

# STOXX® GLOBAL 1800 EX JAPAN MINIMUM VARIANCE INDEX

## Index description

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

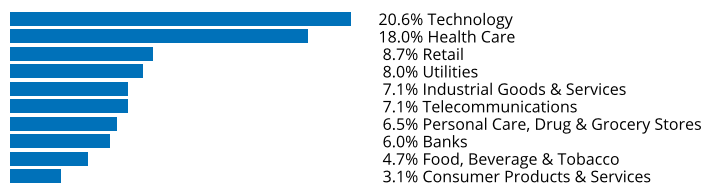
»Capping constraints are applied in accordance with the Undertakings for Collective Investment in Transferable Securities (UCITS) directive to ensure that funds can easily track the index.

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

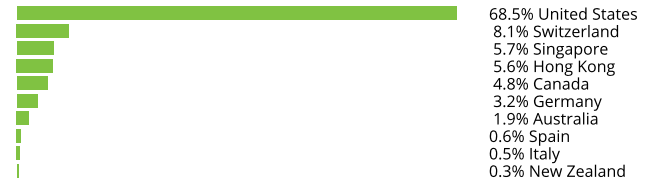
## Descriptive statistics

| Index   | Market cap (USD bn.) |            | Components (USD bn.) |        |         |          | Component weight (%) |          | Turnover (%)   |
|---|----------------------|------------|----------------------|--------|---------|----------|----------------------|----------|----------------|
|   | Full                 | Free-float | Mean                 | Median | Largest | Smallest | Largest              | Smallest | Last 12 months |
| STOXX Global 1800 ex Japan Minimum Variance Index | N/A                  | 111.6      | 0.9                  | 0.4    | 7.0     | 0.0      | 6.3                  | 0.0      | 30.3           |
| STOXX Global 1800 ex Japan Index                  | 59,778.9             | 54,467.0   | 39.0                 | 14.4   | 2,940.1 | 1.4      | 5.4                  | 0.0      | 2.8            |

## Supersector weighting (top 10)



## Country weighting



## Risk and return figures<sup>1</sup>

| Index returns                                     | Return (%)                |      |      |      |      | Annualized return (%)                |      |      |      |      |
|---|---------------------------|------|------|------|------|--------------------------------------|------|------|------|------|
|   | Last month                | YTD  | 1Y   | 3Y   | 5Y   | Last month                           | YTD  | 1Y   | 3Y   | 5Y   |
| STOXX Global 1800 ex Japan Minimum Variance Index | 2.6                       | 6.8  | 4.3  | 25.6 | 48.0 | N/A                                  | N/A  | 4.4  | 8.0  | 8.3  |
| STOXX Global 1800 ex Japan Index                  | 3.3                       | 19.1 | 14.0 | 40.6 | 60.8 | N/A                                  | N/A  | 14.1 | 12.2 | 10.1 |
| Index volatility and risk                         | Annualized volatility (%) |      |      |      |      | Annualized Sharpe ratio <sup>2</sup> |      |      |      |      |
| STOXX Global 1800 ex Japan Minimum Variance Index | 7.3                       | 8.7  | 11.5 | 11.4 | 15.1 | N/A                                  | N/A  | 0.2  | 0.6  | 0.5  |
| STOXX Global 1800 ex Japan Index                  | 9.4                       | 12.5 | 17.0 | 16.5 | 19.5 | N/A                                  | N/A  | 0.7  | 0.7  | 0.5  |
| Index to benchmark                                | Correlation               |      |      |      |      | Tracking error (%)                   |      |      |      |      |
| STOXX Global 1800 ex Japan Minimum Variance Index | 0.7                       | 0.8  | 0.9  | 0.9  | 0.9  | 6.1                                  | 7.6  | 8.3  | 8.5  | 8.6  |
| Index to benchmark                                | Beta                      |      |      |      |      | Annualized information ratio         |      |      |      |      |
| STOXX Global 1800 ex Japan Minimum Variance Index | 0.6                       | 0.6  | 0.6  | 0.6  | 0.7  | -1.5                                 | -2.6 | -1.2 | -0.6 | -0.3 |

<sup>1</sup> For information on data calculation, please refer to STOXX calculation reference guide.

