A Global Guide to Strategic-Beta Exchange-Traded Products

Morningstar Manager Research
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Executive Summary

- Two years ago, we introduced our naming convention and taxonomy for the fast-growing universe of strategic-beta exchange-traded products, or ETPs. In this year's guide, we provide an update on the state of the global strategic-beta ETP landscape.

- In recent years, the space has grown more rapidly than the broader ETP market as well as the asset-management industry as a whole.

- Growth has been driven by new cash flows, new launches, and the entrance of new players—some of which are traditional, dyed-in-the-wool active managers.

- We expect these trends will continue and may ultimately accelerate as newer ETPs tracking new and unproven benchmarks season and more new entrants make their way into the market.

- As of June 30, 2016, there were 1,123 strategic-beta ETPs, with collective assets under management of approximately $550.5 billion worldwide.

- Dividend-screened/weighted ETPs continue to be the most popular grouping of strategic-beta ETPs in all but one region we examined. This should come as little surprise when considered in the context of the prevailing interest-rate environment.

- Low-volatility/minimum variance ETPs have surged in popularity. As of the end of June 2016, we counted 61 such ETPs worldwide, with collective assets under management of $47.5 billion.

- The pace of new product launches has accelerated to record levels. The number of strategic-beta ETPs listed globally increased by more than 23% versus June 2015. This is owed in large part to a record number of new launches in the United States, driven by a combination of new entrants and strategy proliferation.

- A commonality among the markets we examined is the increasing complexity of the benchmarks underlying new ETPs.

- As these strategies become increasingly nuanced, looking to infuse elements of an active manager's thinking into an index, investors' collective due-diligence burden will continue to increase commensurately.

- An increasingly crowded and competitive landscape will also put pressure on fees.
- We have already seen instances of aggressive fee reductions for strategic-beta ETPs. We anticipate that cost-competition in this space will become more prominent in the years to come.

Introduction

Two years ago, we introduced our naming convention and taxonomy for the fast-growing universe of strategic-beta exchange-traded products, or ETPs. The goal of our initial guide was to help investors to better define, measure, and analyze this diverse group of passively managed investment products that make active bets against their broad, market-capitalization-weighted predecessors. In this year's guide, we provide an update on the state of the global strategic-beta ETP landscape.

One year on, the space has continued to grow faster than the broader ETP market as well as the asset-management industry as a whole. Growth has been driven by new cash flows, new launches, and the entrance of new players—some of which are traditional, dyed-in-the-wool active managers. We expect these trends will continue and may ultimately accelerate as newer ETPs tracking new and unproven benchmarks season and more new entrants make their way into the market. This process of growth and maturation will ultimately lead to a culling of the herd, which has already begun in some geographies, albeit to a limited extent. An increasingly crowded and competitive landscape will also put pressure on fees. We have already seen instances of aggressive fee reductions for strategic-beta ETPs. We anticipate that cost-competition in this space will become more prominent in the years to come.

Note that all monetary figures in this report are shown in U.S. dollars. Unless stated otherwise, all data is as of June 30, 2016.

The Global Strategic-Beta ETP Landscape

Global Summary

As of June 30, 2016, there were 1,123 strategic-beta ETPs, with collective assets under management of approximately $550.5 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 major 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 21.7% of U.S. ETP assets but just 3.5% 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 continue to be the most popular grouping of strategic-beta ETPs in all but one 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 into dividend-paying equities, shunning the low (or negative) real yields offered by issues from developed-markets sovereigns. Also, low-volatility/minimum variance ETPs have recently surged in popularity. As of the end of June 2016, we counted 61 such ETPs worldwide, with collective assets under management of $47.5 billion. We interpret this phenomenon as an indication of investors' collective wariness regarding a postcrisis bull market that is now more than seven years old. Faced with few better alternatives to stocks in a low-expected-return environment, many are instead turning to low-volatility equity strategies—which aim to deliver equity exposure with below-average volatility relative to owning the market outright. Clearly, many investors around the globe have judged this to be a palatable proposition.

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 almost 89% 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 that are 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 infuse elements of an active manager's thinking into an index, investors' collective due-diligence burden will continue to increase commensurately.

Exhibit 1 The Global Strategic-Beta Landscape in 2016

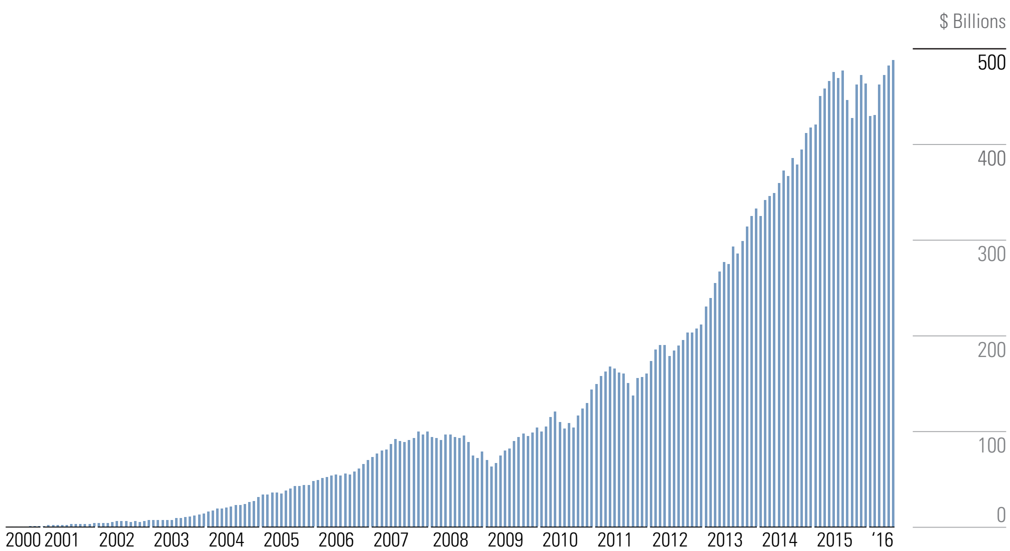
	Assets 2016 ($ Bil)	Global Market Share (%)	Assets 2015 ($ Bil)	One-Year % Change	Flows 6/2015–6/2016 ($ Bil)	As a % of Beginning AUM	# of ETPs 6/2016	# of ETPs 6/2015	One-Year % Change
U.S.	489.8	89.0	470.7	4.1	32.5	6.9	608	478	27.2
Canada	9.0	1.6	8.2	9.2	1.3	16.2	95	89	6.7
Europe	40.7	7.4	32.5	25.4	8.7	26.6	268	233	15.0
Asia-Pacific	10.5	1.9	7.1	47.5	4.2	58.9	130	97	34.0
EM	0.5	0.1	0.7	–33.9	–0.2	–24.4	14	14	0.0
Total	550.5	100.0	519.2	6.0	46.5	8.9	1,123	911	23.3

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

United States

The United States is home to what is far and away the largest and most diverse stable of strategic-beta ETPs. It is host to 54% of the total number of strategic-beta ETPs, which together account for 89% of global ETP 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 exchange-traded funds were not only the first but also 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 16 years to June 30, 2016, and strategic-beta ETPs numbered 608 and had collective assets under management of $489.8 billion.

Exhibit 2 United States Strategic-Beta ETP Asset Growth

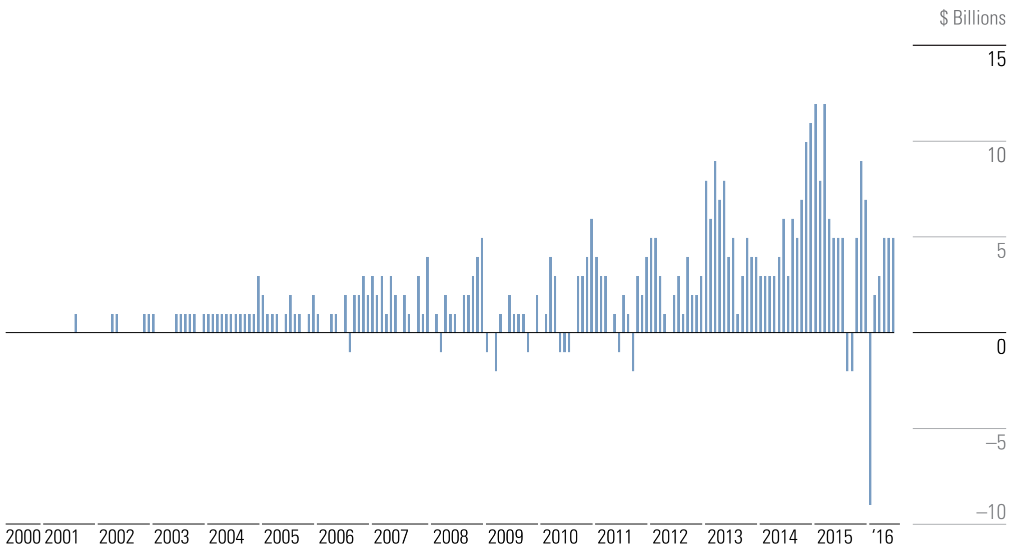


Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

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 79% of the aggregate growth in strategic-beta ETP assets dating back to May 2000 has come from net new inflows, while the remaining 21% reflects asset appreciation. In many ways, the U.S. market was well-"primed" for strategic beta. The Morningstar Style Box 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, ETFs 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 [1] converts who were well-versed in size, value, and momentum.

Exhibit 3 United States Strategic-Beta ETP Monthly Asset Flows

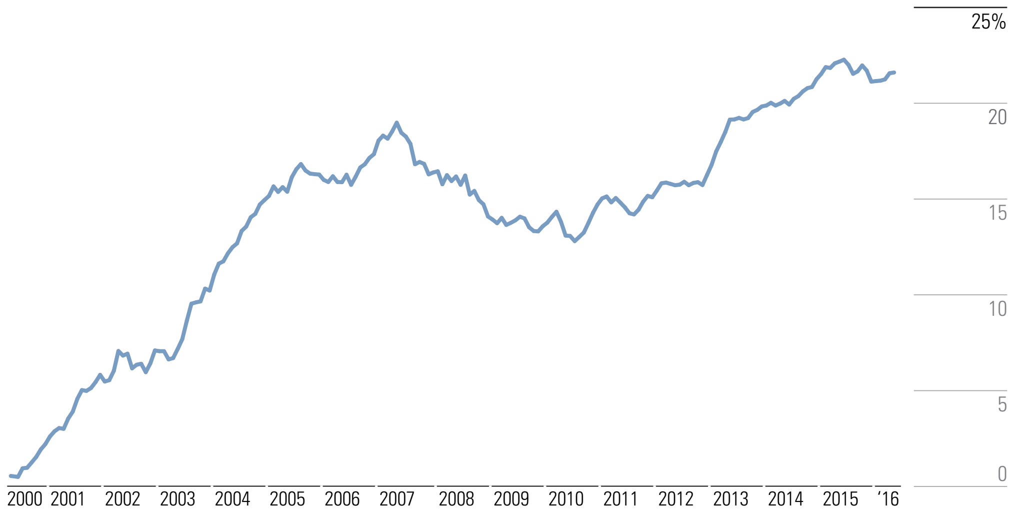


Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

1 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 it sets out to exploit them, and the fact that most of its funds levy low fees relative to peers make them close cousins.

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 21% as of the end of June 2016 from nil in 2000—though these ETPs' share of the overall market slipped modestly in 2016.

