

STOXX® GLOBAL 1800 MINIMUM VARIANCE INDEX

Index description

The STOXX Global 1800 Minimum Variance index weights the components of the underlying STOXX Global 1800 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.).

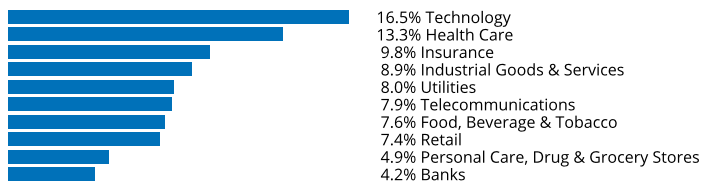
»Capping constraints are applied in accordance with the Undertakings for Collective Investment in Transferable Securities (UCITS) directive to ensure that funds can easily track the index.

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

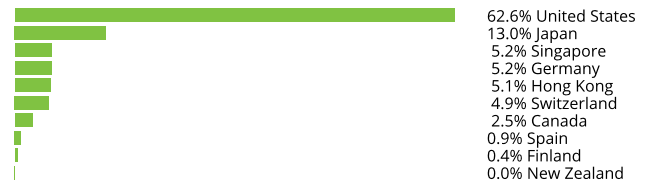
Descriptive statistics

Index	Market cap (JPY bn.)		Components (JPY bn.)				Component weight (%)		Turnover (%)
	Full	Free-float	Mean	Median	Largest	Smallest	Largest	Smallest	Last 12 months
STOXX Global 1800 Minimum Variance Index	N/A	15,175.1	109.2	41.4	922.4	3.8	6.1	0.0	30.2
STOXX Global 1800 Index	8,311,446.7	7,533,726.5	4185.4	1448.1	370,958.9	52.3	4.9	0.0	3.1

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
STOXX Global 1800 Minimum Variance Index	-0.8	8.2	9.8	72.9	88.4	N/A	N/A	9.9	20.2	13.7
STOXX Global 1800 Index	1.5	14.8	11.4	77.3	89.3	N/A	N/A	11.5	21.2	13.8
Index volatility and risk	Annualized volatility (%)					Annualized Sharpe ratio ²				
STOXX Global 1800 Minimum Variance Index	13.3	13.4	15.2	13.6	16.2	N/A	N/A	0.5	1.3	0.8
STOXX Global 1800 Index	17.8	17.3	19.8	18.1	20.5	N/A	N/A	0.5	1.1	0.6
Index to benchmark	Correlation					Tracking error (%)				
STOXX Global 1800 Minimum Variance Index	0.9	0.9	0.9	0.9	0.9	6.8	7.4	8.5	8.0	8.0
Index to benchmark	Beta					Annualized information ratio				
STOXX Global 1800 Minimum Variance Index	0.7	0.7	0.7	0.7	0.7	-4.0	-2.1	-0.3	-0.2	-0.2

¹ For information on data calculation, please refer to STOXX calculation reference guide.

² Based on EURIBOR1M

(JPY, gross return), all data as of May 31, 2023

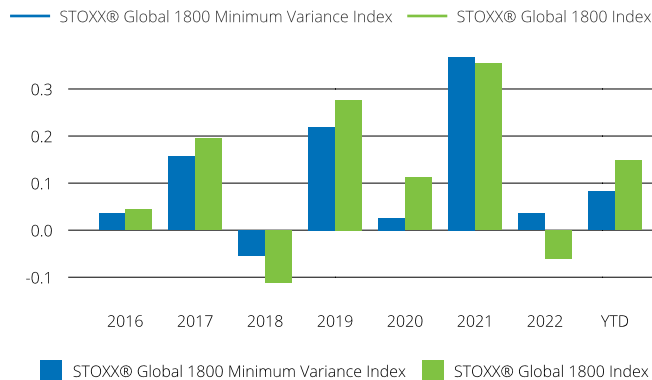
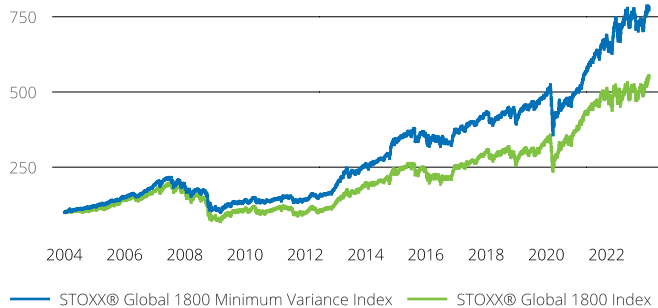
MINIMUM VARIANCE

