

# S&P/ASX 200 VIX

# The S&P/ASX 200 VIX (ASX Code: XVI) is a real-time index that reflects the market's expected volatility in the Australian benchmark equity index, the S&P/ASX 200.

Real-time bid/ask prices for S&P/ASX 200 (XJO) put and call options are used to derive a weighted average of the implied volatility being incorporated into the options. Two maturities are used with the nearby having at least a week until expiry. The volatility of the options closest to maturity is interpolated with that of the options farthest from maturity to arrive at a constant 30 day indication of expected volatility in S&P/ASX 200.<sup>1</sup>

# **Uses and interpretation**

The volatility index is primarily used as an indicator of investor sentiment and market expectations. A volatility index at relatively high levels implies a market expectation of very large changes in the S&P/ASX 200 over the next 30 days while a relatively low volatility index value implies a market expectation of very little change.

Similarly, when the volatility index is at relatively high levels, and market expectation is for high levels of volatility, investor sentiment is perceived to be uncertain. Conversely, when the volatility index is at relatively low levels, market expectation is for low levels of volatility which implies greater levels of investor confidence.

Volatility indicators such as the volatility index are often perceived to exhibit characteristics of mean reversion by oscillating around a long term average (or mean). In other words, a move away from the long term average towards high or low extremes is usually followed by a move back towards the long term average. The implication of mean reversion is that high levels of volatility may be followed by a return to more normal levels of volatility and very low levels of volatility may be pre-cursors to an increase in volatility.

The volatility index value is similar to rate of return volatility with the volatility index reported as an annualised standard deviation percentage that can be converted to a shorter time period. For instance, a volatility index value of 20% can be converted to a monthly figure remembering that volatility scales at the square root of time. The formula to do this is:

$$20\% * \sqrt{\frac{1}{12}} = 5.77\%$$

In the above example, index options over the S&P/ASX 200 are incorporating the potential for a one standard deviation return over the next month of +/- 5.77%.

More information on volatility index can be found at www.asx.com.au/volatilityindex

<sup>&</sup>lt;sup>1</sup> The 1 month, 2 month and 3 month interest rates used in the S&P/ASX 200 VIX calculation are supplied by the Australian Financial Markets Association (AFMA).

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#### S&P/ASX 200 VIX vs S&P/ASX 200



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