Exhibit 4 Strategic-Beta ETPs' Share of the Overall U.S. ETP Market (%)



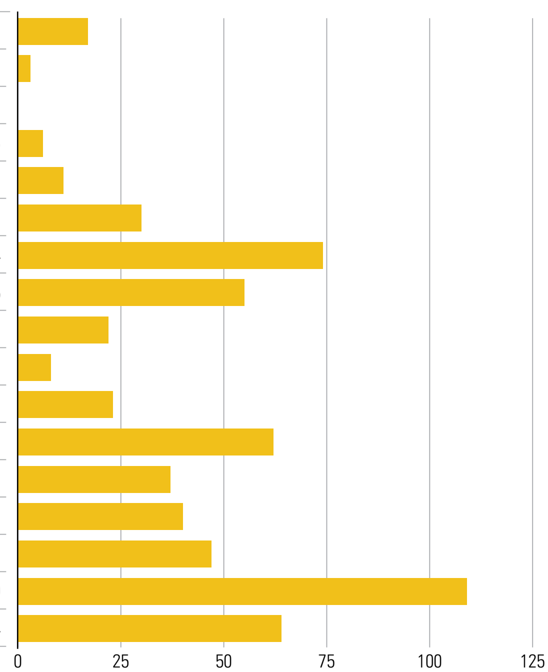
Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

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 accelerated. At 109, the number of strategic-beta ETPs listed in the U.S. in calendar-year 2015 smashed the prior record high of 74 set in 2006. Through the first six months of 2016, a total of 64 new strategic-beta ETPs were brought to market—a pace that would imply that the record set in 2015 might not last long. New launches are being driven by a combination of new entrants (Goldman Sachs, John Hancock, Legg Mason, Franklin Templeton, and others) and the product development equivalent of a trend-following strategy (as evidenced by the proliferation of low-volatility and multifactor strategies).

Exhibit 5 United States Number of Surviving Strategic-Beta ETPs by Vintage

Year of Launch	# of ETPs
2000	17
2001	3
2002	0
2003	6
2004	11
2005	30
2006	74
2007	55
2008	22
2009	8
2010	23
2011	62
2012	37
2013	40
2014	47
2015	109
2016	64



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

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 71% 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.

Exhibit 6 United States Ranking of Strategic-Beta ETPs by Secondary Attribute

Secondary Attribute	# of ETPs	Assets ($Bil)	% of Assets
Dividend-Screened/Weighted	144	132.1	27.0
Value	42	108.8	22.2
Growth	32	108.1	22.1
Low/Minimum Volatility/Variance	23	38.6	7.9
Equal-Weighted	60	27.6	5.6
Multifactor	152	26.1	5.3
Fundamentally Weighted	12	11.0	2.2
Nontraditional Commodity	49	9.5	1.9
Momentum	28	9.0	1.8
Nontraditional Fixed Income	18	7.3	1.5
Quality	12	4.4	0.9
Earnings-Weighted	6	2.6	0.5
Multiasset	7	1.6	0.3
Buyback/Shareholder Yield	6	1.6	0.3
Revenue-Weighted	7	0.9	0.2
Risk-Weighted	7	0.3	0.1
Expected Returns	1	0.2	0.0
Low/High Beta	2	0.1	0.0

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

By Provider

The duo of iShares and Vanguard accounts for just 15.4% of the total number of strategic-beta ETPs but has amassed 61.1% 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. Occupying the third and fifth spots among the top five are two ETF providers that have made strategic beta their calling card—PowerShares and WisdomTree. Meanwhile, State Street Global Advisors unseated First Trust from the top five. This owed chiefly to outflows at First Trust. The firm's strategic-beta lineup experienced a net $2.2 billion worth of outflows in the 12-month span ended June 2016, while State Street's strategic-beta funds gathered approximately $850 million in new capital.

Exhibit 7 United States Largest Strategic-Beta ETP Providers

Provider	AUM ($Bil)	# of ETPs	Market Share (%)
iShares	193.8	72	39.6
Vanguard	105.7	22	21.6
PowerShares	40.0	88	8.2
State Street Global Advisors	36.7	53	7.5
WisdomTree	36.6	63	7.5
First Trust	25.4	58	5.2
Guggenheim	17.1	30	3.5
Schwab	11.0	9	2.3
FlexShares	6.4	16	1.3
ProShares	2.4	6	0.5
Others	14.8	191	3.0

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

By Fund

The top 10 strategic-beta ETPs by assets account for about 39.5% of assets in this corner of the ETP market. Again, cut-and-dried value, growth, and dividend-screened/weighted approaches dominate their ranks. There is, however, a notable exception at the top of the league tables—iShares Edge MSCI Minimum Volatility USA ETF USMV. Also, noticeably absent from this year's top 10 list are WisdomTree Japan Hedged Equity ETF DXJ and WisdomTree Europe Hedged Equity ETF HEDJ. The fact USMV has quickly ascended to the top of the pile and DXJ and HEDJ have fallen from grace is indicative of the trendiness that can drive short-term flows in this corner of the market—making it, of course, no different from the market at large. USMV gathered $8.3 billion in net new assets over the 12-month period ended June 30, 2016, as investors bought in (in a big way) to a potentially more-palatable manner of maintaining U.S. equity exposure. Meanwhile, the strong tailwind that was a rallying dollar began to fade, and many investors lost their appetite for currency-hedged exposure to Japanese and European stocks. Over the 12 months through June 2016, DXJ and HEDJ hemorrhaged a combined $11.9 billion in assets.

Exhibit 8 United States Largest Strategic-Beta ETFs

Name	Ticker	Inception Date	Strategic-Beta Secondary Attribute	Expense Ratio (%)	AUM ($ Bil)
iShares Russell 1000 Growth	IWF	5/22/00	Growth	0.20	29.3
iShares Russell 1000 Value	IWD	5/22/00	Value	0.20	28.6
Vanguard Value ETF	VTV	1/26/04	Value	0.08	21.8
Vanguard Dividend Appreciation ETF	VIG	4/21/06	Dividend-Screened/Weighted	0.09	21.6
Vanguard Growth ETF	VUG	1/26/04	Growth	0.08	20.4
iShares Select Dividend	DVY	11/3/03	Dividend-Screened/Weighted	0.39	15.7
iShares Edge MSCI Min Vol USA	USMV	10/18/11	Low/Minimum Volatility/Variance	0.15	14.6
Vanguard High Dividend Yield ETF	VYM	11/10/06	Dividend-Screened/Weighted	0.09	14.5
SPDR® S&P Dividend ETF	SDY	11/8/05	Dividend-Screened/Weighted	0.35	14.0
iShares S&P 500 Growth	IVW	5/22/00	Growth	0.18	13.4

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Keeping an Eye on Expenses

The fees levied by strategic-beta ETPs are, on average, competitive with those charged by the ETP field at large as well as the universe of ETPs ex-strategic beta. 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 0.03%. 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. With that said, there are clearly some outlying 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.

In sum, 71 of the 608 strategic-beta ETPs that existed as of June 30, 2016, saw their annual report net expense ratio decrease from 2014 to their 2015 fiscal year. The median decline in fees among this group was 0.03%. Meanwhile, 63 strategic-beta ETPs saw their fees inch higher, by a median level of 0.01%. The toll taken by the remaining 474 products remained unchanged.

We expect that fees for strategic-beta ETPs will trend lower with time. We've already seen instances of proactive fee cuts among the PowerShares FTSE RAFI suite as well as in the iShares Core lineup. Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF GSLC—a multifactor fund that was launched in September 2015—charges a fee of just 0.09%. This is perhaps the most meaningful data point to date indicating that a trend toward lower fees is forming in the U.S. strategic-beta ETP market.

Exhibit 9 United States Fees Under the Microscope

	Average	Combined (%)	Equity (%)	Fixed Income (%)	Commodities (%)	Alternative (%)
All ETPs	Weighted	0.25	0.23	0.22	0.48	0.98
	Simple	0.57	0.50	0.34	0.79	0.90
ETPs Without Strategic Beta	Weighted	0.24	0.21	0.22	0.43	0.98
	Simple	0.61	0.53	0.35	0.83	0.89
Strategic Beta	Weighted	0.29	0.27	0.39	0.80	0.97
	Simple	0.50	0.46	0.33	0.74	1.15

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

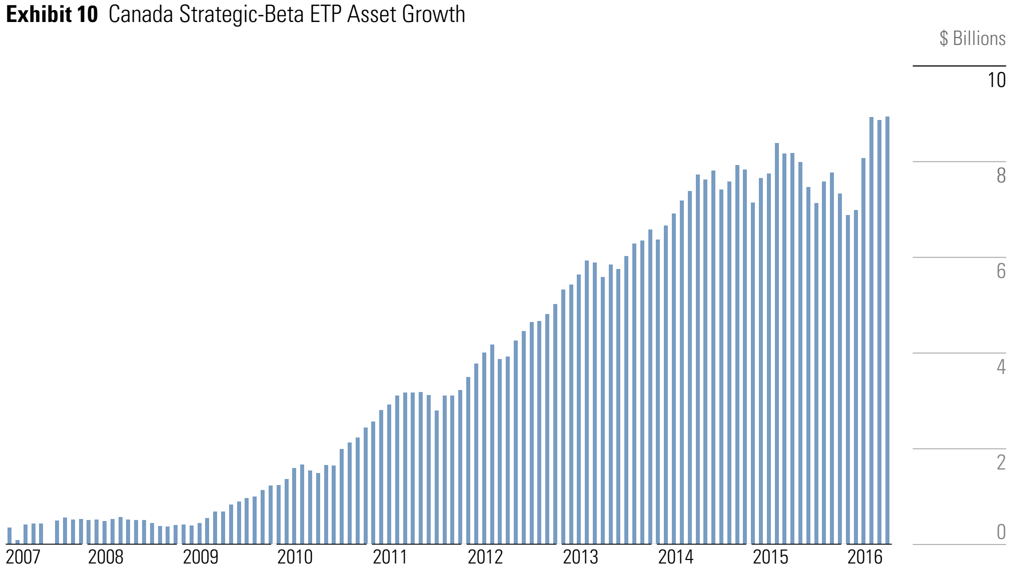
Canada

After launching a raft of strategic-beta ETPs in recent years, Canadian asset managers slowed the pace of new launches over the 12 months through June 30, 2016. The number of such offerings rose by six to 95 (this figure counts ETPs with separate commission-based and commission-free share classes as a single fund). Assets rose at a bit brisker pace, increasing 9% from $8.2 billion to $9.0 billion, compared with 7% over the prior 12-month period. Weak stock market performance, especially in Canada, meant inflows drove growth. Indeed, approximately $1.3 billion flowed into strategic-beta ETPs over the period—a 16% organic growth rate. Because non-strategic-beta assets in Canada-listed ETPs grew more quickly overall, strategic-beta ETPs' share of the nearly $95 billion market slipped to 9.5% from 10.3%.

Long-term asset growth has been strong, also thanks to burgeoning investor interest. Of the $5.7 billion increase in assets over the five-year period, $4.2 billion, or 74%, stems from inflows. In all, strategic-beta assets rose 23% annually over the period, modestly higher than the 19% growth rate for ETPs overall. While its piece of the Canadian ETP pie shrank over the past year, strategic-beta ETFs' share of the market is nearly double where it was five years ago.

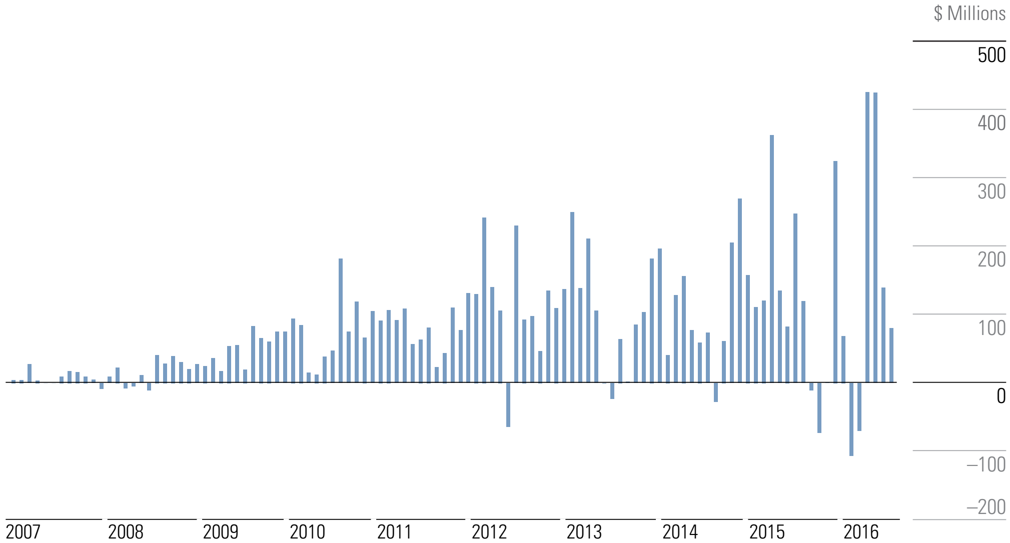
These numbers likely understate Canadian adoption of strategic-beta ETPs. With some strategic-beta flavors, such as nontraditional fixed-income and commodities, being nonexistent or in short supply at home, Canadian investors can turn to U.S.-listed ETPs to gain access to these strategies. We don't know the exact dollar value, though, or the extent that Canadians choose strategic-beta strategies listed south of the border.

