

Innovation Meets Sustainability:

*Nasdaq-100 ESG Index™ &
Nasdaq Next Generation 100 ESG Index™*

November 2021



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 to the Nasdaq-100® (NDX™)/ Nasdaq Next Generation 100 Index™ (NGX™) (very low tracking error).

Index Mechanics

- Each ESG index at all times consists of a selection of securities in the Nasdaq-100 / Nasdaq Next Generation 100 Index.
- The Nasdaq-100 and Nasdaq Next Generation 100 Indexes are 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-100 / Nasdaq Next Generation 100 Index outside of a reconstitution are removed from Nasdaq-100 ESG Index (NDXESG™) / Nasdaq Next Generation 100 ESG Index (NGXESG™) and *are not replaced*.

Weighting Scheme

- The ESG Indexes are modified market capitalization-weighted index that considers a company's ESG Risk Rating Score as an adjustment factor.
- Two factors play into the index weight of an issuer:
 - The Nasdaq-100 / 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-100 and/or the better ESG risk rating, the higher the weight in the NDXESG Index, and vice versa. Same for Nasdaq Next Generation 100 and NGXESG.

Exclusions September 2021: NDXESG

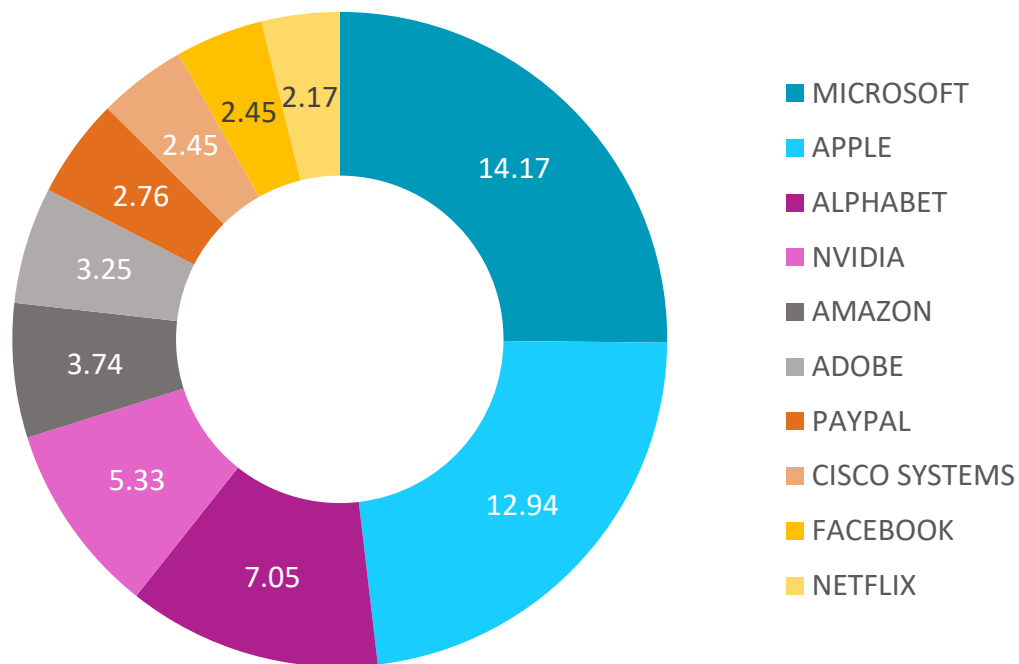
Symbol	Nasdaq-100 ESG Reason for Exclusion	Nasdaq-100 Weight (%)	Company Name	ICB Industry
HON	Revenue from military weapons. Provide non-nuclear materials for nuclear weapons and involved in management of labs where nuclear weapons are designed and tested.	1.04	HONEYWELL INTERNATIONAL	Industrials
ADI	Revenue from military contracting weapon-related products and/or services.	0.63	ANALOG DEVICES	Technology
EXC	Revenue from nuclear energy and oil & gas power generation.	0.33	EXELON	Utilities
AEP	Revenue from thermal coal power generation, nuclear energy, and oil & gas power generation.	0.29	AMERICAN ELECTRIC POWER COMPANY	Utilities
XEL	Revenue from thermal coal power generation and oil & gas power generation.	0.24	XCEL ENERGY	Utilities
PTON	ESG Risk Rating Score has not yet been determined.	0.19	PELOTON INTERACTIVE	Consumer Discretionary

Exclusions September 2021: NGXESG

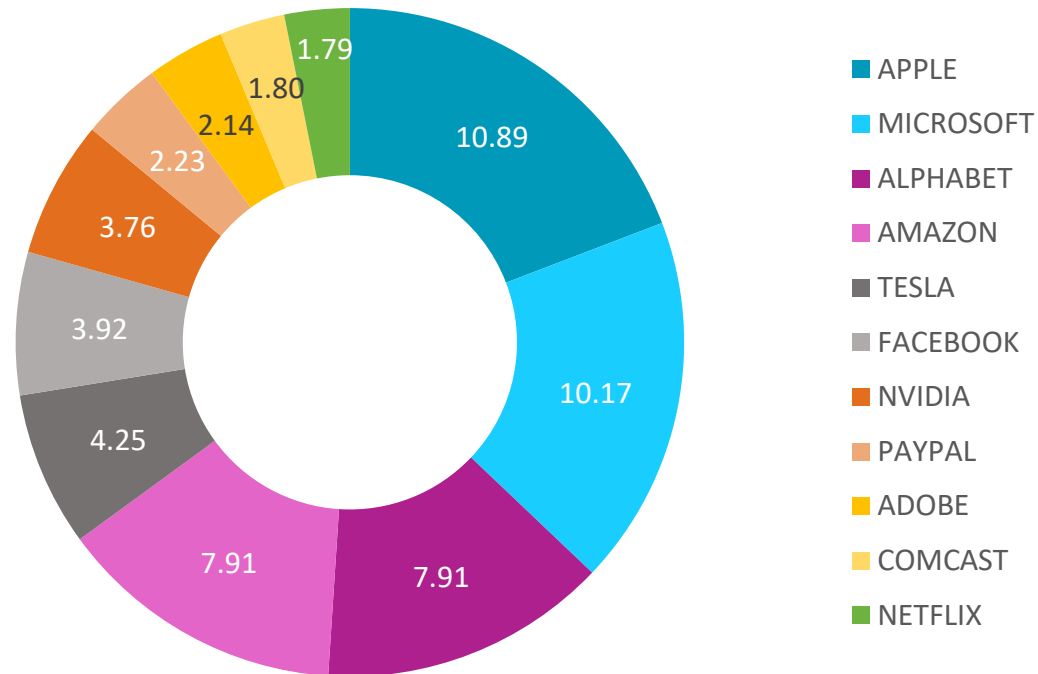
Symbol	Nasdaq Next Generation 100 Reason for Exclusion	NGX Weight (%)	Company Name	ICB Industry
DKNG	Revenue from gambling operations.	1.43	DRAFTKINGS	Consumer Discretionary
CZR	Revenue from gambling operations.	1.33	CAESARS ENTERTAINMENT	Consumer Discretionary
RPRX	ESG Risk Rating Score has not yet been determined.	0.96	ROYALTY PHARMA	Health Care
TXG	ESG Risk Rating Score has not yet been determined.	0.87	10X GENOMICS	Health Care
LNT	Revenue from thermal coal power generation and oil & gas power generation	0.85	ALLIANT ENERGY	Utilities
NVCR	ESG Risk Rating Score is greater than 40.	0.80	NOVOCURE	Health Care
PENN	Revenue from gambling operations.	0.68	PENN NATL GAMING	Consumer Discretionary
WYNN	Revenue from gambling operations.	0.56	WYNN RESORTS LIMITED	Consumer Discretionary
BYND	ESG Risk Rating Score is greater than 40.	0.42	BEYOND MEAT	Consumer Staples
VMEO	ESG Risk Rating Score has not yet been determined.	0.30	VIMEO	Technology

