

RAFI™ ESG Index Series

Indices

RAFI ESG Developed (RAESGDVT)

RAFI ESG Europe (RAESGEUT)

RAFI ESG US (RAESGUST)

Objective

RAFI ESG is a thoughtfully designed smart beta strategy that helps investors achieve the dual objectives of social responsibility and long-horizon outperformance.

Background

An integrated ESG strategy that supplements traditional ESG metrics with both financial discipline and diversity for improved quality, governance and return potential.

Financial Discipline Companies with strong financial discipline (defined as high profitability, low investment, low issuance/dilution, and low accounting accruals) have a strong alignment with long-term value creation and sustainable growth. In addition, strong financial discipline has historically led to better company performance.¹

Diversity Companies with a strong commitment to diversity tend to make better decisions and are able to achieve a higher level of collective intelligence. Criteria related to gender diversity (percentage of women in management, the c-suite, and company boards, for example), are used to assess corporate intent and outcomes. Gender diversity data are provided by Vigeo Eiris, a leading ESG research and ratings firms, with a methodology developed by Leaderxxchange

ESG Environmental, Social and Governance ratings are used to limit headline risk of individual companies and to promote responsible environmental management, active social engagement and good governance practices. ESG ratings data are provided by Vigeo Eiris.

RAFI™ Fundamental Index™ Methodology

The RAFI Fundamental Index methodology is built on the principles of contrarian investing and disciplined rebalancing. Security weights are determined by using fundamental measures of company size (adjusted sales, cash flow, dividends + buybacks, and book value) rather than price (market cap). By using a company's fundamental weight as the rebalancing anchor, the fundamental weighting approach rebalances out of securities whose prices have increased and into securities whose prices have fallen.

RAFI ESG Index Methodology

1. Segment Companies by Region and Size

- Start with five regional equity markets: US, UK, Japan, Europe ex UK, and Other Developed.
- Within each region determine eligible securities by selecting the top 86% by RAFI weight
- RAFI weight is the equally weighted average of the following four fundamental measures:

<i>Adjusted Sales</i>	<i>Cash Flow</i>
<i>Dividends + Buybacks</i>	<i>Book Value</i>

2. Security Selection

- Within each region, calculate the percentile rank of each security by their Environmental Score (E), Social Score (S), Governance Score (G), Financial Discipline Score (FD),³ and Diversity Score (D).
- After ranking securities by individual scores, remove companies in the bottom 10% by RAFI weight for each E, S, G, FD, and D score.

3. Apply Exclusions

- Exclude companies with major involvement in the following industries:
- | | | | |
|---------------------|-----------------|----------------|----------------|
| <i>Fossil Fuels</i> | <i>Gambling</i> | <i>Tobacco</i> | <i>Weapons</i> |
|---------------------|-----------------|----------------|----------------|
- Exclude companies with zero women on company board.

4. Weighting

- Calculate company composite score:

$$1/5 \times (E + S + G + FD + D)$$
- Final index is RAFI weight tilted toward stocks with high composite scores.

$$\text{Tilted Weight} = \text{RAFI Weight} \times (1 + \text{Composite Score})$$

5. Rebalance

- Rebalance index on a quarterly staggered basis (i.e., rebalance a quarter of the index back to target rebalance weight every three months).

¹ Hsu, Kalesnik and Kose (2017).

² The Financial Discipline score is calculated within each region and sector.

Performance (through 3/31/19)

Index	QTD	1 Yr	3 Yr	5 Yr	Full History*	Full History Volatility	Full History Sharpe	Full History TE	Full History Info Ratio
RAFI ESG Developed	9.51%	0.87%	9.49%	6.55%	11.35%	14.02%	0.78	3.12%	0.06
MSCI World	12.65%	4.61%	11.31%	7.38%	11.17%	13.13%	0.82	—	—
RAFI ESG Europe	9.17%	-5.48%	6.66%	1.50%	7.73%	19.07%	0.38	4.44%	0.09
MSCI Europe	11.00%	-3.10%	7.22%	1.63%	7.31%	16.65%	0.41	—	—
RAFI ESG US	10.70%	7.10%	12.03%	10.45%	15.25%	13.16%	1.13	3.64%	0.16
Russell 1000	14.00%	9.30%	13.52%	10.63%	14.68%	12.69%	1.12	—	—

*Full History performance data starts on 7/31/2009.

Note: All returns are gross total returns in USD. All returns prior to inception are simulated. Please see disclosures for important information related to simulated data. The RAFI ESG Index Series was launched on March 30, 2018. Source: RAFI Indices, LLC, based on data from FactSet.

Characteristics (as of 3/31/19)

Index	# Securities	Price/Earnings	Price/Book	Price/Sales	Price/Cash Flow	Dividend Yield	Weighted Average Market Cap
RAFI ESG Developed	426	14.56	1.63	1.10	7.13	3.36	120.91
RAFI ESG Europe	172	15.24	1.33	0.97	5.15	4.11	71.15
RAFI ESG US	210	15.97	2.39	1.31	9.02	2.81	167.85

Note: Weighted Average Market Cap is in USD. Source: RAFI Indices, LLC, based on data from FactSet.

Developed Markets (as of 3/31/19)

Sector	Weight	Top 10 Holdings	Weight
Basic Materials	5.07%	1 Microsoft	2.38%
Consumer, Cyclical	13.58%	2 AT&T	2.15%
Consumer, Non-Cyclical	13.35%	3 Procter & Gamble	1.82%
Energy	0.12%	4 JPMorgan Chase	1.78%
Financial	29.57%	5 Verizon	1.71%
Health Care	13.00%	6 Johnson & Johnson	1.70%
Industrial	6.58%	7 Pfizer	1.55%
Technology	9.33%	8 Merck & Co	1.53%
Telecommunications	9.14%	9 IBM	1.53%
Utilities	0.26%	10 Cisco Systems	1.46%

Source: RAFI Indices, LLC, based on data from FactSet.

Source: RAFI Indices, LLC, based on data from FactSet.

Europe (as of 3/31/19)

Sector	Weight	Top 10 Holdings	Weight
Basic Materials	6.48%	1 Nestle	4.40%
Consumer, Cyclical	7.70%	2 GlaxoSmithKline	3.37%
Consumer, Non-Cyclical	19.11%	3 Unilever	3.19%
Energy	NA	4 Novartis	3.18%
Financial	32.78%	5 Lloyds Banking Group	2.73%
Health Care	13.84%	6 Allianz	2.69%
Industrial	6.07%	7 Vodafone	2.47%
Technology	2.56%	8 AXA	2.33%
Telecommunications	10.51%	9 Sanofi	2.29%
Utilities	0.96%	10 Diageo	2.24%

Source: RAFI Indices, LLC, based on data from FactSet.

Source: RAFI Indices, LLC, based on data from FactSet.

United States (as of 3/31/19)

Sector	Weight	Top 10 Holdings	Weight
Basic Materials	3.75%	1 Microsoft	4.36%
Consumer, Cyclical	16.16%	2 AT&T	3.94%
Consumer, Non-Cyclical	13.02%	3 Procter & Gamble	3.34%
Energy	0.22%	4 JPMorgan Chase	3.27%
Financial	20.48%	5 Verizon	3.13%
Health Care	15.67%	6 Johnson & Johnson	3.11%
Industrial	7.54%	7 Pfizer	2.84%
Technology	14.62%	8 IBM	2.81%
Telecommunications	8.40%	9 Merck & Co	2.80%
Utilities	0.16%	10 Cisco Systems	2.67%

Source: RAFI Indices, LLC, based on data from FactSet.

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