

# Part 1 - The Genesis of Smart Beta Investing

September 2013

Rapidly rising allocations indicate that investors view Smart Beta strategies as valuable additions to their existing asset mix. This short article is the first in a series that explains what Smart Beta means and how it can help investors achieve their investment objectives. In the course of writing these pieces, I will also touch upon many of the lively debates surrounding this new investment category.

It is important to acknowledge at the outset that I am an “interested party” as an officer of Research Affiliates, which provides the RAFI™ suite of equity, low volatility, and bond indices. It would be unwise not to bear my affiliation in mind when reading what I have to say about Smart Beta.

For what it is worth, I see myself as a researcher providing a conceptual framework for understanding the financial theory and empirical evidence related to Smart Beta investing. In addition, my daily interaction with institutional clients and consultants as the Chief Investment Officer of an asset manager positions me to offer a useful perspective on the role of Smart Beta in the investment management ecosystem.

For context, there is now an estimated \$140 to \$160 billion of assets invested in Smart Beta strategies. Major index providers offer a variety of Smart Beta indices, and prominent fund providers have created products based on them. Leading investment consultants have endorsed Smart Beta investing, and some large, influential institutions have committed funds to Smart Beta strategies. (A quick Google search will turn up the names of these organizations.) The wide availability of investment vehicles indicates that the industry views Smart Beta not as a fad but rather as a core component of an investment program.

**An estimated \$140 to \$160 billion of assets invested in Smart Beta strategies.**

The Smart Beta approach to passive investing may be most readily understood as an evolutionary development in index design. Traditional indices characterized by capitalization weighting are based upon the Capital Asset Pricing Model (CAPM). This model recognizes that all investors in a given market are exposed to systematic risk. (Beta is an estimate of the extent to which a portfolio will participate in broad



AUTHORS

Jason Hsu

market movements.) For investors who disbelieve that active managers can persistently capture “free lunch” returns (alpha), the cap-weighted market portfolio is the only sensible passive portfolio.

The last 40 years have seen the CAPM rejected on both theoretical and empirical grounds. While CAPM is still taught in business schools as a valuable conceptual tool, the state of the art in return modeling is the multi-factor framework based on the Arbitrage Pricing Model (APT). Financial economists now believe that there are multiple sources of equity premia, some risk-based and some behavior-based. Empirically, the premiums, which appear to be robust over time and across countries and economically significant, are associated with the market, value, small cap, momentum and low volatility factors.

In the multi-factor APT world, investors can earn the equity premium by loading on risk exposures and by exploiting persistent behavioral anomalies. Operationally, this often means starting with the cap-weighted market portfolio and then tilting toward cheaper stocks, smaller cap stocks, stocks with strong recent 12-month price performance, and low volatility stocks. These are strategies employed by most quantitative asset managers.

The development of fundamentals-weighted indices represented a milestone in index-based investing. This departure from cap-weighted indexing broke the connection between price and index portfolio weights in an intuitive way that results naturally in a dynamic value tilt.

Smart Beta represents a further evolutionary step in index-based investing. Today, Smart Beta indices support investing in transparent, cost-efficient, easy-to-implement portfolios which encapsulate exposures across the full set of standard equity premia. Whereas cap-weighted investing relied upon a single premium source, Smart Beta indices incorporate diversified exposures to various sources of equity returns. Smart Beta is an evolutionary advance in beta investment strategy just as multi-factor APT is an improvement in financial theory.

Since Smart Betas belong to the evolutionary lineage of index-based investing, they share many common characteristics with traditional indexing. Large institutional investors have used Smart Beta strategies to complement and even replace cap-weighting in their passive core. As part of their passive investment program, they expect Smart Beta portfolios to be transparent; based upon simple mechanical rules; have low turnover, high investment capacity and low implementation costs; and be broadly representative of the underlying economy. With regard to that last requirement, we observe that, depending upon the portfolio construction methodology employed, the same factor exposure can result in a thoroughly different economic exposure.

The requirements for low turnover, high capacity, and cut-rate implementation cost do not constitute a low hurdle. While there is a general consensus on the standard sources of equity premia, there is sharp disagreement on approaches to constructing Smart Beta indices that capture these sources of excess return while preserving the desirable characteristics of traditional indexing.

