



# Strategic beta ETF highlights

Quarter at a glance

Q3 2018

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This quarterly report contains a compilation of news and data about strategic beta ETFs. It's designed to offer at-a-glance convenience and a tight focus on the most important strategic beta ETF trends you need to know.

# Notable this quarter

## Record high strategic beta ETF assets

Strategic beta ETF assets broke the \$800 billion mark in Q3, a record high

## Strong strategic beta ETF Q3 flows

Strategic beta ETFs had their strongest quarter of inflows of 2018 in Q3, pulling in a solid \$14.9 billion

## Value ETFs top Q3 flows

Value strategies dominated strategic beta ETF flows in Q3, pulling in over \$6.4 billion

## Invesco plans to buy OppenheimerFunds

Invesco announced plans to acquire OppenheimerFunds, continuing to expand on its strategic beta ETF line-up

## iShares shuts 13 strategic beta ETFs

BlackRock closed a total of 13 strategic beta ETFs, including 9 multi-factor and 4 low-volatility strategies

## Invesco strategic beta ETF launches

Invesco launched 11 new strategic beta ETFs based on proprietary indexes, including 6 fixed income and 5 multi-factor strategies

## Product summary

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Launches

**26**

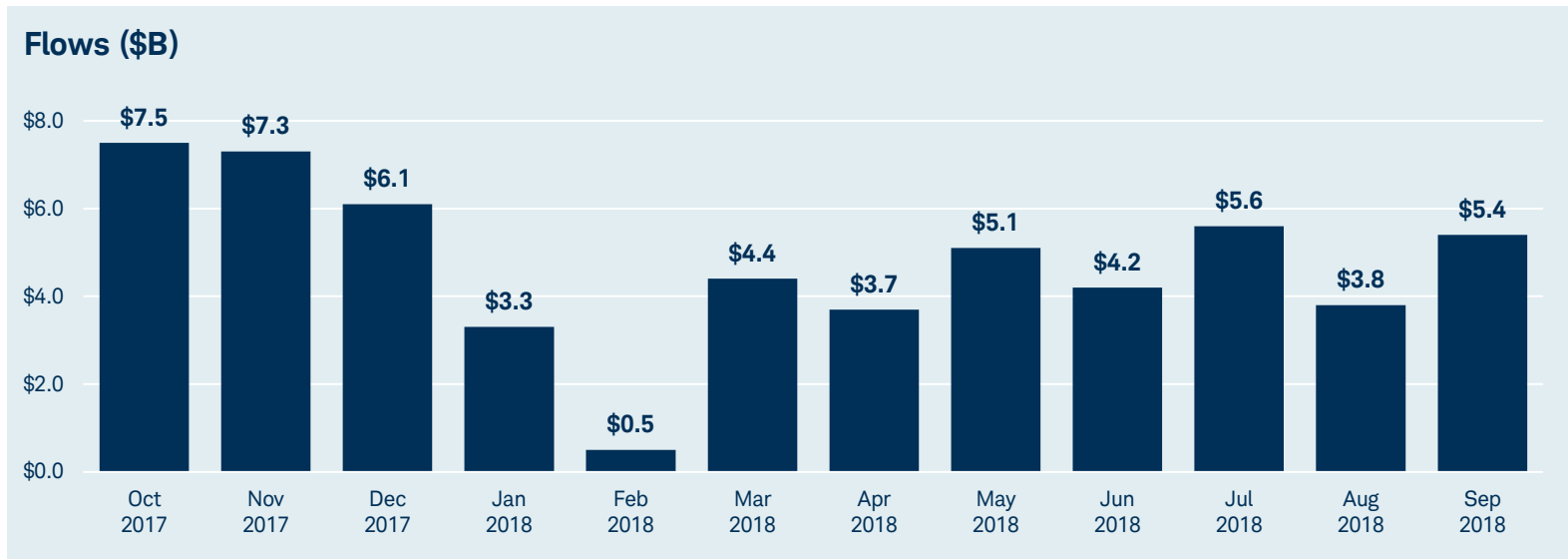
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Closures

**14**

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# 12-month assets and flows



Q3 2018

Total strategic  
beta ETF AUM  
**\$800.5B**

Strategic beta ETF  
AUM change  
**\$62.1B**

Q3 strategic beta ETF  
net flows  
**\$14.9B**

Strategic beta ETF  
YTD flows  
**\$36.0B**

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

Note: Data includes only assets and flows for existing ETFs, as of September 30, 2018.

# Top 20 leaderboard

**Vanguard** led all issuers with \$5.4 billion in Q3 inflows and continues to lead YTD strategic beta flows by a healthy margin. **BlackRock** was close behind with almost \$5.2 billion in Q3 net flows.

