# EURO STOXX® 50 VOLATILITY (VSTOXX) INDEX

## **Index description**

The VSTOXX indices aim to measure the volatility of the EURO STOXX 50 Index over a future time horizon, as implied by the option contracts available on the Eurex Exchange on that Index.

The 8 VSTOXX sub indices cover the actual next 1, 2, 3, 6, 9, 12, 18, 24 month expiries of EURO STOXX 50 option contracts.

The 12 VSTOXX main indices cover the time ranges from 30 to 360 days, in increments of 30 days.

## **Key facts**

- » The VSTOXX methodology exploits the whole option strike spectrum to provide as accurate an estimate of implied volatility as possible, in contrast to other models utilizing solely (near) AtM strikes
- » The EURO STOXX 50 options are among the products of Eurex with highest trading volume
- » The VSTOXX indices reflect the skewed/smiling profile of the volatility surface
- » The methodology is based on the non-arbitrage approach used in pricing variance swaps

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

Index returns				R	eturn (%)			Anı	nualized re	:urn (%)
	Last month	YTD	1Y	3Y	5Y	Last month	YTD	1Y	ЗҮ	5Y
EURO STOXX 50 Volatility (VSTOXX) Index	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EURO STOXX 50 Index	9.0	-15.8	-14.9	0.4	-1.5	N/A	N/A	-14.9	0.1	-0.3
Index volatility and risk		Annualized volatility (%) Annualized Sharpe ra								
EURO STOXX 50 Volatility (VSTOXX) Index	0.0	0.0	0.0	0.0	0.0	N/A	N/A	0.0	0.0	0.0
EURO STOXX 50 Index	19.6	24.7	23.9	24.5	20.8	N/A	N/A	-0.6	0.0	0.0
Index to benchmark		Correlation Track							Tracking	error (%)
EURO STOXX 50 Volatility (VSTOXX) Index	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Index to benchmark		Beta Annualized informatio							tion rati	
EURO STOXX 50 Volatility (VSTOXX) Index	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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 $^{1}$  For information on data calculation, please refer to STOXX <u>calculation reference guide</u>.

<sup>2</sup> Based on EURIBOR1M

3 STOXX data from Jan. 04, 1999 to Oct. 31, 2022

(EUR, price), all data as of Oct. 31, 2022



# Methodology

Eight VSTOXX subindices are calculated simultaneously, each reflecting respectively the actual next 1, 2, 3, 6, 9, 12, 18, 24 month expiries of EURO STOXX 50 option contracts on the Eurex Exchange. Each sub-Index is calculated as the fair delivery price of future volatility in a variance swap of the relevant maturity.

To obtain the main VSTOXX indices, i.e. indices with fixed-term maturity ranging from 30 to 360 days, two nearby subindices are interpolated in time. Volatility is expressed in annualized terms.

# Versions and symbols

Index		ISIN	Symbol	Bloomberg	Reuters		
Price	EUR	DE000A0C3QF1	V2TX	V2X INDEX	.V2TX		
Price	EUR	DE000A0C3QF1	V2TX	V2X INDEX	.V2TX		

Complete list available here: www.stoxx.com/data/vendor\_codes.html

#### High, low, mean

			YTD			2014			2013			2012
	High	Low	Mean									
VSTOXX 30 days	32.0131	24.8305	28.92	49.6395	17.7553	28.18	32.3129	15.1511	20.05	85.6206	10.6899	28.87
VSTOXX 60 days	32.3742	25.3704	29.52	45.4938	19.6892	28.61	30.8067	16.9626	21.15	77.4087	12.5845	28.63
VSTOXX 90 days	32.5319	25.9587	29.95	43.3782	21.3649	29	30.4702	18.2095	22.04	71.9067	13.5865	28.61
VSTOXX 120 days	32.5936	26.6143	30.24	41.3358	22.4038	29.18	29.9979	19.1441	22.67	66.0534	14.2459	28.46
VSTOXX 150 days	32.6305	27.0404	30.4	39.6354	23.0046	29.22	29.5811	19.5107	23.09	62.018	14.5704	28.31
VSTOXX 180 days	32.4269	27.363	30.39	38.4974	23.3449	29.17	29.3	19.887	23.37	59.1751	14.9756	28.14
VSTOXX 210 days	32.2849	27.5911	30.35	37.8005	23.5524	29.07	28.9626	20.1731	23.58	55.9762	15.2815	27.91
VSTOXX 240 days	32.1779	27.7163	30.3	37.359	23.7069	28.95	28.9004	20.3851	23.72	53.9452	15.507	27.66
VSTOXX 270 days	31.9792	27.7559	30.19	37.012	23.8759	28.82	28.991	20.5986	23.83	52.4673	15.9125	27.37
VSTOXX 300 days	31.7888	27.7876	30.08	36.3059	24.048	28.7	29.0633	20.7784	23.93	50.5449	16.1744	27.05
VSTOXX 330 days	31.6321	27.8142	29.99	35.3802	24.1879	28.58	29.036	20.8939	24.04	48.72	16.365	26.76
VSTOXX 360 days	31.3377	27.8375	29.83	34.5898	24.3234	28.48	28.8029	21.2437	24.14	47.1452	16.5013	26.53

#### **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.

STRATEGY INDICES