

## Revisiting Core Principles

@NA

## Performance

Exhibit 1:  
Performance Table

Exhibit 2:  
Rolling 1-Year Excess Returns

**Exhibit 1: Performance Table<sup>i</sup>**

	QTD	1-Yr	3-Yr	5-Yr	10-Yr	ITD*
FTSE RAFI™ Developed Europe Low Volatility Index	1.3%	10.9%	6.1%	10.1%	3.9%	6.1%
FTSE All World Developed Europe	2.8%	16.9%	7.5%	11.0%	3.7%	7.4%
Value Added	-1.5%	-6.0%	-1.4%	-0.9%	0.2%	-1.3%
MSCI Europe	2.7%	16.9%	7.3%	10.8%	3.6%	7.2%
Portfolio Standard Deviation		9.4%	12.5%	11.0%	13.3%	12.3%
Benchmark Standard Deviation		8.4%	13.2%	11.3%	15.6%	13.0%
Tracking Error		3.3%	4.5%	4.2%	6.0%	4.5%

**Exhibit 2: Rolling 1-Year Excess Returns<sup>ii</sup>**

i. Exhibit 1.  
Performance derived from FactSet. All returns are total returns in EUR. All returns greater than one year are annualized. Standard deviation and tracking error require a minimum of 1 year return history.  
\*Inception to Date (ITD) returns are calculated starting the first full month of returns following September 22, 2014.

ii. Exhibit 2.  
Performance derived from FactSet. All returns are total returns in EUR. Rolling 1-year excess returns and tracking error are calculated starting N/A.  
If applicable, strategy returns prior to inception are simulated. Inception date is September 22, 2014.



## The Low Volatility Effect

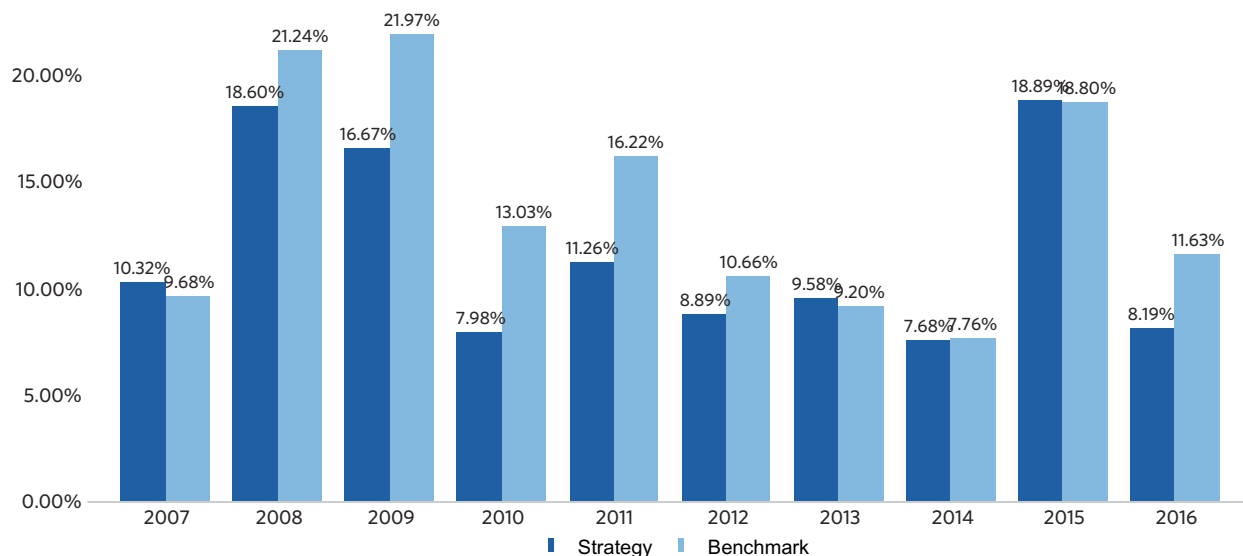
The strategy's construction methodology aims to provide superior long-term risk adjusted performance - relative to the cap-weighted benchmark - by reducing volatility without sacrificing the return expectations of traditional smart beta strategies.

For the ten years ending September 30, 2017, volatility has been 14.8% lower than the benchmark. In addition, the strategy has produced a ten year Sharpe Ratio of 0.12 vs. 0.09 for the benchmark.

