

MSCI ACWI INDEX (USD)

The MSCI ACWI captures large and mid-cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries*. With 2,758 constituents, the index covers approximately 85% of the global investable equity opportunity set.

CUMULATIVE INDEX PERFORMANCE - PRICE RETURNS (USD) (DEC 2003 – DEC 2018)



ANNUAL PERFORMANCE (%)

Year	MSCI ACWI	MSCI World	MSCI Emerging Markets
2018	-11.18	-10.44	-16.64
2017	21.62	20.11	34.35
2016	5.63	5.32	8.58
2015	-4.26	-2.74	-16.96
2014	2.10	2.93	-4.63
2013	20.25	24.10	-4.98
2012	13.43	13.18	15.15
2011	-9.41	-7.61	-20.41
2010	10.42	9.55	16.36
2009	31.51	26.98	74.50
2008	-43.54	-42.08	-54.47
2007	9.64	7.09	36.46
2006	18.78	17.95	29.18
2005	8.83	7.56	30.31

INDEX PERFORMANCE — PRICE RETURNS (%) (DEC 31, 2018)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since Dec 31, 1987
MSCI ACWI	-7.17	-13.08	-11.18	-11.18	4.49	2.21	7.18	5.01
MSCI World	-7.71	-13.74	-10.44	-10.44	4.25	2.55	7.43	5.06
MSCI Emerging Markets	-2.92	-7.85	-16.64	-16.64	6.74	-0.75	5.47	7.58

FUNDAMENTALS (DEC 31, 2018)

Div Yld (%)	P/E	P/E Fwd	P/BV
2.78	15.47	13.02	2.05
2.76	16.09	13.45	2.15
2.91	12.00	10.50	1.52

INDEX RISK AND RETURN CHARACTERISTICS (DEC 31, 2018)

	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2,3}			Since Dec 31, 1987	MAXIMUM DRAWDOWN (%)	Period YYYY-MM-DD
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr			
MSCI ACWI	2.40	10.60	10.84	14.65	0.35	0.18	0.51	0.17	59.61	2007-10-31—2009-03-09
MSCI World	2.02	10.50	10.74	14.39	0.33	0.21	0.53	0.17	59.07	2007-10-31—2009-03-09
MSCI Emerging Markets	6.54	14.74	15.16	19.24	0.43	-0.03	0.34	0.29	66.05	2007-10-29—2008-10-27

¹ Last 12 months

² Based on monthly price returns data

³ Based on 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. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The MSCI ACWI Index was launched on May 31, 1990. 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.

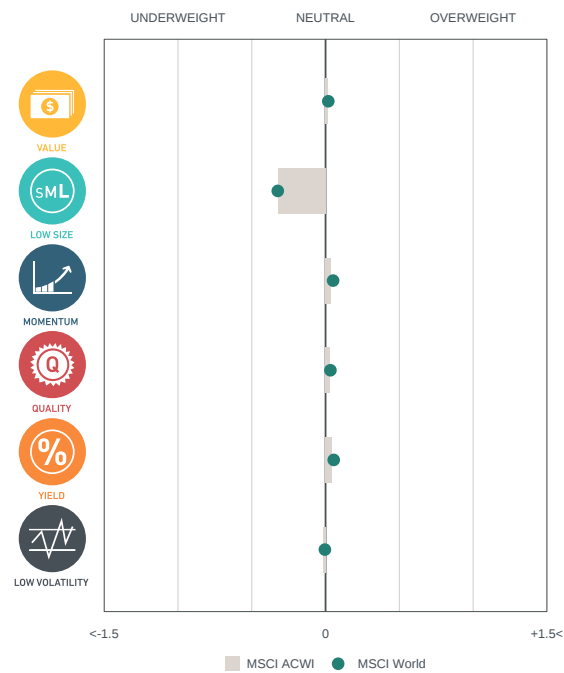
INDEX CHARACTERISTICS

MSCI ACWI	
Number of Constituents	2,758
Mkt Cap (USD Millions)	
Index	40,565,342.24
Largest	761,872.53
Smallest	28.84
Average	14,708.25
Median	5,102.64

TOP 10 CONSTITUENTS

	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)	Sector
APPLE	761.87	1.88	Info Tech
MICROSOFT CORP	739.92	1.82	Info Tech
AMAZON.COM	622.69	1.54	Cons Discr
JOHNSON & JOHNSON	346.21	0.85	Health Care
JPMORGAN CHASE & CO	328.09	0.81	Financials
ALPHABET C	326.11	0.80	Communication Services
FACEBOOK A	316.15	0.78	Communication Services
ALPHABET A	312.35	0.77	Communication Services
EXXON MOBIL CORP	288.70	0.71	Energy
BERKSHIRE HATHAWAY B	264.93	0.65	Financials
Total	4,307.02	10.62	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN MSCI FACTOR BOX



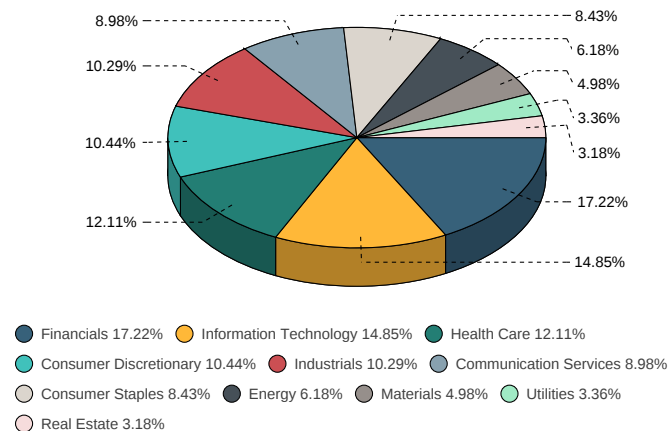
MSCI FaCS

- 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

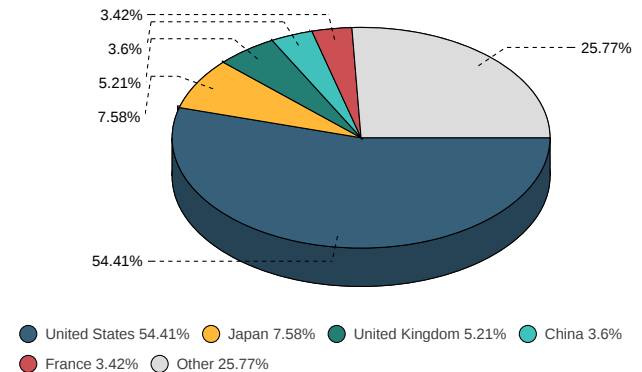
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

SECTOR WEIGHTS



COUNTRY WEIGHTS



INDEX METHODOLOGY

The index is based on the [MSCI Global Investable Market 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.

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