Top 10 Constituents: NDXESG vs NDX

NDXESG: Top 10 Weight = 56.3%

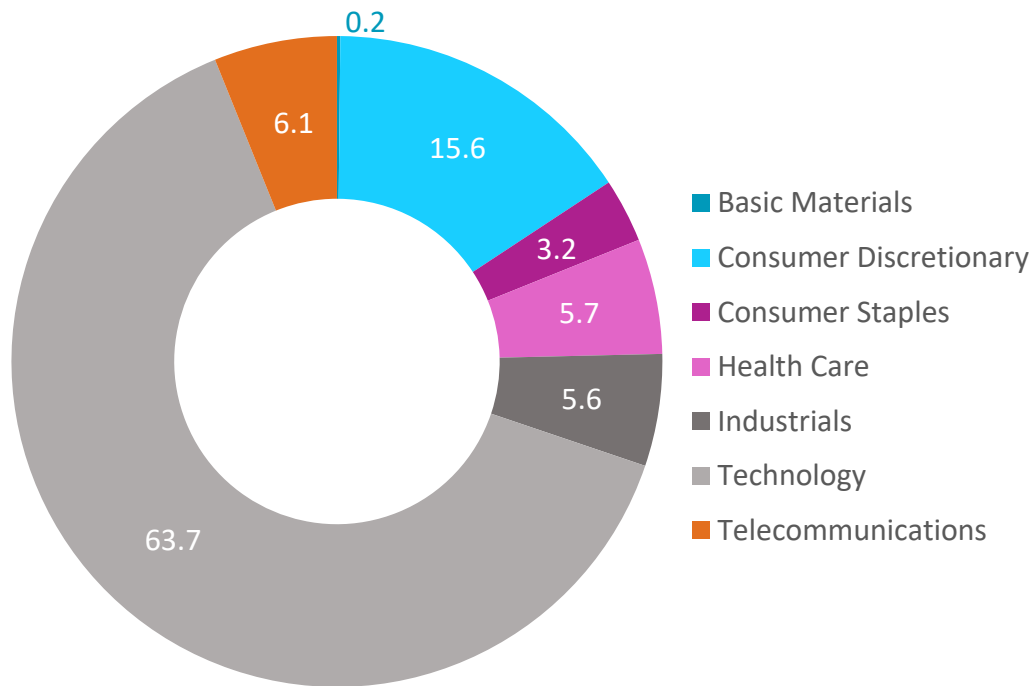


NDX: Top 10 Weight = 56.8%

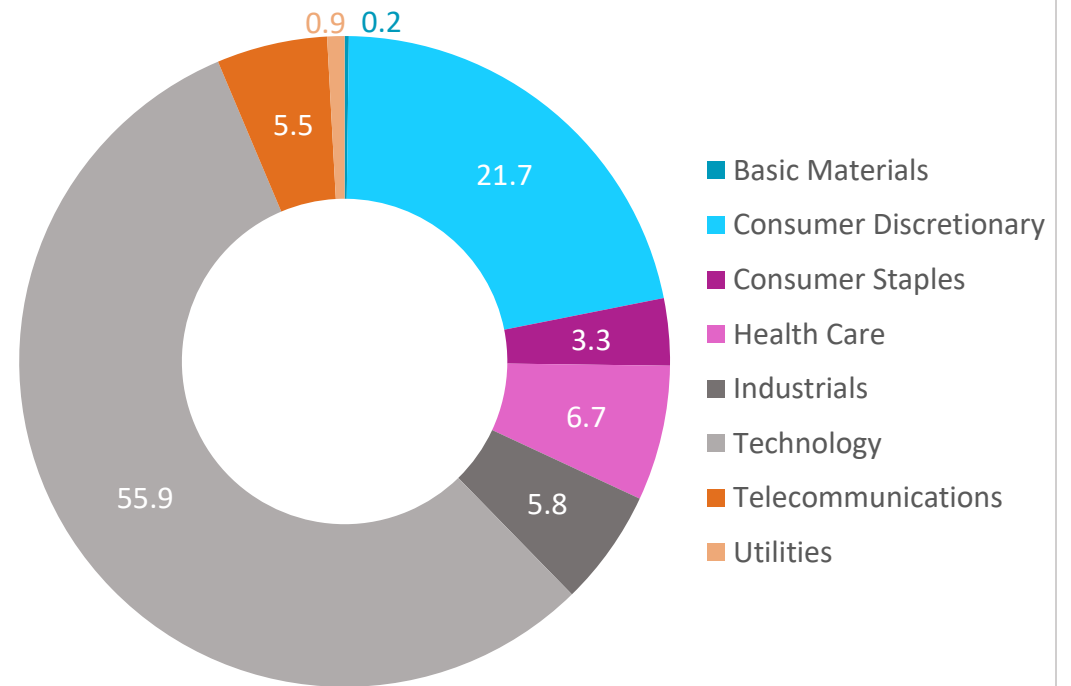


Sector Exposures: NDXESG vs. NDX

NDXESG Index Weight by ICB Industry

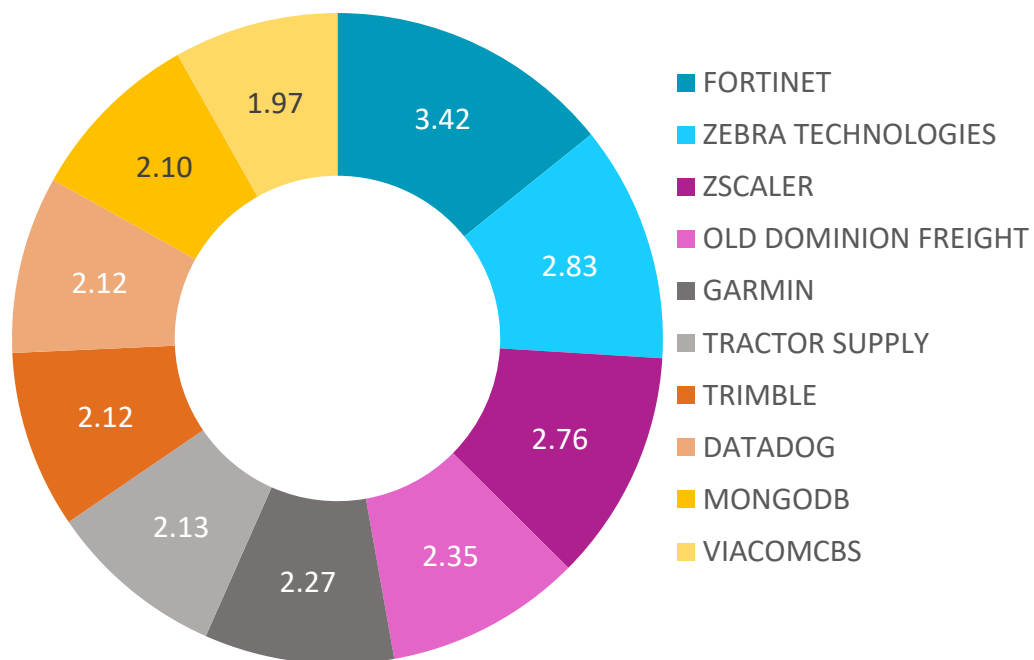


NDX Index Weight by ICB Industry

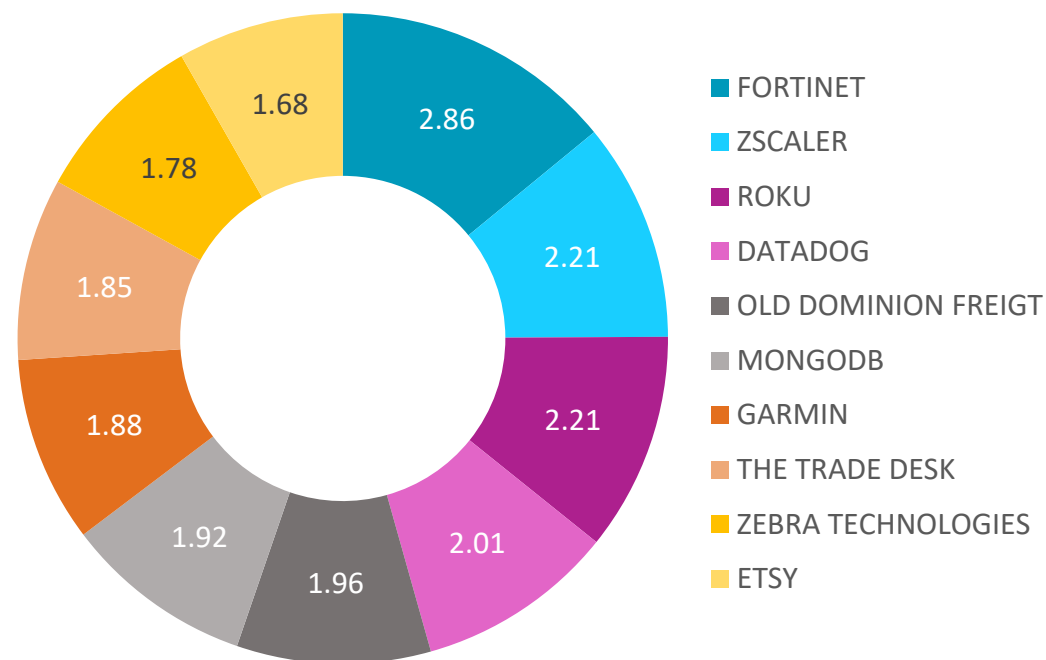