Exhibit 10 Canada Strategic-Beta ETP Asset Growth



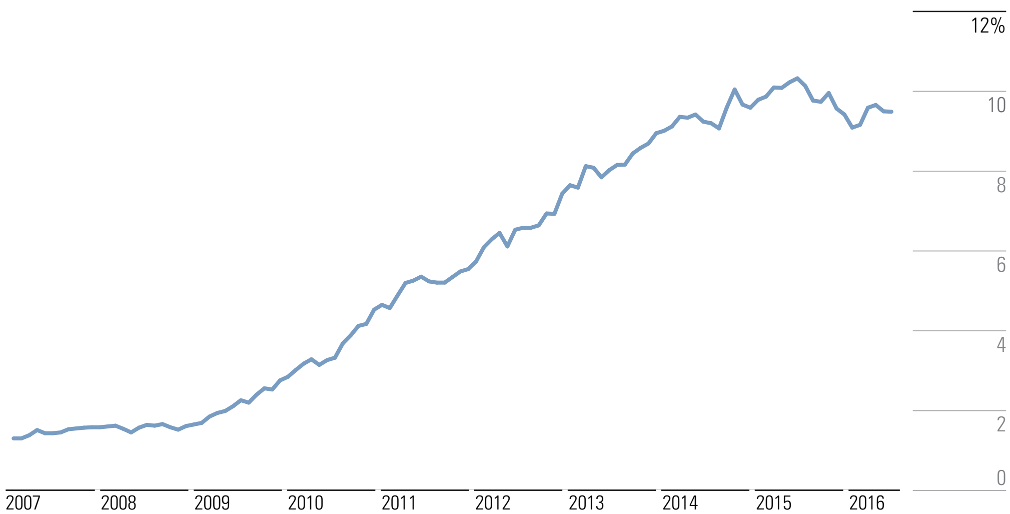
Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 11 Canada Strategic-Beta ETP Monthly Asset Flows



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

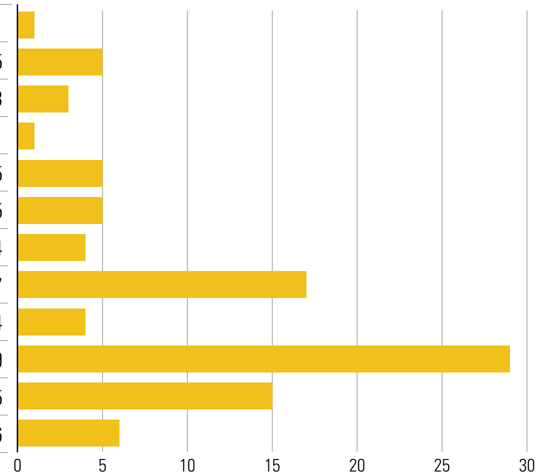
Exhibit 12 Strategic-Beta ETPs' Share of the Overall Canadian ETP Market (%)



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 13 Canada Number of Surviving Strategic-Beta ETPs by Vintage

Year of Launch	# of ETPs
2005	1
2006	5
2007	3
2008	1
2009	5
2010	5
2011	4
2012	17
2013	4
2014	29
2015	15
2016	6



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. Data based on oldest share class inception date.

A Flight to Dividend Income, Safety

In all, 12 of 18 strategic-beta subcategories are represented in Canada. That's one fewer than a year ago, as Horizons and iShares shuttered two commodity-oriented strategic-beta ETPs.

Exhibit 14 Canada Ranking of Strategic-Beta ETPs by Secondary Attribute

Secondary Attribute	# of ETPs	Assets ($Mil)	% of Assets
Dividend-Screened/Weighted	16	3,461.2	38.6
Equal-Weighted	16	2,206.4	24.6
Fundamental	11	939.4	10.5
Multifactor	24	883.0	9.8
Low/Minimum Volatility/Variance	11	860.0	9.6
Quality	4	273.7	3.1
Nontraditional Fixed Income	1	116.1	1.3
Value	4	82.3	0.9
Growth	3	63.7	0.7
Momentum	3	40.5	0.5
Multiasset	1	32.4	0.4
Risk-Weighted	1	10.8	0.1
Nontraditional Commodity	0	0.0	0.0
Buyback/Shareholder Yield	0	0.0	0.0
Earnings-Weighted	0	0.0	0.0
Revenue-Weighted	0	0.0	0.0
Expected Returns	0	0.0	0.0
Low/High Beta	0	0.0	0.0

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. Data based on oldest share class inception date.

Exhibit 15 Canada Largest Strategic-Beta ETFs

Name	Ticker	Inception Date	Strategic-Beta Secondary Attribute	Expense Ratio (%)	AUM ($ Mil)
iShares Canadian Select Dividend	XDV	12/19/05	Dividend-Screened/Weighted	0.56	1,070.3
iShares S&P/TSX Cdn Div Aristocrats	CDZ	9/08/06	Dividend-Screened/Weighted	0.67	773.5
BMO S&P/TSX Equal Weight Banks ETF	ZEB	10/20/09	Equal-Weighted	0.62	721.8
iShares US Dividend Growers(CAD-Hdg)	CUD	9/13/11	Dividend-Screened/Weighted	0.67	445.9
BMO Equal Weight US Banks ETF	ZBK	2/10/14	Equal-Weighted	0.39	336.7
BMO Equal Weight REITs ETF	ZRE	5/19/10	Equal-Weighted	0.61	311.3
iShares Core S&P/TSX Composite High Div	XEI	4/12/11	Dividend-Screened/Weighted	0.22	291.5
BMO Eq Weight US Banks Hdgd to CAD ETF	ZUB	5/19/10	Equal-Weighted	0.40	234.1
BMO MSCI Europe Hi Qual Hdgd to CAD ETF	ZEQ	2/10/14	Quality	0.45	215.6
First Asset Mstar US Value ETF CADH	XXM	10/11/13	Value;Multifactor;Equal-Weighted	0.67	188.2

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

The dividend-screened/weighted group remains the largest subcategory of the Canadian strategic-beta universe at nearly 40% of the assets. Thirsty for yield, investors have piled into ETPs with methodologies geared toward high dividend yields, with rivals Vanguard FTSE High Dividend Yield ETF VDY and iShares S&P/TSX High Dividend Yield ETF XEI growing at healthy clips. The latter cracked into the top 10, weighing in as the seventh-largest strategic-beta ETP. Assets at iShares S&P/TSX Canadian Dividend Aristocrats CDZ, which targets firms with histories of dividend growth, remained flat, but strong performance helped push the U.S.-focused counterpart, iShares US Dividend Growers (CAD-Hedged) CUD to the number-four spot. In the three months following its April 2016 inception, new offering Horizons High Dividend ETF HXH took in $80 million—more than any fund in its strategic-beta subgroup over the previous year. In all, $374 million, or 28%, of the $1.3 billion in strategic-beta ETP inflows went into dividend-oriented strategies.

Canadian investors have been seeking not just income but also relative safety. Low/minimum volatility/variance ETPs brought in slightly larger sums ($382 million) than their dividend-screened/weighted counterparts. Overall, this subgroup's share of strategic-beta assets rose to 9.6% in June 2016, up from 5.7% a year earlier. PowerShares S&P/TSX Composite Low Volatility Canada TLV was investors' low-volatility domestic-equity ETP of choice, accounting for a third of new money into the subgroup. The suite of iShares EDGE offerings soaked up nearly all the rest, as investors used funds like iShares EDGE MSCI Min Vol EAFE Index ETF XMI for foreign-equity exposure.

As investors turned toward strong-performing low-volatility strategies, they moved away from fundamentally weighted ETPs, whose value-oriented strategies have struggled in recent years. The subgroup's share of strategic-beta assets declined sharply to 10.5% in June 2016 from 16% a year earlier. IShares International Fundamental Index ETF CIE fell out of the top 10, joining its U.S. and Canadian siblings that moved from the list the year before.

Multifactor funds enjoyed the biggest market share gains. The subcategory barely registered in June 2015, with a 0.3% market share. A year later, it stands at nearly 10%. Echoing investors' embrace of low-volatility strategies, nearly half of the $219 million in new money that flowed into multifactor funds went into First Asset's suite of risk-weighted ETFs. (These ETFs land in the multifactor subcategory because they screen for size and volatility as well.) Another $91 million flowed into iShares EDGE multifactor ETFs, which look to home in on the value, momentum, quality, and size factors.

The market share of equal-weighted ETPs, the second-largest strategic-beta subcategory, held steady. This group is dominated by BMO sector funds such as BMO S&P/TSX Equal Weight Banks ETF ZEB and BMO Equity Weight US Banks ZBK. Tepid growth meant these funds slipped in the league tables. The former went from third to fifth place, while the latter went from sixth to seventh place, despite fund of funds like BMO Global Tactical Equity ETF boosting their stakes. The opposite was true for BMO Equal Weight US Health Care Hedged to CAD ETF ZUH, which fell out of the top 10.

IShares Holds Steady, BMO, Invesco, Vanguard Gain Ground

Six of seven Canadian providers of strategic-beta ETPs enjoyed asset growth in the 12-month period. While competition has eroded iShares' dominance, the firm remains the biggest strategic-beta player, with 47% market share. Rival BMO is still a distant second, though it gained the largest slice of inflows over the 12-month period; 35% of new money went into BMO strategic-beta ETPs, versus 20% for iShares. BMO's strength partly owes to one of its biggest customers—itself. BMO MSCI Europe High Quality rose to the top 10 by June 2016 on the back of investments from in-house funds of funds like BMO Tactical Global Growth. Overall, five of the top 10 largest strategic-beta funds are BMO's.

Despite Invesco's PowerShares' struggling RAFI-driven fundamental index offerings, investors' embrace of low-volatility ETPs boosted the PowerShares unit to 10% from 8% of strategic-beta assets. Vanguard continued to make inroads in the strategic-beta arena; its three Canada-domiciled dividend-screened strategies rose to 5% of strategic-beta assets, up from 3% the year before. First Asset's share slipped to 10% from 11% as its momentum-driven ETFs bled assets.

Exhibit 16 Canada Largest Strategic-Beta ETP Providers

Provider	AUM ($ Mil)	# of ETPs	Market Share (%)
iShares	4,185.2	28	46.7
BMO	2,445.4	13	27.3
First Asset	856.6	18	9.6
Powershares	856.9	12	9.6
Vanguard	431.1	3	4.8
First Trust	78.7	11	0.9
Questrade	15.3	6	0.2
Horizons	99.9	4	1.1

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

It is worth noting our tally doesn't include BMO's low-volatility and dividend strategies as well as RBC's quantitative ETFs, most of which focus on dividends. These funds follow rule-based strategies, but because they do not track published public benchmarks, Morningstar considers those ETFs actively managed. If included, they would add another $3.8 billion to BMO's strategic-beta asset pile and $1.5 billion to RBC's.

For Strategic-Beta Investors, Costs Matter Less

One would expect strategic-beta ETPs to charge a premium price tag, and that's the case in Canada. The equal-weighted average management expense ratio for the strategic-beta universe clocks in at 0.87%, versus 0.78% for the non-strategic-beta universe. The many leveraged and exotic ETPs, which tend to be relatively expensive and light in assets, skew the broad universe average upward. The launch of pricier actively managed ETPs over the past year narrowed this differential further.

Investors overwhelmingly favour cheaper funds, though. On an asset-weighted basis, the average management expense ratio for non-strategic-beta ETPs is 0.33% and 0.55% for strategic-beta ETPs.

Exhibit 17 Canada Fees Under the Microscope

	Average	Combined (%)	Equity (%)	Fixed Income (%)	Commodities (%)	Alternative (%)
All ETPs	Weighted	0.36	0.33	0.33	0.60	1.30
	Simple	0.81	0.39	0.57	1.06	1.38
ETPs Without Strategic Beta	Weighted	0.33	0.29	0.33	0.6	1.33
	Simple	0.78	0.59	0.56	1.06	1.39
Strategic-Beta	Weighted	0.55	0.31	0.54	NA	0.72
	Simple	0.87	0.48	0.84	NA	1.14

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

The averages are distorted by higher-cost "advisor" share classes, which tack on to the management expense ratio an additional 0.50% to 0.75% fee as an ongoing sales commission. Excluding these share classes, strategic-beta ETPs average 0.62% on an equal-weighted basis. Reflecting the proliferation of pricier ETPs, this figure matches the equal-weighted management expense ratios of non-strategic-beta offerings.

