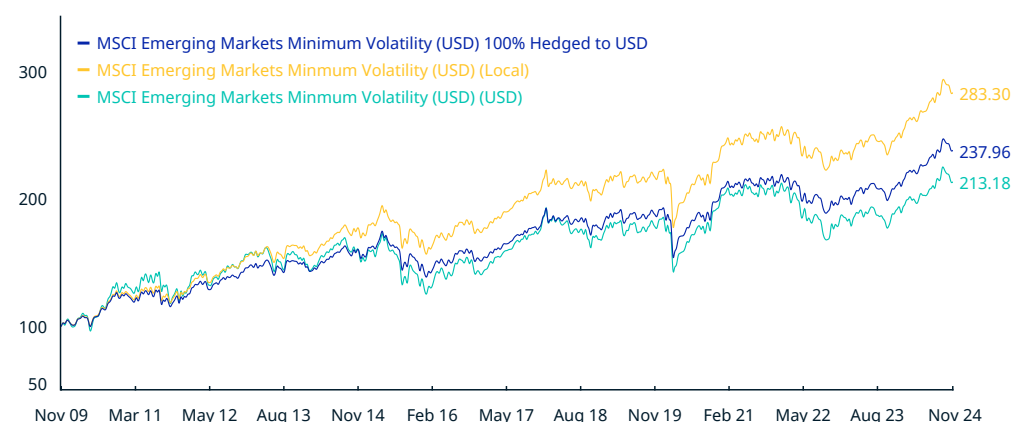


MSCI Emerging Markets Minimum Volatility (USD) 100% Hedged to USD Index (USD)

The **MSCI Emerging Markets (EM) Minimum Volatility (USD) 100% Hedged to USD Index** represents a close estimation of the performance that can be achieved by hedging the currency exposures of its parent index, the MSCI EM Minimum Volatility Index, to the USD, the "home" currency for the hedged index. The index is 100% hedged to the USD by selling each foreign currency forward at the one-month Forward rate. The index aims to reflect the performance characteristics of a minimum variance strategy applied to the large and mid cap equity universe across Emerging Markets countries*. The index is calculated by optimizing the 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 EM Minimum Volatility Index.

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

CUMULATIVE INDEX PERFORMANCE – NET RETURNS (USD) (NOV 2009 – NOV 2024)



ANNUAL PERFORMANCE (%)

Year	MSCI Emerging Markets Minimum Volatility (USD) 100% Hedged to USD	MSCI Emerging Markets Minimum Volatility (USD) (Local)	MSCI Emerging Markets Minimum Volatility (USD) (USD)
2023	9.22	9.53	8.91
2022	-9.14	-8.57	-13.95
2021	6.32	7.51	5.55
2020	6.37	6.52	7.79
2019	7.73	7.83	8.48
2018	-2.38	-2.43	-5.77
2017	19.14	19.95	26.73
2016	2.92	4.62	3.90
2015	-5.81	-3.96	-12.05
2014	4.73	6.91	1.10
2013	4.42	6.90	-0.05
2012	17.37	20.54	22.24
2011	-2.47	-0.65	-6.18
2010	20.95	22.36	28.89

INDEX PERFORMANCE – NET RETURNS (%) (NOV 29, 2024)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED			
					3 Yr	5 Yr	10 Yr	Since Dec 31, 2004
MSCI Emerging Markets Minimum Volatility (USD) 100% Hedged to USD	-0.99	-0.31	14.52	10.92	4.23	5.11	4.03	8.05
MSCI Emerging Markets Minimum Volatility (USD) (Local)	-0.91	-0.19	15.46	11.73	4.84	5.72	4.80	9.10
MSCI Emerging Markets Minimum Volatility (USD) (USD)	-1.72	-1.52	13.16	8.82	1.77	3.90	2.89	7.58

INDEX RISK AND RETURN CHARACTERISTICS (DEC 31, 2004 – NOV 29, 2024)