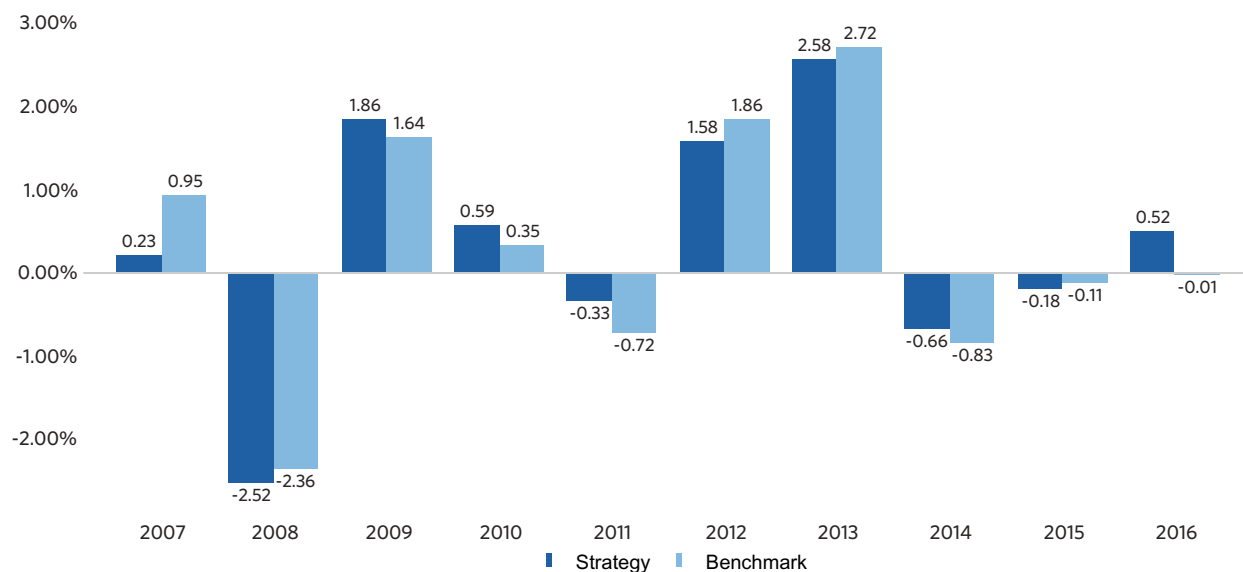
**Exhibit 3:**  
Calendar Year Volatility

**Exhibit 4:**  
Calendar Year Sharpe Ratios

**Exhibit 3: Calendar Year Volatility<sup>i</sup>**



**Exhibit 4: Calendar Year Sharpe Ratios<sup>ii</sup>**



i. Exhibit 3. FTSE RAFI™ Developed Europe Low Volatility Index calendar volatility measured against the FTSE All World Developed Europe. Returns prior to strategy inception are simulated. Strategy inception is September 22, 2014.

ii. Exhibit 4. Calendar Year Sharpe Ratios measured using the Citigroup 3-Month T-Bill as the risk free rate. Returns prior to strategy inception are simulated. Strategy inception is September 22, 2014.

## Portfolio Characteristics

The FTSE RAFI™ Developed Europe Low Volatility Index is attractively positioned relative to the cap-weighted benchmark.

**Exhibit 5:**  
Portfolio Characteristics

**Exhibit 6:**  
Historical Portfolio Characteristics

## Exhibit 5: Portfolio Characteristics<sup>i</sup>

	Number of Holdings	Active Share	Price to Sales	Price to Cash Flow	Price to Book	Div. Yield	Market Cap. (Billions)	Sharpe Ratio*	Info. Ratio*	Tracking Error*
FTSE RAFI™ Developed Europe Low Volatility Index	121	66.7	1.0	8.2	1.8	4.2%	78	0.18	-0.30	4.5%
FTSE All-World Developed Europe	555	--	1.3	8.9	1.9	3.2%	73	0.27	--	--

