



# Innovation Meets Sustainability:

Nasdaq Next Generation 100 ESG Index™

December 2022

# Index Objectives

- Reduce the degree to which the portfolio's economic value is at risk because of ESG factors, or more technically, aim to significantly improve the portfolio's ESG score;
- Exclude enterprises that create reputational risks or violate fundamental values;
- Eliminate business exposures that are off-limit for most ESG-conscious investors; and
- Aim to deliver similar performance and low tracking error to the Nasdaq Next Generation 100 Index™ (NGX™).

# Index Mechanics

- Each ESG Index at all times consists of a selection of securities in the Nasdaq Next Generation 100 Index.
- The Nasdaq Next Generation 100 Index is reconstituted annually in December.
- The ESG characteristics of the underlying issuers are re-evaluated each quarter (March, June, September, December). Hence, there is a reconstitution and a rebalancing *each quarter*.
- Securities removed from the Nasdaq Next Generation 100 Index outside of a reconstitution are removed from the Nasdaq Next Generation 100 ESG Index (NGXESG™) *and are not replaced*.

# Weighting Scheme

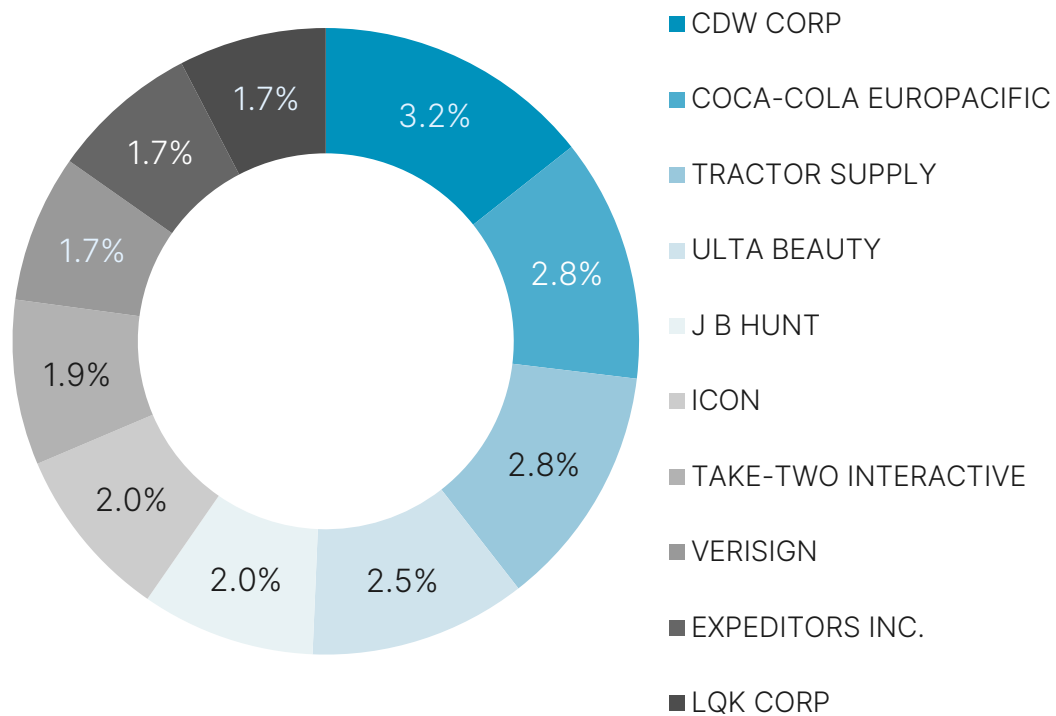
- The ESG Index is modified market capitalization-weighted indexes that consider a company's ESG Risk Rating Score as an adjustment factor.
- Two factors play into the index weight of an issuer:
  - The Nasdaq Next Generation 100 Market Value, and
  - The ESG Risk Rating Score.
- In general, for each issuer:
  - Everything else equal, the higher the weight in the Nasdaq Next Generation 100 and/or the better ESG risk rating, the higher the weight in the NGXESG Index, and vice versa.

