

EURO STOXX® MINIMUM VARIANCE INDEX

Index description

The EURO STOXX Minimum Variance index weights the components of the underlying EURO STOXX index so that portfolio variance is minimized. STOXX uses Axioma's factor model for the optimization process. The constrained version creates a portfolio similar to the underlying benchmark index, but with a more attractive risk profile. This is achieved by applying a range of factors, country and industry exposure constraints to ensure that components have no high allocation bias.

Key facts

»Minimized volatility is suitable for risk-averse investors. At the same time, the return of the index is higher than the benchmark.

»Suitable as a liquid underlying for ETFs and structured products. It is easy to replicate as it has fewer components than the underlying Index. It also has predictable rebalancing dates and is optimized to allow tracking (low turnover, transaction costs analysis, etc.).

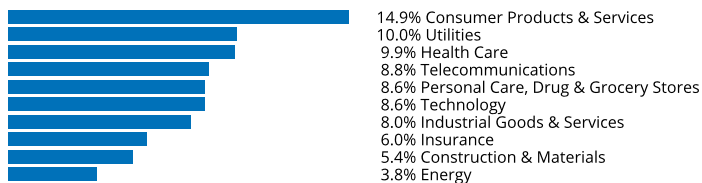
»Capping constraints are applied in accordance with the Undertakings for Collective Investment in Transferable Securities (UCITS) directive to ensure that funds can easily track the index.

»Constraints on diversification and security, country, industry and factor exposure are applied.

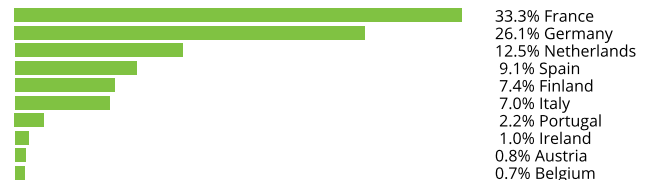
Descriptive statistics

Index	Market cap (USD bn.)		Components (USD bn.)				Component weight (%)		Turnover (%)
	Full	Free-float	Mean	Median	Largest	Smallest	Largest	Smallest	Last 12 months
EURO STOXX Minimum Variance Index	N/A	109.6	1.4	0.7	8.2	0.1	7.5	0.1	30.4
EURO STOXX Index	7,817.0	5,544.5	19.1	7.7	291.6	1.7	5.3	0.0	2.9

Supersector weighting (top 10)



Country weighting



Risk and return figures¹

Index returns	Return (%)					Annualized return (%)				
	Last month	YTD	1Y	3Y	5Y	Last month	YTD	1Y	3Y	5Y
EURO STOXX Minimum Variance Index	4.3	12.5	17.2	18.8	13.6	N/A	N/A	17.3	6.0	2.6
EURO STOXX Index	6.3	18.1	30.0	38.8	32.2	N/A	N/A	30.2	11.6	5.8
Index volatility and risk	Annualized volatility (%)					Annualized Sharpe ratio ²				
EURO STOXX Minimum Variance Index	11.3	14.1	18.2	17.7	18.3	N/A	N/A	0.7	0.3	0.2
EURO STOXX Index	15.0	18.8	22.7	21.9	22.6	N/A	N/A	1.0	0.5	0.3
Index to benchmark	Correlation					Tracking error (%)				
EURO STOXX Minimum Variance Index	0.9	0.9	1.0	1.0	1.0	5.2	7.3	7.4	7.4	7.5
Index to benchmark	Beta					Annualized information ratio				
EURO STOXX Minimum Variance Index	0.7	0.7	0.8	0.8	0.8	-4.3	-1.5	-1.6	-0.9	-0.6

¹ For information on data calculation, please refer to [STOXX calculation reference guide](#).

² Based on EURIBOR1M

(USD, gross return), all data as of Jun. 30, 2023

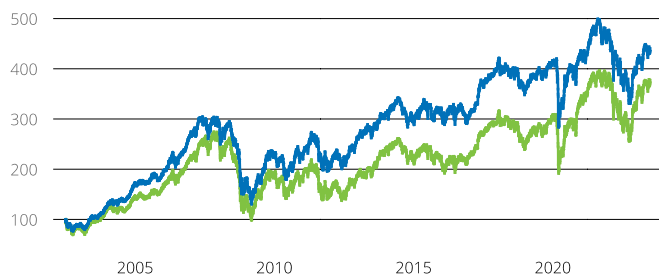
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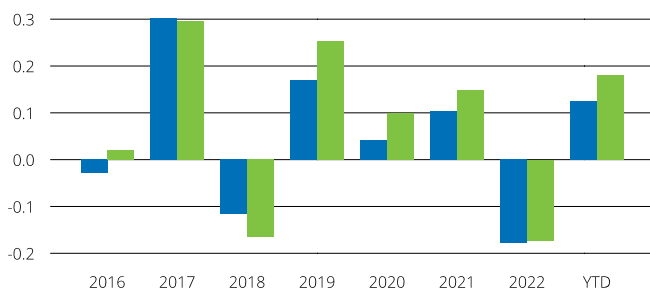
Fundamentals (for last 12 months)