**State Street** had almost \$2.2 billion in inflows in Q3, bringing their YTD total to almost \$5.2 billion, just above **Schwab ETFs'** nearly \$5.1 billion in YTD inflows

**WisdomTree** saw another \$1.2 billion in strategic beta ETF outflows, bringing their YTD outflows to over \$5.2 billion

Rank	Δ in rank	Sponsor	Q3 2018		Products # of strategic beta ETFs	Q3 2018 net flows		2018 net flows YTD flows (\$, MM)
			AUM (\$, MM)	% of total		Q3 flows (\$, MM)	Flows (% of total)	
1	-	<b>BlackRock</b>	<b>310,089.0</b>	<b>38.7%</b>	<b>67</b>	<b>5,171.0</b>	<b>34.8%</b>	<b>9,181.0</b>
2	-	<b>Vanguard</b>	<b>191,959.9</b>	<b>24.0%</b>	<b>22</b>	<b>5,426.0</b>	<b>36.5%</b>	<b>13,399.3</b>
3	-	Invesco	77,135.3	9.6%	129	-268.6	-1.8%	-1,577.7
4	-	<b>State Street</b>	<b>46,837.3</b>	<b>5.9%</b>	<b>48</b>	<b>2,188.7</b>	<b>14.7%</b>	<b>5,163.3</b>
5	-	<b>WisdomTree</b>	<b>39,143.4</b>	<b>4.9%</b>	<b>56</b>	<b>-1,210.7</b>	<b>-8.1%</b>	<b>-5,261.7</b>
6	-	First Trust	38,454.2	4.8%	80	831.0	5.6%	3,038.1
7	-	<b>Schwab ETFs™</b>	<b>36,946.7</b>	<b>4.6%</b>	<b>9</b>	<b>1,533.4</b>	<b>10.3%</b>	<b>5,090.9</b>
8	-	FlexShares	9,478.7	1.2%	19	-586.9	-4.0%	-416.0
9	-	Goldman Sachs	7,632.4	1.0%	10	556.8	3.7%	1,754.4
10	-	ProFunds	4,878.4	0.6%	7	141.2	1.0%	53.8
11	+2	Victory Capital	3,294.4	0.4%	14	276.7	1.9%	899.0
12	-1	JPMorgan	3,192.4	0.4%	15	64.2	0.4%	789.8
13	+1	Oppenheimer	3,180.4	0.4%	19	265.0	1.8%	501.2
14	-2	ALPS	3,094.9	0.4%	9	-18.8	-0.1%	-169.9
15	-	US Commodity Funds	2,448.9	0.3%	4	-221.8	-1.5%	-714.5
16	-	Principal Funds	2,038.5	0.3%	7	-216.9	-1.5%	667.6
17	-	Global X Mgmt	1,968.7	0.2%	14	100.9	0.7%	75.4
18	+2	Van Eck	1,733.3	0.2%	4	56.9	0.4%	121.5
19	-1	Exchange Traded Concepts	1,663.7	0.2%	12	-56.4	-0.4%	65.3
20	+1	John Hancock	1,484.5	0.2%	13	128.8	0.9%	314.9

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# Attributes by assets and flows

**Value** ETFs led all attributes inflows with almost \$6.5 billion, capturing 43.5% of the total strategic beta ETF net flows.

**Multi-factor** ETFs continued to see large inflows in Q3, helping to maintain their lead in YTD flows with almost \$10.4 billion.

