

# MSCI WORLD MINIMUM VOLATILITY ESG TARGET INDEX (USD)

The MSCI World Minimum Volatility ESG Target Index is based on MSCI World Index, its parent index, which includes large and mid-cap stocks across 23 Developed Market (DM) countries\* across the world. The index is designed to represent the performance of a strategy that seeks systematic integration of environmental, social and governance (ESG) norms in minimum volatility investing by seeking to minimize risk along with the improvement in the ESG profile of the index. The Index aims to achieve lowest risk while improving the ESG score relative to the underlying parent index.

## CUMULATIVE INDEX PERFORMANCE - NET RETURNS (USD) (NOV 2007 – JAN 2019)



## ANNUAL PERFORMANCE (%)

Year	MSCI World Minimum Volatility ESG Target	MSCI World
2018	-3.75	-8.71
2017	17.36	22.40
2016	6.54	7.51
2015	5.77	-0.87
2014	12.00	4.94
2013	20.59	26.68
2012	9.86	15.83
2011	5.56	-5.54
2010	9.61	11.76
2009	12.65	29.99
2008	-24.11	-40.71

## INDEX PERFORMANCE — NET RETURNS (%) (JAN 31, 2019)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since Nov 30, 2007
					3 Yr	5 Yr	10 Yr		
MSCI World Minimum Volatility ESG Target	5.53	1.75	-1.23	5.53	9.02	9.06	10.77	6.17	
MSCI World	7.78	0.72	-6.54	7.78	11.26	6.94	11.51	4.22	

## FUNDAMENTALS (JAN 31, 2019)

Div Yld (%)	P/E	P/E Fwd	P/BV
2.89	18.38	16.91	2.47
2.59	17.12	14.52	2.30

## INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2007 – JAN 31, 2019)

	Beta	Tracking Error (%)	Turnover (%) <sup>1</sup>	ANNUALIZED STD DEV (%) <sup>2</sup>			SHARPE RATIO <sup>2,3</sup>			Since Nov 30, 2007	MAXIMUM DRAWDOWN	
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI World Minimum Volatility ESG Target	0.62	7.77	21.35	8.80	8.45	9.69	0.88	0.97	1.05	0.53	41.94	2007-12-10—2009-03-09
MSCI World	1.00	0.00	2.02	10.60	11.10	14.22	0.94	0.59	0.80	0.29	56.84	2007-12-10—2009-03-09

<sup>1</sup> Last 12 months      <sup>2</sup> Based on monthly net returns data      <sup>3</sup> Based on ICE LIBOR 1M

\* DM 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 ESG Target Index was launched on Sep 28, 2017. 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.

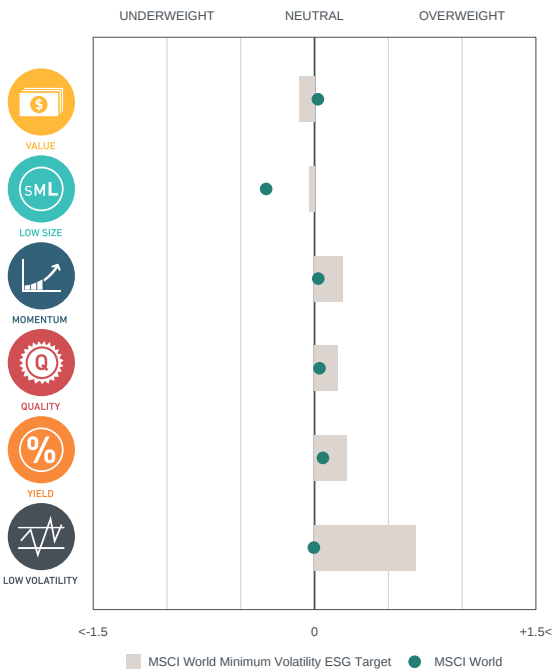
### INDEX CHARACTERISTICS

	MSCI World Minimum Volatility ESG Target	MSCI World
Number of Constituents	334	1,632
Weight (%)		
Largest	1.53	2.09
Smallest	0.02	0.00
Average	0.30	0.06
Median	0.19	0.03

### TOP 10 CONSTITUENTS

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
NTT DOCOMO	JP	1.53	0.08	Comm Svcs
NEXTERA ENERGY	US	1.51	0.22	Utilities
COCA COLA (THE)	US	1.47	0.50	Cons Staples
PEPSICO	US	1.46	0.41	Cons Staples
XCEL ENERGY	US	1.34	0.07	Utilities
ECOLAB	US	1.27	0.11	Materials
JOHNSON & JOHNSON	US	1.24	0.93	Health Care
CONSOLIDATED EDISON	US	1.14	0.06	Utilities
PROCTER & GAMBLE CO	US	1.06	0.62	Cons Staples
MICROSOFT CORP	US	1.06	1.97	Info Tech
<b>Total</b>		<b>13.07</b>	<b>4.98</b>	

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



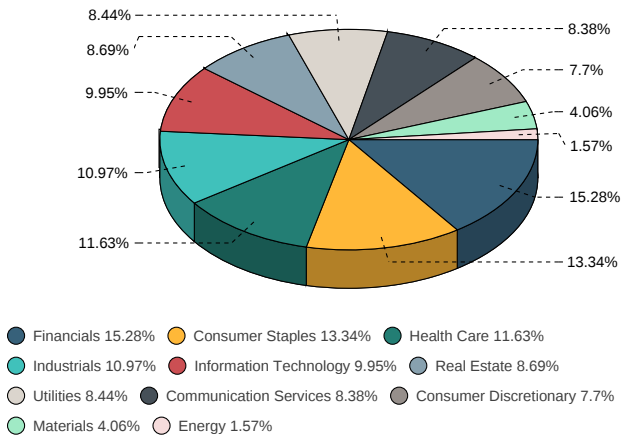
### MSCI FaCS

- 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

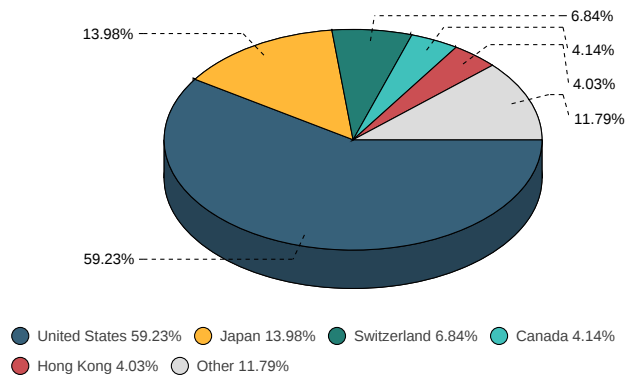
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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

### SECTOR WEIGHTS



### COUNTRY WEIGHTS



## INDEX METHODOLOGY

The MSCI Minimum Volatility ESG Target Indexes are calculated by optimizing a parent MSCI Index by using an estimated co-variance matrix to produce an index that has the lowest absolute volatility for a given set of constraints. This includes specific constraints for improving the ESG profile for the index relative to that of the underlying parent index. The eligible universe is the universe of all the securities in the Parent Index that are not involved in very severe ESG controversies ("Red flags") or in controversial weapons. The starting universe to determine a Minimum Volatility Index is an MSCI Equity Index and the estimated co-variance matrix is based on the relevant Barra multi-factor equity model.

The MSCI Minimum Volatility ESG Target Indexes are rebalanced on a semi-annual basis, usually as of the close of the last business day of May and November, coinciding with the May and November Semi-Annual Index Reviews (SAIRs) of the MSCI Global Investable Market Indexes.

## 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

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