	ANNUALIZED STD DEV (%) ¹			SHARPE RATIO ^{1,2}			Since Dec 31, 2004	MAXIMUM DRAWDOWN	
	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr		(%)	Period YYYY-MM-DD
MSCI Emerging Markets Minimum Volatility (USD) 100% Hedged to USD	8.93	10.70	9.56	0.09	0.29	0.27	0.56	44.91	2007-10-29—2008-10-27
MSCI Emerging Markets Minimum Volatility (USD) (Local)	8.95	10.75	9.58	0.16	0.35	0.35	0.64	46.43	2007-10-29—2008-10-27

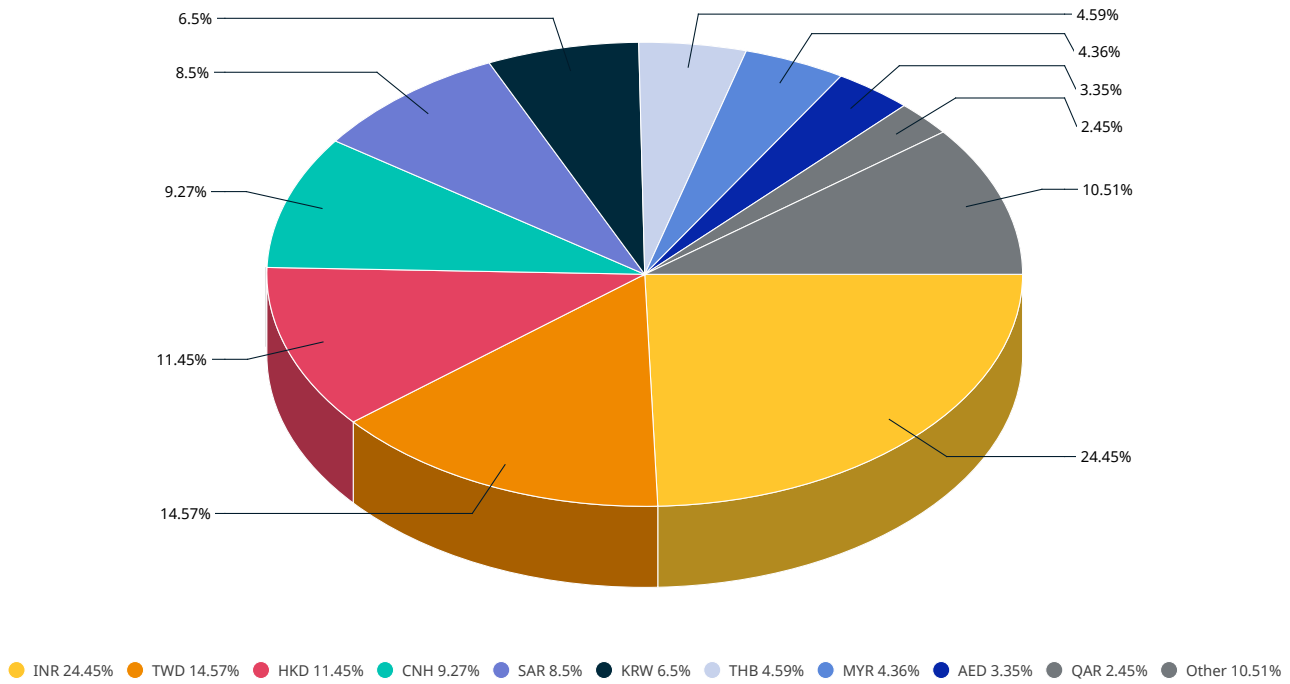
* EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The MSCI Emerging Markets Minimum Volatility (USD) 100% Hedged to USD Index was launched on Aug 25, 2015. 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 performance – whether actual or back-tested -- is no indication or guarantee of future performance.

¹ Based on monthly net returns data

² Based on NY FED Overnight SOFR from Sep 1 2021 & on ICE LIBOR 1M prior that date

CURRENCY WEIGHTS (NOV 29, 2024)



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.

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 applicable law be excluded or limited.

© 2024 MSCI Inc. All rights reserved.