Top 10 Constituents: NGXESG vs NGX

NGXESG: Top Weight = 24.1%

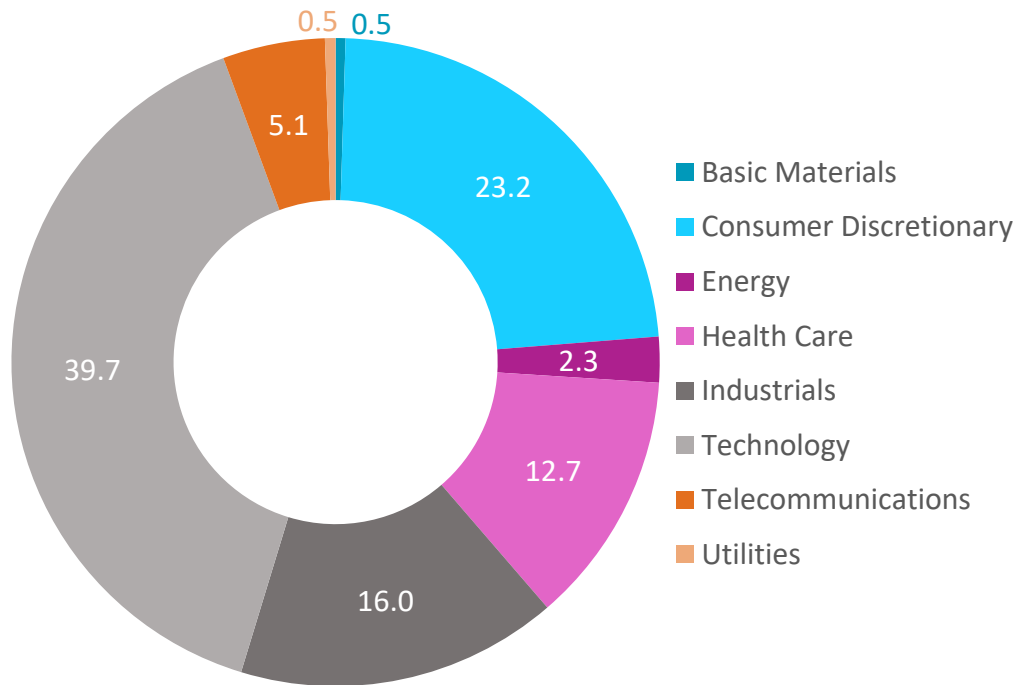


NGX: Top Weight = 20.4%

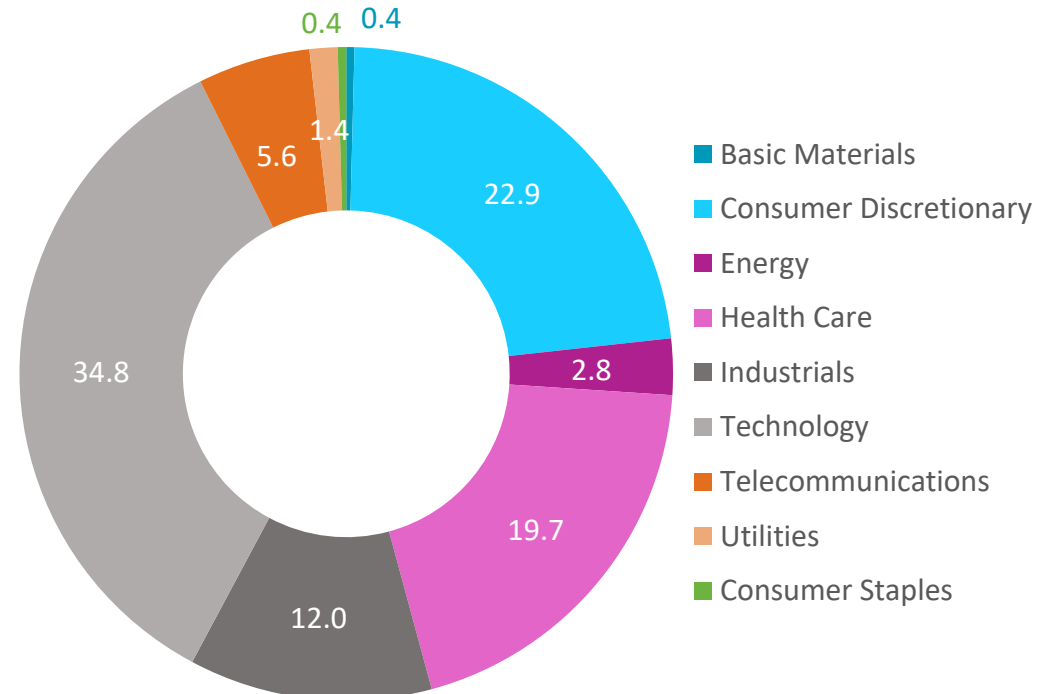


Sector Exposures: NGXESG vs. NGX

NGXESG Index Weight by ICB Industry

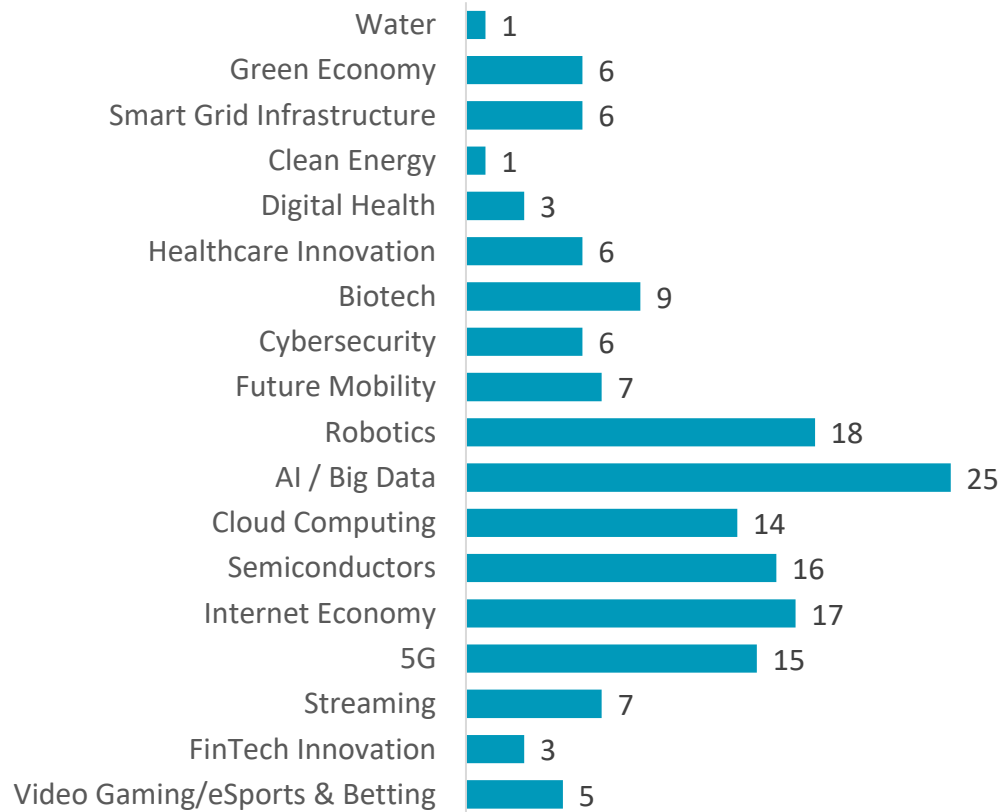


NGX Index Weight by ICB Industry

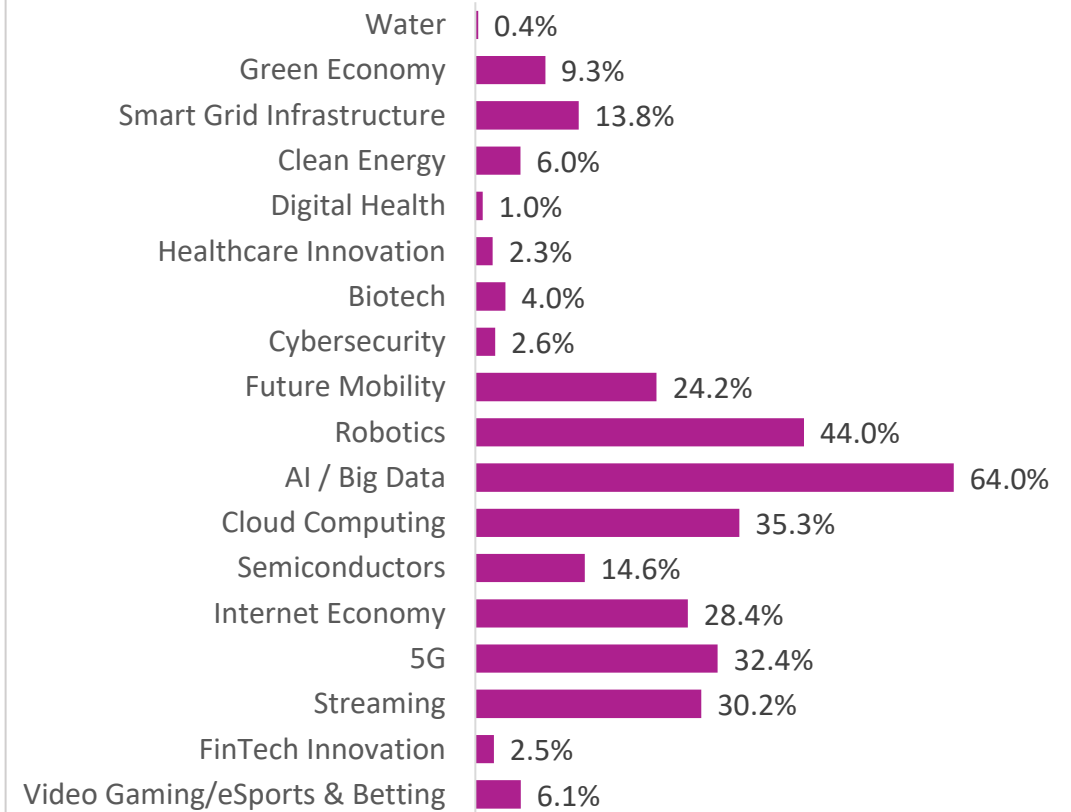


Nasdaq-100 by Thematic Exposures

