

MSCI EMU INDEX (USD)

The MSCI EMU Index (European Economic and Monetary Union) captures large and mid cap representation across the 10 Developed Markets countries in the EMU*. With 247 constituents, the index covers approximately 85% of the free float-adjusted market capitalization of the EMU.

CUMULATIVE INDEX PERFORMANCE - GROSS RETURNS (USD) (OCT 2004 – OCT 2019)



ANNUAL PERFORMANCE (%)

Year	MSCI EMU	MSCI World	MSCI ACWI
2018	-16.23	-8.20	-8.93
2017	28.99	23.07	24.62
2016	2.19	8.15	8.48
2015	-0.76	-0.32	-1.84
2014	-7.73	5.50	4.71
2013	30.03	27.37	23.44
2012	22.49	16.54	16.80
2011	-16.86	-5.02	-6.86
2010	-3.42	12.34	13.21
2009	32.79	30.79	35.41
2008	-47.09	-40.33	-41.85
2007	20.35	9.57	12.18
2006	37.28	20.65	21.53
2005	9.58	10.02	11.37

INDEX PERFORMANCE — GROSS RETURNS (%) (OCT 31, 2019)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since Dec 31, 1987
MSCI EMU	3.58	3.94	11.97	18.89	9.65	5.22	4.85	8.01
MSCI World	2.57	2.71	13.35	21.19	12.49	8.19	10.09	7.92
MSCI ACWI	2.76	2.53	13.22	19.94	11.93	7.66	9.39	7.86

FUNDAMENTALS (OCT 31, 2019)

Div Yld (%)	P/E	P/E Fwd	P/BV
3.29	16.68	13.62	1.67
2.43	18.85	16.08	2.47
2.48	18.02	15.49	2.33

INDEX RISK AND RETURN CHARACTERISTICS (OCT 31, 2019)

	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2, 3}			Since Dec 31, 1987 (%)	MAXIMUM DRAWDOWN	
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI EMU	2.11	14.20	14.75	19.00	0.60	0.34	0.31	0.32	64.29	2007-10-31—2009-03-09
MSCI World	2.37	11.21	11.66	13.01	0.96	0.64	0.75	0.36	57.46	2007-10-31—2009-03-09
MSCI ACWI	2.96	11.26	11.75	13.19	0.91	0.59	0.70	0.36	58.06	2007-10-31—2009-03-09

¹ Last 12 months ² Based on monthly gross returns data ³ Based on ICE LIBOR 1M

*DM countries in the EMU include: Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain.

The MSCI 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

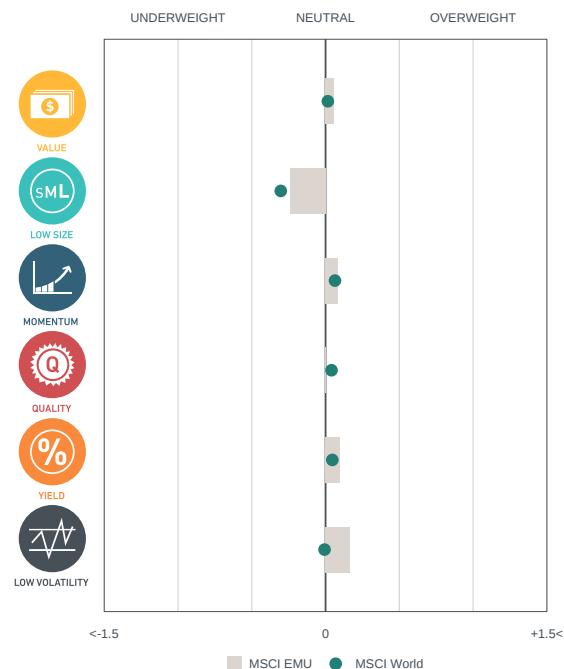
MSCI EMU	
Number of Constituents	247
Mkt Cap (USD Millions)	
Index	4,576,906.90
Largest	130,259.99
Smallest	1,381.52
Average	18,529.99
Median	9,105.93

TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)	Sector
SAP	DE	130.26	2.85	Info Tech
TOTAL	FR	125.73	2.75	Energy
LVMH MOET HENNESSY	FR	118.55	2.59	Cons Discr
ASML HLDG	NL	111.60	2.44	Info Tech
ALLIANZ	DE	103.71	2.27	Financials
SANOFI	FR	103.71	2.27	Health Care
SIEMENS	DE	88.23	1.93	Industrials
UNILEVER NV (NL)	NL	86.10	1.88	Cons Staples
AIRBUS	FR	83.61	1.83	Industrials
L'OREAL	FR	73.81	1.61	Cons Staples
Total		1,025.31	22.40	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



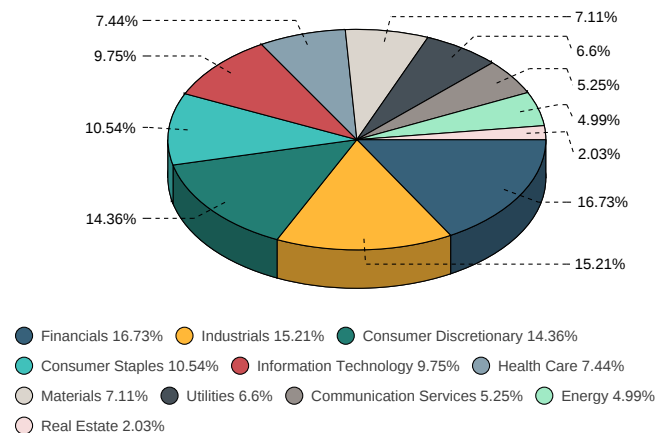
MSCI FaCS

- 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

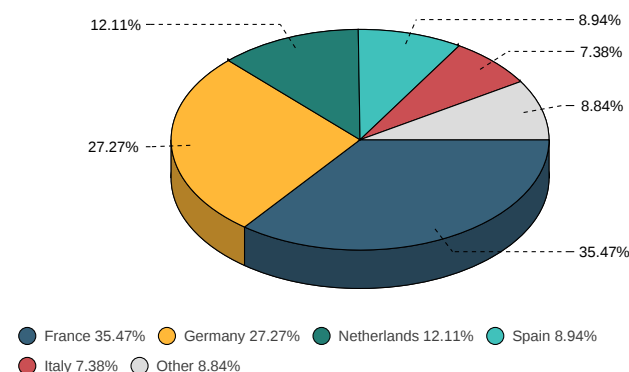
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit 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.