After excluding more-expensive advisor share classes, investors favored cheaper strategic-beta strategies, but only modestly. On an asset-weighted basis, the average management expense ratio was 0.53%, while the asset-weighted average for non-strategic-beta ETPs was 0.35%. These numbers roughly line up with the asset-weighted figures including advisor share classes.

Europe

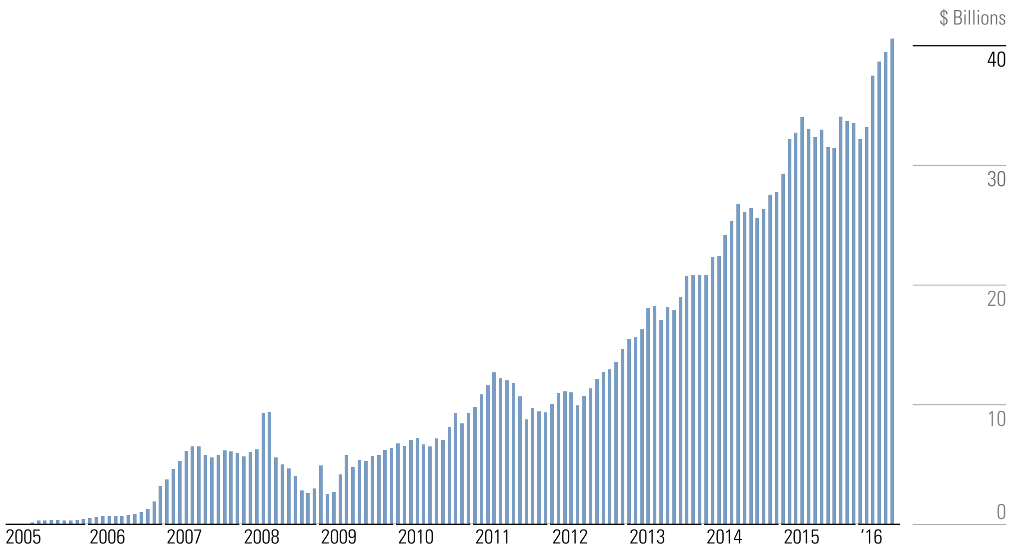
The growth of the European strategic-beta ETP market has continued apace, with assets under management swelling by 25% to a record $40 billion in the 12 months to June 2016. This translates to a fourfold growth in four years.

These gains have been mostly driven by an uninterrupted stream of positive monthly net asset flow figures throughout the period, amounting to $8.6 billion.

Strategic-beta ETPs have also continued to claim market share from their more-mainstream peers in the European ETP industry. In the 12 months to the end of June 2016, strategic-beta ETPs have boosted their market share to 7.5% from 6.3%, further extending the steady positive growth trend observed since 2009.

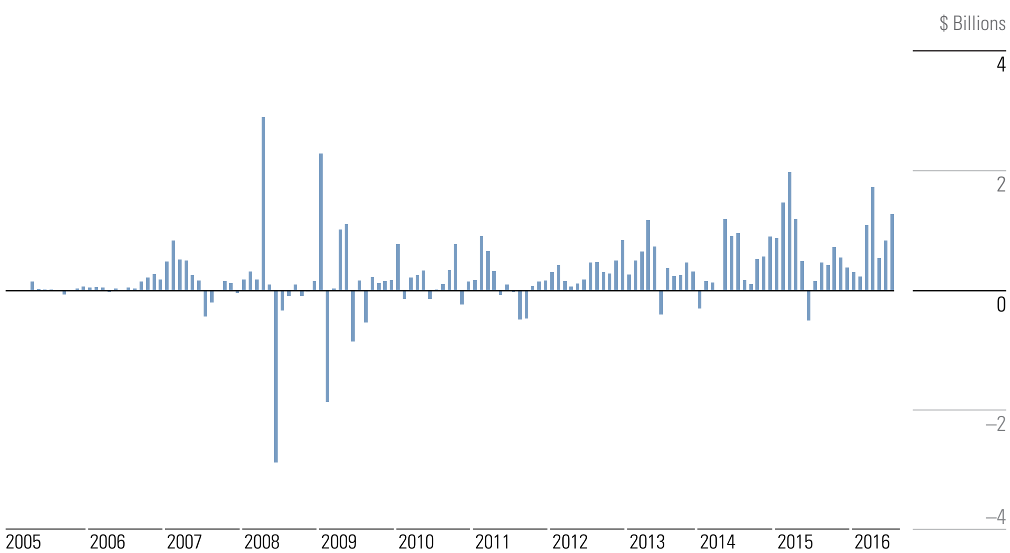
The early peak and subsequent drop in the strategic-beta ETPs' share of the overall ETP marketplace in 2007 and 2008 can mainly be attributed to the rise and fall of dividend-screened/weighted ETFs during that period. The first half of 2007 saw massive inflows into European dividend strategies. But when the financial crisis began in 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 billion at the end of 2008 from $6.6 billion at the end of June 2007.

Exhibit 18 Europe Strategic-Beta ETP Asset Growth



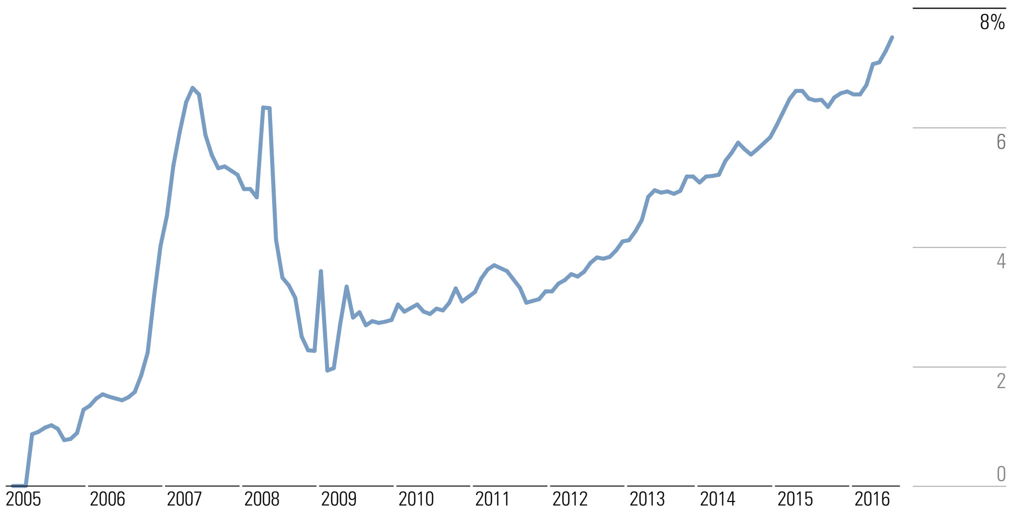
Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 19 Europe Strategic-Beta ETP Monthly Asset Flows



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 20 Strategic-Beta ETPs' Share of the Overall European ETP Market (%)



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

New Launches Aplenty, Low-Volatility Strategies Gain Ground

The relentless march of new product launches has continued, with 58 new strategic-beta ETPs hitting the European market over the 12-month period to the end of June 2016, matching that of the previous trailing year.

While the European strategic-beta menu continues to broaden, the majority of product development remains focused on equity strategies, with all but seven of the new strategic-beta ETPs launched over the past year tracking equity indexes.

In the equity universe, we have seen a clear trend toward increasing complexity—in particular, multifactor ETFs, which blend varying combinations of existing factor exposures. A dizzying array of multifactor funds have come to market this past year, representing more than half of all strategic-beta launches. The Lyxor JPM Multifactor Europe ETF, which promises no less than six separate factor exposures, is a prime example of this trend.

At the same time, fund closures have more than doubled year-on-year to 23. While this trend may appear worrying at first glance, we believe it is actually a sign of market maturation. As the number of new products in the market swells, the number of funds that fail to attract assets and ultimately shutter their doors can be expected to rise also.

Fundamentally-weighted strategies from the RAFI stable in particular have fallen out of favor. Over the period, seven ETPs tracking those indexes closed.

Despite the buzz of expectation surrounding the strategic-beta fixed-income market in Europe of late, it remains remarkably undercultivated. Innovation remains muted, with most new launches focused conservatively on quality-oriented or equal-weighted strategies. However, with many providers taking a long look at the space, we expect this to be one of the most interesting areas for product development going forward.

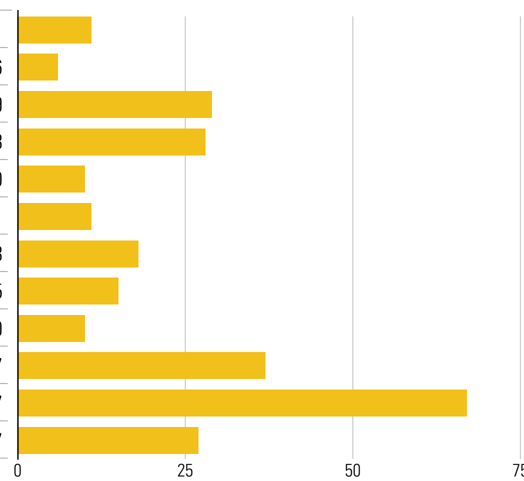
Dividend-screened/weighted strategies remain the most popular segment of the strategic-beta market in Europe, hoarding 43% of total strategic-beta ETP assets. The popularity of these funds can be attributed to the appeal of income in the current low-rate environment. However, it must be noted that total assets in these strategies have not experienced any meaningful growth over the period. In fact, their overall market share fell year-on-year, largely to the benefit of two increasingly popular strategies.

Low volatility/minimum variance strategies increased their share of the strategic-beta ETP universe to 19% from 13% in the previous period. These strategies have continued to perform strongly and gather assets in the face of continued global economic uncertainty.

Multifactor funds have proved to be one of the biggest winners, increasing market share by 7% to 13% over the year. These funds have become a way for ETP providers to differentiate their product offerings and maintain profit margins. As such, substantial amounts of energy and sizable marketing budgets have been funnelled into a flurry of new multifactor launches.

Exhibit 21 Europe Number of Surviving Strategic-Beta ETPs by Vintage

Year of Launch	# of ETPs
2005	11
2006	6
2007	29
2008	28
2009	10
2010	11
2011	18
2012	15
2013	10
2014	37
2015	67
2016	27



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. *Over the past year, 43 UBS commodity products have been reclassified as strategic beta. The above figures have been adjusted accordingly.

Exhibit 22 Europe Ranking of Strategic-Beta ETPs by Secondary Attribute

Secondary Attribute	# of ETPs	Assets ($Bil)	% of Assets
Dividend-Screened/Weighted	48	17.6	43.2
Low/Minimum Volatility/Variance	19	7.7	18.9
Multifactor	60	5.2	12.7
Nontraditional Commodity	61	2.9	7.2
Quality	14	2.4	5.8
Value	19	1.8	4.5
Equal-Weighted	11	1.3	3.2
Nontraditional Fixed Income	12	0.6	1.6
Fundamentals-Weighted	6	0.3	0.8
Momentum	5	0.3	0.7
Growth	5	0.2	0.5
Expected Returns	2	0.2	0.4
Buyback/Shareholder Yield	2	0.1	0.2
Multiasset	1	0.1	0.1
Low/High Beta	1	0.0	0.1
Risk-Weighted	2	0.0	0.1

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

IShares has further built on its dominance within the European strategic-beta ETP universe by growing its total market share by 7% to 44% in the year to the end of June 2016. With such a commanding market position, it is unsurprising that seven out of the 10 largest funds are operated by iShares.

SPDR retained second place in the provider league table but remains dependent on the fortunes of the SPDR S&P US Dividend Aristocrats ETF SPYD. The success of this fund remains vital to State Street's performance in the space, as two thirds of its assets in strategic-beta ETPs are concentrated in the fund.