Investors thinking about incorporating Smart Beta strategies into their passive core (or, for that matter, into their traditional active mix) should focus on how to combine cap-weighted indices with Smart Betas to create the desired mixture of equity premium exposures. Some of the equity premium sources, such as low volatility and value, are more negatively correlated with the business cycle, while others, such as market, are highly positively correlated. Portfolios that target some of the equity premium sources, such as low volatility, value, and momentum, typically have very attractive Sharpe ratios. Similarly, strategies that favor exposure to the market factor will tend to have lower tracking error relative to traditional cap-weighted benchmarks. We will return to implementation issues and introduce many other concepts in future articles in this series.

The material contained in this document is for informational purposes only. It is not intended as an offer or a solicitation for the purchase and/or sale of any security, derivative, commodity, or financial instrument, nor is it advice or a recommendation to enter into any transaction. Research results relate only to a hypothetical model of past performance (i.e., a simulation) and not to actual results or historical data of any asset management product. Hypothetical investor accounts depicted are not representative of actual client accounts. No allowance has been made for trading costs or management fees, which would reduce investment performance. Actual investment results will differ. Simulated data may have under-or-over compensated for the impact, if any, of certain market factors. Simulated returns may not reflect the impact that material economic and market factors might have had on the advisor's decision-making if the advisor were actually managing clients' money. Simulated data is subject to the fact that it is designed with the benefit of hindsight. Simulated returns carry the risk that actual performance is not as depicted due to inaccurate predictive modeling. Simulated returns cannot predict how an investment strategy will perform in the future. Simulated returns should not be considered indicative of the skill of the advisor. Investors may experience loss of all or some of their investment. Index returns represent backtested performance based on rules used in the creation of the index, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are not managed investment products and cannot be invested in directly. This material is based on information that is considered to be reliable, but Research Affiliates, LLC ("RA") and its related entities (collectively "Research Affiliates") make this information available on an "as is" basis without a duty to update, make warranties, express or implied, regarding the accuracy of the information contained herein. Research Affiliates is not responsible for any errors or omissions or for results obtained from the use of this information.

Nothing contained in this material is intended to constitute legal, tax, securities, financial or investment advice, nor an opinion regarding the appropriateness of any investment. The information contained in this material should not be acted upon without obtaining advice from a licensed professional. RA is an investment adviser registered under the Investment Advisors Act of 1940 with the U.S. Securities and Exchange Commission (SEC). Our registration as an investment adviser does not imply a certain level of skill or training. RA is not a broker-dealer and does not effect transactions in securities.

Investors should be aware of the risks associated with data sources and quantitative processes used to create the content contained herein or the investment management process. Errors may exist in data acquired from third party vendors, the construction or coding of indices or model portfolios, and the construction of the spreadsheets, results or information provided. Research Affiliates takes reasonable steps to eliminate or mitigate errors and to identify data and process errors, so as to minimize the potential impact of such errors; however, Research Affiliates cannot guarantee that such errors will not occur. Use of this material is conditioned upon, and evidence of, the user's full release of Research Affiliates from any liability or responsibility for any damages that may result from any errors herein.

The trademarks Fundamental Index™, RAFI™, Research Affiliates Equity™, RAE™, and the Research Affiliates™ trademark and corporate name and all related logos are the exclusive intellectual property of RA and in some cases are registered trademarks in the U.S. and other countries. Various features of the Fundamental Index methodology, including an accounting data-based non-capitalization data processing system and method for creating and weighting an index of securities, are protected by various patents of RA. (See applicable US Patents, Patent Publications and protected trademarks located at <https://www.researchaffiliates.com/legal/disclosures#patent-trademarks-and-copyrights>, which are fully incorporated herein.) Any use of these trademarks, logos, or patented methodologies without the prior written permission of RA is expressly prohibited. RA reserves the right to take any and all necessary action to preserve all of its rights, title, and interest in and to these marks and patents.

The views and opinions expressed are those of the author and not necessarily those of RA. The opinions are subject to change without notice.

©2022 Research Affiliates, LLC. All rights reserved. Duplication or dissemination prohibited without prior written permission.

## AMERICAS

### Research Affiliates, LLC

620 Newport Center Drive, Suite 900  
Newport Beach, California 92660  
USA

+1.949.325.8700  
[info@researchaffiliates.com](mailto:info@researchaffiliates.com)

## EUROPE

### Research Affiliates Global Advisors (Europe) Ltd

16 Berkeley Street  
London W1J 8DZ  
United Kingdom

+44 (0) 203 929 9880  
[uk@researchaffiliates.com](mailto:uk@researchaffiliates.com)