

**FRONTIER**

# International

Global research and insights from Frontier Advisors

## Observations from the Debt, Alternatives and Innovation Team

Europe & North America

Research Trip

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Frontier regularly conducts international research trips to observe and understand more about international trends and to meet and evaluate, first hand, a range of fund managers and products.

In conjunction with insights we share with our Global Investment Research Alliance partners, these observations feed into our extensive international research library.

This report provides a high-level assessment on the key areas and observations unearthed during this recent trip. We would be pleased to meet with you in person to provide further detail on these observations.



**AUTHOR**

## Justine O'Connell

Principal Consultant- Head of Debt, Alternatives and Innovation

Justine O'Connell joined Frontier as an Associate in 2005 before relocating to London in 2008 where she worked for Watson Wyatt as an Investment Consultant. On her return to Melbourne in 2010, she re-joined Frontier as a Consultant before being promoted again to Principal Consultant in 2014. Justine leads the Debt, Alternatives and Innovation research area at Frontier, co-leads a large super fund client and is also a member of the firm's Investment Committee. Justine's responsibilities at Watson Wyatt included assisting large UK corporate clients in developing scheme structures and advising on strategic asset allocation and manager structure and selection. Prior to 2005, Justine worked for Goldman Sachs in London for over three years in the bank loan trading area. Justine holds a Bachelor of Commerce with Honours from the University of Melbourne and a Graduate Diploma of Applied Finance and Investments from Finsia. Justine is also a CFA Charterholder.



**AUTHOR**

## Michael Sommers

Principal Consultant

Michael Sommers joined Frontier in 2013 as a Senior Consultant before being promoted. His responsibilities include providing risk management and consulting advice to clients, preparing client investment reports and undertaking manager and investment research with a particular focus on absolute return strategies. Prior to joining Frontier, Michael worked in London for seven years in a number of trading floor based senior risk management roles at CIBC, Lloyds and HBOS. His roles involved advising on the risk and performance characteristics of diverse portfolios and investment strategies. He was also involved in regulatory and risk governance-related work at a senior level. Prior to working in London, Michael worked in credit risk modelling at ANZ in Melbourne. Michael holds a Bachelor of Commerce with majors in Actuarial Studies and Finance (including First Class Honours in Finance), a Bachelor of Science and a Master of Applied Finance degree from Macquarie University.



**AUTHOR**

## Marcus Nelson

Consultant

Marcus Nelson joined Frontier in 2017 as a Consultant in the Quantitative Solutions Group. His responsibilities cover assisting in the development of risk management strategies and quantitative tools for clients and the design of analytical modules on Frontier's Partners Platform. Before joining Frontier, Marcus spent six years at hedge fund manager, Kaiser Trading Group. During this period he worked in both technical and client-facing roles across execution trading, investment research and risk management. Prior to this, Marcus spent two years at Ernst & Young. He holds a Bachelor of Commerce (majoring in Finance and Accounting) from the University of Melbourne, is a CAIA Charterholder and is currently a candidate in the CFA program.

# Background

*Frontier recently completed a research trip to Europe, North America (and Bermuda) to meet with a number of liquid alternatives and insurance-linked securities managers.*

This was an opportunity to further our research coverage across Alternative Risk Premia, CTA, Opportunistic Credit and ILS strategies, and was timely given the sharp increase in market volatility seen in February and negative performance of many markets.

Within the alternatives space, February was a difficult month for CTA and alternative risk premia (“ARP”) strategies in particular. Meeting onsite allowed for a greater understanding of the risk management approaches in practice for these managers and is an area we have chosen to explore further in this note.

## Key points

- Losses in CTA and ARP portfolios were driven by reversals in equity markets and a spike in the VIX that created a period of heightened market volatility.
- Managers with momentum strategies suffered losses from equity market reversals in February, however, these strategies had previously profited from the strong upward trend in equities over 2017 and January 2018.
- Despite the S&P rallying from the February lows, the managers had already reduced position sizes in response to increased volatility which effectively locked in losses prior to the subsequent market rally.
- A momentum trading strategy that uses a simple moving average crossover would not have taken a short position in the S&P 500 during the reversal given the strength in the trend during the second half of 2017. In this note we create a stylised example to show a moving average crossover strategy and how it would have behaved over the past year, with a focus on February.
- ARP managers that sold volatility suffered losses in this sleeve of premia as the VIX spiked to ~37 on February 5. Trade implementation and portfolio hedging approaches continue to be a key differentiator amongst managers in this space.