STOXX® GLOBAL 1800 MINIMUM VARIANCE INDEX

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
STOXX Global 1800 Minimum Variance Index	20.8	17.5	20.7	17.5	2.5	2.7	1.7	14.9
STOXX Global 1800 Index	22.3	17.2	18.6	16.9	0.1	2.4	1.8	6.0

Performance and annual returns⁴



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	CH0180138346	SAW1MVGR	SAW1MVGR	.SAW1MVGR
Net Return EUR	CH0180138189	SAW1MVR	SAW1MVR INDEX	.SAW1MVR
Net Return EUR	CH0180138189	SAW1MVR	SAW1MVR INDEX	.SAW1MVR
Price EUR	CH0180138023	SAW1MVP	SAW1MVP INDEX	.SAW1MVP
Price EUR	CH0180138023	SAW1MVP	SAW1MVP INDEX	.SAW1MVP
Gross Return JPY	CH0225159604	SAW1MVJG		.SAW1MVJG
Net Return JPY	CH0225159612	SAW1MVJN		.SAW1MVJN
Price JPY	CH0225159620	SAW1MVJP		.SAW1MVJP
Gross Return USD	CH0180138825	SAW1MVG	SAW1MVG	.SAW1MVG
Net Return USD	CH0180138668	SAW1MVV	SAW1MVV INDEX	.SAW1MVV

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

STOXX customer support | P +41 43 430 7272 | customersupport@stoxx.com | <https://qontigo.com/support/>

DISCLAIMER

STOXX, Deutsche Brse Group and their licensors, research partners or data providers do not make any warranties or representations, express or implied, with respect to the timeliness, sequence, accuracy, completeness, currentness, merchantability, quality or fitness for any particular purpose of its index data and exclude any liability in connection therewith. STOXX, Deutsche Brse Group and their licensors, research partners or data providers are not providing investment advice through the publication of indices or in connection therewith. In particular, the inclusion of a company in an index, its weighting, or the exclusion of a company from an index, does not in any way reflect an opinion of STOXX, Deutsche Brse Group or their licensors, research partners or data providers on the merits of that company. Financial instruments based on the STOXX® indices, DAX® indices or on any other indices supported by STOXX are in no way sponsored, endorsed, sold or promoted by STOXX, Deutsche Brse Group or their licensors, research partners or data providers.

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 Jan. 02, 2004 to May 31, 2023

(JPY, gross return), all data as of May 31, 2023

MINIMUM VARIANCE

STOXX® GLOBAL 1800 MINIMUM VARIANCE INDEX

Top 10 Components⁵

Company	Supersector	Country	Weight (%)
ARTHUR J GALLAGHER	Insurance	United States	6.09
Costco Wholesale Corp.	Retail	United States	3.83
HENKEL PREF	Consumer Products & Services	Germany	3.77
SWISSCOM	Telecommunications	Switzerland	3.62
Oracle Corp.	Technology	United States	2.86
Marsh & McLennan Cos.	Insurance	United States	2.79
CADENCE DESIGN SYS.	Technology	United States	2.67
DOLLAR GENERAL	Retail	United States	2.41
Amgen Inc.	Health Care	United States	2.24
Japan Tobacco Inc.	Food, Beverage & Tobacco	Japan	2.24

⁵ Based on the composition as of May 31, 2023