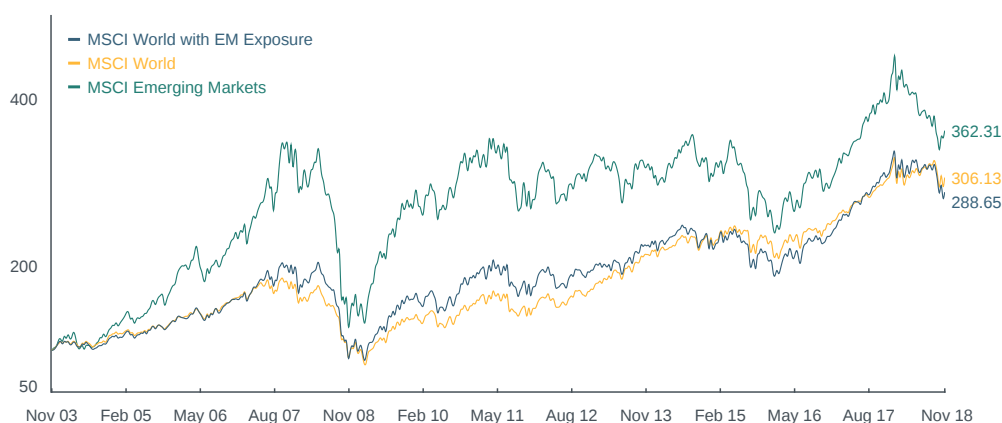


# MSCI WORLD WITH EM EXPOSURE INDEX (USD)

The MSCI World with Emerging Markets (EM) Exposure Index is derived from the MSCI World Index, its parent index. Following a review of the geographic distribution of revenues for each company in the MSCI World Index, the top-ranked constituents with the highest proportion of revenues derived from EM countries are selected for the MSCI World with EM Exposure Index. With a relatively stable 307 constituents, the index is concentrated on high EM exposure companies. As a complement to the MSCI Emerging Markets Indexes, investors may consider this index a new benchmark for capturing the sizeable business activity in emerging markets that is conducted by developed markets\* companies.

## CUMULATIVE INDEX PERFORMANCE - GROSS RETURNS (USD) (NOV 2003 – NOV 2018)



## ANNUAL PERFORMANCE (%)

Year	MSCI World with EM Exposure	MSCI World	MSCI Emerging Markets
2017	32.71	23.07	37.75
2016	13.50	8.15	11.60
2015	-8.97	-0.32	-14.60
2014	-0.67	5.50	-1.82
2013	17.84	27.37	-2.27
2012	13.22	16.54	18.63
2011	-8.79	-5.02	-18.17
2010	15.94	12.34	19.20
2009	50.44	30.79	79.02
2008	-45.03	-40.33	-53.18
2007	22.64	9.57	39.82
2006	21.25	20.65	32.55
2005	12.72	10.02	34.54
2004	11.41	15.25	25.95

## INDEX PERFORMANCE — GROSS RETURNS (%) (NOV 30, 2018)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since May 31, 2002
MSCI World with EM Exposure	-2.35	-10.79	-6.89	-8.32	10.03	4.92	10.70	7.11
MSCI World	1.19	-5.66	0.68	-0.69	9.12	7.27	11.51	7.27
MSCI Emerging Markets	4.13	-5.40	-8.75	-11.96	9.81	2.27	9.50	9.53

## FUNDAMENTALS (NOV 30, 2018)

	Div Yld (%)	P/E	P/E Fwd	P/BV
MSCI World with EM Exposure	2.82	16.01	13.27	2.49
MSCI World	2.53	17.54	14.48	2.33
MSCI Emerging Markets	2.86	12.51	10.64	1.55

## INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2018)

	Turnover (%) <sup>1</sup>	ANNUALIZED STD DEV (%) <sup>2</sup>			SHARPE RATIO <sup>2,3</sup>			Since May 31, 2002	MAXIMUM DRAWDOWN (%)	Period YYYY-MM-DD
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr			
MSCI World with EM Exposure	9.86	11.63	12.66	16.60	0.78	0.38	0.67	0.40	57.69	2007-10-29—2009-03-03
MSCI World	2.19	9.47	10.17	14.15	0.85	0.67	0.81	0.45	57.46	2007-10-31—2009-03-09
MSCI Emerging Markets	6.84	14.79	15.16	19.36	0.63	0.17	0.54	0.47	65.14	2007-10-29—2008-10-27

<sup>1</sup> Last 12 months

<sup>2</sup> Based on monthly gross returns data

<sup>3</sup> Based on ICE LIBOR 1M

\* Developed Markets countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US.

