

MONTHLY INDEX NEWS



Newsletter updates

We regularly update this newsletter to include or remove indices and consider layout modifications. In this edition, there are no changes.

[Table of Contents](#)

Featured index	3
Benchmark indices	4
World Equity indices	5
DAX indices	6
DAX ESG indices	7
SRI indices	8
ESG-X indices	9
ESG and Sustainability indices	11
Climate indices – Paris-Aligned Benchmark indices	14
Climate indices – Climate Transition Benchmark indices	12
Biodiversity indices	13
Thematic indices	14
Digital assets	17
Factor indices – Global	18
Industry Neutral Factor indices	19
Minimum Variance indices	20
Dividend indices	21
Volatility indices	22

Featured index

On February 18, 2019, Eurex launched its ESG index derivatives segment with three STOXX-linked products. Those first ESG contracts included futures on the [STOXX® Europe 600 ESG-X](#), which implements a negative exclusions strategy on the popular European benchmark. The contracts saw quick adoption, not least because negative screens are considered a starting point in the sustainability ladder.

As investors’ objectives and preferences evolved, the number and type of available solutions have increased. In November 2020, the [EURO STOXX 50® ESG](#) became the underlying for [futures](#) and [options](#), bringing a second generation of ESG indices to the derivatives space (Figure 1).

The ESG version of the flagship EURO STOXX 50® follows standard investment exclusions and also integrates companies’ ESG scores into the stock selection, replacing controversial companies and the least sustainable ones with peers from the same ICB Supersector group.

Figure 1: EURO STOXX 50 ESG derivatives volume



Source: STOXX, Eurex. Only roll months are shown. Compound annual growth rate is based on total annual volume per year.

Just this year the evolution in ESG index derivatives took one step further with the [introduction](#) of a Socially Responsible Investing (SRI) strategy. On January 22, Eurex listed futures on the [STOXX® Europe 600 SRI](#), an index with norms and product-involvement exclusionary screens, as well as best-in-class filters to include companies with the highest ESG scores and lowest emissions.

The advent of ESG derivatives marked an important milestone for investors who must observe responsible mandates while managing their portfolios’ risk and flows. With the market for sustainable funds continuing to grow, and more regulation driving ESG disclosure and flows, listed and centrally-cleared derivatives will play an increasingly large role for investors.

Benchmark indices

Key points

Stocks fell for the first month in six in April as US inflation data increased investors' expectations that interest rates in the world's largest economy may not drop this year.

The [STOXX® Global 1800 index](#) fell 3.7% from a record last month when measured in dollars and including dividends, paring its 2024 gain to 4.9%. The index slid 2.8% when measured in euros.

The Eurozone's [EURO STOXX 50®](#) decreased 2.2% in euros on a total-return basis, while the pan-European [STOXX® Europe 600](#) dropped 0.8%. The [STOXX® North America 600](#) shed 4.3% in dollars, as did the [STOXX® USA 500](#). The [STOXX® Asia/Pacific 600](#) fell 3.4% in dollars.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. EURO STOXX 50	-2.2	10.4	16.9	-3.2	6.9	13.2	13.3	11.2	12.3	15.8	14.1	15.5
2. STOXX Europe 600	-0.8	6.9	11.9	-1.8	3.5	8.4	10.4	8.8	10.2	13.0	11.7	13.5
3. STOXX Global 1800	-2.8	8.4	22.4	-3.7	4.9	18.5	11.0	9.7	9.8	11.2	9.9	10.4
4. STOXX Global 1800 ex USA	-1.5	6.2	12.9	-2.5	2.8	9.3	9.8	7.9	9.0	11.6	10.2	11.7
5. STOXX USA 500	-3.3	9.4	27.4	-4.3	5.9	23.4	14.5	12.8	12.3	13.7	12.1	11.9
6. STOXX USA 900	-3.5	9.1	26.9	-4.4	5.6	22.9	14.1	12.7	12.3	13.9	12.2	12.1
7. STOXX North America 600	-3.3	9.2	26.6	-4.3	5.7	22.6	13.9	12.4	12.1	13.6	11.9	11.8
8. STOXX Asia/Pacific 600	-2.4	5.7	15.5	-3.4	2.3	11.9	16.9	13.5	13.1	16.9	13.9	13.8

Risk and return performance figures for STOXX Benchmark indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

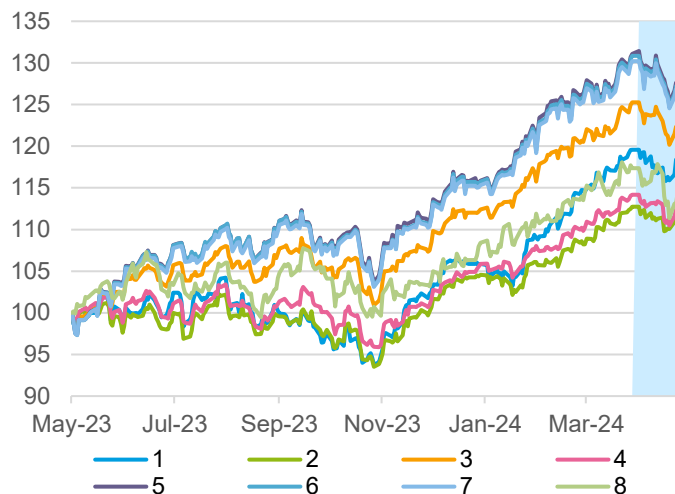


Figure 1: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

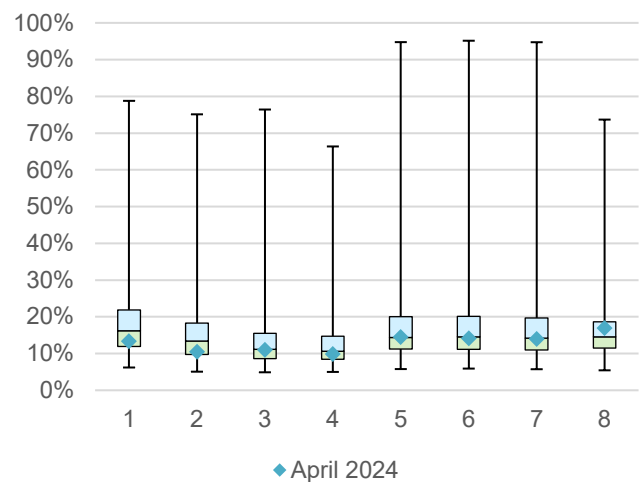


Figure 2: Monthly annualized volatility analysis, EUR gross return. Jan. 2004 – Apr. 2024. Source: STOXX.

World Equity indices

Key points

The [STOXX® World Equity](#) indices are a modular suite that allows investors to flexibly build portfolios covering a broad and liquid universe of markets.

Introduced in 2022, the STOXX World Equity indices comprise STOXX's largest pool of markets and stocks to date. With turnover and market-capitalization filters in the stock selection to ensure they are tradable and representative, the indices track the performance of large-, mid- and small-cap stocks from a full range of developed and emerging markets, as well as derived sector strategies.

There are two defining features of the STOXX World Equity indices: their exhaustive scope and their modularity. The suite can be used as the basis to create highly targeted solutions in the three focus areas of sustainability, factors and thematics.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX World AC	-2.1	8.3	22.0	-3.1	4.8	18.2	11.2	9.6	9.5	10.8	9.5	10.0
2. STOXX Developed World	-2.6	8.4	22.8	-3.6	5.0	18.9	11.5	9.9	9.9	11.1	9.8	10.3
3. STOXX Emerging Markets	1.9	6.9	16.2	0.9	3.5	12.5	14.9	12.2	11.8	14.2	12.1	12.3
4. STOXX Developed Europe	-0.7	7.1	11.7	-1.7	3.6	8.2	10.3	8.7	10.0	12.5	11.5	13.3
5. STOXX Asia Pacific AC	-0.1	7.2	16.3	-1.1	3.7	12.7	15.6	12.0	11.8	15.1	12.1	12.3
6. STOXX North America	-3.1	9.1	26.8	-4.0	5.6	22.8	14.4	12.5	12.2	13.6	11.9	11.8
7. STOXX US	-3.1	9.4	27.5	-4.1	5.8	23.5	14.8	12.8	12.4	13.9	12.1	12.0

Risk and return performance figures for STOXX World Equity indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

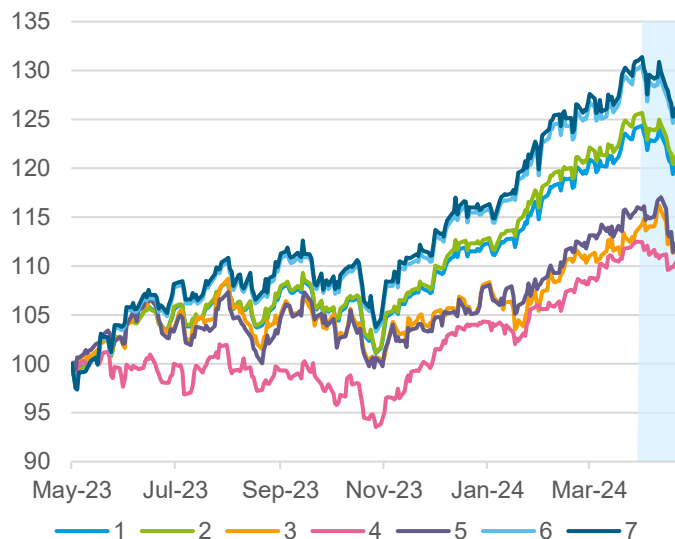


Figure 3: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

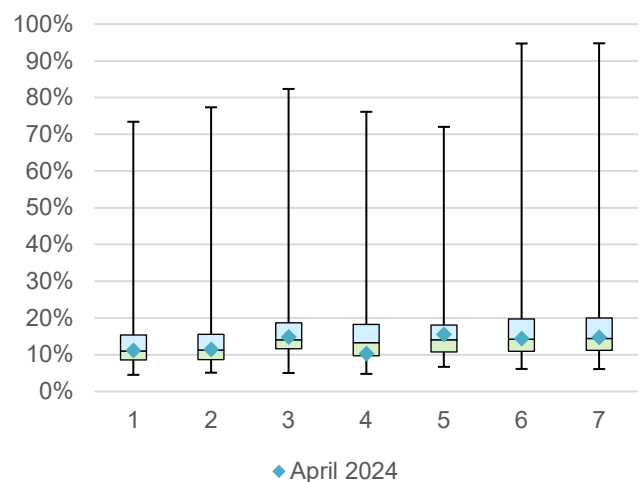


Figure 4: Monthly annualized volatility analysis, EUR gross return. Jan. 2004 – Apr. 2024. Source: STOXX.

