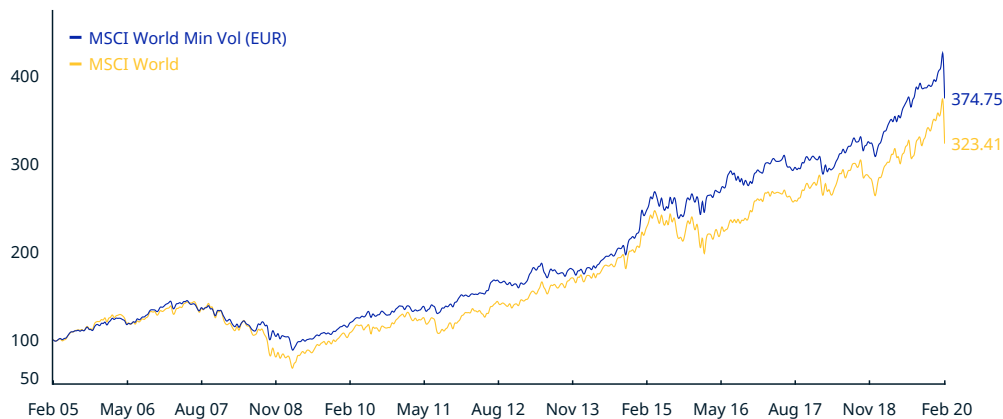


# MSCI World Minimum Volatility (EUR) Index (EUR)

The MSCI World Minimum Volatility (EUR) Index aims to reflect the performance characteristics of a minimum variance strategy applied to the MSCI large and mid cap equity universe across 23 Developed Markets countries\*. The index is calculated by optimizing the MSCI World 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 World Index.

## CUMULATIVE INDEX PERFORMANCE – GROSS RETURNS (EUR) (FEB 2005 – FEB 2020)



## ANNUAL PERFORMANCE (%)

Year	MSCI World Min Vol (EUR)	MSCI World
2019	26.49	30.76
2018	1.83	-3.58
2017	5.41	8.10
2016	11.08	11.39
2015	17.56	11.03
2014	24.04	20.14
2013	11.19	21.86
2012	7.79	14.75
2011	8.73	-1.84
2010	20.08	20.14
2009	9.51	26.72
2008	-20.71	-37.24
2007	-4.20	-1.18
2006	15.60	7.93

## INDEX PERFORMANCE – GROSS RETURNS (%) (FEB 28, 2020)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since Nov 30, 2001
					3 Yr	5 Yr	10 Yr		
MSCI World Min Vol (EUR)	-7.19	-4.43	11.47	-4.54	7.58	8.30	12.21	7.44	
MSCI World	-7.60	-5.82	9.09	-6.95	6.65	6.93	11.76	5.69	

## FUNDAMENTALS (FEB 28, 2020)

Div Yld (%)	P/E	P/E Fwd	P/BV
2.96	20.70	17.36	2.35
2.58	18.18	15.47	2.34

## INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2001 – FEB 28, 2020)

	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 World Min Vol (EUR)	0.63	7.14	19.98	8.82	9.51	8.92	0.92	0.92	1.34	0.65	39.13	2007-06-01–2009-03-09
MSCI World	1.00	0.00	2.56	11.66	12.24	10.86	0.65	0.64	1.08	0.39	52.95	2007-06-15–2009-03-09

<sup>1</sup> Last 12 months

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

<sup>3</sup> Based on ICE LIBOR 1M

\* Developed Markets countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US.

The MSCI World Minimum Volatility (EUR) Index was launched on Feb 28, 2011. 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

