

Revisiting Core Principles

The Russell RAFI™ Index series utilizes fundamental measures of company size (adjusted sales, retained cash flow, and dividends plus buybacks) as a rebalancing anchor to trade against the constantly shifting expectations of the market.

This approach results in overweights to out-of-favor securities, which are often undervalued, and underweights to popular securities, which are often overvalued.

Over the short term, these exposures can cause relative performance to vary, but this simple, disciplined approach has historically outperformed the cap-weighted benchmark over the long-term.

As a rebalancing strategy that trades against recent winners, the Fundamental Index™ methodology will often face performance headwinds during periods of trending prices, sustained momentum, or extreme value underperformance - and benefit from performance tailwinds during periods of security mean reversion or value outperformance.

The Russell RAFI™ Developed Large Company Index is comprised of the developed companies in the top 87.5% by fundamental weight at the time of reconstitution.

Performance

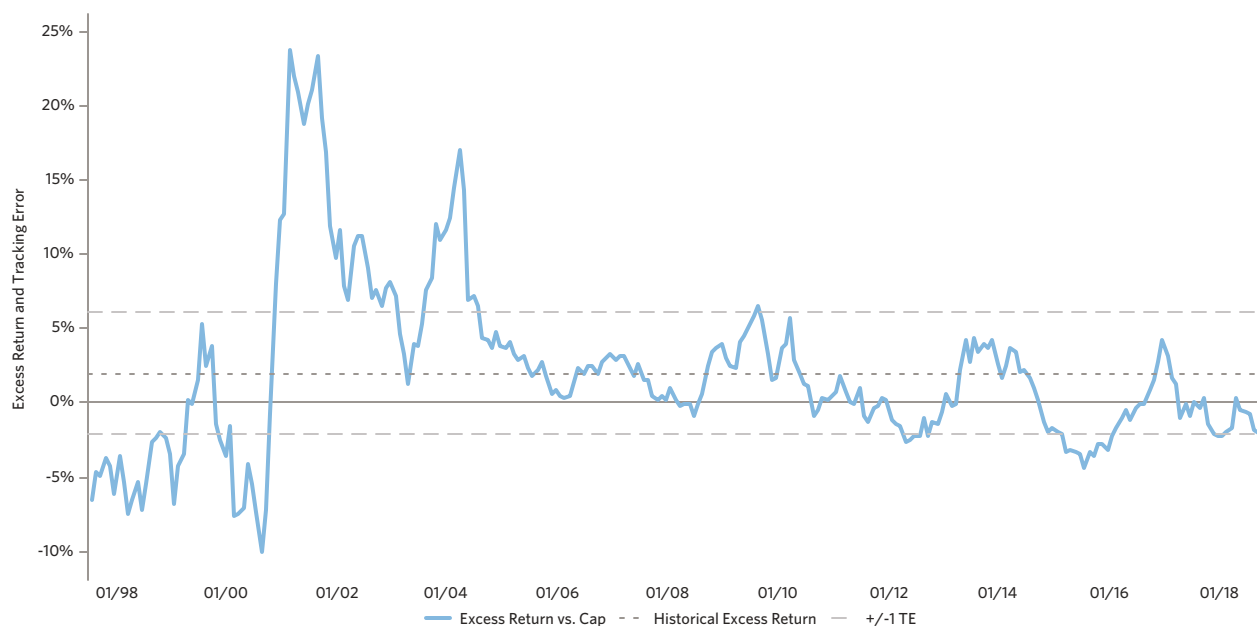
Exhibit 1:
Performance Table

Exhibit 2:
Rolling 1-Year Excess Returns

Exhibit 1: Performance Tableⁱ

	QTD	1-Yr	3-Yr	5-Yr	10-Yr	ITD*
Russell RAFI™ Dev Large Co Index	4.3%	9.7%	13.8%	9.0%	9.6%	8.9%
Russell Developed Large Cap Index	5.0%	11.9%	14.2%	10.0%	9.5%	9.6%
Value Added	-0.7%	-2.2%	-0.4%	-1.1%	0.1%	-0.7%
MSCI World Large Cap	5.6%	12.4%	14.4%	10.0%	9.0%	9.5%
Portfolio Standard Deviation		8.6%	9.3%	9.9%	16.1%	11.9%
Benchmark Standard Deviation		8.1%	9.1%	9.6%	15.6%	11.5%
Tracking Error		2.5%	2.4%	2.1%	2.3%	2.0%