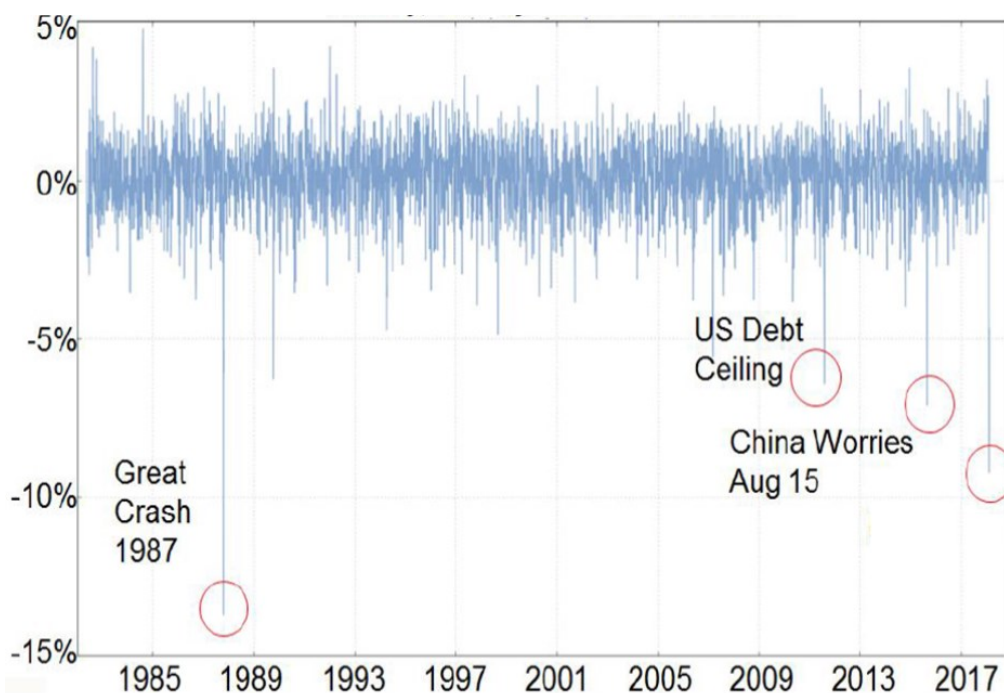


# Market conditions – where does this rank?

On a volatility adjusted basis, the first week of February 2018 was the worst weekly market move since 1987, with a number of managers commenting that the price action of January in equity markets had not been seen in prior back tests (strong rally in the lead-up and then followed by a sharp sell-off). Because the S&P 500 rallied from the February market low, managers that did not adjust position sizes due to the increased volatility would have realised fewer losses and recouped a portion of unrealised P&L.

Contrastingly, managers which construct their portfolio using recent volatility, and who therefore would have increased risk during the benign periods, would have reduced positions due to volatility increasing effectively locking in losses at the worst point and carried less risk into the eventual rally. This approach to risk management for this type of manager, which uses shorter-term recent volatility, is prudent in our view and despite leading to larger losses in this instance is positive on a forward looking longer term basis.

