

# RAFI Fundamental Emerging Markets Index, 12/31/2018

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.

## INDEX INFORMATION

**Launch:**  
1/31/2017  
**Bloomberg Ticker:**  
RAFIEMT Index

## PERFORMANCE SUMMARY

Index	QTD	YTD	1 Yr	3 Yr	5 Yr	10 Yr	10 Yr Vol	10 Yr Sharpe	10 Yr Tracking Error	10 Yr Info Ratio
<b>RAFI Fundamental Emerging Markets Index</b>	-6.4%	-10.8%	-10.8%	15.1%	2.8%	9.6%	21.1%	0.44	4.7%	0.26
<b>MSCI Emerging Markets</b>	-7.4%	-14.2%	-14.2%	9.7%	2.0%	8.4%	19.3%	0.42	N/A	N/A

Performance is based on data from FactSet. Returns reported in USD.

Returns prior to index inception are simulated, please see disclosures for important information regarding simulated data.

## INDEX CHARACTERISTICS

Index	# of Securities	P/B	P/S	P/CF	Dividend Yield	WAMC*	Discount†	Median Historical Discount	Portfolio Turnover**
<b>RAFI Fundamental Emerging Markets Index</b>	878	1.0	0.7	4.5	3.6%	45.1	-29.9%	-28.9%	21.0%
<b>MSCI Emerging Markets</b>	950	1.5	1.2	6.4	2.8%	70.0	N/A	N/A	N/A

Portfolio characteristics are based on data from FactSet. MSCI Emerging Markets data is represented by the iShares MSCI Emerging Markets ETF.

Holdings prior to inception are simulated, please see disclosures for important information regarding simulated data.

\*WAMC represents the weighted average market capitalization of the portfolio in billions. \*\*Turnover represents average annual turnover from 1997 to 2018. Turnover data prior to inception is simulated.

†Discount of the portfolio is measured by the geometric average of the quarterly discounts of price to equity, price to book, price to sales, price to cash flow, and dividend yield. Historical median calculation starts on 8/31/2003.

## ROLLING 3-YEAR EXCESS RETURN



Returns prior to index inception are simulated, please see disclosures for important information regarding simulated data. Return data begins on 5/31/1996.

## HOLDINGS

### Top Index Holdings

Name	Weight
1 Samsung Electronics	4.6
2 China Construction Bank	2.6
3 Taiwan Semiconductor	1.9
4 China Mobile	1.9
5 Lukoil	1.8
6 Ind. & Comm. Bank of China	1.8
7 Petrobras	1.7
8 PJSC Gazprom	1.7
9 Vale S.A. Sponsored ADR	1.4
10 Bank of China	1.3

### Top Benchmark Holdings

Name	Weight
1 Tencent Holdings Ltd.	4.8
2 Samsung Electronics	4.0
3 Taiwan Semiconductor	3.7
4 Alibaba	3.7
5 Naspers Limited Class N	1.8
6 China Construction Bank	1.6
7 China Mobile	1.2
8 Ind. & Comm. Bank of China	1.0
9 Reliance Industries Limited	1.0
10 Ping An Insurance	0.9

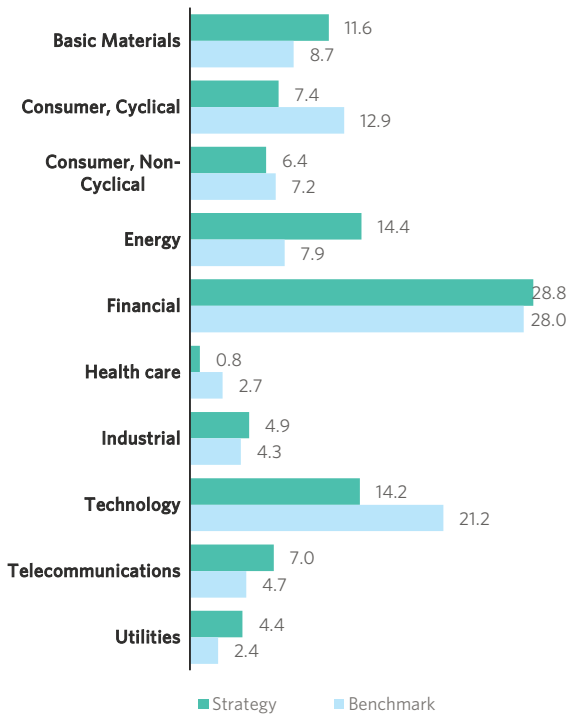
### Top Active Holdings

Name	Weight
1 Lukoil	1.7
2 Vale S.A. Sponsored ADR	1.4
3 PJSC Gazprom	1.3
4 China Construction Bank	1.0
5 China Petroleum & Chemical	0.8
1 Tencent Holdings Ltd.	-4.3
2 Alibaba	-3.0
3 Taiwan Semiconductor	-1.8
4 Naspers Limited Class N	-1.6
5 Vale	-0.9

Security data derived from FactSet. Benchmark holdings are represented by the iShares MSCI Emerging Markets ETF.

