MORNINGSTAR®

A Global Guide to Strategic-Beta Exchange-Traded Products

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Executive Summary

- "Smart beta" is an unfortunate name, one that has positive connotations that may not always be warranted.
- What Morningstar deems "strategic beta" is a broad and rapidly growing category of benchmarks and the investment products that track it.
- As of June 30, 2014, there were 673 strategic-beta exchange-traded products, or ETPs, with collective assets under management of approximately $396 billion worldwide.[1]
- Strategic-beta ETPs are making inroads against their peers that are benchmarked to more-traditional indexes. While their market share has been increasing in every region we have examined, they have made greater inroads in large, more mature markets than they have in smaller, less developed ones. For example, strategic-beta ETPs accounted for 19% of U.S. ETP assets, but just 1.5% of ETP assets in the Asia-Pacific region.
- The common thread among strategic-beta investment products is that they seek to either improve their return profile or alter their risk profile relative to more-traditional market benchmarks.
- As new products have continued to roll off asset managers' assembly lines, their sales and marketing departments have been working tirelessly to position these new models in an increasingly competitive field.
- The result has been a ratcheting up of the level of complexity of the indexes that underlie these benchmark-based investment products and, in some cases, a growing disparity between how they are pitched by their sponsors and the actual investment results they produce.
- The need to define, measure, and police this space has grown and will continue to grow with time.
- At Morningstar, we are positioning ourselves to meet these needs, with the goal of helping investors make better-informed investment decisions.
- This report is split into three "acts." In the first act, we examine the global strategic-beta ETP landscape, looking at trends in asset growth, asset flows, product development, and fees on a region-by-region basis. In the second act, we discuss the "origins" of strategic beta, looking at the various types of risk that these strategies look to harness and how they manifest themselves in an investment context. Finally, in the third act, we provide a practical guide to analyzing strategic-beta ETPs through a number of different lenses that will help investors make more-informed decisions when considering these products.

1. All monetary figures throughout this report are expressed in U.S. dollars unless otherwise stated.

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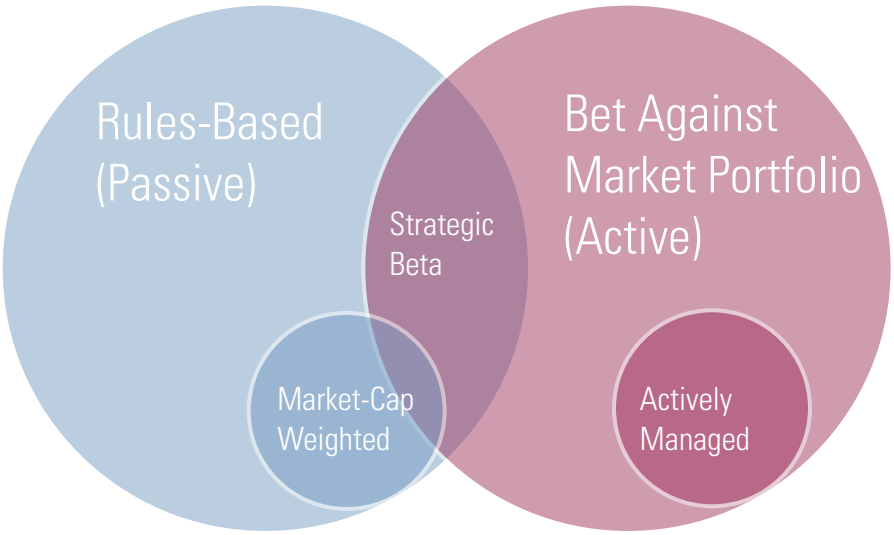
Introduction

"Smart beta," "alternative beta," "enhanced indexes," "quantamental indexes"—at this point, the list of monikers describing the fast-growing middle of the active-to-passive spectrum extends long enough to put it just a few syllables shy of making a lunar landing. It's an arena that has further blurred the lines between active and passive management (see Exhibit 1), and one that is at the leading edge of the most recent wave of product proliferation within the global exchange-traded products landscape.

What Morningstar deems strategic beta is a broad and rapidly growing category of benchmarks and the investment products that track it. The common thread among them is that they seek to either improve their return profile or alter their risk profile relative to more-traditional market benchmarks. In the case of equity products, which account for the overwhelming majority of assets in this arena, the result is typically one or more factor tilts relative to standard market indexes.

Exhibit 1 Part Passive, Part Active: Strategic Beta Lives in the Middle of the Active-to-Passive Spectrum



Source: Morningstar Research

As new products roll off asset managers' assembly lines, their sales and marketing departments have been working tirelessly to position these new models in an increasingly competitive field. The result has been a ratcheting up of the level of complexity of the indexes that underlie these benchmark-based investment products and, in some cases, a growing disparity between how they are pitched by their sponsors and the actual investment results they produce. Investors are faced

with a complex task as they navigate this landscape, and Morningstar is working to provide the compass they need to do so.

A Brief Historical Detour

The proverb "there is nothing new under the sun" applies to this "new" corner of the asset-management arena. Academics distilled investment returns into their component factors decades ago. And others, most notably the eponymous founder of Barr Rosenberg Associates, had recombined these basic drivers of investment returns into investable products. In fact, Rosenberg's "bionic betas" landed him on the cover of the May 1978 issue of *Institutional Investor* magazine.

Why is this time different? There have been major advances in information and investment technology since the mid-1970s that have given asset managers the horsepower necessary to efficiently manage more-complex index strategies, repackage them into the newest generation of strategy-delivery vessels (such as ETPs), and deliver them at a low cost to investors. The past four decades have also been marked by steady secular growth in index investing. Since the first index fund was launched in 1975, the portion of U.S. mutual fund and ETP assets accounted for by index-tracking products has grown from nothing to nearly 30% today. All told, the investment world of today is far more ready for these sorts of strategies than it was 40 years ago, when some people, as John Bogle has reported, were calling the concept of indexing "un-American."

What's in a Name?

The need to define, measure, and police this space has grown and will continue to grow with time. At Morningstar, we are positioning ourselves to meet these needs, with the goal of helping investors make better-informed investment decisions. For our part, we have decided to tag this realm with the label strategic beta. Why strategic beta? We are eager to do away with the positive connotations that may be inferred by the "smart" in smart beta. Not all of the strategies included in this arena are smart, per se. The term strategic is meant to draw attention to the fact that the benchmark indexes underlying the ETPs, mutual funds, and other investment products in this space are designed with a strategic objective in mind. These objectives primarily include attempting to improve performance relative to a traditional market-capitalization-weighted index or altering the level of risk relative to a standard benchmark.

As for the beta in the name, it is not meant to imply beta in the strictest, most academic sense of the term (a measure of a security or portfolio's sensitivity to movements in the broader market). Instead, it is to highlight the fact that this is a group of index-linked investments, all of which have the goal of achieving a beta equal to 1 as measured against their benchmark indexes. Strategic beta may not roll off the tongue as easily as smart beta, but we believe it is a more accurate descriptor—one that doesn't imply that this universe is the index world's equivalent of Lake Wobegon.[2]

2. A fictional town referenced in the U.S. radio program "A Prairie Home Companion" where, "all the women are strong, all the men are good looking, and all the children are above average."

It should be noted that these are merely attribute tags and not new categories, just as we do not have a "passive" or an "active" category. The portfolios of strategic-beta products exhibit a variety of investment styles. Our purpose in creating these descriptions is to help investors rigorously analyze this breed of investments, facilitating comparisons among those with similar strategies as well as within the context of their traditional Morningstar Category.

A Motley Crew

In delineating the boundaries of the strategic-beta space, we have tried to be as inclusive as possible, including products that may have a variety of different processes but yield fairly similar end products, and all of which deviate in some meaningful way from their traditional broad-based index peers.

Also, it is important to note that our definition differs from some others' in that we include products tied to benchmarks that first screen candidates for a variety of attributes (value, growth, and dividend characteristics, for example) and subsequently weight the eligible securities by their market capitalization. Others have adopted a more narrow definition that excludes any products based on benchmarks whose constituents are market-cap-weighted.

Our resulting universe includes a diverse range of products, though there are common elements among them:

- They are index-based investments.
- They track nontraditional benchmarks that have an active element to their methodology, which typically aims to either improve returns or alter the index's risk profile relative to a standard benchmark.
- Many of their benchmarks have short track records and were designed for the sole purpose of serving as the basis of an investment product.
- Their expense ratios tend to be lower relative to actively managed funds.
- Their expense ratios are often substantially higher relative to products tracking "bulk beta" benchmarks like the S&P 500.

Better Returns, Less Risk?

Having defined the strategic-beta space in very broad terms, Morningstar makes a second cut of the universe, tagging products on the basis of the overarching strategic objective of their underlying benchmark. These objectives fall into three buckets: return-oriented strategies, risk-oriented strategies, and a catch-all "other" classification.

Return-oriented strategies look to improve returns relative to a standard benchmark. Value- and growth-based benchmarks are prime examples of return-oriented strategies. Other return-oriented strategies seek to isolate a specific source of return. Dividend-screened or weighted indexes are the chief examples of this type of return-oriented strategy.

Meanwhile, risk-oriented strategies look to either reduce or increase the level of risk relative to a standard benchmark. Low-volatility and high-beta strategies are the most common examples of risk-oriented strategies.

Lastly, "other" encompasses a wide variety of strategies, ranging from nontraditional commodity benchmarks to multiasset indexes. This second cut allows investors to classify strategic-beta instruments along very broad lines.

The Devil Is in the Details

The third and final cut involves classifying products with similar strategic objectives at a more granular level. Here we group products tracking dividend-screened or weighted, value, low/minimum volatility/variance, nontraditional commodity, and a variety of other benchmarks together. This is intended to facilitate more-precise comparisons among products with very similar underlying methodologies. Exhibit 2 outlines our strategic-beta taxonomy in full detail.

Exhibit 2 Morningstar's Strategic-Beta Taxonomy

Return-Oriented	Risk-Oriented	Other
Value	Minimum Volatility/Variance	Equal-Weighted
Growth	Low/High Beta	Nontraditional Commodity
Size	Risk-Weighted	Nontraditional Fixed
Momentum		Multiasset
Quality		
Fundamentally Weighted		
Dividend Screened/Weighted		
Earnings-Weighted		
Revenue-Weighted		
Expected Returns		
Shareholder Yield/Buyback		
Multifactor		

Source: Morningstar Research

A Look at the Numbers

What's Next?

What comes next in the land of strategic beta is more complexity. The latest wave of new products hitting the market is of the multifactor variety, combining a range of factor tilts or exposures into one fund. These products are peeking over the fence that stands at the border between active and passive—mimicking active strategies in a rules-based, transparent, tax-efficient (in some tax jurisdictions), and low-cost manner.

This layering of complexity adds to the due-diligence burden for investors. Investors' due-diligence processes for these funds need to be every bit as rigorous as those they would undertake in scrutinizing active managers. Morningstar believes that its taxonomy is an important first step toward helping investors better understand the strategic-beta universe.

Strategic Beta in Three Acts

This report is split into three "acts." In the first act, we examine the global strategic-beta ETP landscape, looking at trends in asset growth, asset flows, product development, and fees on a region-by-region basis. In the second act, we discuss the "origins" of strategic beta, looking at the various types of risk these strategies look to harness and how they manifest themselves in an investment context. Finally, in the third act, we provide a practical guide to analyzing strategic-beta ETPs through a number of different lenses that will help investors make more-informed decisions when considering these products.

Act 1: The Global Strategic-Beta ETP Landscape

Global Summary

As of June 30, 2014, there were 673 strategic-beta exchange-traded products, or ETPs, with collective assets under management of approximately $396 billion worldwide. Strategic-beta ETPs are making inroads against their peers that are benchmarked to more-traditional indexes. While their market share has been increasing in every region that we have examined, they have made greater inroads in large, more mature markets than they have in smaller, less developed ones. For example, strategic-beta ETPs accounted for 19% of U.S. ETP assets, but just 1.5% of ETP assets in the Asia-Pacific region.

While regional markets are at varying stages of development, there are some common themes that cut across geographies. First, dividend screened/weighted ETPs are the most popular grouping of strategic-beta ETPs in every region we examined. This should come as little surprise when considered in the context of the prevailing interest-rate environment. Investors around the globe have piled in to dividend-paying equities, shunning the low (or negative) real yields offered by issues from developed-markets sovereigns.

There is also a clear positive relationship between the adoption of strategic-beta ETPs and the age of each region's ETP market, and its asset-management and financial-services industries more generally. The U.S. is home to a very large and mature asset-management industry and has the second-oldest (next to Canada's) ETP market in the world. Thus, the fact that U.S. strategic-beta ETPs account for 90% of total assets in this grouping is only natural.

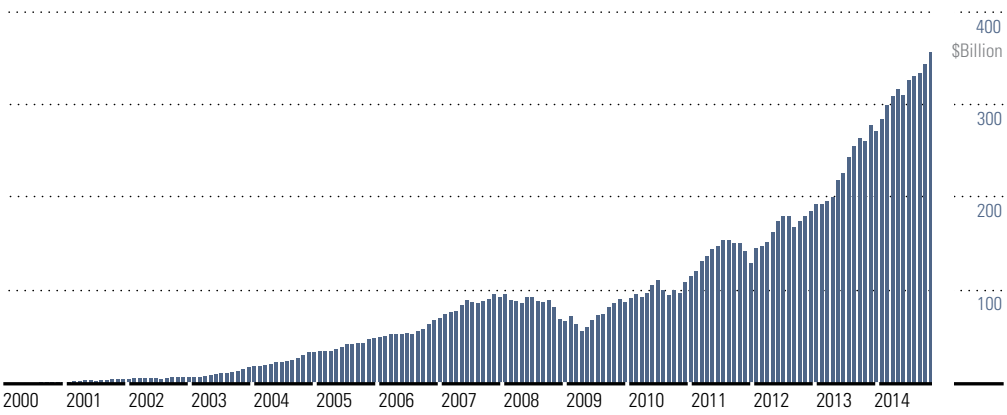
As for fees, strategic-beta ETPs tend to charge expense ratios that are more competitive than their comparable actively managed peers (though in some cases only marginally so). That said, in many cases they take a toll many multiples of that levied by their more ordinary passive peers.
Another commonality among the markets we examined is the increasing complexity of the benchmarks underlying new ETPs. This is part of the natural evolution of the market and one that has already played out in the slicing and dicing of traditional market-capitalization-weighted exposures along the lines of region, country, sector, subsector, and so on. As these strategies become increasingly nuanced, looking to repackage elements of an active manager's thinking into an index, investors' collective due-diligence burden will continue to increase commensurately.

North America

United States

The U.S. is home to what is far and away the largest and most diverse stable of strategic-beta ETPs. It is host to 57% of the total number of strategic-beta ETPs, which together account for nearly 91% of global assets. This should come as little surprise given the overall size and maturity of the domestic asset-management and financial-services industries. The first generation of strategic-beta ETPs came to the U.S. market in May 2000. The iShares Russell 1000 Growth (IWF) and iShares Russell 1000 Value (IWD) ETFs were not only the first but are presently the two largest strategic-beta ETPs. These funds represented "first generation" strategic beta—introducing systematic style tilts to a market that was already well-versed in a style-based approach to equity investing. Fast-forward 14 years to June 30, 2014, and strategic-beta ETPs numbered 374 and had collective assets under management of $359.7 billion.

Exhibit 3 Strategic-Beta ETP Asset Growth (May 2000 Through May 2014)



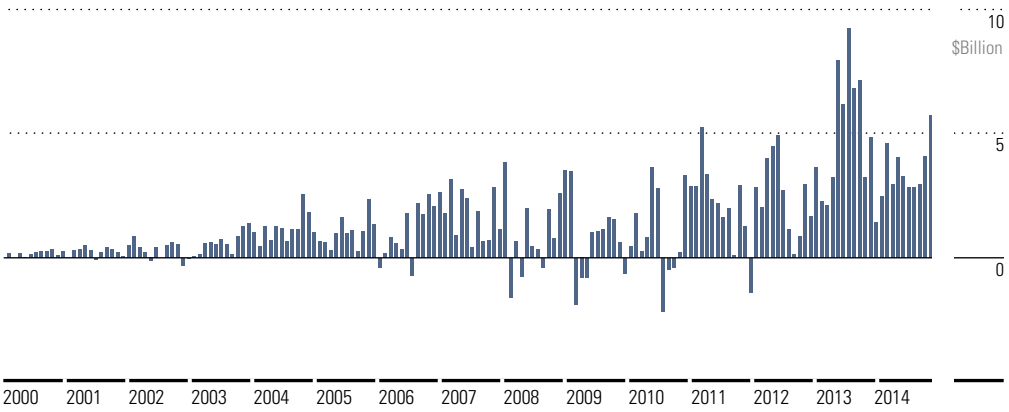
Source: Morningstar Direct, Morningstar Research

Grow With the Flow

Growth in strategic-beta ETPs has been driven primarily by new adopters across the investor spectrum, ranging from individuals to state pension funds. Approximately 70% of the aggregate growth in strategic-beta ETP assets dating back to May 2000 has come from net new inflows, while the remaining 30% reflects asset appreciation. In many ways, the U.S. market was well-"primed" for strategic beta. The Morningstar Style Box, among other things, had popularized the concept of style investing among U.S. investors by the time the first strategic-beta ETPs were launched in 2000. At that time, exchange-traded funds had been around for about seven years, though they were still novel to many investors and being used predominantly as trading vehicles. Also, within the advisor

space, there were pockets of familiarity with the concepts of factors and risk premiums, owed in part to a rapidly growing and loyal army of Dimensional Fund Advisors[3] converts, who were well-versed in size, value, and momentum.