## Exhibit 6: Historical Portfolio Characteristics<sup>ii</sup>

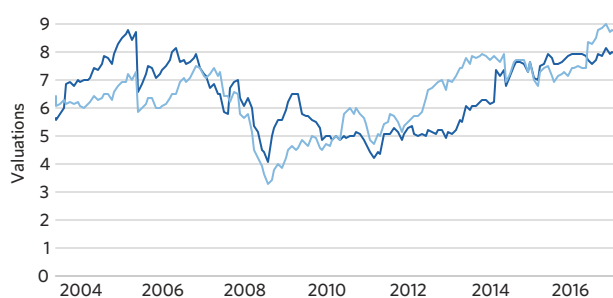
**Price to Book**



**Dividend Yield (%)**



**Price to Cash Flow**



**Price to Sales**



— FTSE RAFI™ Developed Europe Low Volatility Index (Left) — FTSE All-World Developed Europe (Left)

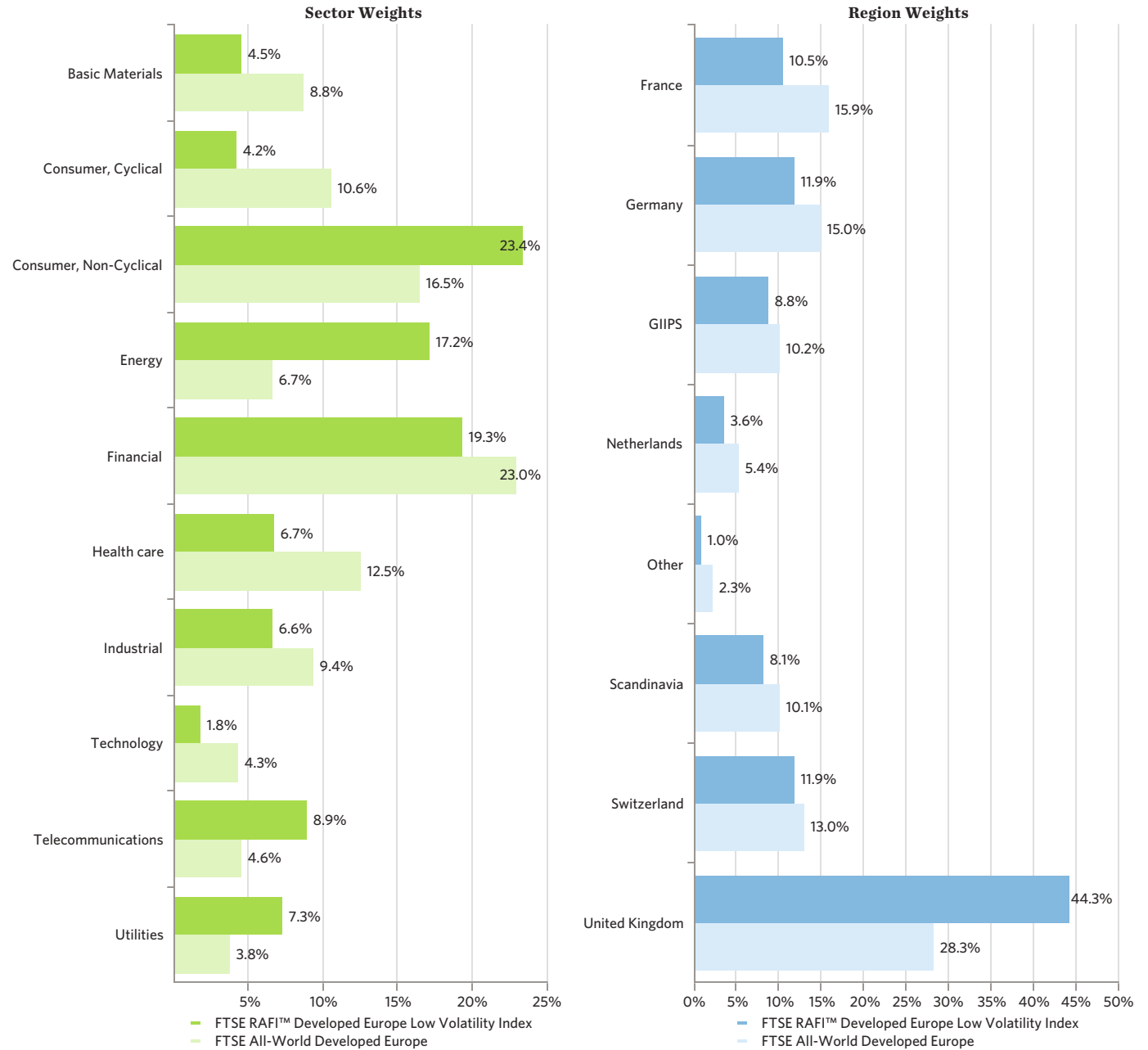
i. Exhibit 5.  
Portfolio characteristics data derived from FactSet.  
\*Sharpe Ratio, Information Ratio, and Tracking Error are calculated starting the first full month of returns following September 22, 2014. Minimum 1-year return history. The 3-mo US Treasury Bill return is used as a proxy for risk-free rate. If applicable, strategy returns prior to inception are simulated. Inception date is September 22, 2014.

