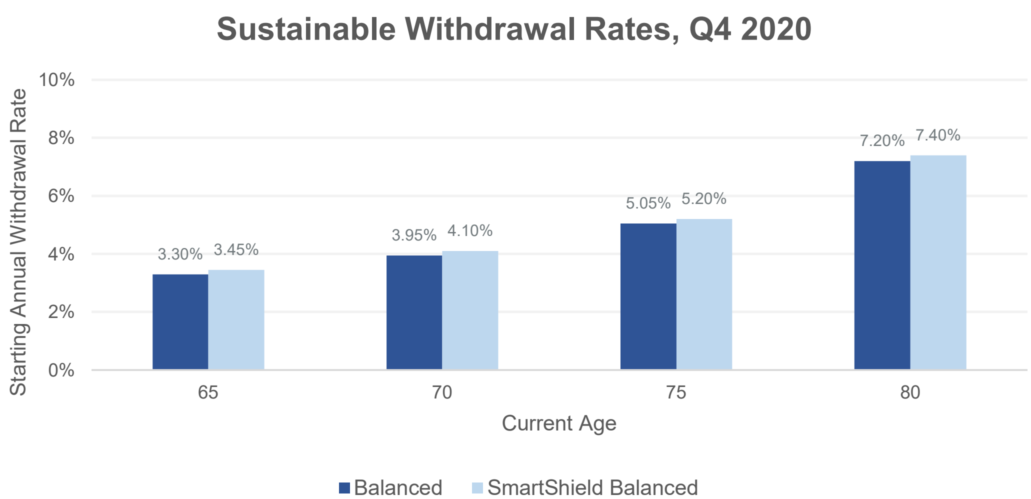
Observations on Sustainable Withdrawal Rates

We observe that sustainable withdrawal rates at the end of Q4 2020 are higher compared to Q1 2020.

This was mainly driven by the change in interest rate levels over the period with 10 year government bond yields increasing by approximately 20bps. As a result, expected returns from all asset classes are higher.

We have also illustrated the additional sustainable withdrawal rates that can be achieved by adding risk management into the portfolio using the SmartShield series of portfolios as an example. By controlling the level of volatility, and reducing the impact of sustained market drawdowns, risk management strategies can reduce the exposure to sequencing risk, and result 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 92. 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 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 withdrawal $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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