SYMMETRY®

THE CONUNDRUM OF SMART BETA ETFs

Part 1 in a Series

EXECUTIVE SUMMARY

- Recent ETF closures highlight an additional complexity to the vehicle's landscape
- This compounds growing opacity as many new Smart Beta and Factor ETF launches come from providers traditionally associated with actively managed mutual funds
- Disagreement over which factors to include, and how to measure them, causes confusion in the multi-factor space
- Symmetry strives to demystify factor investing and seeks to avoid funds that could potentially close in the future

Recently, we have seen a number of ETF closings. This brings 2016 ETF closings to approximately $660 million (as of June 30), following on $1.4 billion in 2015 (not including matured fixed income portfolios), and $886 million in 2014.[1] Many of these closures are from well-known providers that investors may have felt comfortable with due to their size and/or reputation. Furthermore, these closings span multiple investment purposes – from market capitalization weighted ETFs to "Smart Beta" ETFs, which include things like dividends and "factor" funds. Why is this important? Let's think about what happens when an ETF closes. Investors and/or their advisors researched that fund and decided it was the right investment choice. Now the investors' funds are returned and they have to go find a new ETF to replace it, if one exists.

The reason we address this is because Smart Beta is a rapid growth area of the ETF universe, which means many of the funds being offered are new and haven't yet gained critical mass. We believe one of the strengths of Symmetry Partners is our ability to understand what each fund is, as well as its viability to continue.

In this brief note, we start with a definition of Smart Beta and follow with how factors fit within that context. We then move to a discussion of definitions of factors (and their diversity), how complex the space has become, and some of the pitfalls of selecting certain investments (liquidity, AUM, closures, etc.).

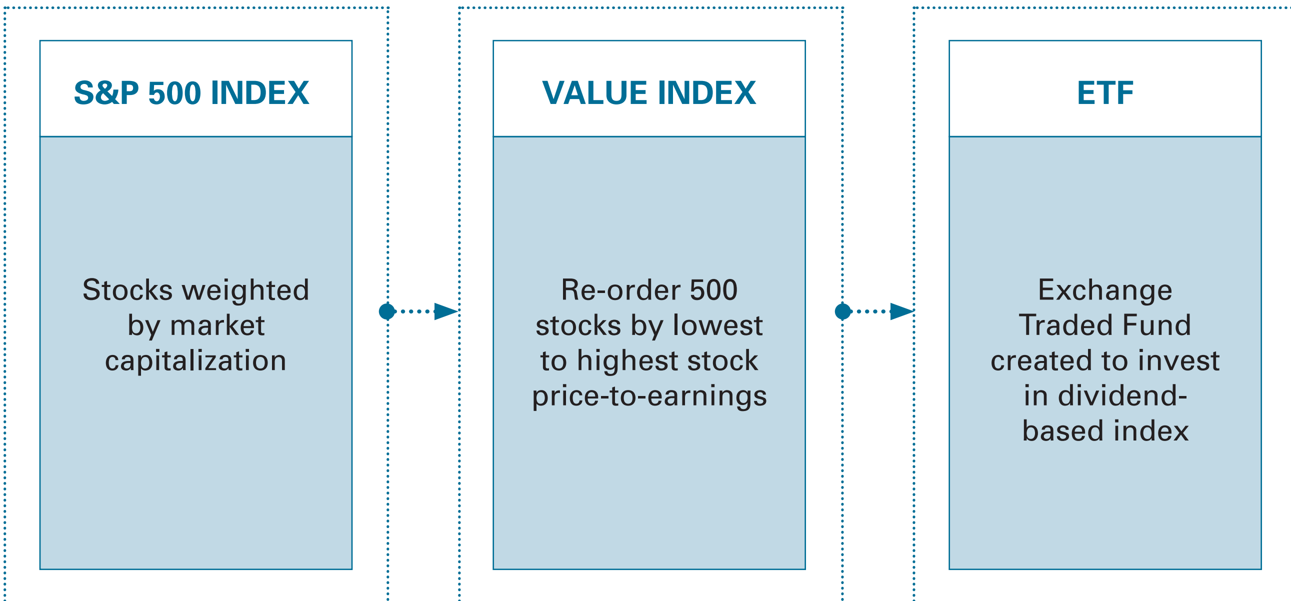
UNDERSTANDING SMART BETA AND FACTORS

So what is Smart Beta? Where did that name come from? First, what is beta besides a Greek letter? Beta, in investment lingo, refers to "market" exposure. While definitions of the market can vary, it traditionally refers to a market capitalization weighted index such as the S&P 500 or the Dow Jones Industrial Average (the former being most popular). So if you own an S&P 500 ETF, you own beta or the market. As you might expect, Smart Beta attempts to do something better (or smarter) than just owning companies according to a market capitalization weighting. For example, you might want to allocate more of your funds to companies with higher dividend yields*. Or higher dividend growth rates*. Or cheaper valuations. Or stronger financial position. Historically, to find such companies, investors had to buy high-fee, actively managed mutual funds.