of Constituents per Theme



Index Weight per Theme

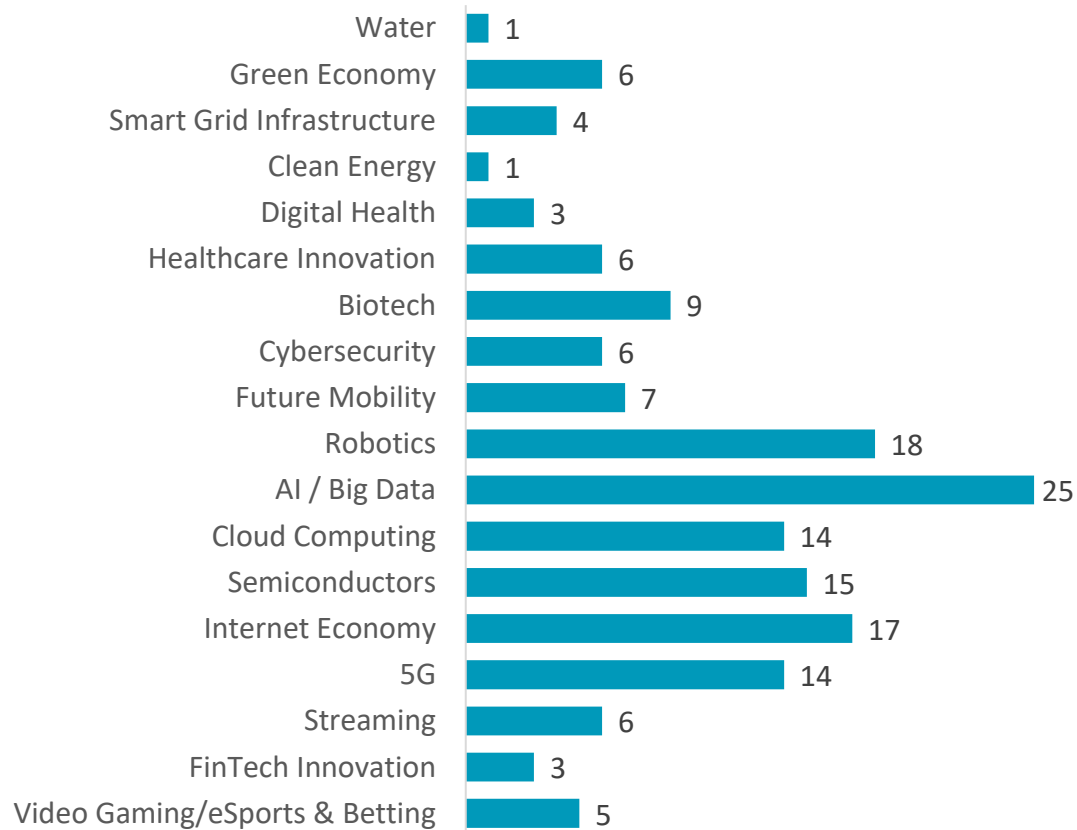


Source: Nasdaq, Bloomberg, FactSet. Data as of 10/29/2021.

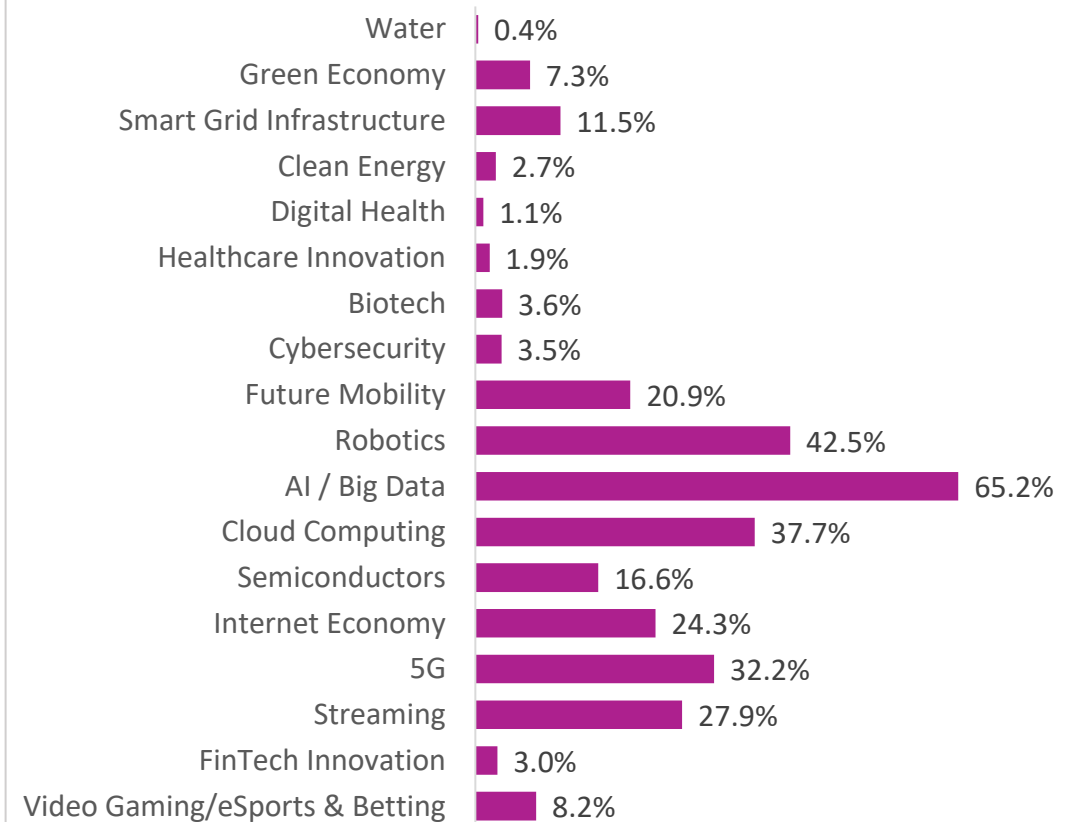
Based on overlap with existing Nasdaq Thematic Indexes, except for Digital Health, Healthcare Innovation, 5G, Streaming, and Video Gaming/eSports & Betting where competitor products were analyzed.

