

## 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™ US All Company Index is comprised of the US companies in the Russell Universe weighted by fundamentals at the time of reconstitution.

## Performance

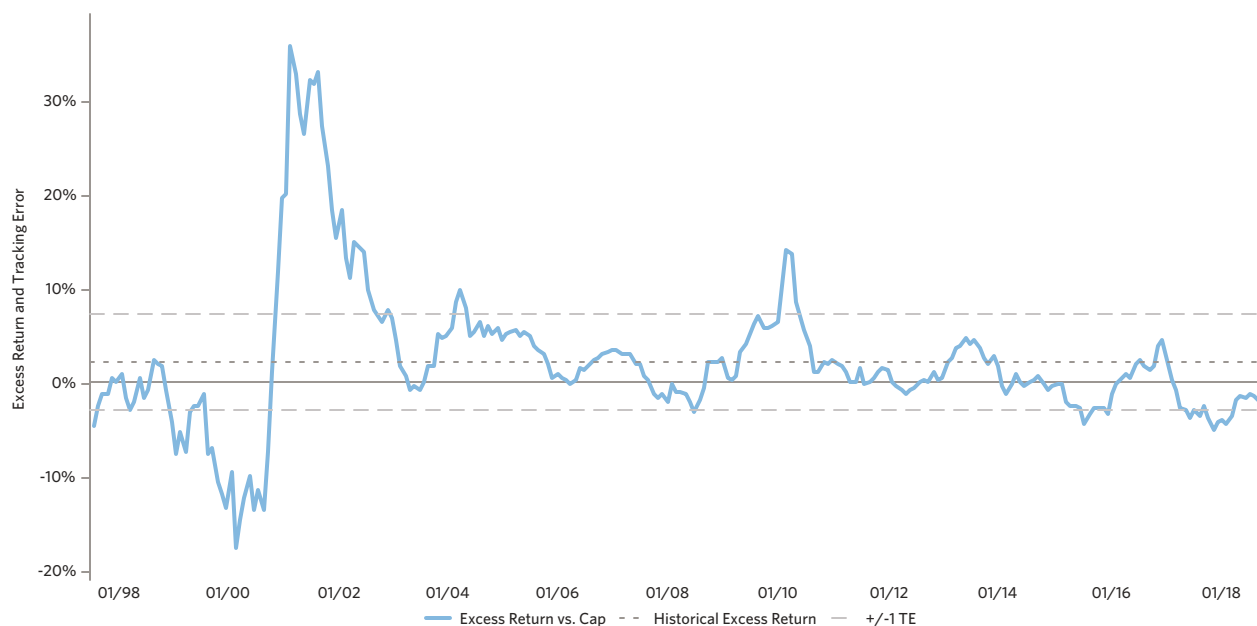
**Exhibit 1:**  
Performance Table

**Exhibit 2:**  
Rolling 1-Year Excess Returns

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

	QTD	1-Yr	3-Yr	5-Yr	10-Yr	ITD*
Russell RAFI™ US All Co Index	6.6%	15.4%	16.0%	12.3%	12.5%	13.0%
Russell 3000 Index	7.1%	17.6%	17.1%	13.5%	12.0%	13.4%
Value Added	-0.6%	-2.2%	-1.1%	-1.1%	0.5%	-0.4%
MSCI US Broad Market Index	7.1%	17.6%	17.1%	13.5%	12.1%	13.5%
Portfolio Standard Deviation		8.7%	9.4%	9.7%	15.8%	11.1%
Benchmark Standard Deviation		8.7%	9.3%	9.7%	14.9%	11.0%
Tracking Error		2.6%	2.7%	2.4%	2.6%	2.1%

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



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.

