

# The devil is in the details

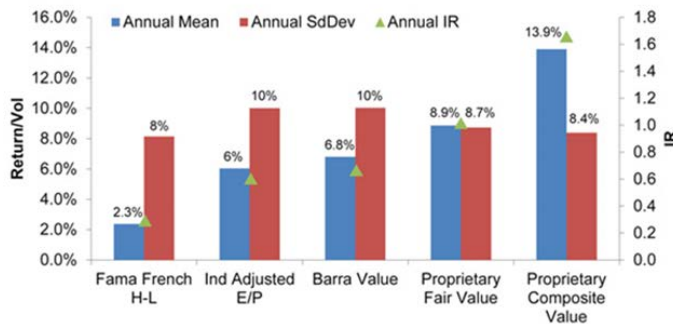
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Conventional thinking is that all quantitative managers are the same. We analyze the same data, read the same academic research, and use the same concepts to identify attractive stocks. But the unconventional view is that the devil is in the details. How one adjusts and transforms that common dataset makes a big difference in the returns and risk profile of a particular model, including differentiating between alpha and what has become known as smart beta.

Value is the foundation on which many quantitative equity investment strategies are built. It started fundamentally with Graham and Dodd in the 1930's and exploded quantitatively in the 1980's and 1990's as the data and computing power improved. Buying cheap stocks based on a particular metric such as earnings, asset value, or cash flow or even a more sophisticated value model may all seem similar to the uninitiated. But most value models have certain persistent biases. Cheap stocks usually have some warts; they tend to be lower growth, more levered, and riskier. As an investor, when you want to buy value as a concept, you are not trying to gain exposure to growth, leverage, or risk. If you can eliminate those biases, you can design a model that gets to the core of the concept without some of the toxic baggage. Yes, quantitative investing is very scientific, but there is some art involved in how you construct a particular signal.

Let's take a look at how detailed adjustments can affect the efficacy of value models that most people would think would be highly correlated. The chart below shows the returns of five U.S. value models in increasing levels of sophistication, over the last dozen years.

**Value Model Power<sup>1</sup>** (Jan 2002 - Dec 2014)



Firstly, the Fama-French High minus Low portfolio<sup>1</sup>. The Fama French studies are the basis of the value orientation of many quantitative managers, but focuses solely on book to price. That has a 2.3% annual return with 8% volatility.

Then we have the Industry adjusted Earnings to Price model<sup>2</sup>. Selecting the cheapest companies based on earnings to price compared to industry peers. That has a 6% return with 10% volatility.

Now let's look at the Barra Value<sup>3</sup> – calculated by MSCI Barra that uses multiple indicators to measure cheapness such as sales, assets, and operating income. It has a 6.8% return and 10% volatility.

Our Proprietary Fair Value Model<sup>4</sup> – uses industry relative valuation, with adjustments for growth, quality, and a stock's risk. That has an 8.9% return, and 8.7% volatility.

As you can see, the returns become progressively better as the value models become more evolved. Additionally, the volatility of the models decreases as the signals are neutralized to some of their inherent biases. These effects are not just manifested in value models. We observe them in models like Momentum and Quality as well. The devil is not just in the details of how one constructs individual models, it is also relevant in how you combine the models into an overall signal to construct your portfolio.

Smart beta has gained a lot of attention in the recent years. Proponents of factor-based smart beta portfolios advocate that you gain exposure to these academically proven concepts like Value and Momentum in transparent, rules-based portfolios. However these generic factors can be cyclical, subject to periods of underperformance, and contain unwanted biases. Making detailed adjustments can help smooth out some of this volatility and perhaps make your smart beta, alpha.

A video version of this paper is available at:

<https://www.man.com/US/unconventionalviews-2016-furdak>



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Rob was named Chief Investment Officer of Man Numeric ('Numeric') in 2007. He joined Numeric in 1997 as Director of International Strategies and has designed and launched Numeric's Japanese, European and World Strategies. In addition to his CIO role, Rob is a Portfolio Manager for the World Market Neutral strategy. Prior to joining Numeric, Rob was a Principal in the Active International Group at State Street Global Advisors. During his eight years there, Rob performed quantitative research on country, currency and stock-selection strategies in the international markets and was the principal architect of State Street's active emerging markets investment process. Previously, Rob worked at Harvard Management Company. Rob received a B.B.A. in Finance from the University of Michigan and earned an M.B.A. in Finance at the University of Chicago. Rob is a CFA charterholder.

1. Fama-French Factor – HML (High minus Low) is the average return on the two value portfolios minus the average return on the two growth portfolios. From Ken French Website: [http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data\\_Library/f-f\\_factors.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/f-f_factors.html).  
 2. Industry-adjusted Earnings/Price – Normalized earnings to price on an industry-adjusted basis. Quintile spreads on the Numeric US universe (~3,000 stocks).  
 3. Barra Value – Quintile spreads of G2 Value on the Numeric US universe (~3,000 stocks). Source: MSCI Barra.  
 4. Proprietary Fair Value Model – Quintile spreads on the Numeric US universe (~3,000 stocks).  
 5. Proprietary Composite Value – Quintile spreads on the Numeric US universe (~3,000 stocks).

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