<sup>2</sup> Based on EURIBOR1M

(USD, gross return), all data as of Jul. 31, 2023

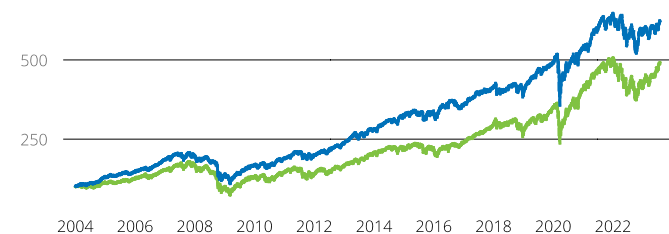
## MINIMUM VARIANCE

# STOXX® GLOBAL 1800 EX JAPAN MINIMUM VARIANCE INDEX

## Fundamentals (for last 12 months)

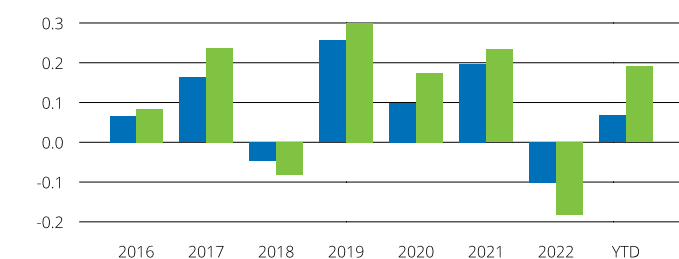
| Index   | Price/earnings<br>incl. negative |           | Price/earnings<br>excl. negative |           | Price/<br>book | Dividend<br>yield (%) <sup>3</sup> | Price/<br>sales | Price/<br>cash flow |
|---|----------------------------------|-----------|----------------------------------|-----------|----------------|------------------------------------|-----------------|---------------------|
|   | Trailing                         | Projected | Trailing                         | Projected | Trailing       | Trailing                           | Trailing        | Trailing            |
| STOXX Global 1800 ex Japan Minimum Variance Index | 23.1                             | 18.2      | 22.6                             | 18.0      | 3.2            | 2.7                                | 2.0             | 12.7                |
| STOXX Global 1800 ex Japan Index                  | 23.4                             | 19.2      | 20.8                             | 18.8      | 0.1            | 2.5                                | 2.1             | 9.5                 |

## Performance and annual returns<sup>4</sup>



— STOXX® Global 1800 ex Japan Minimum Variance Index

— STOXX® Global 1800 ex Japan Index



■ STOXX® Global 1800 ex Japan Minimum Variance Index

■ STOXX® Global 1800 ex Japan 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 | CH0224473345 | SGXEMVG |           | .SGXEMVG |
| Gross Return EUR | CH0224473345 | SGXEMVG |           | .SGXEMVG |
| Net Return EUR   | CH0224473378 | SGXEMVN |           | .SGXEMVN |
| Net Return EUR   | CH0224473378 | SGXEMVN |           | .SGXEMVN |
| Price EUR        | CH0224474129 | SGXEMVP |           | .SGXEMVP |
| Price EUR        | CH0224474129 | SGXEMVP |           | .SGXEMVP |
| Gross Return JPY | CH0224474210 | SGXYMVG |           | .SGXYMVG |
| Gross Return JPY | CH0224474210 | SGXYMVG |           | .SGXYMVG |
| Net Return JPY   | CH0224474442 | SGXYMVN |           | .SGXYMVN |
| Net Return JPY   | CH0224474442 | SGXYMVN |           | .SGXYMVN |

Complete list available here: [www.stoxx.com/data/vendor\\_codes.html](http://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.

<sup>3</sup> gr. div. yield is calculated as gr. return index return minus price index return

<sup>4</sup> STOXX data from Jan. 02, 2004 to Jul. 31, 2023

(USD, gross return), all data as of Jul. 31, 2023

## MINIMUM VARIANCE

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### Top 10 Components<sup>5</sup>

| <b>Company</b>                 | <b>Supersector</b>                   | <b>Country</b> | <b>Weight (%)</b> |
|--------------------------------|--------------------------------------|----------------|-------------------|
| Costco Wholesale Corp.         | Retail                               | United States  | 6.28              |
| Johnson & Johnson              | Health Care                          | United States  | 5.67              |
| Oracle Corp.                   | Technology                           | United States  | 4.77              |
| SWISSCOM                       | Telecommunications                   | Switzerland    | 3.95              |
| HENKEL PEF                     | Consumer Products & Services         | Germany        | 3.07              |
| Oversea-Chinese Banking Corp.  | Banks                                | Singapore      | 3.00              |
| Procter & Gamble Co.           | Personal Care, Drug & Grocery Stores | United States  | 2.69              |
| International Business Machine | Technology                           | United States  | 2.66              |
| Amgen Inc.                     | Health Care                          | United States  | 2.65              |
| SS&C TECHNOLOGIES HOLDING      | Technology                           | United States  | 2.59              |

<sup>5</sup> Based on the composition as of Jul. 31, 2023