

| | Month | Quarter | FYTD | 1 year | 3 years | 5 years | Since Inception [^] |
|-----------------------------------|------------|------------|------------|--------|---------|---------|------------------------------|
| | % | % | % | % | % p.a. | % p.a. | % p.a. |
| Perennial Volatility Alpha Trust* | 5.3 | 5.4 | 2.8 | - | - | - | 8.5 |
| RBA Cash Rate Target | 0.1 | 0.4 | 0.6 | - | - | - | 1.1 |
| Value Added (Deducted) | 5.2 | 5.0 | 2.2 | - | - | - | 7.4 |
| Net Performance | 4.9 | 4.7 | 2.1 | - | - | - | 6.4 |

*Gross performance ^Since inception: 14 March 2017. Past performance is not a reliable indicator of future performance.

Perennial Volatility Alpha Trust

The Trust aims to outperform the RBA Cash Rate Target by investing in global equity derivatives that provide volatility exposure such as futures and options on the CBOE S&P 500 VIX index (VIX).

Trust manager

Michael Pollard

Risk profile

High

Trust FUM

\$0.9 million

Distribution frequency

Annual

Trust redemption price

1.0176

Any material changes to risk profile, strategy, key service providers or portfolio managers during the period

Nil

Minimum initial investment

\$100,000 (wholesale investors only, as per Reg. S761G of the Corps Act 2001)

Trust inception date

March 2017

APIR code

WPC8778AU

Contact us

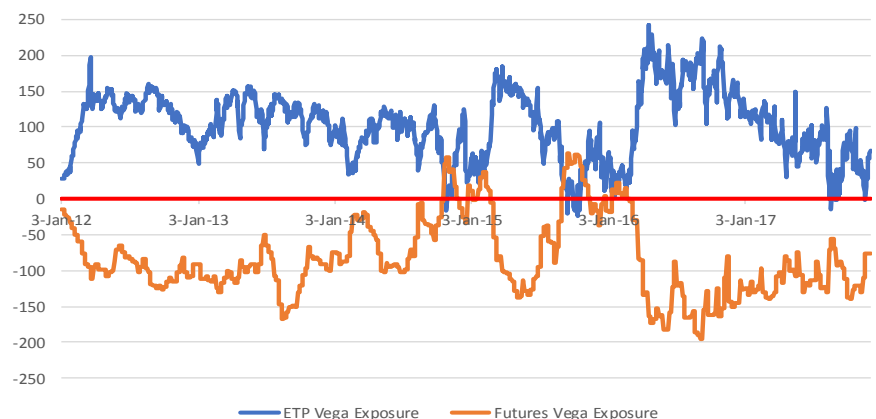
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November was a quiet month for news flow. You might have noticed that Leonardo da Vinci's painting "Salvator Mundi" sold for US\$450.3 million at auction in New York, a world record price for any artwork. That is more than Tonga's GDP, in case you were wondering. The Bitcoin price chart also continued to do its best impersonation of bacterial population growth, finishing the month close to US\$10,000 a one year return of 1300%. Arguably in both these cases the key factor behind the staggering numbers was the inability of supply to meet demand.

Meanwhile in mainstream asset markets, for some participants, the rally in risk assets is becoming an increasingly reluctant one. According to the BAML November global fund manager survey, a record net 48.0% of investors think equities are overvalued, and yet cash levels are falling, and hedge fund exposure to equities is at an 11 year high. Fully 81.0% of investors in the same survey thought bonds were overvalued. Reluctant investors such as these are unlikely to support the market with a bid if a meaningful risk event does finally materialise, and retail investors and the algorithms are looking for an exit at the same time. Or, put another way, reluctant investors are unlikely to be a ready supplier of risk.

This is clearly important for the VIX complex, as for many investors in this space the only way to have made money this year has been to short the VIX. The graph below shows the vega exposure of the two largest constituencies in the VIX complex – long vega holders via exchange traded products (this is not all retail, institutions are large players in the ETP market in the US), and short vega holders via futures. Historically these two cohorts have mostly offset each other in a rhythmic paso doble, supply from one meeting demand from the other.

VIX Vega Exposure: ETPs versus Futures



Source: Perennial / Bloomberg

However, note that since mid-2016 the trend in long vega holding has been distinctly downward, whereas the shorts have been much slower to cover. In this reluctant rally who will be the supplier of risk when the shorts need to unwind?

Indeed it seems like we sniffed a little of this lack of supply during the month, when a range of risk assets caught a bid tone. What started this is hard to pinpoint, but the most visible early move was in the HY credit indices in the US. Two stocks, Altice and Sprint, sent a brief shudder through this market, perhaps with the interest deductibility cap in the US tax plan amplifying the effect. Many risk assets moved at the same time, not necessarily because of US high yield, including JPY basis swaps, Chinese corporate bond yields, and commodity vols. What was interesting was the severity of reaction in the VIX, resulting in a Nov expiry print of 13.79, having traded around 10 a week earlier. We think this is a result of the shifting demand / supply dynamics.

This brief period of intra-month excitement produced an excellent return for the Trust, finishing up 5.3% gross. The Trust had two outright long positions in VIX during the month, one produced a small profit, the other a larger loss. Still, the total loss from long positioning was smaller than in recent months. In addition, we were invested in the entire range of carry trades that fire in low volatility markets, due to attractive entry points in recent times. As mentioned in previous notes these trades have a modest long bias, benefitting most when the VIX has a small to medium move up. The VIX pop in to expiry, combined with other structural moves in the VIX option market, therefore suited our positions. In addition to this we generated meaningful value-add through active management of the expiry process, for example deciding whether to hold to expiry or roll early. It is difficult to codify the nuances of different expiry conditions in to a systematic process, therefore our proprietary trading experience can be a great asset when managing the unwind or rolling of options positions.

Portfolio Characteristics (since inception)

| | Trust | S&P 500 |
|------------------------------|--------|---------|
| Volatility | 9.6% | 7.0% |
| Downside Volatility | 5.1% | 4.6% |
| Upside Volatility | 8.1% | 5.2% |
| Maximum Drawdown | -5.3% | -2.2% |
| Return | 8.5% | 13.5% |
| Sharpe Ratio | 1.1 | 2.5 |
| Sortino Ratio | 2.1 | 3.8 |
| Calmar Ratio | 1.6 | 6.1 |
| Correlation to Equity Market | -13.0% | - |

Source: Perennial and Bloomberg

VIX Strategies Utilised (since inception)

| Strategy | Utilised* |
|-----------------|-----------|
| Long Breakout | 8.0% |
| Short Breakout | 1.1% |
| Long Reversion | 8.5% |
| Short Reversion | 6.9% |
| Carry | 43.6% |
| Cash | 39.4% |

Source: Perennial and Bloomberg

Long breakout: positioned long for expected short-term rise in VIX

Short breakout: positioned short for expected short-term fall in VIX

Long reversion: position long for expected short-term reversion to mean

Short reversion: position short for expected medium-term reversion to mean

Carry: positioned to earn structural decay over the short to medium term

*measured by number of days the strategy was in use from inception

Signatory of:



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