ii. Exhibit 6.  
Portfolio characteristics derived from FactSet. Data prior to strategy inception is simulated. Strategy inception is September 22, 2014.

# Current Position

**Exhibit 7:**  
Sector and Region Weights

**Exhibit 7: Sector and Region Weights<sup>i</sup>**



<sup>i</sup>. Exhibit 7.  
Portfolio characteristics data derived from FactSet.



## Current Position

**Exhibit 8:**  
Top 10 Holdings

**Exhibit 9:**  
Top Over/Underweights

### Exhibit 8: Top 10 Holdings<sup>i</sup>

FTSE RAFI™ Developed Europe Low Volatility Index vs. FTSE All World Developed Europe					
Index	Weights	1-Yr Perf.	Benchmark	Weights	1-Yr Perf.
Royal Dutch Shell	5.4%	21.3%	Nestle	2.7%	2.9%
BP	5.3%	11.3%	Royal Dutch Shell	2.6%	21.3%
HSBC	5.2%	32.8%	Novartis	2.1%	5.6%
Nestle	5.0%	2.9%	HSBC	2.1%	32.8%
ENI	4.8%	14.7%	Roche Holding	1.9%	0.2%
GlaxoSmithKline	3.9%	-6.7%	Unilever	1.7%	23.3%
Deutsche Telekom	3.2%	9.3%	British American Tobacco	1.5%	-4.0%
Zurich Insurance Grp.	3.1%	19.1%	BP	1.3%	11.3%
British American Tobacco	2.7%	-4.0%	Total	1.3%	12.3%
Muenchener RG	2.4%	15.2%	Bayer	1.2%	33.7%

### Exhibit 9: Top Over/Underweights<sup>i</sup>

FTSE RAFI™ Developed Europe Low Volatility Index vs. FTSE All World Developed Europe					
Top Overweights	Active Weights	1-Yr Total Effect	Top Underweights	Active Weights	1-Yr Total Effect
ENI	4.3%	-0.1%	Novartis	-2.1%	0.2%
BP	4.0%	-0.2%	Roche Holding	-1.9%	0.3%
HSBC	3.1%	0.5%	Bayer	-1.2%	-0.1%
GlaxoSmithKline	2.9%	-0.6%	Banco Santander	-1.2%	-0.3%
Royal Dutch Shell	2.8%	0.2%	Siemens	-1.1%	0.0%
Zurich Insurance Grp.	2.7%	0.1%	Allianz	-1.1%	-0.3%
Deutsche Telekom	2.5%	-0.2%	BASF	-1.0%	-0.1%
Nestle	2.3%	-0.3%	Anheuser-Busch InBev SA/NV	-1.0%	0.3%
Muenchener RG	2.1%	0.0%	BNP Paribas SA Class A	-0.9%	-0.2%
Vivendi SA	1.7%	0.1%	AstraZeneca	-0.9%	0.0%

i. Exhibit 8, Exhibit 9.  
Portfolio characteristics and securities data derived from FactSet. 1-Yr Total Effect is calculated using a holdings based attribution, and measures the impact that a security had on relative performance. It is a function of the active weight of a company as well as that company's performance versus the overall benchmark.