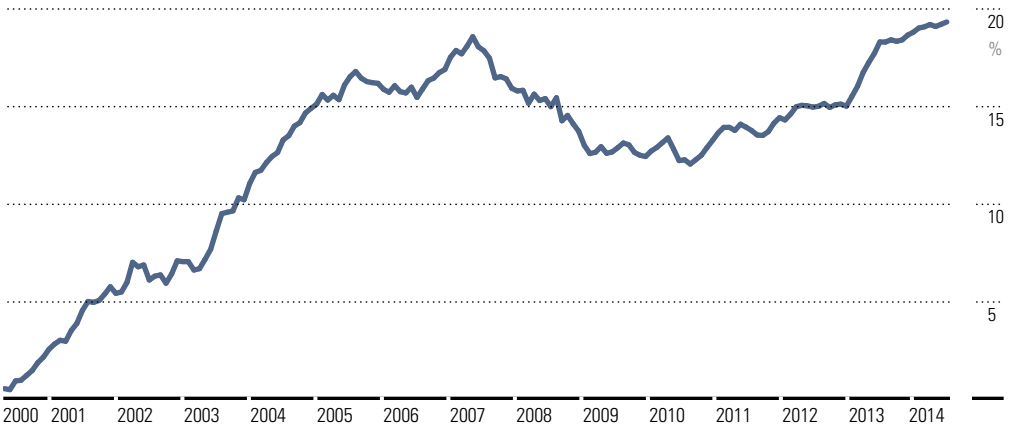
Exhibit 4 Strategic-Beta ETP Monthly Asset Flows (May 2007 Through June 2014)



Source: Morningstar Direct, Morningstar Research

Growth in assets under management in strategic-beta ETPs has outpaced that experienced by the broader ETP industry. As such, strategic-beta ETPs' share of the overall ETP marketplace has climbed to approximately 19% as of the end of June 2014 from nil in 2000.

Exhibit 5 Strategic-Beta ETPs' Share of the Overall U.S. ETP Market (May 2000 Through June 2014)



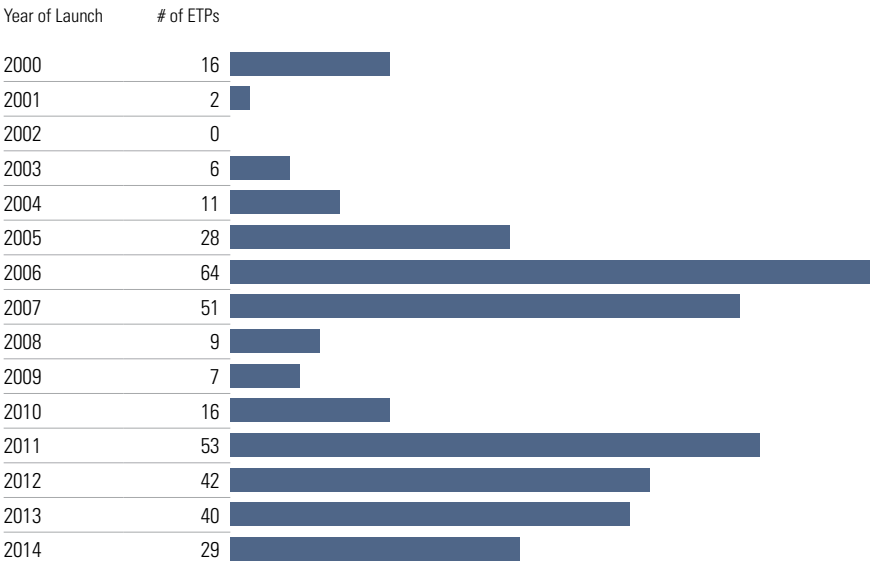
Source: Morningstar Direct, Morningstar Research

3. As Dimensional Fund Advisors' funds do not track indexes by mandate, we exclude them from our definition of strategic beta. That said, the factors the firm sets out to exploit, the systematic manner in which they set out to exploit them, and the fact that most of their funds levy low fees relative to peers make them close cousins.

Roll Out the Betas

As mentioned previously, the first generation of strategic-beta ETPs delivered fairly straightforward style tilts. Subsequently, there was a flurry of launch activity from 2005 to 2007, as strategic-beta-focused ETF providers rolled out full families of more-complex strategies. These included PowerShares' roster of Dynamic and RAFI funds, WisdomTree's suite of dividend-screened/weighted funds, and First Trust's AlphaDex lineup. New launch activity hit a lull from 2008 to 2010 thanks to the global financial crisis, but picked up once again in 2011 as providers moved to cover new bases (low/minimum volatility/variance strategies, for example). More recently, new launches have trended toward multifactor strategies, as exemplified by State Street Global Advisors' new suite of ETFs tied to MSCI Quality Mix benchmarks and JP Morgan's first foray into the ETF market, with JP Morgan Diversified Return Global Equity ETF (JPGE), which tracks the FTSE Developed Diversified Factor Index.

Exhibit 6 Number of Surviving Strategic-Beta ETPs by Vintage



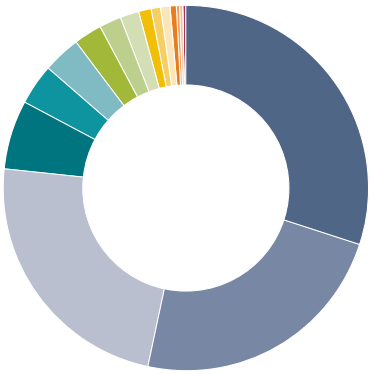
Source: Morningstar Direct, Morningstar Research

Simple Tastes

While complexity has been on the rise, investors' preferences remain fairly plain-vanilla. Classifying the current roster of U.S. strategic-beta ETPs according to their secondary attributes shows that ETPs offering exposure to fairly straightforward strategies (value, growth, dividend-screened/weighted) account for nearly three fourths of strategic-beta ETP assets. Dividend-screened/weighted strategies have proved particularly popular in the context of a yield-starved investment environment and investors who are placing a greater emphasis on investment income as they move from the consolidation stage of their investment lifecycle to the decumulation stage. The popularity of

style-based investing and the use of some of these funds for purposes of implementing tactical factor tilts explain the popularity of standard value and growth funds.

Exhibit 7 Market Share by Secondary Strategic-Beta Attribute



Secondary Attribute	% of Assets
Dividend Screened/Weighted	30.19
Growth	23.35
Value	23.24
Multifactor	6.05
Equal-Weighted	3.82
Low/Minimum Volatility/Variance	3.29
Nontraditional Commodity	2.55
Fundamentally Weighted	1.82
Nontraditional Fixed Income	1.56
Momentum	1.19
Buyback/Shareholder Yield	0.84
Earnings-Weighted	0.81
Quality	0.46
Multiasset	0.43
Revenue-Weighted	0.22
Expected Returns	0.09
Low/High Beta	0.08

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Exhibit 8 Ranking of Strategic-Beta ETPs by Secondary Attribute

Secondary Attribute	# of ETPs	Assets ($)	% of Assets
Dividend Screened/Weighted	85	108,590,201,949	30.19
Growth	33	83,998,669,298	23.35
Value	37	83,585,361,377	23.24
Multifactor	72	21,778,583,497	6.05
Equal-Weighted	19	13,727,068,329	3.82
Low/Minimum Volatility/Variance	14	11,819,883,577	3.29
Nontraditional Commodity	35	9,180,759,524	2.55
Fundamentally Weighted	15	6,546,492,411	1.82
Nontraditional Fixed Income	9	5,627,371,754	1.56
Momentum	18	4,297,245,672	1.19
Buyback/Shareholder Yield	3	3,032,789,608	0.84
Earnings-Weighted	6	2,904,315,046	0.81
Quality	10	1,667,511,545	0.46
Multiasset	4	1,549,221,012	0.43
Revenue-Weighted	6	804,707,255	0.22
Expected Returns	3	318,478,265	0.09
Low/High Beta	4	289,431,603	0.08
Risk-Weighted	1	8,553,462	—

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

By Provider

The duo of iShares and Vanguard accounts for just 17% of the total number of strategic-beta ETPs but has amassed nearly 60% of the assets in this universe. Their suites of strategic-beta ETPs align closely with the rankings of the most popular secondary attributes. Specifically, their dividend-screened/weighted, value, and growth funds are among the largest in this universe. Rounding out the top five is a trio of ETF providers that has made strategic beta their calling card—PowerShares, WisdomTree, and First Trust.

Exhibit 9 Largest Strategic-Beta ETP Providers

Provider	AUM ($)	# of ETPs	Market Share (%)
iShares	142,470,024,795	45	39.61
Vanguard	75,534,301,810	20	21.00
PowerShares	36,592,341,471	75	10.17
WisdomTree	33,521,508,055	44	9.32
First Trust	20,770,784,396	53	5.77
SPDR	19,518,321,413	25	5.43
Guggenheim	15,816,292,801	24	4.40
FlexShares	5,011,035,376	12	1.39
Schwab	4,836,609,356	9	1.34
Global X	1,343,423,523	3	0.37
Others	4,312,002,188	64	1.20

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

By Fund

The top 10 strategic-beta ETPs by assets account for about 42% of assets in this corner of the ETP market. Again, cut and dry value, growth, and dividend-screened/weighted approaches dominate their ranks.

Exhibit 10 Largest Strategic-Beta ETFs

Name	Ticker	Inception Date	Strategic-Beta–Secondary Attribute	Expense Ratio (%)	AUM ($)
iShares Russell 1000 Growth	IWF	5/22/00	Growth	0.20	23,854,189,180
iShares Russell 1000 Value	IWD	5/22/00	Value	0.21	23,205,132,757
Vanguard Dividend Appreciation Index ETF	VIG	4/21/06	Dividend Screened/Weighted	0.10	20,350,435,628
Vanguard Growth ETF	VUG	1/26/04	Growth	0.09	14,787,951,435
Vanguard Value ETF	VTV	1/26/04	Value	0.09	14,510,104,882
iShares Select Dividend	DVY	11/3/03	Dividend Screened/Weighted	0.40	14,233,566,194
SPDR S&P Dividend ETF	SDY	11/8/05	Dividend Screened/Weighted	0.35	12,764,654,209
WisdomTree Japan Hedged Equity	DXJ	6/16/06	Dividend Screened/Weighted	0.48	10,536,987,492
iShares S&P 500 Growth	IVW	5/22/00	Growth	0.18	9,866,832,713
Vanguard High Dividend Yield Index ETF	VYM	11/10/06	Dividend Screened/Weighted	0.10	8,545,216,192

Source: Morningstar Direct, Morningstar Research, Data as of June 30, 2014.

Keeping an Eye on Expenses

Interestingly, the fees levied by strategic-beta ETPs are, on average, comparable to or competitive with those charged by the ETP field at large as well as the universe of ETPs ex-strategic beta. Most notably, the asset-weighted average expense ratio for equity ETPs across all three of the aforementioned groupings is virtually identical—in fact, it's 1 basis point lower for strategic-beta equity ETPs. Of course, fees should be considered on a case-by-case basis. For example, Schwab US Broad Market ETF (SCHB), which tracks the market-capitalization-weighted Dow Jones U.S. Broad Stock Market Index, charges an annual fee of just 0.04%. Schwab Fundamental US Broad Market ETF (FNDB), which tracks the Russell Fundamental U.S. Index, levies a fee of 0.32%—a much higher hurdle relative to its more ordinary sibling.

In aggregate, it is clear that across all three groupings—all else equal—investors prefer less pricey fare, as indicated by the fact that the asset-weighted average expense ratios tend to be lower than the simple averages. That said, there are clearly some outliers, ETPs of all ilk that charge fees comparable to those of active managers. Investors should take extra care to assess whether such tolls are justifiable for an index-tracking product.

Exhibit 11 Fees Under the Microscope

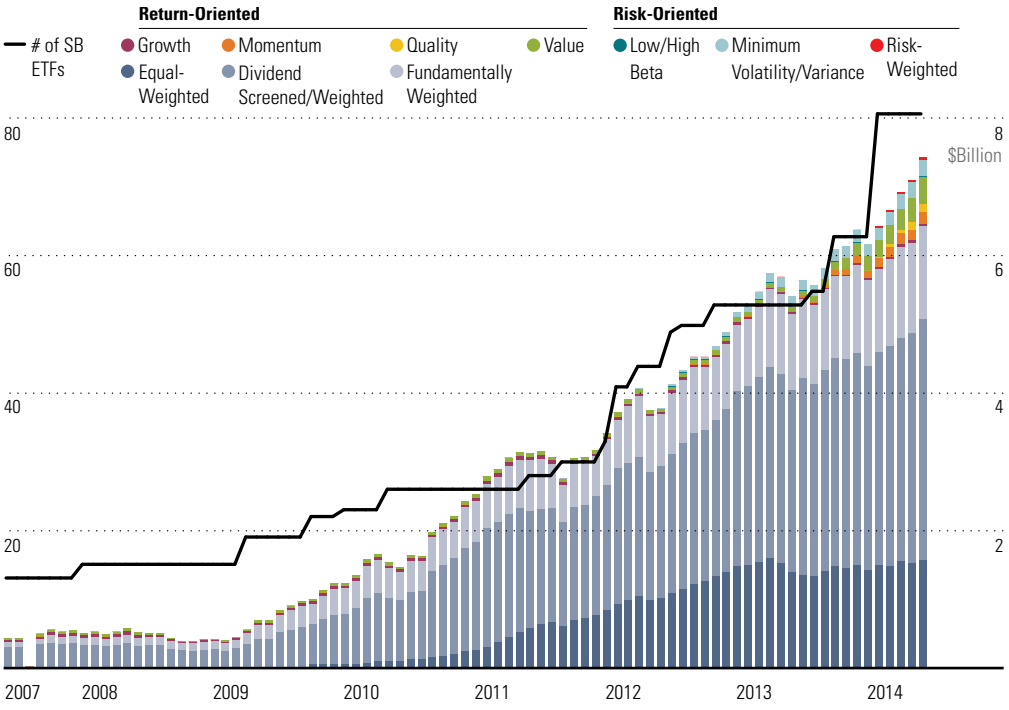
		Combined (%)	Equity (%)	Fixed Income (%)	Commodities (%)	Alternative (%)
All ETPs	Weighted Average	0.33	0.32	0.26	0.51	0.96
	Simple Average	0.62	0.55	0.34	0.82	0.93
ETPs Without Strategic-Beta	Weighted Average	0.34	0.32	0.26	0.45	0.96
	Simple Average	0.65	0.59	0.33	0.83	0.93
Strategic-Beta	Weighted Average	0.32	0.31	0.37	0.85	1.49
	Simple Average	0.52	0.48	0.38	0.80	1.49

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014

Canada

At the start of 2009, strategic-beta ETFs in Canada had less than $400 million in total net assets spread across 15 funds. As of June 30, 2014, there were 83 strategic-beta ETFs in Canada with total net assets of about $7.5 billion. That's a nearly 19-fold increase in assets under management over a five-year period.

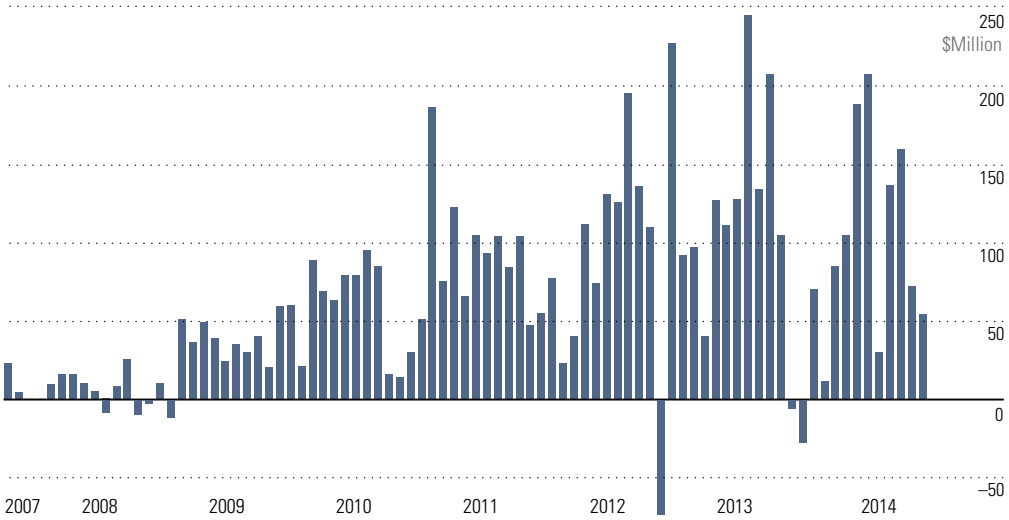
Exhibit 12 Assets Under Management—Strategic-Beta ETFs in Canada (June 2007 Through June 2014)



Source: Morningstar Direct, Morningstar Research

Increased adoption of strategic-beta strategies by Canadian investors is far and away the biggest driver behind the group's impressive growth. Over the past five calendar years, net inflows have accounted for more than 78% of the aggregate growth in strategic-beta ETF assets, with the remainder being the result of market appreciation.

Exhibit 13 Estimated Net Asset Flows—Strategic-Beta ETFs in Canada (June 2007 Through June 2014)

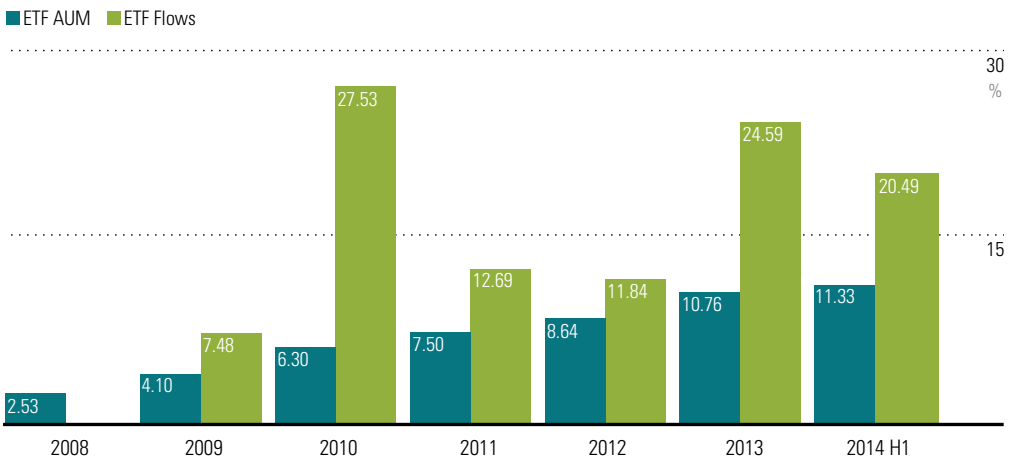


Source: Morningstar Direct, Morningstar Research

Healthy demand from Canadian investors has helped assets in strategic-beta ETFs grow at a compounded annual growth rate of 75% over the trailing five years through year-end 2013. Strategic-beta ETFs are not simply riding the coattails of the rapidly growing Canadian ETF market. Over the same period, the broader Canadian ETF market's compounded annual growth rate came in at 27%. For a bit more context, consider that the (much larger) Canadian open-end mutual fund market achieved a CAGR of 10% over this span.