Exhibit 2: Rolling 1-Year Excess Returnsⁱⁱ



i. Exhibit 1.
Performance derived from FactSet. All returns are total returns in USD. 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 February 24, 2011.

ii. Exhibit 2.
Performance derived from FactSet. All returns are total returns in USD. Rolling 1-year excess returns and tracking error are calculated starting August 31, 1996. If applicable, strategy returns prior to inception are simulated. Inception date is February 24, 2011.

The Value Premium

The strategy invests broadly across the entire economy; however a byproduct of the strategy's rebalancing process is a value tilt.

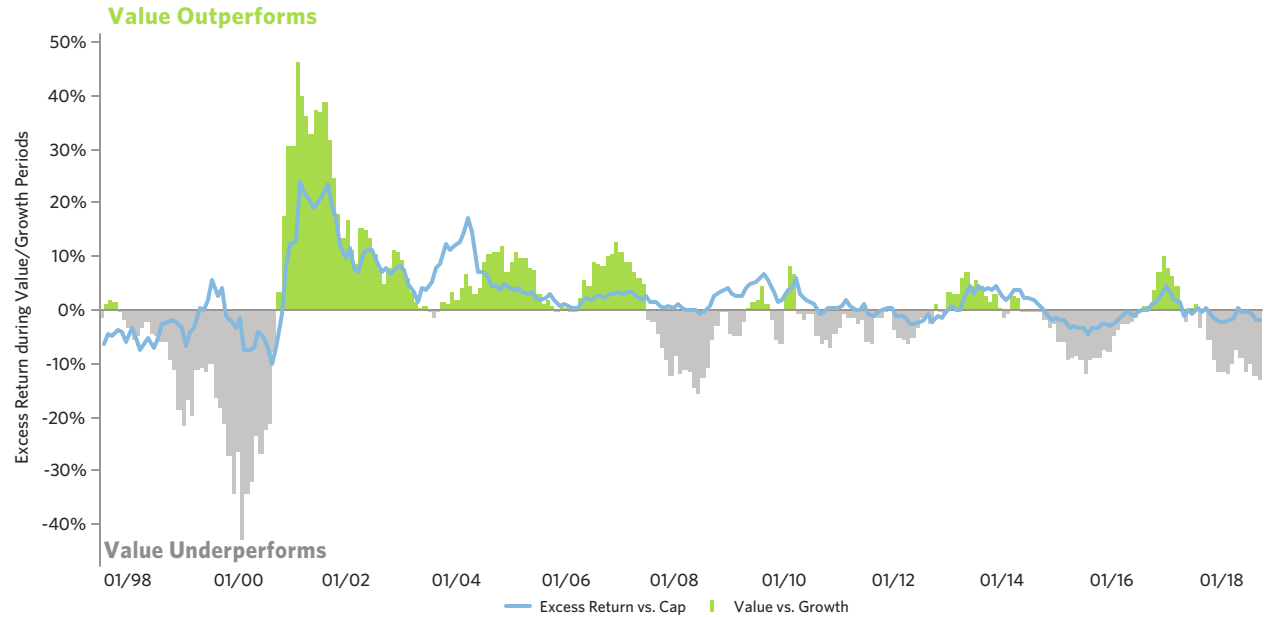
On a one-year rolling basis, the Russell RAFI™ Dev Large Co Index outperformed 92% of the time when value won and 36% of the time when growth won.

Generally, excess returns were achieved by taking advantage of mean reversion in stock prices which can sometimes take several years to run its course.