Source leapfrogged rivals db X-trackers and Lyxor into third position. The primary driver behind this resurgence has been the success of the multifactor Goldman Sachs Equity Factor Europe ETF SMLU, which collected close to half a billion dollars in assets over the 12 months to the end of June 2016.

The swelling European strategic-beta market has again attracted new players. The Canadian asset manager BMO became the highest-profile new entrant this year, launching a set of four multifactor ETFs tracking MSCI income leaders indexes, which use both quality and dividend-yield screens.

Elsewhere, U.S. investment manager Van Eck took its first step into the arena with the launch of a U.S. quality fund based on a Morningstar index.*

Finally, ZyFin debuted with two funds offering equal-weighted exposure to the Indian sovereign enterprise bonds and Turkish sovereign bonds, respectively.

Dividend strategies still dominate the top 10 largest strategic-beta funds and hold six of the top 10 berths.

Exhibit 23 Europe Largest Strategic-Beta ETP Providers

Provider	AUM ($Bil)	# of ETPs	Market Share (%)
iShares	18.1	35	44.0
SPDR	3.8	13	9.3
Source	3.2	13	7.5
Lyxor	2.4	26	5.8
UBS*	2.3	60	5.7
db X-trackers	2.6	20	6.4
Ossiam	2.1	10	5.0
Amundi	2.0	13	4.9
Think ETFs	0.7	6	1.8
Invesco	0.7	12	1.7
Others	2.7	60	7.8

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. *Over the past year, 43 UBS commodity products have been reclassified as strategic beta,. The figures above have been adjusted accordingly.

Exhibit 24 Europe Largest Strategic-Beta ETFs

Name	Ticker	Inception Date	Strategic-Beta Secondary Attribute	Expense Ratio (%)	AUM ($ Bil)
iShares Developed Markets Property Yield	IWF	10/20/06	Dividend-Screened/Weighted	0.59	3.0
SPDR® S&P US Dividend Aristocrats	IWD	10/14/11	Dividend-Screened/Weighted	0.35	2.3
iShares Edge S&P 500 Minimum Volatility	VIG	11/30/12	Low/Minimum Volatility/Variance	0.20	2.1
iShares European Property Yield	VUG	11/4/05	Dividend-Screened/Weighted	0.40	1.6
iShares Edge MSCI World Minimum Volatility	VTV	11/30/12	Low/Minimum Volatility/Variance	0.30	1.4
iShares Edge MSCI Europe Minimum Volatility	DVY	11/30/12	Low/Minimum Volatility/Variance	0.25	1.2
iShares STOXX Global Sel Div 100 (DE)	SDY	9/25/09	Dividend-Screened/Weighted	0.46	1.1
iShares UK Dividend	DXJ	11/4/05	Dividend-Screened/Weighted	0.40	1.0
SPDR® S&P Euro Dividend Aristocrats	IVW	2/28/12	Dividend-Screened/Weighted	0.30	0.8
Lyxor JPX-Nikkei 400 ETF DR	VYM	1/30/15	Quality	0.25	0.8

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Fees

As the more popular factor exposures have become increasingly commoditized, fees have fallen and profit margins have become squeezed. Vanguard's recent entry into the market, with its suite of actively managed factor ETFs, typifies this trend. Although technically classified as active ETFs rather than strategic beta, these funds offer comparable exposure to a range of the most popular factors for a fee of just 0.22%.

In an attempt to maintain profit margins and differentiate product offerings, ETP providers have developed a stream of increasingly complex multifactor funds. These products—which may boast exposure to as many as seven separate strategies or factors—currently command a premium over less exotic exposures.

The proliferation—and popularity—of these pricier multifactor offerings has offset the downward pressure on fees for the more-vanilla exposures. The net result is that average fees charged by strategic-beta ETPs in Europe have leveled off following a fall the previous year, with the average asset-weighted fee holding steady at 0.39% as of June 2016. As the European strategic-beta market matures, we would expect fees to drop further as assets gravitate to lower-cost funds and existing providers cut fees in response.

Exhibit 25 Europe Fees Under the Microscope *, **

	Average	Combined (%)	Equity (%)	Fixed Income (%)	Commodities* (%)	Alternative (%)
All ETPs	Weighted	0.31	0.31	0.27	0.40	0.50
	Simple	0.48	0.41	0.23	0.59	0.77
ETPs Without Strategic-Beta	Weighted	0.31	0.30	0.29	0.40	0.50
	Simple	0.48	0.41	0.22	0.63	0.77
Strategic-Beta	Weighted	0.39	0.39	0.46	0.41	n/a
	Simple	0.42	0.40	0.41	0.47	n/a

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

* Over the past year, 43 UBS commodity products have been reclassified as strategic beta. The figures above have been adjusted accordingly.

** As part of ongoing data improvements over the past year, more than 200 commodity products have been assigned fees and included in the above analysis for the first time. This will inevitably have an impact on certain year-on-year comparisions such as the simple average for all ETPs.

Asia-Pacific

Strategic-beta ETPs in the Asia-Pacific region had another year of strong growth in the 12-month period ended June 2016. Collective assets under management climbed 47.5%, to $10.5 billion from $7.1 billion. This compares with the near-doubling they experienced during the 12-month period ended June 2015. As was the case in the period ended June 2015, this growth was narrowly distributed. Strategic-beta ETPs in Taiwan grew the most in percentage terms (90%), while assets in Japan-domiciled ETPs grew the most in absolute terms ($3.0 billion). Assets under management in Japan-domiciled strategic-beta ETPs expanded 71% during the 12 months ended June 2016. This marks a sharp deceleration versus the 318% expansion they experienced in the 12-month period ended June 2015. New Zealand and South Korea also saw some noticeable growth in assets invested in locally domiciled strategic-beta ETPs. These countries' strategic-beta ETP universes grew 89% and 35%, respectively.

The strong growth in strategic-beta ETPs in Japan has been primarily driven by government initiatives. In April 2014, the Government Pension Investment Fund added the JPX-Nikkei Index 400 to its passive mandate, and the Bank of Japan subsequently made ETFs tracking the JPX-Nikkei Index 400 eligible for purchase under its quantitative and qualitative monetary easing. The amount of annual ETF purchases was increased to JPY 3 trillion in October 2014 from the original JPY 1 trillion when the program began. The growth was further strengthened by the BOJ's decision in December 2015 to establish a new program for purchasing ETFs at an annual pace of about JPY 300 billion from April 2016 whereby the BOJ is to purchase ETFs composed of stocks issued by firms that are proactively making investments in physical and human capital. The new program started with purchases of ETFs that track the JPX-Nikkei Index 400. During the period from April-June 2016, a number of additional ETFs that are consistent with the objectives of this measure were launched in the Japanese market. This key driver of growth in the local Japanese market is expected to accelerate further as the BOJ announced in July 2016 that it would double its rate of ETF purchases to an annual pace of JPY 6 trillion ($59 billion) as part of its effort to expand monetary stimulus.

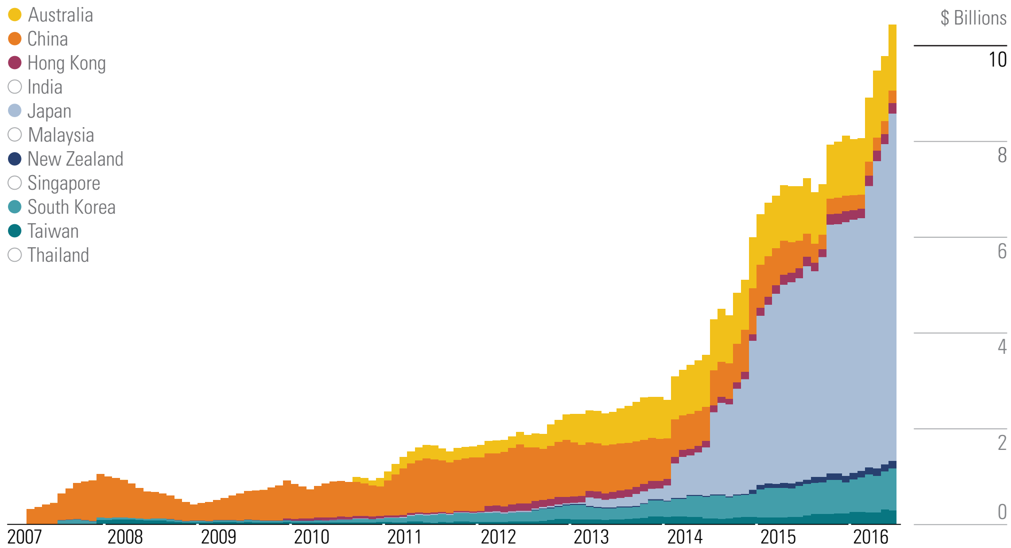
Exhibit 26 Asia-Pacific: Snapshot of Strategic-Beta ETP Markets

							06/2015-2016 Growth (%)	
	# of ETPs	Total AUM ($Mil)	% of total AUM of Strategic-beta ETPs in Asia-Pacific	Largest ETP ($Mil)	Average AUM ($Mil)	% of total local ETP Market*	Strategic-Beta ETPs	Total ETP Market
Australia	21	1,395	13.3	469	66	8.4	20.9	18.2
China	13	256	2.4	87	20	0.4	(56.1)	49.3
Hong Kong	15	218	2.1	51	15	0.7	7.6	(18.9)
India	4	6	0.1	2	1	0.2	(2.8)	75.9
Japan	20	7,275	69.4	2,411	364	5.0	70.6	22.8
Malaysia	2	10	0.1	5	5	1.7	N/A	N/A
New Zealand	5	135	1.3	42	27	12.2	88.5	181.0
Singapore	1	15	0.1	15	15	0.8	(16.2)	6.1
South Korea	47	880	8.4	91	19	4.2	34.7	21.5
Taiwan	1	290	2.8	290	290	3.4	90.3	(1.0)
Thailand	1	2	0.0	2	2	0.4	(24.6)	23.9
Total / Average	130	10,480	100	2,411	126	3.5	47.5	20.1

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. *Note: Excludes cross-listed ETPs except for Australia.

Given the initiatives outlined above, it is no surprise that Japan remains at the top of the Asia-Pacific league tables in terms of asset under management. Japan is followed by Australia, which has held on to its second position within the region. South Korea experienced significant growth in the 12-month period ended June 2016 and maintained its third-place position. This year, we included New Zealand in our study and found that strategic-beta ETP assets accounted for 12.2% of its local ETP market assets. Australia, another mature strategic-beta ETP market within the Asia-Pacific region, has strategic-beta ETP assets under management representing 8.4% of the local ETP market. Meanwhile, the figures for Japan and South Korea continued to expand, reaching 5.0% and 4.2%, respectively (compared with 3.6% and 3.8%, respectively, as of June 2015). Strategic-beta ETPs' share of other Asia-Pacific markets remains low, ranging between 0.2% and 3.4%.

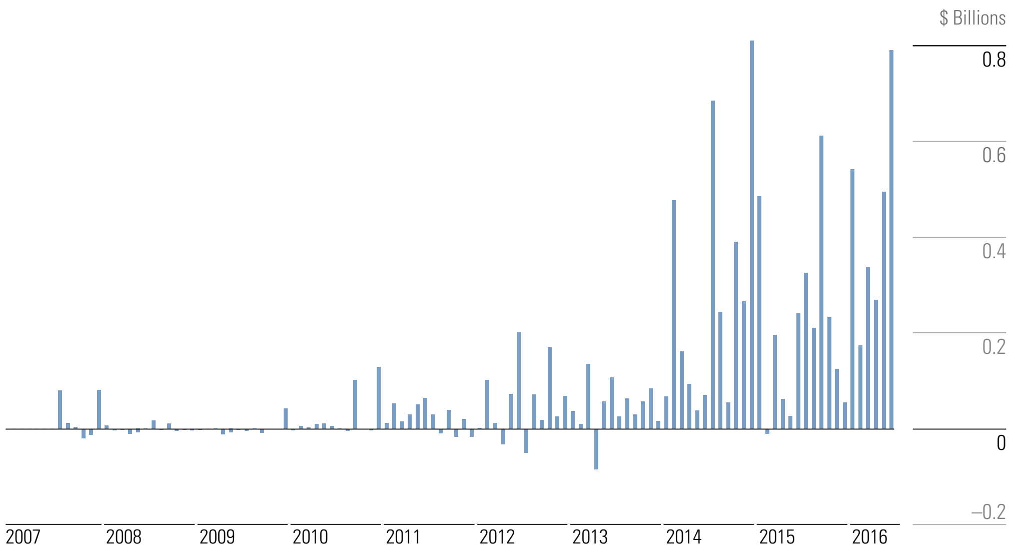
Exhibit 27 Asia Pacific Strategic-Beta ETP Asset Growth



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.
(Asset data for Chinese ETPs is available only on a quarterly basis, inter-quarter data was interpolated)

The growth of the strategic-beta ETP market in the Asia-Pacific region was once again driven by strong inflows. The lion's share of net new inflows went to Japan-domiciled ETFs tracking the JPX-Nikkei Index 400. In the 12 months to June 30, 2016, $4.2 billion of net inflows went into strategic-beta ETPs (excluding those domiciled in China), of which 58% came from quality strategies (mainly from ETPs tracking the JPX-Nikkei Index 400). Meanwhile, the number of strategic-beta ETPs grew to 117 from 84 during the same period (again, excluding those domiciled in China, or to 130 from 98 including those domiciled in China).