# Exclusions December 2022: NGXESG

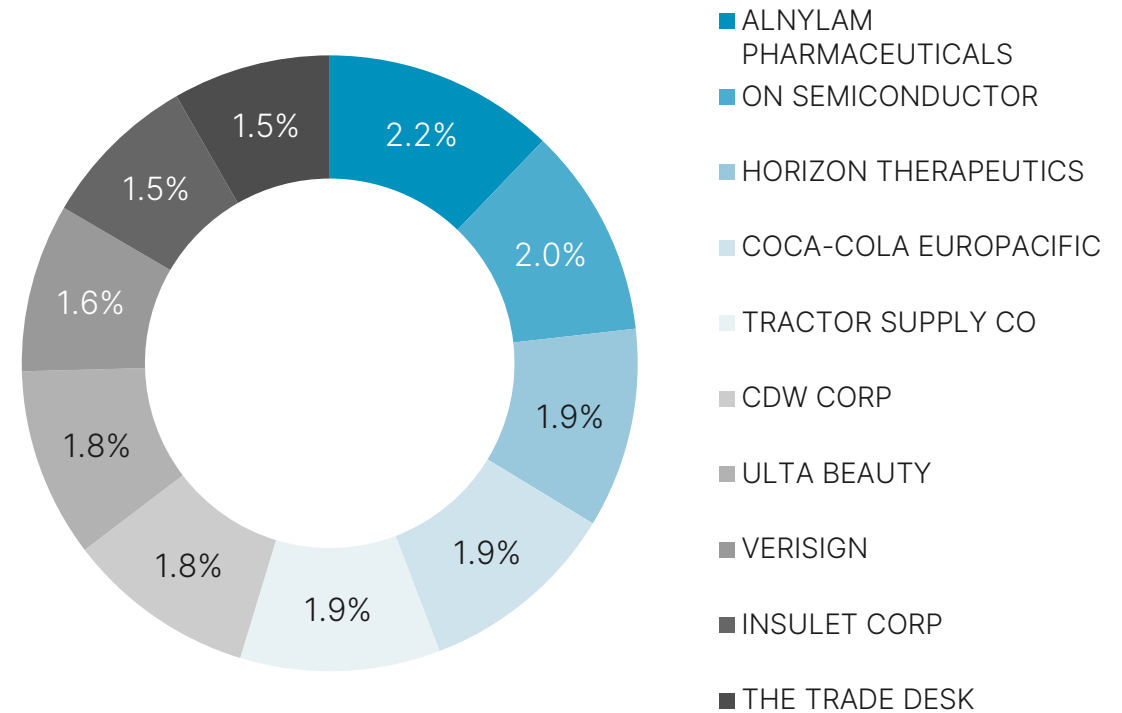
Symbol	Nasdaq Next Generation 100 ESG Reason for Exclusion	NGX Weight (%)	Company Name	ICB Industry
BIDU	Global compact non-compliance.	1.37	Baidu Inc.	Technology
APA	ESG Risk Rating Score is greater than 40. Revenue from oil & gas production. Involvement in shale energy extraction and/or production.	1.13	APA Corp.	Energy
LNT	Revenue from oil & gas generation and thermal coal power generation.	1.05	Alliant Energy Corp.	Utilities
BNTX	ESG Risk Rating Score has not yet been determined.	1.04	BioNTech SE-ADR	Health Care
CHK	ESG Risk Rating Score is greater than 40. Revenue from oil & gas production. Involvement in shale energy extraction and/or production.	0.96	Chesapeake Energy	Energy
AXON	ESG Risk Rating Score is greater than 40. Manufacture riot control protection equipment and riot control weapons.	0.89	Axon Enterprise Inc.	Industrials
CZR	Revenue from gambling operations.	0.67	Caesars Entertainment Inc.	Consumer Discretionary
NFE	Revenue from oil & gas production.	0.67	New Fortress Energy Inc.	Energy
CASY	Revenue from tobacco products – retail.	0.63	Casey's General Stores Inc.	Consumer Staples

