

## RAFI Roadmap: A guide to better investor outcomes

# RAFI™ Fundamental Developed ex US Index

**BENCHMARK** DevxUS Cap-Weight Large+Mid  
**ASSET CLASS** Equity

## What Is the Process?

### Investment Process

<b>1</b>	Determine size of companies using fundamental measures	Fundamental size is the equally weighted average of four fundamental measures: <b>1) Adjusted Sales 2) Cash Flow 3) Dividends + Buybacks 4) Book Value</b>
<b>2</b>	Segment companies by region and size	<b>Six Regions</b> US   Japan   UK   Europe ex UK   Other Developed   Emerging Markets <b>Large Co.:</b> Top 86% by cumulative fundamental weight <b>Small Co.:</b> 86-98% by cumulative fundamental weight
<b>3</b>	Select securities	Combine region and size constructs to create desired exposure. <i>For example, RAFI Developed is the top 86% of stocks by RAFI weight in the US, Japan, UK, Europe ex UK and Other Developed regions.</i>
<b>4</b>	Renormalize	Renormalize company weights so that sum of weights equal 100%.
<b>5</b>	Rebalance	<b>Quarterly Staggered Rebalance</b> Portfolio is reconstituted annually on the last business day of March and is rebalanced the last business day of March, June, September, and December.

## Will the Strategy Deliver?

This strategy is expected to deliver excess returns in the future because it is theoretically and empirically robust. Every investor should ask five questions before investing:

1. Who is on the other side of the trade?
2. Has the strategy worked over long and varying time-periods net of changes in valuation?
3. Does the strategy produce similar results across different regions?
4. Does the the strategy produce similar results across slightly different definitions (e.g., P/B vs. P/S)?
5. Is the strategy investable in the real world net of costs?

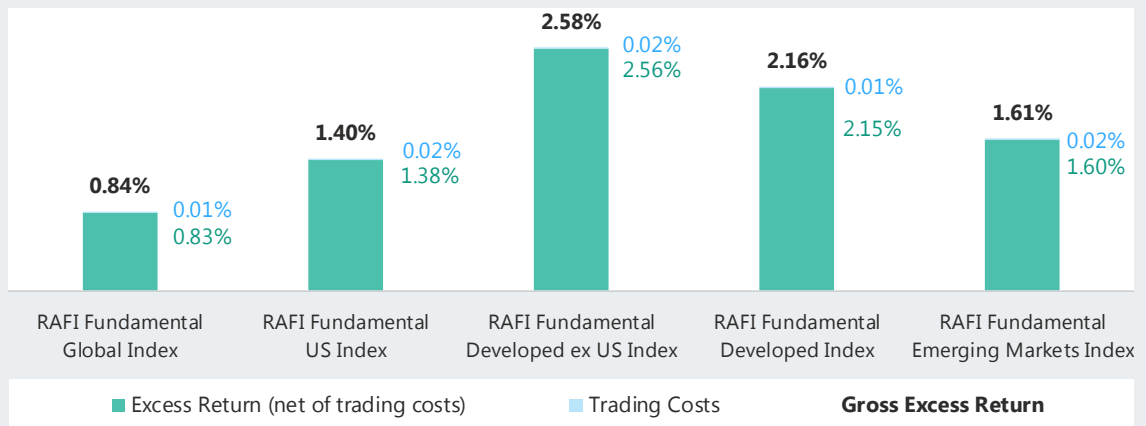
### Why This Strategy Delivers

	Theory	Empirical Evidence			
Factor	1. Who's on the Other Side of the Trade?	2. Excess Return*	3. Regions That Work	4. Definitions That Work	5. Trading Costs**
RAFI Fundamental Developed ex US Index	The Performance Chaser Rebalancing premium delivers by trading counter to performance chasers: Buys what has done poorly and become newly cheap, and sells what has done well and become newly expensive.	2.58%	8 of 8	4 of 4	0.02%

