

MSCI WORLD EX EMU INDEX (USD)

The MSCI World ex EMU Index (European Economic and Monetary Union) captures large and mid cap representation across 13 of 23 Developed Markets countries* (excluding those in the EMU). With 1,390 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

CUMULATIVE INDEX PERFORMANCE - NET RETURNS (USD) (APR 2004 – APR 2019)



ANNUAL PERFORMANCE (%)

Year	MSCI World ex EMU	MSCI World	MSCI ACWI IMI
2018	-7.58	-8.71	-10.08
2017	21.68	22.40	23.95
2016	8.33	7.51	8.36
2015	-0.79	-0.87	-2.19
2014	6.92	4.94	3.84
2013	26.35	26.68	23.55
2012	15.12	15.83	16.38
2011	-3.69	-5.54	-7.89
2010	14.76	11.76	14.35
2009	29.75	29.99	36.41
2008	-39.24	-40.71	-42.34
2007	6.98	9.04	11.16
2006	17.35	20.07	20.95
2005	9.61	9.49	11.54

INDEX PERFORMANCE — NET RETURNS (%) (APR 30, 2019)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since May 31, 1994
MSCI World ex EMU	3.38	8.05	8.33	16.60	11.88	8.12	12.31	7.13
MSCI World	3.55	8.06	6.48	16.47	11.39	7.31	11.58	7.06
MSCI ACWI IMI	3.31	7.28	4.28	16.01	11.20	6.89	11.32	6.93

FUNDAMENTALS (APR 30, 2019)

Div Yld (%)	P/E	P/E Fwd	P/BV
2.33	18.77	16.10	2.63
2.44	18.35	15.74	2.46
2.42	18.09	15.49	2.25

INDEX RISK AND RETURN CHARACTERISTICS (APR 30, 2019)

	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2, 3}			Since May 31, 1994 (%)	MAXIMUM DRAWDOWN	
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI World ex EMU	2.21	10.13	10.93	12.62	1.02	0.69	0.94	0.33	56.39	2007-10-31—2009-03-09
MSCI World	2.18	10.17	11.05	13.26	0.98	0.61	0.85	0.33	57.82	2007-10-31—2009-03-09
MSCI ACWI IMI	2.46	10.26	11.20	13.63	0.95	0.57	0.81	0.34	58.59	2007-10-31—2009-03-09

¹ Last 12 months

² Based on monthly net returns data

³ Based on ICE LIBOR 1M

* DM countries include: Australia, Canada, Denmark, Hong Kong, Israel, Japan, New Zealand, Norway, Singapore, Sweden, Switzerland, the UK and the US.

The MSCI World ex EMU Index was launched on Apr 30, 1998. 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

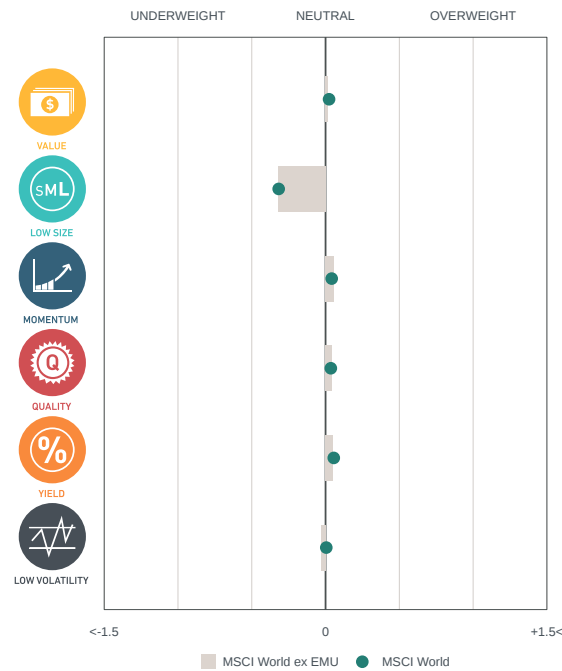
MSCI World ex EMU	
Number of Constituents	1,390
Mkt Cap (USD Millions)	
Index	36,689,057.07
Largest	952,388.46
Smallest	1,348.25
Average	26,395.01
Median	10,446.01

TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)	Sector
MICROSOFT CORP	US	952.39	2.60	Info Tech
APPLE	US	952.26	2.60	Info Tech
AMAZON.COM	US	800.71	2.18	Cons Discr
FACEBOOK A	US	464.64	1.27	Comm Svcs
JPMORGAN CHASE & CO	US	385.91	1.05	Financials
JOHNSON & JOHNSON	US	378.70	1.03	Health Care
ALPHABET C	US	373.96	1.02	Comm Svcs
ALPHABET A	US	358.45	0.98	Comm Svcs
EXXON MOBIL CORP	US	339.89	0.93	Energy
NESTLE	CH	294.73	0.80	Cons Staples
Total		5,301.63	14.45	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



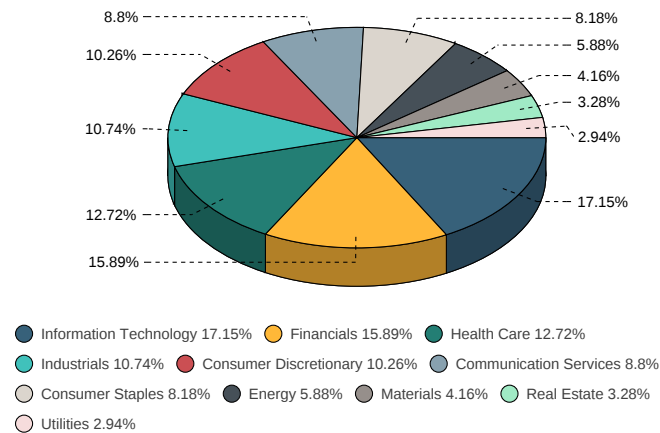
MSCI FaCS

- 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

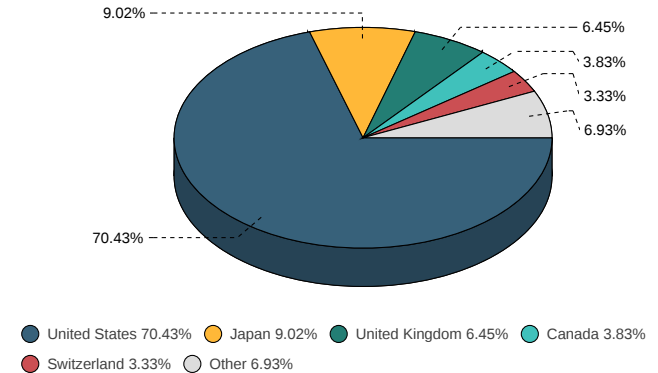
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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.

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 www.msci.com.

The information contained herein (the "Information") may not be reproduced or disseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information or any MSCI index is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "MSCI PARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not be applicable law be excluded or limited.

© 2019 MSCI Inc. All rights reserved.