Chart 1: Weekly, Vol Adjusted S&P500 Moves



Using lookback of EWMA 50-day half-life. 1 w move.  
Source: Man Group database

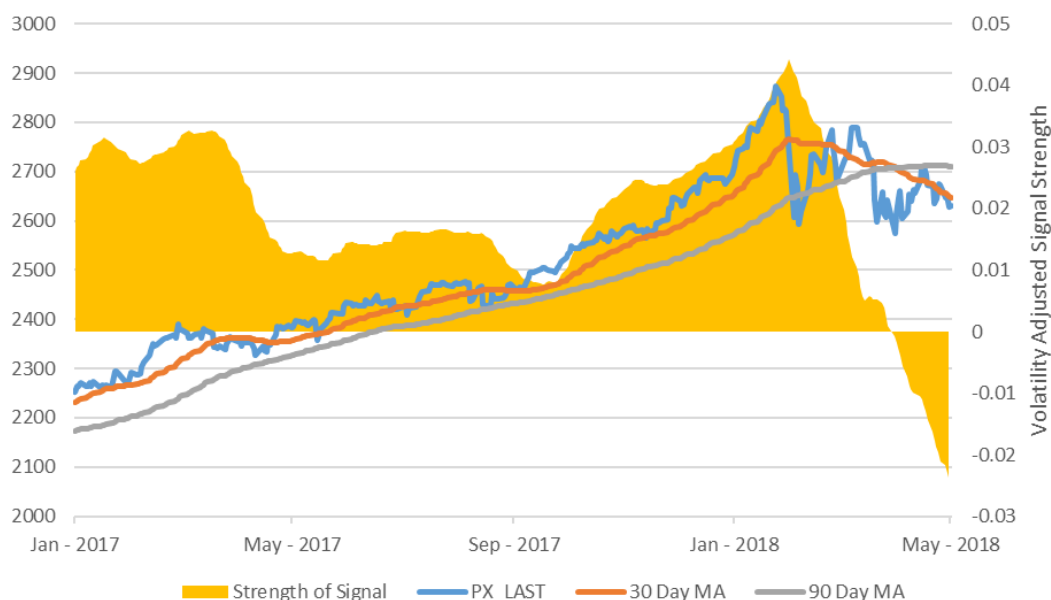
Within the CTA universe covered by Frontier, February's performance was poor, but was on the back of a very strong January and second half of 2017. While the medium-term CTA peer group is highly correlated, it was pleasing to see some different approaches in practice. Managers with more diversified sector risk allocations (in this instance, lower risk allocation to equities) underperformed during 2017 but typically suffered smaller losses during this February reversal.

Further, CTAs that have a quicker trend response function (i.e. aggregate period over which a trend is measured) will be more responsive in changing from net long to net short in a market. One manager became net short equities in February. This position would have generated outperformance relative to peers had the equity sell-off continued and reduced the gap risk. This is the trade-off for investors where quicker response functions are more responsive to market reversals but increases the risk of getting whipsawed in conditions such as this. In isolation this was a worse result but may be a better fit within client portfolios from a broader diversification perspective.



# Simple momentum strategy

Chart 2: S&P Daily Price Close



Source: Frontier

In the above comment we referenced different trend response functions and will elaborate further on what this means in practice. This refers to the different lookback periods to define the price direction of a given market. The above chart shows a simple trend strategy that is based on a 30-day moving average (“MA”) crossover with a 90-day MA. When the 30-day MA is above the 90-day MA, the position is net long and vice versa. The strength of the trend is measured as the difference in price between the two averages and normalised by the current market close. From September 2017 until late January 2018, the trend in S&P 500 became stronger and if we take the strength of the trend as an input to position size this approach would have taken on more equity risk (i.e. the largest position) as the trend became over extended. From the S&P peak in late January the momentum signal would be steadily decreasing the long position until the 30-day MA crosses below the 90-day MA in early April of this year.

This approach of defining momentum, while basic, is often how momentum is defined in alternative risk premia products and more basic trend/CTA offerings.

Managers that we met with throughout the trip have invested heavily in risk management research, including position sizing adjustments for volatility regime changes such as that experienced in February. In this instance it created realised losses for portfolios due to position reductions, but was adaptive to changing market conditions. A volatility filter used as an input to risk management will use a smaller sample of more recent data to size positions (often 10-15 days). Secondly, price data will cause the trend signal to update (in this case, weakening the long trend signal) which will reduce the position size further. However, due to the trend signal using more history (in this case a 30-day vs 90-day moving average), more data is required for the signal to update its view of market direction.