Nasdaq-100 ESG by Thematic Exposures

of Constituents per Theme



Index Weight per Theme

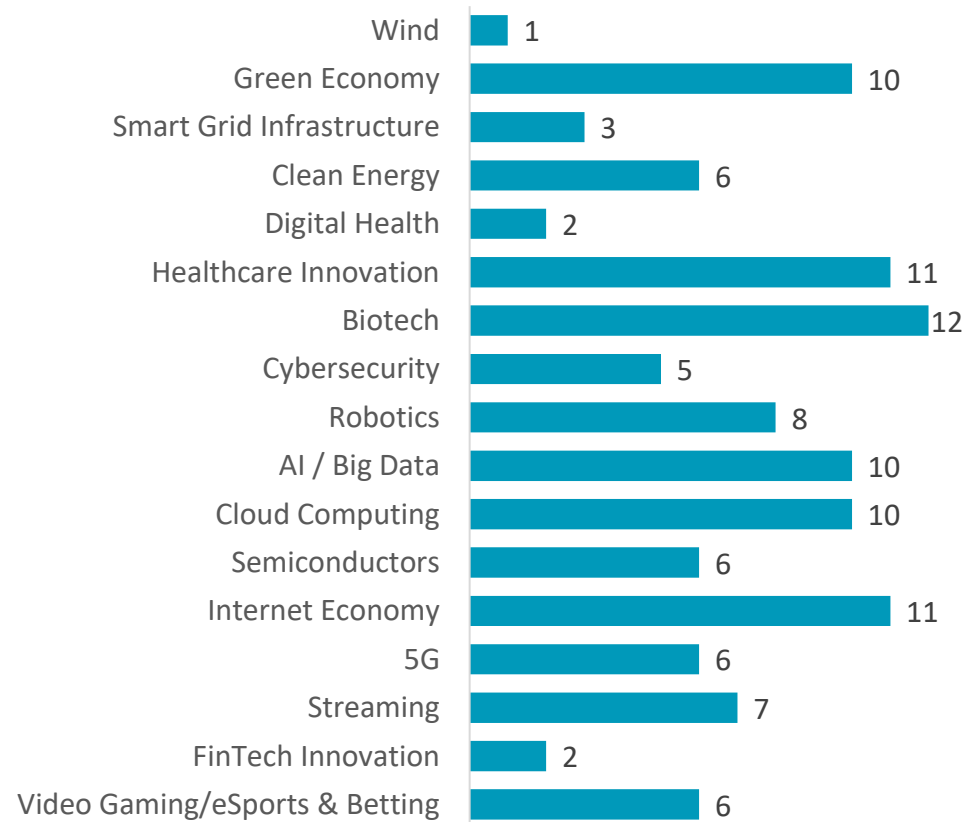


Source: Nasdaq, Bloomberg, FactSet. Data as of 10/29/2021.

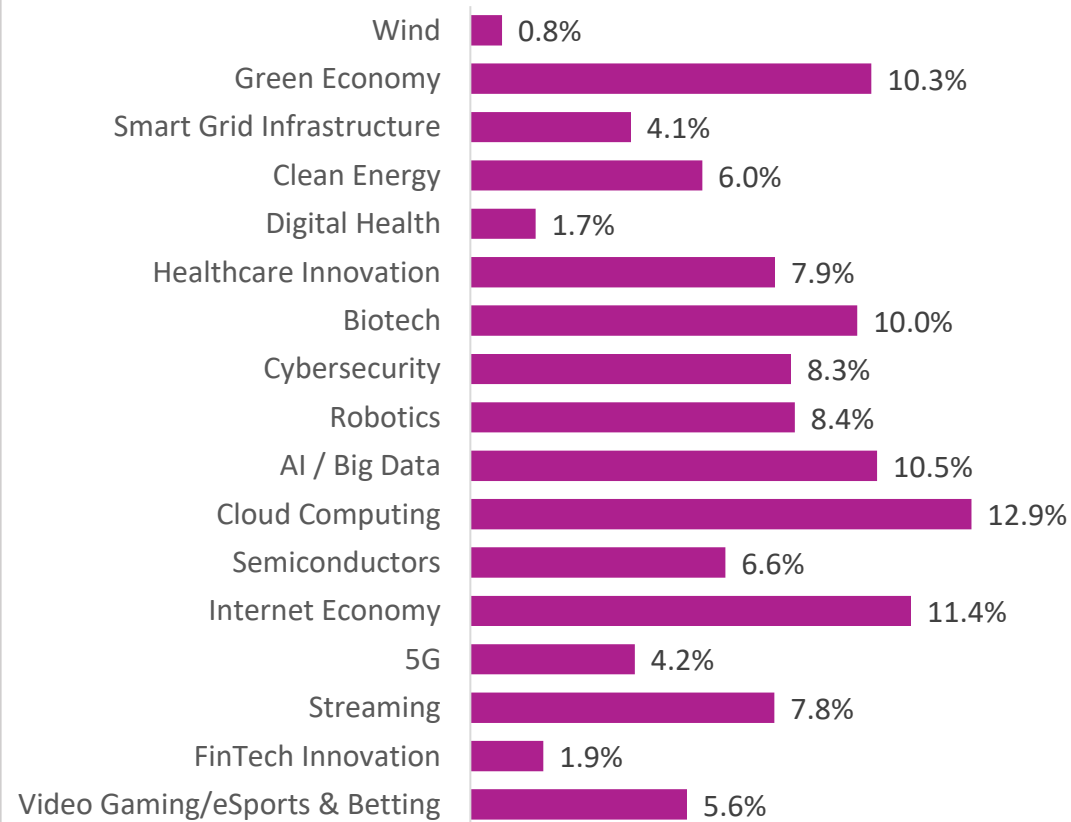
Based on overlap with existing Nasdaq Thematic Indexes, except for Digital Health, Healthcare Innovation, 5G, Streaming, and Video Gaming/eSports & Betting where competitor products were analyzed.

