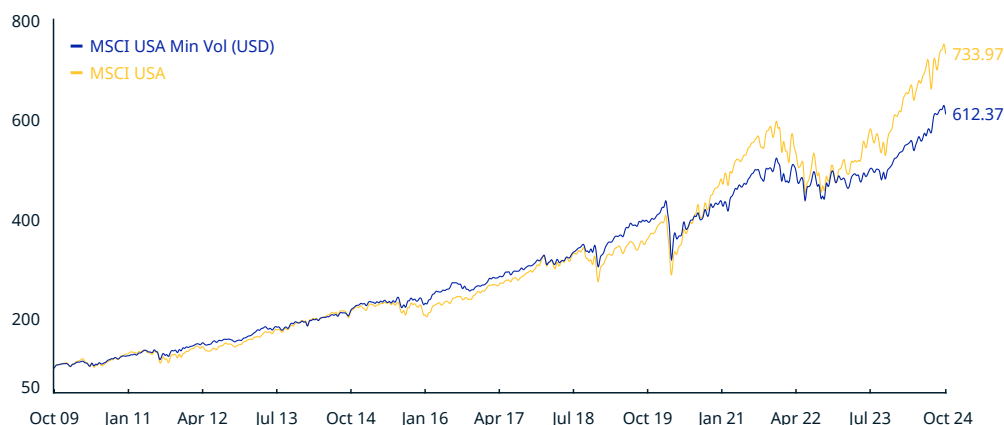


MSCI USA Minimum Volatility (USD) Index (USD)

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

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

CUMULATIVE INDEX PERFORMANCE – GROSS RETURNS (USD) (OCT 2009 – OCT 2024)



ANNUAL PERFORMANCE (%)

Year	MSCI USA Min Vol (USD)	MSCI USA
2023	9.79	27.10
2022	-9.19	-19.46
2021	21.01	26.97
2020	5.76	21.37
2019	27.96	31.64
2018	1.55	-4.50
2017	19.18	21.90
2016	10.67	11.61
2015	5.64	1.32
2014	16.54	13.36
2013	25.33	32.61
2012	11.19	16.13
2011	12.87	1.99
2010	14.70	15.45

INDEX PERFORMANCE – GROSS RETURNS (%) (OCT 31, 2024)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED				Since May 31, 1988
					3 Yr	5 Yr	10 Yr	Since May 31, 1988	
MSCI USA Min Vol (USD)	-1.45	3.88	27.16	16.96	6.87	9.03	10.84	10.88	
MSCI USA	-0.74	3.84	38.40	20.79	8.36	15.27	12.95	11.23	

FUNDAMENTALS (OCT 31, 2024)

Div Yld (%)	P/E	P/E Fwd	P/BV
1.66	22.43	18.99	4.26
1.31	26.74	21.59	5.02

INDEX RISK AND RETURN CHARACTERISTICS (MAY 31, 1988 – OCT 31, 2024)

	Beta	Tracking Error (%)	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2,3}			Since May 31, 1988	MAXIMUM DRAWDOWN	
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI USA Min Vol (USD)	0.73	6.01	19.95	13.67	14.89	12.28	0.29	0.50	0.76	0.67	46.61	2007-10-09–2009-03-09
MSCI USA	1.00	0.00	1.97	17.38	18.38	15.46	0.34	0.74	0.76	0.58	54.91	2007-10-09–2009-03-09

¹ Last 12 months ² Based on monthly gross returns data ³ Based on NY FED Overnight SOFR from Sep 1 2021 & on ICE LIBOR 1M prior that date

The MSCI USA Minimum Volatility (USD) Index was launched on Jun 02, 2008. 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

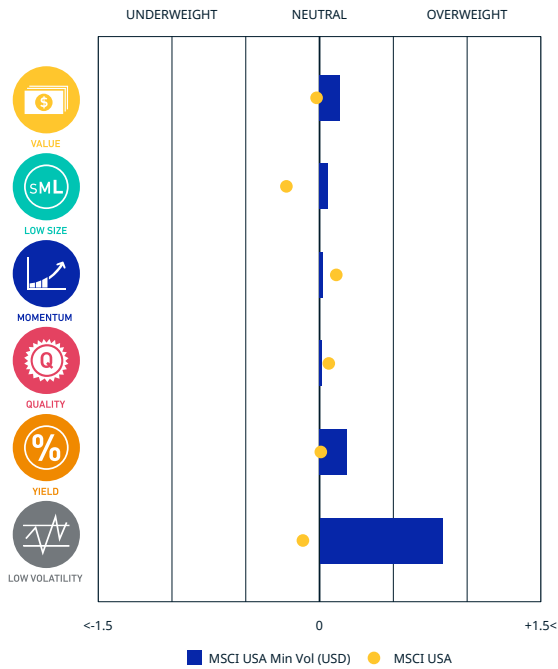
	MSCI USA Min Vol (USD)	MSCI USA
Number of Constituents	170	593
	Weight (%)	
Largest	1.90	6.60
Smallest	0.04	0.01
Average	0.59	0.17
Median	0.45	0.06

TOP 10 CONSTITUENTS

	Index Wt. (%)	Parent Index Wt. (%)	Sector
T-MOBILE US	1.90	0.24	Comm Svcs
WALMART	1.71	0.73	Cons Staples
MOTOROLA SOLUTIONS	1.70	0.15	Info Tech
IBM CORP	1.66	0.38	Info Tech
PROGRESSIVE CORP	1.62	0.29	Financials
DUKE ENERGY CORP	1.54	0.18	Utilities
BERKSHIRE HATHAWAY B	1.52	1.20	Financials
NORTHROP GRUMMAN CORP	1.51	0.14	Industrials
WASTE CONNECTIONS	1.49	0.09	Industrials
CHUBB	1.49	0.22	Financials
Total	16.14	3.61	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



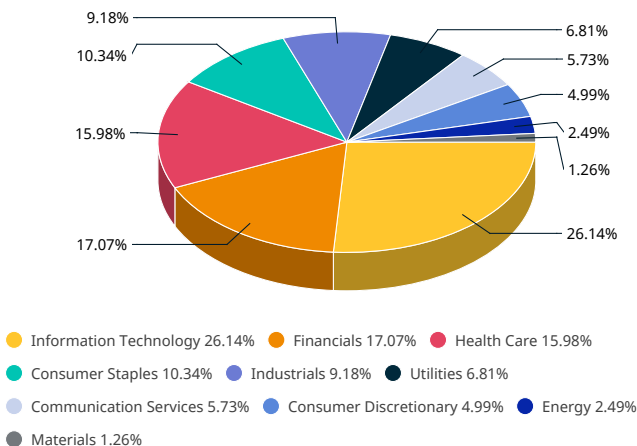
MSCI FaCS

- 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



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.

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