DAX indices

Key points

Germany's DAX family is led by DAX, the blue-chip benchmark. [MDAX®](#) and [SDAX®](#), respectively, gauge the performance of the country's mid- and small-caps. [TecDAX®](#) tracks German technology companies. [HDAX®](#) groups all equities that belong to either DAX, MDAX or TecDAX.

The benchmark DAX dropped 3% in the month that ended.

Risk and return characteristics

	(EUR) Return (%)			(EUR) Annualized volatility (%)		
	1M	YTD	1Y	1M	YTD	1Y
1. DAX	-3.0	7.0	12.6	13.8	10.5	11.4
2. MDAX	-2.9	-3.2	-5.7	14.6	13.4	15.4
3. SDAX	0.0	2.4	3.5	17.1	14.5	15.5
4. TecDAX	-5.2	-1.9	0.2	16.3	14.3	14.9
5. HDAX	-2.9	6.2	10.9	13.5	10.5	11.5

Risk and return performance figures for DAX indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

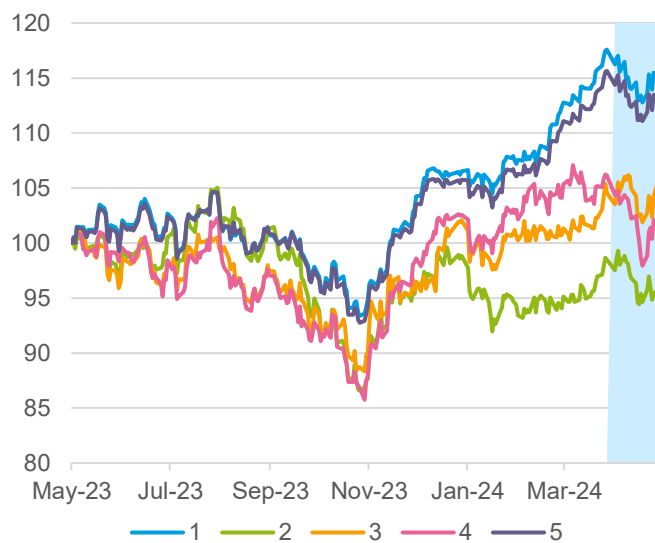


Figure 5: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

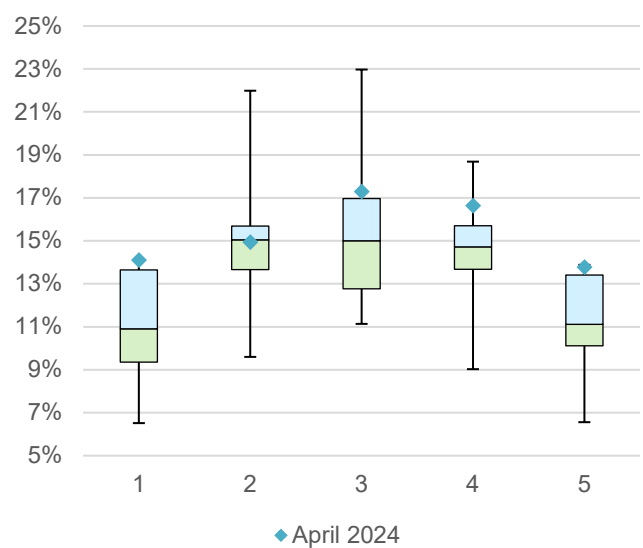


Figure 6: Monthly annualized volatility analysis, EUR gross return. May 2023 – Apr. 2024. Source: STOXX.

DAX ESG indices

Key points

STOXX offers several sustainable options as indices for German equities, including the following: [DAX® 50 ESG](#), [DAX® 30 ESG](#), [DAX® ESG Target](#), [DAX® ESG Screened](#), [DAX® 50 ESG+](#), [MDAX® ESG Screened](#) and [MDAX® ESG+](#). All outperformed the benchmark DAX in April.

Risk and return characteristics

	(EUR) Return (%)			(EUR) Annualized volatility (%)		
	1M	YTD	1Y	1M	YTD	1Y
1. DAX 50 ESG	-2.3	6.1	12.2	13.4	10.6	11.9
2. DAX 30 ESG	-2.0	8.8	15.6	13.5	10.4	11.7
3. DAX ESG Target	-2.7	6.9	15.0	13.3	10.3	11.4
4. DAX ESG Screened	-2.6	6.3	11.8	13.7	10.5	11.8
5. DAX 50 ESG+	-2.4	7.0	13.0	13.3	10.3	11.7
6. MDAX ESG Screened	-2.7	-3.7	-6.1	14.7	13.5	15.6
7. MDAX ESG+	-2.4	-4.2	-6.4	15.2	13.5	15.3

Risk and return performance figures for DAX indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

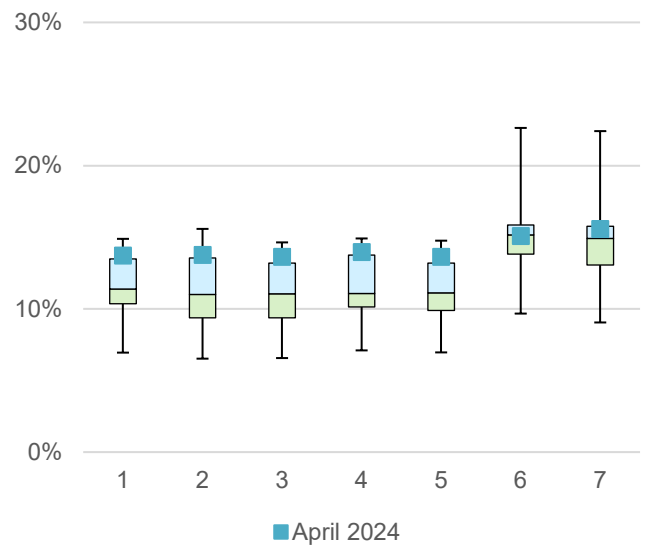
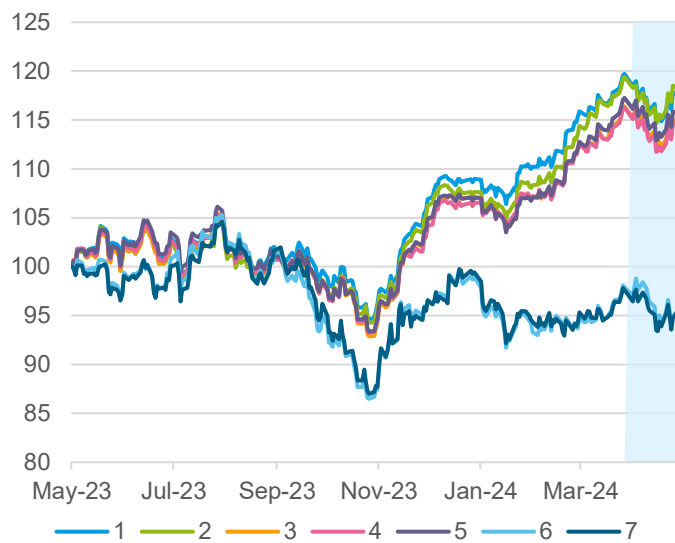


Figure 7: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

Figure 8: Monthly annualized volatility analysis, EUR gross return. May 2023 – Apr. 2024. Source: STOXX.

SRI indices

Key points

The [STOXX® SRI \(Socially Responsible Investing\) indices](#) apply a set of involvement, carbon emission intensity and compliance screens, and additionally track the best ESG performers in each industry group within a selection of STOXX benchmarks.

The STOXX® Global 1800 SRI index underperformed the benchmark slightly.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. EURO STOXX SRI	-1.5	10.5	15.3	-2.5	7.0	11.6	12.2	10.5	11.5	14.9	13.4	14.7
2. STOXX Europe 600 SRI	-1.0	8.9	15.9	-2.0	5.4	12.3	11.1	9.4	10.2	13.4	12.2	13.3
3. STOXX Global 1800 SRI	-2.9	9.7	21.7	-3.8	6.2	17.9	11.8	10.8	10.0	12.5	11.4	11.1
4. STOXX North America 600 SRI	-3.9	8.1	24.0	-4.8	4.7	20.1	15.3	13.7	12.8	15.3	13.4	12.7
5. STOXX USA 500 SRI	-4.0	8.6	24.9	-5.0	5.1	21.0	15.6	14.1	13.1	15.2	13.6	12.8
6. STOXX Asia/Pacific 600 SRI	-3.1	4.6	16.4	-4.0	1.3	12.7	17.1	14.2	13.5	17.3	14.7	14.3
7. STOXX Japan 600 SRI	-3.8	7.4	22.5	-4.8	4.0	18.7	19.0	16.4	15.3	18.7	16.5	15.4

Risk and return performance figures for STOXX ESG SRI indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

