

## Omega Metrics® Trend Trading Technology

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### *Omega Metrics® Trend Analysis*

Our proprietary trend trading technology rapidly adapts trend following strategies as the market evolves.

The result is extremely efficient trading across asset classes.

The strategies can also be used to provide dynamic hedges that not only prevent losses but generate profits.

## *Omega Metrics® Market Risk Measurement*

*To use VaR and ES to control risk you must be able to model the tail of a distribution using short data series.*

Our proprietary tail models are based on fundamental new discoveries in the mathematics of extreme value probability and statistics.

Omega Metrics® VaR and ES provide unprecedented accuracy in prediction of downside for 1-day, 5-day, 10-day, 15-day and 20-day returns across a wide range of instruments and markets.

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### *Omega Metrics® Trend Trading Technology*

Our trend analysis provides the directional signal, long or short.

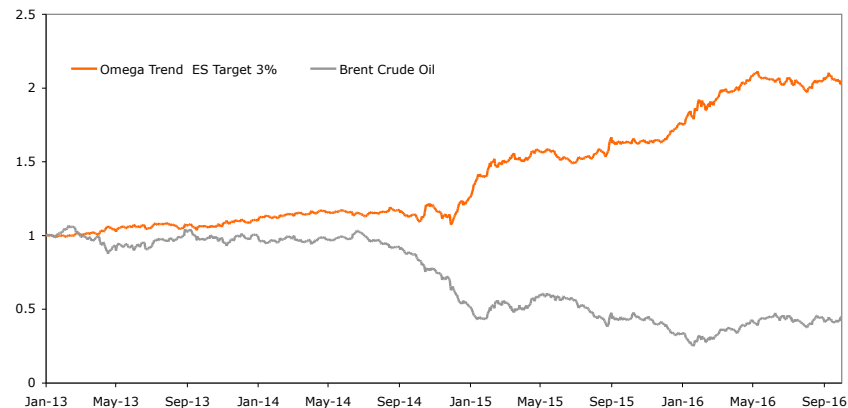
Our market risk measurement is used to size the long and short positions to target a fixed Expected Shortfall level.

Trend trading can be applied to commodities, equities or currency, for example.

## Omega Metrics® Trend Analysis

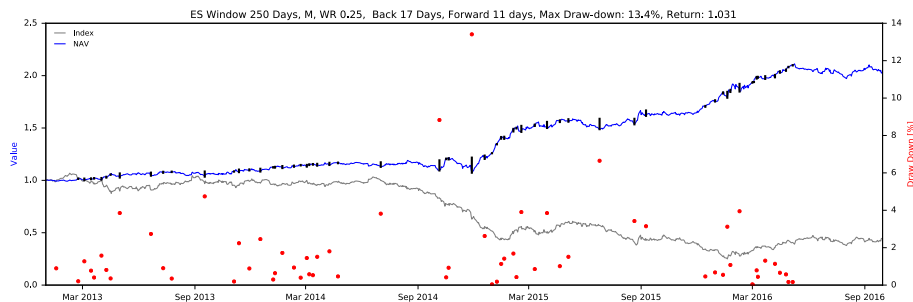
Trend Trading can also be used to hedge a position which is expected to take large losses if there is a major downturn in the US equity market.

## Omega Metrics® Trend Trading–Brent Crude Oil



Brent Crude Trend Trading Jan 2013-Sept 2016. Risk target is 99% daily ES of 3%. The average 99% daily ES in Brent Crude Oil is 7% over this period.

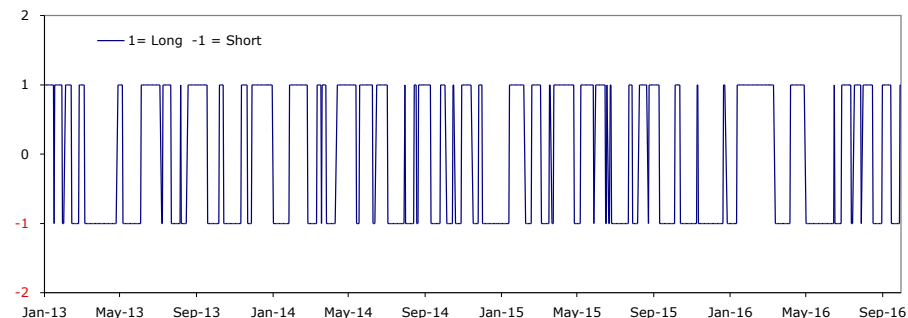
## Omega Metrics® Trend Trading–Brent Crude Oil



Brent Crude Oil Trend Trading Jan 2013-Sept 2016. Risk target 3%. The trend strategy is updated every 11 days. The terminal value was 2.03 for an annualised return of 21.6% with an annualised standard deviation of 15.8%. Maximum drawdown 13.4%. There is no gearing in this strategy.

