

MSCI EUROPEAN UNION INDEX (USD)

The MSCI European Union (EU) Index captures large and mid cap representation across the 13 Developed Markets (DM) countries and 4 Emerging Markets (EM) countries in Europe*. With 427 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the European equity universe.

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



ANNUAL PERFORMANCE (%)

Year	MSCI European Union	MSCI World	MSCI ACWI
2018	-15.31	-8.20	-8.93
2017	26.81	23.07	24.62
2016	0.82	8.15	8.48
2015	-3.10	-0.32	-1.84
2014	-6.68	5.50	4.71
2013	25.61	27.37	23.44
2012	19.84	16.54	16.80
2011	-11.40	-5.02	-6.86
2010	3.33	12.34	13.21
2009	37.85	30.79	35.41
2008	-47.68	-40.33	-41.85
2007	15.23	9.57	12.18
2006	34.97	20.65	21.53
2005	9.14	10.02	11.37

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

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since Dec 31, 1987
					3 Yr	5 Yr	10 Yr		
MSCI European Union	3.56	3.50	10.55	16.74	8.96	3.78	5.12	7.82	
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
3.69	15.62	13.42	1.71
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 (%)	Period YYYY-MM-DD
		3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr			
MSCI European Union	2.06	12.91	13.60	16.96	0.60	0.26	0.34	0.32	64.00	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 include: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the UK. EM countries include: Czech Republic, Greece, Hungary and Poland.

The MSCI European Union 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

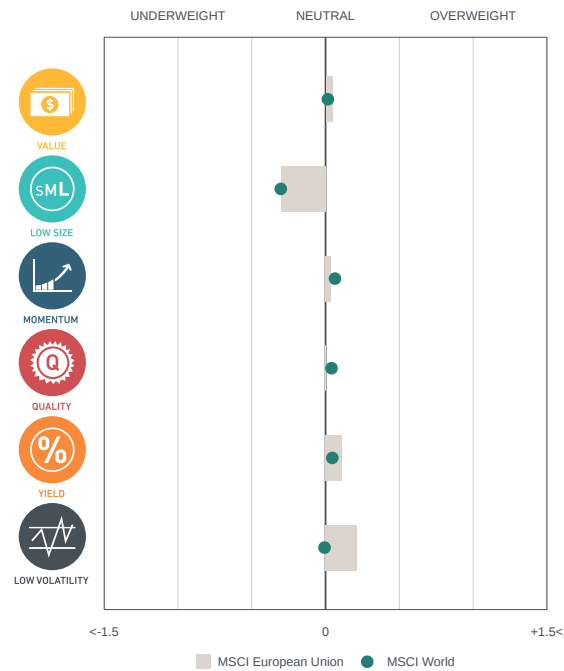
MSCI European Union	
Number of Constituents	427
Mkt Cap (USD Millions)	
Index	7,616,806.08
Largest	152,668.79
Smallest	268.12
Average	17,837.95
Median	8,284.33

TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)	Sector
HSBC HOLDINGS (GB)	GB	152.67	2.00	Financials
SAP	DE	130.26	1.71	Info Tech
BP	GB	128.82	1.69	Energy
ASTRAZENECA	GB	127.32	1.67	Health Care
ROYAL DUTCH SHELL A	GB	125.78	1.65	Energy
TOTAL	FR	125.73	1.65	Energy
LVMH MOET HENNESSY	FR	118.55	1.56	Cons Discr
GLAXOSMITHKLINE	GB	114.15	1.50	Health Care
ASML HLDG	NL	111.60	1.47	Info Tech
ROYAL DUTCH SHELL B	GB	107.50	1.41	Energy
Total		1,242.39	16.31	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



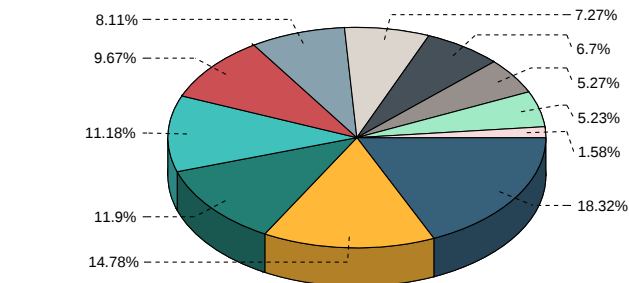
MSCI FaCS

- 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.

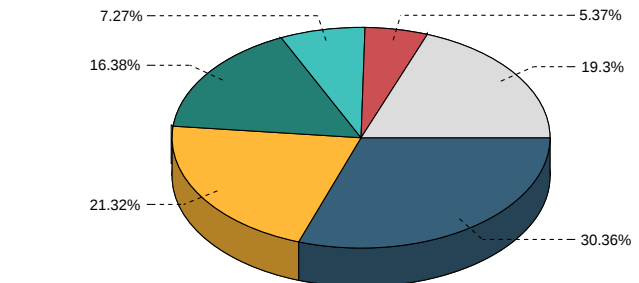
Neutral factor exposure (FaCS = 0) represents MSCI ACWI IMI.

SECTOR WEIGHTS



- Financials 18.32%
- Industrials 14.78%
- Consumer Staples 11.9%
- Consumer Discretionary 11.18%
- Health Care 9.67%
- Energy 8.11%
- Materials 7.27%
- Information Technology 6.7%
- Utilities 5.27%
- Communication Services 5.23%
- Real Estate 1.58%

COUNTRY WEIGHTS



- United Kingdom 30.36%
- France 21.32%
- Germany 16.38%
- Netherlands 7.27%
- Spain 5.37%
- Other 19.3%

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 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.

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