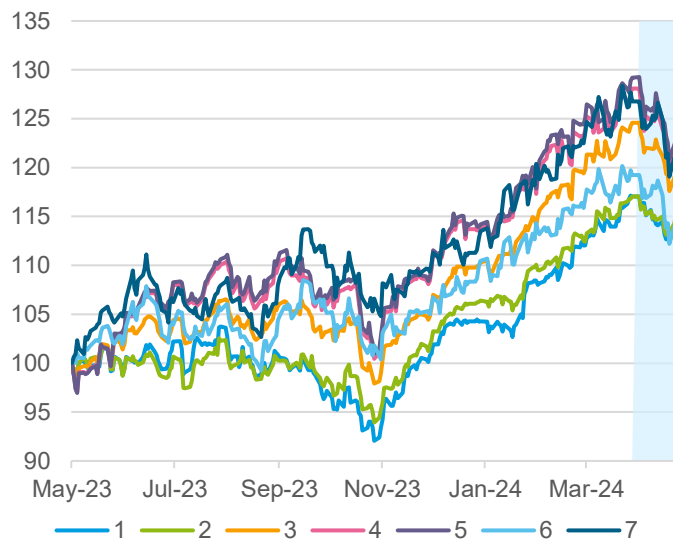


Figure 9: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

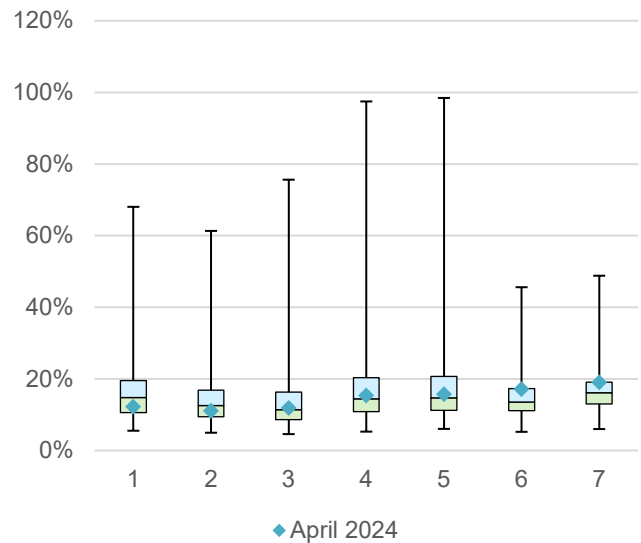


Figure 10: Monthly annualized volatility analysis, EUR gross return. Apr. 2012 – Apr. 2024. Source: STOXX.

ESG-X indices

Key points

The [STOXX ESG-X indices](#) are versions of traditional, market-capitalization-weighted benchmarks that observe [standard responsible exclusions](#). They incorporate basic norm- and product-based exclusion criteria to comply with ESG principles. Companies are excluded based on Sustainalytics' determination of non-compliance with their Global Standards Screening assessment or if they have a 'severe' ESG risk rating from the data provider. Companies involved in controversial weapons, small arms, military contracting, unconventional oil and gas, tobacco and thermal coal (extraction or use for power generation) are also removed.

The STOXX® Global 1800 ESG-X lagged behind its benchmark by 29 basis points last month.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. EURO STOXX 50 ESG-X	-2.1	10.6	17.7	-3.0	7.0	14.0	13.4	11.4	12.5	15.9	14.3	15.7
2. STOXX Europe 600 ESG-X	-0.8	6.9	12.0	-1.8	3.4	8.5	10.4	8.8	10.2	12.9	11.8	13.5
3. STOXX Global 1800 ESG-X	-3.1	8.1	23.0	-4.0	4.6	19.1	11.6	10.2	10.1	11.8	10.4	10.7
4. STOXX USA 500 ESG-X	-3.6	9.2	28.6	-4.6	5.7	24.5	15.3	13.5	12.8	14.5	12.8	12.5
5. STOXX North America 600 ESG-X	-3.7	8.9	27.7	-4.6	5.4	23.7	14.7	13.2	12.6	14.4	12.7	12.4
6. STOXX Asia/Pacific 600 ESG-X	-2.9	5.2	14.5	-3.8	1.9	10.9	17.1	13.6	13.0	17.0	14.0	13.8

Risk and return performance figures for STOXX ESG-X indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

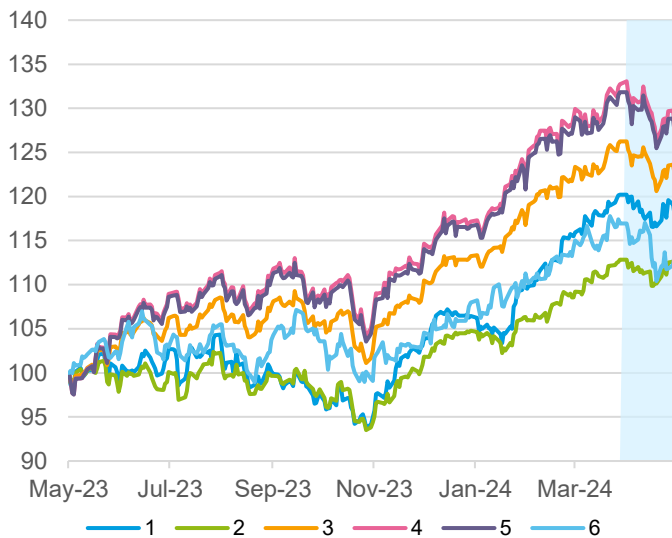


Figure 11: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

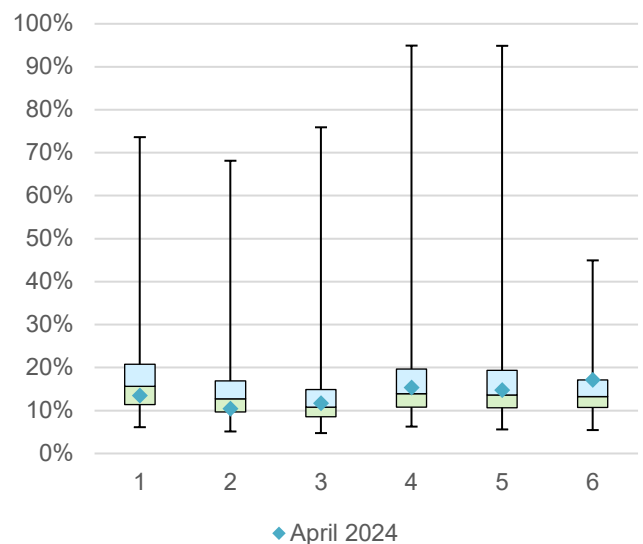


Figure 12: Monthly annualized volatility analysis, EUR gross return. Apr. 2012 – Apr. 2024. Source: STOXX.

ESG and Sustainability indices

Key points

Among the STOXX ESG and Sustainability indices, the [EURO STOXX 50® ESG](#) index outperformed its benchmark by 104 basis points.

The [STOXX® Global ESG Select KPIs index](#), meanwhile, trailed the STOXX Global 1800 by 25 basis points. The STOXX ESG Select KPIs Indices offer a broad market exposure that is tilted towards companies that score better with respect to a small set of environmental, social, and governance key performance indicators.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. EURO STOXX 50 ESG	-1.2	11.1	22.1	-2.2	7.5	18.2	12.9	10.7	11.7	15.5	13.6	14.9
2. STOXX Europe Industry Neutral ESG	-0.6	6.5	11.3	-1.6	3.0	7.8	10.3	8.8	10.2	12.9	11.7	13.5
3. STOXX North America Industry Neutral ESG	-3.4	8.4	22.6	-4.4	4.9	18.7	13.6	12.1	11.9	13.5	11.7	11.7
4. STOXX Global ESG Select KPIs	-3.0	8.3	21.4	-3.9	4.8	17.6	10.2	9.9	9.5	10.1	9.9	10.1
5. STOXX USA ESG Select KPIs	-3.6	7.8	24.7	-4.6	4.4	20.8	12.8	11.8	12.0	12.3	11.2	11.5
6. STOXX Europe ESG Leaders Select 30	-0.2	5.4	7.2				12.0	9.3	10.2			

Risk and return performance figures for STOXX ESG and Sustainability indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

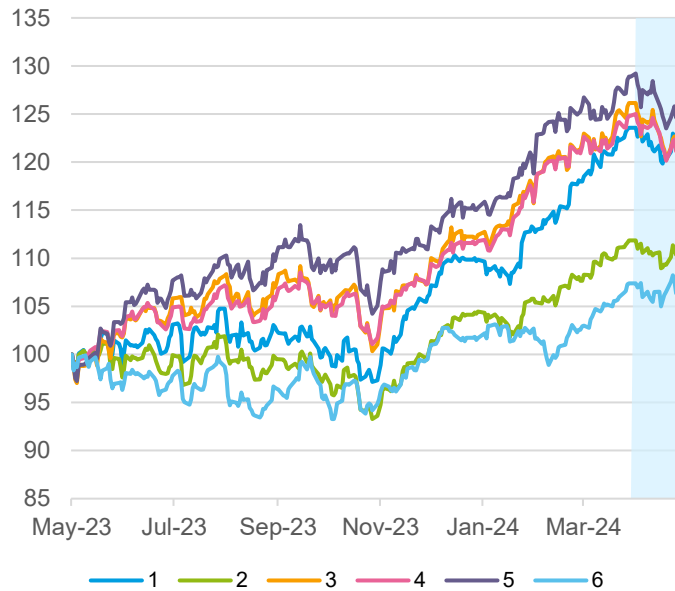


Figure 13: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

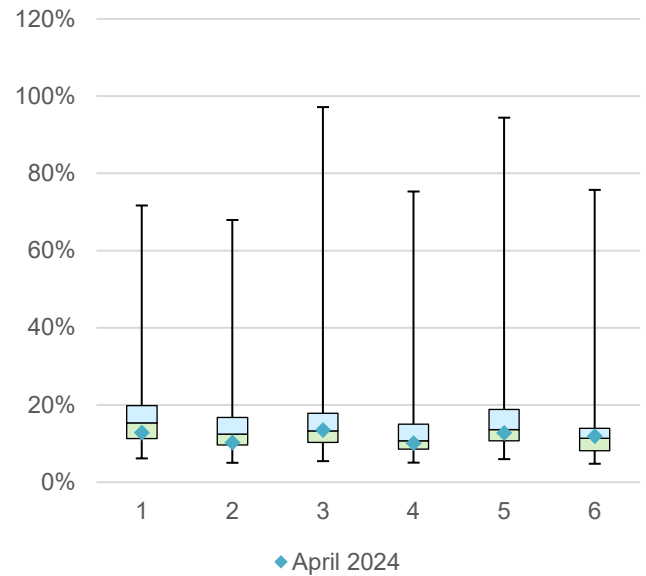


Figure 14: Monthly annualized volatility analysis, EUR gross return. Oct. 2012 – Apr. 2024. Source: STOXX.

