Aurora Updates
Why Do We Pay for Protection?

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Executive Summary

- Protection of investment assets is generally expensive, with cost escalating depending on the riskiness of the asset or the environment.

- For long term investors there is a widely held view that over the long term risky investments (such as equities) will always rise, and so protection is a wasted expense.

- We at Aurora see it differently. The Aurora Fortitude Absolute Return Fund uses protection strategies in four core ways:

    1. Focus on delivering **better risk adjusted returns**, and

    2. **Offset other strategies** in the portfolio to deliver desired **total fund risk and return characteristics**, and

    3. Employ **expertise** and **dynamic strategies** to reduce the cost of protection, and

    4. **Simple measures of risk**, such as volatility, hide the real **impact of 'market gravity'** which increases market risk on the downside. Markets are invariably riskier on the downside.

- This short note will explain the impact of Aurora's use of protection strategies on overall fund risk and return. These fund dynamics have a direct impact on investors' portfolio characteristics.

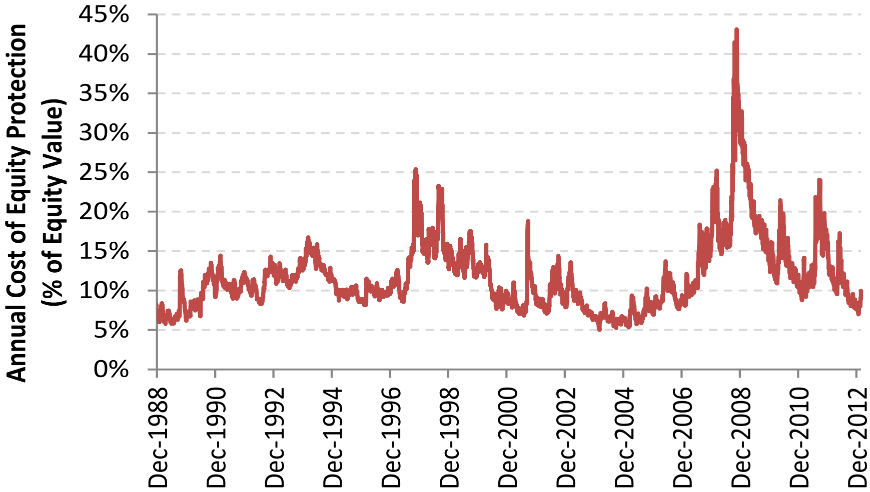
- Part of Aurora's unique skill set is managing the protection strategies to deliver better risk adjusted returns to investors.

Disclaimer

Cost of Protection

The cost of protection of financial assets varies greatly over time and with the riskiness of the underlying asset. Some risky assets, such as equities, cost significantly more to protect than less risky assets, such as bonds and cash. In the current market, the cost to fully protect an Australian equity investment for one year is approximately 9.7% per annum[1] – as a rough rule of thumb, protection costs 3 to 4 basis points per day. Over time this cost of protecting has radically varied with the perceived riskiness of equities, particularly through the global financial crisis of 2007-09 – see Figure 1 below. In a relative sense, this cost is at the bottom of the range of costs for the last six years. However the significant absolute cost of protection indicates fully protecting equity assets would underperform cash investments in the long term.

Figure 1: Annualised Cost of Protecting Australian Equity Investments



Source: Aurora Funds Management

Despite the large absolute cost of protection, we at Aurora perceive current pricing is attractive in two ways. Firstly it is relatively low compared to historic prices using the volatility index of Figure 1 as a proxy. Secondly, the best time for buying protection is when the market is overly complacent about downside risk and consequently demand for protection is low. The same is true for any form of protection, whether it be house insurance or protection of equity assets. The converse of this perspective is that when prices are high for protection (such as in 2008 and 2009), Aurora's protection strategy adjusts to accommodate the changing market price of protection.

Figure 1 above shows emphatically that the market is in a low perceived risk environment - in our opinion, it is worthwhile holding protection. The challenge for any investor is to integrate and rationalise such protection strategies within the overall portfolio context.

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[1] Annualised cost of rolling quarterly 100% strike total return S&P/ASX 200 puts at current market prices.

