

Omega Metrics® Expected Shortfall (ES) is a superior measure of downside risk. Targeting an ES level, rather than a volatility level, is a more efficient way of allocating portfolio weights, boosting absolute and risk adjusted return.

**A Revolution In Risk Measurement**

Omega Metrics® Value at Risk and Expected Shortfall technology has completely transformed risk measurement.

Our tail models provide unprecedented accuracy in measurements of downside risk from daily and multi-day price histories.

These risk measures are much more informative than standard deviation and allow much more efficient risk-balancing within portfolios.

As an example, we compare the performance of a state of the art ‘risk parity’ fund with the performance of the simplest possible equity bond portfolio managed with state of the art risk technology to balance the portfolio risks.

AQR Capital Management, with \$150 billion in assets under management, is a leader in applications of quantitative research to investment products. It was one of the first major firms to offer a ‘Risk Parity’ fund—designed to provide diversification by allocations that equalise risk rather than capital invested.

The AQR Risk Parity fund (Ticker: AQRX) invests in stocks, bonds, currencies and commodities to balance risk allocation across the four asset classes. According to the fund’s factsheet, the risk allocation to each position is based on the standard deviation over the prior 60 days.

**More Efficient Allocation Improves Performance**

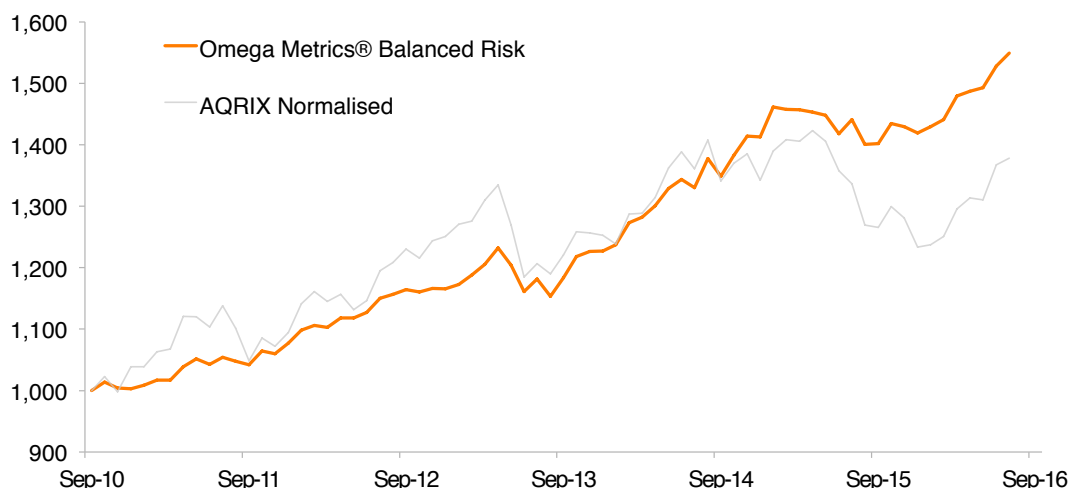
To illustrate the impact of our risk measurement technology, we compare the simplest possible alternative to AQRX. Figure 1 shows the performance of AQRX and a simulated portfolio formed only of the S&P 500 Index and the Vanguard Total Bond Market Index where the allocations to equities and bonds have been made to target equal 99% daily Expected Shortfall of 1.5% in each asset.

This is a significantly lower risk strategy than AQRX, even though it has less diversification, because the risk measurement is accurate.

The Omega Metrics® Balanced Fund has reduced the worst monthly loss, reduced the historic drawdown and reduced the annualised standard deviation while raising the annualised return.

Table 1 2010-2016	Annualised Mean	Annualised Std. Dev.	Correlation to S&P 500 Index	Beta wrt. S&P 500 Index	Maximum Monthly Loss	Maximum Drawdown
Omega Metrics® Balanced Risk	7.8%	5.1%	0.63	0.27	-3.6%	-6.4%
AQR Risk Parity Fund	5.7%	9.0%	0.61	0.48	-6.7%	-13.3%

Figure 1  
2010-2016



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