*Symmetry Partners does not currently seek exposure to this factor.

[1] Source: www.etf.com, www.etfdb.com

Now, through the use of technology, one can simply take an index like the S&P 500, screen all of the price-to-earnings ratios of those 500 companies, re-rank them from lowest to highest, and create a new index where the greatest value (lowest price-to-earnings) companies have the highest weights in the index. That's Smart Beta – an index re-created in order to achieve some other purpose than the original market cap weighted one; generally to (1) generate income, (2) reduce risk, or (3) generate greater returns than the original market cap-weighted index. Finally, an exchange traded fund is created to track (or invest in the stocks of) the new index.

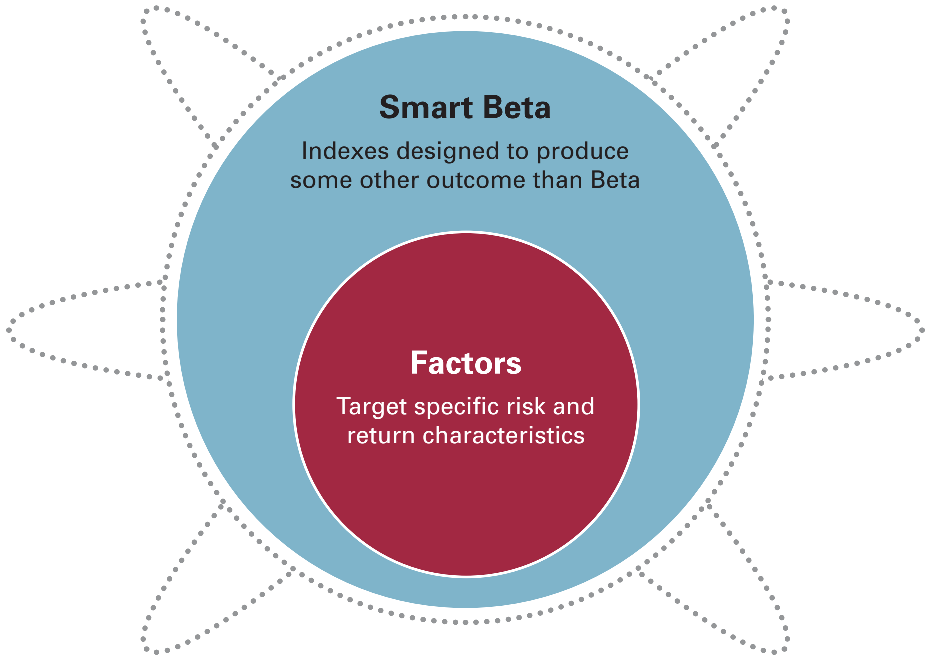


At Symmetry Partners, we believe strongly in, and talk frequently about, factors. This raises the questions: what are factors and what do they have to do with Smart Beta? Webster's dictionary defines a factor as "something that helps produce or influence a result; one of the things that cause something to happen." So, in investing, it is something that produces or influences an investment result. The results of factors historically have been risk reduction, return improvement, or both.** While Smart Beta can follow an index for any result, factors specifically target long-term drivers of risk and return. So factors are just a sub-set, based on academic research and real-life results, of Smart Beta. That is, one can create a Smart Beta index based on factors like Value (cheap stocks) or Quality (strong companies), among others, that may outperform market capitalization weighted indexes over time and invest in them through an ETF.

**Symmetry Partners' investment approach seeks enhanced returns by overweighting assets that exhibit characteristics that tend to be in accordance with one or more "factors" identified in academic research as historically associated with higher returns. Please be advised that adding these factors may not ensure increased return over a market-weighted investment and may lead to underperformance relative to the benchmark over the investor's time horizon.

For additional information about Symmetry Partners, LLC, factor investing, index definitions, and exchange trade funds ("ETFs"), please see disclosure in back labeled Important Information.