Since 2009, strategic-beta ETFs have been "punching above their weight." In 2013, strategic-beta ETFs made up about 25% of overall ETF asset flows, while representing only about 11% of ETF assets.

Exhibit 14 Strategic-Beta ETFs' Share of Total ETF Assets and ETF Asset Flows



Source: Morningstar Direct, Morningstar Research

History

The first strategic-beta ETF that was introduced to the Canadian market was iShares Canadian Select Dividend (XDV), which launched in December 2005.

Exhibit 15 Annual Launches of Strategic-Beta ETFs in Canada

Year	# ETFs	Advisor Class Shares
2005	1	—
2006	8	3
2007	4	2
2008	2	1
2009	7	2
2010	4	—
2011	4	1
2012	23	4
2013	12	5
2014 H1	18	8

Source: Morningstar Direct, Morningstar Research

A few months later, in February 2006, Claymore Investments Inc. launched a fundamentally weighted strategy that is today known as iShares Canadian Fundamental Index (CRQ). There was a name change following BlackRock Canada's acquisition of Claymore Canada from Guggenheim Partners LLC in the first quarter of 2012. The strategy remains unchanged; the fund continues to track the FTSE RAFI Canada Index.

Later that year, in September 2006, Claymore followed up with two more strategic-beta ETFs: a U.S.-focused RAFI and a domestic dividend strategy. Today, those ETFs are known as iShares US Fundamental (CAD-Hedged) Index (CLU) and iShares S&P/TSX Canadian Dividend Aristocrats Index (CDZ).

Claymore built a solid business in Canada by focusing on alternative indexing strategies rather than traditional market-cap-weighted fare. In the ensuing years, the firm introduced a range of other RAFI index ETFs. The firm's U.S.-based parent company already had similar products in its home market; Claymore Canada was successful in leveraging the parent company's existing relationship with Research Affiliates to bring its strategic-beta strategies across the border.

iShares Canadian Value (XCV) and iShares Canadian Growth (XCG) launched in November 2006 to little fanfare, as style investing isn't prevalent in Canada.

The next phase of the strategic-beta movement in Canada came as new entrant BMO Asset Management introduced a series of equal-weight industry and sector ETFs in late 2009 and mid-2010. The funds were well-received because they offered investors a way to limit concentration risk. It was not uncommon for the market-cap-weighted peers to stake around 20% of assets in each of the top two or three firms.

In the summer of 2011, another U.S.-based provider that was carving out its niche as a provider of "next generation" index strategies expanded to the North. PowerShares Canada joined the fray by introducing its own domestic dividend strategy and RAFI-tracking ETFs. It also introduced the country's first "low-volatility" strategy, after its U.S.-based parent had tremendous success attracting assets into the strategy stateside.

In early 2012, Canada saw another new ETF provider enter the fray with its own lineup of strategic-beta ETFs. First Asset Investment Management brought two dividend strategies to market—one domestic and the other U.S.-focused. It also launched "value" and "momentum" strategies[4] covering the Canadian market. The momentum strategy was the first of its kind in Canada, and, until today, First Asset is the only ETF provider that offers exposure to this factor.

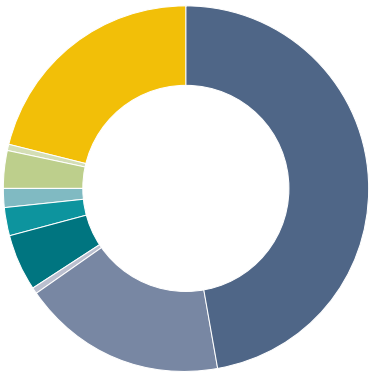
By this time, the strategic-beta movement was in full effect in Canada. A steady stream of strategic-beta ETFs hit the market over the next couple of years.

4. Disclosure: Morningstar, Inc.'s Investment Management division licenses indexes to financial institutions as the tracking indexes for investable products, such as exchange-traded funds, sponsored by the financial institution. The license fee for such use is paid by the sponsoring financial institution based mainly on the total assets of the investable product. Please click here for a list of investable products that track or have tracked a Morningstar index. Neither Morningstar, Inc. nor its investment management division markets, sells, or makes any representations regarding the advisability of investing in any investable product that tracks a Morningstar index.

The Many Flavors of Strategic Beta in Canada

Currently, there are ETFs available with 10 different strategic-beta secondary attributes. The most recent group is the "risk-weighted" suite from First Asset, which launched in February 2014. Despite the rapid proliferation of strategic-beta strategies of late, the oldest group remains the largest. Dividend strategies are the most popular subset of the strategic-beta landscape in Canada, both in terms of total assets and number of ETFs.

Exhibit 16 Market Share by Secondary Strategic-Beta Attribute



Secondary Attribute	% AUM
Dividend Screened/Weighted	47.3
Fundamentally Weighted	18.2
Growth	0.4
Value	5.2
Momentum	2.4
Quality	1.6
Low/High Beta	0.1
Minimum Volatility/Variance	3.3
Risk-Weighted	0.6
Equal-Weighted	21.0

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Exhibit 17 Number of ETFs by Secondary Strategic-Beta Attribute

Secondary Attribute	% SB ETFs
Dividend Screened/Weighted	24.1
Fundamentally Weighted	18.1
Growth	1.2
Value	8.4
Momentum	7.2
Quality	1.2
Low/High Beta	2.4
Minimum Volatility/Variance	8.4
Risk-Weighted	16.9
Equal-Weighted	12.0

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

While dividend screened/weighted funds are way out in front, claiming nearly half of all strategic-beta ETF assets in Canada, equal-weighted and fundamentally weighted are in a tight race for second and third. The equal-weighted group is bolstered by BMO's portfolio of sector and industry ETFs, while the fundamentals group is driven by the iShares and PowerShares ETFs that track the RAFI benchmark.

Exhibit 18 Strategic-Beta ETF Assets Ranked by Secondary Attribute

Secondary Attribute	# of ETFs	AUM $	Market Share %
Dividend Screened/Weighted	20	3,525,372,516	47.31
Equal-Weighted	10	1,564,818,159	21.00
Fundamentally Weighted	15	1,355,117,294	18.19
Value	7	389,853,639	5.23
Minimum Volatility/Variance	7	242,672,721	3.26
Momentum	6	177,201,190	2.38
Quality	1	118,159,955	1.59
Risk-Weighted	14	42,381,719	0.57
Growth	1	30,000,045	0.40
Low/High Beta	2	5,685,721	0.08

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

By Firm

Thanks in large part to its acquisition of Claymore, iShares is the clear leader in the strategic-beta ETF space. In fact, about 60% of iShares' strategic-beta AUM comes from former Claymore ETFs. BMO is a distant second with its 10 equal-weighted industry ETFs and a "quality" Europe fund. BMO makes the list by definition, but it's worth noting that because of their extremely narrow focus, many of its equal-weighted ETFs are treated more as single-stock replacements than broad market or beta products.

For instance, the firm's largest strategic-beta ETF (and the third largest in the country) is BMO S&P/TSX Equal Weight Banks ETF (ZEB), which is simply an equal-weight portfolio of the six major Canadian banks. Some notable omissions include BMO's domestic and U.S. low-volatility and dividend strategies. While these funds are designed to follow rules-based strategies, they do not track a published public benchmark. Therefore, by definition, we consider those ETFs to be actively managed. If included, they would add another $900 million to BMO's strategic-beta asset tally (an increase of more than 50%).

First Asset has attracted attention (and assets) recently based on the stellar performance of a few of its strategic-beta funds, namely the firm's domestic value and momentum funds, which have consistently outperformed their category peers since their inception.

Exhibit 19 Strategic Beta ETF Assets by Provider

Rank	Firm Name	# of ETFs	AUM $	Market Share %
1	iShares	27	4,433,514,487	59.5
2	BMO Asset Management Inc.	11	1,682,978,114	22.6
3	First Asset Investment Management Inc.	32	670,591,977	9.0
4	PowerShares Canada	8	461,986,526	6.2
5	Vanguard Investments Canada Inc	3	175,079,680	2.3
6	First Trust	2	27,112,176	0.4

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

By Fund

The two oldest dividend ETFs in the country remain the largest strategic-beta funds in Canada by a relatively wide margin. Exhibit 20 lists the top 15 strategic-beta ETFs in Canada, as of June 30, 2014.

Exhibit 20 Top 15 Largest Strategic-Beta ETFs in Canada

Name	Ticker	Secondary Attribute	MER %	AUM $	Market Share %
iShares Canadian Select Dividend	XDV	Dividend Screened/Weighted	0.55	1,415,107,846	18.99
iShares S&P/TSX Cdn Div Aristocrats	CDZ	Dividend Screened/Weighted	0.66	991,160,126	13.30
BMO S&P/TSX Equal Weight Banks ETF	ZEB	Equal-Weighted	0.62	600,806,719	8.06
iShares US Dividend Growers(CAD-Hdg)	CUD	Dividend Screened/Weighted	0.65	359,855,003	4.83
BMO Equal Weight REITs ETF	ZRE	Equal-Weighted	0.62	316,455,847	4.25
iShares Canadian Fundamental	CRQ	Fundamentally Weighted	0.71	231,904,613	3.11
iShares International Fundamental	CIE	Fundamentally Weighted	0.72	224,575,113	3.01
iShares US Fundamental (CAD-Hedged)	CLU	Fundamentally Weighted	0.72	220,071,581	2.95
BMO Eq Weight US Banks Hdgd to CAD ETF	ZUB	Equal-Weighted	0.40	213,057,517	2.86
BMO Equal Weight Utilities ETF	ZUT	Equal-Weighted	0.62	195,868,878	2.63
FirstAsset Mstar Canada Value ETF	FXM	Value	0.68	190,023,753	2.55
iShares US High Div Equity C$-Hedged	XHD	Dividend Screened/Weighted	0.33	140,480,890	1.89
iShares US Fundamental	CLU.C	Fundamentally Weighted	0.71	127,983,631	1.72
PowerShares Fdmt HiYld Corp Bd CAD H ETF	PFH	Fundamentally Weighted	0.67	123,072,314	1.65
FirstAsset Mstar Canada Momentum ETF	WXM	Momentum	0.68	122,373,427	1.64

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Fees

Part of the attraction of strategic-beta strategies is that they occupy this middle ground between purely passive and traditional active management. But, where do the strategies land on the fee spectrum?

Exhibit 21 Average Fee Comparison for Strategic-Beta ETFs in Canada

	Simple Average		Weighted Average	
	Management Fee %	MER %	Management Fee %	MER %
Open End Active–Comparable Strategies	1.83	2.41	1.70	2.09
Open End Index–Strategic Beta	1.45	2.96	1.29	1.88
All Open End Mutual Funds	1.70	2.22	1.67	2.04
ETF Universe (Ex. Adv Class)	0.53	0.62	0.34	0.39
Advisor Class ETFs	1.25	1.43	1.02	1.35
Non-SB ETFs - Comparable Strategies	0.44	0.50	0.39	0.44
Strategic-Beta ETFs (Ex. Adv class)	0.51	0.56	0.54	0.59
Advisor class Strategic-Beta ETFs	1.37	1.49	1.37	1.50

Source: Morningstar Direct, Morningstar Research

Using simple averages, strategic-beta ETFs show slightly lower management fees and MERs than those of the broader ETF universe. The many leveraged ETFs and other exotic products, which tend to be relatively expensive but don't have large asset bases, skew the simple average of the broader universe higher. However, on an asset-weighted average basis, we see what we would expect: Strategic-beta products levy a premium (0.59% MER compared with 0.39% for the broader ETF universe).

The advisor class ETFs, which include embedded advisor compensation, are broken out separately to facilitate comparisons with open-end mutual funds, which also include trailing commissions in their fees.

Strategic-Beta Investors in Canada Are More Concerned With What's Under the Hood Than the Price Tag

Analyzing fees reveals that strategic-beta investors are more focused on performance or the nuts and bolts of a specific strategy than they are on costs. Typically, investors will gravitate to the cheaper options. This is illustrated by the fact that the simple average MER for the ETF universe is 0.62%, while the weighted average is lower at 0.39%. But, it's a different story when it comes to strategic-beta ETFs in Canada.

It appears that cost doesn't weigh as heavily in the decision-making process when it comes to strategic beta as it does for traditional beta. The simple average MER for strategic-beta ETFs is 0.56%, compared with a 0.59% average MER when weighted by assets. If traditional beta is

considered a commodity product, then it follows logically that investors choose the cheapest available option. When it comes to strategic beta, however, a fund's construction and the rules that govern the strategy will have a far greater impact on performance than a few basis points of MER—give or take.

Exhibit 22 Strategic-Beta ETPs—Total Net Assets ($Million)

	2007	2008	2009	2010	2011	2012	2013	2014-06	% AUM	#ETFs
Return-Oriented	**518**	**395**	**1,184**	**2,193**	**2,408**	**3,429**	**4,726**	**5,596**	**75.1**	**50**
Dividend Screened/Weighted	337	236	730	1,516	1,730	2,377	3,120	3,525	47.3	20
Fundamentally Weighted	105	121	376	586	593	959	1,283	1,355	18.2	15
Value	37	16	41	55	49	57	195	390	5.2	7
Growth	40	22	37	36	35	31	26	30	0.4	1
Momentum	0	0	0	0	0	5	101	177	2.4	6
Quality	0	0	0	0	0	0	0	118	1.6	1
Risk-Oriented	**0**	**0**	**0**	**0**	**0**	**65**	**184**	**291**	**3.9**	**23**
Low/High Beta	0	0	0	0	0	6	6	6	0.1	2
Minimum Volatility/Variance	0	0	0	0	0	59	178	243	3.3	7
Risk-Weighted	0	0	0	0	0	0	0	42	0.6	14
Other										
Equal-Weighted	0	0	34	216	758	1,388	1,476	1,565	21.0	10
Total Net Assets	**518**	**395**	**1,218**	**2,408**	**3,166**	**4,882**	**6,386**	**7,451**	**—**	**83**

Source: Morningstar Direct, Morningstar Research

Exhibit 23 Strategic-Beta ETPs—Estimated Net Asset Flows ($Million)

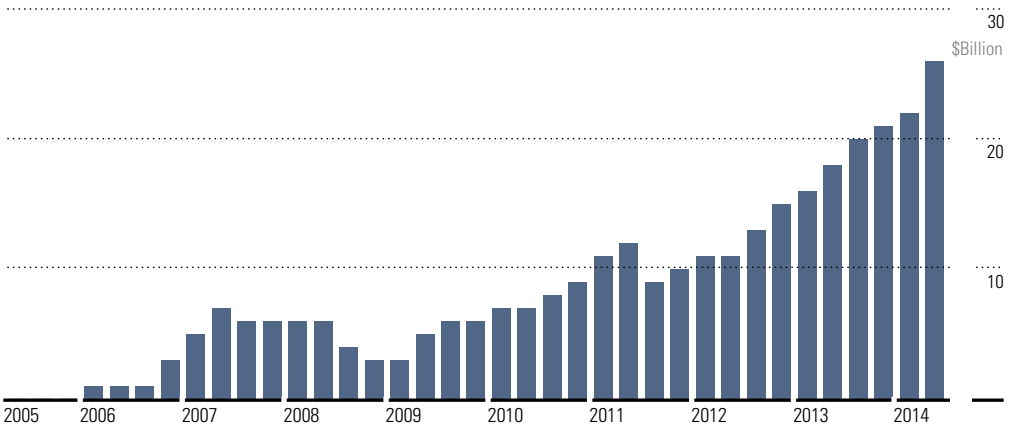
								% of Total SB Flows	
	2008	2009	2010	2011	2012	2013	2014-06	2013	2014 H1
Return-Oriented	**160**	**516**	**747**	**320**	**736**	**1,009**	**590**	**80.89**	**89.33**
Dividend Screened/Weighted	73	315	614	218	463	583	222	46.71	33.58
Fundamentally Weighted	95	183	137	96	271	196	-6	15.73	NMF
Value	-8	13	5	-1	2	139	180	11.17	27.18
Growth	0	5	-9	6	-5	-4	0	NMF	NMF
Momentum	0	0	0	0	5	95	70	7.62	10.63
Quality	0	0	0	0	0	0	124	NMF	18.84
Risk-Oriented	**0**	**0**	**0**	**0**	**63**	**114**	**98**	**9.13**	**14.88**
Low/High Beta	0	0	0	0	6	0	-1	NMF	NMF
Minimum Volatility/Variance	0	0	0	0	57	114	56	9.13	8.50
Risk-Weighted	0	0	0	0	0	0	43	NMF	6.58
Other									
Equal-Weighted	0	33	154	597	520	125	-28	9.98	NMF
Total Net Flows	**160**	**549**	**900**	**917**	**1,319**	**1,248**	**661**		

Source: Morningstar Direct, Morningstar Research

Europe

The European market for strategic-beta ETPs has expanded dramatically in recent years, with assets under management growing to $26.3 billion as of June 30, 2014, from nil in 2005.