The Russell RAFI™ Dev Large Co Index delivered consistent outperformance over full market cycles, with positive excess returns in 61% of rolling 1-year periods, 69% of rolling 3-year periods, and 81% of rolling 5-year periods.

Exhibit 3: Rolling 1-Year Excess Returns

Exhibit 3: Rolling 1-Year Excess Returnsⁱ



ⁱ Exhibit 3. Russell RAFI™ Dev Large Co Index rolling 1-year excess returns are measured against Russell Developed Large Cap Index. Value / Growth periods measured by rolling 1-year excess returns of MSCI World Large Cap Value vs. MSCI World Large Cap Growth. Calculation starts on August 31, 1996. Strategy returns prior to inception are simulated. Strategy inception is February 24, 2011.

Portfolio Characteristics

The Russell RAFI™ Dev Large Co Index is attractively positioned relative to the cap-weighted benchmark.

Exhibit 4:
Portfolio Characteristics

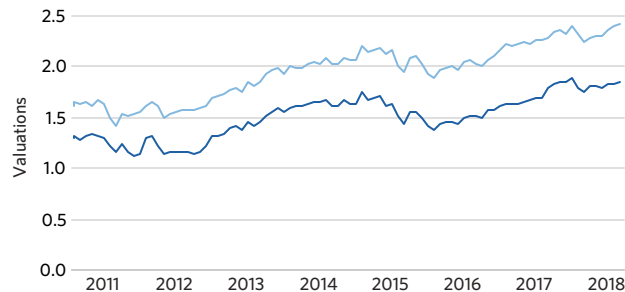
Exhibit 5:
Historical Portfolio Characteristics

Exhibit 4: Portfolio Characteristicsⁱ

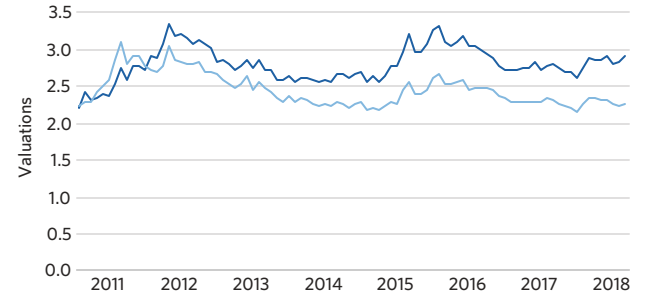
	Number of Holdings	Active Share	Price to Sales	Price to Cash Flow	Price to Book	Div. Yield	Market Cap. (Billions)	Sharpe Ratio*	Info. Ratio*	Tracking Error*
Russell RAFI™ Dev Large Co Index	1545	30.6	0.9	8.1	1.8	2.9%	121	0.71	-0.34	2.0%
Russell Global Large Cap Developed	2452	--	1.7	11.2	2.4	2.3%	155	0.80	--	--

Exhibit 5: Historical Portfolio Characteristicsⁱⁱ

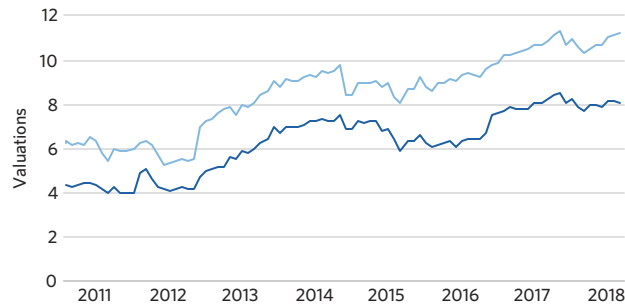
Price to Book



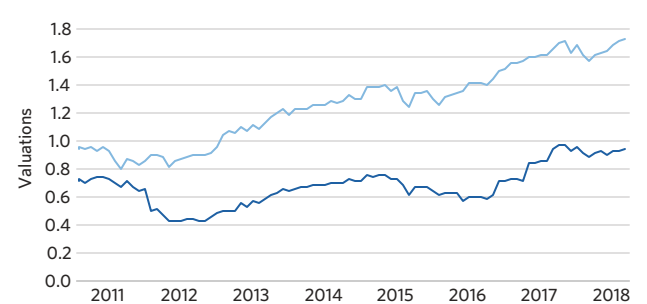
Dividend Yield (%)