SOURCE: CRSP/Compustat and Worldscope/Datastream | DATA: From 7/1/1989 to 06/30/2018 | \*Gross of trading costs

\*\*Annualized trading costs are estimated as the market impact of transactions, assuming \$10B in AUM

### Historical Excess Return



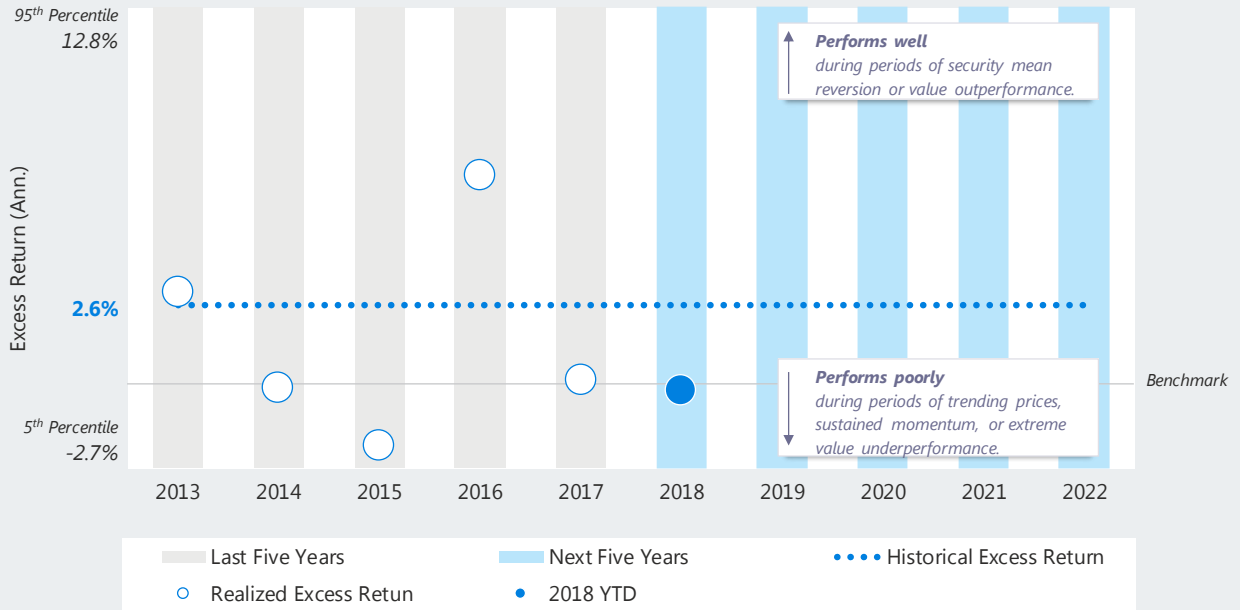
SOURCE: CRSP/Compustat and Worldscope/Datastream | DATA: From inception to 06/30/2018 | NOTE: Annualized trading costs are estimated as the market impact of transactions, assuming \$10B in AUM for US and Global portfolios and \$1B for Emerging Markets.

INCEPTION DATES: Global 07/01/2002 | US 07/01/1968 | DEV ex US 07/01/1989 | EM 07/01/2002

## What to Expect?

The RAFI Fundamental Developed ex US Index shows 2.6% in annualized excess returns since 1989. However, those results have come with a wide range of outcomes (+- 10% or more) in any given year.