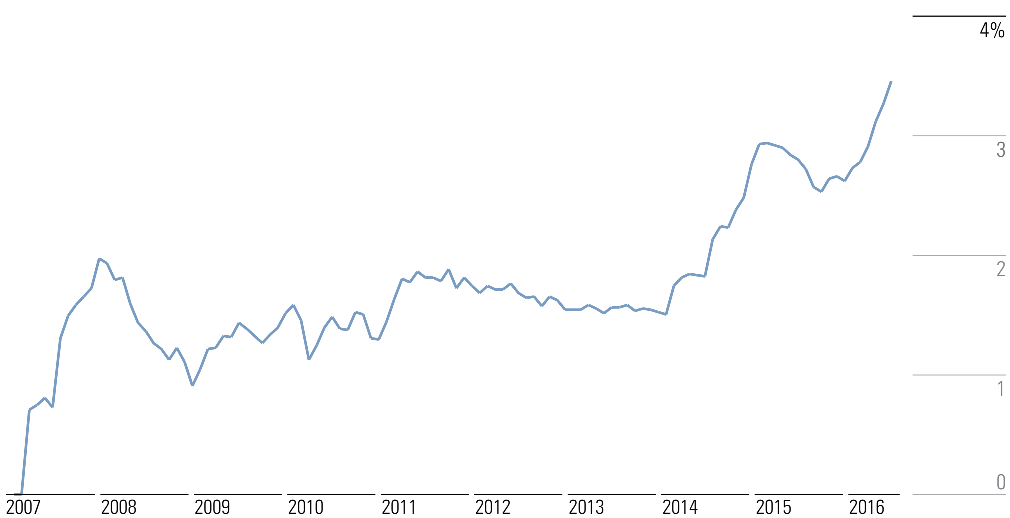
Exhibit 28 Asia Pacific Strategic-Beta ETP Monthly Asset Flows



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. Excluding flows from China as data not available.

Growth in assets under management in Asia-Pacific strategic-beta ETPs outpaced that experienced by the broader Asia-Pacific ETP industry. As such, strategic-beta ETPs' share of the overall ETP marketplace has climbed to approximately 3.5% as of June 2016 from 2.9% as of June 2015.

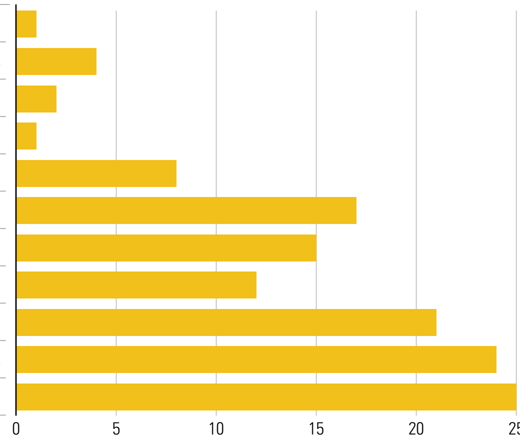
Exhibit 29 Strategic-Beta ETPs' Share of the Overall Asia-Pacific ETP Market (%)



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 30 Asia-Pacific Number of Surviving Strategic-Beta ETPs by Vintage

Year of Launch	# of ETPs
2006	1
2007	4
2008	2
2009	1
2010	8
2011	17
2012	15
2013	12
2014	21
2015	24
2016	25



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Quality Reigns

ETPs tracking quality-oriented benchmarks remain the largest subcategory of strategic-beta ETPs in the Asia-Pacific region. The 14 quality-oriented ETPs listed in the region (eight of which are domiciled in Japan) have collective assets under management of $5.9 billion, accounting for 56% of total strategic-beta ETP assets in the region. ETPs tracking the JPX-Nikkei Index 400 continue to dominate the list of the top 10 largest ETPs by assets, occupying six of the top 10 positions. Dividend-screened/weighted strategies are the second-largest sub-category of strategic-beta ETFs, accounting for 19% of the region's total strategic-beta ETP assets. As of June 30, 2016, there were 33 dividend-screened/weighted ETPs in the region, making this group the most popular type of strategic-beta ETP by number.

Exhibit 31 Asia-Pacific Ranking of Strategic-Beta ETPs by Secondary Attribute

			% of Attribute AUM													
Secondary Attribute	# of ETPs	AUM ($Mil)	Australia	China	Hong Kong	India	Japan	Malaysia	New Zealand	Singapore	South Korea	Taiwan	Thailand	Total Asia-Pac	% of Trailing-Twelve Month Flows
Quality	14	5,918	0.8	0.0	0.1	0.0	55.4	0.0	0.0	0.0	0.3	0.0	0.0	56.5	57.5
Dividend-Screend/Weighted	33	1,974	10.3	1.1	1.2	0.0	1.0	0.1	0.6	0.1	1.7	2.8	0.0	18.8	10.4
Multifactor	19	1,421	0.4	0.0	0.1	0.0	10.8	0.0	0.0	0.0	2.2	0.0	0.0	13.6	24.1
Value	24	372	0.2	0.6	0.6	0.0	0.6	0.0	0.2	0.0	1.5	0.0	0.0	3.6	1.9
Low/Minimum Volatility/Variance	7	277	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.9	0.0	0.0	2.6	4.1
Equal-Weighted	11	212	0.9	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	2.0	1.4
Fundamental-Weighted	5	103	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.0	0.5
Growth	5	74	0.0	0.4	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.7	0.1
Nontraditional Commodity	1	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.1
Momentum	4	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	-0.1
Multiasset	2	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	-0.1
Low/High Beta	3	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	-0.1
Expected Returns	1	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Buyback/Shareholder Yield	1	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	**130**	**10,480**	**13.3**	**2.4**	**2.1**	**0.1**	**69.4**	**0.1**	**1.3**	**0.1**	**8.4**	**2.8**	**0.0**	**100**	**100**

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

There were also strong inflows into the ETPs in Japan tracking the firms proactively investing in physical and human capital (which were launched in response to the aforementioned BOJ initiative). These funds are classified under our multifactor or quality attributes. One of them features in the list of the top 10 largest strategic-beta ETPs by assets, namely DIAM ETF JPX/S&P CAPEX&Human Capital—which was listed in June 2016. The fund had assets under management totaling $371 million as of June 30, 2016. This fund's launch contributed to an increase in the market share of multifactor strategies, which accounted for 14% of the region's total strategic-beta ETP assets under management as of June 2016.

Exhibit 32 Asia-Pacific Largest Strategic-Beta ETP Providers

Provider	AUM ($Mil)	# of ETPs	Market Share (%)
Nomura	3,029	4	28.9
Mitsubishi UFJ	1,102	5	10.5
iShares	926	5	8.8
Nikko AM	827	4	7.9
Daiwa	804	1	7.7
DIAM	759	2	7.2
Vanguard	495	2	4.7
Yuanta	290	1	2.8
Mirae Asset	281	10	2.7
Samsung	263	11	2.5
Others	1,703	85	16.2

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 33 Top 10 Strategic ETPs in Asia Pacific

Name	Ticker	Exchange Country	Strategic-Beta Attributes	AUM ($ Mil)
NEXT FUNDS JPX-Nikkei Index 400 ETF	1591	Japan	Quality	2,411
MAXIS JPX-Nikkei Index 400 ETF	1593	Japan	Quality	1,067
Daiwa ETF JPX-Nikkei 400	1599	Japan	Quality	804
Listed Index Fund JPX-Nikkei Index 400	1592	Japan	Quality	661
NEXT FUNDS Nomura Japan Eq Hi Div 70 ETF	1577	Japan	Multifactor	503
Vanguard Australian Shares High Yld ETF	VHY	Australia	Dividend-Screened/Weighted	469
iShares JPX-Nikkei 400 ETF	1364	Japan	Quality	442
DIAM ETF JPX-Nikkei400	1474	Japan	Quality	388
DIAM ETF JPX/S&P CAPEX&Human Capital	1484	Japan	Multifactor	371
Yuanta/P-shares Taiwan Dividend Plus ETF	0056	Taiwan	Dividend-Screened/Weighted	290

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

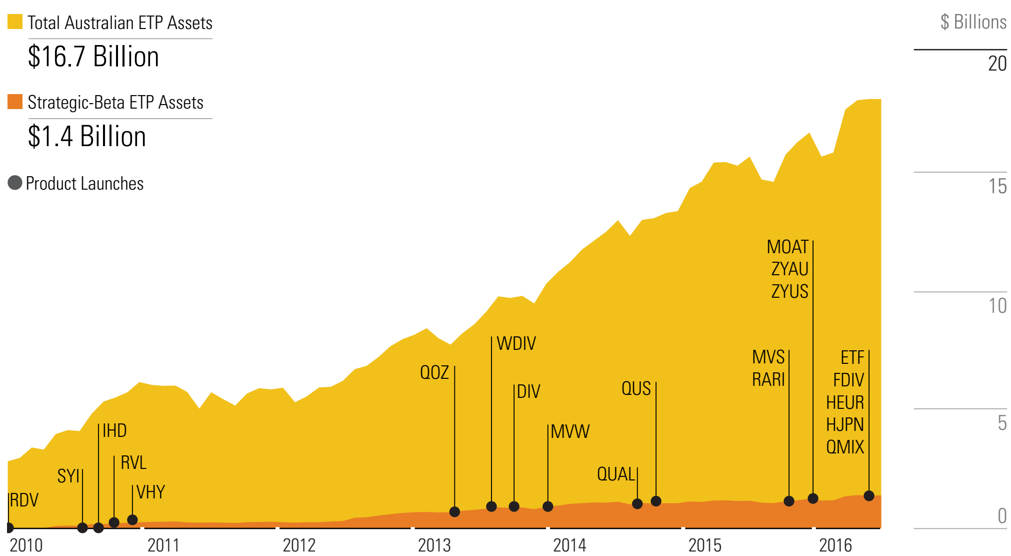
Strong inflows into the Japanese ETP market pushed a number of Japanese ETP providers into the ranks of the 10 largest ETP providers within the Asia-Pacific strategic-beta ETP universe, where Nomura (under the NEXT FUNDS brand) and Mitsubishi UFJ (under the MAXIS brand) occupy the first and second positions, respectively. The Asia-Pacific strategic-beta ETP market is very fragmented. Beyond the 10 largest ETP providers, there are a total of 85 ETPs managed by 38 different ETP providers that claim a collective market share of 16%.

Australia

Australia's strategic-beta ETP market has continued to grow both its assets and number of products. Four strategic-beta ETPs launched over the 12 months to June 30, 2016, and one existing ETP changed its benchmark to a strategic-beta index. On our count, there are now 154 ETPs in Australia, 21 of which we classify as strategic-beta.

Those 21 ETPs account for $1.39 billion, or 8.4% of Australia's $16.7 billion ETP market. While that is a little higher than the market share of 8.2% that we reported in June 2015, it is not as high as the peak market share for strategic beta, recorded at 10.1% in April 2014. While the rate of growth has moderated, it remains strong relative to the backdrop of overall sluggish flows to pooled investment products in Australia.

Exhibit 34 Australian ETP Assets, Strategic-Beta ETP Assets, and Strategic-Beta ETP Product Launches



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

The rapid growth of the broader ETP industry undoubtedly remains a major factor in strategic-beta's growth. The strategic-beta ETP market grew 20.9% over the year, to $1.4 billion from $1.2 billion, while the overall ETP market grew 18.2%, to $16.7 billion from $14.1 billion.

