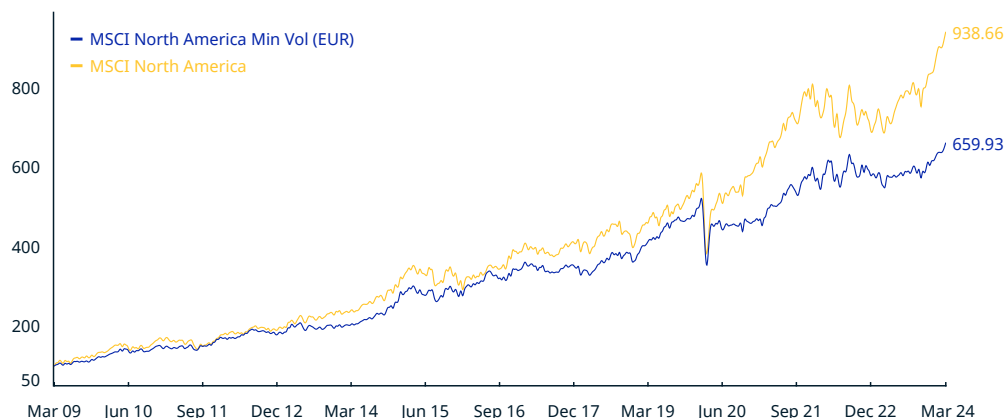


# MSCI North America Minimum Volatility (EUR) Index (EUR)

The **MSCI North America Minimum Volatility (EUR) Index** (optimized in EUR) aims to reflect the performance characteristics of a minimum variance strategy applied to the large and mid cap USA and Canada equity universe. The index is calculated by optimizing the MSCI North America Index, its parent index, 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 North America Index.

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

## CUMULATIVE INDEX PERFORMANCE – NET RETURNS (EUR) (MAR 2009 – MAR 2024)



## ANNUAL PERFORMANCE (%)

Year	MSCI North America Min Vol (EUR)	MSCI North America
2023	5.86	21.70
2022	-4.04	-14.25
2021	29.06	36.04
2020	-2.48	10.04
2019	30.80	33.10
2018	3.85	-0.98
2017	2.87	6.19
2016	16.83	14.91
2015	12.76	10.39
2014	29.05	27.42
2013	11.61	23.97
2012	7.31	13.00
2011	12.80	3.27
2010	21.63	23.31

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

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since Nov 30, 2001
MSCI North America Min Vol (EUR)	3.39	8.75	14.94	8.75	10.28	9.67	12.40	7.27
MSCI North America	3.39	12.53	29.76	12.53	13.28	15.09	14.61	7.58

## FUNDAMENTALS (MAR 29, 2024)

Div Yld (%)	P/E	P/E Fwd	P/BV
1.98	22.32	18.74	3.84
1.42	25.57	21.01	4.56

## INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2001 – MAR 29, 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 North America Min Vol (EUR)	0.72	6.76	20.13	11.39	13.30	11.89	0.81	0.72	1.03	0.55	41.83	2007-06-01–2009-03-09
MSCI North America	1.00	0.00	2.00	15.33	16.58	14.55	0.82	0.90	1.01	0.49	53.79	2002-03-12–2009-03-09

<sup>1</sup> Last 12 months

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

<sup>3</sup> Based on EMMI EURIBOR 1M from Sep 1 2021 & on ICE LIBOR 1M prior that date

The MSCI North America 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.

INDEX CHARACTERISTICS

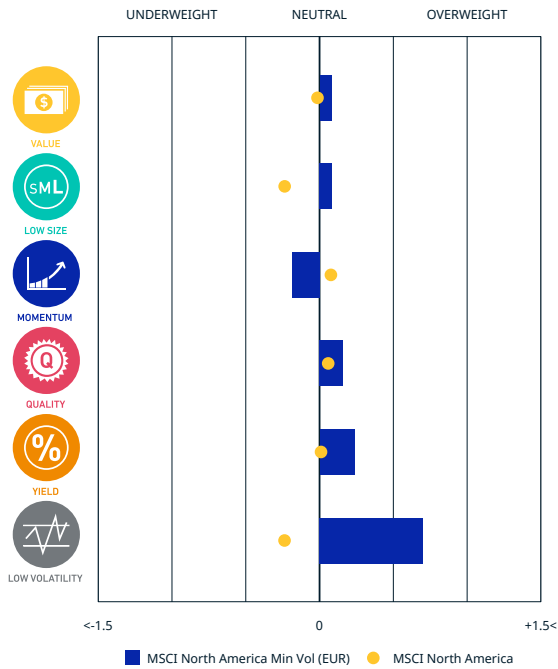
	MSCI North America Min Vol (EUR)	MSCI North America
Number of Constituents	188	697
Weight (%)		
Largest	1.69	6.18
Smallest	0.05	0.00
Average	0.53	0.14
Median	0.44	0.05

TOP 10 CONSTITUENTS

	Index Wt. (%)	Parent Index Wt. (%)	Sector
IBM CORP	1.69	0.36	Info Tech
BROADCOM	1.66	1.23	Info Tech
REPUBLIC SERVICES	1.64	0.09	Industrials
WASTE MANAGEMENT	1.63	0.18	Industrials
BERKSHIRE HATHAWAY B	1.59	1.15	Financials
MERCK & CO	1.57	0.70	Health Care
ROPER TECHNOLOGIES	1.46	0.12	Info Tech
AMPHENOL CORP	1.46	0.14	Info Tech
VERIZON COMMUNICATIONS	1.42	0.37	Comm Svcs
CISCO SYSTEMS	1.41	0.42	Info Tech
Total	15.52	4.76	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



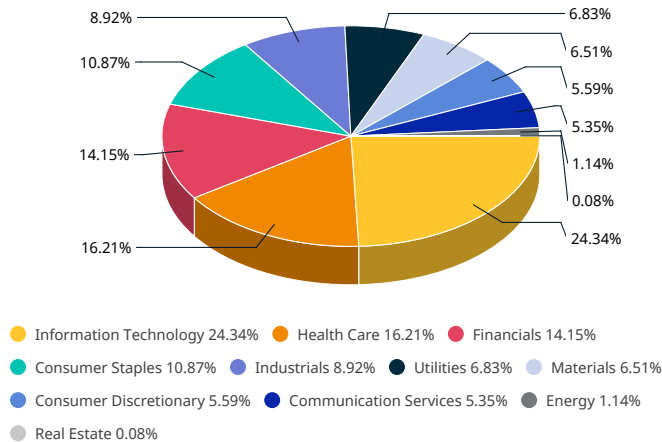
MSCI FaCS

- 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

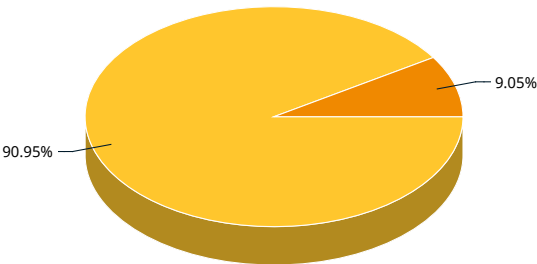
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

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](http://www.msci.com).

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