# Top 10 Constituents: NGXESG vs NGX

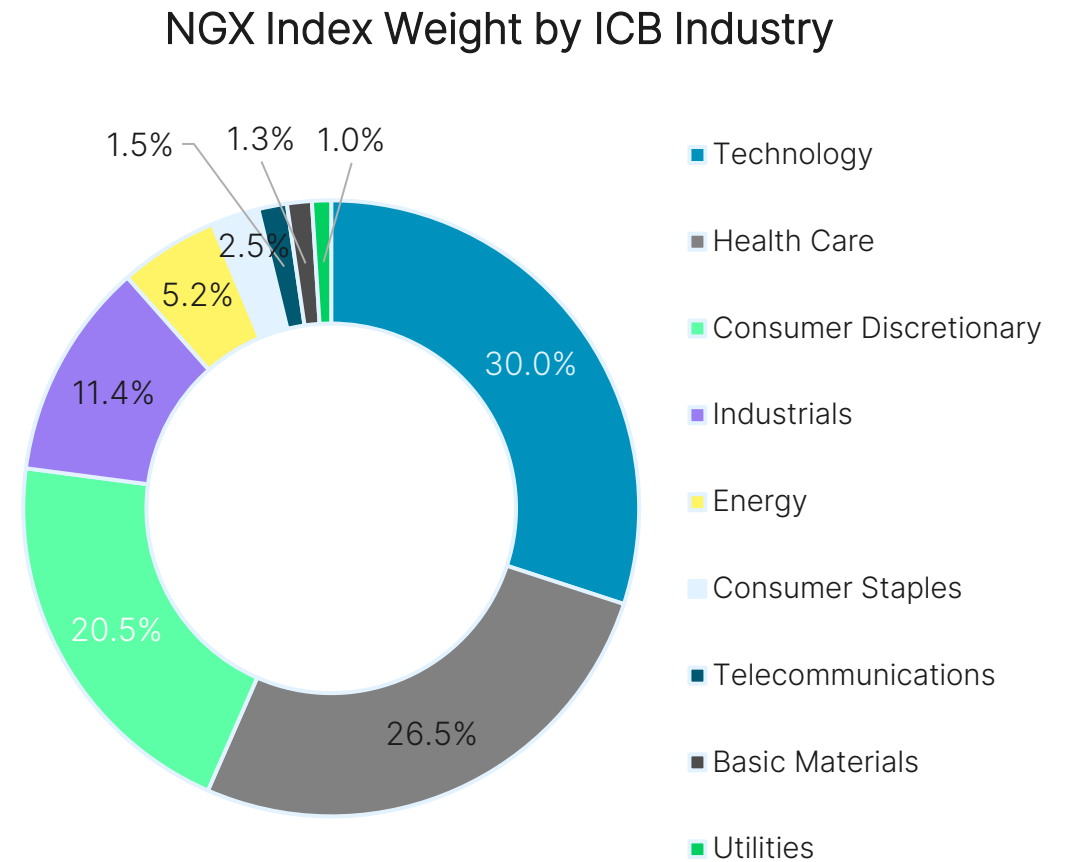
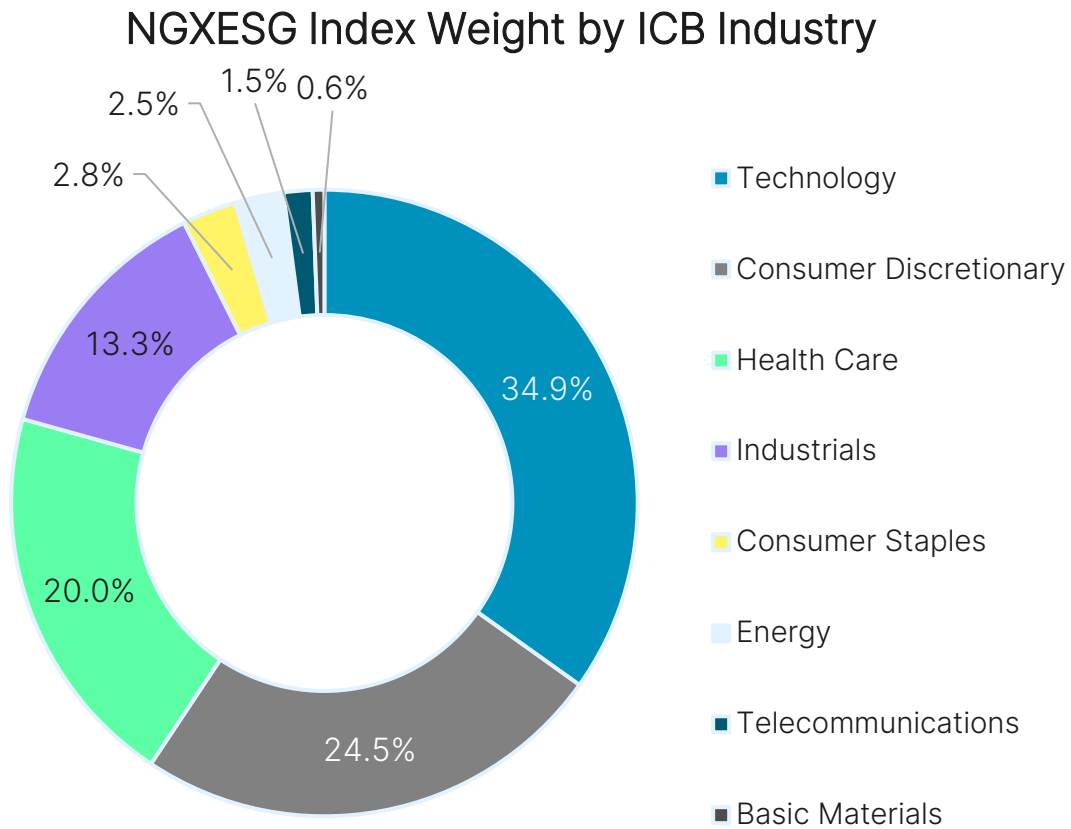
NGXESG: Top 10 Weight = 22.4%