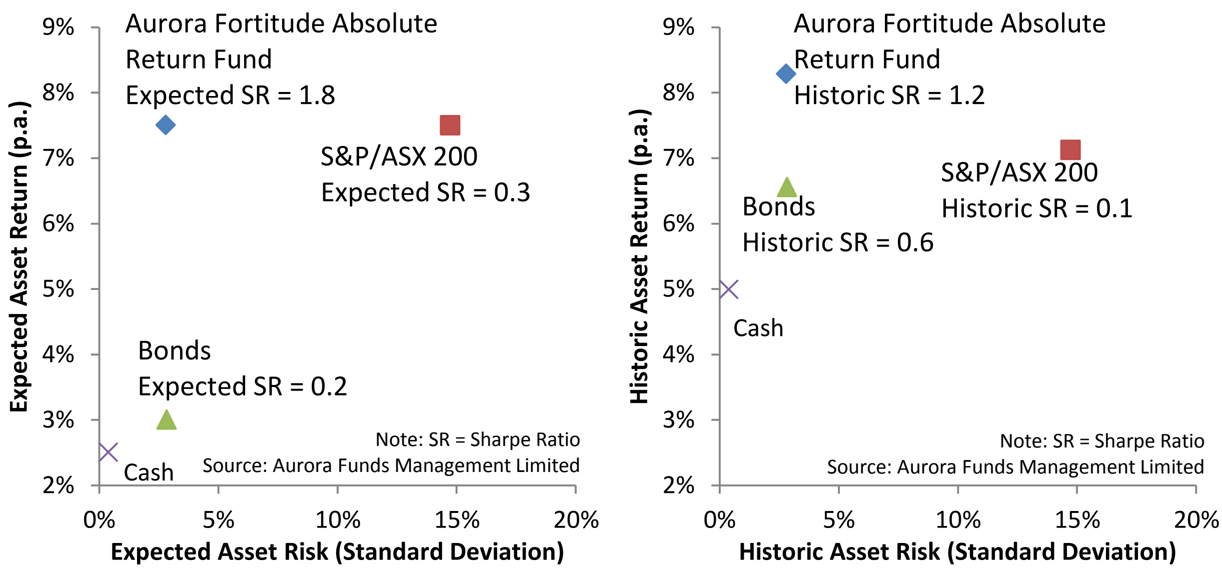
At Aurora we integrate protection within the total portfolio in four ways:

1. Focus on delivering better risk adjusted returns, and
2. Offset other strategies in the portfolio to deliver a balanced total fund risk and return characteristics, and
3. Employ expertise and dynamic strategies to reduce the cost of protection, and
4. Simple measures of risk, such as volatility, hide the real impact of 'market gravity' which increases market risk on the downside. Essentially markets accelerate on the downside – as markets fall, risk levels rise and so further large falls are more likely.

1. Risk Adjusted Returns

Risk adjusted returns should be the main tool investors use to measure investments – especially those with different levels of riskiness. Realised return alone is a poor choice as it ignores the relative downside of different investments. Figure 2 below shows the risk and return for a number of different asset classes as well as the Aurora Fortitude Absolute Return Fund. Also noted on this figure is the risk adjusted return or Sharpe Ratio (noted by 'SR') which is simply the additional return over cash for different investments per unit of risk – in this way it is intuitive to compare the return of different investments.[2]

Figure 2: Expected & Historic Risk, Return and Risk Adjusted Return of Assets



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[2] This analysis uses expected returns where cash is assumed to return 2.5%, 5 year AUD sovereign risk bond term premium of 0.5%, equities are assumed to have a risk premium of 4.5% over bonds while AFARF is assumed to return 5.0% over cash. Historic returns and risk characteristics are derived from monthly returns since February 2005 when AFARF was launched.

Standard deviation per annum or volatility is one way of looking at the level of risk in different investments. A more stark comparison is maximum drawdown. Since February the maximum draw down for the Aurora Fortitude Absolute Return Fund was 2.1% while for the equity market in general (S&P/ASX 200) it was 47% over the same period. Other downside risk measures tell the same story – value-at-risk[3] is 0.5% vs 6.6% respectively.

Aurora's use of protection strategies has been evidenced by the reduction in downside risk. A key skill Aurora brings to managing the portfolio is to reduce the cost, and boost effectiveness, of protection strategies.