Climate Indices – Paris-Aligned Benchmark indices

Key points

The [STOXX Paris-Aligned Benchmark indices \(PABs\)](#) are based on liquid securities from a selection of STOXX Benchmark indices and follow the [EU Paris-aligned Benchmark \(EU PAB\) requirements](#) outlined by the European Commission’s Regulation (EU) 2020/1818, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council on climate benchmarks.

Those requirements are designed such that the resulting PAB portfolio’s greenhouse gas (GHG) emissions are aligned with the long-term global warming target of the Paris Climate Agreement. The indices incorporate stringent carbon limitations in the selection of holdings, in line with global commitments to work towards keeping global warming between 1.5°C and 2°C above pre-industrial levels.

We have partnered with Sustainalytics for datasets relating to their Global Standards Screening and controversial weapons, and with ISS ESG for climate-related data such as Scope 1 to Scope 3 emissions, science-based climate targets, and others.

The [STOXX® Global 1800 PAB](#) came behind its benchmark in April.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. EURO STOXX PAB	-1.8	6.4	9.4	-2.8	3.0	5.9	11.1	9.8	11.6	14.1	12.9	14.9
2. EURO STOXX TMI PAB	-1.7	6.3	9.4	-2.7	2.9	6.0	11.1	9.8	11.6	14.1	12.9	14.9
3. STOXX Europe 600 PAB	-1.8	6.2	9.2	-2.8	2.8	5.7	10.6	9.5	10.7	13.2	12.3	13.8
4. STOXX Global 1800 PAB	-3.5	5.8	19.5	-4.4	2.4	15.7	11.0	10.1	10.4	11.1	10.3	11.1
5. STOXX USA 500 PAB	-4.0	7.5	26.4	-4.9	4.1	22.5	14.6	13.4	13.1	13.8	12.6	12.6
6. STOXX USA 900 PAB	-4.0	7.2	26.0	-5.0	3.7	22.0	14.5	13.2	13.0	13.7	12.5	12.6

Risk and return performance figures for STOXX Paris-Aligned Benchmark indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance



Figure 15: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

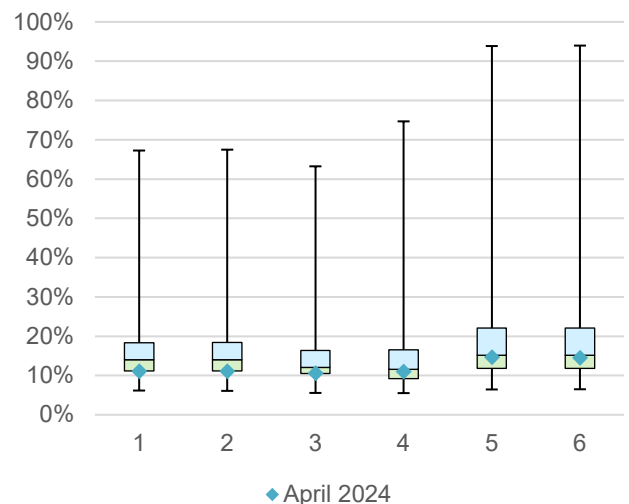


Figure 16: Monthly annualized volatility analysis, EUR gross return. Apr. 2018 – Apr. 2024. Source: STOXX.

Climate indices – Climate Transition Benchmark indices

Key points

The [STOXX Climate Transition Benchmark indices \(CTBs\)](#) are based on liquid securities from a selection of STOXX Benchmark Indices and follow the [EU Climate Transition Benchmark \(EU CTB\) requirements](#) outlined by the European Commission’s Regulation (EU) 2020/1818, supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council on climate benchmarks.

Those requirements are designed such that the resulting CTB portfolio is on a decarbonization trajectory.

As with the Paris-Aligned Benchmarks, we have partnered with Sustainalytics for exclusions datasets, and with ISS ESG for climate-related data, science-based climate targets and others.

The [STOXX® Global 1800 CTB](#) also lagged behind its benchmark last month.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. EURO STOXX CTB	-1.8	6.2	9.5	-2.8	2.8	6.0	11.0	9.7	11.4	14.0	12.8	14.8
2. EURO STOXX TMI CTB	-1.7	6.0	9.4	-2.7	2.6	6.0	11.0	9.6	11.3	14.0	12.8	14.7
3. STOXX Europe 600 CTB	-1.7	6.3	9.1	-2.6	2.9	5.7	10.5	9.3	10.5	13.0	12.2	13.6
4. STOXX Global 1800 CTB	-3.4	5.7	19.2	-4.4	2.3	15.5	10.6	9.9	10.2	10.8	10.1	10.8
5. STOXX USA 500 CTB	-4.1	6.8	25.9	-5.0	3.4	21.9	14.1	13.0	12.8	13.2	12.2	12.3
6. STOXX USA 900 CTB	-4.1	6.6	25.3	-5.0	3.2	21.4	14.0	12.9	12.7	13.2	12.1	12.3

Risk and return performance figures for STOXX Climate Transition Benchmark indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

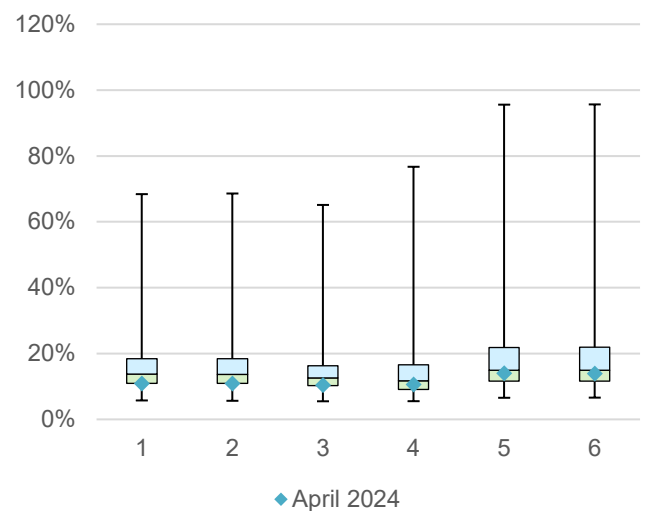
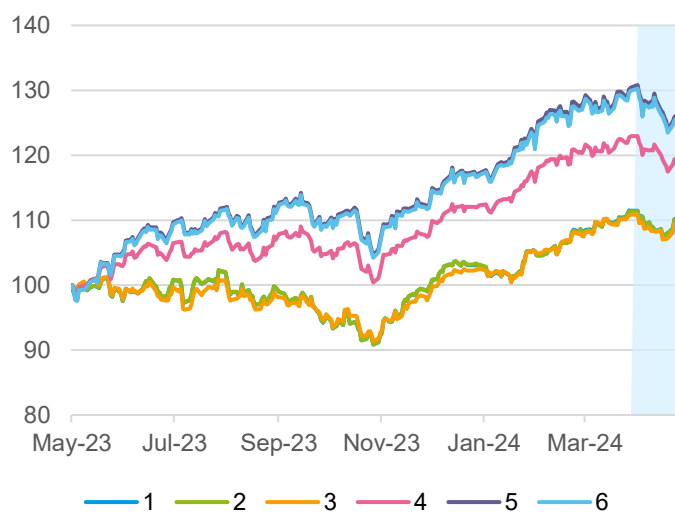


Figure 17: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

Figure 18: Monthly annualized volatility analysis, EUR gross return. Apr. 2018 – Apr. 2024. Source: STOXX.

Biodiversity indices

Key points

The [ISS STOXX® Biodiversity indices](#) allow investors to take a comprehensive approach to the challenges, risks and opportunities from the degradation of our natural ecosystems and growing efforts to protect them.

The indices exclude companies involved in activities that are controversial or cause harm to biodiversity, select securities with less negative impact on ecosystems and those contributing positively to relevant UN Sustainable Development Goals (SDGs). They also reduce the portfolio's carbon emissions.

A key component of the ISS STOXX Biodiversity framework is the Potentially Disappeared Fraction of Species (PDF), an output of ISS ESG's [Biodiversity Impact Assessment Tool](#). PDF seeks to measure how corporates affect our natural world by considering a set of environmental pressures on species and habitats across the entire value chain and different geographical locations.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. ISS STOXX World AC Biodiversity Leaders	-3.0	-2.9	13.7	-3.9	-6.0	10.1	10.3	10.1	12.3	11.8	11.3	13.8
2. ISS STOXX Asia/Pacific AC Biodiversity	-0.7	6.5	13.0	-1.7	3.1	9.4	17.9	13.3	12.8	17.5	13.4	13.4
3. ISS STOXX Developed World Biodiversity	-3.8	7.7	24.5	-4.8	4.2	20.5	11.9	10.6	10.4	11.6	10.5	10.8
4. ISS STOXX Developed Europe Biodiversity	-1.2	8.0	16.1	-2.2	4.6	12.5	10.9	9.2	10.2	13.0	12.0	13.2
5. ISS STOXX Emerging Markets Biodiversity	1.5	6.5	12.6	0.5	3.1	9.0	17.8	14.2	13.9	17.3	14.1	14.5
6. ISS STOXX US Biodiversity	-4.4	9.4	30.5	-5.3	5.9	26.3	14.7	13.4	13.0	14.0	12.9	12.6
7. ISS STOXX World AC Biodiversity	-2.9	8.6	24.6	-3.9	5.1	20.7	12.5	10.7	10.2	11.8	10.5	10.6
8. ISS STOXX Europe 600 Biodiversity	-1.2	7.4	15.4	-2.1	3.9	11.8	11.1	9.3	10.3	13.6	12.2	13.5
9. ISS STOXX Developed World Biodiversity Focus SRI	-3.8	6.9	21.7	-4.8	3.5	17.9	11.2	9.9	10.0	11.1	10.0	10.4
10. ISS STOXX Europe 600 Biodiversity Focus SRI	-1.2	5.7	14.2	-2.2	2.3	10.6	11.5	9.4	10.4	14.1	12.4	13.6
11. ISS STOXX US Biodiversity Focus SRI	-4.4	8.4	25.5	-5.4	4.9	21.6	14.2	12.7	12.5	13.6	12.1	12.1

Risk and return performance figures for ISS STOXX Biodiversity indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