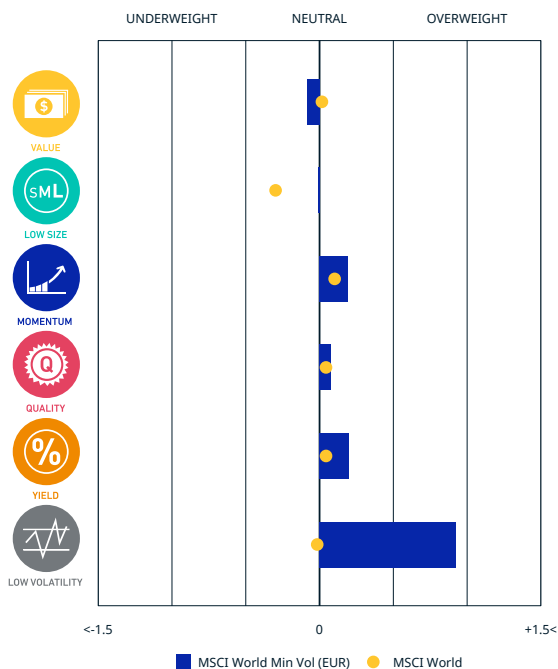
	MSCI World Min Vol (EUR)	MSCI World
<b>Number of Constituents</b>	356	1,643
	Weight (%)	
<b>Largest</b>	1.78	3.05
<b>Smallest</b>	0.04	0.00
<b>Average</b>	0.28	0.06
<b>Median</b>	0.19	0.02

### TOP 10 CONSTITUENTS

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
NEWMONT CORP	US	1.78	0.09	Materials
BARRICK GOLD CORP	CA	1.60	0.08	Materials
DEUTSCHE TELEKOM	DE	1.53	0.13	Comm Svcs
NESTLE	CH	1.32	0.75	Cons Staples
NEXTERA ENERGY	US	1.21	0.30	Utilities
NTT DOCOMO	JP	1.19	0.09	Comm Svcs
PEPSICO	US	1.16	0.46	Cons Staples
COCA COLA (THE)	US	1.13	0.54	Cons Staples
VERIZON COMMUNICATIONS	US	1.12	0.55	Comm Svcs
DUKE ENERGY CORP	US	1.04	0.16	Utilities
<b>Total</b>		<b>13.07</b>	<b>3.15</b>	

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

#### MSCI FACTOR BOX



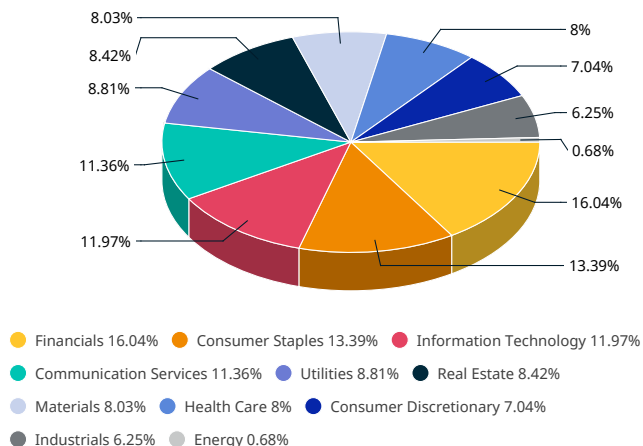
#### MSCI FaCS

- 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

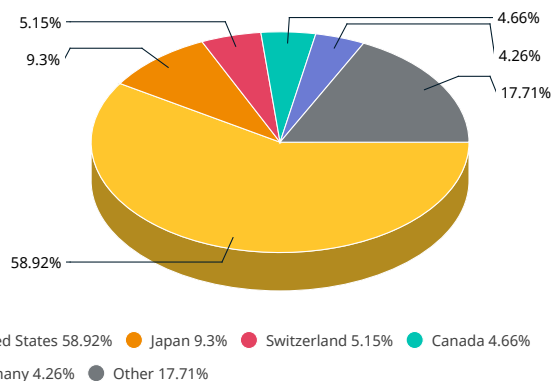
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

#### SECTOR WEIGHTS



#### COUNTRY WEIGHTS



## INDEX METHODOLOGY

The MSCI Minimum Volatility Indexes are designed to provide the lowest return variance for a given covariance matrix of stock returns. Each MSCI Minimum Volatility Index is calculated using Barra Optimizer to optimize a given MSCI parent index for the lowest absolute volatility with a certain set of constraints. These constraints help maintain index replicability and investability and include index turnover limits, for example, along with minimum and maximum constituent, sector and/or country weights relative to the parent index. Each Minimum Volatility Index is rebalanced (or is re-optimized) semi-annually in May and November. Indexes may also be optimized for various currencies.

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

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