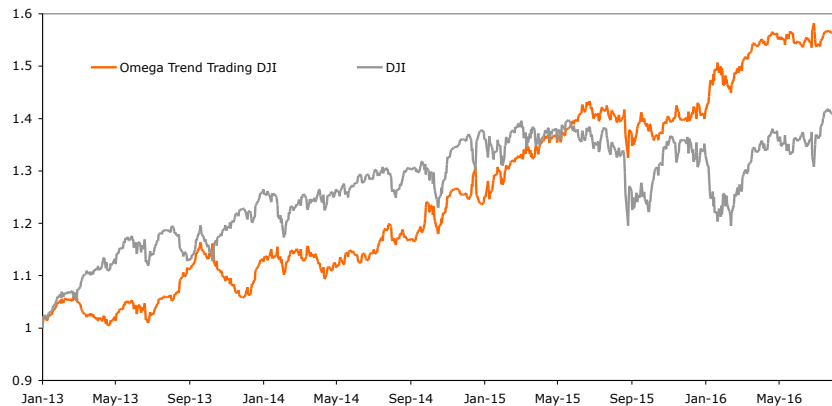
Over the same period Brent Crude Oil had an annualised return of -20.4% with an annualised standard deviation of 30.6% and a maximum drawdown of 76.6%.

## Omega Metrics® Trend Trading–Brent Crude Oil



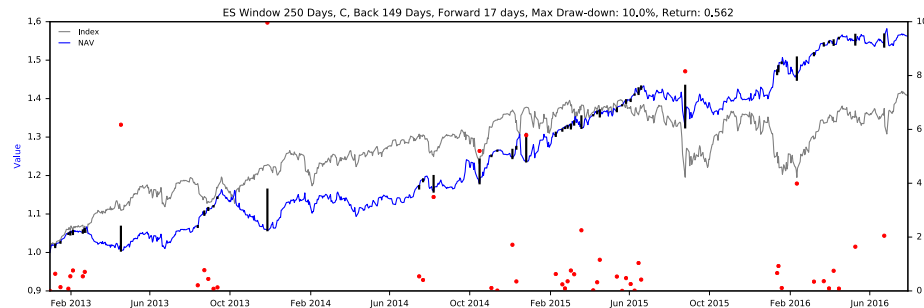
Brent Crude Oil Trend Trading Jan 2013-Sept 2016 was Long 49.4% of the time and Short 50.6% of the time.

### Omega Metrics® Trend Trading – Dow Jones Index



Dow Jones Index Trend Trading Jan 2013-July 2016. Risk target is 99% daily ES of 3%. The average 99% daily ES in the DJI is 4% over this period.

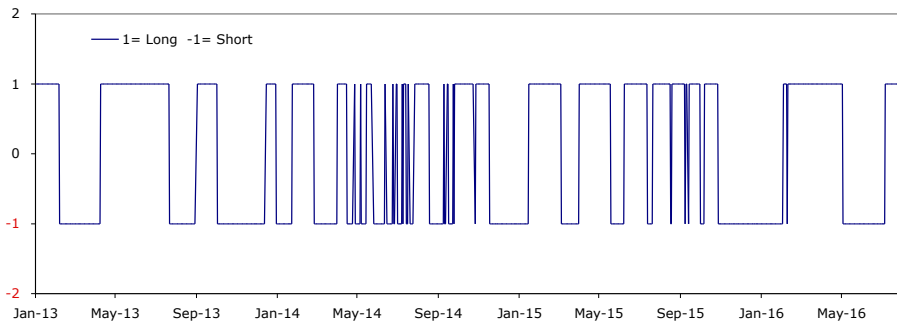
### Omega Metrics® Trend Trading – Dow Jones Index



Dow Jones Index Trend Trading Jan 2013-Jul 2016. Risk target 3%. The trend strategy is updated every 17 days. The terminal value was 1.56. For an annualised return of 13.2% with an annualised standard deviation of 7.8%. Maximum drawdown 10%. There is no gearing in this strategy.

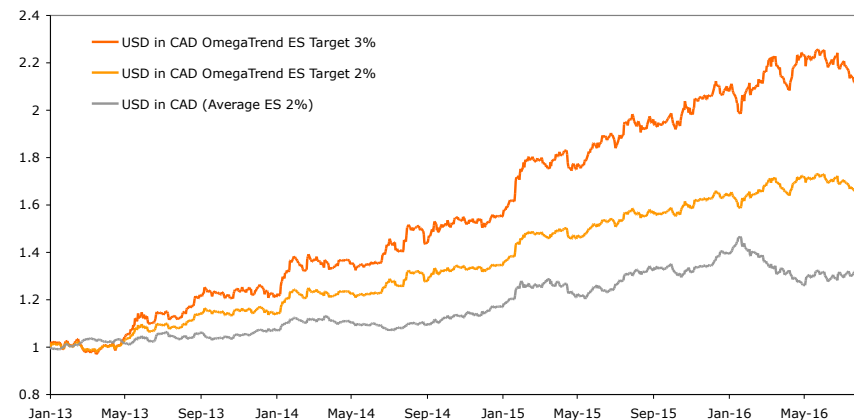
Over the same period the DJI had an annualised return of 10% with an annualised standard deviation of 11% and a maximum drawdown of 14.5%.