Price to Cash Flow



Price to Sales



— Russell RAFI™ Dev Large Co Index (Left) — Russell Global Large Cap Developed (Left)

i. Exhibit 4.
Portfolio characteristics data derived from FactSet.
*Sharpe Ratio, Information Ratio, and Tracking Error are calculated starting the first full month of returns following February 24, 2011. 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 February 24, 2011.

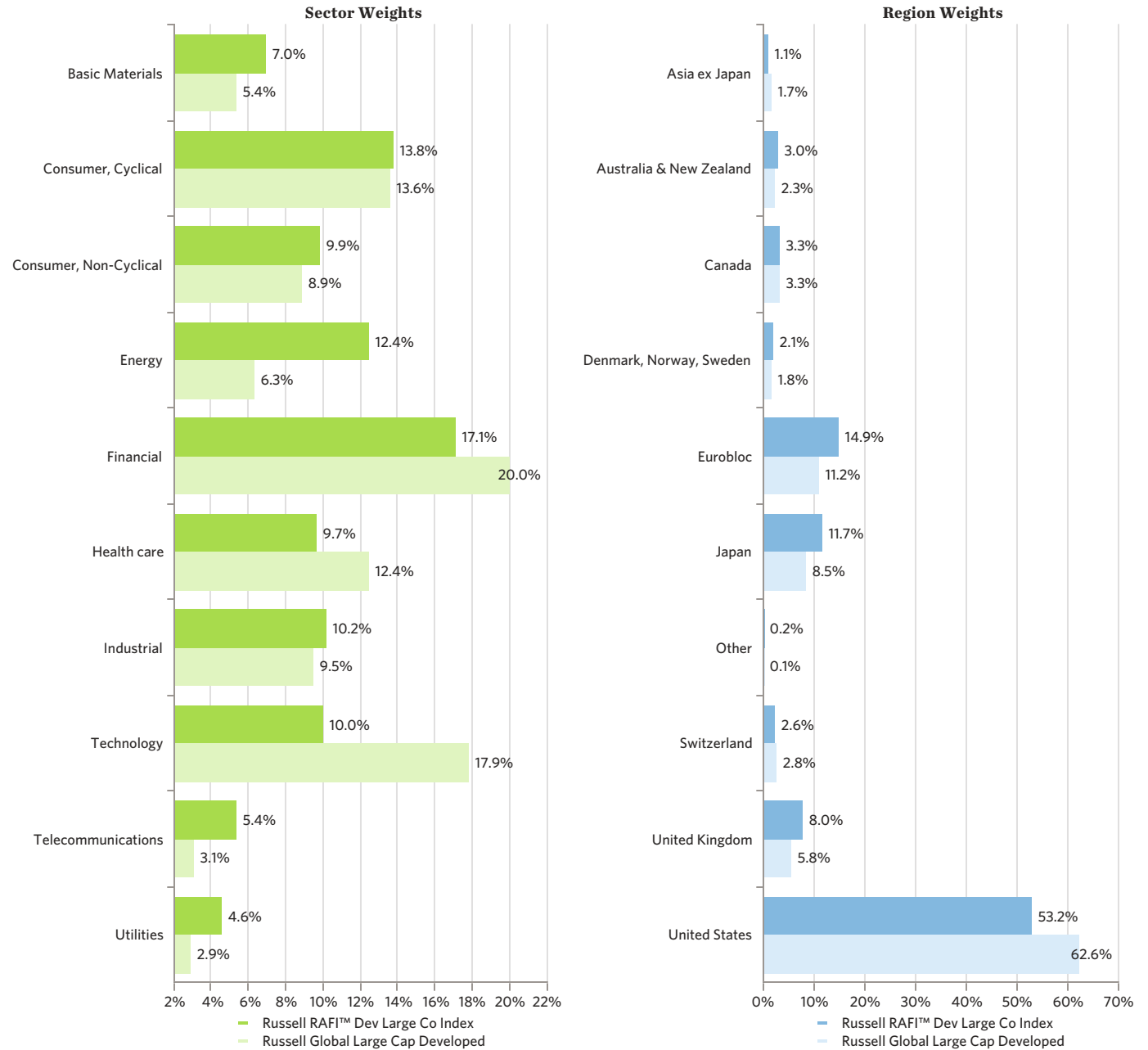
ii. Exhibit 5.
Portfolio characteristics derived from FactSet. Data prior to strategy inception is simulated. Strategy inception is February 24, 2011.