Nasdaq Next Generation 100 by Thematic Exposures

of Constituents per Theme



Index Weight per Theme

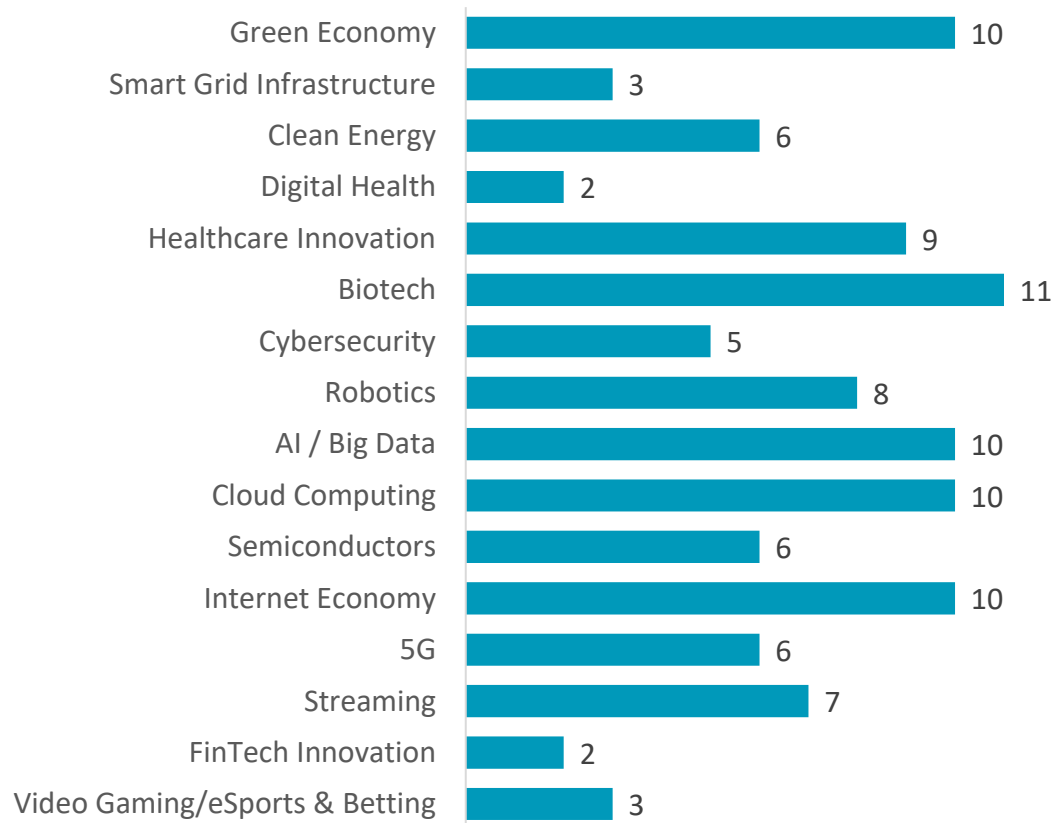


Source: Nasdaq, Bloomberg, FactSet. Data as of 10/29/2021.

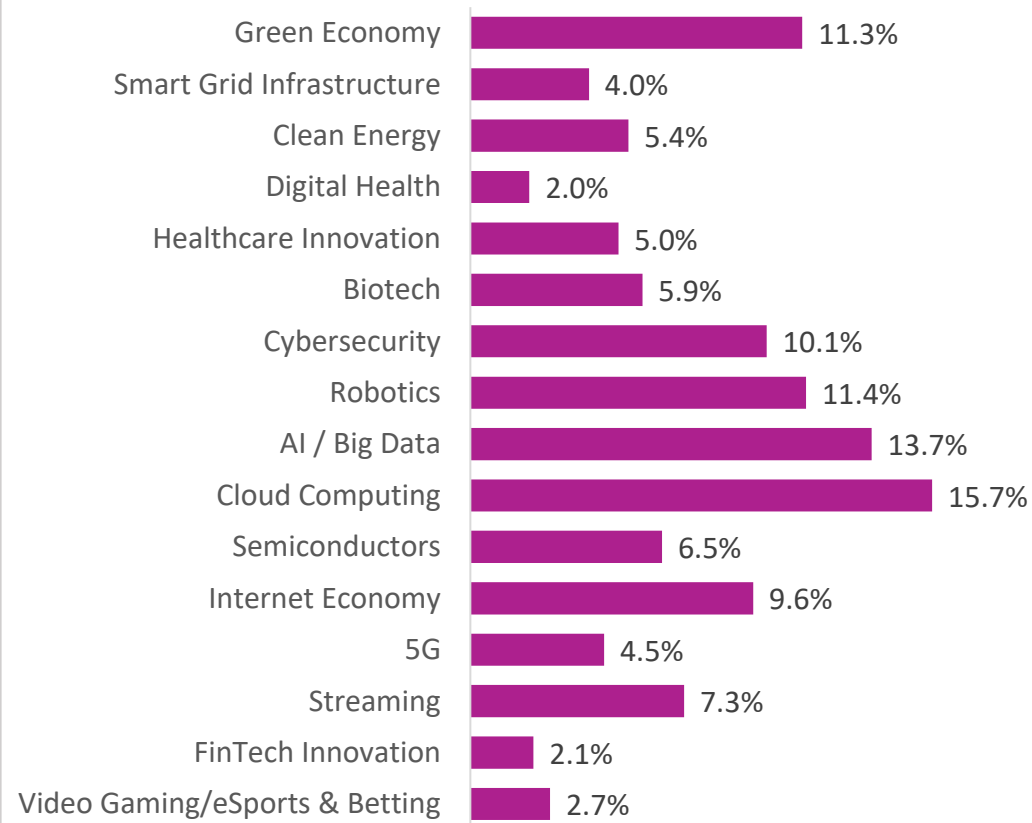
Based on overlap with existing Nasdaq Thematic Indexes, except for Digital Health, Healthcare Innovation, 5G, Streaming, and Video Gaming/eSports & Betting where competitor products were analyzed.

Nasdaq Next Generation 100 ESG by Thematic Exposures

of Constituents per Theme



Index Weight per Theme



Source: Nasdaq, Bloomberg, FactSet. Data as of 10/29/2021.

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

Top 10 Largest Overweights: NDXESG

Symbol	Nasdaq-100 ESG Weight (%)	Nasdaq-100 Weight (%)	Difference Weight (%)	Company Name	ICB Industry
MSFT	14.17	10.17	4.00	MICROSOFT	Technology
AAPL	12.94	10.89	2.05	APPLE	Technology
NVDA	5.33	3.76	1.57	NVIDIA	Technology
ADBE	3.25	2.14	1.11	ADOBE	Technology
CSCO	2.45	1.64	0.80	CISCO SYSTEMS	Telecommunications
PYPL	2.76	2.23	0.53	PAYPAL HOLDINGS	Industrials
AMAT	1.26	0.87	0.39	APPLIED MATERIALS	Technology
NFLX	2.17	1.79	0.37	NETFLIX	Consumer Discretionary
INTC	1.81	1.51	0.30	INTEL	Technology
PEP	1.72	1.46	0.26	PEPSICO	Consumer Staples

Top 10 Largest Underweights: NDXESG

Symbol	Nasdaq-100 ESG Weight (%)	Nasdaq-100 Weight (%)	Difference Weight (%)	Company Name	ICB Industry
AMZN	3.74	7.91	(4.18)	AMAZON.COM	Consumer Discretionary
TSLA	1.93	4.25	(2.32)	TESLA	Consumer Discretionary
FB	2.45	3.92	(1.48)	FACEBOOK	Technology
MRNA	0.62	1.19	(0.57)	MODERNA INC	Health Care
GOOG	3.64	4.09	(0.44)	ALPHABET CL C	Technology
GOOGL	3.41	3.83	(0.41)	ALPHABET CL A	Technology
ISRG	0.46	0.85	(0.38)	INTUITIVE SURGICAL	Health Care
AVGO	1.08	1.43	(0.34)	BROADCOM	Technology
CHTR	0.71	0.96	(0.25)	CHARTER COMMUNICATIONS	Telecommunications
KHC	0.09	0.31	(0.22)	KRAFT HEINZ	Consumer Staples
COST	1.22	1.39	(0.17)	COSTCO WHOLESALE	Consumer Discretionary