The MSCI World with EM Exposure Index was launched on Mar 29, 2012. Data prior to the launch date is back-tested data (i.e. calculations of how the index might have performed over that time period had the index existed). There are frequently material differences between back-tested performance and actual results. Past performance -- whether actual or back-tested -- is no indication or guarantee of future performance.

## INDEX CHARACTERISTICS

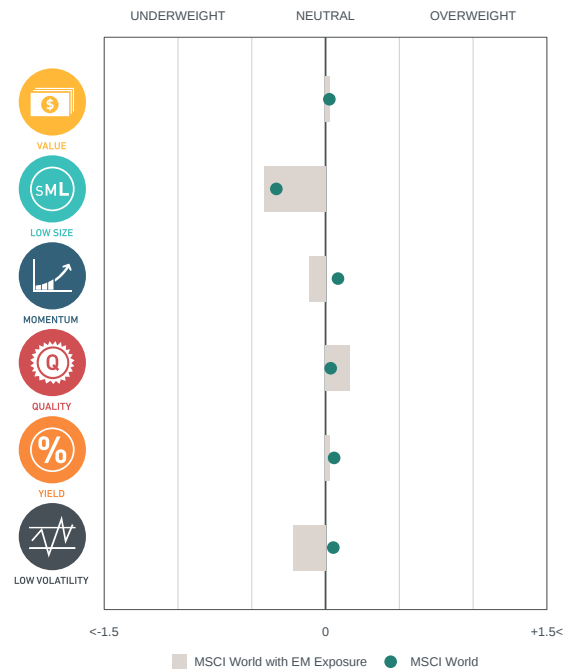
MSCI World with EM Exposure	
Number of Constituents	307
Mkt Cap ( USD Millions)	
Index	7,572,985.59
Largest	768,353.95
Smallest	1,324.00
Average	24,667.71
Median	8,983.19

## TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap ( USD Billions)	Index Wt. (%)	Sector
APPLE	US	768.35	10.15	Info Tech
INTEL CORP	US	236.49	3.12	Info Tech
NESTLE	CH	202.81	2.68	Cons Staples
PHILIP MORRIS INTL	US	172.45	2.28	Cons Staples
QUALCOMM	US	159.48	2.11	Info Tech
BROADCOM	US	147.54	1.95	Info Tech
BOEING CO	US	143.71	1.90	Industrials
NVIDIA	US	137.03	1.81	Info Tech
TEXAS INSTRUMENTS	US	127.37	1.68	Info Tech
CITIGROUP	US	122.20	1.61	Financials
<b>Total</b>		<b>2,217.42</b>	<b>29.28</b>	

## FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

### MSCI FACTOR BOX



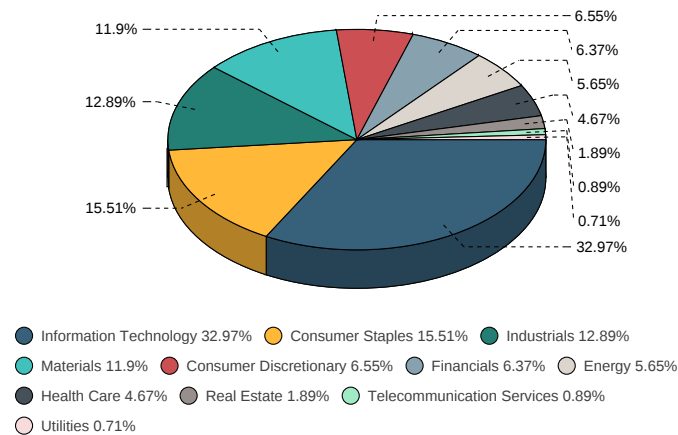
### MSCI FaCS

- VALUE**  
Relatively Inexpensive Stocks
- LOW SIZE**  
Smaller Companies
- MOMENTUM**  
Rising Stocks
- QUALITY**  
Sound Balance Sheet Stocks
- YIELD**  
Cash Flow Paid Out
- LOW VOLATILITY**  
Lower Risk Stocks