**Growth** ETFs had another strong quarter with over \$2.0 billion in flows, but flows were down from last quarter.

Attribute	Q3 2018		Products # of ETFs	Q3 2018 net flows		2018 net flows YTD flows (\$, MM)
	AUM (\$, MM)	% of total		Q3 (\$, MM)	% of total	
<b>Growth</b>	<b>199,350.1</b>	<b>24.9%</b>	<b>37</b>	<b>2,035.9</b>	<b>13.7%</b>	<b>10,025.7</b>
<b>Value</b>	<b>190,026.3</b>	<b>23.7%</b>	<b>51</b>	<b>6,461.8</b>	<b>43.5%</b>	<b>8,198.7</b>
Dividends	165,613.9	20.7%	108	420.3	2.8%	-4,864.5
<b>Multi-Factor</b>	<b>68,373.2</b>	<b>8.5%</b>	<b>256</b>	<b>2,473.1</b>	<b>16.6%</b>	<b>10,389.8</b>
Low Volatility	47,815.9	6.0%	23	1,186.9	8.0%	1,989.4
Equal Weighted	40,965.4	5.1%	67	775.0	5.2%	2,379.1
Fundamental	27,224.8	3.4%	12	976.7	6.6%	3,122.0
Momentum	19,700.9	2.5%	31	1,044.3	7.0%	4,541.9
Non-Traditional Fixed Income	10,943.1	1.4%	40	-581.9	-3.9%	-305.0
Quality	10,465.6	1.3%	16	897.1	6.0%	2,283.3
Non-Traditional Commodity	7,146.0	0.9%	27	-944.1	-6.4%	-767.4
Earnings Weighted	3,699.0	0.5%	6	83.1	0.6%	201.3
Risk-Weighted	3,489.2	0.4%	17	181.4	1.2%	551.6
Revenue Weighted	2,069.2	0.3%	10	24.0	0.2%	63.3
Buyback/Shareholder Yield	1,811.9	0.2%	6	-75.0	-0.5%	-29.9
Multi-Asset	1,353.2	0.2%	5	-59.8	-0.4%	-189.6
Expected Returns	206.1	0.0%	3	4.6	0.0%	-14.6
Low/High Beta	204.5	0.0%	3	-46.5	-0.3%	-287.8
<b>Total:</b>	<b>800,458.1</b>	<b>100.0%</b>	<b>718</b>	<b>14,856.8</b>	<b>100.0%</b>	<b>37,287.4</b>

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# Top 10 net flows

**Value** ETFs accounted for half of the top 10 strategic beta ETF net inflows in Q3 while **VTV** led all inflows for another quarter with almost \$2.7 billion coming into the fund.

**IWF**, the iShares Russell 1000 Growth ETF, led all strategic beta ETF outflows with over \$1.3 billion leaving the fund, even though growth ETFs as a category saw strong inflows in Q3.

Top 10 net inflows					
Ticker	Name	Sponsor	Attribute	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)
<b>VTV</b>	<b>Vanguard Value Index ETF</b>	<b>Vanguard</b>	<b>Value</b>	<b>44,127.3</b>	<b>2,672.0</b>
USMV	iShares Edge MSCI Minimum Volatility USA ETF	BlackRock	Low Volatility	16,933.0	1,173.0
SPYG	SPDR Portfolio S&P 500 Growth ETF	State Street	Growth	3,726.2	809.8
QUAL	iShares Edge MSCI USA Quality Factor ETF	BlackRock	Quality	6,767.0	798.0
<b>IJS</b>	<b>iShares S&amp;P Small Cap 600 Value ETF</b>	<b>BlackRock</b>	<b>Value</b>	<b>6,928.0</b>	<b>776.0</b>
VIG	Vanguard Dividend Appreciation Index ETF	Vanguard	Dividend	30,739.1	740.3
<b>EFV</b>	<b>iShares MSCI EAFE Value ETF</b>	<b>BlackRock</b>	<b>Value</b>	<b>5,905.0</b>	<b>725.0</b>
MTUM	iShares Edge MSCI USA Momentum Factor ETF	BlackRock	Momentum	10,629.0	640.0
<b>IUSV</b>	<b>iShares Core S&amp;P U.S. Value ETF</b>	<b>BlackRock</b>	<b>Value</b>	<b>4,646.0</b>	<b>551.0</b>
<b>SLYV</b>	<b>SPDR S&amp;P 600 Small Cap Value ETF</b>	<b>State Street</b>	<b>Value</b>	<b>2,065.8</b>	<b>502.3</b>

Top 10 net outflows					
Ticker	Name	Sponsor	Attribute	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)
<b>IWF</b>	<b>iShares Russell 1000 Growth ETF</b>	<b>BlackRock</b>	<b>Growth</b>	<b>44,502.0</b>	<b>-1,331.0</b>
DXJ	WisdomTree Japan Hedged Equity Fund	WisdomTree	Dividend	5,761.9	-677.7
TDTT	FlexShares iBoxx 3 Year Target Duration TIPS Fund	Northern Trust	Non-Traditional Fixed Income	1,716.1	-451.7
KRE	SPDR S&P Regional Banking ETF	State Street	Equal Weighted	4,995.6	-451.1
DBC	Invesco DB Commodity Index Tracking Fund	Invesco	Non-Traditional Commodity	2,595.5	-445.0
HEDJ	WisdomTree Europe Hedged Equity Fund	WisdomTree	Dividend	5,098.3	-442.7
EELV	Invesco S&P Emerging Markets Low Volatility ETF	Invesco	Low Volatility	267.2	-440.2
IWN	iShares Russell 2000 Value ETF	BlackRock	Value	10,136.0	-392.0
PCY	Invesco Emerging Markets Sovereign Debt ETF	Invesco	Non-Traditional Fixed Income	3,997.4	-279.4
IJK	iShares S&P Mid Cap 400 Growth ETF	BlackRock	Growth	8,129.0	-264.0

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# Top 10 attributes by assets – ETF rankings