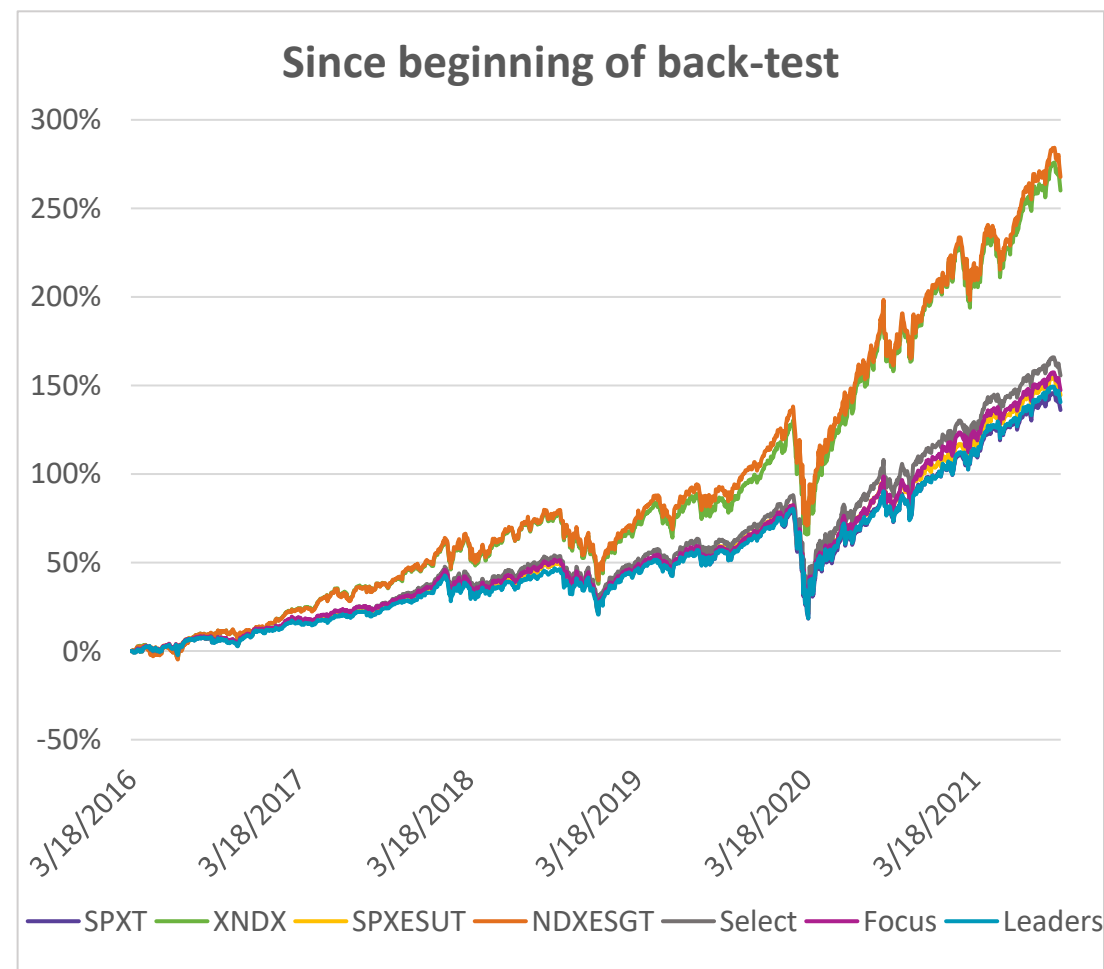
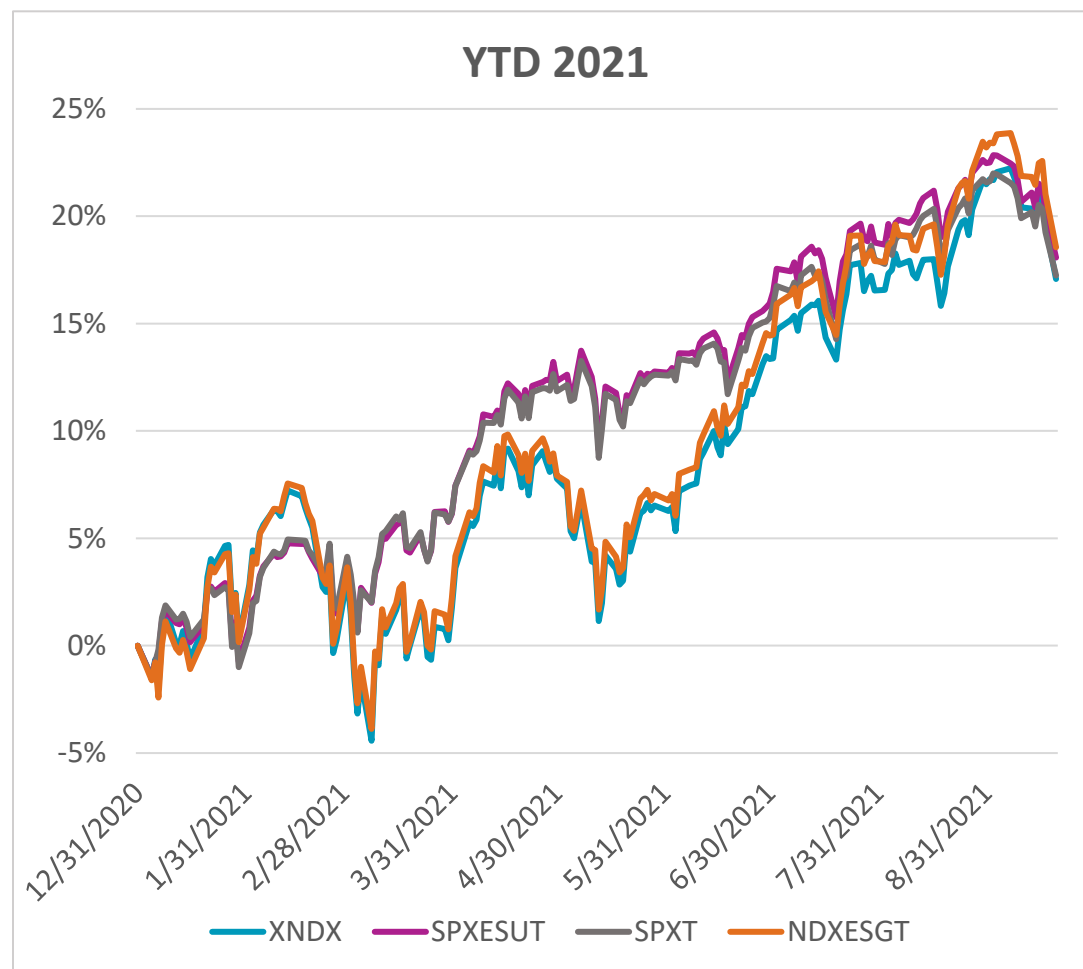
Top 10 Largest Overweights: NGXESG

Symbol	NGXESG Weight (%)	NGX Weight (%)	Difference Weight (%)	Company Name	ICB Industry
ZBRA	2.83	1.78	1.05	ZEBRA TECHNOLOGIES	Industrials
STX	1.90	1.11	0.79	SEAGATE TECHNOLOGY	Technology
TRMB	2.12	1.33	0.79	TRIMBLE	Industrials
TSCO	2.13	1.39	0.74	TRACTOR SUPPLY	Consumer Discretionary
WDC	1.71	1.05	0.66	WESTERN DIGITAL	Technology
POOL	1.72	1.09	0.63	POOL CORPORATION	Consumer Discretionary
HAS	1.37	0.79	0.58	HASBRO	Consumer Discretionary
LOGI	1.51	0.95	0.57	LOGITECH	Technology
FTNT	3.42	2.86	0.56	FORTINET	Technology
ZS	2.76	2.21	0.55	ZSCALER	Technology