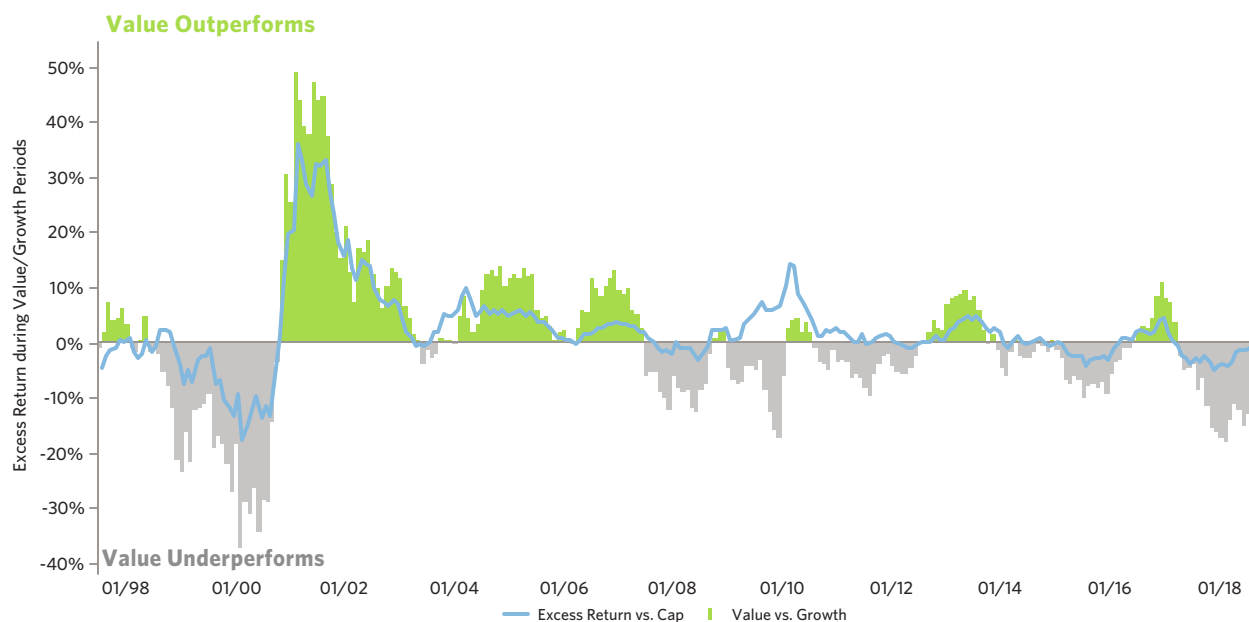
On a one-year rolling basis, the Russell RAFI™ US All Co Index outperformed 92% of the time when value won and 37% of the time when growth won.

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™ US All Co Index delivered consistent outperformance over full market cycles, with positive excess returns in 63% of rolling 1-year periods, 77% of rolling 3-year periods, and 91% of rolling 5-year periods.

### Exhibit 3: Rolling 1-Year Excess Returns

**Exhibit 3: Rolling 1-Year Excess Returns<sup>i</sup>**



<sup>i</sup> Exhibit 3.  
Russell RAFI™ US All Co Index rolling 1-year excess returns are measured against Russell 3000 Index. Value / Growth periods measured by rolling 1-year excess returns of Russell 3000 Value vs. Russell 3000 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™ US All Co Index is attractively positioned relative to the cap-weighted benchmark.

[Exhibit 4:](#)  
Portfolio Characteristics

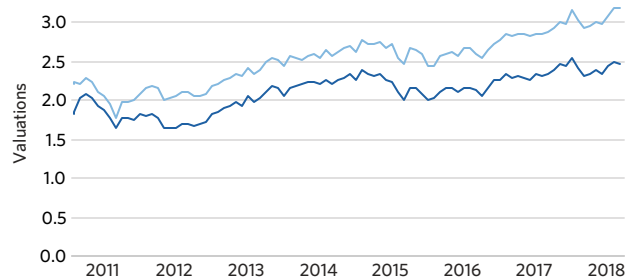
[Exhibit 5:](#)  
Historical Portfolio Characteristics

## Exhibit 4: Portfolio Characteristics<sup>i</sup>

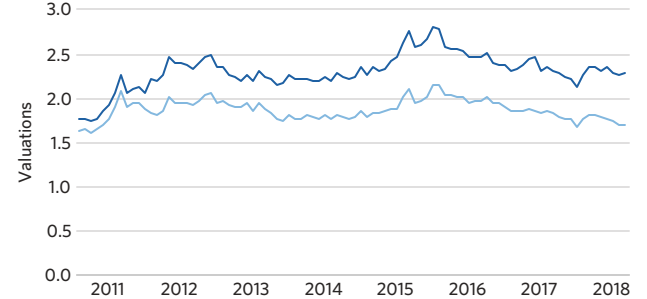
	Number of Holdings	Active Share	Price to Sales	Price to Cash Flow	Price to Book	Div. Yield	Market Cap. (Billions)	Sharpe Ratio*	Info. Ratio*	Tracking Error*
Russell RAFI™ US All Co Index	1566	29.4	1.2	10.3	2.5	2.3%	162	1.14	-0.21	2.1%
Russell 3000	3024	--	2.2	13.9	3.2	1.7%	200	1.19	--	--