SMART BETA AND FACTORS: A MULTITUDE OF APPROACHES



Why have Smart Beta and factors become such a source of complexity, and what does this have to do with recent fund closures? As far as Smart Beta goes, complexity comes from two places: (1) lack of agreement on what to call it, and what to include in it and (2) more marketing than education. At least with regard to the first, there is some improvement as more and more capitulate on the term. However, there are some large players in the industry that continue with terms like Strategic Beta and define it very broadly. When it comes to factors, we believe there are three main sources of confusion: (1) disagreement over whether or not they work, (2) varying opinions on which factors work, and (3) varying opinions on how to define each factor. To frame this discussion and the table below, it is important to know that there are many researched factors in equities (we'll reserve discussion of other asset classes for another time), but very few with research/empirical backing. Below is a subset that are most frequently used in Smart Beta/Factor ETFs:

- **Value:** cheap stocks tend to do better than expensive ones over longer time periods
- **Quality:** strong company stocks tend to do better than those of weak company stocks
- **Momentum:** stocks that have done well in the recent past will typically continue to do so in the near term
- **Size:** Over time, smaller company stocks tend to do better than those of large company stocks
- **Volatility:** low volatility stocks tend to outperform high volatility stocks over time
- **Yield*:** stocks with attractive, sustainable dividend payments tend to outperform those without

*Symmetry Partners does not currently seek exposure to this factor. Dividend yield investing may not be suitable for all investors. You should never invest solely on the basis of dividends. Higher dividends are not indicative of the quality of an investment. Additionally, higher dividends will result in lower retained earnings. As dividend yields may not be sustainable, income investors must be sure to analyze an investment carefully and their ability to sustain market fluctuations. Investments paying dividends do not carry lower risk. Dividend payments are not guaranteed by the issuing entity. The issuer can discontinue the dividend at any time. Dividend payments reduce the price of the security by the amount of the paid dividend.

With this in mind, this table will help illustrate how this can get confusing for investors. We look at three hypothetical managers of multi-factor ETFs:

	Manager A	Manager B	Manager C
Value	Stock Price/Book Value	Stock Price/Book Value Stock Price/Earnings	Book Value/Stock Price
Quality	Return on Equity	Return on Equity Earnings Stability	
Momentum		12-month excess return	
Size	Inverse of market capitalization		Inverse of market capitalization
Volatility	Inverse of return volatility	Inverse of volatility and stock co-movement	
Yield*		12-month yield	12-month yield 5-year dividend growth

This table illustrates that managers often disagree on which factors to use. Should a portfolio include Quality? Should it exclude Yield*? Furthermore, thanks to technology, one can pick any metric to define a factor and easily screen for it. Is it enough to say Quality can be measured as the profitability of the business? Or should there also be some element of stability to those profits? There are diverse opinions on these matters and a growing swath of ETFs being launched to implement those opinions. This brings us back to the impetus for this paper. More and more Smart Beta and factor ETFs are being launched regularly. Many of these are from non-traditional ETF firms and they all represent different factor exposures. Perhaps more importantly, the fact that they are launched recently means that they have not yet gathered critical mass and therefore have a risk of closing if they don't do so within a few years.

CONCLUSION

Although we at Symmetry Partners have our own opinions, we do not profess to say who is right and wrong about factors and what metrics to use to define them. However, we do believe in factors and have a long history of investing in them. Our portfolios are developed through thoughtful academic research and evaluation of live empirical data. As we construct ETF-based portfolios, we will continue to deliver exposure to factors that have the potential to produce superior returns (absolute and risk-adjusted) over time, but we will also evaluate the viability of the funds in which we invest. Of course we can't guarantee none of our underlying funds will ever close, but we will look at things like life of fund, assets under management, fees, daily trading volume, and other important data to ensure we have not only the right factors, but also efficient, viable vehicles to deliver them.

*Symmetry Partners does not currently seek exposure to this factor.