Index	Price/earnings incl. negative		Price/earnings excl. negative		Price/ book	Dividend yield (%) ³	Price/ sales	Price/ cash flow
	Trailing	Projected	Trailing	Projected	Trailing	Trailing	Trailing	Trailing
EURO STOXX Minimum Variance Index	17.1	15.7	17.1	15.7	2.1	3.7	1.0	3.5
EURO STOXX Index	15.5	12.4	13.7	12.1	1.6	4.1	1.0	5.7

Performance and annual returns⁴



— EURO STOXX® Minimum Variance Index — EURO STOXX® Index



■ EURO STOXX® Minimum Variance Index ■ EURO STOXX® Index

Methodology

On the basis of the underlying index, a covariance matrix is set up by determining the correlation between each component and specific factors. Using Axioma's factor model, the variance-covariance structure of the components is determined, which is then minimized with respect to applicable constraints. The constraints applied cover capping, effective number of assets, rebalancing and turnover, country/industry exposure and other factor exposures, such as growth, value, short-/mid-term momentum, leverage, etc. The full list of factors including the requirements to be met can be accessed in our Index rulebook:

<http://www.stoxx.com/indices/rulebooks.html>

Versions and symbols

Index	ISIN	Symbol	Bloomberg	Reuters
Gross Return EUR	CH0180138320	SAXEMVGR	SAXEMVGR INDEX	.SAXEMVGR
Net Return EUR	CH0180138163	SAXEMVR	SAXEMVR INDEX	.SAXEMVR
Net Return EUR	CH0180138163	SAXEMVR	SAXEMVR INDEX	.SAXEMVR
Price EUR	CH0180138007	SAXEMVP	SAXEMVP INDEX	.SAXEMVP
Price EUR	CH0180138007	SAXEMVP	SAXEMVP INDEX	.SAXEMVP
Gross Return USD	CH0180138809	SAXEMGV	SAXEMGV INDEX	.SAXEMGV
Net Return USD	CH0180138643	SAXEMVV	SAXEMVV INDEX	.SAXEMVV
Net Return USD	CH0180138643	SAXEMVV	SAXEMVV INDEX	.SAXEMVV
Price USD	CH0180138486	SAXEMVL	SAXEMVL INDEX	.SAXEMVL
Price USD	CH0180138486	SAXEMVL	SAXEMVL INDEX	.SAXEMVL

Complete list available here: www.stoxx.com/data/vendor_codes.html

Quick facts

Weighting	Optimization
Cap factor	4.5% / 8% / 35%
No. of components	Variable
Review frequency	Quarterly (Mar., Jun., Sep., Dec.)

To learn more about the inception date, the currency, the calculation hours and historical values, please see our data vendor code sheet.

CONTACT DETAILS

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BACKTESTED PERFORMANCE

This document contains index performance data based on backtesting, i.e. calculations of how the index might have performed prior to launch if it had existed using the same index methodology and based on historical constituents. Backtested performance information is purely hypothetical and is provided in this document solely for information purposes. Backtested performance does not represent actual performance and should not be interpreted as an indication of actual performance.

CUSTOMIZATION

The index can be used as a basis for the definition of STOXX® Customized Indices, which can be tailored to specific client or mandate needs. STOXX offers a wide range of customization, in terms of component selection, weighting schemes and personalized calculation methodologies.

³ gr. div. yield is calculated as gr. return index return minus price index return

⁴ STOXX data from Jul. 01, 2002 to Jun. 30, 2023

(USD, gross return), all data as of Jun. 30, 2023

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Top 10 Components⁵

Company	Supersector	Country	Weight (%)
HENKEL PREF	Consumer Products & Services	Germany	7.45
L'OREAL	Consumer Products & Services	France	7.42
TERNA	Utilities	Italy	5.19
BEIERSDORF	Personal Care, Drug & Grocery Stores	Germany	4.82
SAMPO	Insurance	Finland	4.00
ORANGE	Telecommunications	France	3.98
KPN	Telecommunications	Netherlands	3.92
WOLTERS KLUWER	Media	Netherlands	3.80
QIAGEN	Health Care	Germany	3.55
AHOLD DELHAIZE	Personal Care, Drug & Grocery Stores	Netherlands	3.41

⁵ Based on the composition as of Jun. 30, 2023