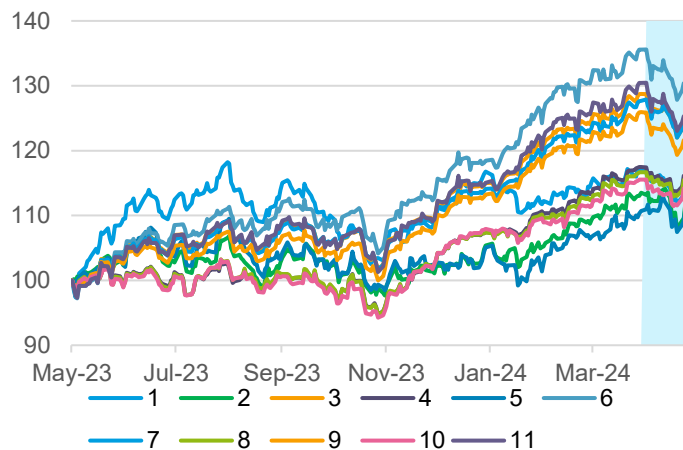


Figure 19: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

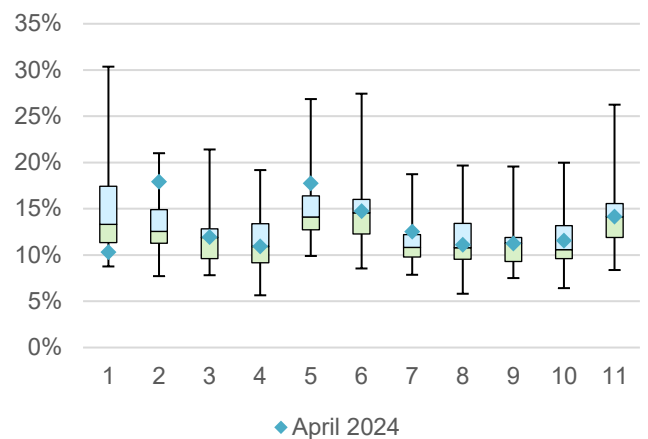


Figure 20: Monthly annualized volatility analysis, EUR gross return. Nov. 2022 – Apr. 2024. Source: STOXX.

Thematic indices

Key points

The [STOXX Thematic indices](#) seek exposure to the long-term economic upside of disruptive global megatrends.

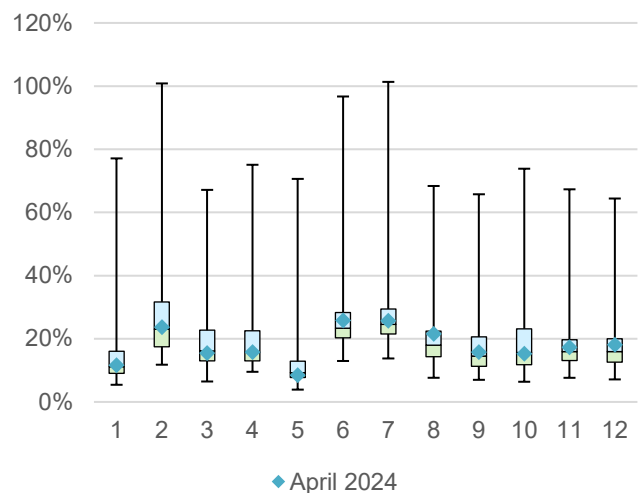
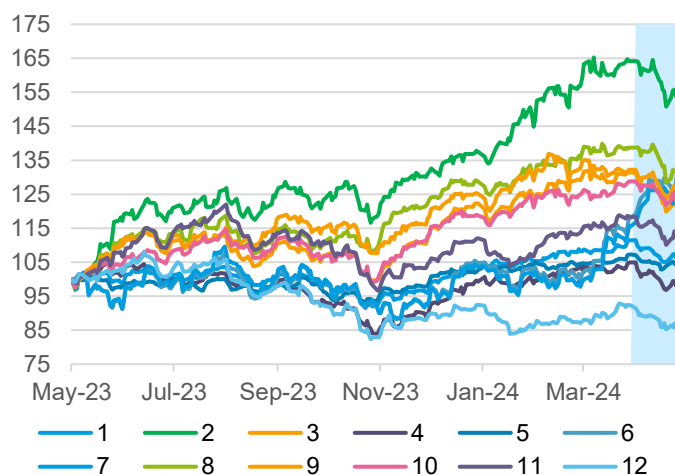
Only four of the 35 thematic indices featured in this newsletter outperformed the STOXX Global 1800 last month, with the [STOXX® Global Copper and Metals Mining](#) and [STOXX® Global Copper Miners](#) leading gains for a second consecutive month on the back of surging copper prices.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX Global Ageing Population	-3.7	3.0	8.3	-4.6	-0.3	4.9	11.5	10.0	10.5	13.5	11.0	12.0
2. STOXX Global Artificial Intelligence	-6.4	11.8	54.7	-7.3	8.2	49.8	23.6	22.4	20.1	22.7	22.0	20.3
3. STOXX Global Automation & Robotics	-7.3	-0.5	22.6	-8.3	-3.7	18.8	15.5	15.3	14.5	16.2	16.2	15.7
4. STOXX Global Breakthrough Healthcare	-5.4	-0.1	0.3	-6.4	-3.3	-2.8	15.7	13.8	13.8	17.1	14.1	15.0
5. STOXX Global Broad Infrastructure	-3.1	1.2	4.6	-4.1	-2.0	1.3	8.4	8.0	8.9	10.6	8.7	10.1
6. STOXX Global Copper and Metals Mining	10.7	24.7	31.6	9.6	20.7	27.5	25.8	23.5	23.8	27.3	24.9	26.1
7. STOXX Global Copper Miners	10.8	23.5	29.4	9.7	19.5	25.3	25.7	23.7	24.3	27.4	25.1	26.6
8. STOXX Global Digital Entertainment and Education	-3.5	4.0	34.6	-4.5	0.6	30.3	21.5	17.0	16.0	21.2	17.1	16.7
9. STOXX Global Digital Security	-4.3	1.1	27.1	-5.3	-2.2	23.1	15.8	16.5	15.4	16.7	16.9	15.8
10. STOXX Global Digitalisation	-4.5	3.5	22.7	-5.5	0.2	18.8	15.2	14.0	14.4	15.9	14.5	15.4
11. STOXX Global Electric Vehicles & Driving	-3.8	1.7	14.7	-4.7	-1.6	11.1	17.3	14.5	15.0	18.4	15.1	16.3
12. STOXX Global Energy Storage and Materials	-4.6	-4.7	-11.8	-5.6	-7.7	-14.6	18.1	15.0	15.7	18.2	15.7	17.2

Risk and return performance figures for STOXX Thematic indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance



Thematic indices (cont.)

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
13. STOXX Global Fintech	-6.2	2.8	20.2	-7.2	-0.5	16.5	13.6	12.9	13.4	14.4	13.8	14.3
14. STOXX Global Health & Weight Loss	-0.8	8.9	-2.0	-1.8	5.4	-5.1	11.8	12.4	12.8	11.8	12.6	14.0
15. STOXX Global Housing Construction	-5.5	3.6	26.1	-6.4	0.3	22.2	14.9	15.5	15.2	15.9	16.2	16.5
16. STOXX Global Industry 4.0	-6.0	2.6	33.8	-6.9	-0.7	29.6	17.6	17.6	16.4	17.8	18.0	16.7
17. STOXX Global Intelligent Computing	-5.4	5.1	26.9	-6.4	1.7	22.9	18.2	17.8	15.8	19.3	18.5	16.9
18. STOXX Global Lithium and Battery Producers	-3.1	-9.7	-20.6	-4.0	-12.6	-23.1	21.9	20.2	20.8	23.1	20.8	22.2
19. STOXX Global Lithium Miners and Producers	-2.9	-20.9	-40.9	-3.9	-23.4	-42.8	35.4	32.6	28.5	36.3	33.2	29.9
20. STOXX Global Metaverse	-7.8	6.1	43.7	-8.7	2.7	39.2	19.4	19.1	17.1	19.2	19.4	17.6
21. STOXX Global Millennials	-1.9	8.4	31.2	-2.9	5.0	27.1	17.5	16.0	14.9	16.4	15.4	15.2
22. STOXX Global Next Generation Telecoms	-4.8	0.1	18.0	-5.8	-3.1	14.3	13.3	13.2	12.5	13.6	13.1	12.7
23. STOXX Global Pet Care	-3.0	0.2	2.3	-3.9	-3.0	-0.9	10.9	11.0	11.0	12.3	10.7	11.2
24. STOXX Global Sharing Economy	-4.0	11.0	32.6	-5.0	7.4	28.5	17.2	16.2	16.3	17.1	16.4	17.1

Risk and return performance figures for STOXX Thematic indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

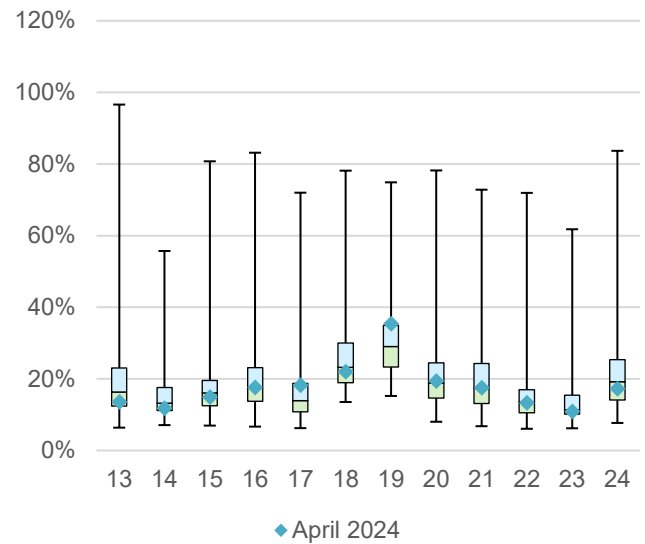
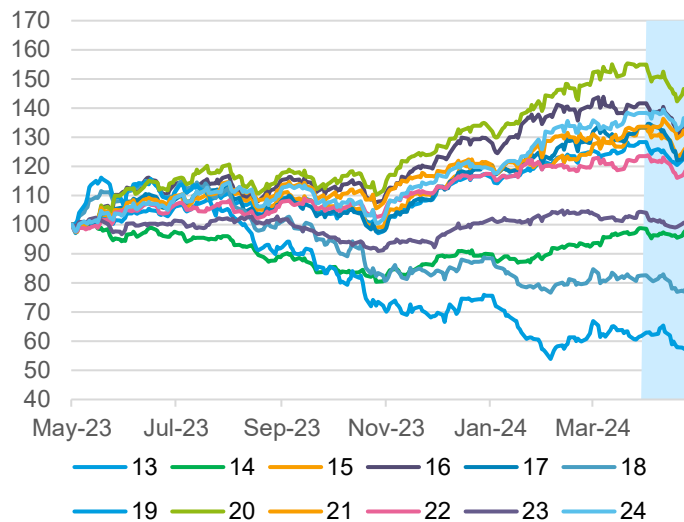


Figure 23: EUR gross return index performance, May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

Figure 24: Monthly annualized volatility analysis, EUR gross return. Jul. 2016 – Apr. 2024. Source: STOXX.