### Omega Metrics® Trend Trading – Dow Jones Index



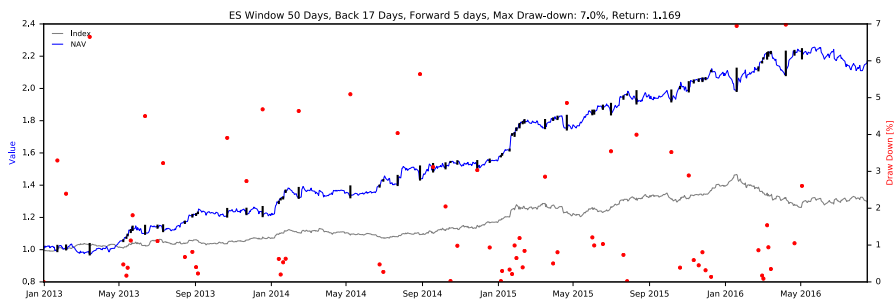
DJI Trend Trading Jan 2013- July 2016 was Long 51.6% of the time and Short 48.4% of the time.

### Omega Metrics® Trend Trading – USD CAD



USD CAD Trend Trading Jan 2013-Aug 2016. Risk target is 99% daily ES. The average 99% daily ES in the USD CAD pair is 2% over this period.

## Omega Metrics® Trend Trading – USD CAD



USD CAD Trend Trading Jan 2013-Aug 2016. Risk target 3%. The trend strategy is updated every 5 days. The terminal value was 2.169, for an annualised return of 23.5% with an annualised standard deviation of 13.5%. Maximum drawdown 7%. The gearing implicit in this strategy is approximately 1.5 to 1.

With no gearing, the annualised return was 15.3% with an annualised standard deviation of 8.9% and a maximum drawdown of 4%. Over the same period the USD in CAD had an annualised return of 7.3% with an annualised standard deviation of 9.2% and a maximum drawdown of 14%.

## Omega Metrics® Trend Trading – USD CAD



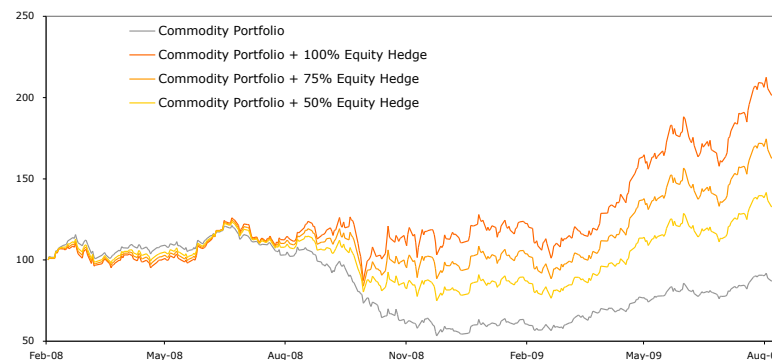
USD CAD Trend Trading Jan 2013-Aug 2016 was Long 52% of the time and Short 48% of the time.

## Omega Metrics® Hedging Commodities Exposure

A reference Commodity Portfolio with equal exposure to Coffee, Copper, Cotton and Oil will have large losses whenever there is a major downturn in the US equity market.

Such an exposure can be hedged profitably by adding a Trend Trading position in US equity designed to offset some or all of the downside risk of the Commodity Portfolio.

## Omega Metrics® Hedging Commodities Exposure 2008-9



Dynamic hedging of a Reference Commodity Portfolio with US Equity Trend Trading, 2008-2009. The hedge Begins on the Downturn Signal in Global Equities, February 2008. It ends with the Upturn Signal in Global Equities in August 2009.

## Omega Metrics® Hedging Commodities Exposure 2008-9

During the hedging period, the Commodity Portfolio had an annualised return of -7.2% with an annualised standard deviation of 34%.