## Growth

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
IWF	iShares Russell 1000 Growth ETF	BlackRock	44,502.0	-1,331.0	-2,063.0
VUG	Vanguard Growth Index ETF	Vanguard	38,078.0	39.0	1,865.8
IWW	iShares S&P 500 Growth ETF	BlackRock	22,992.0	111.0	198.0
IWO	iShares Russell 2000 Growth ETF	BlackRock	11,259.0	-163.0	733.0
IWP	iShares Russell Mid Cap Growth ETF	BlackRock	9,496.0	-24.0	8.0
VBK	Vanguard Small Cap Growth Index ETF	Vanguard	9,058.7	184.7	821.5
IJK	iShares S&P Mid Cap 400 Growth ETF	BlackRock	8,129.0	-264.0	-40.0
IJT	iShares S&P Small Cap 600 Growth ETF	BlackRock	7,113.0	487.0	1,134.0
SCHG	Schwab US Large Cap Growth ETF	Schwab	6,979.1	302.7	919.5
VOT	Vanguard Mid Cap Growth Index ETF	Vanguard	6,074.1	98.8	332.2

## Value

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
VTV	Vanguard Value Index ETF	Vanguard	44,127.3	2,672.0	5,508.5
IWD	iShares Russell 1000 Value ETF	BlackRock	37,643.0	22.0	-4,394.0
IVE	iShares S&P 500 Value ETF	BlackRock	15,127.0	-242.0	-384.0
VBR	Vanguard Small Cap Value Index ETF	Vanguard	14,078.3	238.2	818.6
IWS	iShares Russell Mid Cap Value ETF	BlackRock	11,316.0	245.0	178.0
IWN	iShares Russell 2000 Value ETF	BlackRock	10,136.0	-392.0	66.0
VOE	Vanguard Mid Cap Value Index ETF	Vanguard	9,333.8	360.6	855.0
IJS	iShares S&P Small Cap 600 Value ETF	BlackRock	6,928.0	776.0	1,128.0
IJJ	iShares S&P Mid Cap 400 Value ETF	BlackRock	6,217.0	107.0	90.0
EFV	iShares MSCI EAFE Value ETF	BlackRock	5,905.0	725.0	-142.0

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# Top 10 attributes by assets – ETF rankings (cont'd)

## Dividends

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
VIG	Vanguard Dividend Appreciation Index ETF	Vanguard	30,739.1	740.3	1,038.3
VYM	Vanguard High Dividend Yield Index ETF	Vanguard	22,080.2	303.8	279.2
DVY	iShares Select Dividend ETF	BlackRock	17,285.0	101.0	-842.0
SDY	SPDR S&P Dividend ETF	State Street	16,226.3	-110.5	-950.6
SCHD	Schwab US Dividend Equity ETF	Schwab	8,223.1	259.2	726.6
HDV	iShares Core High Dividend ETF	BlackRock	5,931.0	-127.0	-771.0
DXJ	WisdomTree Japan Hedged Equity Fund	WisdomTree	5,761.9	-677.7	-3,446.1
HEDJ	WisdomTree Europe Hedged Equity Fund	WisdomTree	5,098.3	-442.7	-2,442.1
IDV	iShares International Select Dividend ETF	BlackRock	4,501.0	-78.0	-215.0
DGRO	iShares Core Dividend Growth ETF	BlackRock	4,415.0	416.0	1,510.0

## Multi-factor

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
GSLC	GS ActiveBeta US Large Cap Equity ETF	Goldman Sachs	4,104.1	421.4	999.6
SPHD	Invesco S&P 500 High Dividend Low Volatility ETF	Invesco	2,637.3	-25.8	-407.8
DGRW	WisdomTree US Quality Dividend Growth Fund	WisdomTree	2,401.1	28.4	241.3
FXL	First Trust Technology AlphaDEX Fund	First Trust	2,302.1	83.7	244.9
QDF	FlexShares Quality Dividend Index Fund	Northern Trust	1,866.7	5.7	-203.8
FXR	First Trust Industrials/Producer Durables AlphaDEX Fund	First Trust	1,714.8	79.2	-48.8
GEM	GS ActiveBeta Emerging Markets Equity ETF	Goldman Sachs	1,661.9	-27.1	83.0
JPIN	JPMorgan Diversified Return International ETF	JPMorgan	1,607.3	48.9	384.3
FEX	First Trust NASDAQ AlphaDEX Large Cap Core Index Fund	First Trust	1,585.7	26.9	8.1
TILT	FlexShares Morningstar US Market Factor Tilt Index Fund	Northern Trust	1,355.4	19.8	28.6

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.