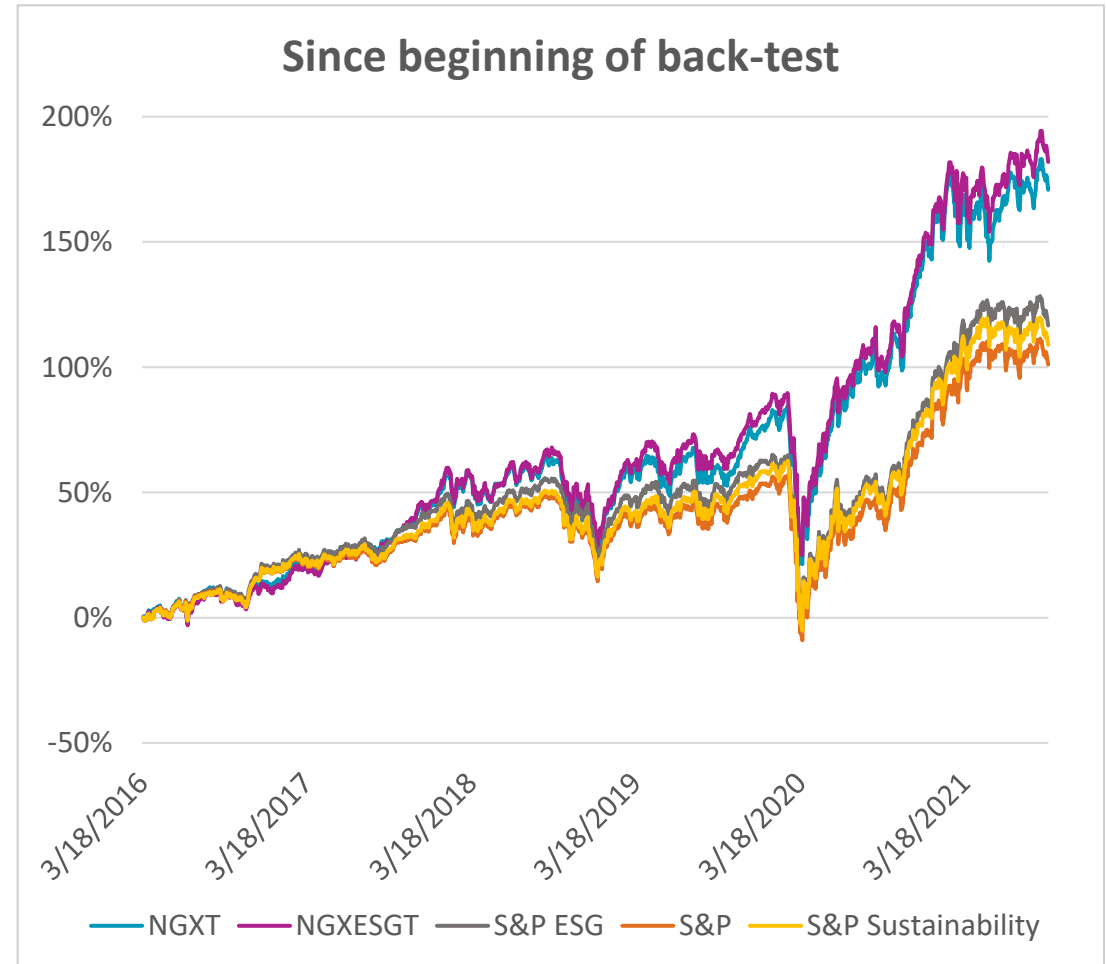
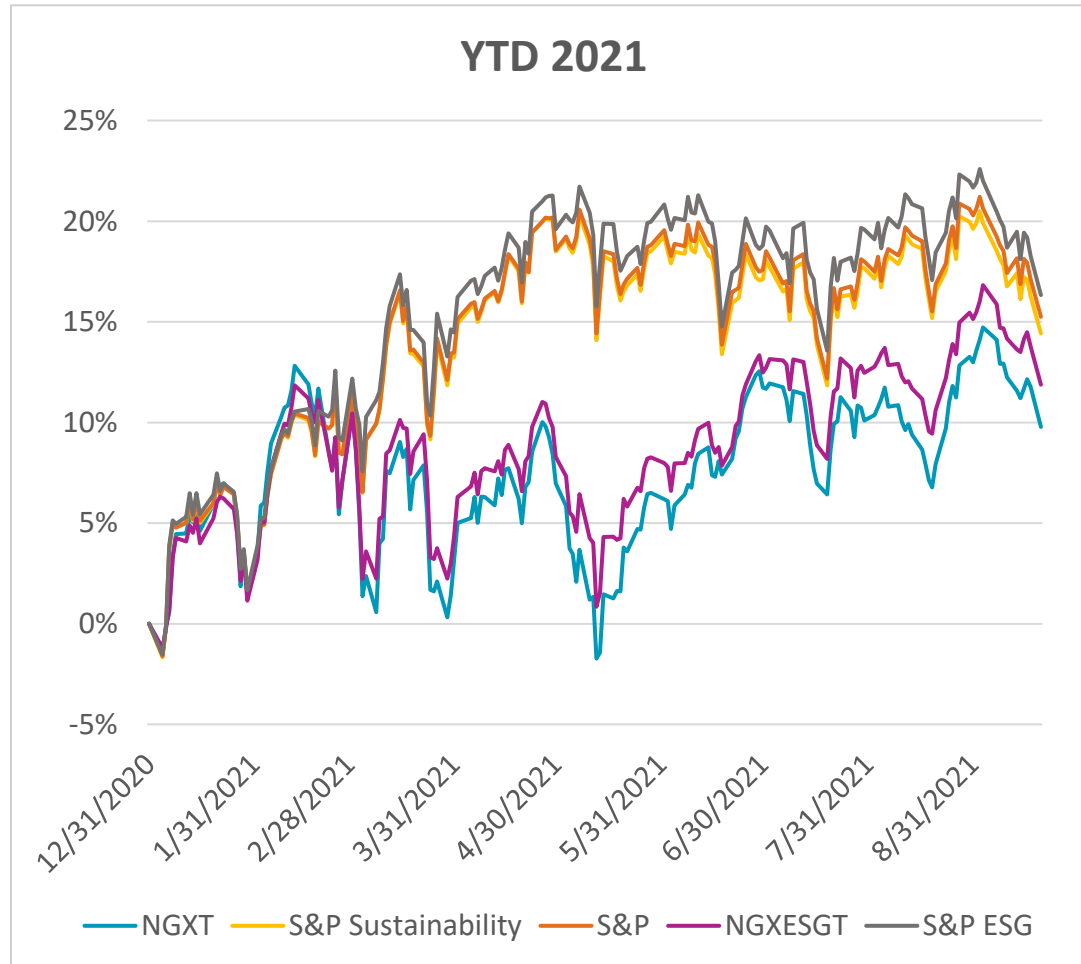
Top 10 Largest Underweights: NGXESG

Symbol	NGXESG Weight (%)	NGX Weight (%)	Difference Weight (%)	Company Name	ICB Industry
HZNP	0.20	1.45	(1.25)	HORIZON THERAPEUTICS	Health Care
YNDX	0.82	1.51	(0.69)	YANDEX	Technology
ROKU	1.57	2.21	(0.64)	ROKU	Telecommunications
PODD	0.55	1.18	(0.63)	INSULET	Health Care
QRVO	0.52	1.14	(0.62)	QORVO	Technology
ABMD	0.41	0.94	(0.54)	ABIOMED	Health Care
ALNY	0.80	1.32	(0.53)	ALNYLAM PHARMACEUTICALS	Health Care
MASI	0.36	0.88	(0.52)	MASIMO	Health Care
HOLX	0.64	1.15	(0.51)	HOLOGIC	Health Care
ENPH	0.76	1.27	(0.51)	ENPHASE ENERGY	Energy

Performance – NDX vs. NDXESG



Performance – NGX vs. NGXESG



ESG Comparisons – NDX/NDXESG

Index	Benchmark	Number of Securities	% Exclusion from the Benchmark	Weighted Average Sustainalytics ESG Risk Score	Simple Average Sustainalytics ESG Risk Score
MSCI USA Index	--	626	n/a	21.58	22.45
MSCI USA Extended ESG Focus Index	MSCI USA Index	351	44%	20.91	21.58
MSCI USA Extended ESG Leaders Index	MSCI USA Index	278	56%	19.22	20.94
MSCI USA ESG Universal Select Business Screens Index	MSCI USA Index	569	9%	20.10	21.67
Nasdaq-100 Index	--	102	n/a	20.42	20.49
Nasdaq-100 ESG Index	Nasdaq-100 Index	96	6%	18.56	20.09
S&P 500 Index	--	507	n/a	21.49	22.25
S&P 500 ESG Index	S&P 500 Index	314	38%	20.51	21.11

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	21.98	22.20
Nasdaq Next Generation ESG 100 Index	Nasdaq Next Generation 100 Index	93	11%	19.24	21.38
S&P MidCap 400 Index	--	401	n/a	24.61	25.26
S&P MidCap 400 Sustainability Screened Index	S&P MidCap 400 Index	373	7%	24.09	24.64
S&P MidCap 400 ESG Index	S&P MidCap 400 Index	274	32%	24.04	24.64

RESOURCES

RESOURCES: Nasdaq-100 ESG Index

- Overview
 - <https://indexes.nasdaqomx.com/Index/Overview/NDXESG>
- Methodology
 - https://indexes.nasdaqomx.com/docs/methodology_NDXESG.pdf
- Research
 - https://indexes.nasdaqomx.com/docs/NDXESG_Research.pdf
- Fact Sheet
 - https://indexes.nasdaqomx.com/docs/FS_NDXESGT.pdf
- Carbon Credit Report
 - NDXESG: <https://indexes.nasdaqomx.com/docs/Carbon%20Footprint%20Report%20-%20NDXESG.pdf>
 - NDX: <https://indexes.nasdaqomx.com/docs/Carbon%20Footprint%20Report%20-%20NDX.pdf>

RESOURCES: Nasdaq-100 Next Generation ESG Index

- Overview
 - <https://indexes.nasdaqomx.com/Index/Overview/NGXESG>
- Methodology
 - <https://indexes.nasdaqomx.com/docs/methodology NGXESG.pdf>
- Research
 - https://indexes.nasdaqomx.com/docs/NGXESG_Research.pdf
- Fact Sheet
 - <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

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 NDXESG/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.

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.)

Weighting scheme – continued

For Illustrative Purposes Only.

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

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%

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