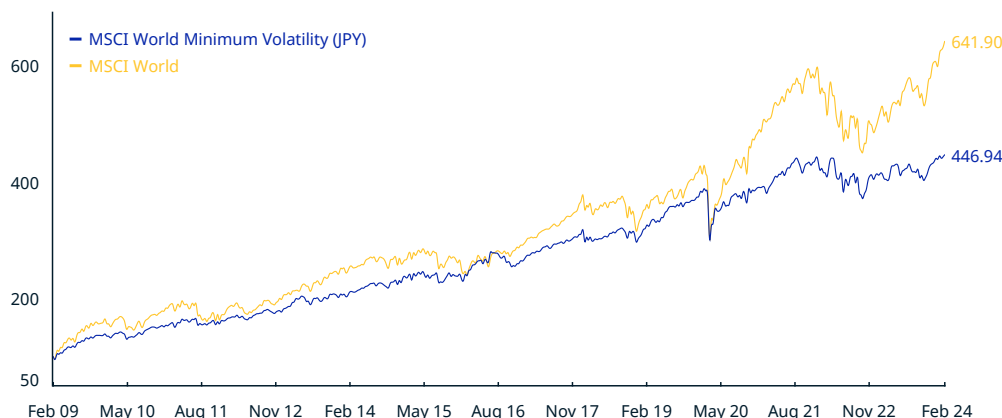


# MSCI World Minimum Volatility (JPY) Index (USD)

The **MSCI World Minimum Volatility (JPY) 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 (DM) countries\*. The index is calculated by optimizing the MSCI World Index, its parent index, in JPY 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.

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

## CUMULATIVE INDEX PERFORMANCE – GROSS RETURNS (USD) (FEB 2009 – FEB 2024)



## ANNUAL PERFORMANCE (%)

Year	MSCI World Minimum Volatility (JPY)	MSCI World
2023	7.44	24.42
2022	-8.36	-17.73
2021	13.73	22.35
2020	4.51	16.50
2019	24.23	28.40
2018	-1.92	-8.20
2017	17.52	23.07
2016	8.34	8.15
2015	5.45	-0.32
2014	10.33	5.50
2013	17.53	27.37
2012	8.98	16.54
2011	5.44	-5.02
2010	12.39	12.34

## INDEX PERFORMANCE – GROSS RETURNS (%) (FEB 29, 2024)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since Nov 30, 2001
MSCI World Minimum Volatility (JPY)	0.44	4.70	11.72	1.84	5.87	6.47	7.75	8.44
MSCI World	4.28	10.77	25.59	5.55	9.17	12.22	9.64	8.13

## FUNDAMENTALS (FEB 29, 2024)

Div Yld (%)	P/E	P/E Fwd	P/BV
2.52	20.71	17.07	2.87
1.86	21.67	18.32	3.27

## INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2001 – FEB 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 World Minimum Volatility (JPY)	0.62	7.82	20.66	12.53	12.75	10.86	0.32	0.40	0.61	0.64	43.83	2007-10-31–2009-03-09
MSCI World	1.00	0.00	2.16	17.05	18.05	14.90	0.46	0.62	0.60	0.48	57.46	2007-10-31–2009-03-09

<sup>1</sup> Last 12 months

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

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

\* 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 (JPY) Index was launched on Feb 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

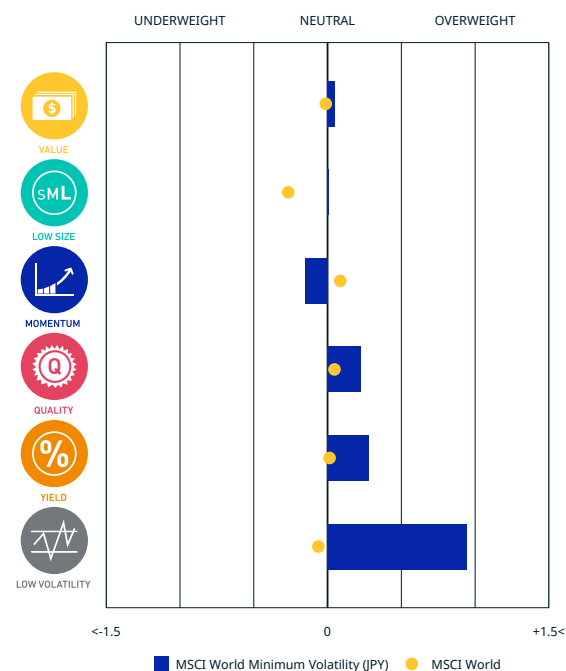
	MSCI World Minimum Volatility (JPY)	MSCI World
<b>Number of Constituents</b>	252	1,479
	<b>Weight (%)</b>	
<b>Largest</b>	1.71	4.60
<b>Smallest</b>	0.04	0.00
<b>Average</b>	0.40	0.07
<b>Median</b>	0.24	0.02

## TOP 10 CONSTITUENTS

	Country	Index Wt. (%)	Parent Index Wt. (%)	Sector
WASTE MANAGEMENT	US	1.71	0.13	Industrials
MERCK & CO	US	1.64	0.51	Health Care
BERKSHIRE HATHAWAY B	US	1.63	0.84	Financials
NOVARTIS	CH	1.51	0.33	Health Care
IBM CORP	US	1.50	0.27	Info Tech
ROPER TECHNOLOGIES	US	1.49	0.09	Info Tech
MOTOROLA SOLUTIONS	US	1.49	0.09	Info Tech
CISCO SYSTEMS	US	1.44	0.31	Info Tech
WASTE CONNECTIONS	US	1.37	0.07	Industrials
REPUBLIC SERVICES	US	1.36	0.06	Industrials
Total		15.14	2.70	

## FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

## MSCI FACTOR BOX



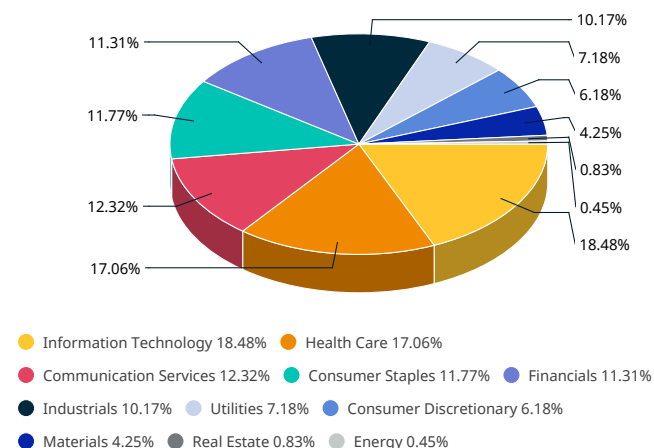
## MSCI FaCS

- 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

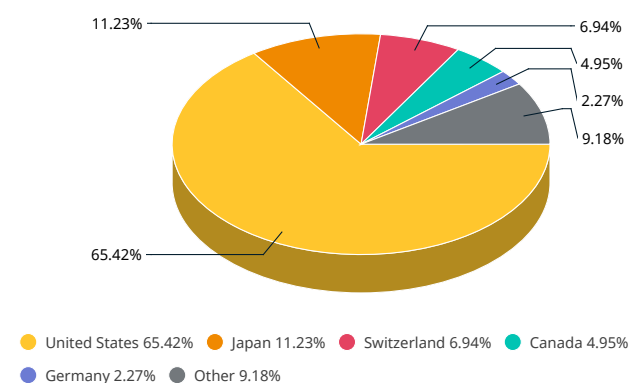
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

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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