# Top 10 attributes by assets – ETF rankings (cont'd)

## Low volatility

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
USMV	iShares Edge MSCI Minimum Volatility USA ETF	BlackRock	16,933.0	1,173.0	647.0
EFAV	iShares Edge MSCI Minimum Volatility EAFE ETF	BlackRock	8,995.0	152.0	653.0
SPLV	Invesco S&P 500 Low Volatility ETF	Invesco	7,628.7	260.3	-168.8
EEMV	iShares Edge MSCI Minimum Volatility Emerging Markets ETF	BlackRock	4,899.0	366.0	381.0
ACWV	iShares Edge MSCI Minimum Volatility Global ETF	BlackRock	3,362.0	-209.0	-412.0
USMC	Principal US Mega Cap Multi-Factor Index ETF	Principal	1,601.7	-221.3	661.3
XMLV	Invesco S&P Mid Cap Low Volatility ETF	Invesco	1,485.5	89.9	118.6
XSLV	Invesco S&P Small Cap Low Volatility ETF	Invesco	1,408.7	81.3	146.1
IDLV	Invesco S&P International Developed Low Volatility ETF	Invesco	548.0	-37.6	-38.6
EELV	Invesco S&P Emerging Markets Low Volatility ETF	Invesco	267.2	-440.2	5.8

## Equal weighted

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
RSP	Invesco S&P 500 Equal Weight ETF	Invesco	16,083.9	323.0	17.6
KRE	SPDR S&P Regional Banking ETF	State Street	4,995.6	-451.1	470.9
QTEC	FirstTr NASDAQ 100 Technology Sector Index Fund	First Trust	2,618.8	22.6	172.1
XT	iShares Exponential Technologies ETF	BlackRock	2,468.0	55.0	703.0
RYT	Invesco S&P 500 Equal Weight Technology ETF	Invesco	1,870.4	22.4	110.6
XAR	SPDR S&P Aerospace & Defense ETF	State Street	1,646.5	236.0	377.5
XHE	SPDR S&P Health Care Equipment ETF	State Street	803.1	258.0	486.8
XRT	SPDR S&P Retail ETF	State Street	794.2	302.7	64.3
KIE	SPDR S&P Insurance ETF	State Street	787.3	49.4	-80.5
XME	SPDR S&P Metals & Mining ETF	State Street	765.7	-57.9	-145.2

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# Top 10 attributes by assets – ETF rankings (cont'd)

## Fundamental

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
PRF	Invesco FTSE RAFI US 1000 ETF	Invesco	5,360.4	-68.8	-283.1
FNDX	Schwab Fundamental U.S. Large Company Index ETF	Schwab	4,821.9	213.6	761.5
FNDF	Schwab Fundamental International Large Company Index ETF	Schwab	4,171.9	276.3	803.8
FNDA	Schwab Fundamental U.S. Small Company Index ETF	Schwab	3,537.3	159.4	626.4
FNDE	Schwab Fundamental Emerging Markets Large Company Index ETF	Schwab	2,229.7	99.6	489.9
PRFZ	Invesco FTSE RAFI US 1500 Small-Mid ETF	Invesco	2,091.0	1.9	51.4
FNDC	Schwab Fundamental International Small Company Index ETF	Schwab	1,968.4	76.7	380.9
PXF	Invesco FTSE RAFI Developed Markets ex-US ETF	Invesco	1,382.7	138.9	200.3
PXH	Invesco FTSE RAFI Emerging Markets ETF	Invesco	1,091.2	13.7	87.4
PDN	Invesco FTSE RAFI Developed Markets ex-US Small-Mid ETF	Invesco	275.7	56.5	45.9

## Momentum

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
MTUM	iShares Edge MSCI USA Momentum Factor ETF	BlackRock	10,629.0	640.0	4,065.0
FV	First Trust Dorsey Wright Focus 5 Fund	First Trust	2,858.5	2.9	20.6
PDP	Invesco DWA Momentum ETF	Invesco	1,785.4	-40.4	-211.9
FVC	First Trust Dorsey Wright Dynamic Focus 5 Fund	First Trust	758.8	182.1	319.6
ONEO	SPDR Russell 1000 Momentum Focus ETF	State Street	634.8	-1.8	60.7
DWAS	Invesco DWA Small Cap Momentum ETF	Invesco	543.1	117.1	195.5
PTH	Invesco DWA Healthcare Momentum ETF	Invesco	453.8	127.0	216.6
PIZ	Invesco DWA Developed Markets Momentum ETF	Invesco	280.1	12.0	-2.8
PIE	Invesco DWA Emerging Markets Momentum ETF	Invesco	224.7	-37.4	25.1
PSL	Invesco DWA Consumer Staples Momentum ETF	Invesco	187.0	50.0	91.6

