## MSCI WORLD INDEX (USD)

The MSCI World Index captures large and mid-cap representation across 23 Developed Markets (DM) countries\*. With 1,634 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

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

# - MSCI World - MSCI Emerging Markets - MSCI ACWI 306.13 304.48 Nov 03 Feb 05 May 06 Aug 07 Nov 08 Feb 10 May 11 Aug 12 Nov 13 Feb 15 May 16 Aug 17 Nov 18

### **ANNUAL PERFORMANCE (%)**

Year	MSCI World	MSCI Emerging Markets	MSCI ACWI		
2017	23.07	37.75	24.62		
2016	8.15	11.60	8.48		
2015	-0.32	-14.60	-1.84		
2014	5.50	-1.82	4.71		
2013	27.37	-2.27	23.44		
2012	16.54	18.63	16.80		
2011	-5.02	-18.17	-6.86		
2010	12.34	19.20	13.21		
2009	30.79	79.02	35.41		
2008	-40.33	-53.18	-41.85		
2007	9.57	39.82	12.18		
2006	20.65	32.55	21.53		
2005	10.02	34.54	11.37		
2004	15.25	25.95	15.75		

FUNDAMENTALS (NOV 30, 2018)

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

					ANNUALIZED							
	1 Mo	3 Mo	1 Yr	YTD	3 Yr	5 Yr	10 Yr	Since Dec 31, 1987	Div Yld (%)	P/E	P/E Fwd	P/BV
MSCI World	1.19	-5.66	0.68	-0.69	9.12	7.27	11.51	7.77	2.53	17.54	14.48	2.33
MSCI Emerging Markets	4.13	-5.40	-8.75	-11.96	9.81	2.27	9.50	10.54	2.86	12.51	10.64	1.55
MSCI ACWI	1.51	-5.63	-0.46	-2.07	9.16	6.73	11.25	7.72	2.57	16.78	13.92	2.21

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

		ANNUALIZED STD DEV (%) 2			SHARPE RATIO 2,3				MAXIMUM DRAWDOWN		
	Turnover (%) 1	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr	Since Dec 31, 1987	(%)	Period YYYY-MM-DD	
MSCI World	2.19	9.47	10.17	14.15	0.85	0.67	0.81	0.35	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	0.41	65.14	2007-10-29-2008-10-27	
MSCI ACWI	2.61	9.74	10.35	14.45	0.83	0.61	0.78	0.34	58.06	2007-10-31-2009-03-09	
	1 Last 12 mo	onths	<sup>2</sup> Based on r	monthly gross	returns dat	a	<sup>3</sup> Based o	n ICE LIBOR 1M			

\*DM 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 Index was launched on Mar 31, 1986. 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.



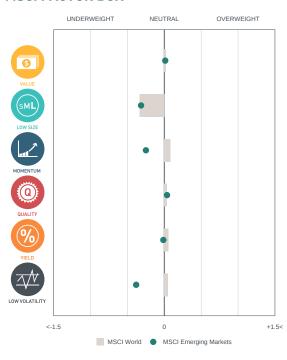
### INDEX CHARACTERISTICS

MSCI World
1,634
Mkt Cap ( USD Millions)
38,848,656.54
877,745.34
781.87
23,775.19
9,887.37

### **TOP 10 CONSTITUENTS**

	Float Adj Mkt Cap	Index	Sector
	( USD Billions)	Wt. (%)	
APPLE	877.75	2.26	Info Tech
MICROSOFT CORP	809.39	2.08	Info Tech
AMAZON.COM	697.10	1.79	Cons Discr
JOHNSON & JOHNSON	394.01	1.01	Health Care
JPMORGAN CHASE & CO	378.58	0.97	Financials
ALPHABET C	343.71	0.88	Info Tech
FACEBOOK A	337.27	0.87	Info Tech
EXXON MOBIL CORP	336.59	0.87	Energy
ALPHABET A	331.40	0.85	Info Tech
BERKSHIRE HATHAWAY B	279.08	0.72	Financials
Total	4,784.87	12.32	

### 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

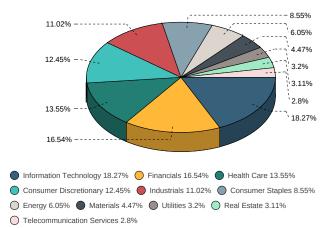


LOW VOLATILITY Lower Risk Stocks

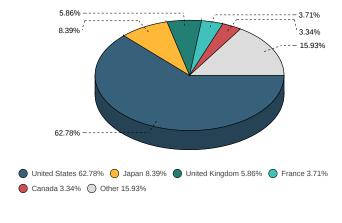
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

### **SECTOR WEIGHTS**



### **COUNTRY WEIGHTS**





### **INDEX METHODOLOGY**

The index is based on the MSCI Global Investable Indexes (GIMI) Methodology —a comprehensive and consistent approach to index construction that allows for meaningful global views and cross regional comparisons across all market capitalization size, sector and style segments and combinations. This methodology aims to provide exhaustive coverage of the relevant investment opportunity set with a strong emphasis on index liquidity, investability and replicability. The index is reviewed quarterly—in February, May, August and November—with the objective of reflecting change in the underlying equity markets in a timely manner, while limiting undue index turnover. During the May and November semi-annual index reviews, the index is rebalanced and the large and mid capitalization cutoff points are recalculated.

### 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**

For more than 40 years, MSCI' research-based indexes and analytics have helped the world' leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research. Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research. MSCI serves 99 of the top 100 largest money managers, according to the most recent P&I ranking. For more information, visit us at <a href="https://www.msci.com">www.msci.com</a>.

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