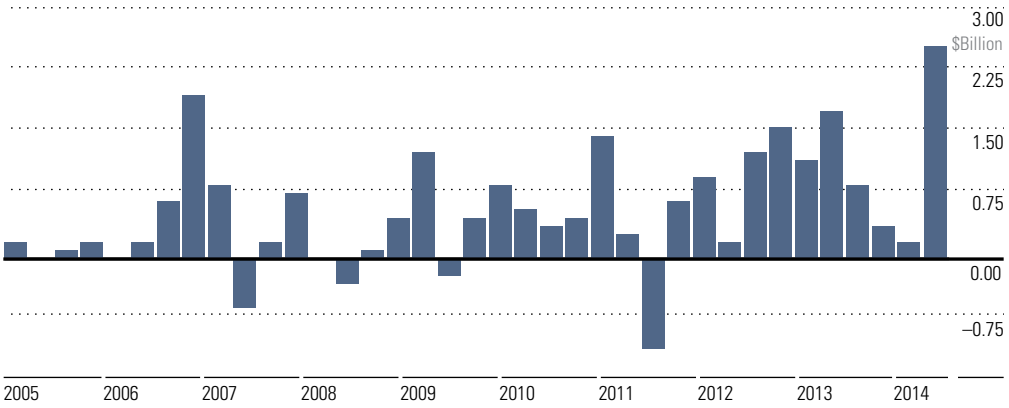
Exhibit 24 Strategic-Beta ETP Asset Growth (Q1-2005 Through Q2-2014)



Source: Morningstar Direct, Morningstar Research

After a slow start in 2005-06 and a decline during the 2007-08 financial crisis, strategic-beta ETP assets started to gain momentum in Europe in 2009. In the past five years, AUM in the space grew almost nine-fold, to $26.3 billion as of June 30, 2014, from $3.0 billion at the beginning of 2009. The growth has been primarily driven by net inflows, with 75% accounted for by net new cash flows, while 25% reflects asset appreciation.

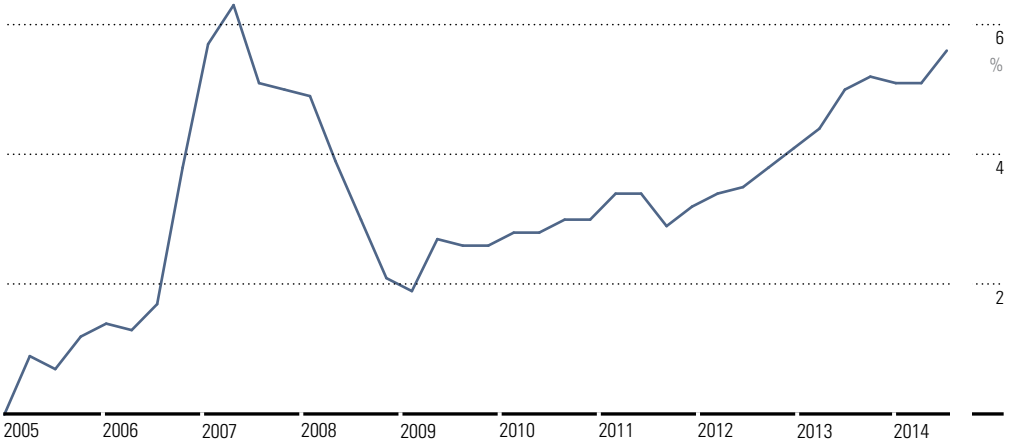
Exhibit 25 Strategic-Beta ETP Quarterly Asset Flows (Q1-2005 Through Q2-2014)



Source: Morningstar Direct, Morningstar Research

The European market for strategic-beta ETPs has not only posted strong growth rates over the past few years, but it has also outpaced the European ETP market as a whole. While these products represented only 2.1% of total assets in European ETPs at the beginning of 2009, they reached 5.6% of that universe as of end-June 2014.

Exhibit 26 Strategic-Beta ETPs' Share of the Overall European ETP Market (Q1-2005 Through Q2-2014)



Source: Morningstar Direct, Morningstar Research

The increase of strategic-beta products relative to the overall ETP universe has been driven by the increase in new money into the space. By way of illustration, about 32% of net inflows into European ETPs went into strategic-beta products in 2013.

The peak and subsequent drop in the strategic-beta ETPs' share of the overall ETP marketplace in 2007 and 2008 can mainly be attributed to the rise and fall of dividend-screened/weighted ETFs during that period. The first half of 2007 saw massive inflows into European dividend strategies. But when the financial crisis began in the summer 2007 and financial stocks—traditionally big dividend payers—started to fall and cut dividends, investors pulled their investments. Strategic-beta ETP assets dropped by more than half to $3.0 billion at the end of 2008 from $6.6 billion at the end of June 2007.

Focus on Products

As of June 30, 2014, there were 139 strategic-beta ETPs listed in Europe.

Exhibit 27 Number of Surviving Strategic-Beta ETPs by Vintage

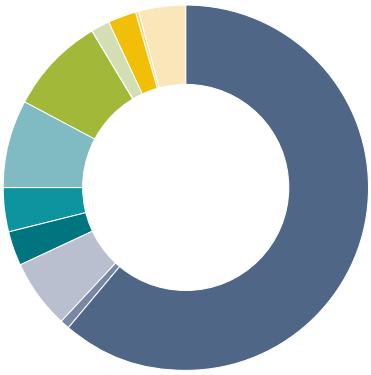
Source: Morningstar Direct, Morningstar Research

The very first European strategic-beta ETP, DivDAX EX, was rolled out by German bank HVB in April 2005. The ETF—known today as iShares DivDAX (DE) following iShares' acquisition of HVB's ETF business in 2006—marked the beginning of a long series of launches in the area of dividend-screened/weighted ETFs. Fundamentally weighted strategies followed suit, with Lyxor and Invesco PowerShares rolling out their first European ETFs tracking fundamental indexes from Research Affiliates in 2007.

After the first wave of launches, new ETP providers such as Deka, Amundi, UBS, and Source entered the fray in 2008-09 with more dividend-screened/weighted, value, growth, and nontraditional commodity products. It was not until 2010-11 that the industry witnessed an upsurge in innovation and product development, with 49 new strategic-beta ETPs hitting the European market during the two years. Almost half of the new launches were nontraditional commodity products, while 13 tracked brand new strategies such as minimum variance, equal-weighting, and GDP-weighting for fixed-income portfolios.

Since 2012, however, new launch activity seems to have stabilized, with an average of 11-16 new strategic-beta products coming into the market every year. At the same time, the level of complexity of the underlying benchmarks has clearly increased, notably with the proliferation of multifactor strategies.

Exhibit 28 Market Share by Secondary Strategic-Beta Attribute



Secondary Attribute	Market Share %
Dividend Screened/Weighted	61.34
Growth	0.74
Value	6.15
Multifactor	3.10
Equal-Weighted	3.76
Nontraditional Commodity	7.80
Low/Minimum Volatility/Variance	8.55
Momentum	0.05
Nontraditional Fixed Income	1.78
Fundamentally Weighted	2.33
Risk-Weighted	0.46
Expected Returns	3.94

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014

Exhibit 29 Number of ETPs by Secondary Strategic-Beta Attribute

Secondary Attribute	# of ETPs per strategy
Dividend Screened/Weighted	37
Growth	7
Value	9
Multifactor	8
Equal-Weighted	8
Nontraditional Commodity	29
Low/Minimum Volatility/Variance	12
Momentum	3
Nontraditional Fixed Income	5
Fundamentally Weighted	14
Risk-Weighted	4
Expected Returns	3

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014

Exhibit 30 Ranking of Strategic-Beta ETPs by Secondary Attribute

Secondary Attribute	# of ETPs	AUM $	% of Assets
Dividend Screened/Weighted	37	15,961,230,166	61.34
Low/Minimum Volatility/Variance	12	2,225,476,951	8.55
Nontraditional Commodity	29	2,028,769,659	7.80
Value	9	1,600,418,589	6.15
Expected Returns	3	1,024,093,723	3.94
Equal-Weighted	8	979,573,830	3.76
Multifactor	8	807,033,145	3.10
Fundamentally Weighted	14	605,018,110	2.33
Nontraditional Fixed Income	5	464,174,783	1.78
Growth	7	193,531,043	0.74
Risk-Weighted	4	118,843,073	0.46
Momentum	3	13,073,563	0.05

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014

Dividend-focused strategies are by far the most popular segment of the strategic-beta space in Europe, with $16.0 billion of assets invested in dividend-screened/weighted ETFs representing 61.3% of total strategic-beta ETP assets. In fact, these funds enjoy even higher market share in Europe than in the U.S. (61% versus about 30%). The overwhelming success of dividend strategies on both sides of the Atlantic comes as little surprise in a protracted low-interest-rate environment in which investors are hungry for income. Their success may also be explained by the rather easy-to-understand concept of dividend yield, which appeals to a wide range of investors.

Far behind, the second most in-demand category is low/minimum volatility/variance, with assets of $2.2 billion and 8.6% market share. Risk-oriented ETPs have proved highly popular among risk-averse equity investors since the first of its kind, Ossiam US Minimum Variance ETF, surfaced in Europe in 2011.

Hot on the heels of risk-oriented ETPs, nontraditional commodity ETPs take the third spot, with 29 products and assets totalling $2.0 billion. However, it is worth noting that almost half of these assets are concentrated in a single fund, db x-trackers DLBCI - OY Balanced 1C.

Meanwhile, products offering simple value tilts have so far garnered $1.6 billion, accounting for 6.2% of total assets. This is much less than in the U.S. where value-screened ETFs represent a fourth of the market. Also in stark contrast with the U.S., growth strategies have failed to gain any traction in Europe, with less than 1% market share. This probably underscores cultural differences, with European investors not considering style as important a component of their investment decision as U.S. investors do.

Similarly, fundamental strategies represent only 2.3% of the European strategic-beta space, despite the relatively high number (14) of fundamentally weighted ETPs on offer. Only three of these products have more than $100 million in AUM.

Exhibit 31 Largest Strategic-Beta ETP Providers

Rank	Provider	AUM ($)	# of ETPs	Market Share (%)
1	iShares	11,829,707,142	21	45.5
2	SPDR	2,966,868,129	8	11.4
3	Source	2,608,522,830	11	10.0
4	db x-trackers	2,366,940,015	25	9.1
5	Ossiam	1,660,889,080	7	6.4
6	Lyxor	1,597,937,281	17	6.1
7	PowerShares	560,320,781	12	2.2
8	ComStage	473,488,273	3	1.8
9	RBS	448,740,709	7	1.7
10	Deka	443,117,462	5	1.7

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Looking at the ranking of European strategic-beta ETP providers (exhibit 31,) market-leader iShares takes the spot in the sun once again. With $11.8 billion in strategic-beta ETP assets and 45.5% market share, iShares is by far the largest provider in the space. SPDR follows in second place, with AUM totalling almost $3 billion. However, almost two thirds of that amount is concentrated in a single ETF, SPDR S&P US Dividend Aristocrats ETF, and only two other SPDR products have more than $100 million in assets. By contrast, iShares' assets are more evenly spread out across its strategic-beta lineup, with 17 products registering more than $100 million in AUM. Similarly, Source, which comes third in the provider league table, has seven products with assets exceeding the $100 million mark.

Meanwhile, two new ETP providers with pure strategic-beta offerings have surfaced in Europe in recent years. Ossiam—an affiliate of Natixis Global Asset Management—entered the market in 2011. The French issuer has since garnered nearly $1.7 billion in assets—half of which is invested in Ossiam US Minimum Variance ETF— and boasts today fifth place in the strategic-beta ETP provider league table.

The other pure-strategic-beta ETP provider in Europe is First Trust. The U.S. issuer listed three AlphaDEX ETFs in London last year, aiming to build on the runaway success of its lineup in its home market. But it has so far attracted only $22.6 million in assets.

Exhibit 32 Largest Strategic-Beta ETFs

Name	ISIN	Inception Date	Strategic-Beta Secondary Attribute	Expense Ratio (%)	AUM ($Mil)
iShares Developed Markets Property Yld	IE00B1FZS350	10/20/06	Dividend Screened/Weighted	0.59	2,667
SPDR S&P US Dividend Aristocrats ETF	IE00B6YX5D40	10/14/11	Dividend Screened/Weighted	0.35	2,000
iShares European Property Yield	IE00B0M63284	11/4/05	Dividend Screened/Weighted	0.40	1,490
iShares UK Dividend	IE00B0M63060	11/4/05	Dividend Screened/Weighted	0.40	1,243
db x-trackers DLBCI - OY Balanced 1C	LU0292106167	6/29/07	Nontraditional Commodity	0.55	925
iShares EURO Dividend	DE000A0HG2P4	10/28/05	Dividend Screened/Weighted	0.40	877
iShares STOXX Global Sel Div 100 (DE)	DE000A0F5UH1	9/25/09	Dividend Screened/Weighted	0.46	826
Source Man GLG Europe Plus ETF	IE00B59D1459	1/27/11	Expected Returns	0.75	762
Ossiam US Minimum Var NR ETF 1C USD	LU0599612412	6/7/11	Low/Min Volatility/Variance	0.65	742
db x-trackers Stoxx Global Sel Div 100	LU0292096186	6/1/07	Dividend Screened/Weighted	0.50	672

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Fees Under the Microscope

Finally, looking at fees, the table below provides a comparison of TERs between strategic-beta ETPs and the rest of the ETP universe by asset class.

Exhibit 33 Comparison of TERs Between Strategic-Beta ETPs and the Rest of the ETP Universe

		Alternative (%)	Commodities (%)	Equity (%)	Fixed Income (%)	Combined (%)
All ETPs	Weighted Average	0.40	0.29	0.36	0.25	0.33
	Simple Average	0.46	0.55	0.43	0.21	0.41
ETPs Without Strategic Beta	Weighted Average	0.40	0.27	0.36	0.24	0.33
	Simple Average	0.46	0.53	0.43	0.21	0.40
Strategic-Beta	Weighted Average	—	0.60	0.44	0.42	0.46
	Simple Average	—	0.67	0.48	0.28	0.51

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

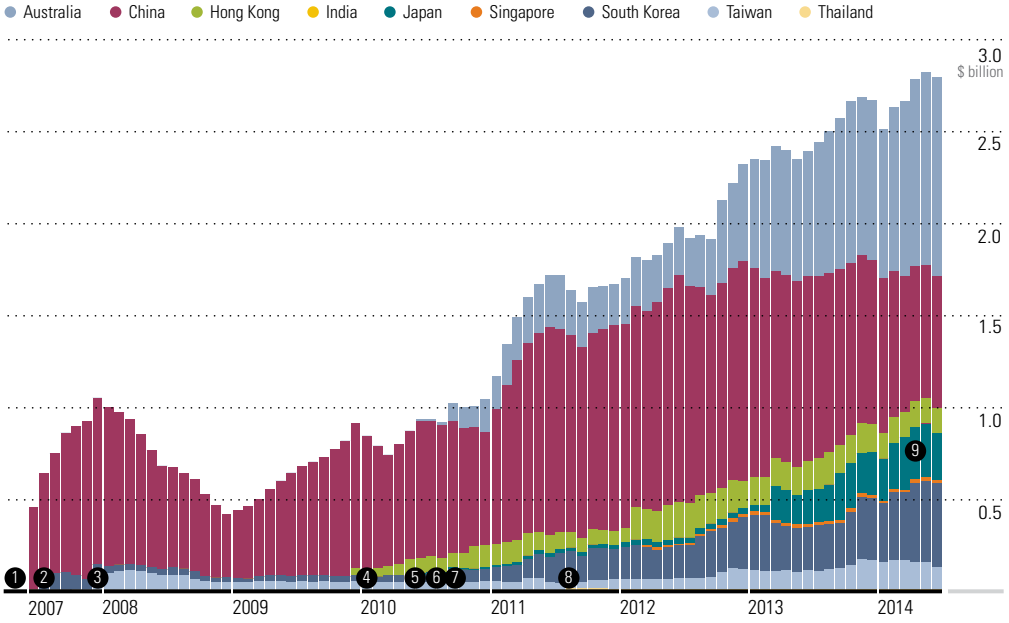
Overall, strategic-beta products tend to be more expensive relative to products tracking more-traditional benchmarks, as measured by both simple and asset-weighted averages, and the biggest difference in cost is in commodities. The average commodity ETP charges 0.53%, as measured by a simple average, compared with 0.67% for a strategic-beta product in that asset class.

Equity is another asset class in which differences in fees between strategic-beta ETPs and their plain-vanilla market-cap-weighted equivalents can be quite substantial. For instance, Source Man GLG Europe Plus, which aims to outperform the broad Europe ex-UK equity market by using brokers' ideas, charges a TER of 0.75%, while Amundi MSCI Europe ex-UK costs less than half this amount, with a TER of 0.30%. Similarly, iShares STOXX Global Sel Div 100 (DE), another fund from the top 10 strategic-beta ETP league table, levies a TER of 0.46%, while iShares Core MSCI World (Acc) charges as little as 0.20%.

Asia Pacific

Strategic-beta ETPs in the Asia-Pacific region have a less-than decade-long history, a lot shorter than that of the U.S. The region's first strategic-beta ETP (one benchmarked to a dividend-screened/ weighted index) was launched in China by Huatai-PineBridge in November 2006. During the past seven years, the offerings on the strategic-beta ETP menu have expanded to include other return- and risk-oriented strategies and have become available across many of the other Asia-Pacific markets, including India, which recently launched its first strategic-beta ETP—a dividend-screened/ weighted fund.