Current Position

Exhibit 6: Sector and Region Weightsⁱ

Exhibit 6:
Sector and Region Weights



i. Exhibit 6.
Portfolio characteristics data derived from FactSet.



Current Position

Exhibit 7:
Top 10 Holdings

Exhibit 8:
Top Over/Underweights

Exhibit 7: Top 10 Holdingsⁱ

Russell RAFI™ Dev Large Co Index vs. Russell Developed Large Cap Index					
Index	Weights	1-Yr Perf.	Benchmark	Weights	1-Yr Perf.
Apple	2.1%	49.5%	Apple	2.5%	49.5%
Exxon Mobil	2.0%	7.6%	Microsoft	2.0%	57.6%
Royal Dutch Shell	1.4%	20.6%	Amazon	1.9%	109.4%
Chevron	1.2%	7.9%	Alphabet	1.6%	25.4%
BP	1.0%	27.1%	Berkshire Hathaway	0.9%	16.9%
Microsoft	1.0%	57.6%	Facebook, Inc. Class A	0.9%	-2.5%
AT&T	1.0%	-9.1%	JPMorgan Chase	0.9%	20.9%
Total	0.8%	27.9%	Johnson & Johnson	0.8%	9.6%
Pfizer	0.8%	28.4%	Exxon Mobil	0.8%	7.6%
Wal-Mart	0.7%	21.8%	Royal Dutch Shell	0.7%	20.6%

Exhibit 8: Top Over/Underweightsⁱ

Russell RAFI™ Dev Large Co Index vs. Russell Developed Large Cap Index					
Top Overweights	Active Weights	1-Yr Total Effect	Top Underweights	Active Weights	1-Yr Total Effect
Exxon Mobil	1.2%	0.0%	Amazon	-1.7%	-0.8%
Royal Dutch Shell	0.8%	0.1%	Alphabet	-1.2%	-0.1%
BP	0.7%	0.1%	Microsoft	-1.0%	-0.3%
Chevron	0.6%	0.0%	Facebook, Inc. Class A	-0.8%	0.1%
Total	0.5%	0.1%	Visa	-0.4%	-0.1%
AT&T	0.4%	-0.1%	Apple	-0.4%	-0.1%
Wal-Mart	0.4%	0.1%	Bank of America	-0.4%	0.0%
CVS Caremark	0.3%	0.0%	Netflix, Inc.	-0.4%	-0.2%
ENI	0.3%	0.0%	MasterCard	-0.3%	-0.1%
Toyota	0.3%	0.0%	NVIDIA Corporation	-0.3%	-0.1%

ⁱ Exhibit 7, Exhibit 8.
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 9: Sector Attribution