Thematic indices (cont.)

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
25. STOXX Global Silver Economy	-3.4	8.8	26.3	-4.4	5.3	22.3	13.1	12.0	12.3	13.4	12.0	12.8
26. STOXX Global Smart Cities	-5.7	-2.7	29.3	-6.6	-5.9	25.2	22.3	23.6	21.9	23.7	24.3	22.7
27. STOXX Global Smart City Infrastructure	-3.0	4.4	16.4	-4.0	1.1	12.7	11.7	11.7	11.8	13.3	12.8	13.4
28. STOXX Global Smart Factory	-5.0	0.7	27.8	-6.0	-2.5	23.8	20.5	20.4	19.4	20.9	20.9	20.0
29. STOXX Global Video Gaming & eSports	-5.7	8.2	32.1	-6.7	4.7	27.9	17.2	17.8	16.2	16.0	17.3	16.5
30. STOXX World AC NexGen Connectivity	-4.4	3.2	27.5	-5.4	-0.1	23.4	15.5	14.8	13.7	15.2	14.6	13.6
31. STOXX World AC NexGen Media	-4.6	10.2	45.9	-5.6	6.7	41.4	21.0	19.7	17.8	20.0	19.6	18.0
32. STOXX World AC NexGen Software Development	-6.1	12.0	54.5	-7.0	8.4	49.6	24.3	22.9	20.7	23.0	22.6	20.8
33. STOXX Europe Luxury 10	-5.9	9.2	-2.1	-6.9	5.7	-5.2	18.0	20.4	20.8	20.1	22.4	23.5
34. STOXX USA ETF Industry				-6.3	-3.4	16.4				12.4	12.7	14.6
35. iSTOXX Developed Markets B.R.AI.N.	-6.1	-1.6	14.5	-7.1	-4.7	10.9	12.6	11.8	12.0	13.1	11.6	12.1

Risk and return performance figures for STOXX Thematic indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

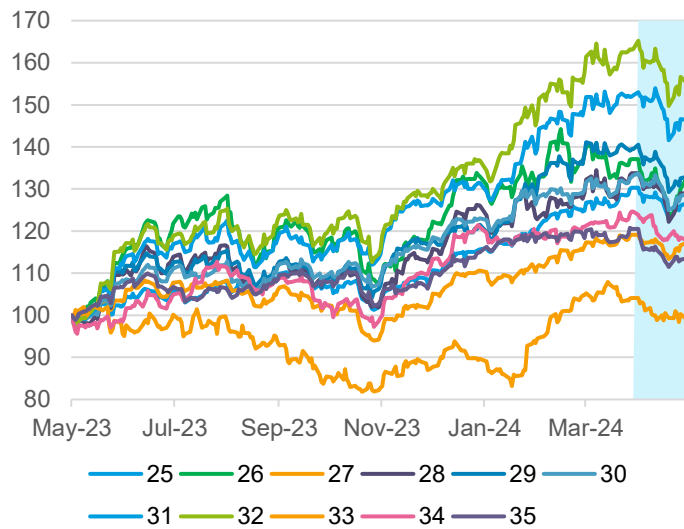


Figure 25: 25-33, 35 show EUR gross return index performance, 34 shows USD performance; May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

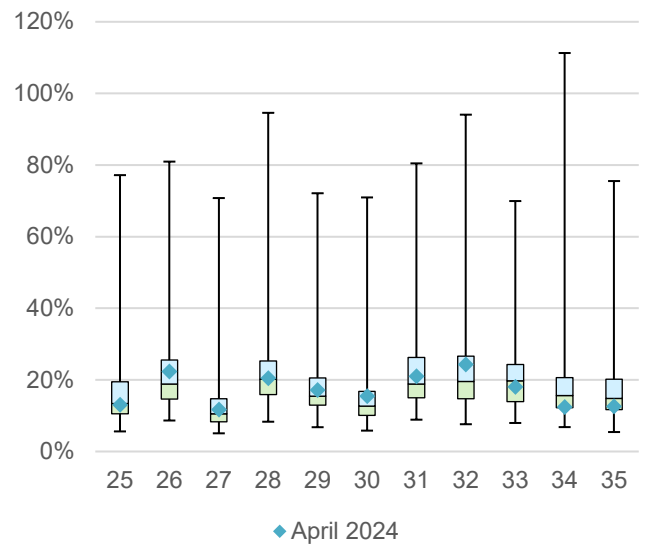


Figure 26: Monthly annualized volatility analysis, EUR gross return. Jul. 2016 – Apr. 2024. Source: STOXX.

Digital Assets

Key points

The [STOXX® Digital Asset Blue Chip](#) index aims to track high-quality assets that represent the crypto universe today. The [STOXX® Digital Asset Blue Chip X](#) excludes assets not traded on Xetra®.

A blue-chip focus means the index considers crypto-native metrics in its asset selection, including the scope of a protocol's adoption, its age, the value secured on its blockchain, the fees paid by users and the size of the developer community.

The list of eligible digital assets for the index is derived from all assets classified under the [Bitcoin Suisse Global Crypto Taxonomy \(GCT\)](#) that fall within five sectors: Cryptocurrencies, General Purpose Smart Contract Platforms, Decentralized Finance (DeFi), Utility and Culture. Assets are selected in several steps that compare use-case peers within respective sectors.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX Digital Asset Blue Chip	-25.0	4.0	46.1	-19.8	11.2	41.5	60.0	53.9	44.7	57.7	52.9	44.6
2. STOXX Digital Asset Blue Chip X	-25.0	3.6	45.9	-19.8	10.8	41.3	60.0	54.0	44.7	57.7	52.9	44.6

Risk and return performance figures for STOXX Digital assets indices, price return. Data as of Apr. 30, 2024. Source: STOXX. Assets in the STOXX Digital Asset Blue Chip X must be eligible for the FSE's Xetra venue.

Index and volatility performance



Figure 27: EUR price return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

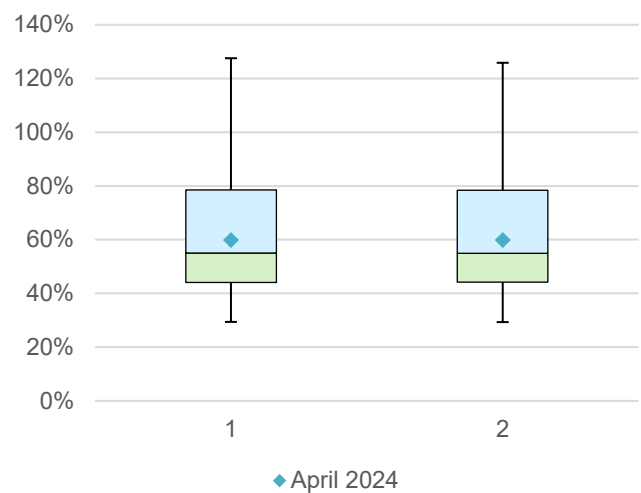


Figure 28: Monthly annualized volatility analysis, EUR gross return. Apr. 2021 – Apr. 2024. Source: STOXX.

Factor indices – Global

Key points

The [STOXX Factor indices](#) offer robust factor definitions and targeted factor exposures, and ensure the tradability of component stocks. They employ the institutionally tested analytics of Axioma Factor Risk Models.

On a global basis, all signals had losses last month.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX Global 1800 Ax Low Risk	-2.5	5.5	12.3	-3.5	2.1	8.7	8.4	7.4	7.9	7.6	6.9	7.4
2. STOXX Global 1800 Ax Momentum	-2.8	26.5	46.7	-3.8	22.4	42.1	18.1	16.1	12.7	17.4	16.2	13.0
3. STOXX Global 1800 Ax Multi-Factor	-3.0	12.7	28.3	-4.0	9.1	24.3	11.3	11.1	10.0	11.2	11.5	10.5
4. STOXX Global 1800 Ax Quality	-4.1	6.7	28.2	-5.0	3.2	24.2	11.2	10.5	10.8	10.3	10.6	11.0
5. STOXX Global 1800 Ax Size	-3.5	6.1	14.4	-4.4	2.7	10.8	10.1	9.4	10.3	11.6	10.4	11.7
6. STOXX Global 1800 Ax Value	-2.4	10.3	29.0	-3.4	6.7	24.9	11.4	9.8	10.7	12.4	10.4	11.7
7. STOXX Global 1800 ex USA Ax Low Risk	-1.6	2.7	5.8	-2.5	-0.6	2.5	8.5	6.3	6.9	9.1	7.9	8.8
8. STOXX Global 1800 ex USA Ax Momentum	-2.4	16.7	28.5	-3.4	12.9	24.5	13.3	10.5	10.5	14.4	12.3	12.9
9. STOXX Global 1800 ex USA Ax Multi-Factor	-0.6	6.8	18.1	-1.6	3.4	14.3	10.4	8.1	8.9	11.8	9.9	11.2
10. STOXX Global 1800 ex USA Ax Quality	-3.5	1.5	17.0	-4.4	-1.8	13.3	11.0	9.1	10.3	12.0	10.9	12.7
11. STOXX Global 1800 ex USA Ax Size	-1.1	3.6	9.5	-2.1	0.3	6.0	11.6	9.5	10.5	12.9	11.5	13.3
12. STOXX Global 1800 ex USA Ax Value	0.6	10.1	22.0	-0.4	6.6	18.2	11.7	9.5	10.7	13.9	11.5	13.3