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# Top 10 attributes by assets – ETF rankings (cont'd)

## Non-traditional fixed income

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
PCY	Invesco Emerging Markets Sovereign Debt ETF	Invesco	3,997.4	-279.4	-817.2
TDTT	FlexShares iBoxx 3 Year Target Duration TIPS Fund	Northern Trust	1,716.1	-451.7	-343.8
PHB	Invesco Fundamental High Yield Corporate Bond ETF	Invesco	971.5	-13.5	-173.0
TDTF	FlexShares iBoxx 5 Year Target Duration TIPS Fund	Northern Trust	928.4	-65.4	64.7
VBND	Vident Core US Bond Strategy ETF	Exchange Traded Concepts	522.6	-78.3	-25.6
AGGY	WisdomTree Yield Enhanced US Aggregate Bond Fund	WisdomTree	415.5	-3.2	129.5
GIGB	Goldman Sachs Access Investment Grade Corporate Bond ETF	Goldman Sachs	333.8	79.8	177.7
AGGP	IQ Enhanced Core Plus Bond US ETF	IndexIQ	255.4	-68.0	-88.9
PGHY	Invesco Global Short Term High Yield Bond ETF	Invesco	228.8	4.6	5.3
HYUP	Xtrackers High Beta High Yield Bond ETF	Deutsche Bank	147.8	-2.0	144.8

## Quality

Top 10					
Ticker	Name	Sponsor	Q3 2018 AUM (\$, MM)	Q3 2018 flows (\$, MM)	YTD 2018 Flows (\$, MM)
QUAL	iShares Edge MSCI USA Quality Factor ETF	BlackRock	6,767.0	798.0	1,913.0
MOAT	VanEck Vectors Morningstar Wide Moat ETF	Van Eck	1,570.1	74.7	115.8
SPHQ	Invesco S&P 500 Quality ETF	Invesco	1,377.6	-66.6	-97.3
JPXN	iShares JPX-Nikkei 400 ETF	BlackRock	127.0	9.0	29.0
FQAL	Fidelity Quality Factor ETF	Fidelity	119.5	46.8	65.9
IQLT	iShares Edge MSCI Institutional Quality Factor ETF	BlackRock	112.0	18.0	68.0
BLCN	Reality Shares Nasdaq NexGen Economy ETF	Reality Shares	103.1	-18.2	106.0
MOTI	VanEck Vectors Morningstar International Moat ETF	Van Eck	89.5	-10.6	19.2
XSHQ	Invesco S&P Small Cap Quality ETF	Invesco	44.1	40.5	42.0
IDHQ	Invesco S&P International Developed Quality ETF	Invesco	43.2	9.2	13.6

Source: Morningstar and Strategic Insight SimFund. Strategic beta classification based on Morningstar, as of September 30, 2018.

# New launches

A total of 26 new strategic beta **ETFs** launched in **Q3**, with multi-factor strategies continuing to lead launches yet again with 14 new funds.

**Invesco** launched 11 strategic beta funds in Q3 covering the Non-Traditional Fixed Income and the Multi-Factor spaces.