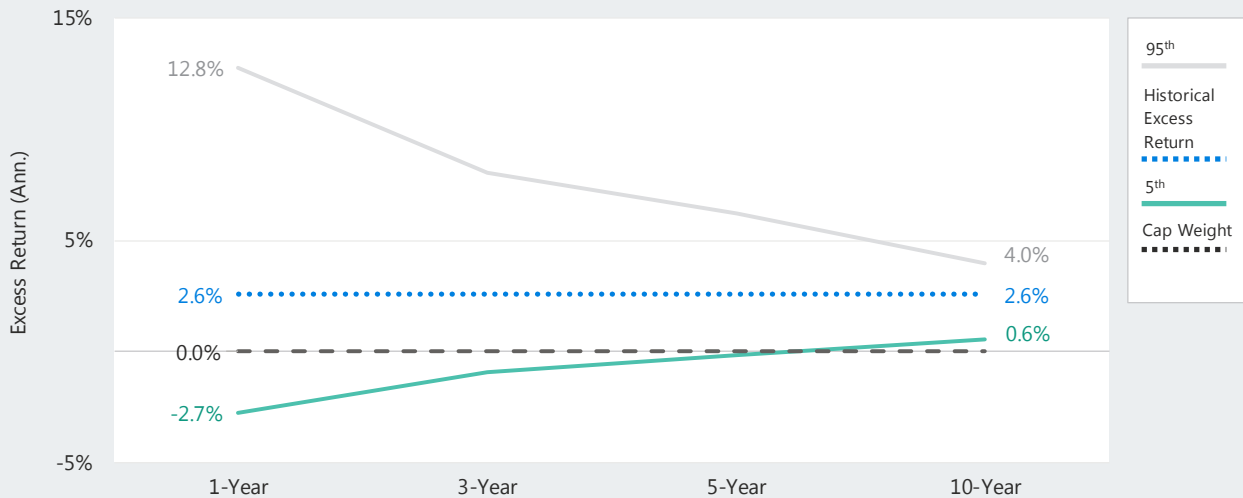
### Calendar Excess Returns



NOTE: Based on rolling returns from simulated data | SOURCE: CRSP/Compustat and Worldscope/Datastream | DATA: As of 06/30/2018

### Rolling Excess Returns

Longer investment horizons produce more predictable returns.



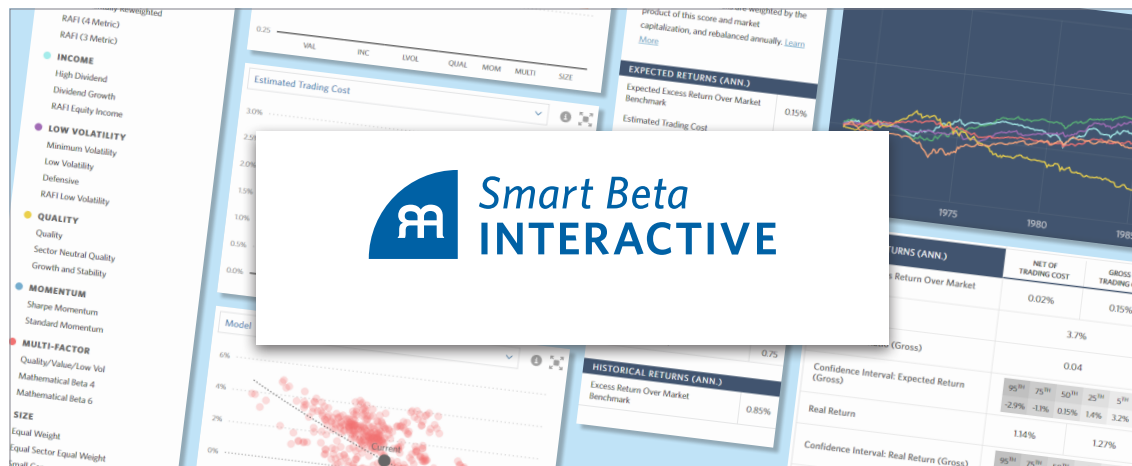
NOTE: Based on rolling returns from simulated data | SOURCES: CRSP/Compustat and Worldscope/Datastream | DATA: As of 06/30/2018

The Index trades at a **discount of 19% (0.81x)** to the relative valuation of its cap-weighted benchmark. This is **fairly valued** relative to its **median discount of 25% (0.75x)**. Given current valuations, our **Smart Beta Interactive** website forecasts an annualized excess return of **0.1%** over the next five years (gross of costs).