Although volatile, the Australian dollar was at about the same level on June 30, 2016, as a year earlier, so whether measured in U.S. dollars or local currency, growth rates were about the same. However, longer-term growth of strategic beta (and the overall ETP market) is much higher if measured in Australian dollars, because the Australian dollar has fallen more than 30% against the U.S. dollar over the five years to June 30, 2016.

It is worth noting the proliferation of other nontraditional ETPs in Australia. Active ETPs stormed into prominence in 2015 with the launch of Magellan Global Equities MGE. Active ETPs held $487.8 million in assets as of June 30, 2016, with MGE holding the lion's share of this, with $407 million. Aside from active ETPs, other nontraditional products launched in the past five years offer exposures such as derivative income, dividend stripping, inverse equity, inverse leveraged equity, geared equity, and geared U.S. equity. Assets in these vehicles total $687 million. With active and nontraditional ETPs holding more than $1.2 billion, it is clear that investor appetite for ETPs goes beyond passive and strategic beta, though appetite depends very much on the individual strategy.

Exhibit 35 Strategic-Beta ETPs in Australia

Strategic-Beta ETPs	Ticker	Fee %	Strategic-Beta Attributes	AUM ($Million)	12-Month Flows ($Million)	Inception Date
ANZ ETFS S&P 500 Hi-Yld Low Volatil ETF	ZYUS	0.35	Multifactor	13.3	11.5	6/10/15
ANZ ETFS S&P/ASX 300 High Yield Plus ETF	ZYAU	0.35	Buyback/Shareholder Yield	5.0	4.3	6/10/15
BetaShares FTSE RAFI Australia 200 ETF	QOZ	0.40	Fundamentals Weighted	64.6	25.3	7/10/13
BetaShares FTSE RAFI US 1000 ETF	QUS	0.40	Fundamentals Weighted	12.5	3.8	12/17/14
BetaShares WisdomTree Europe ETF-Ccy Hdg	HEUR	0.51	Dividend-Screened/Weighted	3.7	3.7	5/10/16
BetaShares WisdomTree Japan ETF-Ccy Hdg	HJPN	0.51	Dividend-Screened/Weighted	2.1	2.1	5/10/16
iShares S&P/ASX Dividend Opportunities	IHD	0.30	Dividend-Screened/Weighted	173.9	17.2	12/6/10
Russell Australian Rspnb Investment ETF	RARI	0.45	Dividend-Screened/Weighted	23.7	17.1	4/1/15
Russell Australian Value ETF	RVL	0.34	Value	16.5	3.4	3/18/11
Russell High Div Australian Shares ETF	RDV	0.34	Dividend-Screened/Weighted	201.0	16.9	5/14/10
SPDR® MSCI Australia Sel Hi Div Yld ETF	SYI	0.34	Dividend-Screened/Weighted	108.8	-3.1	9/24/10
SPDR® MSCI World Quality Mix Fund	QMIX	0.39	Multifactor	3.4	1.1	9/11/15
SPDR® S&P Global Dividend ETF	WDIV	0.50	Dividend-Screened/Weighted	61.9	18.2	11/1/13
UBS IQ Morningstar Australia Div Yld ETF	DIV	0.30	Dividend-Screened/Weighted;Multifactor	17.3	1.4	1/14/14
UBS IQ Morningstar Australia Quality ETF	ETF	0.30	Multifactor;Quality;Equal Weighted	5.2	-32.5	*10/18/12
VanEck Vectors Australian Equal Wt ETF	MVW	0.35	Equal Weighted	96.3	62.0	3/4/14
VanEck Vectors Morningstar Wide Moat ETF	MOAT	0.49	Quality	3.4	2.6	6/24/15
VanEck Vectors MSCI Wld ex Aus Qlty ETF	QUAL	0.40	Quality	80.4	45.1	10/29/14
VanEck Vectors S&P/ASX Franked Div ETF	FDIV	0.35	Dividend-Screened/Weighted	1.5	1.5	4/29/16
VanEck Vectors Small Cap Div Payers ETF	MVS	0.49	Dividend-Screened/Weighted	30.6	6.8	5/26/15
Vanguard Australian Shares High Yld ETF	VHY	0.25	Dividend-Screened/Weighted	469.5	101.0	5/23/11

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16. *Effective Feb. 1, 2016, the fund's underlying index changed from the UBS Research Preferred Index to the Morningstar Australia Moat Focus Index.

Types of Strategic-Beta ETPs in Australia

The market remains dominated by domestic-equity dividend strategies, whether measured by products or by assets. However, the market continues to broaden. Out of four strategic-beta ETP launches over the year, one was an Australian equity dividend strategy, and three were international-equity vehicles.

The Australian equity dividend launch was VanEck Vectors S&P/ASX Franked Dividend ETF FDIV, which takes a similar approach to existing Australian equity dividend ETFs but considers franking (tax) credits in its index-construction process. SPDR MSCI World Quality Mix Fund QMIX tracks a benchmark that combines quality, value, and low-volatility factors. BetaShares cross-listed two U.S. ETFs from WisdomTree. BetaShares WisdomTree Europe ETF Currency Hedged HEUR and BetaShares WisdomTree Japan ETF Currency Hedged HJPN offer currency-hedged exposure to Europe and Japan, respectively, with a dividend overlay. That takes the number of international-equity strategic-beta offerings in Australia to eight, from zero back in June 2013. Still, assets in international-equity strategic-beta remain moderate at $181 million, or 13% of the total.

Dividends remain the dominant factor used in product construction. Of the 21 strategic-beta ETPs in Australia, 11 use dividends as a primary screening/weighting factor and those 11 ETPs account for $1.1 billion of the $1.4 billion in strategic-beta assets. Although dividend screening/weighting remains by far the most popular strategic-beta approach, this represents a share of 77% of strategic-beta assets, down from an 89% share last year.

This reflects the underperformance of high-dividend-paying stocks over the 12 months through June 30, 2016, modest flows into some dividend products, and the launch and successful asset-gathering of strategic-beta ETPs that focus on other factors. For example, while Vanguard's yield ETF gathered the most flows, the second-largest asset-gatherer was VanEck Vectors Australian Equal Weight ETF MVW, and coming in third in flows was VanEck Vectors MSCI World ex Australia Quality ETF QUAL.

Fees in Australia

We commented last year that strategic-beta fees in Australia generally measured up well. That remains true, and there has also been some fee compression. We highlighted QUAL last year as being at the upper end of the cost scale; however, this product reduced its fee to 0.40% from 0.75% in October 2015. UBS IQ Morningstar Australia Dividend Yield DIV* and UBS IQ Morningstar Australia Quality ETF* also reduced their fees to 0.30% following a change in index provider to Morningstar* in February 2016. This benchmark change also resulted in the latter vehicle being categorized as strategic beta, whereas previously it was not. Newer entrants tended to be priced at the middle- to upper-end compared with existing rivals. That's not surprising given newer products are mostly global, not domestic equity, and many use more-complicated or multiple factors. However, the market appears to remain price-sensitive, with the cheapest strategic-beta ETPs typically boasting the largest asset books.

China

During the 12-month period to June 2016, assets under management in ETPs domiciled in China grew 49% to $63.2 billion from $42.3 billion (including money market ETFs). However, assets under management in strategic-beta ETPs shrank significantly, falling 56% to

$256 million. Also, the number of strategic-beta ETPs dropped to 13 from 14, and no new strategic-beta ETPs were launched during this span.

The decline in assets under management was fairly broad-based for strategic-beta ETPs in China. Assets in dividend-screened/weighted strategies declined by a comparably lower rate of 47% and expanded their market share to 45% from 37%. Meanwhile, the only Chinese ETP to offer exposure to a low/high-beta strategy, the CIFM SSE180 High Beta ETF, was delisted in June 2016.

China-domiciled strategic-beta ETPs levy an asset-weighted expense ratio of 0.98%, marginally higher relative to the asset-weighted fee of 0.88% levied by other ETPs tracking Chinese equities. These numbers are much lower than the 2.47% asset-weighted expense ratio charged by the actively managed funds available in China as of June 30, 2016.

Exhibit 36 Market Share by Secondary Strategic-Beta Attribute in China

	6/2015		6/2016	
	AUM ($Millions)	% of Assets	AUM ($Millions)	% of Assets
Dividend-Screened/Weighted	217	37	115	45
Value	157	27	58	23
Equal-Weighted	142	24	46	18
Growth	64	11	37	14
Low/High Beta	3	1	0	0

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Hong Kong

Assets in Hong Kong-domiciled strategic-beta ETPs grew by 8% in the 12 months to June 2016. This compares with a 19% decline in the overall ETP market. Aggregate assets under management in strategic-beta ETPs remained small at $218 million (compared with $203 million as of June 2015). The number of strategic-beta ETPs domiciled in Hong Kong grew from 12 in June 2015 to 15 as of June 2016.

The fees levied by Hong Kong's strategic-beta ETPs range from 0.38% to 0.99%. Generally speaking, these funds' fees tend to be significantly lower relative to actively managed peers but a multiple of those charged by plain-vanilla passive counterparts. For example, the strategic-beta ETPs within the Hong Kong equity category charge an average expense ratio of 0.67%. This is more than 4 times the toll taken by non-strategic-beta Hong Kong equity ETPs (0.15%) and is a fraction of the average take of actively managed peers (1.77%, an asset-weighted average across the oldest share classes).

India

The Indian ETP market experienced very rapid growth in the 12 months to June 2016. Assets under management grew by 76% to $3.8 billion, driven by significant inflows into an ETF tracking the Nifty 50 Index. On the other hand, assets under management invested in India-domiciled strategic-beta ETPs declined by 2.8%—despite the launch of two strategic-beta ETPs in India in December 2015 and May 2016. Reliance Nippon Life Asset Management dominates the strategic-beta ETP market in India with its two strategic-beta ETPs, namely R*Shares NV20 ETF and R*Shares Dividend Opportunities ETF. These two funds collectively accounted for 67% of the Indian strategic-beta ETP market as of June 2016.

Japan

Ongoing government initiatives were the key driver of the tremendous growth in strategic-beta ETPs, and the ETP market at large, in Japan. The Government Pension Investment Fund added the JPX-Nikkei Index 400 to its passive mandate in April 2014 and the Bank of Japan subsequently made ETFs tracking the JPX-Nikkei Index 400 eligible for purchase under its quantitative and qualitative monetary easing in October 2014.

During the 12 months ended June 2016, this growth was bolstered by the BOJ's December 2015 decision to establish a new program to purchase ETFs at an annual pace of about JPY 300 billion from April 2016. This program entails the BOJ purchasing ETFs composed of stocks issued by firms that are proactively making investments in physical and human capital. This program began with purchases of ETFs tracking the JPX-Nikkei Index 400. Between April and June 2016, there were a number of ETFs launched in the Japanese market that are consistent with this measure's objectives. Growth is set to further accelerate following the BOJ's July 2016 announcement that it would double its overall pace of ETF purchases to an annual rate of JPY 6 trillion as part of its efforts to expand monetary stimulus.

As of June 2016, the BOJ held JPY 8.5 trillion worth of ETF shares (stated at cost, according to the BOJ; or $82.5 billion). This amounted to about 57% of the total assets under management in the ETP market in Japan. Meanwhile, according to the BOJ, between April and June 2016, it purchased JPY 72 billion (stated at cost; or $702 million) worth of ETFs designed specifically to home in on firms that are proactively making investments in physical and human capital. This represented 9.6% of total strategic-beta ETPs' assets under management in Japan. These ETPs are generally classified under the quality or multifactor secondary strategic-beta attributes.