Ticker	Name	Sponsor	Attribute	OER (%)	Inception
QDIV	Global X S&P 500 Quality Dividend ETF	Global X	Multi-Factor	0.35	7/13/2018
HYGV	FlexShares High Yield Value Scored Bond Index Fund	Northern Trust	Non-Traditional Fixed Income	0.37	7/17/2018
SZNE	Pacer CFRA Stovall Equal Weight Seasonal Rotation ETF	Pacer	Equal Weighted	0.60	7/23/2018
FCTR	First Trust Lunt U.S. Factor Rotation ETF	First Trust	Multi-Factor	0.65	7/23/2018
LOUP	Innovator Loup Frontier Tech ETF	Innovator	Growth	0.70	7/24/2018
<b>IHYD</b>	<b>Invesco Corporate Income Defensive ETF</b>	<b>Invesco</b>	<b>Non-Traditional Fixed Income</b>	<b>0.23</b>	<b>7/25/2018</b>
<b>IHYV</b>	<b>Invesco Corporate Income Value ETF</b>	<b>Invesco</b>	<b>Non-Traditional Fixed Income</b>	<b>0.23</b>	<b>7/25/2018</b>
<b>IEMV</b>	<b>Invesco Emerging Markets Debt Value ETF</b>	<b>Invesco</b>	<b>Non-Traditional Fixed Income</b>	<b>0.29</b>	<b>7/25/2018</b>
<b>IIGD</b>	<b>Invesco Investment Grade Defensive ETF</b>	<b>Invesco</b>	<b>Non-Traditional Fixed Income</b>	<b>0.13</b>	<b>7/25/2018</b>
<b>IIGV</b>	<b>Invesco Investment Grade Value ETF</b>	<b>Invesco</b>	<b>Non-Traditional Fixed Income</b>	<b>0.13</b>	<b>7/25/2018</b>
<b>IMFP</b>	<b>Invesco Multi-Factor Core Plus Fixed Income ETF</b>	<b>Invesco</b>	<b>Non-Traditional Fixed Income</b>	<b>0.16</b>	<b>7/25/2018</b>
TFLT	Global X TargetIncome Plus 2 ETF	Global X	Low Volatility	0.78	7/27/2018
REDV	Oppenheimer Emerging Markets Ultra Dividend Revenue ETF	Oppenheimer	Multi-Factor	0.46	8/7/2018
RIDV	Oppenheimer International Ultra Dividend Revenue ETF	Oppenheimer	Revenue Weighted	0.42	8/7/2018
AUSF	Global X Adaptive US Factor ETF	Global X	Multi-Factor	0.27	8/24/2018
DVOL	First Trust Dorsey Wright Momentum & Low Volatility ETF	First Trust	Multi-Factor	0.60	9/5/2018
DVLU	First Trust Dorsey Wright Momentum & Value ETF	First Trust	Multi-Factor	0.60	9/5/2018
QGRO	American Century STOXX US Quality Growth ETF	American Century	Multi-Factor	0.29	9/10/2018
QINT	American Century Quality Diversified International ETF	American Century	Multi-Factor	0.39	9/10/2018
TRTY	Cambria Trinity ETF	Cambria	Multi-Factor	0.66	9/10/2018
<b>ISDX</b>	<b>Invesco Strategic Dev ex-US ETF</b>	<b>Invesco</b>	<b>Multi-Factor</b>	<b>0.23</b>	<b>9/12/2018</b>
<b>ISDS</b>	<b>Invesco Strategic Dev ex-US Small Company ETF</b>	<b>Invesco</b>	<b>Multi-Factor</b>	<b>0.35</b>	<b>9/12/2018</b>
<b>ISEM</b>	<b>Invesco Strategic Emerging Markets ETF</b>	<b>Invesco</b>	<b>Multi-Factor</b>	<b>0.35</b>	<b>9/12/2018</b>
<b>IUS</b>	<b>Invesco Strategic US ETF</b>	<b>Invesco</b>	<b>Multi-Factor</b>	<b>0.19</b>	<b>9/12/2018</b>
<b>IUSS</b>	<b>Invesco Strategic US Small Company ETF</b>	<b>Invesco</b>	<b>Multi-Factor</b>	<b>0.23</b>	<b>9/12/2018</b>
UTRN	Vesper US Large Cap Short Term Reversal Strategy ETF	Exchange Traded Concepts	Equal Weighted	0.75	9/20/2018

Sources: NYSE Arca, BATS, NASDAQ, Strategic Insight, FUSE, ETF.com, Morgan Stanley Smith Barney, Ignites, ETF Trends, and company websites. Strategic beta classification based on Morningstar.

# Closures

**iShares** shuttered a total of 13 strategic beta ETFs in Q3, including 4 low volatility and 9 multi-factor strategies

Ticker	Fund name	Attribute	Closure Date
SPUN	VanEck Vectors Global Spin-Off ETF	Equal Weighted	8/7/2018
HEFV	iShares Edge MSCI Minimum Volatility EAFE Currency Hedged ETF	Low Volatility	8/22/2018
HEMV	iShares Edge MSCI Minimum Volatility EM Currency Hedged ETF	Low Volatility	8/22/2018
HEUV	iShares Edge MSCI Minimum Volatility Europe Currency Hedged ETF	Low Volatility	8/22/2018
HACV	iShares Edge MSCI Minimum Volatility Global Currency Hedged ETF	Low Volatility	8/22/2018
CNDF	iShares Edge MSCI Multifactor Consumer Discretionary ETF	Multi-Factor	8/22/2018
CNSF	iShares Edge MSCI Multifactor Consumer Staples ETF	Multi-Factor	8/22/2018
ERGF	iShares Edge MSCI Multifactor Energy ETF	Multi-Factor	8/22/2018
FNCF	iShares Edge MSCI Multifactor Financials ETF	Multi-Factor	8/22/2018
HCRF	iShares Edge MSCI Multifactor Healthcare ETF	Multi-Factor	8/22/2018
INDF	iShares Edge MSCI Multifactor Industrials ETF	Multi-Factor	8/22/2018
MATF	iShares Edge MSCI Multifactor Materials ETF	Multi-Factor	8/22/2018
TCHF	iShares Edge MSCI Multifactor Technology ETF	Multi-Factor	8/22/2018
UTLF	iShares Edge MSCI Multifactor Utilities ETF	Multi-Factor	8/22/2018

Sources: NYSE Arca, BATS, NASDAQ, Strategic Insight, FUSE, ETF.com, Morgan Stanley Smith Barney, Ignites, ETF Trends, and company websites. Strategic beta classification based on Morningstar.