Exhibit 34 Strategic-Beta ETP Asset Growth (June 2007 Through June 2014)

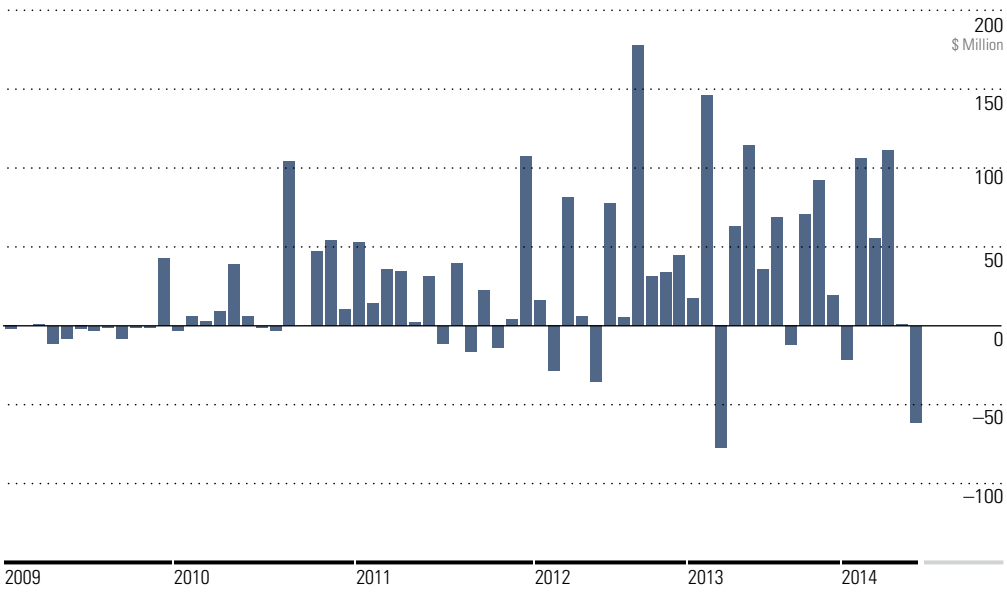


Source: Morningstar Direct, Morningstar Research
(Asset data for Chinese ETPs is available only on a quarterly basis, inter-quarter data was interpolated)

1. Nov-06 First strategic-beta ETPs in Asia-Pacific—Dividend-screened ETP launched in China in Nov 2006 (prior data unavailable)
2. Jul-07 South Korea: First strategic-beta ETPs—3 value-tilting ETPs
3. Dec-07 Taiwan: First strategic-beta ETP—a dividend-screened ETP
4. Dec-09 Hong Kong: First strategic-beta ETP—a value-tilted ETP
5. May-10 Japan: First strategic-beta ETP—a dividend-screened ETP
6. May-10 Singapore - First strategic-beta ETP—cross-listing of a nontraditional commodity ETP
7. Jun-10 Australia: First strategic-beta ETP—a dividend-screened ETP
8. Aug-11 Thailand: First strategic-beta ETP—a dividend-screened ETP
9. Apr-14 India: First strategic-beta ETP—a dividend-screened ETP

The growth of the Asia-Pacific strategic-beta ETP market was at first driven by the introduction of strategic-beta ETPs across different markets and subsequently by the expansion of the menu of offerings within those markets as well as net inflows into a select number of products. Over the 12 months ended June 30, 2014, assets under management in these products (excluding those domiciled in China) grew 50%, of which 33 percentage points came from net inflows. The number of strategic-beta ETPs (again, excluding those domiciled in China) grew to 52 from 42 during that same span.

Exhibit 35 Strategic-Beta ETP Monthly Asset Flows (January 2009 Through June 2014)



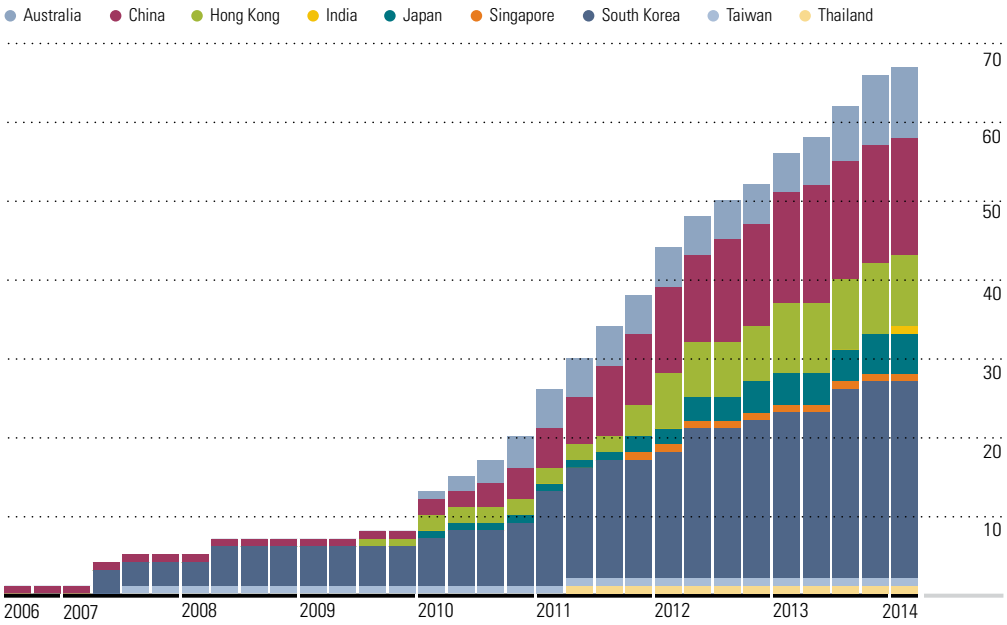
Note: Excluding flows from China, as data unavailable. Source: Morningstar Direct, Morningstar Research

Exhibit 36 Number of Surviving Strategic-Beta ETPs by Vintage

Year of Launch	# of ETPs
2006	1
2007	4
2008	2
2009	1
2010	9
2011	17
2012	16
2013	12
Year to June-2014	5

Note: Excludes cross-listed ETPs except for Australia. Source: Morningstar Direct, Morningstar Research

Exhibit 37 Number of Surviving Strategic-Beta ETPs by Country



Note: Excludes cross-listed ETPs except for Australia.
Source: Morningstar Direct, Morningstar Research

As of June 30, 2014, total net assets across the 67 strategic-beta ETPs in the Asia-Pacific region amounted to $2.8 billion, representing 1.5% of the total ETP assets in the region. Among the Asia-Pacific ETP markets, Australia stands out, as it is home to the largest amount of strategic-beta ETP assets, accounting for 39% of Asia Pacific's total, distributed among nine strategic-beta ETPs. Australia is followed by China (26% of assets, 15 ETPs) and South Korea (16% of assets, 25 ETPs). With 25 ETPs, South Korea has the most strategic-beta ETPs in the Asia-Pacific region. It is also the region's most diverse menu of strategies, including more-traditional strategies, such as dividend screened/weighted, as well as newer generations of strategies, such as multiasset and low/minimum volatility/variance.

Exhibit 38 Asia Pacific: Snapshot of Strategic-Beta ETP Markets

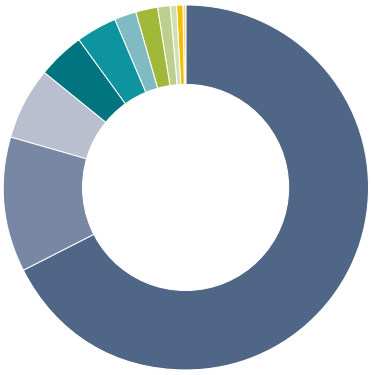
	# of ETPs	Total AUM ($)	% of total AUM of strategic-beta ETPs in Asia-Pacific	Largest ETP ($)	Average AUM ($)	% of Total Local ETP Market *
Australia	9	1,087,157,621	38.7	383,207,534	120,795,291	9.9
China	15	728,459,032	25.9	172,445,196	48,563,935	3.0
Hong Kong	9	134,231,751	4.8	32,464,031	14,914,639	0.4
India	1	2,227,936	0.1	2,227,936	2,227,936	0.1
Japan	5	257,479,884	9.2	189,803,069	51,495,977	0.3
Singapore	1	17,407,500	0.6	17,407,500	17,407,500	1.0
South Korea	25	454,879,865	16.2	63,509,365	18,195,195	2.6
Taiwan	1	123,588,373	4.4	123,588,373	123,588,373	1.7
Thailand	1	3,447,237	0.1	3,447,237	3,447,237	2.0
Total / Average	**67**	**2,808,879,199**		**383,207,534**	**41,923,570**	**1.5**

*Figures for the Australian market include assets for cross-listed ETPs.
Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Summing up, Australia stood as a more mature strategic-beta ETP market in terms of adoption, with collective strategic-beta ETP AUM representing 9.9% of the total ETP market. At 9.9%, this figure is below that of the U.S. (19.3%) and Canada (11.3%). It's comparable to that of the U.S. a decade ago and is much higher than the level of Europe (4.5%). The other countries'/regions' collective strategic-beta ETP AUM accounted for only 0.1%-3.0% of total assets of their respective ETP markets. In terms of product offerings, the Asia-Pacific region appeared to be inferior to the U.S. and Europe when it comes to the number of products available and the diversity, with Asia-Pacific strategic-beta ETPs highly concentrated in dividend-screened/weighted strategies (68%).

In fact, dividend-screened/weighted strategies attracted the most assets in every market and the majority of the net inflows (excluding China's) in the past 12 months went into the dividend-screened/weighted products. Moreover, strategic-beta ETPs tend to be small, with average asset size of $42 million. Furthermore, ETPs tend to focus their exposure in their respective local equity markets. Learning from the experience of the U.S. and Europe, we believe there is a lot of room for growth for strategic-beta ETPs as the various markets further develop and as investors further understand the pros and cons of these products.

Exhibit 39 Market Share by Secondary Strategic-Beta Attribute



Secondary Attribute	AUM %
Dividend Screened/Weighted	67.73
Value	11.80
Growth	6.56
Equal-Weighted	4.13
Fundamentally Weighted	3.49
Low/Minimum Volatility/Variance	1.99
Low/High Beta	1.96
Multiasset	1.16
Expected Returns	0.55
Nontraditional Commodity	0.43
Momentum	0.20

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Exhibit 40 Number of ETPs by Secondary Strategic-Beta Attribute

Secondary Attribute	# of ETPs
Dividend Screened/Weighted	20
Value	16
Growth	3
Equal-Weighted	9
Fundamentally Weighted	6
Low/Minimum Volatility/Variance	3
Low/High Beta	4
Multiasset	3
Expected Returns	1
Nontraditional Commodity	1
Momentum	1

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Exhibit 41 Market Share by Secondary Strategic-Beta Attribute

			% of Attribute AUM										
Secondary Strategy Attribute	# of ETPs	AUM ($Billion)	Australia	China	Hong Kong	India	Japan	Singapore	South Korea	Taiwan	Thailand	Total Asia-Pacific	% Flows in TTM
Dividend Screened/Weighted	20	1,903	36.9	9.8	2.5	0.1	8.0	0.6	5.2	4.4	0.1	67.7	94.7
Value	16	331	0.4	7.7	1.9	0.0	0.8	0.0	1.0	0.0	0.0	11.8	–15.4
Growth	3	184	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0
Equal-Weighted	9	116	0.1	1.6	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.1	7.1
Fundamentally Weighted	6	98	1.3	0.0	0.3	0.0	0.0	0.0	1.9	0.0	0.0	3.5	5.9
Low/Min Volatility/Variance	3	56	0.0	0.0	0.0	0.0	0.4	0.0	1.6	0.0	0.0	2.0	6.7
Low/High Beta	4	55	0.0	0.2	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2.0	–3.1
Multiasset	3	32	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	4.6
Expected Returns	1	16	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.6
Nontraditional Commodity	1	12	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	–1.2
Momentum	1	6	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0
Total	67	2,809	38.7	25.9	4.8	0.1	9.2	0.6	16.2	4.4	0.1	100.0	100.0

*Excluding flows from China, as data is unavailable.

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Exhibit 42 Asia-Pacific: Top 10 Strategic-Beta ETPs

Name	Ticker	Exchange Country	Strategic-Beta Secondary Attribute	AUM ($) *
Vanguard Australian Shares High Yield ETF	VHY	Australia	Dividend Screened/Weighted	383,207,534
Russell High Dividend Australian Shares ETF	RDV	Australia	Dividend Screened/Weighted	276,273,882
iShares S&P/ASX Dividend Opportunities ETF	IHD	Australia	Dividend Screened/Weighted	223,938,132
NEXT FUNDS Nomura Japan Equity High Dividend 70 ETF	1577	Japan	Dividend Screened/Weighted	189,803,069
SSE Dividend ETF	510880	China	Dividend Screened/Weighted	172,445,196
SZSE Growth 40 ETF	159906	China	Growth	138,451,943
SPDR MSCI Australia Select High Dividend Yield Fund	SYI	Australia	Dividend Screened/Weighted	134,888,893
SSE 180 Value ETF	510030	China	Value	127,925,971
Yuanta/P-shares Taiwan Dividend Plus ETF	0056	Taiwan	Dividend Screened/Weighted	123,588,373
SZSE Dividend ETF	159905	China	Dividend Screened/Weighted	103,873,917

* Figures for the Australian ETP represent share class level asset size

Note: Excluding cross-listings from Europe

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Australia

Australia has seen substantial growth in the strategic-beta ETP market, though the number of products remains relatively small. On our count, there are 94 ETPs in Australia, nine of which we classify as strategic-beta. Those nine ETPs account for $1.09 billion or 9.9% of Australia's $11.01 billion ETP market. Exhibit 43 shows the nine Australian products that meet our definition[5].

Exhibit 43 Strategic-Beta ETPs Available in Australia

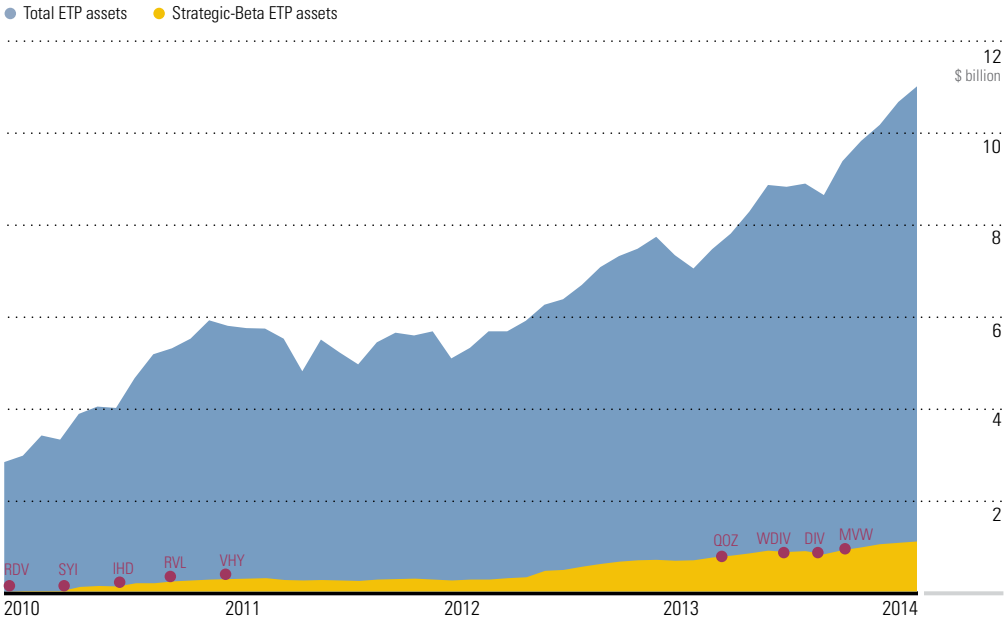
ETPs With Strategic-Beta in Their Approach	Ticker	Fee %	Secondary Strategic-Beta Attribute	AUM ($Million)	12-Month Flows ($MIllion)	Inception Date
BetaShares FTSE RAFI Australia 200 ETF	QOZ	0.40	Fundamentally Weighted	35	33	7/10/13
iShares S&P/ASX Dividend Opportunities	IHD	0.30	Dividend Screened/Weighted	224	58	12/6/10
Market Vectors Australian Equal Wt ETF	MVW	0.35	Equal-Weighted	4	4	3/4/14
Russell Australian Value ETF	RVL	0.34	Value	10	-65	3/18/11
Russell High Div Australian Shares ETF	RDV	0.34	Dividend Screened/Weighted	276	70	5/14/10
SPDR MSCI Australia Sel High Div Yld Fd	SYI	0.35	Dividend Screened/Weighted	135	21	9/24/10
SPDR S&P Global Dividend ETF	WDIV	0.50	Dividend Screened/Weighted	14	13	11/1/13
UBS IQ Research Preferred Aus Div Fund	DIV	0.70	Dividend Screened/Weighted	6	6	1/14/14
Vanguard Australian Shares High Yld ETF	VHY	0.25	Dividend Screened/Weighted	383	134	5/23/11

Source: Morningstar Direct, Morningstar Research

In part, the growth of strategic-beta mirrors the rapid rise of the ETP industry. In the year to June 30, 2014, ETP assets grew approximately 57% to $11.01 billion from $7.04 billion. Meanwhile, strategic-beta ETP assets were up a similar 59%, to $1.09 billion from $683.2 million. The growth in the Australian ETP industry as a whole and in the subset of strategic-beta ETPs is evident in Exhibit 44.

5. Keen readers of our Australian ETFInvestor newsletter will note that when we wrote about strategic beta in our first-quarter 2014 edition we identified 14 strategic beta ETPs. We've since refined our definition, which resulted in some products being excluded because they were primarily driven by market-cap weightings, or because option-writing forms a substantial part of the strategy.

Exhibit 44 Australian ETP Assets, Strategic-Beta ETP Assets, and Strategic-Beta ETP Product Launches (May 2010 Through June 2014)



Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Growth in the ETP industry was strong, despite relatively lackluster flows to the broader fund industry in Australia. That can be attributed to a range of ETP tailwinds such as the increased focus on fees by consumers and regulators, the rise of self-managed super funds (which have tended to favor listed investments), and the ETP industry itself reaching a tipping point for economies of scale. However, it would be wrong to argue that the growth in strategic-beta assets is due entirely to growth in the ETP industry.

Even before the first strategic-beta ETP was launched, unlisted funds had already won substantial assets. Dimensional Fund Advisors launched here in 2000 and manages $356 billion for investors globally, including more than $9.4 billion in Australian equities, dwarfing the pool of strategic-beta ETPs. Given that they don't specifically set out to track an index, Dimensional's strategies don't fit our definition of strategic beta, but the firm's flagship Value and Core strategies are very close cousins, and that is where a good chunk of Dimensional's business in Australia lies. Colonial First State (a subsidiary of the Commonwealth Bank) brought the concept to the mainstream retail market in 2008. Its Realindex business imported the methodology of Research Affiliates, which popularized the term "fundamental indexing" in the U.S. It weights its portfolio using fundamental business metrics cash flow, book value, dividends, and sales. Realindex retains a large retail strategic-beta book, with $8.0 billion in assets as of June 30, 2014.