Risk and return performance figures for STOXX Factor (Global) indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

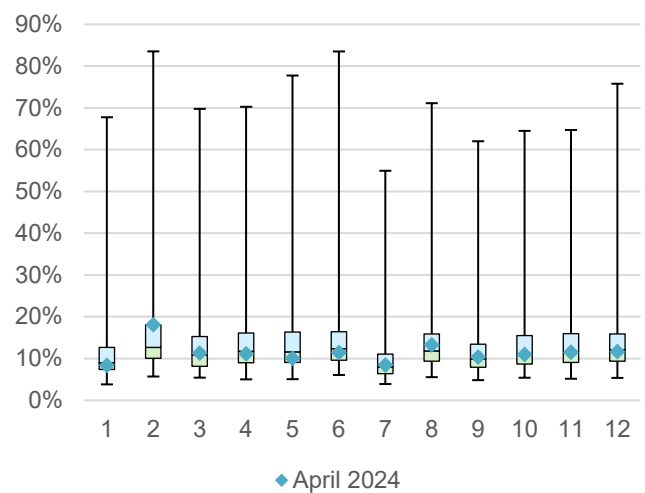
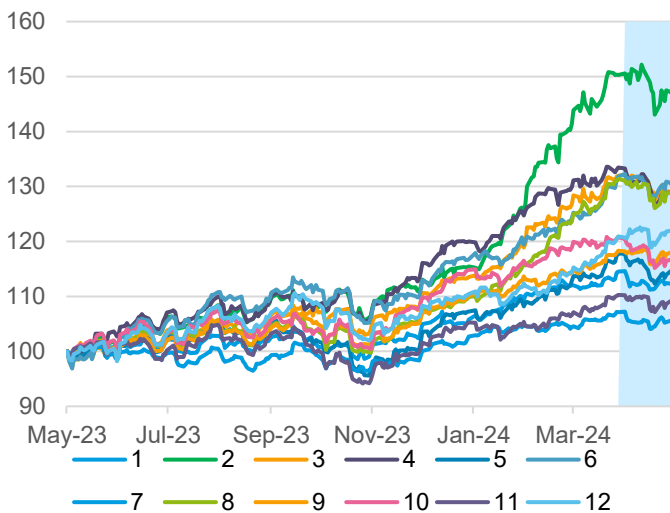


Figure 29: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

Figure 30: Monthly annualized volatility analysis, EUR gross return. Jan. 2004 – Apr. 2024. Source: STOXX.

Industry Neutral Factor indices

Key points

The STOXX Industry Neutral Single and Multi-Factor indices aim to harvest the risk premia of several academically validated style factors — Value, Momentum, Quality, Size and Low Risk — within each ICB industry.

The indices rely on Axioma’s proven factor models and keep the same industry allocation as the respective benchmarks, helping remove unintended industry exposures and enabling access to the pure return of the factor. Size logged a positive return in euros last month among the Industry Neutral Factor indices covering Europe, while Low Risk outperformed in the US.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX Europe 600 Industry Neutral Ax Low Risk	-1.6	4.2	8.0	-2.6	0.9	4.6	9.4	7.4	8.2	10.8	9.8	10.7
2. STOXX Europe 600 Industry Neutral Ax Momentum	-0.6	17.7	29.8	-1.6	14.0	25.8	15.2	11.9	11.7	16.8	14.1	14.6
3. STOXX Europe 600 Industry Neutral Ax Multi-Factor	-1.6	6.6	16.0	-2.6	3.2	12.4	11.5	9.1	9.6	13.8	11.7	12.7
4. STOXX Europe 600 Industry Neutral Ax Quality	-2.5	3.4	15.3	-3.5	0.1	11.7	10.9	10.0	11.6	12.7	12.5	14.6
5. STOXX Europe 600 Industry Neutral Ax Size	0.2	2.3	8.3	-0.8	-1.0	4.9	11.1	10.0	11.7	14.1	13.0	15.4
6. STOXX Europe 600 Industry Neutral Ax Value	-0.2	7.1	17.7	-1.2	3.6	14.0	12.3	10.4	11.4	15.2	13.1	14.7
7. STOXX USA 500 Industry Neutral Ax Low Risk	-3.1	6.8	19.3	-4.1	3.4	15.5	10.8	10.3	10.4	9.8	9.2	9.3
8. STOXX USA 500 Industry Neutral Ax Momentum	-3.4	23.5	50.0	-4.4	19.6	45.3	21.2	18.2	15.3	20.5	17.9	14.9
9. STOXX USA 500 Industry Neutral Ax Multi-Factor	-4.7	11.8	30.6	-5.7	8.2	26.5	15.0	14.7	13.5	14.4	14.3	13.1
10. STOXX USA 500 Industry Neutral Ax Quality	-4.5	7.2	27.9	-5.4	3.7	23.8	14.8	13.3	13.2	13.6	12.7	12.2
11. STOXX USA 500 Industry Neutral Ax Size	-4.8	5.7	17.7	-5.8	2.3	14.0	12.7	12.8	12.8	12.9	12.5	12.6
12. STOXX USA 500 Industry Neutral Ax Value	-4.2	8.7	25.8	-5.1	5.2	21.9	14.2	12.6	12.6	14.1	12.2	12.5

Risk and return performance figures for STOXX Industry Neutral Factor indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

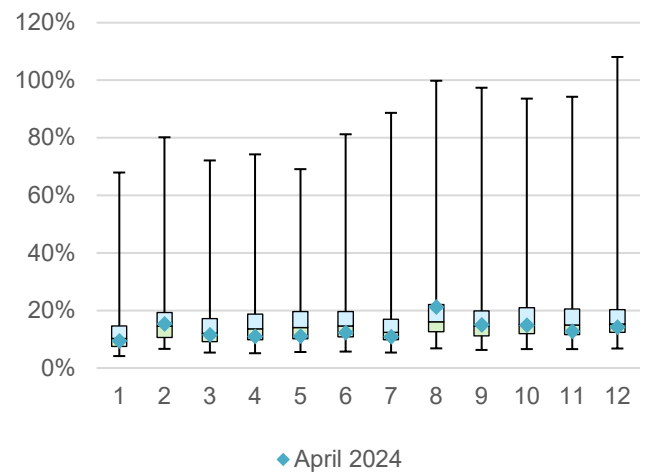
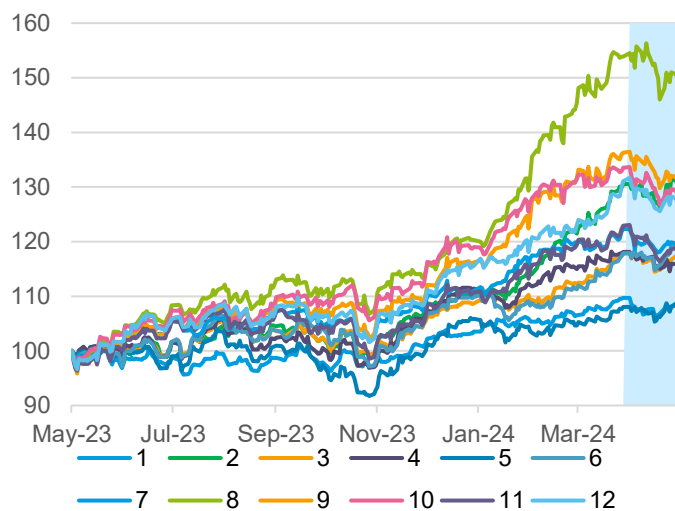


Figure 31: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

Figure 32: Monthly annualized volatility analysis, EUR gross return. Jan. 2004 – Apr. 2024. Source: STOXX.

Minimum Variance indices

Key points

Minimum variance strategies beat the benchmarks' returns last month.

The STOXX Minimum Variance indices come in two versions. A constrained version has similar exposure to its market-capitalization-weighted benchmark but with lower risk. The unconstrained version, on the other hand, has more freedom to fulfill its [minimum variance mandate](#) within the same universe of stocks.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX Europe 600 MV	0.1	5.5	6.5	-0.9	2.1	3.1	8.5	6.9	7.9	10.7	9.7	11.2
2. STOXX Europe 600 MV Unconstrained	0.9	5.8	2.3	-0.1	2.4	-0.9	8.9	6.8	7.2	10.9	9.0	10.3
3. STOXX Global 1800 MV	-2.4	5.9	10.5	-3.3	2.5	7.1	8.5	7.5	8.2	8.2	7.1	7.5
4. STOXX Global 1800 MV Unconstrained	-0.8	4.3	0.6	-1.8	0.9	-2.6	9.1	7.8	7.8	8.5	6.9	7.3
5. STOXX USA 900 MV	-2.4	10.5	18.5	-3.3	6.9	14.7	9.0	9.4	10.3	7.6	7.6	8.4
6. STOXX USA 900 MV Unconstrained	-0.7	10.4	8.5	-1.7	6.8	5.1	8.1	9.3	10.6	7.3	7.2	8.8

Risk and return performance figures for STOXX Minimum Variance indices, gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

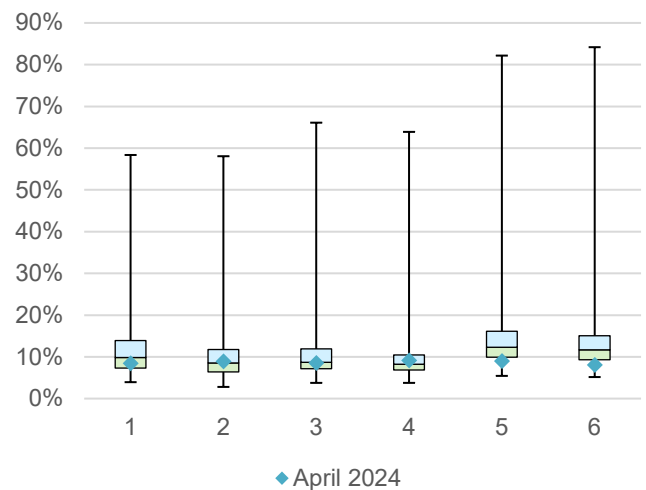
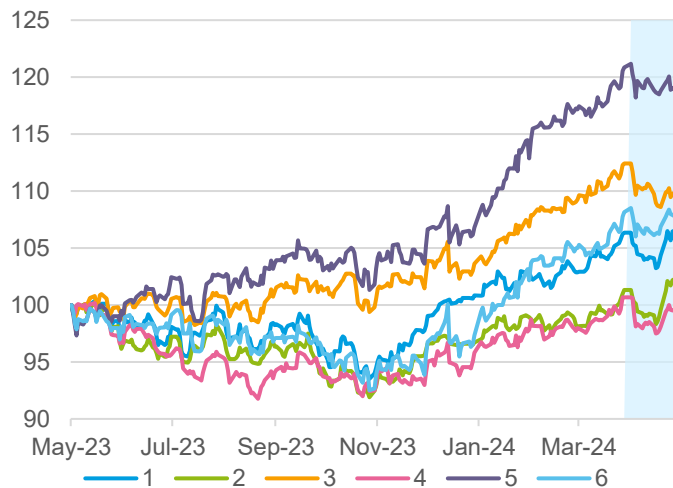


Figure 33: EUR gross return index performance. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

Figure 34: Monthly annualized volatility analysis, EUR gross return. Jan. 2004 – Apr. 2024. Source: STOXX.