NGX: Top 10 Weight = 18.3%

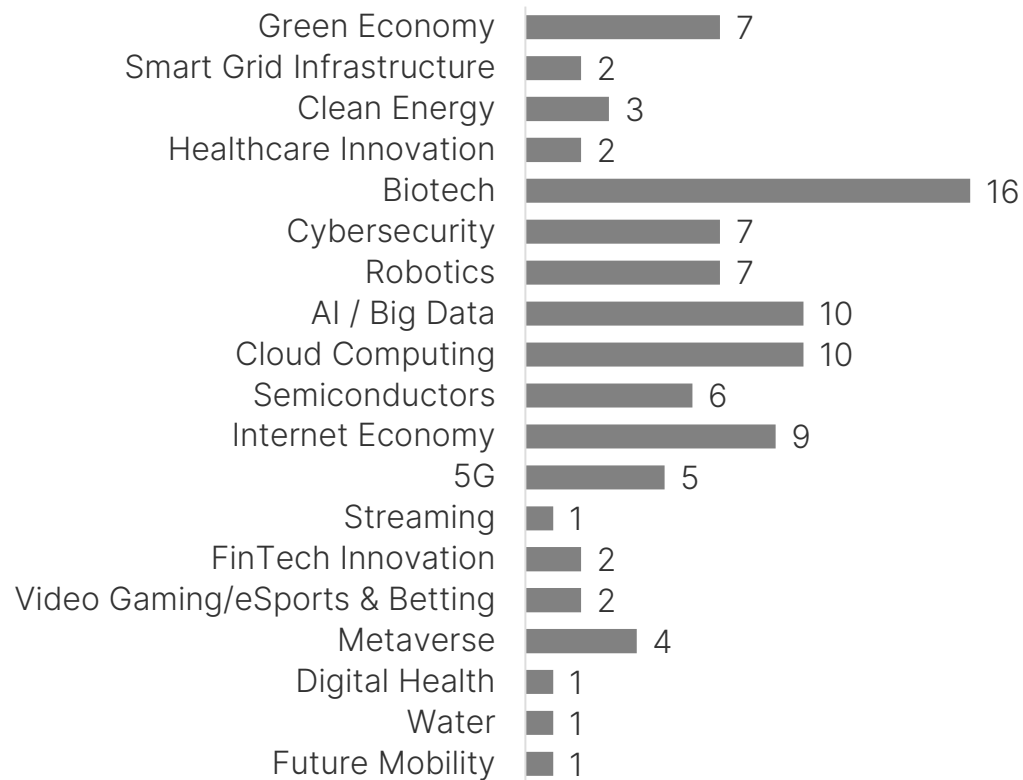


# Sector Exposures: NGXESG vs NGX

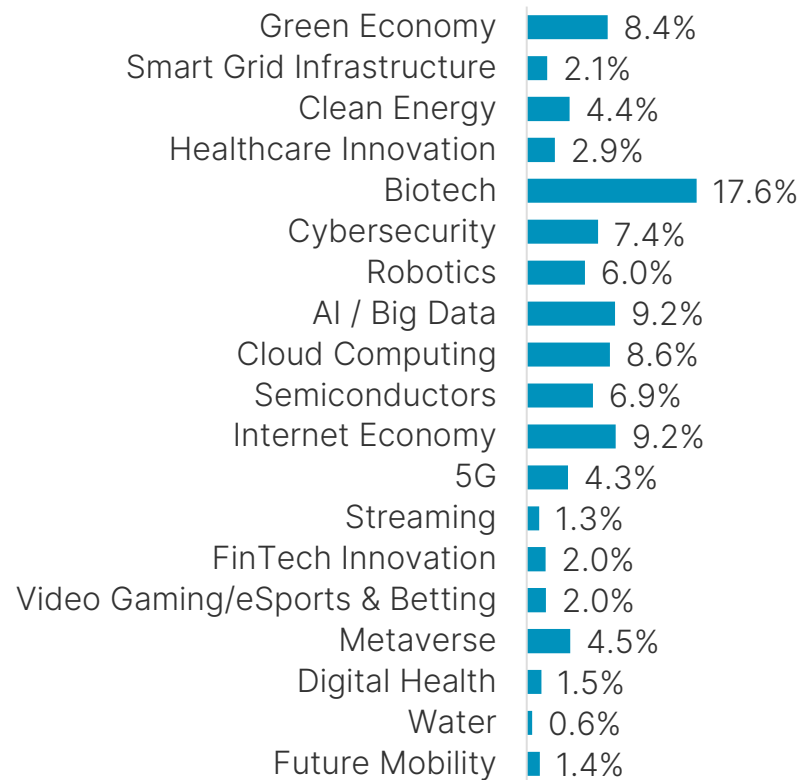


# Nasdaq Next Generation 100 by Thematic Exposures

## # of Constituents per Theme



## Index Weight per