Exhibit 10: Region Attribution

Exhibit 9: Sector Attributionⁱ

1-Quarter Ending 09/30/2018

Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Basic Materials	6.97%	5.36%	-4.24%	-0.07%	0.06%	-0.02%
Consumer, Cyclical	13.84%	13.63%	-2.30%	0.00%	-0.26%	-0.26%
Consumer, Non-Cyclical	9.87%	8.92%	-2.32%	-0.02%	0.05%	0.03%
Energy	12.44%	6.30%	-2.31%	-0.25%	0.18%	-0.07%
Financial	17.12%	19.99%	-2.57%	0.10%	0.04%	0.14%
Health care	9.67%	12.44%	6.76%	-0.18%	0.00%	-0.18%
Industrial	10.17%	9.52%	0.26%	0.02%	-0.17%	-0.15%
Technology	10.03%	17.85%	4.91%	-0.22%	0.18%	-0.04%
Telecommunications	5.35%	3.08%	1.12%	0.06%	-0.10%	-0.04%
Utilities	4.55%	2.90%	-4.32%	-0.06%	-0.03%	-0.09%
Excess Return						-0.67%

1-Year Ending 09/30/2018

Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Basic Materials	6.97%	5.36%	-5.15%	-0.15%	0.24%	0.09%
Consumer, Cyclical	13.84%	13.63%	-0.99%	0.04%	-1.05%	-1.01%
Consumer, Non-Cyclical	9.87%	8.92%	-9.66%	-0.01%	0.01%	0.00%
Energy	12.44%	6.30%	9.41%	0.25%	0.61%	0.86%
Financial	17.12%	19.99%	-11.47%	0.35%	-0.48%	-0.13%
Health care	9.67%	12.44%	4.32%	-0.11%	0.06%	-0.05%
Industrial	10.17%	9.52%	-5.49%	-0.04%	-0.21%	-0.25%
Technology	10.03%	17.85%	12.78%	-1.10%	-0.28%	-1.37%
Telecommunications	5.35%	3.08%	-10.60%	-0.16%	-0.07%	-0.23%
Utilities	4.55%	2.90%	-9.04%	-0.15%	0.04%	-0.11%
Excess Return						-2.20%

Exhibit 10: Region Attributionⁱ

1-Quarter Ending 09/30/2018

Region	Portfolio Weight	Bench. Weight	Country Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Asia ex Japan	1.13%	1.67%	-5.36%	0.03%	0.00%	0.04%
Australia & New Zealand	2.97%	2.30%	-5.47%	-0.03%	0.01%	-0.03%
Canada	3.28%	3.31%	-4.00%	0.00%	0.01%	0.01%
Denmark, Norway, Sweden	2.09%	1.82%	1.73%	0.00%	0.03%	0.03%
Eurobloc	14.86%	11.20%	-4.72%	-0.15%	0.02%	-0.13%
Japan	11.65%	8.46%	-0.22%	-0.06%	0.13%	0.08%
Other	0.20%	0.14%	-5.17%	0.00%	-0.01%	-0.01%
Switzerland	2.57%	2.76%	1.98%	-0.01%	0.00%	0.00%
United Kingdom	8.02%	5.79%	-7.05%	-0.15%	-0.02%	-0.17%
United States	53.22%	62.55%	1.91%	-0.22%	-0.26%	-0.49%
Excess Return						-0.67%

1-Year Ending 09/30/2018

Region	Portfolio Weight	Bench. Weight	Country Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Asia ex Japan	1.13%	1.67%	-10.67%	0.06%	-0.03%	0.03%
Australia & New Zealand	2.97%	2.30%	-7.57%	-0.04%	0.00%	-0.04%
Canada	3.28%	3.31%	-7.86%	0.01%	0.06%	0.07%
Denmark, Norway, Sweden	2.09%	1.82%	-7.42%	-0.02%	0.06%	0.05%
Eurobloc	14.86%	11.20%	-13.65%	-0.46%	-0.10%	-0.57%
Japan	11.65%	8.46%	-3.00%	-0.04%	-0.26%	-0.30%
Other	0.20%	0.14%	10.40%	0.00%	0.00%	0.01%
Switzerland	2.57%	2.76%	-10.80%	0.04%	-0.04%	0.00%
United Kingdom	8.02%	5.79%	-6.23%	-0.22%	0.28%	0.05%
United States	53.22%	62.55%	3.70%	-0.57%	-0.92%	-1.50%
Excess Return						-2.20%

ⁱ Exhibit 9, Exhibit 10. 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 February 24, 2011.

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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