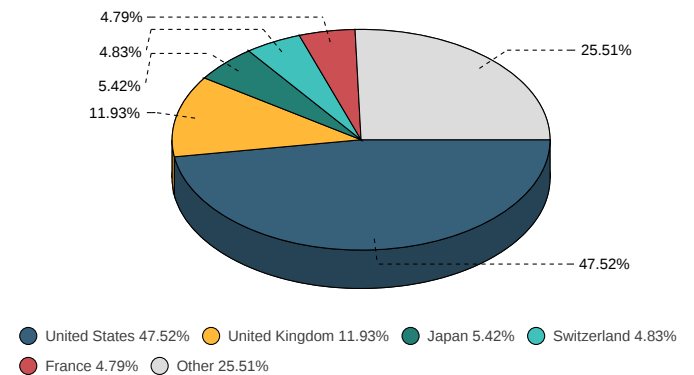
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

Neutral factor exposure (FaCS = 0) represents MSCI ACWI IMI.

## SECTOR WEIGHTS



## COUNTRY WEIGHTS



## INDEX METHODOLOGY

The MSCI Economic Exposure Indexes select top-ranked constituents with the highest proportion of revenues derived from a target country (or region). The indexes target a fixed number of companies, seeking to attain high exposure to the target country/region while maintaining reasonable market cap coverage. If multiple companies hold comparable rankings, the number of constituents may deviate from the fixed number established for the index.

The MSCI Economic Exposure Indexes apply a consistent and transparent methodology for estimating a firm's economic exposure using the geographic distribution of its revenues, despite the many disparities in the way companies report their sales across geographic segments. For each reported geographic revenue segment that includes the target country/region, MSCI applies the latest nominal GDP weights of that target relative to that of the reported geographic segment to determine a "target multiplier" for that revenue segment. For example, to determine an EM multiplier for a company's revenues from "Asia ex Japan", MSCI calculates the GDP weights of all EM countries relative to the combined GDP weight of Asia ex Japan. The exposure of a company to the target country (or region) is then calculated as the weighted average of the percentage of each geographic revenue segment and its target country/region multiplier.

The constituents of the MSCI Economic Exposure Indexes are weighted by the product of their market capitalization and their economic exposure to the target country/region. (The final security level inclusion factor is determined as the ratio of the security level weight and the security level pro forma market cap weight in the related MSCI parent index.) The MSCI Economic Exposure Indexes are rebalanced semi-annually in May and November. Buffer zones (at +/- 20% of the target number of companies) help maintain low index turnover and stability.

## FACTOR BOX AND FaCS METHODOLOGY

MSCI FaCS is a standard method ([MSCI FaCS Methodology](#)) for evaluating and reporting the Factor characteristics of equity portfolios. MSCI FaCS consists of Factor Groups (e.g. Value, Size, Momentum, Quality, Yield, and Volatility) that have been extensively documented in academic literature and validated by MSCI Research as key drivers of risk and return in equity portfolios. These Factor Groups are constructed by aggregating 16 factors (e.g. Book-to-Price, Earnings/Dividend Yields, LT Reversal, Leverage, Earnings Variability/Quality, Beta) from the latest Barra global equity factor risk model, GEMLT, designed to make fund comparisons transparent and intuitive for use. The MSCI Factor Box, which is powered by MSCI FaCS, provides a visualization designed to easily compare absolute exposures of funds/indexes and their benchmarks along 6 Factor Groups that have historically demonstrated excess market returns over the long run.

## ABOUT MSCI

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