Theme



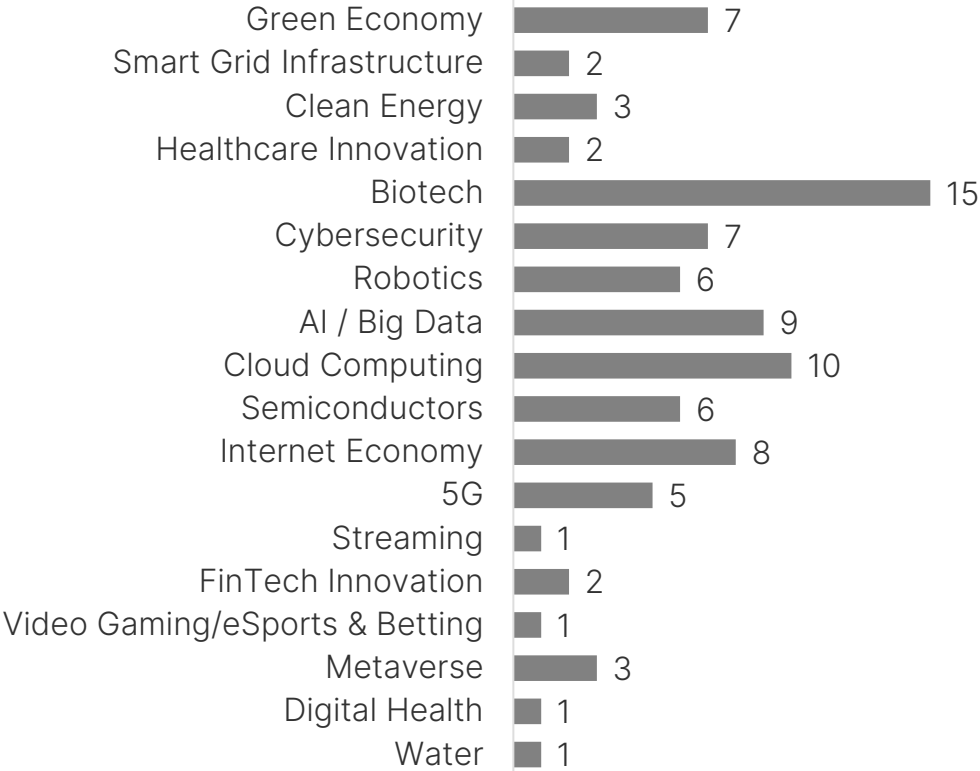
Source: Nasdaq, FactSet. Data as of 12/30/2022.

Based on overlap with existing Nasdaq Thematic Indexes, except for 5G, Streaming, and Video Gaming/eSports & Betting where competitor products were analyzed.