In the 12 months to June 2016, the increase in aggregate assets under management in strategic-beta ETPs was driven by capital inflows into new and existing products. In sum, 113% of the increase in the assets under management during the period came from net inflows. By our count, there were 20 strategic-beta ETPs in the Japanese ETP market as of

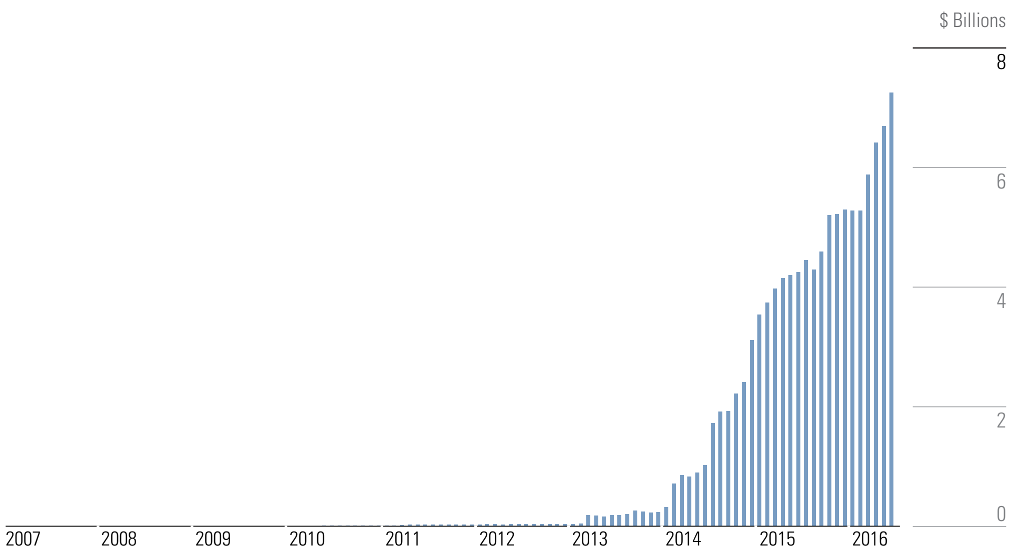
June 30, 2016. This is double the 10 strategic-beta ETPs that traded in the Japanese market as of June 30, 2015. As of the end of June 2016, aggregate assets under management in strategic-beta ETPs in Japan amounted to $7.3 billion, or 5.0% of the $146.0 billion invested in Japanese ETPs. The six ETPs tracking the JPX-Nikkei Index 400 accounted for the majority of the assets under management under the quality attribute and represented 79% ($5.8 billion) of the aggregate assets under management in strategic-beta ETPs in Japan.

Exhibit 37 Market Share by Secondary Strategic-Beta Attribute in Japan

	6/2015		6/2016	
	AUM ($Millions)	% of Assets	AUM ($Millions)	% of Assets
Quality	3,799	89	5,802	80
Multifactor	334	8	1,131	16
Low/Minimum Volatility/Variance	11	0	182	2
Dividend-Screened/Weighted	51	1	101	1
Value	69	2	60	1

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Exhibit 38 Japan: Strategic-Beta ETP Assets



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Malaysia

We included Malaysia in this year's study as data availability has improved dramatically. As of June 30, 2016, Malaysia was home to two dividend-screened/weighted ETPs. Total assets under management in these two ETPs stood at $10 million, representing 1.7% of the overall Malaysia ETP market.

New Zealand

New Zealand's strategic-beta ETP market grew at a rapid pace during the 12-month period ended June 30, 2016, as assets in strategic-beta ETPs expanded 89% off a small base. On our count, there are now 23 ETPs in New Zealand, five of which we classify as strategic beta. These funds offer exposures ranging from dividend-screened/weighted or equal-weighted New Zealand equities to U.S. equity value and growth strategies. All of New Zealand's strategic-beta ETPs were launched between December 2014 and July 2015, so it is relatively early days for the market. At June 30, 2016, total assets under management in New Zealand ETPs was $1.1 billion. Meanwhile, strategic-beta ETPs amounted to $135 million—amounting to a 12.2% market share.

Singapore

There was little change to the strategic-beta ETP landscape in Singapore over the 12-month period ended June 30, 2016. There remained just one locally domiciled strategic-beta ETP as of June 30, 2016, namely the CIMB S&P Ethical Asia Pacific Dividend ETF QR9 and P5P. The fund is a dividend-screened/weighted ETP with assets under management of $15 million (down 16.2% versus 12 months before). It is also worth noting that there are also five Europe-domiciled strategic-beta ETPs listed in Singapore (no change from last year).

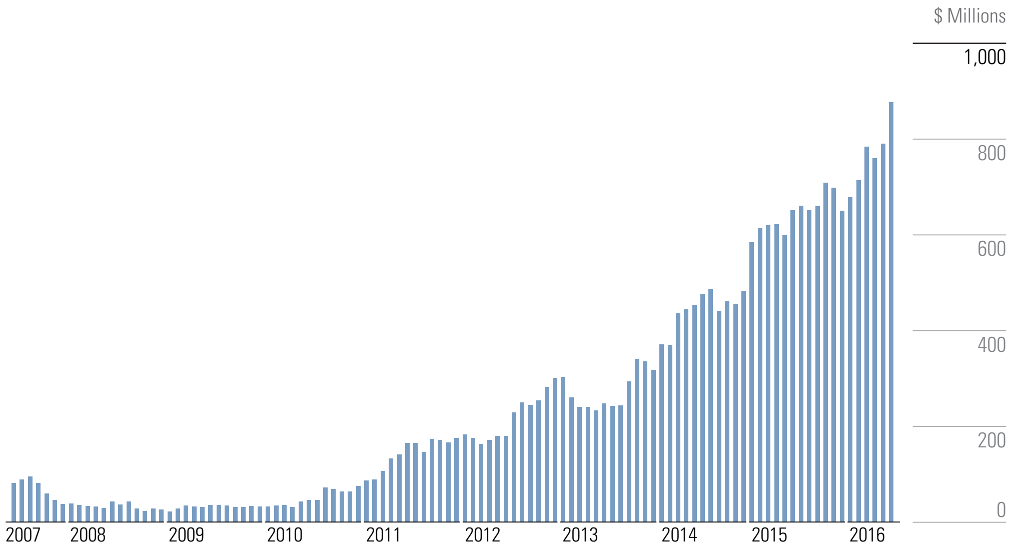
South Korea

Korea is positioned at the top of the league tables in terms of number of strategic-beta ETPs in the Asia-Pacific region. There were 47 strategic-beta ETPs listed in South Korea as of June 30, 2016, up from 37 12 months before. The wide variety of strategic-beta ETPs remains a key feature of the South Korean market. Locally listed strategic-beta ETPs cover 12 different secondary strategic-beta attributes.

Assets under management in strategic-beta ETPs grew 35% to $0.9 billion, outpacing the expansion of the overall South Korean ETP market, which clocked in at 22%. Net inflows into strategic-beta ETPs accounted for 116% of the increase in assets. A recurring theme in the South Korean strategic-beta ETP market is the small size of the ETPs in the category. Strategic-beta ETPs in South Korea have $19 million in assets under management, on average, and 28 out of the 47 ETPs had less than $10 million of assets under management. The new strategic-beta ETPs launched in the 12 months through June 30, 2016 were of various types, from dividend-screened/weighted, to value, quality, and momentum. That said, as of June 30, 2016, multifactor strategies surpassed dividend-screened/weighted strategies to become the most popular type of strategic-beta ETPs in South Korea—accounting for 27% of total strategic-beta ETP assets.

Fees levied by strategic-beta ETPs in South Korea are fairly competitive. For example, strategic-beta ETPs within the Korea large-cap equity Morningstar Category charge an average expense ratio of 0.30%. This is nearly twice the fee taken by other ETPs in Korea within the same category (0.16%), but it is a fraction of the 1.49% (weighted average of the oldest share classes) charge by actively managed funds in the Korea large-cap equity category.

Exhibit 39 South Korea Strategic-Beta ETP Assets



Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Taiwan

Taiwan remained home to just one strategic-beta ETP, Yuanta/P-Shares Taiwan Dividend Plus ETF 0056, a dividend-screened/weighted ETP. As of June 2016, the fund's assets under management grew 90% to $290 million, which was sufficient to place it among the ranks of the 10 largest ETPs by assets in the Asia-Pacific region.

This dividend-screened/weighted ETP, which offers Taiwan large-cap equity exposure, has an expense ratio of 0.44%. This is higher than the 0.32% asset-weighted fee levied by ETPs listed in Taiwan offering exposure to Taiwan large-cap equities but is far lower than the 1.72% average fee charged by actively managed funds in the Taiwan large-cap equity category.

Thailand

ThaiDex SET High Dividend ETF 1DIV remained the only strategic-beta ETP in the Thailand ETP market. The fund had assets under management of $1.6 million as of June 30, 2016, marking a 25% decline versus year-ago levels.

Emerging (Strategic-Beta) Markets

The effect of the downdraft in emerging-markets equities is once again apparent in the year-on-year evolution of the segment of strategic-beta ETP products listed in what we characterize as emerging strategic-beta markets (chiefly South Africa, Mexico, and Brazil). Assets under management in strategic-beta ETPs in these markets declined 34% versus the prior period, owing to a combination of falling markets (the MSCI Emerging Markets Index fell 12% during this span) and fleeing assets (these funds saw $169 million worth of outflows). As was the case last year, there were no new strategic-beta ETPs launched in these markets during the year ended June 2016, and assets in these funds have declined substantially during this period. South Africa, the most prominent of these markets (as measured by number of listed strategic-beta ETPs), has 11 locally domiciled strategic-beta ETFs. This includes Satrix Divi Plus STXDIV, the most representative product—with $91.5 million in assets as of June 30, 2016.

Brazil is home to a single strategic-beta ETF, the It Now IDIV Index Fund ETF DIVO11.SA. Over the past year, assets under management in this fund slumped 9%, falling to $10.9 million from $12 million over the 12 months ended June 30, 2016.

Given the nature of these markets, information about these products is often lacking, and local investors are generally unfamiliar with ETPs, and more unfamiliar yet with the concept of strategic beta. As these markets continue to develop, both from a fundamental and asset-management/investment perspective, we expect them to ultimately look to mimic the developments witnessed among more-mature markets. Specifically, we would expect to see a gradual adoption of the ETP vehicle and more-complex strategic-beta-type exposures.

Exhibit 40 ETFs From Emerging (Strategic-Beta) Markets

Name	Domicile	Ticker	Inception Date	AUM ($ Mil)	Secondary Strategic-Beta Attribute
iShares MSCI Mexico Momentum TRAC	Mexico	MEXMTUM	9/24/14	131.9	Momentum
iShares MSCI Mexico Risk TRAC	Mexico	MEXRISK	9/24/14	120.9	Multifactor
Satrix Divi Plus	South Africa	STXDIV	8/30/07	91.5	Dividend-Screened/Weighted
Satrix RAFI 40	South Africa	STXRAF	10/16/08	59.9	Fundamentals-Weighted
CoreShares Property Top Ten ETF	South Africa	PTXTEN	5/30/11	18.5	Equal-Weighted
It Now IDIV Index Fund ETF	Brazil	DIVO11	1/3/12	10.9	Dividend-Screened/Weighted
NewFunds S&P GIVI SA Top 50 ETF	South Africa	GIVISA	6/23/08	6.4	Multifactor
CoreShares S&P SA Dividend Arst ETF	South Africa	DIVTRX	4/14/14	6.3	Dividend-Screened/Weighted
NewFunds MAPPS Growth ETF	South Africa	MAPPSG	5/25/11	2.4	Growth
NewFunds Equity Momentum ETF	South Africa	NFEMOM	1/26/12	2.4	Momentum
NewFunds S&P GIVI SA Financial 15 ETF	South Africa	GIVFIN	6/15/09	2.0	Multifactor
NewFunds S&P GIVI SA Industrial 25 ETF	South Africa	GIVIND	6/15/09	1.8	Multifactor
CoreShares S&P SA Low Volatility ETF	South Africa	LVLTRX	4/14/14	1.8	Low/Minimum Volatility/Variance
NewFunds S&P GIVI SA Resource 15 ETF	South Africa	GIVRES	6/15/09	1.2	Multifactor

Source: Morningstar Direct, Morningstar Research. Data as of 6/30/16.

Appendix: Strategic-Beta Definitions

Strategic Beta

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 this space in the negative, only including in their classification those products tracking any benchmark that does not weight its constituents on the basis of their market capitalization.

Per our definition, most of the indexes underlying investment products in this class are not market-cap-weighted, but 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 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, above-average dividend yields, and others. It is important to note that some of these strategies will weight the results of their screening criteria by market capitalization.

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, and 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 gives an overweighting to 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.

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* **Disclosure**

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