### Valuations & Return Expectations



SOURCE: CRSP/Compustat and Worldscope/Datastream | DATA: From 07/01/1989 to 06/30/2018



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# Past Performance & Characteristics

AS OF 09-30-2018

## Quarterly Commentary

The RAFI Fundamental Developed ex US Index slightly outperformed its benchmark, the FTSE All-World Developed ex US, by 11 bps for the quarter, despite value underperforming the market (1.4% for MSCI World ex USA vs. 1.2% for MSCI World ex USA Value). The Energy sector was the main driver to outperformance, contributing 13 bps with an overweight allocation to Total contributing almost half of the outperformance (5 bps) having posted returns of 7.62% during the quarter. Technology contributed modestly to outperformance (8 bps) while the Telecommunications sector slightly detracted (-7 bps).

Attributions and index performance commentary: <https://www.rafi.com/investor-support/resources>

## Trailing Returns

Index	QTD	1 Yr	3 Yr	5 Yr	10 Yr	ITD*	10-Yr Volatility	10-Yr TE**
RAFI Fundamental Developed ex US Index	1.5%	3.4%	12.3%	6.0%	6.8%	12.7%	17.9%	2.5%
MSCI World ex USA	1.4%	3.2%	9.9%	4.8%	5.7%	12.8%	17.4%	N/A

SOURCE: FactSet | Data: As of 09/30/2018 in USD | INCEPTION DATE: 01/31/2017

\* Inception to Date (ITD) uses the first full month of returns after inception date. All returns prior to inception are simulated. Please see disclosures for important information regarding simulated performance.

\*\* Annualized Tracking Error calculated against each index's appropriate benchmark using the first full month of returns following index inception. Index returns prior to inception are simulated.

## Characteristics

Index	Number of Holdings	P/E	P/B	P/S	Dividend Yield	Market Cap / \$B
RAFI Fundamental Developed ex US Index	1334	13.03	1.34	0.85	3.50	55.65

SOURCE: FactSet | Data: As of 09/30/2018 in USD | INCEPTION DATE: 01/31/2017

NOTE: Portfolio characteristics derived from FactSet. Data prior to launch are simulated. One-way turnover data are historical averages based on simulated history. Capacity is estimated at 50-basis-point market-impact level.

### Sectors

RAFI Fundamental Developed ex US Index		Sector Weight
1	Basic Materials	9.87%
2	Consumer, Cyclical	12.08%
3	Consumer, Non-Cyclical	10.27%
4	Energy	11.94%
5	Financial	24.51%
6	Health Care	7.13%
7	Industrial	10.37%
8	Technology	3.55%
9	Telecommunications	5.40%
10	Utilities	4.89%

SOURCE: FactSet | DATA: As of 09/30/2018 in USD

### Regions

RAFI Fundamental Developed ex US Index		Region Weight
1	Asia ex Japan	3.56%
2	Australia & New Zealand	6.32%
3	Canada	6.81%
4	Denmark, Norway, Sweden	3.57%
5	Eurobloc	28.18%
6	Japan	26.54%
7	Other	0.60%
8	Switzerland	5.18%
9	United Kingdom	17.32%
10	United States	1.92%

SOURCE: FactSet | DATA: As of 09/30/2018 in USD

### Top 10 Holdings

RAFI Fundamental Developed ex US Index		Weights (%)
1	Royal Dutch Shell	3.09
2	BP	2.01
3	Total	1.76
4	HSBC	1.26
5	Toyota	1.26
6	Nestle	1.10
7	BHP Billiton	1.03
8	Novartis	0.95
9	Banco Santander	0.87
10	ENI	0.78

SOURCE: FactSet | DATA: As of 09/30/2018 in USD

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