## Exhibit 5: Historical Portfolio Characteristics<sup>ii</sup>

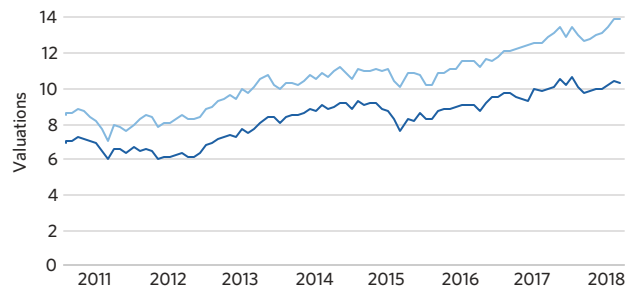
**Price to Book**



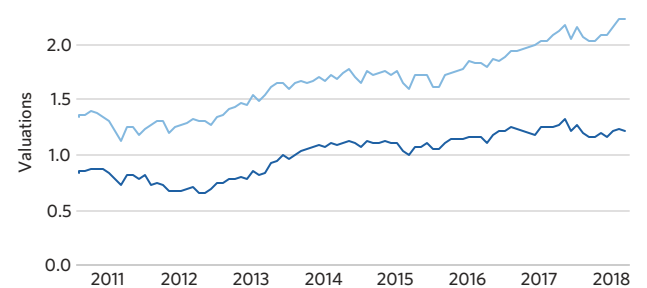
**Dividend Yield (%)**



**Price to Cash Flow**



**Price to Sales**



— Russell RAFI™ US All Co Index (Left) — Russell 3000 (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.

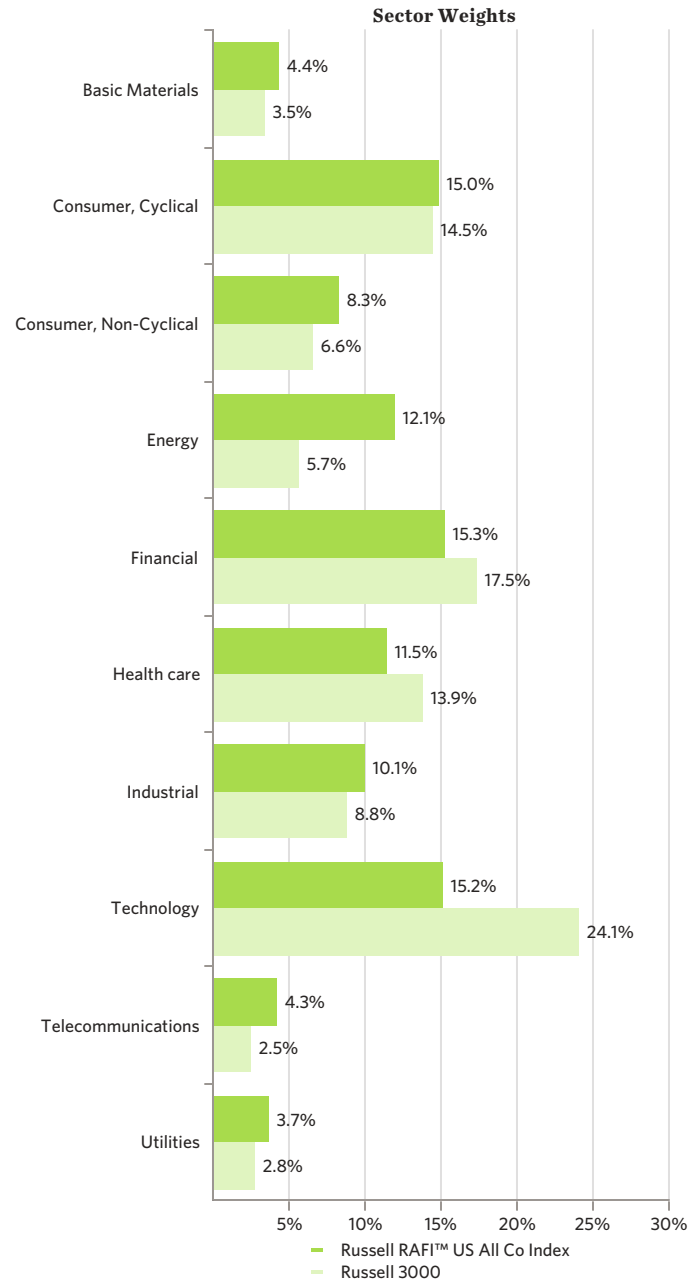
ii. Exhibit 5.  
Portfolio characteristics derived from FactSet. Data prior to strategy inception is simulated. Strategy inception is February 24, 2011.



## Current Position

### Exhibit 6: Sector Weights

Exhibit 6: Sector Weights<sup>i</sup>



<sup>i</sup>. Exhibit 6.  
Portfolio characteristics data derived from FactSet.



