MSCI EMU Minimum Volatility (EUR) Index (USD)

The MSCI EMU Minimum Volatility (EUR) Index aims to reflect the performance characteristics of a minimum variance strategy applied to the large and mid cap representation across the 10 Developed Markets countries in the European Economic and Monetary Union (EMU)*. The index is calculated by optimizing the MSCI EMU Index, its parent index, in EUR for the lowest absolute risk (within a given set of constraints). Historically, the index has shown lower beta and volatility characteristics relative to the MSCI EMU Index.

For a complete description of the index methodology, please see Index methodology - MSCI.

CUMULATIVE INDEX PERFORMANCE — NET RETURNS (USD) (MAR 2009 – MAR 2024)



ANNUAL PERFORMANCE (%)

Year	MSCI EMU Minimum Volatility (EUR)	MSCI EMU
2023	16.49	22.94
2022	-21.36	-17.86
2021	10.05	13.54
2020	4.78	7.89
2019	17.67	23.20
2018	-9.82	-16.90
2017	27.96	28.06
2016	-1.24	1.34
2015	3.66	-1.42
2014	-2.59	-8.39
2013	25.12	28.94
2012	15.77	21.17
2011	-8.12	-17.64
2010	-4.73	-4.25

INDEX PERFORMANCE – NET RETURNS (%) (MAR 29, 2024)

FUNDAMENTALS (MAR 29, 2024)

						ANNU	ALIZED					
	1 Mo	3 Мо	1 Yr	YTD	3 Yr	5 Yr	^{10 Yr} N	Since ov 30, 2001	Div Yld (%)	P/E	P/E Fwd	P/BV
MSCI EMU Minimum Volatility (EUR)	3.10	4.04	8.37	4.04	1.63	3.57	3.83	6.58	3.20	18.66	15.14	2.18
MSCI EMU	4.24	7.79	16.01	7.79	5.70	8.37	4.53	5.57	3.05	15.24	13.31	1.86

INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2001 - MAR 29, 2024)

				ANNUALIZED STD DEV (%) 2			SHARPE RATIO 2,3				MAXIMUM DRAWDOWN		
	Beta	Tracking Error (%)	Turnover (%) 1	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr	Since Nov 30, 2001	(%)	Period YYYY-MM-DD	
MSCI EMU Minimum Volatility (EUR)	0.80	6.00	20.71	17.57	18.09	15.22	0.03	0.17	0.23	0.36	57.60	2007-12-10—2009-03-09	
MSCI EMU	1.00	0.00	3.60	20.63	22.16	18.57	0.24	0.38	0.25	0.29	64.66	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												

The MSCI EMU Minimum Volatility (EUR) Index was launched on Jun 28, 2011. 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.



^{*} Developed Market countries in the EMU include: Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain.

MAR 29, 2024 Index Factsheet

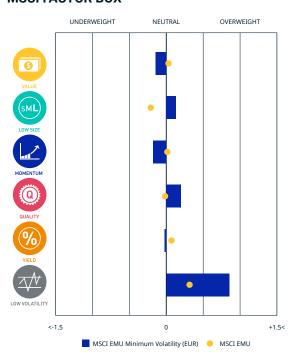
INDEX CHARACTERISTICS

	MSCI EMU Minimum Volatility (EUR)	MSCI EMU					
Number of	121	224					
Constituents							
	Weight (%)						
Largest	2.06	6.76					
Smallest	0.06	0.04					
Average	0.83	0.45					
Median	0.78	0.20					

TOP 10 CONSTITUENTS

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
UCB (GROUPE)	BE	2.06	0.27	Health Care
SAP	DE	1.80	3.54	Info Tech
INDITEX	ES	1.79	0.96	Cons Discr
ASSICURAZIONI GENERALI	IT	1.70	0.45	Financials
FERRARI (IT)	IT	1.70	0.96	Cons Discr
ALLIANZ	DE	1.70	2.04	Financials
MUENCHENER RUECKVERSICH	DE	1.66	1.16	Financials
WOLTERS KLUWER	NL	1.64	0.68	Industrials
THALES	FR	1.60	0.28	Industrials
AIR LIQUIDE	FR	1.58	1.90	Materials
Total		17.23	12.24	

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



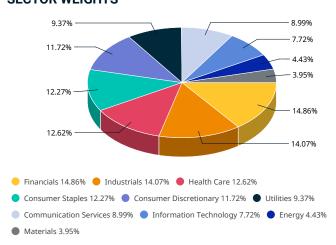
LOW VOLATILITY
Lower Risk Stocks

MSCI FaCS provides absolute factor exposures relative to a

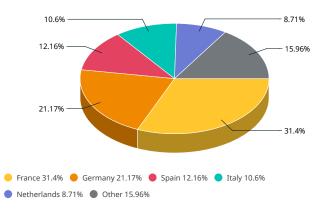
broad global index - MSCI ACWI IMI.

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

SECTOR WEIGHTS



COUNTRY WEIGHTS





MAR 29, 2024 Index Factsheet

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

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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