Returning to the ETP space, much of the industry's recent growth was in international equities. Yet strategic-beta ETPs were able to grow assets at a faster rate, despite only one international-equity strategic-beta product being available in Australia—SPDR S&P Global Dividend ETF (WDIV). So while ETP industry growth has helped, it is not the only factor at play.

Strategic-Beta ETP Trends

Product launches and asset flows have so far favored dividend strategies. The first Australian strategic-beta ETP was Russell High Dividend Australian Shares (RDV), launched in May 2010. A further three high-dividend products from SPDR, Vanguard, and iShares were launched within a year of Russell's offering. The thirst for income in Australia has helped dividend ETPs to become the most lucrative strategic-beta products in the domestic market. Those four ETPs account for $1.02 billion in assets among them—that is, they account for almost all of the $1.09 billion in Australian strategic-beta ETP assets. Even those figures understate the dominance of dividend strategies—Vanguard has a further $701.3 million in a mirror unlisted fund version of its dividend strategy. Two more dividend products launched in late 2014. SPDR S&P Global Dividend (WDIV) offers a global equity portfolio with a dividend tilt. UBS IQ Research Preferred Australian Dividend Fund (DIV) extends UBS' quasiactive offerings, which are based on research from their broker analysts, in this case with a preference for dividends.

But there have been offerings focused on aspects other than dividends. BetaShares FTSE RAFI Australia 200 (QOZ) debuted in July 2013 and has already gathered $35.26 million in assets. QOZ uses a methodology from Research Affiliates, but, unlike unlisted fund rival Realindex, BetaShares makes it available in ETP format and at a cheaper price. Rounding out the offerings are an equal-weighted offering from Market Vectors and a value-tilted portfolio from Russell.

We can't precisely identify which clients are using strategic-beta ETPs in Australia, because of the way registry information works. However based on our conversations with ETP providers, the Australian Securities Exchange (ASX), and other industry participants, most assets appear to be coming from retail, advisor, or self-managed super fund clients—that is, the direct or advised retail market. Franking credits coming from dividend ETPs are particularly attractive to super and pension clients. While institutional investors are using market-cap-weighted ETPs, they don't appear to have widely embraced strategic-beta ETPs yet. This may be due to the available product suite or their ability to obtain strategic-beta exposure more cheaply in other structures, such as discrete mandates. As we described earlier, product launches and flows have been dominated by dividend strategies, but institutions generally favor total return strategies. There have also been relatively few ETPs that divide market beta into targeted slices such as "growth," "momentum," or "value" that may be used by professional portfolio managers. Exceptions would be Russell Australian Value ETF (RVL), where Russell uses the product for its own in-house multimanager offerings, and QOZ, where institutions may use the product rather than establishing a dedicated mandate with Research Affiliates.

We note that there is only one global equity strategic-beta ETP in Australia, and none that offer exposure to factors like growth, quality, or momentum—areas where we wouldn't be surprised to see launches in the future.

Fees

There is no need for a large investment team that does stock-forecasting or macroeconomic prognostication, so a straightforward strategic-beta approach should cost little more than passive indexing. More-complex strategies may sell at a premium but should still be cheaper than active management. Applying that logic, we find that products in the Australian market generally measure up well.

Annual fees for straightforward dividend strategies range from 0.25% to 0.35%, which is not much more than market-cap-weighted index funds. The two largest market-cap-weighted index ETPs, Vanguard Australian Shares (VAS) and SPDR S&P/ASX 200 Australian Shares (STW), can be had for 0.15% and 0.29%, respectively. Strategic beta is also substantially cheaper than actively managed funds, where even the cheapest offerings typically cost at least 0.60% for wholesale investors and more for retail investors.

Singling out the most expensive strategic-beta products, at a glance it appears there are some outliers. UBS IQ Research Preferred Dividend Index (DIV) costs 0.70%, but note that this product has much in common with active funds, because its index is driven by recommendations from UBS' broking arm—effectively, it has fundamental or active drivers, yet is priced more sharply than most active funds. SPDR S&P Global Dividend (WDIV) at 0.50% is the next most expensive, but we would point out that it is the only strategic-beta ETP offering global exposure. Offshore investing typically comes at a premium in the active space, where many of the active vehicles favored by our fund analysts cost more than 1%. However it is worth noting that market-cap-weighted ETPs in the offshore space can be extremely cheap, in part due to the economies of scale of very large funds, or Australian cross-listings of offshore products. For example, iShares Core S&P 500 (AU) is an Australian cross-listing of iShares' product on the New York Stock Exchange, so Australians can gain access to American stocks for the bargain price of 0.07%, setting a tough hurdle for pricier strategic-beta offerings.

China

China was the first market in Asia Pacific to offer a strategic-beta ETP. In November 2006, Huatai-PineBridge launched a dividend-screened/weighted ETP, SSE Dividend ETF (510880). China's second home-grown strategic-beta ETP, a value fund, did not arrive until April 2010. Since then the market has grown gradually with various new products launching offering exposure to a variety of strategies (growth, dividend screened/weighted, equal-weighted, and low/high beta). As of June 30, 2014, the dividend-screened/weighted, value, and growth ETPs accounted for the majority of the assets in the market. All of these strategic-beta ETPs offer exposure to the local A-Shares equity market. The 15 funds had combined assets under management of $728 million as of the end of June 2014.

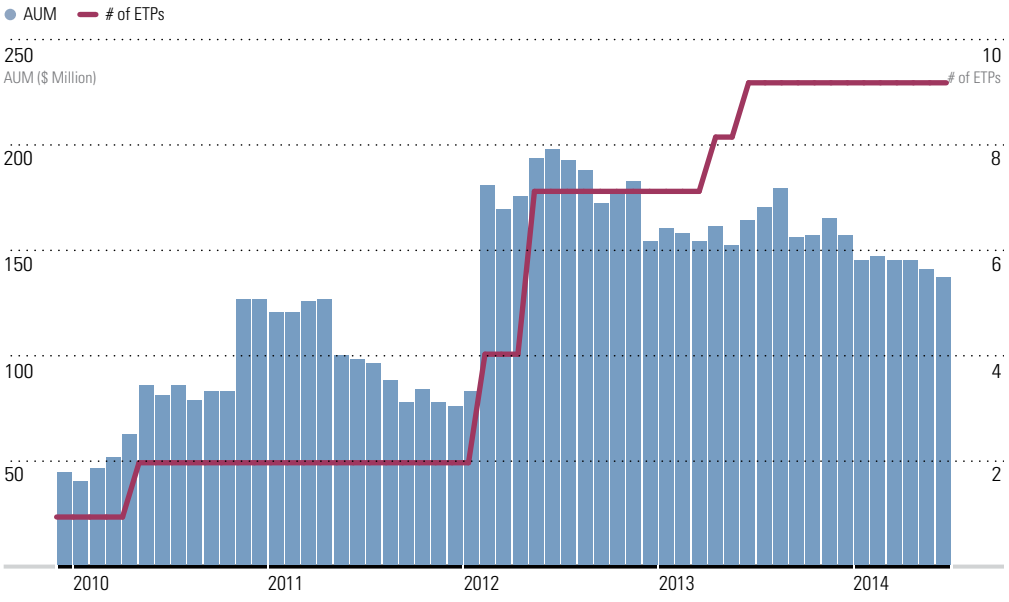
China-domiciled strategic-beta ETPs levy an average expense ratio of 0.85% (asset-weighted), compared with the 0.74% (asset-weighted) levied by other ETPs tracking Chinese equities. These numbers are much lower than the weighted average expense ratio charged by the actively managed funds available in China, which stood at 2.27% as of the end of June 2014.

Hong Kong

Value Partners launched the first strategic-beta ETP in Hong Kong in December 2009, Value China ETF (03046). However, the growth in strategic-beta products in Hong Kong has not enjoyed the same kind of steep trajectory as witnessed in the U.S., Europe, or some other markets in the Asia-Pacific region. While the number of strategic-beta ETPs listed in Hong Kong had risen to nine as of June 30, 2014, total assets under management among these products was just $134 million.

The expense ratios levied by strategic-beta products in Hong Kong are not particularly low. Taking the strategic-beta ETPs within the China equity category as an example, the average expense ratio is 1.04% (0.99% for those offering offshore China equity exposure; 1.91% for those offering onshore China equity exposure), compared with 1.16% for the China equity ETFs in Hong Kong (0.64% for the offshore ETP offering Chinese equity exposure; 1.25% for the onshore ETP offering Chinese equity exposure), and 1.95% (asset-weighted average across the oldest share classes) for actively managed funds in the China equity category.

Exhibit 45 Hong Kong: Strategic-Beta Assets and # of ETPs (December 2009 Through June 2014)



Source: Morningstar Direct, Morningstar Research

India

India has only one strategic-beta ETP, R*Shares Dividend Opportunities (RELDIVOPP), a dividend-screened/weighted fund, as of June 30, 2014. The ETP was launched in April 2014 and had assets under management of just $2 million as of June 30, 2014.

Japan

Japan's first strategic-beta ETP was launched in May 2010, Listed Index Fund Japan High Dividend (1698). It is a dividend-screened/weighted ETP. Subsequent additions include low/minimum volatility/variance and value products. The total number of strategic-beta ETPs in Japan stood at five as of June 30, 2014. Investors have favored the two ETPs offering access to dividend-screened/weighted strategies, as nearly 90% of strategic-beta assets have flowed into these two funds.

Singapore

Singapore had only one locally domiciled strategic-beta ETP as of June 30, 2014, CIMB S&P Ethical Asia Pacific Dividend ETF (QR9 and P5P), a dividend-screened/weighted ETP with assets under management of $17 million. Nevertheless, the Singaporean strategic-beta ETP menu has been expanded by virtue of the fact that there are a number of Europe-domiciled ETPs that are cross-listed on the Singapore exchange. This adds some nontraditional commodity ETPs to the market and puts the total number of locally listed strategic-beta products at seven.

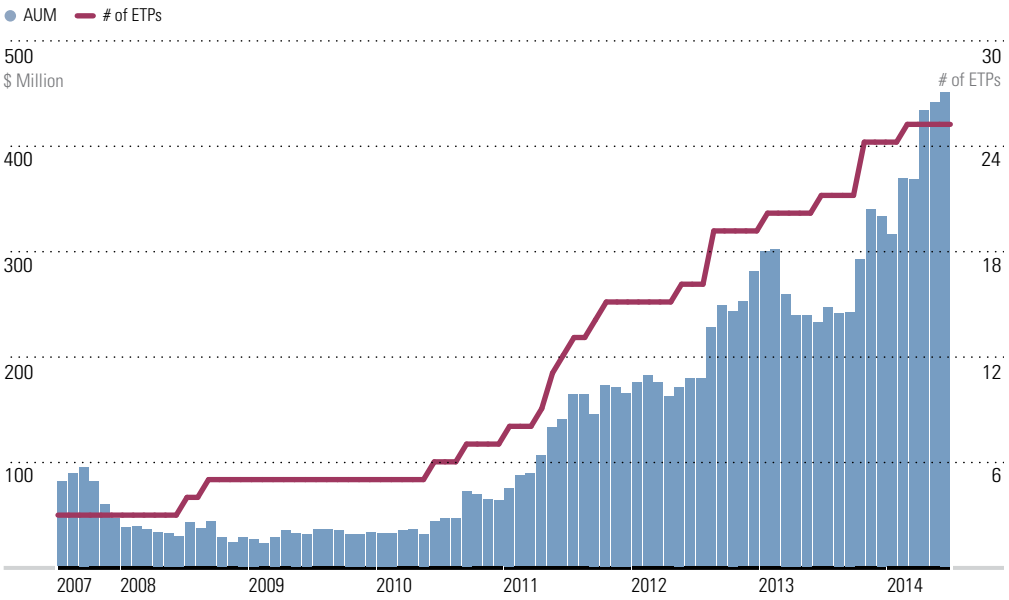
South Korea

South Korea was the second market in the Asia-Pacific region, after China, to offer strategic-beta ETPs, as three value ETPs were launched in July 2007: Tiger Mid Value (A097720), Tiger Pure Value (A097710), and TREX MS Value (A097750). Subsequent growth has put it atop the league table as the largest strategic-beta ETP market within the Asia-Pacific region in terms of number of ETPs available (25 products) and types of products (products spread across 10 secondary strategy attributes) as of June 30, 2014.

Despite the large menu, asset growth has been limited. These 25 ETPs had average assets under management of just $18 million as of June 30, 2014, and 12 of the 25 had fewer than $10 million under management.

Fees levied by the strategic-beta ETPs in Korea are fairly competitive. Taking the strategic-beta ETPs within the Korea Large-Cap Equity category as an example, the average expense ratio is 0.30%, compared with 0.21% for the Korean ETPs (excluding the strategic-beta ETPs) within the Korea large-cap equity category and 1.53% (weighted average of the oldest share classes) for actively managed Korean funds in the Korea large-cap equity category.

Exhibit 46 South Korea: Strategic-Beta Assets and # of ETPs (December 2009 Through June 2014)



Source: Morningstar Direct, Morningstar Research

Taiwan

Taiwan was home to just one strategic-beta ETP, Yuanta/P-shares Taiwan Dividend Plus ETF (0056), a dividend-screened/weighted ETP, as of June 30, 2014. The ETP was launched in December 2007 and had $124 million in assets under management as of June 30, 2014.

This dividend-screened/weighted ETP, which offers Taiwan large-cap equity exposure, has an expense ratio of 0.44%. This is slightly higher than the 0.40% asset-weighted average fee levied by ETPs listed in Taiwan offering exposure to Taiwan large-cap equities but is far lower than the 1.73% average fee charged by actively managed funds in the Taiwan large-cap equity category.

Thailand

As of June 30, 2014, there was just one strategic-beta ETP native to Thailand, ThaiDEX SET High Dividend ETF (1DIV), a dividend-screened/weighted fund. The ETP was launched in August 2011 and had $3 million in assets under management as of June 30, 2014.

Emerging (Strategic-Beta) Markets

There are other markets in which strategic-beta ETPs are still in an embryonic stage in their development. Most prominent among them is South Africa, which is home to eight strategic-beta ETFs, including Satrix Divi Plus ETF, which was launched in August 2007 and had $169.7 million in assets as of June 30, 2014. Other strategic-beta ETPs have found a home away from home, as they are cross-listed on exchanges outside their home market. Most notably, the Mexican and Chilean exchanges are host to a number of secondary listings of U.S.-domiciled ETPs. The menu of strategic-beta ETPs will likely continue to expand over time in these markets as their domestic ETP and broader asset-management industries continue to mature.

Exhibit 47 ETFs From Emerging (Strategic-Beta) Markets

Name	Domicile	Ticker	Inception Date	AUM $	Secondary Strategic-Beta Attribute
Satrix Divi Plus	South Africa	STXDIV	8/30/07	169,676,993	Dividend Screened/Weighted
Satrix RAFI 40	South Africa	STXRAF	10/16/08	97,396,265	Fundamentally Weighted
BettaBeta Equally Weighted Top 40 ETF	South Africa	BBET40	3/25/10	25,485,002	Equal-Weighted
It Now IDIV Index Fund ETF	Brazil	DIVO11	1/31/12	25,066,523	Dividend Screened/Weighted
NewFunds eRAFI Overall ETF	South Africa	RAFISA	6/23/08	9,426,096	Fundamentally Weighted
DJ Turkey Equally Weighted 15 Type A ETF	Turkey	ISY30.F	5/25/07	5,231,615	Equal-Weighted
NewFunds Equity Momentum ETF	South Africa	NFEMOM	1/26/12	2,393,161	Momentum
NewFunds eRAFI Financial 15 ETF	South Africa	RAFFIN	6/15/09	1,795,522	Fundamentally Weighted
NewFunds eRAFI Industrial 25 ETF	South Africa	RAFIND	6/15/09	1,374,819	Fundamentally Weighted
NewFunds eRAFI Resource 20 ETF	South Africa	RAFRES	6/15/09	969,598	Fundamentally Weighted

Source: Morningstar Direct, Morningstar Research. Data as of June 30, 2014.

Act 2: Factors—Theory and Practice

When the financial crisis swept through the global economy with the force of a Category 5 hurricane, conventional portfolios suffered. Almost every strategy, every asset did poorly. Investors bemoaned the failure of diversification. Saying diversification failed is like saying math doesn't work. The problem was that while investors felt diversified by investing in many different types of bonds and equities, their portfolios were still reliant upon economic growth and liquidity. They weren't diversified by the true drivers of returns: *risk factors*.

Risk factors represent distinct bad times that can't be diversified away. They are also called *systematic risks. Factor theory* is the grand mathematical architecture financial theorists have built up to make sense of risk and reward, the duality at the heart of investing.

In the idealized efficient markets financial economists like to assume, exposure to a risk factor must provide an expected excess return in order to entice investors to bear it. This reward is called the *risk premium*, in the sense that an investor is like an insurer. The *equity risk premium*, the reward equities are expected to provide (or have provided) over the "risk-free" asset, is perhaps the most studied. Assets generate returns only to the extent that they are exposed to factor risks; there is no free lunch. It is important to emphasize that like any other well-supported scientific theory, factor theory is simply a useful way to view the world. It doesn't lay claim to being the unimpeachable truth.

Researchers have identified three major risk factors, corresponding to different economic risks: *growth, inflation*, and *liquidity*. Pick any asset class, and you'll likely be able to attribute much of its returns to exposure to some combination of these three. However, the two major asset classes, stocks and bonds, have pronounced factor biases.

Stocks load up on growth risk because they're hurt when economic growth is unexpectedly poor. This is sensible. When economic growth unexpectedly slows, investors lower their profit expectations. They also become more risk-averse and require lower prices to hold stocks, perhaps because their jobs are at stake or they're scared.

Bonds load up on inflation risk because they're doubly hurt when inflation runs unexpectedly high. Investors realize the real value of a bond's future coupons and principal are now lower than they had expected. They also realize that the central bank is more likely to raise short-term policy rates to cool the economy, so they discount future payments using higher rates.

Note that these are all references to talking about unexpected changes. When the market fully anticipates a certain level of growth or inflation, and those expectations are realized, prices don't

change. This is why markets can rally hard even in the depths of recession, when the rain storms become ever-so lighter, not when the skies have cleared.