## Attribution

### Exhibit 10: Sector Attribution

### Exhibit 11: Region Attribution

### Exhibit 10: Sector Attribution<sup>i</sup>

1-Quarter Ending 09/30/2017

Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Basic Materials	4.51%	8.76%	1.53%	-0.24%	-0.17%	-0.40%
Consumer, Cyclical	4.20%	10.57%	-3.37%	-0.09%	-0.20%	-0.29%
Consumer, Non-Cyclical	23.41%	16.46%	-5.80%	-0.31%	-0.33%	-0.64%
Energy	17.16%	6.68%	7.18%	0.76%	0.05%	0.81%
Financial	19.34%	22.98%	-1.23%	-0.03%	-0.42%	-0.45%
Health care	6.73%	12.52%	-8.33%	0.25%	-0.27%	-0.02%
Industrial	6.64%	9.38%	-0.48%	-0.01%	-0.06%	-0.07%
Technology	1.82%	4.30%	-0.86%	-0.16%	-0.14%	-0.29%
Telecommunications	8.90%	4.57%	-0.52%	-0.15%	0.28%	0.13%
Utilities	7.30%	3.78%	-3.07%	0.05%	-0.34%	-0.29%
Excess Return						-1.51%

1-Year Ending 09/30/2017

Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Basic Materials	4.51%	8.76%	2.88%	-0.31%	-0.14%	-0.45%
Consumer, Cyclical	4.20%	10.57%	-21.59%	-0.06%	-0.71%	-0.77%
Consumer, Non-Cyclical	23.41%	16.46%	-13.14%	-0.73%	-0.17%	-0.90%
Energy	17.16%	6.68%	-0.38%	-0.05%	0.00%	-0.05%
Financial	19.34%	22.98%	3.35%	-0.44%	-2.19%	-2.63%
Health care	6.73%	12.52%	-11.78%	0.45%	-0.23%	0.22%
Industrial	6.64%	9.38%	5.96%	-0.20%	-0.05%	-0.25%
Technology	1.82%	4.30%	0.48%	-0.20%	-0.10%	-0.30%
Telecommunications	8.90%	4.57%	-6.42%	-0.57%	0.73%	0.17%
Utilities	7.30%	3.78%	-21.15%	-0.24%	-0.83%	-1.07%
Excess Return						-6.03%

### Exhibit 11: Region Attribution<sup>i</sup>

1-Quarter Ending 09/30/2017

Region	Portfolio Weight	Bench. Weight	Country Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
France	10.49%	15.89%	1.28%	-0.08%	-0.09%	-0.16%
Germany	11.86%	15.04%	-1.35%	-0.05%	-0.36%	-0.41%
GIIPS	8.84%	10.18%	1.12%	-0.03%	-0.05%	-0.08%
Netherlands	3.58%	5.39%	1.31%	-0.04%	-0.04%	-0.08%
Other	0.95%	2.27%	-1.33%	-0.05%	-0.04%	-0.09%
Scandinavia	8.14%	10.05%	-0.39%	-0.01%	-0.08%	-0.09%
Switzerland	11.89%	12.95%	-6.19%	0.06%	-0.21%	-0.15%
United Kingdom	44.25%	28.25%	-1.86%	-0.20%	-0.25%	-0.45%
Excess Return						-1.51%

1-Year Ending 09/30/2017

Region	Portfolio Weight	Bench. Weight	Country Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
France	10.49%	15.89%	3.50%	-0.15%	-0.71%	-0.86%
Germany	11.86%	15.04%	-2.26%	-0.14%	-0.74%	-0.88%
GIIPS	8.84%	10.18%	-2.32%	-0.16%	-1.23%	-1.39%
Netherlands	3.58%	5.39%	-6.42%	-0.08%	-0.40%	-0.48%
Other	0.95%	2.27%	0.81%	0.16%	0.05%	0.21%
Scandinavia	8.14%	10.05%	-7.86%	-0.03%	-0.64%	-0.67%
Switzerland	11.89%	12.95%	-9.09%	0.11%	-0.40%	-0.29%
United Kingdom	44.25%	28.25%	-9.14%	-1.12%	-0.56%	-1.68%
Excess Return						-6.03%

i. Exhibit 10, Exhibit 11. Portfolio characteristics and securities data derived from FactSet. The attributions have been normalized to match the return of the strategy, as presented in the performance table on page 2. Data prior to strategy inception is simulated. Strategy inception is September 22, 2014.



## Disclosures

Source: FactSet based on data from FTSE Russell.

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Prior to 11/1/2016, the 1-yr performance values reported in the Top 10 Holdings exhibit and the Top Over/Underweights exhibit were incorrect. The calculation has been modified to report the appropriate values moving forward.

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