# Morningstar's strategic beta taxonomy

Return oriented	Risk oriented	Other
Dividend screened/weighted (dividends)	Low/minimum volatility/variance (low volatility)	Non-traditional commodity
Value	Risk weighted	Non-traditional fixed income
Growth	Low/high beta	Equal weighted
Fundamentally weighted (fundamental)		Multi-asset
Multi-factor		
Size		
Momentum		
Buyback/shareholder yield		
Earnings weighted		
Quality		
Expected returns		
Revenue weighted		

Source: Morningstar

# Definitions from Morningstar

Attribute	Definition
Dividend screened/weighted (dividends)	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 capitalization.
Size	Morningstar does not consider size on a stand-alone basis, except within the context of a multi-factor strategy that introduces size “tilts.” Products tracking small-cap benchmarks, such as the Russell 2000 Index, are not classified as strategic beta. Also, Morningstar does not classify small- or mid-cap benchmarks that screen constituents for growth or value characteristics as being “multi-factor.” Only those products that track multi-factor benchmarks that implement a size “tilt” will be tagged with this attribute—for example, the 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 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, 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 (fundamental)	“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.
Multi-factor	Multi-factor strategies set out to combine a variety of factors (e.g., value, growth, size, momentum, quality, low volatility, etc.) in an effort to improve risk-adjusted performance relative to a standard benchmark.

Source: Morningstar

# Definitions from Morningstar (cont'd)

Attribute	Definition
Momentum	Momentum strategies will select and/or weight their constituent securities on a number of factors that 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 (e.g., quantitative rankings, broker recommendations, etc.) and weight them in a variety of ways.
Revenue weighted	Revenue-weighted strategies assign weights to their constituents according to each company's revenue relative to the total revenue of all the companies in the index.
Low/minimum volatility/variance (low volatility)	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-capitalization-weighted benchmark.
Risk weighted	Risk-weighted strategies weight constituents according to their individual expected contributions to overall portfolio risk.

Source: Morningstar



# Definitions from Morningstar (cont'd)

Attribute	Definition
Non-traditional commodity	Nontraditional commodity benchmarks aim to improve upon the performance of standard indexes (e.g., Dow Jones UBS Commodity Index, Standard & Poor's GSCI) by avoiding their chief drawbacks (e.g., 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.
Non-traditional Fixed Income	Nontraditional fixed income benchmarks are not market capitalization weighted. The oft-cited drawback of market capitalization 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.
Multi-asset	Multi-asset strategies tend to be income oriented and will screen eligible securities (which may include but not be limited to stocks, bonds, preferred securities, and master limited partnerships) on the basis of yield—among other characteristics.

Source: Morningstar

## Definitions

### ETFs (exchange-traded funds)

Exchange-traded funds consist of several different structures such as open-end funds, unit investment trusts (UITs), grantor trusts and commodity pools (limited partnerships). Exchange-traded notes (ETNs) are not structurally ETFs but another type of exchange-traded product. Exchange-traded funds represent the vast majority of these exchange-traded investment products, and the term ETF is often used as a catchall. Here, for the purposes of this presentation, the label “exchange-traded fund” (ETF) is used as the umbrella term under which ETFs and ETNs fall.

### Strategic beta

Morningstar defines strategic beta indexes as indexes that seek to either improve their return profile or alter their risk profile relative to traditional cap-weighted indexes. According to Morningstar, strategic beta products represent a middle ground on the active-to-passive spectrum, deviating from traditional cap-weighted products but do so in a rules-based, transparent and relatively low-cost manner.

## Disclosures

**Investors should carefully consider information contained in the prospectus or, if available, the summary prospectus, including investment objectives, risks, charges, and expenses. You can obtain a prospectus by visiting <https://www.schwabfunds.com/prospectus> or calling 877-824-5615. Please read the prospectus carefully before investing.**

Investment returns will fluctuate and are subject to market volatility, so an investor's shares, when redeemed or sold, may be worth more or less than their original cost. Some specialized exchanged-traded funds can be subject to additional market risks. Unlike mutual funds, shares of ETFs are not individually redeemable directly with the ETF. Shares of ETFs are bought and sold at market price, which may be higher or lower than the net asset value (NAV).

ETFs mentioned are for informational purposes and not an offer to buy or sell a particular security.

Data here is obtained from what are considered reliable sources; however, its accuracy, completeness, or reliability cannot be guaranteed.

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