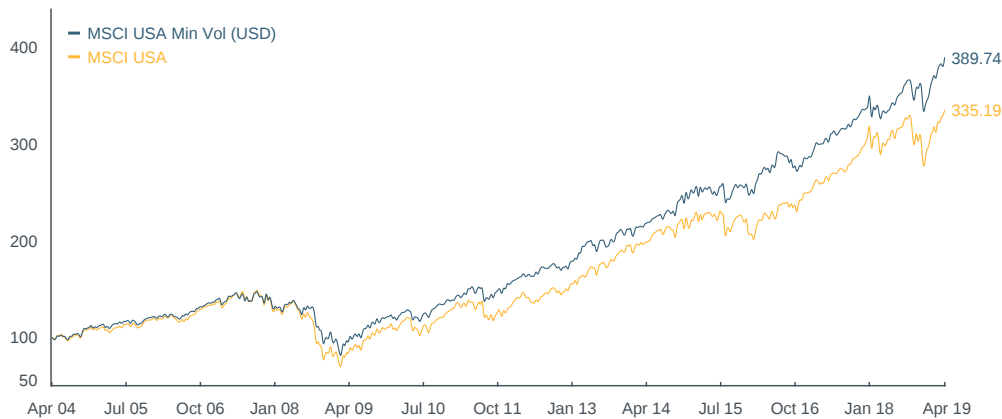


MSCI USA MINIMUM VOLATILITY (USD) INDEX (USD)

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.

CUMULATIVE INDEX PERFORMANCE - NET RETURNS (USD) (APR 2004 – APR 2019)



ANNUAL PERFORMANCE (%)

Year	MSCI USA Min Vol (USD)	MSCI USA
2018	0.87	-5.04
2017	18.41	21.19
2016	9.84	10.89
2015	4.92	0.69
2014	15.76	12.69
2013	24.37	31.79
2012	10.20	15.33
2011	11.94	1.36
2010	13.83	14.77
2009	17.47	26.25
2008	-26.20	-37.57
2007	3.65	5.44
2006	14.21	14.67
2005	5.93	5.14

INDEX PERFORMANCE — NET RETURNS (%) (APR 30, 2019)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since May 31, 1988
MSCI USA Min Vol (USD)	2.15	8.71	17.33	14.93	12.84	12.13	14.87	10.19
MSCI USA	3.98	9.32	12.75	18.26	14.23	10.86	14.60	9.93

FUNDAMENTALS (APR 30, 2019)

Div Yld (%)	P/E	P/E Fwd	P/BV
2.32	23.44	18.97	3.75
1.92	20.96	17.32	3.48

INDEX RISK AND RETURN CHARACTERISTICS (MAY 31, 1988 – APR 30, 2019)

	Beta	Tracking Error (%)	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2,3}			Since May 31, 1988	MAXIMUM DRAWDOWN (%)	Period YYYY-MM-DD
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr			
MSCI USA Min Vol (USD)	0.74	5.63	19.98	9.15	9.10	9.45	1.22	1.21	1.46	0.62	47.18	2007-10-09—2009-03-09
MSCI USA	1.00	0.00	2.24	10.89	11.33	12.51	1.15	0.89	1.11	0.50	55.36	2007-10-09—2009-03-09

¹ Last 12 months ² Based on monthly net returns data ³ Based on ICE LIBOR 1M

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

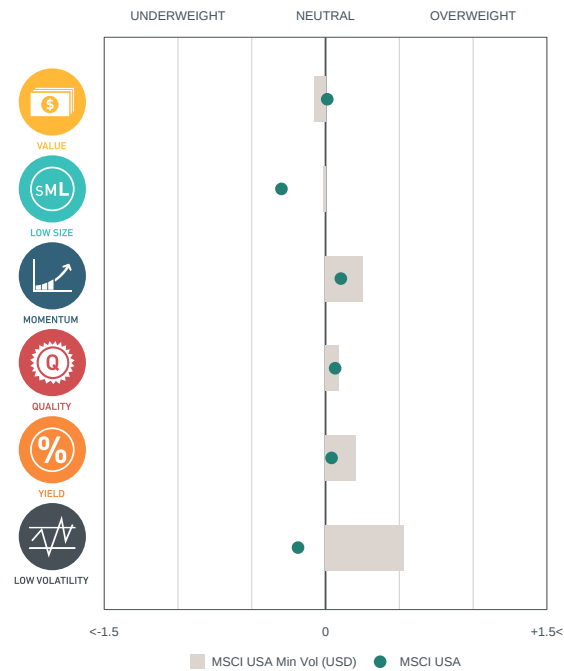
INDEX CHARACTERISTICS

	MSCI USA Min Vol (USD)	MSCI USA
Number of Constituents	213	624
Weight (%)		
Largest	1.73	3.69
Smallest	0.05	0.01
Average	0.47	0.16
Median	0.36	0.07

TOP 10 CONSTITUENTS

	Index Wt. (%)	Parent Index Wt. (%)	Sector
VISA A	1.73	1.12	Info Tech
WASTE MANAGEMENT	1.62	0.18	Industrials
MCDONALD'S CORP	1.48	0.59	Cons Discr
PEPSICO	1.45	0.70	Cons Staples
COCA COLA (THE)	1.40	0.77	Cons Staples
REPUBLIC SERVICES	1.39	0.07	Industrials
FISERV	1.38	0.13	Info Tech
ACCENTURE A	1.37	0.45	Info Tech
JOHNSON & JOHNSON	1.35	1.47	Health Care
NEWMONT GOLDCORP CORP	1.33	0.10	Materials
Total	14.51	5.58	

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



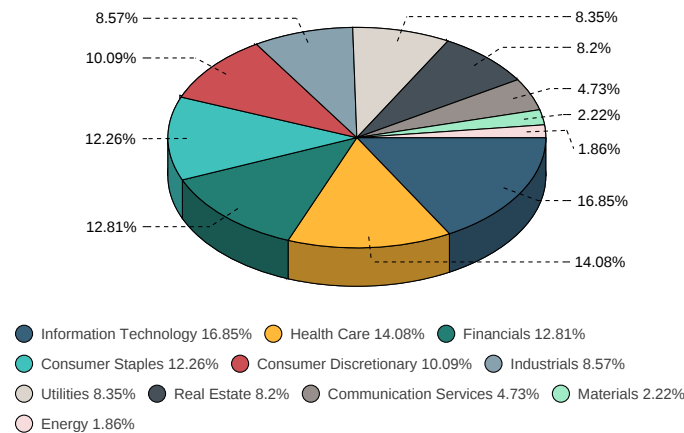
MSCI FaCS

- 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



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

For more than 40 years, MSCI' research-based indexes and analytics have helped the world' leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research. Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research. MSCI serves 99 of the top 100 largest money managers, according to the most recent P&I ranking. For more information, visit us at www.msci.com.

The information contained herein (the "Information") may not be reproduced or disseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information or any MSCI index is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "MSCI PARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not be by applicable law be excluded or limited.

© 2019 MSCI Inc. All rights reserved.