2. Total Portfolio Approach

The Aurora Fortitude Absolute Return Fund is built and maintained around a fundamental multi-strategy philosophy. Aurora divides the management of the Absolute Fortitude Return Fund into five core strategies:

1. Mergers and Acquisitions
2. Yield
3. Long/Short
4. Convergence
5. Protective Options

Overlaying these five strategies is the essential role of portfolio management to create a cohesive portfolio from the strategies by focusing on risk, return and opportunity. This is highlighted by the fifth strategy of Protective Options – the 'insurance contract' for the total portfolio. Often this strategy will cost money to operate by purchasing protective option positions. But importantly, the **positioning in this protection strategy allows larger risk taking in other strategies than would be possible or desirable without**. This strategy only makes sense in the context of the broader total portfolio – there is no point in buying home insurance unless you have the risk of owning a home.

3. Lower Protection Cost with Investment Team Expertise and Dynamic Strategies

Through active management of protection positions and dynamic overlay strategies, Aurora reduces the cost of protection strategies. As with any other investment strategy, a 'set and forget' approach to the protection positions will not achieve the best outcome in terms of cost or effectiveness. One of the unique skills Aurora brings to managing the portfolio is expertise to enter and maintain the protection positions. The Aurora investment team have decades of experience in selecting, executing and rolling

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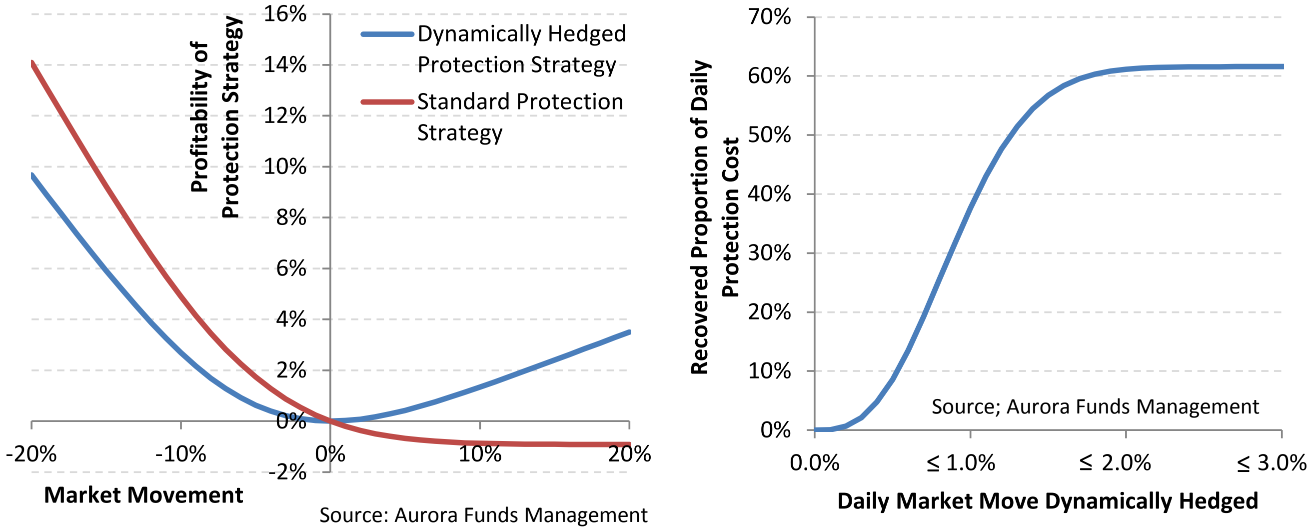
[3] At the 95% for one 1 month point.

the wide variety of strategies available to balance the cost of the strategy with the efficacy of the protection achieved.

One way of reducing the costs of maintaining protection strategies is to employ dynamic strategies to capitalise on the inevitable small daily movements, while maintaining positions that provide the desired protection for larger moves. Figure 3 below shows that protection for large market moves is preserved (left hand side) despite dynamically hedging the core protection position for small moves allowing significant cost recovery (right hand side).

Figure 3: Effectiveness and Cost Reduction of Dynamic Hedging Small Daily Moves



4. Markets are Riskier on the Downside!!!

Common risk metric such as annualised standard deviation (or volatility) underestimate downside risk investors are mainly concerned with:

1. These metrics include variations in return on both upside and downside. Since January 2001, over two thirds (69%) of the largest 5% of weekly returns are negative.