## SECTOR BREAKDOWN

### Sector Weights as of 12/31/2018



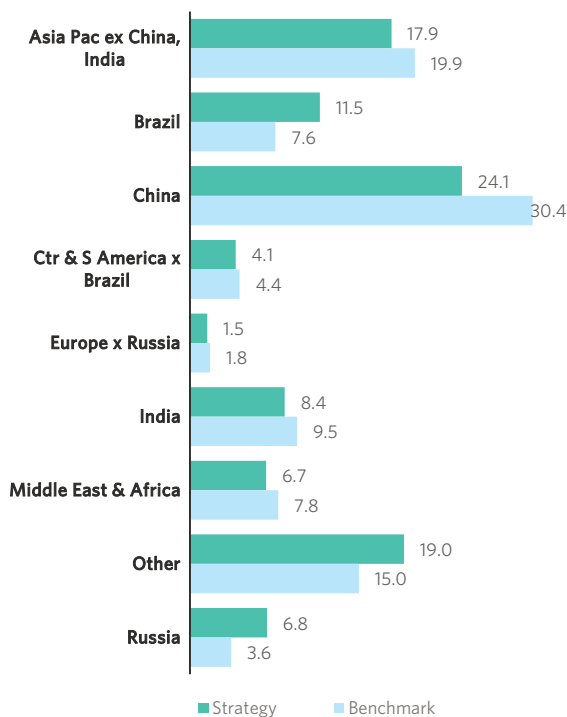
### Q4 Sector Attribution

Sector	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Basic Materials	11.63	8.61	-2.68	-0.09	0.02	-0.07
Consumer, Cyclical	7.39	12.56	-1.63	0.16	0.04	0.20
Consumer, Non-Cyclical	6.38	7.24	2.94	-0.02	0.03	0.00
Energy	14.37	7.95	-3.26	-0.22	0.01	-0.21
Financial	28.87	28.06	7.26	0.04	0.13	0.17
Health care	0.83	2.68	-3.45	0.18	0.00	0.19
Industrial	4.94	4.33	3.09	0.02	-0.07	-0.05
Technology	14.16	21.39	-7.61	0.46	-0.26	0.19
Telecommunications	7.04	4.79	5.74	0.12	-0.01	0.12
Utilities	4.38	2.38	20.43	0.21	0.27	0.47
<b>Excess Return</b>						<b>1.02</b>

Portfolio characteristics and securities data derived from FactSet. The attribution has been normalized to match the return of the strategy, as presented in the performance table on the previous page. Benchmark holdings represented by the iShares MSCI Emerging Markets ETF.

## REGION BREAKDOWN

### Region Weights as of 12/31/2018



### Q4 Region Attribution

Regions	Portfolio Weight	Bench. Weight	Sector Excess Return	Allocation Effect	Selection + Interaction Effect	Total Effect
Asia Pacific ex China, India	17.80	20.03	-3.21	0.03	-0.19	-0.15
Brazil	11.49	7.60	22.96	0.95	-0.19	0.76
China	24.31	30.10	-2.12	0.20	0.10	0.30
Ctr & S America x Brazil	4.05	4.39	-8.19	0.03	0.00	0.03
Europe x Russia	1.52	1.81	10.08	-0.01	0.05	0.04
India	8.40	9.52	9.26	-0.13	0.01	-0.12
Middle East & Africa	6.75	7.89	7.36	-0.05	0.15	0.10
Other	18.88	14.98	-3.23	-0.17	0.29	0.12
Russia	6.80	3.68	-1.93	-0.06	0.01	-0.05
<b>Excess Return</b>						<b>1.02</b>

Portfolio characteristics and securities data derived from FactSet. The attribution has been normalized to match the return of the strategy, as presented in the performance table on the previous page. Benchmark holdings represented by the iShares MSCI Emerging Markets ETF.

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