Dividend indices

Key points

[Dividend strategies](#) outperformed in April, with some posting positive returns.

The [STOXX® Global Maximum Dividend 40 index](#) selects only the highest-dividend-yielding stocks. The [STOXX® Global Select Dividend 100 index](#), meanwhile, tracks companies with sizeable dividends but also applies a quality filter such as a history of stable payments. The [STOXX® Global ESG-X Select Dividend 100 index](#) targets the highest-yielding stocks within universes screened for responsible investment criteria.

The [STOXX® Global Select 100 EUR index](#) blends increasing dividend yields with low volatility and is calculated in euros.

Risk and return characteristics

	Return (%)						Annualized volatility (%)					
	EUR			USD			EUR			USD		
	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y	1M	YTD	1Y
1. STOXX Global Maximum Dividend 40 ¹	1.6	4.5	9.5	0.6	1.2	6.1	14.8	10.3	11.4	18.3	12.8	14.7
2. STOXX Global Select Dividend 100	1.1	4.2	12.4	0.1	0.9	8.9	9.1	8.7	9.9	11.3	10.5	12.2
3. STOXX Global ESG-X Select Dividend 100	0.7	4.0	12.9	-0.3	0.6	9.4	9.2	8.8	10.2	11.5	10.7	12.7
4. STOXX Global Select 100 EUR	-0.9	1.9	4.4				8.2	6.4	7.4			

Risk and return performance figures for STOXX Dividend indices, gross return except when shown. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

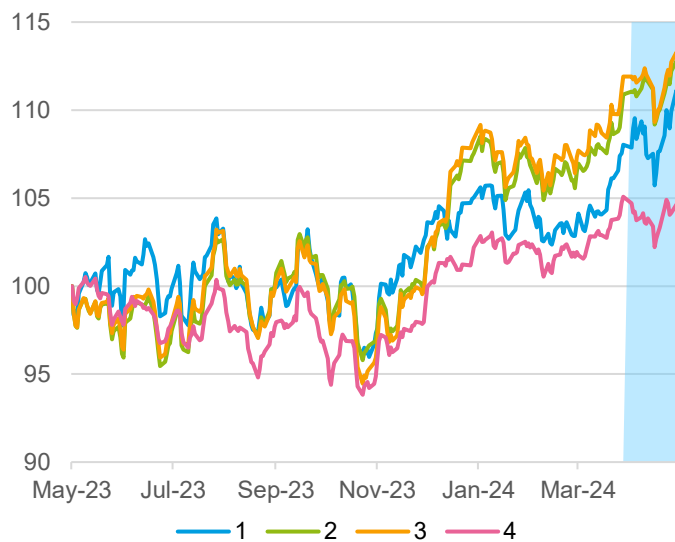


Figure 35: Annual price performance, EUR net return for 1; EUR gross return for 2-4. May 2023 – Apr. 2024. Shaded area: Apr. 2024. Source: STOXX.

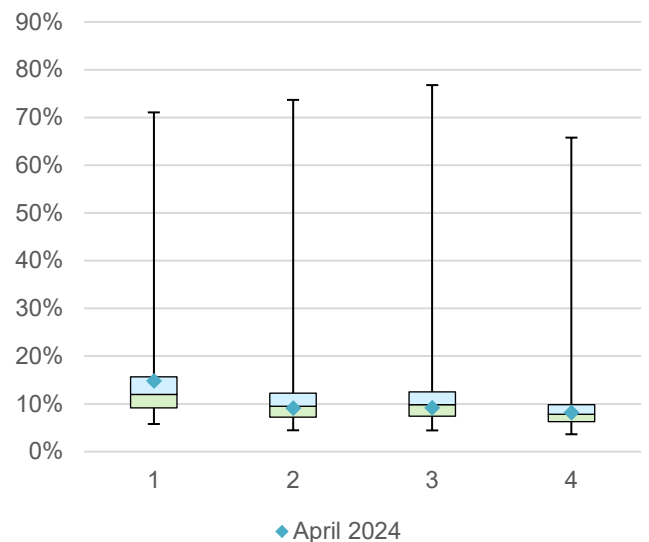


Figure 36: Monthly annualized volatility analysis. EUR net return for 1; EUR gross return for 2-4. Apr. 2012 – Apr. 2024. Source: STOXX.

¹ EUR net return and USD net return used for STOXX Maximum Dividend 40.

Volatility indices

Key points

European equity volatility rose in April, as measured by the [EURO STOXX 50® Volatility \(VSTOXX®\)](#) index and the [VDAX-New®](#) index. The [EURO STOXX 50® Volatility of Volatility \(V-VSTOXX\)](#) index also increased.

The VSTOXX and VDAX measure the implied volatility of EURO STOXX 50 index and DAX index options, respectively, across their entire expiration curve. The V-VSTOXX measures the implied volatility of options on VSTOXX futures, hence reflecting expectations regarding the volatility of volatility. All three are significantly lower than their March 2020 peaks. The VSTOXX, for example, rose to 86 in March 2020.

Risk and return characteristics

	Index Level			Correlation	
	T	T-1M	T-12M	1M	1Y
1. VSTOXX	15.6	13.4	17.4	-0.7	-0.8
2. V-VSTOXX	74.6	71.0	91.2	-0.7	-0.6
3. VDAX	14.6	12.8	20.1	-0.8	-0.8

Index levels for STOXX and DAX Volatility indices. Correlation for VSTOXX and V-VSTOXX compared with EURO STOXX 50 price return, and VDAX relative to DAX gross return. Data as of Apr. 30, 2024. Source: STOXX.

Index and volatility performance

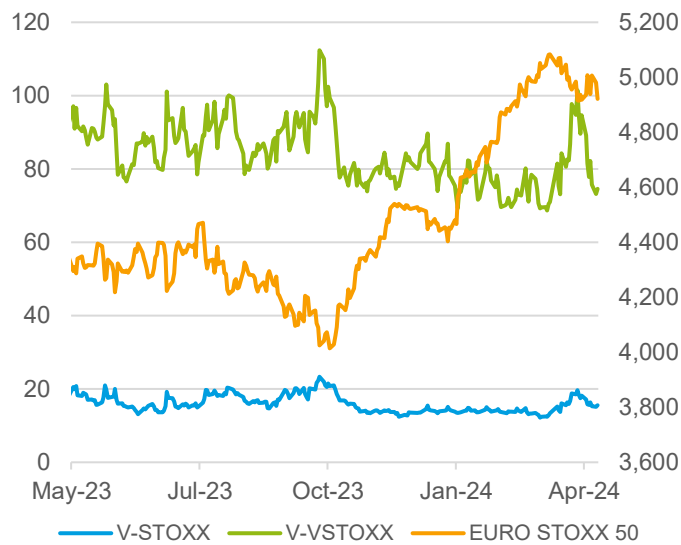


Figure 37: VSTOXX and V-VSTOXX (primary axis). EURO STOXX 50 price return index (secondary axis). May 2023 – Apr. 2024. Source: STOXX.

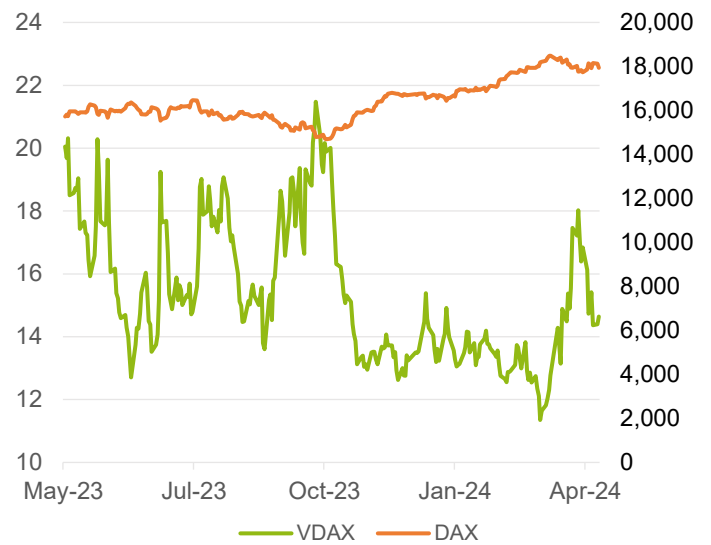


Figure 38: VDAX (primary axis). DAX gross return index (secondary axis). May 2023 – Apr. 2024. Source: STOXX.

About STOXX

STOXX® and DAX® indices comprise a global and comprehensive family of more than 17,000 strictly rules-based and transparent indices. Best known for the leading European equity indices EURO STOXX 50®, STOXX® Europe 600 and DAX®, the portfolio of index solutions consists of total market, benchmark, blue-chip, sustainability, thematic and factor-based indices covering a complete set of world, regional and country markets.

STOXX and DAX indices are licensed to more than 550 companies around the world for benchmarking purposes and as underlyings for ETFs, futures and options, structured products, and passively managed investment funds.

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