2. Volatility measures are necessarily backward looking. Of more concern to investors is the level of future risk.

3. Markets become riskier as they fall. Figure 4 below shows the impact of this concept of market gravity since January 2001. Essentially as markets fall, risk level of market movements rise, and thereby increases the chances of further significant falls. The reverse phenomenon happens as markets rise, albeit less consistently – as markets rise they tend to stagnate and so cap future rises.

Figure 4: Market Gravity: Impact of Market Falls on Market Volatility

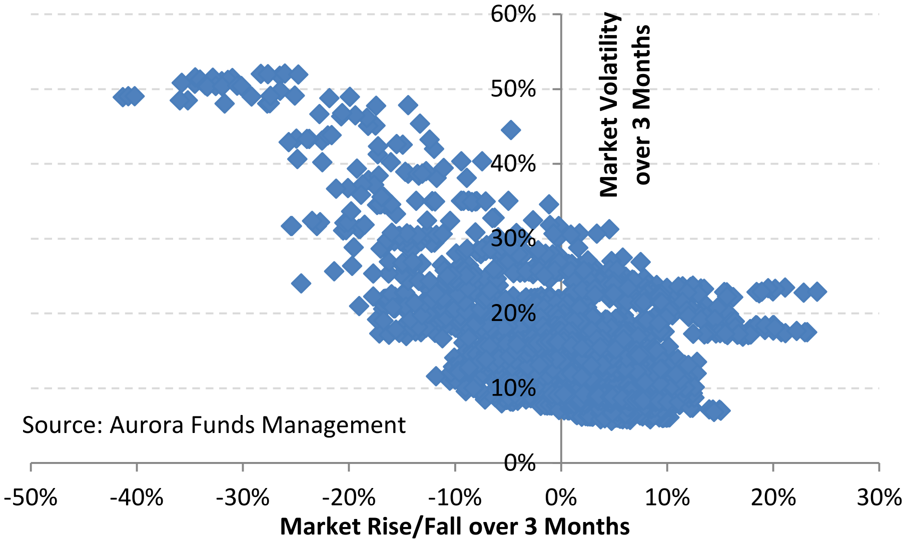
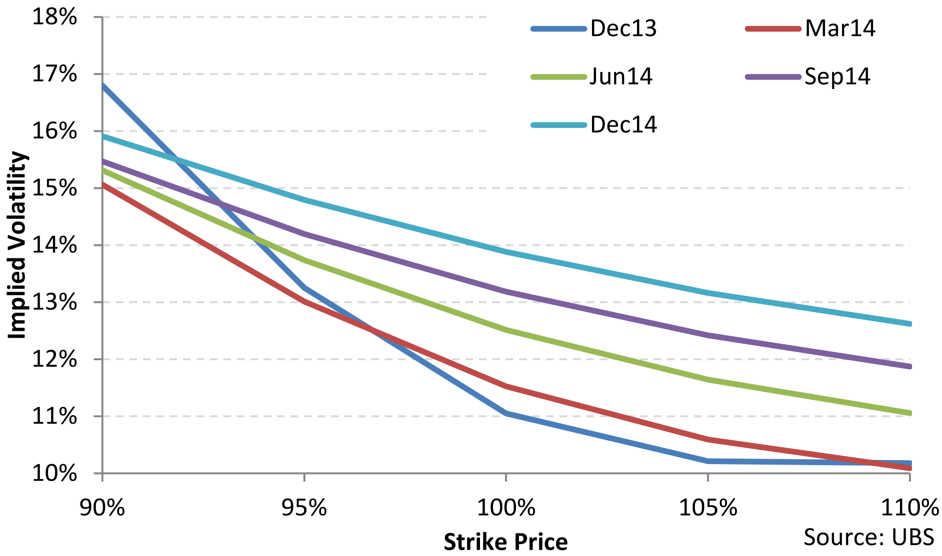


Figure 5 below shows the way the market prices different levels of protection using the concept of implied volatility as a way of comparing like with like. This figure clearly shows the price increases for the more remote the risk on the downside being protected. While supply and demand play a part in explaining this behaviour, the observed pricing is consistent with the actual dynamics of markets – downside protection should cost more.

Figure 5: Implied Volatility Skew of S&P/ASX 200 Options



Note

The Aurora Fortitude Absolute Return Fund (ARSN 145 894 800, APIR Code AFM0005AU) has been issued by Aurora Funds Management Limited.

Disclaimer

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