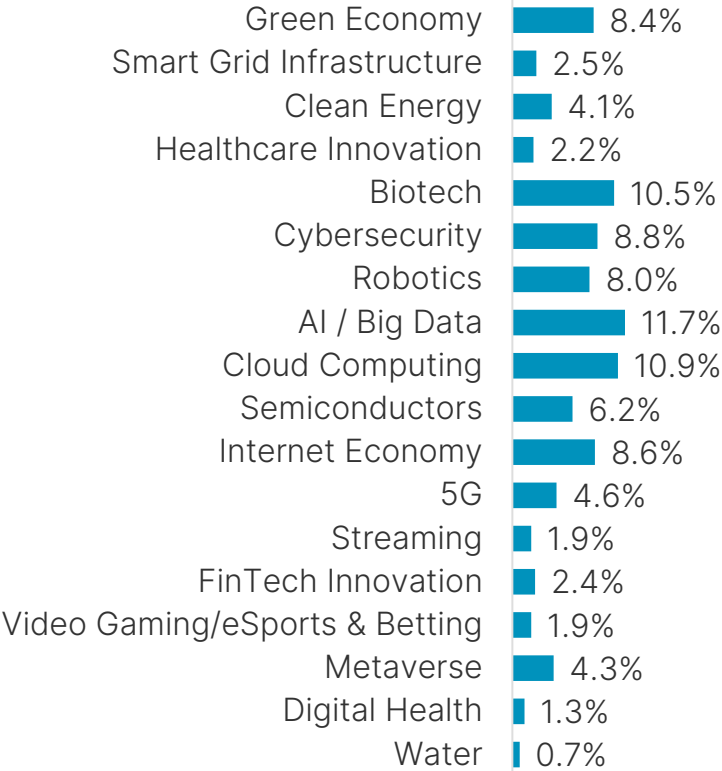


# Nasdaq Next Generation 100 ESG by Thematic Exposures

# of Constituents per Theme



Index Weight per Theme



Source: Nasdaq, FactSet. Data as of 12/30/2022. Based on overlap with existing Nasdaq Thematic Indexes, except for 5G, Streaming, and Video Gaming/eSports & Betting where competitor products were analyzed.

# Top 10 Largest Overweights: NGXESG vs NGX

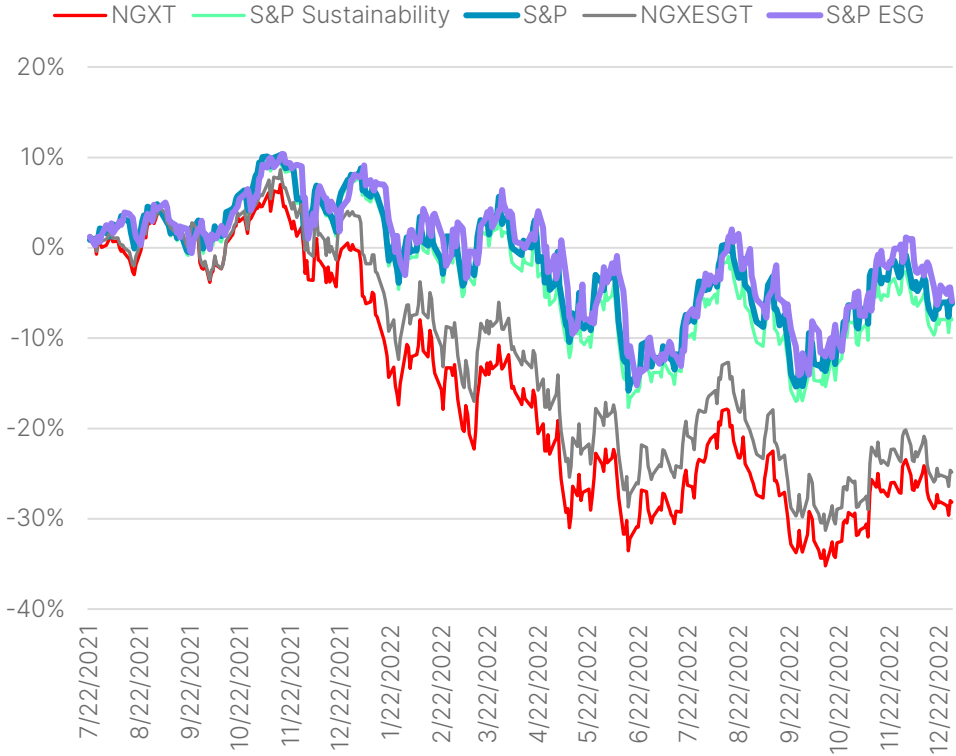
Symbol	NGXESG Weight (%)	NGX Weight (%)	Difference Weight (%)	Company Name	ICB Industry
CDW	3.2	1.8	1.4	CDW Corporation	Technology
TSCO	2.8	1.9	0.9	Tractor Supply Co	Consumer Discretionary
CCEP	2.8	1.9	0.9	Coca-Cola Europacific	Consumer Staples
ICLR	2.0	1.2	0.8	Icon PLC	Health Care
ULTA	2.5	1.8	0.7	Ulta Beauty	Consumer Discretionary
FLEX	1.4	0.7	0.7	Flex Ltd.	Technology
JBHT	2.0	1.4	0.7	J B Hunt	Industrials
TTWO	1.9	1.3	0.6	Take-Two Interactive	Consumer Discretionary
LKQ	1.7	1.1	0.6	LKQ Corp	Consumer Discretionary
ZBRA	1.6	1.0	0.6	Zebra Technologies	Industrials

