

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 1,279 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

CUMULATIVE INDEX PERFORMANCE – NET RETURNS (USD) (DEC 2007 – DEC 2022)



ANNUAL PERFORMANCE (%)

Year	MSCI World ex EMU	MSCI World	MSCI ACWI IMI
2022	-18.17	-18.14	-18.40
2021	22.73	21.82	18.22
2020	16.86	15.90	16.25
2019	28.22	27.67	26.35
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

INDEX PERFORMANCE – NET RETURNS (%) (DEC 30, 2022)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since May 31, 1994	FUNDAMENTALS (DEC 30, 2022)			
					3 Yr	5 Yr	10 Yr	Div Yld (%)		P/E	P/E Fwd	P/BV	
MSCI World ex EMU	-4.65	8.60	-18.17	-18.17	5.48	6.82	9.40	7.13	2.11	17.57	15.53	2.89	
MSCI World	-4.25	9.77	-18.14	-18.14	4.94	6.14	8.85	7.01	2.21	17.05	15.03	2.67	
MSCI ACWI IMI	-3.84	9.84	-18.40	-18.40	3.89	4.96	7.94	6.76	2.35	16.44	14.44	2.32	

INDEX RISK AND RETURN CHARACTERISTICS (DEC 30, 2022)

	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	2.16	20.49	17.93	14.31	0.33	0.39	0.64	0.34	56.39	2007-10-31–2009-03-09
MSCI World	2.14	20.72	18.09	14.52	0.30	0.35	0.60	0.33	57.82	2007-10-31–2009-03-09
MSCI ACWI IMI	2.33	20.53	18.02	14.50	0.25	0.29	0.54	0.34	58.59	2007-10-31–2009-03-09

¹ Last 12 months

² Based on monthly net returns data

³ Based on NY FED Overnight SOFR from Sep 1 2021 & on ICE LIBOR 1M prior that date

* 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 test (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

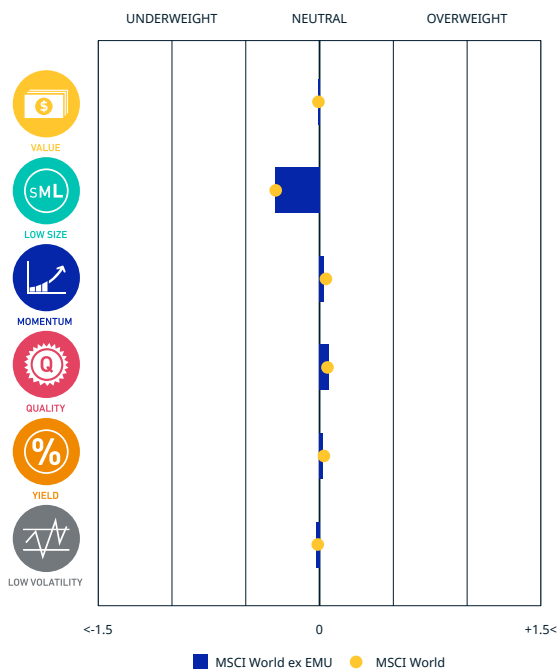
MSCI World ex EMU	
Number of Constituents	1,279
Mkt Cap (USD Millions)	
Index	45,315,601.39
Largest	2,088,072.81
Smallest	1,444.53
Average	35,430.49
Median	13,591.33

TOP 10 CONSTITUENTS

	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)	Sector
APPLE	2,088.07	4.61	Info Tech
MICROSOFT CORP	1,699.12	3.75	Info Tech
AMAZON.COM	770.18	1.70	Cons Discr
ALPHABET A	529.03	1.17	Comm Svcs
UNITEDHEALTH GROUP	495.92	1.09	Health Care
ALPHABET C	492.16	1.09	Comm Svcs
JOHNSON & JOHNSON	464.44	1.02	Health Care
EXXON MOBIL CORP	459.69	1.01	Energy
BERKSHIRE HATHAWAY B	401.92	0.89	Financials
JPMORGAN CHASE & CO	393.26	0.87	Financials
Total	7,793.79	17.20	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



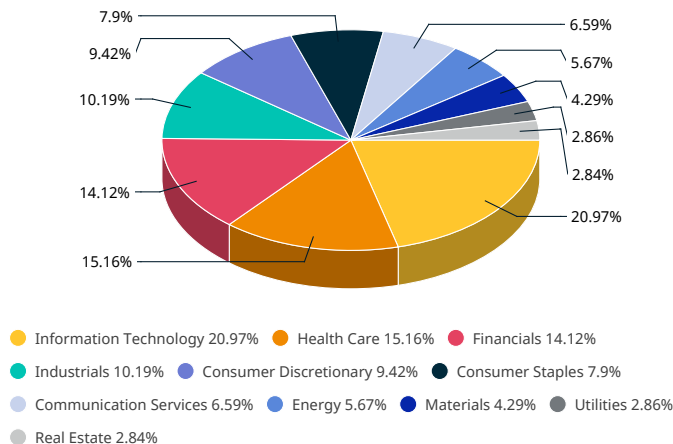
MSCI FaCS

- 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

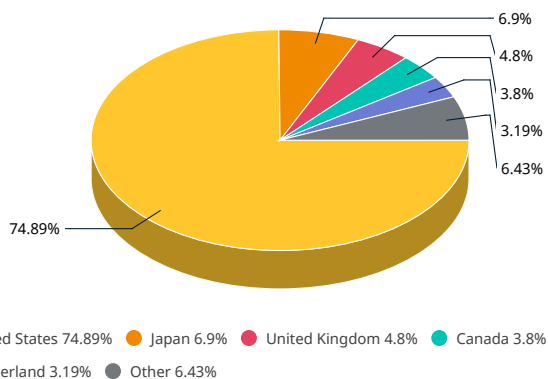
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

SECTOR WEIGHTS



COUNTRY WEIGHTS



INDEX FRAMEWORK

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.

This summary is provided for illustrative purposes only and does not include all material elements of the index or its methodology. For a complete description of the index methodology, please see [Index methodology - MSCI](#).

MSCI FACTOR BOX AND FaCS FRAMEWORK (Please refer to complete description of the MSCI FaCS methodology [here](#))

MSCI FaCS is a standard method 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

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