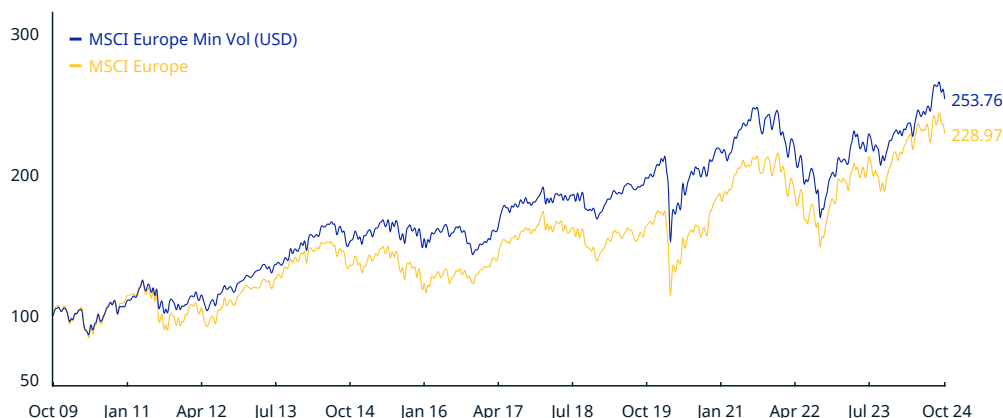


# MSCI Europe Minimum Volatility (USD) Index (USD)

The **MSCI Europe Minimum Volatility (USD) Index** aims to reflect the performance characteristics of a minimum variance strategy applied to the large and mid cap equity universe across the European Developed Markets (DM) countries\*. The index is calculated by optimizing the MSCI Europe Index, its parent index, in USD 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 Europe Index.

For a complete description of the index methodology, please see [Index methodology - MSCI](#).

## CUMULATIVE INDEX PERFORMANCE – NET RETURNS (USD) (OCT 2009 – OCT 2024)



## ANNUAL PERFORMANCE (%)

Year	MSCI Europe Min Vol (USD)	MSCI Europe
2023	15.81	19.89
2022	-19.08	-15.06
2021	13.26	16.30
2020	5.06	5.38
2019	22.09	23.77
2018	-7.92	-14.86
2017	22.94	25.51
2016	-6.86	-0.40
2015	4.36	-2.84
2014	1.69	-6.18
2013	22.66	25.23
2012	14.51	19.12
2011	1.12	-11.06
2010	2.73	3.88

## INDEX PERFORMANCE – NET RETURNS (%) (OCT 31, 2024)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since Nov 30, 2001
					3 Yr	5 Yr	10 Yr		
MSCI Europe Min Vol (USD)	-4.17	1.21	21.60	10.12	2.09	4.99	5.08	7.79	
MSCI Europe	-5.89	-1.80	22.43	6.13	3.00	6.91	5.23	5.90	

## FUNDAMENTALS (OCT 31, 2024)

Div Yld (%)	P/E	P/E Fwd	P/BV
3.34	17.35	15.13	2.46
3.26	14.73	13.25	2.04

## INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2001 – OCT 31, 2024)

	Beta	Tracking Error (%)	Turnover (%) <sup>1</sup>	ANNUALIZED STD DEV (%) <sup>2</sup>			SHARPE RATIO <sup>2,3</sup>			Since Nov 30, 2001	MAXIMUM DRAWDOWN	
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI Europe Min Vol (USD)	0.76	6.21	20.31	15.85	16.04	13.55	-0.02	0.24	0.30	0.47	54.73	2007-10-31–2009-03-09
MSCI Europe	1.00	0.00	3.34	18.35	19.35	16.47	0.05	0.32	0.29	0.31	62.99	2007-10-31–2009-03-09

<sup>1</sup> Last 12 months

<sup>2</sup> Based on monthly net returns data

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

\* DM countries in Europe include: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK.