## Current Position

Exhibit 7:  
Top 10 Holdings

Exhibit 8:  
Top Over/Underweights

### Exhibit 7: Top 10 Holdings<sup>i</sup>

Russell RAFI™ US All Co Index vs. Russell 3000 Index					
Index	Weights	1-Yr Perf.	Benchmark	Weights	1-Yr Perf.
Apple	3.6%	49.5%	Apple	3.7%	49.5%
Exxon Mobil	3.4%	7.6%	Microsoft	3.0%	57.6%
Chevron	2.0%	7.9%	Amazon	2.8%	109.4%
Microsoft	1.8%	57.6%	Alphabet	2.5%	25.4%
AT&T	1.7%	-9.1%	Berkshire Hathaway	1.4%	16.9%
Pfizer	1.3%	28.4%	Facebook, Inc. Class A	1.3%	-2.5%
Wal-Mart	1.3%	21.8%	JPMorgan Chase	1.3%	20.9%
Verizon	1.2%	13.3%	Johnson & Johnson	1.3%	9.6%
Berkshire Hathaway	1.1%	16.9%	Exxon Mobil	1.2%	7.6%
Johnson & Johnson	1.1%	9.6%	Bank of America	0.9%	17.7%

### Exhibit 8: Top Over/Underweights<sup>i</sup>

Russell RAFI™ US All Co Index vs. Russell 3000 Index					
Top Overweights	Active Weights	1-Yr Total Effect	Top Underweights	Active Weights	1-Yr Total Effect
Exxon Mobil	2.2%	-0.2%	Amazon	-2.5%	-1.1%
Chevron	1.2%	-0.1%	Alphabet	-1.7%	-0.1%
AT&T	0.9%	-0.2%	Microsoft	-1.2%	-0.3%
Wal-Mart	0.8%	0.1%	Facebook, Inc. Class A	-1.2%	0.3%
CVS Caremark	0.6%	-0.1%	Visa	-0.6%	-0.1%
IBM	0.6%	-0.1%	Netflix, Inc.	-0.5%	-0.2%
ConocoPhillips	0.5%	0.2%	NVIDIA Corporation	-0.5%	-0.1%
General Electric	0.5%	-0.2%	Bank of America	-0.5%	0.0%
Valero	0.5%	0.2%	MasterCard	-0.5%	-0.1%
Verizon	0.5%	0.0%	Adobe Systems Incorporated	-0.4%	-0.1%

<sup>i</sup> 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 9: Sector Attribution<sup>i</sup>

1-Quarter Ending 09/30/2018

1-Year Ending 09/30/2018

Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect	Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Basic Materials	4.44%	3.46%	-5.92%	-0.07%	0.02%	-0.04%	Basic Materials	4.44%	3.46%	-10.33%	-0.16%	0.18%	0.02%
Consumer, Cyclical	14.99%	14.52%	-2.54%	0.00%	-0.34%	-0.34%	Consumer, Cyclical	14.99%	14.52%	1.94%	0.09%	-1.16%	-1.07%
Consumer, Non-Cyclical	8.31%	6.62%	-0.84%	-0.03%	0.12%	0.09%	Consumer, Non-Cyclical	8.31%	6.62%	-15.05%	-0.14%	-0.02%	-0.16%
Energy	12.10%	5.71%	-5.08%	-0.45%	0.14%	-0.31%	Energy	12.10%	5.71%	2.93%	-0.14%	0.58%	0.44%
Financial	15.33%	17.47%	-3.47%	0.10%	0.08%	0.18%	Financial	15.33%	17.47%	-10.29%	0.29%	-0.12%	0.17%
Health care	11.53%	13.93%	7.52%	-0.16%	0.11%	-0.05%	Health care	11.53%	13.93%	3.80%	-0.06%	0.15%	0.09%
Industrial	10.11%	8.82%	1.58%	0.03%	-0.13%	-0.10%	Industrial	10.11%	8.82%	-7.30%	-0.06%	-0.15%	-0.21%
Technology	15.24%	24.14%	3.19%	-0.18%	0.17%	-0.01%	Technology	15.24%	24.14%	12.61%	-1.14%	-0.15%	-1.29%
Telecommunications	4.27%	2.52%	3.56%	0.06%	0.00%	0.06%	Telecommunications	4.27%	2.52%	-10.33%	-0.12%	-0.01%	-0.13%
Utilities	3.69%	2.80%	-4.48%	-0.04%	0.00%	-0.03%	Utilities	3.69%	2.80%	-11.92%	-0.09%	0.06%	-0.04%
Excess Return						-0.56%	Excess Return						-2.17%

i. Exhibit 9  
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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