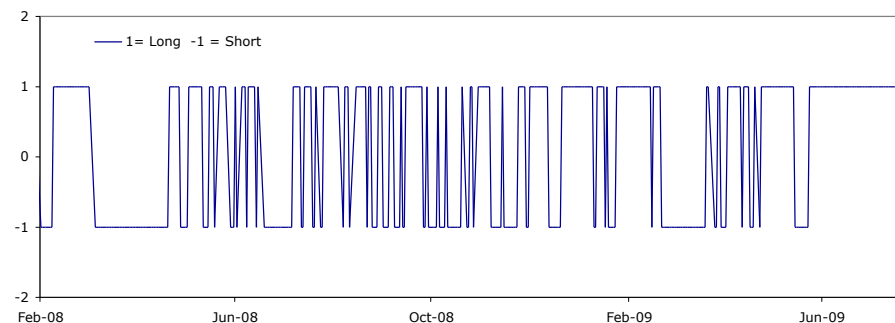
The 100% Equity Hedge transformed this into an annualised return of 53.5% with an annualised standard deviation of 33.5%.

At its lowest point the Commodity Portfolio was down 47%.

The 100% Equity Hedge reduced this loss to only 13%.

The 100% Equity Hedge Portfolio was never below its initial value of 100 after 15 October 2008. By the end of August 2009, the Commodity Portfolio was still 10% below its value at the beginning of the Hedge period.

## Omega Metrics® Hedging Commodities Exposure 2008-9



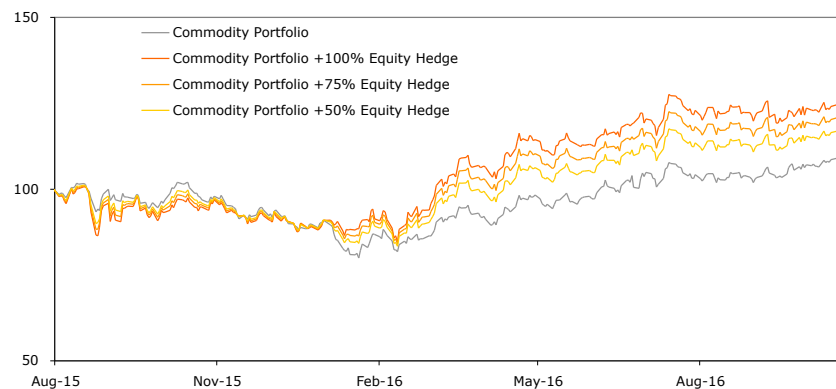
Long and Short Positions in Trend Trading Hedge Feb 2008-Aug 2009. The trade was Long 57% of the time and Short 43% of the time.

The average daily return in the US equity index was minus 5 basis points.

When the Trend Trade was short the average return in the equity index was minus 40 basis points.

When the Trend Trade was long, the average return in the equity index was 21 basis points.

## Omega Metrics® Hedging Commodities Exposure 2015-16



Dynamic hedging of a Reference Commodity Portfolio with US Equity Trend Trading, 2015-2016. The hedge Begins on the Downturn Signal in Global Equities, July 2015.

## Omega Metrics® Hedging Commodities Exposure 2015-16

From 29 July 2015 to 30 September 2016, the Commodity Portfolio has had an annualised return of 6% with an annualised standard deviation of 14%.

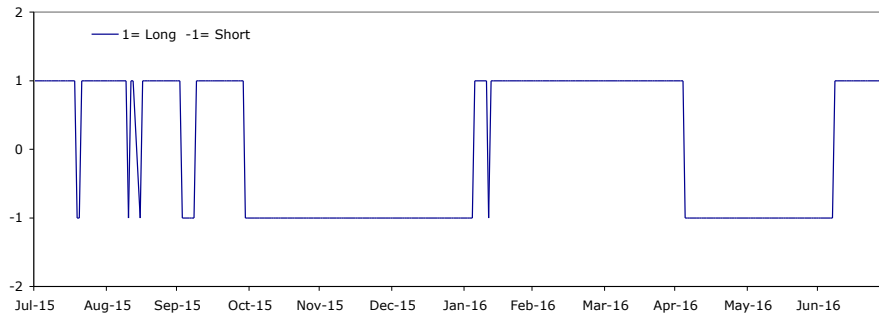
The 100% Equity Hedge has had an annualised return of 19.9% with an annualised standard deviation of 17%.

The 25% Equity Hedge has had an annualised return of 13.1% with an annualised standard deviation of 14.8%.

At its lowest point the Commodity Portfolio was down 20%.

The 100% Equity Hedge reduced this loss to 15%.

## Omega Metrics® Hedging Commodities Exposure 2015-16



Long and Short Positions in Trend Trading Hedge July 2015 - Sept 2016. The trade was Long 57% of the time and Short 43% of the time.

The average daily return in the US equity index was 2 basis points.

When the Trend Trade was short the average return in the equity index was minus 6 basis points.

When the Trend Trade was long, the average return in the equity index was 9 basis points.

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