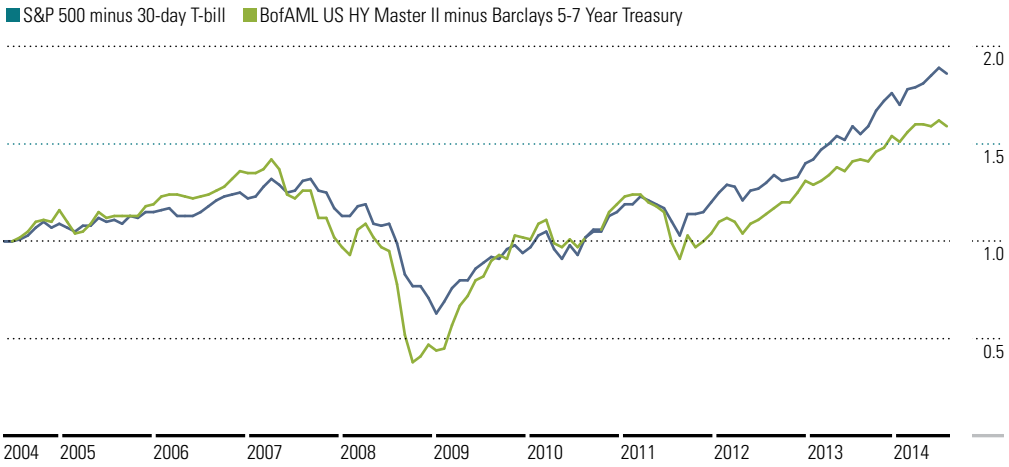
Liquidity risk is a little esoteric, but it's the reason seemingly unrelated strategies all suffer during bear markets. When there's a liquidity crisis, investors bunker in cash and lenders withdraw credit. Those squeezed for cash need to dispose of their assets, regardless of price, inducing *fire sales*. Illiquid assets experience the steepest losses because it's hard to find willing buyers for them. Junk bonds and preferred shares fell more sharply than did equities during the financial crisis, even though they are senior to equities and therefore safer. However, even highly liquid strategies can suffer from liquidity risk when they require leverage. For example, merger arbitrage and currency carry are low-return, low-volatility strategies that require leverage to magnify returns to acceptable levels. In normal times, they're not correlated to either stocks or bonds. But during liquidity crises, lenders withdraw credit, forcing leveraged investors to liquidate positions at the same time, exacerbating their losses.

Most investors don't realize that when they diversify, they're often merely reshaping their exposures to these factors (and others), and often not by much. Junk bonds are a good example. Many junk-bond advocates (disingenuously or out of ignorance) point out that junk bonds have provided equity-market-like returns with lower volatility over the past 30 years. The problem is junk bonds have earned returns from two main sources: a credit premium that reflects growth risk and a duration premium that reflects interest-rate risk (which in turn is exposed to inflation risk). Adding junk bonds to a typical stock and bond portfolio doesn't provide a diversification boost of the magnitude that adding bonds to a stock portfolio does because junk bonds largely add redundant factor exposures.

Exhibit 48 shows the S&P 500's total return in excess of the 30-day Treasury bill compared with the total return of the Bank of America Merrill Lynch High Yield Master II Index minus equivalent-duration Treasuries, scaled to match the S&P 500's volatility. These adjustments allow an apples-to-apples comparison by stripping out the tailwind junk bonds have enjoyed from falling interest rates and by equalizing their volatilities.

Junk bonds' excess returns look like equity returns because they load up on the same factor risks. There are some notable points of divergence: Junk bonds were hurt badly in 2008 and 2011, when investors sold relatively illiquid junk bonds to raise cash. This suggests junk bonds have historically been overpriced, because they didn't provide much compensation for liquidity risk.

Exhibit 48 High Yield Bond Returns in Excess of Treasuries (2x scaled) Behave Like U.S. Equity (Growth of $1) (July 2007 Through July 2014)



Sources: Morningstar Direct, Bank of America Merrill Lynch, Barclays, author's calculations. Note that the high-yield bond's excess returns were scaled by 2x to match the volatility of U.S. equities.

You can largely replicate the returns of junk bonds by owning some mixture of bonds and equities.

In an ideal world, the "price" of gaining exposure to a factor should be identical, regardless of the asset class. However, at times certain asset classes will offer cheaper exposure to a factor. For instance, in the late 1990s and early 2000s, junk bonds offered exposure to economic growth risk but with a far more attractive expected payoff than equities. Today, the situation has arguably reversed, with junk bonds offering less attractive risk-adjusted payoffs than owning equities and Treasuries. The intelligent, active asset-allocator is always looking to sell asset classes that are offering expensive factor exposures and replace them with cheaper ones.

The capital asset pricing model, or CAPM, was the first *factor* model. It was independently developed in the 1960s by William Sharpe, John Lintner, and Jan Mossin. Using some strong assumptions, the CAPM predicts that the only determinant of an asset's expected return is how sensitive its returns are to the market's. The strength of the relationship is summarized in a variable called *beta*. A beta of 1 indicates that for each percentage point the market moves, an asset's price on average moves in the same direction by a percentage point. The CAPM predicts asset returns are linearly related to market beta and only market beta. If a stock's beta is 2, its expected excess return is twice the market's. To top it off, the CAPM also predicts the market portfolio's expected volatility-adjusted return can't be beaten. Therefore, all investors should simply own some combination of the market portfolio and cash. This is a beautiful result.

However, since the 1970s, academics have known that stock returns don't seem to be related to beta, a puzzle now called the *low-volatility anomaly*. This spurred many fruitless attempts to explain how market efficiency could be squared with a world in which CAPM didn't work. One prominent criticism was that the market portfolio in CAPM doesn't just include stocks, but all assets, including bonds, real estate, human capital, pensions, annuities, gold, and so on—immeasurable with precision. Despite some valiant attempts, CAPM didn't survive intact as an explanatory theory.

In the late 1970s and early 1980s, economists observed that certain stock characteristics seemed to be associated with higher returns. Eugene Fama and Kenneth French investigated them and found that two characteristics, size (total market capitalization) and price (book value divided by market cap, or the inverse of price/book), did a better job explaining stock returns than other characteristics: The smaller or more value-laden a stock, the higher its returns, and these attributes subsumed others they looked at. Thus, the *Fama-French three-factor model* was born. Fama and French came up with plausible efficient-market explanations as to why these patterns held: Small caps are less diversified and more vulnerable to the business cycle; value stocks are distressed.

Around the same time, Narasimhan Jegadeesh and Sheridan Titman discovered the *momentum effect*, where stocks with high relative six- to 12-month performance outperformed stocks with low relative performance for up to 12 months. Mark Carhart augmented the Fama-French model with a momentum factor, leading to the *Fama-French-Carhart four-factor model*, shortened to the *Carhart model*.

Because factor models have their roots in models that assume market efficiency, the excess returns for value, small-cap, and momentum factors are often called risk premiums. However, this is a habit of language, not settled fact. When these market anomalies were first discovered, the consensus at first was that they were compensation for unique risks, or bad times.

Leading behavioral finance researchers including Josef Lakonishok, Andrei Shleifer, and Robert Vishny pushed back. They argued some anomalies, like value and momentum, were the result of investor misbehavior, not rational compensation for certain risks. (Size is largely thought to be a risk factor—a weak one at that—so there's not much debate over it.)

The debate still rages—insofar as debates can rage within the pages of scholarly journals and working papers—but the consensus seems to be that the value premium can be explained by rational and behavioral factors, with the behavioral factors taking the lead. Momentum remains the biggest embarrassment to the efficient markets hypothesis, and it's widely believed to be behavioral in origin.

With the discovery of the canonical factors, academics raised the hurdle for fund managers. Now a truly skilled manager has to outperform after deducting the influence of factor exposures to his

performance. Most studies show that once this deduction is made, evidence of skilled managers becomes hard to detect. Thus, many researchers have concluded that skilled managers are exceedingly rare.

Finance professors describe discovering one of these factors as the process of turning alpha into beta. In the argot of finance, beta is performance attributed to factor exposures; alpha is what's left over, unexplained, often interpreted as evidence of skill. The professors hold the reasonable notion that once they offer convincing evidence that they can replicate a manager's outperformance using simple, mechanical rules, and they disseminate the rules widely, the manager no longer deserves to command high fees. The operative word here is *convincing*—anyone can explain away a manager's outperformance if they look hard enough.

Evidence of persistent outperformance beyond factor exposures is rare. The implication is that many fund managers are unknowing members of a cargo cult: The visits to company managements, the poring through financial statements, and the chart gazing are all mostly useful to the extent they touch upon these factors. Why not cut out the middle man and own the factors directly? It's a question some big institutions have begun asking themselves. The Government Pension Fund of Norway, the biggest pension fund in Europe, and CalPERS, the biggest public pension fund in the U.S., have embraced the risk-factor-based view of the world. Individual investors and advisors should begin asking themselves whether they should, too.

Regardless of which interpretation is true, the implication is the same: Managers who mostly load up on factors don't deserve to charge high fees. Their real competitors are cheap, factor-mimicking funds, of which there are plenty, with more coming down the pipeline.

Act 3: A Practical Guide to Analyzing Strategic-Beta Products

With the proliferation of strategic-beta products over the past several years, there are often many vehicles that follow similar processes. Even products with seemingly disparate processes may ultimately offer similar exposures. Morningstar's strategic-beta attributes make it easier to identify and compare similar strategies. These are not new Morningstar categories. Strategic-beta products compete against both active managers and traditional index exposures. Investors should consider this broader opportunity set when evaluating strategic-beta products. However, these attributes help investors identify how these funds stack up against their closest peers and find less expensive, more efficient alternatives.

For example, investors interested in a dividend strategy might filter for funds with the dividend-screened/weighted attribute. This will return all strategic-beta funds in the respective vehicle's universe (ETF or open-end fund) that pursue a dividend-oriented strategy. In order to facilitate more-meaningful comparisons, it is useful to compare dividend funds that fall in the same Morningstar Category. For example, the U.S. large-value category might be a good starting place because dividend funds tend to exhibit a value tilt. With this list in hand, investors can compare performance, fees, and other salient features of each fund.

Pillar Framework

Morningstar evaluates Process, Price, Performance, Parent, and People to analyze and rate funds. The framework we apply to analyze strategic-beta funds is no different. However, the emphasis on these pillars changes. Process and Price are paramount for strategic-beta funds, while we de-emphasize the People pillar. Because these funds track an index, managers have limited discretion over how the portfolios are invested. The capabilities of the parent organization can often have a bigger impact than the named managers because much of the portfolio-management process for these funds is automated. The parent firm's infrastructure, scale, risk-management, and trading capabilities can give a fund a competitive edge. Responsible parent firms are also less likely to launch gimmicky funds.

To unpack a strategic-beta fund's process, there is no substitute for reading the methodology document for its index. These documents are usually available on the web. Details matter here. Two funds with similar names may do very different things that can cause their performance to diverge. For example, at first blush, PowerShares S&P 500 Low Volatility (SPLV) and iShares MSCI USA Minimum Volatility (USMV) may sound like close substitutes. But a closer look suggests otherwise.

The PowerShares fund targets the 100 least volatile stocks in the S&P 500 and weights its holdings by the inverse of their volatilities so that the least volatile stocks receive the greatest weightings in the portfolio. The fund does not anchor its sector weightings, which can lead to large sector bets, and it does not consider how the correlations between the stocks in the portfolio will affect the portfolio's overall volatility.

In contrast, iShares MSCI USA Minimum Volatility uses a more complex algorithm that incorporates each stock's volatility and the correlations between them to create the least volatile portfolio from the MSCI USA Index under a series of constraints. It also anchors its sector weightings to the parent index, which helps limit sector bets. While both funds have exhibited less volatility than the S&P 500 Index over the trailing 31 months through June 2014 (the longest period for which data on both funds is available), differences in their sector weightings and portfolio composition can cause their performance to diverge. Understanding a fund's process can help investors better understand how it will likely perform and set realistic expectations.

Portfolio

A working knowledge of each fund's methodology is essential to understand what each fund actually offers. It can also help investors understand how the composition of the fund's portfolio will likely differ from its peers, which can influence its performance. To illustrate, consider PowerShares FTSE RAFI US 1000 (PRF). This fund offers broad exposure to large- and mid-cap U.S. stocks. However, instead of weighting its holdings according to market capitalization, as most index funds do, this fund weights its holdings based on fundamental measures of size, including sales, book value, dividends, and cash flows. This approach introduces a value tilt. For example, if two stocks generate the same dollar value of sales, but one trades at a higher valuation than the other, it would receive a greater weighting in a market-cap-weighted index. In contrast, a fundamental index fund would assign the same weighting to these stocks, holding other factors constant. This would cause it to overweight the cheaper stock and underweight the more expensive one.

Therefore, it is useful to compare this fund's performance against other value-oriented funds. However, important distinctions remain. In contrast to traditional value funds, PRF does not restrict its holdings to value stocks. Rather, it includes most large-cap growth stocks and underweights them. This may help it hold up a little better than traditional value funds when value stocks are out of favor. Additionally, when it rebalances, the fund increases its exposure to stocks that have become cheaper relative to their fundamentals (and their peers) and trims positions in those that have become more expensive. This may allow investors to more efficiently profit from mean reversion in valuations than traditional value funds, though it may also increase exposure to stocks with weakening fundamentals.

Traditional style characteristics of a fund's portfolio, such as value and growth and average market capitalization, warrant attention. Typically, strategic-beta funds that take more exaggerated

small-cap, value, or growth bets tend to exhibit greater volatility. Quality metrics, such as Morningstar Moat ratings and return on invested capital—a measure of profitability—are also useful. Companies with wide economic moats (Morningstar's assessment that a firm enjoys a durable competitive advantage) may be able to weather tough economic environments better than their non-moat-worthy counterparts. Companies with wide moats tend to be highly profitable. There is some evidence that more-profitable stocks have historically outperformed their less profitable counterparts, after controlling for differences in valuations. While it may not be perfect, return on invested capital allows investors to get a quick handle on the profitability of a fund's holdings relative to a benchmark.

Sector and industry tilts are often conspicuous, but investors should also keep an eye out for portfolios with a disproportionate weighting in their top holdings, as this concentration can lead to uneven performance. As quantitative funds, most strategic-beta funds are designed to make small systematic bets across many stocks to take advantage of a common characteristic that may help improve performance. Large individual holdings can dilute the fund's exposure to the targeted characteristic because they introduce company-specific risk.

Performance Analysis: Attribution

Morningstar's performance-attribution tool in Morningstar Direct allows investors to view the extent to which a fund's active bets have paid off. For example, an attribution analysis of PowerShares FTSE RAFI US 1000 over the trailing five years through June 2014 against the Russell 1000 Value Index reveals that its underweighting of the energy sector and overweighting of the consumer cyclical sector explained 3.95% and 3.68% of its cumulative outperformance, respectively. Differences in the composition of the fund's holdings and weightings within these two sectors and the Russell 1000 Value Index's (the selection effect) explained an additional 5.75% of the fund's outperformance.

Exhibit 49 Performance Attribution Analysis: PowerShares FTSE RAFI US 1000 (July 1, 2009 Through June 30, 2014)

	Weights %		Rescaled Weights %		Return %		Contribution %		Attribution Effect		
	Portfolio	Bmark	Portfolio	Bmark	Portfolio	Bmark	Portfolio	Bmark	Morningstar Sector Weighting %	Selection %	Active Return %
Basic Materials	3.82	3.09	3.82	3.08	180.11	126.57	6.61	3.82	0.17	2.12	2.30
Communication Services	5.48	5.28	5.48	5.28	143.94	129.74	8.33	6.88	-0.58	0.84	0.26
Consumer Cyclical	10.21	7.36	10.22	7.36	272.21	250.42	23.11	13.70	3.68	2.85	6.53
Consumer Defensive	9.96	7.06	9.97	7.06	134.90	131.60	14.19	9.35	0.55	0.18	0.73
Energy	11.13	14.77	11.14	14.78	148.55	123.86	18.54	18.20	3.95	2.90	6.85
Financial Services	20.34	23.16	20.36	23.17	112.90	98.31	28.30	26.19	1.61	3.85	5.46
Healthcare	10.21	12.56	10.21	12.57	179.73	161.33	18.73	20.64	-0.01	1.30	1.28
Industrials	11.65	9.71	11.66	9.72	209.51	197.10	22.01	16.40	0.98	1.25	2.24
Real Estate	2.04	3.60	2.04	3.60	208.11	178.29	3.50	4.81	0.38	0.53	0.91
Technology	9.92	6.69	9.92	6.69	140.46	152.79	15.54	11.01	0.35	–1.32	–0.97
Utilities	5.03	6.69	5.03	6.69	100.36	99.91	6.23	7.43	1.80	–0.04	1.76
Unclassified	0.04	0.01	0.04	0.01	27.97	46.64	0.24	0.04	0.15	0.00	0.15
Cash	0.13	0.00	0.13	0.00	0.22	—	0.00	0.00	-0.61	0.00	–0.61
Attribution Total	**99.95**	**99.99**	**100.00**	**100.00**	**165.34**	**138.46**	**165.34**	**138.46**	**12.42**	**14.46**	**26.88**
Bond	0.01	0.00	—	—	—	—	—	—	—	—	—
Missing Performance	0.05	0.01	—	—	—	—	—	—	—	—	—
Other	0.00	0.00	—	—	—	—	—	—	—	—	—
Total	**100.01**	**100.00**	**—**	**—**	**—**	**—**	**165.34**	**138.46**	**—**	**—**	**—**
Reported Total					**159.39**	**140.95**					
Expense Ratio					**5.11**	**0.00**					
Residual (Reported – Attribution + Expense)					**-0.84**	**2.49**					

Source: Morningstar Direct, Morningstar Research

Attribution analysis illustrates why a fund outperformed or lagged a benchmark in the past. But it may not contain much information about how a fund will likely perform against that benchmark in the future. For that, factor analysis may be more useful.