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Important Information

Factors are sources of expected returns. Symmetry searches for factors that have been shown historically to deliver higher returns over time. Symmetry Partners' investment approach seeks enhanced returns by overweighting assets that exhibit characteristics that tend to be in accordance with one or more "factors" identified in academic research as historically associated with higher returns. Please be advised that adding these factors may not ensure increased return over a market weighted investment and may lead to underperformance relative to the benchmark over the investor's time horizon. The factors Symmetry seeks to capture may change over time at its discretion. Currently, the major factors in equity markets used by Symmetry and some associated academic research are: the market risk premium (Sharpe, William F. "Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk." The Journal of Finance, Vol. 19, No. 3 (Sept. 1964), 425-442.), value (Fama, Eugene and Ken French. "Common risk factors in the returns on stocks and bonds." Journal of Financial Economics, 33, (1993), 3-56.), small (Banz, Rolf W. "The Relationship Between Return and Market Value of Common Stocks." Journal of Financial Economics, 9 (1981), 3-18.), profitability (Novy-Marx, Robert. "The Other Side of Value: The Gross Profitability Premium." Journal of Financial Economics, 108(1), (2013), 1-28.), quality (Asness, Clifford S.; Andrea Frazzini; and Lasse H. Pedersen. "Quality Minus Junk." Working Paper.), momentum (Jegadeesh,Narasimhan and Sheridan Titman. "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency." The Journal of Finance, Vol. 48, No. 1, (March 1993), 65-91), and minimum volatility (Ang, Andrew, Robert J. Hodrick, Yuhang Xing and Xiaoyan Zhang. "The Cross-Section of Volatility and Expected Returns." The Journal of Finance, Vol. 61, No. 1 (Feb. 2006), pp. 259-299.) On the bond side, Symmetry primarily seeks to capture maturity and credit risk premiums (Ilmanen, Antti. Expected Returns: An Investor's Guide to Harvesting Market Rewards. WileyFinance, 2011, p157-158 and 183-185.). All data is from sources believed to be reliable but cannot be guaranteed or warranted.

ETFs do not sell individual shares directly to investors and only issue their shares in large blocks. Exchange traded funds are subject to risks similar to those of stocks. Investment returns will fluctuate and are subject to market volatility, so that an investor's shares, when redeemed or sold, may be worth more or less than their original cost. ETF shares are bought and sold at market price (not NAV) and are not individually redeemed from the fund. Brokerage commissions will reduce returns. Exchange-traded funds tend to distribute fewer capital gains than traditional open-end mutual funds due to the in-kind redemption process, which allows the ETF to swap out low cost-basis securities. Be advised that this process defers taxes, but does not eliminate them. Investors will owe capital gains taxes on gains made in their own ETF shares.

DIFFERENT TYPES OF INVESTMENTS AND/OR INVESTMENT STRATEGIES INVOLVE VARYING LEVELS OF RISK, AND THERE CAN BE NO ASSURANCE THAT ANY SPECIFIC INVESTMENT OR INVESTMENT STRATEGY WILL BE EITHER SUITABLE OR PROFITABLE FOR YOUR PORTFOLIO. Allocation models are not intended to represent investment advice that is appropriate for all investors. Each investor must take into account his/her financial resources, investment goals, risk tolerance, investing time horizon, tax situation and other relevant factors to determine if such portfolio is suitable. Model composition is subject to change. You and your advisor should carefully consider your suitability depending on your financial situation. As with any investment there may be tax consequences. The holdings comprising the strategies and the allocations to those holdings have changed over time and may change in the future. Symmetry tax-managed portfolios are designed with the goal of increasing the portfolio's overall tax efficiency. Changes to portfolio holdings which comprise the portfolio may have tax consequences. If you sell assets in a taxable account, you may have to pay tax on any gain. While Symmetry seeks to mitigate tax exposure when possible, it is likely that investors will incur a taxable event while being invested in the portfolio.

INVESTORS SHOULD CONSIDER THE INVESTMENT OBJECTIVES, RISKS, AND CHARGES AND EXPENSES OF THE INVESTMENT COMPANY CAREFULLY BEFORE INVESTING. THE PROSPECTUS CONTAINS THIS AND OTHER INFORMATION ABOUT THE INVESTMENT COMPANY. PROSPECTUSES MAY BE OBTAINED FROM YOUR ADVISOR OR FROM THE VANGUARD GROUP WWW.VANGUARD.COM, SPDRS WWW.SPDRS.COM AND ISHARES WWW.ISHARES.COM. FOR THE MOST RECENT MONTH END PERFORMANCE INFORMATION, PLEASE CALL THE VANGUARD GROUP AT 877-662-7447, SPDRS AT 866-787-2257 AND ISHARES AT 800-474-2737. PLEASE READ THE PROSPECTUS CAREFULLY BEFORE INVESTING OR SENDING MONEY.

Index Disclosure and Definitions

All indexes have certain limitations. Investors cannot invest directly in an index. Indexes have no fees. Historical performance results for investment indexes generally do not reflect the deduction of transaction and/or custodial charges or the deduction of an investment management fee, the incurrence of which would have the effect of decreasing historical performance. Actual performance for client accounts may differ materially from the index portfolios.

S&P 500 Index represents the 500 leading U.S. companies, approximately 80% of the total U.S. market capitalization.

Dow Jones Industrial Average is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange (NYSE) and the NASDAQ.