The MSCI Europe Minimum Volatility (USD) Index was launched on Nov 30, 2009. 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**

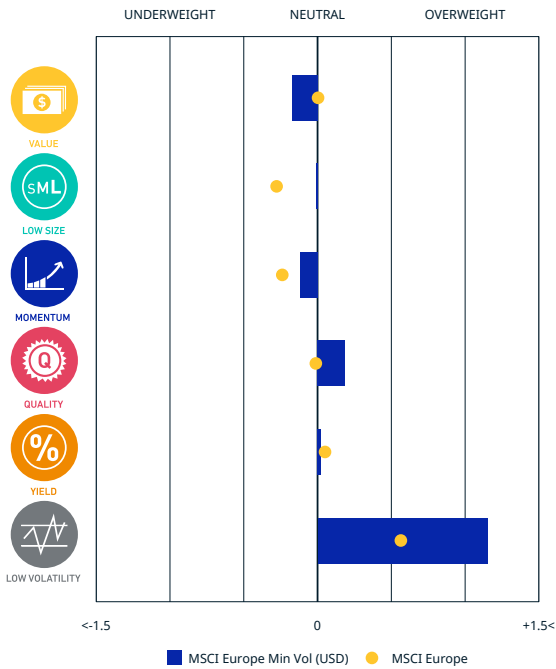
	MSCI Europe Min Vol (USD)	MSCI Europe
<b>Number of Constituents</b>	144	414
	Weight (%)	
<b>Largest</b>	1.84	3.31
<b>Smallest</b>	0.04	0.01
<b>Average</b>	0.69	0.24
<b>Median</b>	0.56	0.10

**TOP 10 CONSTITUENTS**

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
DEUTSCHE TELEKOM	DE	1.84	0.98	Comm Svcs
INDITEX	ES	1.76	0.57	Cons Discr
ROCHE HOLDING GENUSS	CH	1.76	2.01	Health Care
SAP	DE	1.70	2.25	Info Tech
IBERDROLA	ES	1.67	0.84	Utilities
ZURICH INSURANCE GROUP	CH	1.66	0.80	Financials
UNILEVER PLC (GB)	GB	1.63	1.40	Cons Staples
SWISSCOM	CH	1.62	0.15	Comm Svcs
SANOFI	FR	1.58	1.11	Health Care
UCB (GROUPE)	BE	1.54	0.22	Health Care
<b>Total</b>		<b>16.74</b>	<b>10.34</b>	

**FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN**

**MSCI FACTOR BOX**



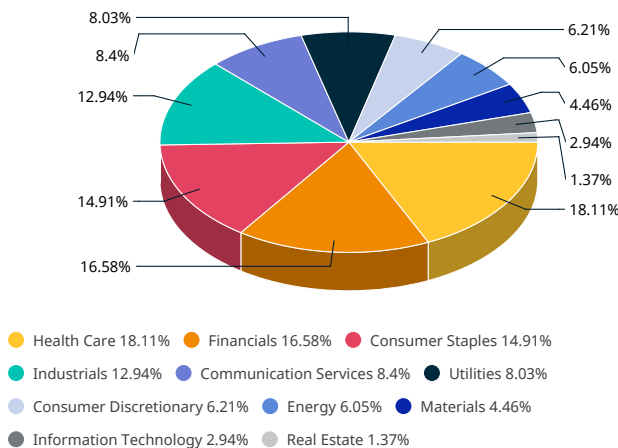
**MSCI FaCS**

- 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

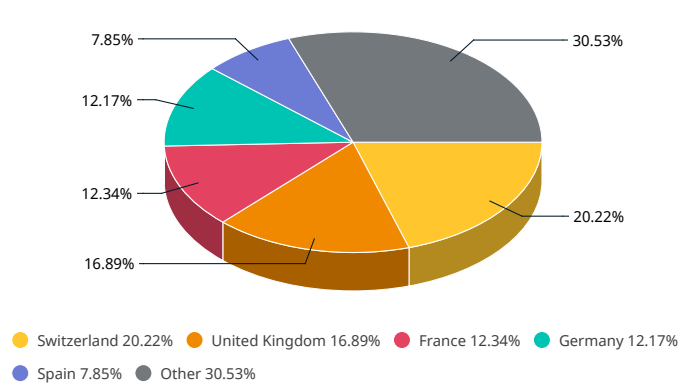
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

**SECTOR WEIGHTS**



**COUNTRY WEIGHTS**



**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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