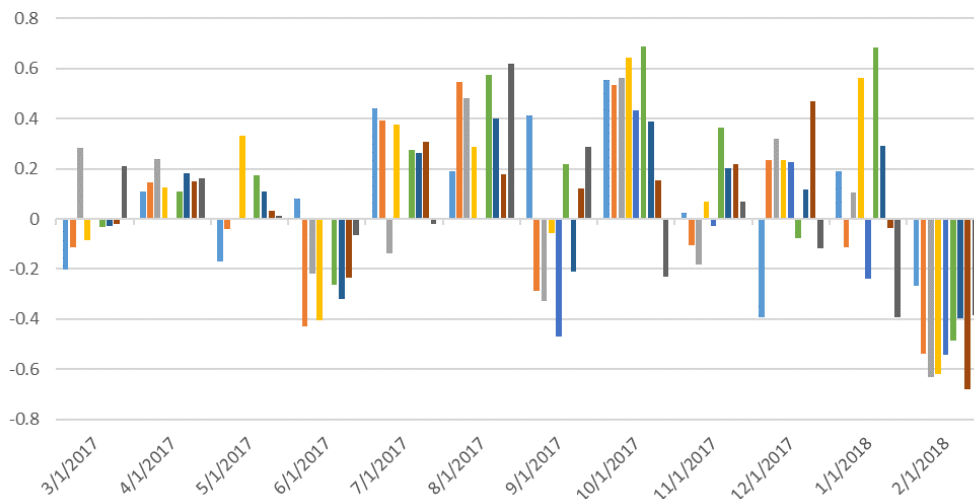
We use this to demonstrate that a momentum strategy such as this would not have covered the market gap risk in this instance due to the strength of the prior trend and the speed of the reversal. Frontier’s preferred managers will reach a final trend signal by combining multiple time periods and different momentum signals to arrive at a final signal, some of which include indicators to determine if a trend is overextended. The takeaway from this is that there are varying levels of sophistication in how momentum is defined within the market and it is important to understand how a given approach will fit within a client’s broader portfolio.

# Recent performance evaluation

Headline performance numbers for CTA managers were poor in February and, to a lesser extent, ARP strategies, which often have a material allocation to trend models within the portfolio.

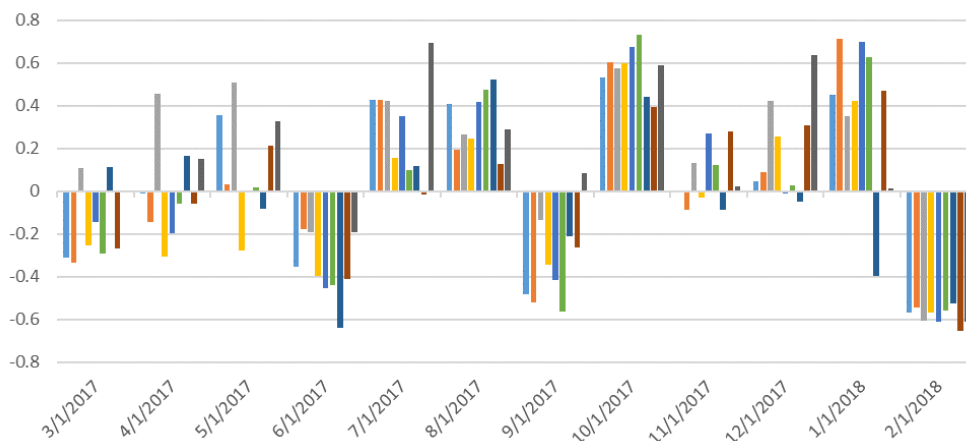
A summary of January/February performance across systematic managers incorporating momentum strategies in their portfolios (CTA and ARP) is shown below as a ratio of the rolling monthly return / risk:

**Chart 3: ARP Managers**



Source: Frontier, Managers

**Chart 4: CTA Managers**



Source: Frontier, Managers

Once an adjustment has been made for volatility, the results are comparable across both CTA and ARP managers. The distribution of the returns relative to their trailing volatility is fairly symmetrical, i.e. the scale of negative performance was matched on the upside for CTA managers in both October 2017 and January of this year.

This places the returns of February well within expectations for investment styles and should not be considered a left tail event in either CTA or ARP managers.

# What does this all mean?

The trip provided Frontier with a good opportunity to review risk management and portfolio construction approaches across a range of rated and potential managers and pleasingly the takeaways were positive. An ongoing area of research at Frontier, and where we have been working with clients, is how to best combine various managers in the alternatives portfolio with various levels of downside protection.

Momentum strategies can be accessed through both alternative risk premia and CTA managers, but our example above highlights there are various approaches and levels of complexity when including this factor in a portfolio. Further, when combining a CTA and Alternative Risk Premia manager, it is key to understand the correlation and concentration of factor exposures and look for complementary managers that don't have high exposures to common risk and style factors to limit the risk of drawdowns occurring across these factors simultaneously.



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