# Top 10 Largest Underweights: NGXESG vs NGX

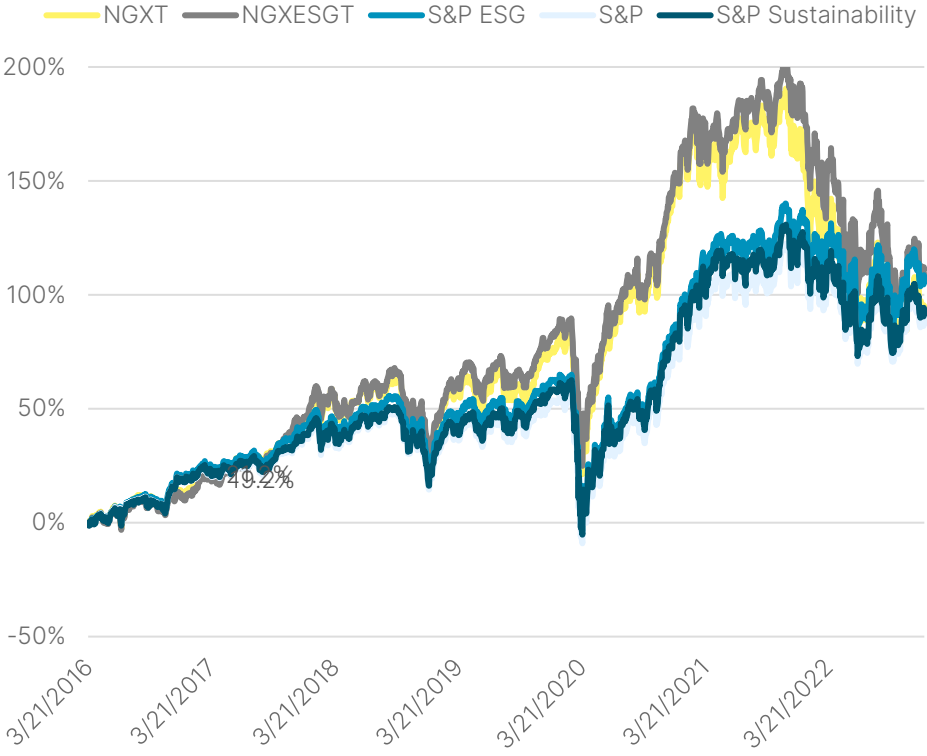
Symbol	NGXESG Weight (%)	NGX Weight (%)	Difference Weight (%)	Company Name	ICB Industry
HZNP	0.5	1.9	-1.4	Horizon Therapeutics	Health Care
ALNY	1.3	2.2	-0.9	Alnylam Pharmaceuticals	Health Care
STLD	0.6	1.3	-0.7	Steel Dynamics	Basic Materials
ARGX	0.4	0.9	-0.5	Argenx	Health Care
SRPT	0.3	0.9	-0.5	Sarepta Therapeutics	Health Care
RPRX	0.8	1.3	-0.5	Royalty Pharma	Health Care
HOLX	0.9	1.4	-0.5	Hologic, Inc.	Health Care
ON	1.6	2.0	-0.5	ON Semiconductor	Technology
VTRS	0.6	1.0	-0.5	Viartris Inc.	Health Care
NVCR	0.2	0.6	-0.4	NovoCure Ltd.	Health Care

# Performance – NGX vs. NGXESG

Since Inception  
7/22/2021 – 12/30/2022



Since Beginning of Backtest  
3/21/2016 – 12/30/2022



# ESG Comparisons – NGX/NGXESG

Index	Benchmark	Number of Securities	% Exclusion from the Benchmark	Weighted Average Sustainalytics ESG Risk Score	Simple Average Sustainalytics ESG Risk Score
Nasdaq Next Generation 100 Index	--	104	n/a	21.6	21.6
Nasdaq Next Generation ESG 100 Index	Nasdaq Next Generation 100 Index	95	9%	18.3	20.6
S&P MidCap 400 Index	--	401	n/a	23.7	23.7
S&P MidCap 400 Sustainability Screened Index	S&P MidCap 400 Index	371	7%	22.9	22.9
S&P MidCap 400 ESG Index	S&P MidCap 400 Index	256	36%	22.3	22.3

# RESOURCES

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## RESOURCES

# Nasdaq Next Generation 100 ESG Index

- Overview
  - <https://indexes.nasdaqomx.com/Index/Overview/NGXESG>
- Methodology
  - [https://indexes.nasdaqomx.com/docs/methodology\\_NGXESG.pdf](https://indexes.nasdaqomx.com/docs/methodology_NGXESG.pdf)
- Research
  - [https://indexes.nasdaqomx.com/docs/NGXESG\\_Research.pdf](https://indexes.nasdaqomx.com/docs/NGXESG_Research.pdf)
- Fact Sheet
  - [https://indexes.nasdaqomx.com/docs/FS\\_NGXESGT.pdf](https://indexes.nasdaqomx.com/docs/FS_NGXESGT.pdf)
- Carbon Credit Report
  - NGXESG: <https://indexes.nasdaqomx.com/docs/Carbon%20Footprint%20Report%20-%20NGXESG.pdf>
  - NGX: <https://indexes.nasdaqomx.com/docs/Carbon%20Footprint%20Report%20-%20NGX.pdf>

# APPENDIX

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## Exclusions based on ESG risk

- Companies with a “Severe” ESG Risk Rating are automatically disqualified from inclusion.
  - A rating of greater than 40 is considered “Severe”; 30-40 is considered “High”; 20-30 is “Medium”; 10-20 is “Low”; and 0-10 is “Negligible”.
- Exclude any company that has not been researched yet.

