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

The MSCI World Minimum Volatility (USD) 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, 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 (USD) (SEP 2006 – SEP 2021)



# **ANNUAL PERFORMANCE (%)**

Year	MSCI World Minimum Vol (USD)	MSCI World
2020	3.26	16.50
2019	23.97	28.40
2018	-1.42	-8.20
2017	18.04	23.07
2016	8.18	8.15
2015	5.82	-0.32
2014	12.06	5.50
2013	19.41	27.37
2012	8.87	16.54
2011	8.04	-5.02
2010	12.76	12.34
2009	17.18	30.79
2008	-29.23	-40.33
2007	6.13	9.57

# INDEX PERFORMANCE - GROSS RETURNS (%) (SEP 30, 2021)

# **FUNDAMENTALS (SEP 30, 2021)**

					AININOALIZED							
	1 Mo	3 Мо	1 Yr	YTD	3 Yr	5 Yr	10 Yr <sub>M</sub>	Since lay 31, 1988	Div Yld (%)	P/E	P/E Fwd	P/BV
MSCI World Minimum Vol (USD)	-4.48	-0.09	13.56	7.33	8.46	9.27	10.93	8.83	2.04	21.51	19.68	3.37
MSCI World	-4.11	0.09	29.39	13.43	13.72	14.34	13.30	8.31	1.73	22.85	18.68	3.20

# INDEX RISK AND RETURN CHARACTERISTICS (MAY 31, 1988 - SEP 30, 2021)

			ANNUALIZED STD						MAXIMUM DRAWDOWN			
	Beta	Tracking Error (%)	Turnover (%) 1	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr	Since May 31, 1988	(%)	Period YYYY-MM-DD
MSCI World Minimum Vol (USD)	0.68	6.74	20.55	13.15	10.91	9.81	0.59	0.76	1.03	0.53	47.73	2007-10-31-2009-03-09
MSCI World	1.00	0.00	2.65	18.46	14.81	13.42	0.72	0.90	0.95	0.40	57.46	2007-10-31-2009-03-09
			1 Last 12	months	<sup>2</sup> Base	d on month	y gross re	turns data	<sup>3</sup> Ba	ased on ICE	LIBOR 1M	

The MSCI World Minimum Volatility (USD) Index was launched on Apr 14, 2008. 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.



<sup>\*</sup> 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.

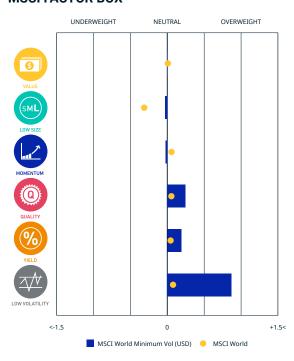
#### **INDEX CHARACTERISTICS**

	MSCI World Minimum Vol (USD)	MSCI World						
Number of	300	1,561						
Constituents								
	Weight (%)							
Largest	1.55	4.08						
Largest Smallest	1.55 0.02	4.08 0.00						
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#### **TOP 10 CONSTITUENTS**

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
WASTE MANAGEMENT	US	1.55	0.11	Industrials
ROCHE HOLDING GENUSS	CH	1.51	0.44	Health Care
NEXTERA ENERGY	US	1.37	0.27	Utilities
NESTLE	CH	1.35	0.60	Cons Staples
NOVO NORDISK B	DK	1.33	0.28	Health Care
PEPSICO PEPSICO	US	1.26	0.36	Cons Staples
VERIZON COMMUNICATIONS	US	1.26	0.39	Comm Srvcs
JOHNSON & JOHNSON	US	1.24	0.73	Health Care
DEUTSCHE TELEKOM	DE	1.24	0.12	Comm Srvcs
REGENERON PHARMACEUTICAL	US	1.19	0.11	Health Care
Total		13.31	3.41	

# FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN **MSCI FACTOR BOX**



### **MSCI FaCS**



**Relatively Inexpensive Stocks** 



**LOW SIZE Smaller Companies** 



**MOMENTUM Rising Stocks** 



**QUALITY Sound Balance Sheet Stocks** 



**YIELD Cash Flow Paid Out** 

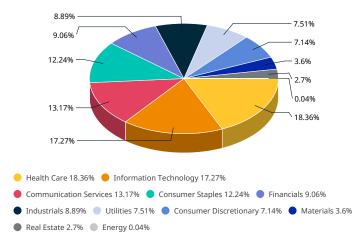


**LOW VOLATILITY Lower Risk Stocks** 

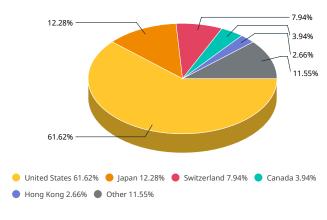
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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 <a href="https://www.msci.com">www.msci.com</a>.

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