

## DAILY REPORT

Date	2016-04-22
Time (Eastern)	03:50 PM
Next Refit in	19 days
Last Refit Date	2016-04-21

## MODEL INDICATORS

Variables in Order of Frequency of Inclusion	Value <sup>1</sup>
Proprietary Variable X	-0.34
Variance Risk Premium (VRP)	-0.5
PCA of Price Indicators (PCA.price)	-0.19
Default Spread (DEF) *	-0.24
New Orders/Shipments (NOS)	0.31
Baltic Dry Index (BDI)	2.06
Implied Correlation (IC) *	-0.07
Proprietary Variable Y *	-1.31
Short Interest (SI) *	-0.98
Consumption vs Wealth and Income (CAY)	-0.58
Moving Average (MA)	0

## EQUITY RISK PREMIUM CALCULATION (ANNUALIZED)

	Estimate	Historical <sup>2</sup>
Total Return	1.96%	10.96%
3-Month Treasury Bill Rate	0.23%	4.64%
Equity Risk Premium	1.72%	6.32%

## MODEL CONCLUSIONS

Optimal Long Term Exposure:	-5%
Short Term Adjustment:	-3%
Current Optimal Equity Exposure:	-8%

The long term model looks out at a 6 month time horizon for trend directionality. A short term adjustment has been introduced on 11 November 2015. This model will continue to evolve with additional short term and intermediate term models.

A glossary of terms used in this report appears on the following page.

<sup>1</sup>Bullish indicators are denoted by positive signs and bearish indicators by negative signs. Variables marked with \* are currently not in the model.  
<sup>2</sup>Calculated using S&P 500 and 3-Month Treasury Bill Rate between 1954 and present.

## GLOSSARY

(Terms listed in order of appearance in the Daily Report)

- **Refit** – estimating the relationship between model indicators and future stock returns with the benefit of new data.
- **Proprietary variable** – a model indicator developed internally that is not disclosed to the public.
- **Variance Risk Premium** – the difference between volatility estimates observed in markets and recent realized volatility.
- **PCA** – abbreviation for Principal Components Analysis. A statistical process that takes a large number of variables and produces a smaller number of variables that contain much or most of the information in the original large set of variables.
- **Default Spread** – the difference between the low quality and high quality corporate bond yields.
- **New Orders / Shipments** – new orders for and shipments of manufactured durable goods, as published by the U.S. Department of Commerce.
- **Baltic Dry Index (BDI)** – an assessment of the price of moving raw materials by sea, published daily in London by the Baltic Exchange.
- **Implied Correlation** – average pairwise correlation inferred from the relationship between the implied volatility of an index of stocks and the individual implied volatilities of the stocks that make up the index.
- **Implied Volatility** – an estimate of the future volatility of a stock based on prices of options on the stock.
- **Short Interest** – a measure of aggregate stock market short interest based on a weighted sum of short interest of individual stocks. A market participant sells a stock short by borrowing it from a broker and selling it, hoping to buy it back at a lower price.
- **Consumption versus Wealth and Income (CAY)** – deviations from the equilibrium relationship among these three variables can predict future stock returns, according to a 2001 paper by Lettau and Ludvigson. Consumption and income are published by the U.S. Bureau of Economic Analysis; wealth is published by the Federal Reserve.
- **Equity Risk Premium** – the excess return that investing in the stock market provides over the return on a risk-free asset like U.S. Treasury bills. We annualize this figure by doubling our six-month equity risk premium forecast.