## Exclusions based on ESG risk – continued

- Exclude any company that has a controversy score equal to 5:
  - The controversy rating reflects:
    - Incidents with negative Environmental, Social and Governance (ESG) implications.
    - A company's level of involvement in and how it manages these issues.
  - Categorical scores are on a scale of 1 to 5.

# Exclusions based on international norms

- A company must not violate the *United Nations Global Compact*:
  - 10 principles around human rights, labor, environment, and anti-corruption.
  - <https://www.unglobalcompact.org/what-is-gc/mission/principles>
- Securities are excluded from NGXESG that are classified as non-compliant.
  - Each company in the index is therefore classified as either compliant or on the watch-list with the UN Global Compact framework for following international norms.

## APPENDIX

# Exclusions based on business involvements

## Business Involvement Considered\*:

1. Energy (Arctic oil & gas, nuclear power, oil & gas, oil sands, shale energy, thermal coal)
2. Health & Life (Alcohol, recreational cannabis, tobacco)
3. Defense & Military (controversial weapons, military contracting, riot control, small arms)
4. Values-Based (adult entertainment, gambling)

## Weighting scheme – continued

$$ESG\ Risk - Adjusted\ NDX\ Market\ Value = \frac{40 - ESG\ Risk\ Rating\ Score}{40} \times NDX\ Market\ Value$$

- Initial security weights are calculated by dividing a security's ESG Risk-Adjusted NDX Market Value by the sum of the ESG Risk-Adjusted NDX Market Values of all Index Securities.
- Afterwards, the same four-stage weight adjustment process as exists for NDX at its annual reconstitution is applied to produce final weights on a quarterly basis for NDXESG.
- (All the above applies for NGX and NGXESG, as well.)

## APPENDIX

# Weighting scheme – continued

Security	Parent Index Market Value	ESG Risk Rating Score	(40-ESG Risk Rating Score)/40	ESG Adjusted Market Value	Weight in ESG Index (before capping)	Weight in Parent Index	ESG Excess Weight
Company A	157,440,900.96	9.669091	0.76	119,383,139.64	5%	2%	3%
Company B	408,425,550.79	10.14988	0.75	304,788,747.93	12%	5%	7%
Company C	466,765,510.49	10.33926	0.74	346,115,277.80	14%	6%	8%
Company D	337,399,212.20	10.56613	0.74	248,274,134.49	10%	4%	6%
Company E	36,052,270.56	12.02819	0.70	25,211,182.25	1%	0%	1%
Company F	590,398,129.57	16.18527	0.60	351,504,303.67	14%	7%	7%
Company G	268,545,835.16	19.19268	0.52	139,692,956.82	6%	3%	2%
Company H	311,917,708.29	20.84302	0.48	149,385,045.36	6%	4%	2%
Company I	547,470,308.53	22.79236	0.43	235,516,830.87	10%	7%	3%
Company J	24,733,442.74	24.69826	0.38	9,461,619.64	0%	0%	0%
Company K	435,838,825.61	27.38121	0.32	137,493,977.85	6%	5%	0%
Company L	118,577,295.32	27.73561	0.31	36,356,957.07	1%	1%	0%
Company M	307,719,744.86	28.36004	0.29	89,546,103.32	4%	4%	0%
Company N	441,090,355.41	33.1488	0.17	75,549,938.88	3%	6%	-2%
Company O	834,726,757.15	35.35263	0.12	96,982,201.14	4%	10%	-7%
Company P	550,834,597.82	37.24048	0.07	38,001,025.35	2%	7%	-5%
Company Q	269,359,777.85	37.4192	0.06	17,379,073.33	1%	3%	-3%
Company R	844,981,656.98	38.72938	0.03	26,841,302.95	1%	11%	-10%
Company S	359,845,558.64	39.02818	0.02	8,742,612.50	0%	5%	-4%
Company T	646,652,051.08	39.70698	0.01	4,736,994.67	0%	8%	-8%

*For Illustrative Purposes Only.*

*The information included on this slide is not based on actual data.*



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