Performance Analysis: Factor Regression

Many funds that look different on the surface often make similar bets. A returns-based factor regression analysis can reveal these bets and illustrate how a fund has behaved in the past and how it may behave in the future. A stock portfolio's exposure to a handful of factors can usually explain most of its performance. These include the market risk premium, size, value, momentum, and quality factors. Fixed-income portfolios typically rely on credit and duration factors instead. This approach may be particularly useful when a fund applies a complex or dynamic strategy, where the composition of the portfolio changes significantly over time. It also illustrates whether a fund is exploiting a well-known factor that many independent researchers have vetted.

Fortunately, it is relatively easy to obtain the necessary data to run a factor regression analysis. It's generally best to use at least five years of monthly total return data. If the fund in question has not been around that long, it may be appropriate to use the index it tracks. This total return data for funds is available through the Morningstar Direct Excel plug-in, or through public sources, such as Yahoo Finance. With this data in hand, the next step is to retrieve the factor data. The French Data Library offers reasonably current data on the equity market risk premium, size (SMB), value (HML), and momentum factors. The Frazzini Data Library offers additional data on the bet against beta (low volatility—BAB) and quality (QMJ) factors. However, this data is available only through March 2012 and December 2012, respectively. The directions below outline the steps to run a factor regression analysis for equity funds.

1. Download the monthly total return data for the fund of interest.

2. Go to the French Data Library http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html
   For directions for the Frazzini Data Library, skip to step 5.

3. If this analysis is for a U.S. fund, go to sub-step a.
   If this analysis is for a global fund, go to sub-step b.
   a. Click on the first Fama/French Factors link (under U.S. Research Returns Data) and open the text file. Next click on the first Momentum Factor link and open the text file. Proceed to step 4.
   b. If this analysis is for a global fund, click on the Fama/French Global factors link.

4. Copy the data from the files into Excel. For each:
   a. Highlight the data, click on the Data tab and click on Text to Columns
   b. Select the Fixed Width radio button in the dialog window. Click Next. Then click Finish.

5. To retrieve the QMJ or BAB factors, go to the Frazzini Data Library
   http://www.econ.yale.edu/~af227/data_library.htm, otherwise skip to step 6.
   a. Click on the Quality Minus Junk Factors or Betting Against Beta links. The data will be presented in Excel format. However, it does not include the risk-free rate. This data is available on the French Data Library or in Morningstar Direct.

6. Delete the extraneous data.

7. Subtract the risk-free returns from the fund's total returns. This accounts for the portion of returns that is compensation for the time value of money.

8. Organize the data so that the explanatory factors (in this case columns B through E) are next to each other.

Exhibit 50 Getting Your Factors in a Row, or Column as the Case May Be

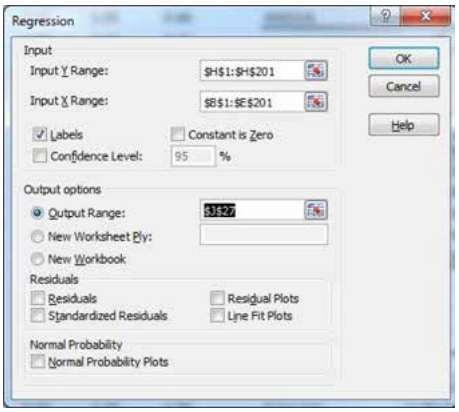
	A	B	C	D	E	F	G	H	I
1		Mkt-RF	SMB	HML	Mom	RF	Fund	Fund-RF	
2	199612	-1.7	3.08	0.99	0.59	0.46	7.74	7.28	
3	199701	4.99	-1.52	-2.33	1.94	0.45	9.46	9.01	
4	199702	-0.49	-2.61	4.69	-2.04	0.39	1.44	1.05	
5									

Source: French Data Library, Morningstar Research. Data as of June 30, 2014.

9. Click on the Data tab in Excel. If Data Analysis appears, proceed to step 9.
   a. If Data Analysis is not available, click on File, Options, Add-Ins, Analysis ToolPak. Then click Go. Click on the box next to Analysis ToolPak in the new window that appears. Click OK

10. Go to the Data tab and click on Data Analysis. Select Regression from the menu.
    a. Select the data from step 7 as the Input Y range (including the label, which in this case is Fund-RF). This is the dependent variable
    b. Select the desired factor data for the Input X Range (including the labels). These are the independent variables.
    c. Check the Labels box.
    d. Click OK.

Exhibit 51 I Regress…



Source: Morningstar Research

This will generate a table with the regression results. The table below illustrates the results for PowerShares FTSE RAFI US 1000 based on data from January 2006 through June 2014.

Exhibit 52 The Results Are In

Regression Statistics	
Multiple R	0.99
R Square	0.98
Adjusted R Square	0.98
Standard Error	0.72
Observations	102

ANOVA	df	SS	MS	F	Significance F
Regression	4	2763.65	690.91	1321.07	0.00
Residual	97	50.73	0.52		
Total	**101**	**2814.39**			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.08	0.07	1.05	0.30	–0.07	0.22
Mkt-RF	1.00	0.02	53.10	0.00	0.96	1.03
SMB	–0.05	0.04	–1.50	0.14	–0.12	0.02
HML	0.30	0.03	8.95	0.00	0.23	0.36
Mom	–0.15	0.02	–9.55	0.00	–0.18	–0.12

Source: French Data Library, Morningstar Research. Data as of June 30, 2014.

The adjusted R-squared value indicates the portion of the variance in the fund's returns that the regression explained. An adjusted R-squared of 1.0 indicates that the regression explains 100% of the variance in the fund's returns. The higher this number is, the better the regression explains the fund's returns. The R-squared tends to be lower for more highly concentrated portfolios, as individual company movements are noisier. In this case, the regression explained 98.1% of the variance in PRF's returns.

The intercept is the fund's alpha, or excess returns that the model could not explain. Like the other regression coefficients, it is generally not meaningful unless it is statistically significant. Recall that coefficients with a P-value of 0.05 or lower are usually considered to be statistically significant. Therefore, this fund does not have a significant alpha. It is rare to find a fund that does. However, a significant negative alpha should be a red flag.

The coefficient corresponding to Mkt-RF (market risk premium over treasuries) is known as the fund's beta. A beta of 1.0 means that the fund tends to appreciate 1% for each 1% gain on the market portfolio and lose 1% for each 1% decline in the market, holding all other factors constant. A beta of greater than 1.0 indicates that the fund may be riskier than the market, while portfolios with lower betas may be less risky. By itself, beta does not say much about a fund's investment merit. Investors can always hold more Treasuries to reduce the beta of their portfolios, or purchase the market portfolio on margin to increase beta. Recent research has also shown that the relationship between beta and returns is not as strong as once believed. In other words, high-beta portfolios may not provide returns commensurate with their level of risk.

A fund's exposure to the size (SMB), value (HML), and momentum (Mom) factors are indicative of its style orientation. Negative exposure to the size and value factors suggests that a fund exhibits large-cap and growth tilts, respectively. Because it invests in large- and mid-cap stocks, we would not expect PRF to have a positive loading on the size factor. Consistent with that expectation, the fund's loading on this factor is negative. However, it is not significant. The fund also exhibited the expected positive loading on the value factor. While this coefficient is significant, it suggests that the fund's value tilt is only moderate. For each 100 basis points that value stocks outpace growth stocks in the HML factor, this fund tends to gain 29 basis points. However, this is not much different than the loading traditional large-cap value funds have on the value factor. Because they do not short growth stocks, it is uncommon for value funds to have value loadings above 0.5. Small-cap value funds tend to have greater exposure to the value factor than their large-cap counterparts because the value premium has historically worked the best among small-cap stocks. This may also be because small-cap stocks carry a disproportionate weighting in the high minus low factor.

It is rare to find funds with significant positive exposure to momentum. However, value funds may have significant negative exposure to momentum, as stocks may become cheap after a period of bad performance. Because poor performance tends to persist in the short run, this exposure can detract from a fund's performance. (Remember, cheap stocks tend to do better in the long run.) PRF's significant negative loading on momentum is not surprising because it tends to double down on poorly performing stocks by adding to positions that have become cheaper relative to their fundamentals and paring back on those that have become more expensive.

It can be useful to compare factor loadings across strategic-beta funds within the same category to determine if there is a cheaper alternative that offers similar or stronger exposure to the factors of interest. If an equity strategic-beta fund does not have significant positive exposure to any factor other than the market risk premium or a positive alpha, it may not be worth pursuing. While a fund's exposure to the value, momentum, quality, low volatility, and to a lesser extent, size factors may give some indication about whether it has a reasonable chance of outperforming in the future, there are some limitations to the factor analysis. A fund's exposure to these factors may change over time. However, short of a methodology change, it is unlikely that most strategic-beta funds will experience a dramatic style shift. The payoff to each factor can also change over time. Despite their historical long-term success, the returns to each factor are volatile and can be negative for long spans. Therefore, the funds with the biggest factor tilts are not necessarily the best.

Comparing Similar Funds

Peer group performance is still relevant. The performance of a fund against its Morningstar Category indicates how successful it has been against similar alternatives. Morningstar currently maintains separate categories for ETFs and open-end mutual funds. However, it is useful to evaluate all ETFs and open-end funds that offer similar exposure together. To facilitate this comparison, investors can create a custom investment list in Direct with all the ETFs and open-end funds in the large-value

category, for example. Investors can also compare a strategic-beta fund against its closest peers by filtering for funds with the strategic-beta attribute of interest in the category.

This peer group also provides the best context for evaluating a strategic-beta's expense ratio. These funds tend to charge more than broad market-cap-weighted index funds, but materially less than actively managed alternatives. No matter how sophisticated a strategic-beta fund's construction approach is, there is no reason it should charge anything close to the types of fees actively managed funds charge. After all, these funds can largely run on autopilot—there is no need to hire, train, and reward a research team.

Risks

All strategic-beta funds make active bets, which means that there are investors taking the opposite side. It is important to understand why there are investors on either side of the table before committing to a strategy. For instance, a strategy may generate higher returns than the market by taking on greater risk. Risk-averse investors would happily take the other side of these bets. That should give investors greater confidence that the strategy may continue to work in the future, though they should also be comfortable with the risk. Behavioral biases or institutional frictions may also create opportunities for investors who have the emotional fortitude and flexibility to take advantage of them. However, profitable strategies that do not increase risk may become less effective as more investors pile into the trade.

No investment strategy will work in every market environment. Each carries unique risks. Investors should be comfortable with these active bets and the intuition behind them.

Checklist

1. Filter for funds with the strategic-beta attribute of interest and select a fund to evaluate

2. What does this fund do?
   a. Find out which index it tracks and read the methodology document.

3. Does this fund attempt to leverage a well-known factor?

4. What does the fund own?
   a. Sector tilts
   b. Style box characteristics
   c. Quality and profitability
   d. Portfolio concentration

5. Are there other funds that offer similar exposure?
   a. How does the fund's expense ratio and portfolio compare?

6. Has the fund performed as expected?
   a. Attribution analysis
   b. Factor regression analysis
   c. Peer group relative performance

7. What are the risks?
   a. Why are there others willing to take the opposite bets?

Appendix: Strategic-Beta Definitions

Strategic-Beta—widely referred to as "smart beta"— refers broadly to a growing group of indexes and the exchange-traded products and other funds and investment products that track them. The majority of these indexes seek to enhance returns or minimize risk relative to a traditional market-capitalization-weighted benchmark.

Others seek to address oft-cited drawbacks of standard benchmarks such as the negative effect of contango in long-only commodity futures indexes and the overweighting of the most-indebted issuers in market-cap-weighted fixed-income benchmarks.

These benchmarks and the investable products that track them exploit many of the same "factors" (size, value, quality, momentum, and so on) or to mitigate risk in a manner similar to active managers.

This group represents a middle ground on the active/passive spectrum—deviating from a traditional strictly passive market portfolio, but doing so in a rules-based, transparent, and relatively low-cost manner.

Many have defined the space in the negative, including products tracking any benchmark that does not weight its constituents on the basis of their market capitalization.

Per our definition, while most of the indexes underlying investment products in this class are not market-cap-weighted, some are (for example, those that have style "tilts"—which screen their investable universe for certain characteristics and subsequently weight constituents by their market cap).

We do not include market-cap-weighted sector indexes (though we do include non-cap-weighted sector benchmarks), thematic indexes (for example, socially responsible indexes, clean energy indexes, and so on), market-cap-weighted country indexes (again, we will include non-cap-weighted ones), and other types of indexes that screen constituents strictly on the basis of sector membership, investment theme, or geography in this grouping.

We exclude products tracking benchmarks that employ options strategies (for example, covered calls and protective puts).

We exclude quantitative tactical strategies.

We exclude products offering some form of exposure to volatility indexes.

We also exclude benchmarks that underlie those products that are included in our "trading" categories, such as leveraged and inverse funds.

The common elements among this diverse set of products are as follows:
They are index-tracking investment products;

They track nontraditional benchmarks that have an "active" element contained within their methodology, which typically aims to either improve returns or alter the index's risk profile relative to a standard benchmark;

Many of their benchmarks have short track records and were designed for the sole purpose of serving as the basis of an investment product;

Their expense ratios tend to be lower relative to actively managed funds';

Their expense ratios are often substantially higher relative to products tracking "bulk beta" benchmarks, like the S&P 500.

Return-Oriented Strategies

Return-oriented strategies look to improve returns relative to a standard benchmark. Value- and growth-based benchmarks are prime examples of return-oriented strategies. Other return-oriented strategies seek to isolate a specific source of return. Dividend-screened/weighted indexes, such as those followed by iShares Select Dividend (DVY) and SPDR S&P Dividend ETF (SDY), are chief examples of this type of return-oriented strategy.

Dividend Screened/Weighted

Dividend-screened and/or weighted strategies seek to deliver equity income by employing a number of dividend-oriented screening and/or weighting criteria. These include screening a universe of stocks for dividend-paying firms, weighting stocks on the basis of dividend payments, screening on the basis of dividend growth, isolating firms based on metrics that would indicate dividend stability, and other dividend-related criteria. It is important to note that some of these strategies will weight the results of their screening criteria by market cap.

Size

We do not consider size on a stand-alone basis, but only within the context of a multifactor strategy that introduces size "tilts." So, we do not classify products tracking small-cap benchmarks (Russell 2000, for example) as strategic beta. Also, we do not classify small- or mid-cap benchmarks that screen constituents for growth or value characteristics as being "multifactor." Only those products that track multifactor benchmarks that implement a size "tilt" will be tagged with this attribute—for example, JP Morgan Diversified Return Global Equity ETF (JPGE).

Value

Value strategies will screen a segment of the stock market looking to identify those stocks that display "value" characteristics. These characteristics will differ across index providers. Common value characteristics include: low price/prospective earnings, price/book, price/sales, and price/cash flow ratios, and above-average dividend yields, among others. It is important to note that some of these strategies will weight the results of their screening criteria by market cap.

Growth

Growth strategies will screen a segment of the stock market looking to identify those stocks that display "growth" characteristics. These characteristics will differ across index providers. Common "growth" characteristics include: above-average long-term projected earnings growth, historical earnings growth, sales growth, cash flow growth, and book value growth, among others. It is important to note that some of these strategies will weight the results of their screening criteria by market capitalization.

Fundamentally Weighted

Fundamentally weighted in this case refers exclusively to Research Affiliates' RAFI Fundamental index equity strategies, which select and weight their constituents based on fundamental measures such as sales, adjusted sales, cash flow, dividends, dividends plus share buybacks, book value, and retained cash flow.

Multifactor

Multifactor strategies set out to combine a variety of factors (value, growth, size, momentum, quality, and low volatility, for example) in an effort to improve risk-adjusted performance relative to a standard benchmark.

Momentum

Momentum strategies will select and/or weight their constituent securities on a number of factors, which might include price momentum, adjustments to earnings estimates, and earnings surprises.

Buyback/Shareholder Yield

Buyback/shareholder yield strategies will select and/or weight their constituents of some measure of cash returned to shareholders (typically any one or some combination of the following: dividends, share repurchases, and debt retirement) over a specified period.

Earnings Weighted

Earnings screened and/or weighted strategies seek to deliver excess returns by employing a number of earnings-oriented screening and/or weighting criteria.

Quality

These strategies look to build a portfolio of stocks composed of quality companies, which are characterized by their durable business models and sustainable competitive advantages. Quality companies tend to have high and stable levels of profitability and clean balance sheets.

Expected Returns

These equity strategies will select their constituents based on one or more measures of expected returns or relative performance (quantitative rankings or broker recommendations, for example) and weight them in a variety of ways.

Risk-Oriented Strategies

Risk-oriented strategies look to either reduce or increase the level of risk relative to a standard benchmark. Low-volatility and high-beta strategies are the most common examples of risk-oriented strategies.

Low/Minimum Volatility/Variance

Low/minimum volatility/variance strategies select and weight their constituents on the basis of historical volatility.

Low/High Beta

Low/high beta strategies select and weight their constituents based on their beta relative to a standard market-cap-weighted benchmark.

Risk-Weighted

Risk-weighted strategies weight constituents according to their individual expected contributions to overall portfolio risk.

Other

This classification encompasses a wide variety of strategies ranging from nontraditional commodity benchmarks to multiasset indexes.

Nontraditional Commodity

Nontraditional commodity benchmarks aim to improve upon the performance of standard indexes (for example, DJ UBSCI or S&P GSCI) by avoiding their chief drawbacks (roll losses resulting from contango). These include benchmarks that employ alternative weighting and/or rolling methodologies.

Equal-Weighted

Equal-weighted strategies assign an equal weight to their constituent securities.

Nontraditional Fixed Income

Nontraditional fixed-income benchmarks are not market-cap-weighted. The oft-cited drawback of market-cap weighting in the case of bond benchmarks is that it results in a portfolio that overweights the most heavily indebted issuers. At present, most nontraditional bond benchmarks weight constituents on the basis of fundamental metrics indicative of debt service capacity, which results in portfolios that skew toward more-creditworthy issuers.

Multiasset

Multiasset strategies tend to be income-oriented and will screen eligible securities (which may include but are not limited to stocks, bonds, preferred securities, and master limited partnerships) on the basis of yield, among other characteristics.