



INDEX METHODOLOGY

NASDAQ CTA GLOBAL VIDEO GAMES & ESPORTS INDEX

PLAYER

INDEX DESCRIPTION

The Nasdaq CTA Global Video Games & ESports Index is designed to track the performance of a selection of companies engaged in the global Video Games and ESports industry. The companies are selected based on classification by Consumer Technology Association (CTA).

SECURITY ELIGIBILITY CRITERIA

Eligible security types

Eligible security types generally include common stocks, ordinary shares, REITs and depositary receipts. If a security is a depositary receipt, references to its “issuer” are references to the issuer of the underlying security.

Multiple classes of securities

One security per issuer is permitted. If an issuer has multiple otherwise-eligible securities, the security with the highest three-month average daily traded value generally is considered for possible inclusion in the Index. If an issuer has multiple otherwise-eligible securities, one of which is in the Index as of the Reconstitution Reference Date, it generally is considered for inclusion even if it does not have the highest three-month average daily traded value.

In the event that a Chinese issuer’s security has a listing on the Hong Kong Exchange that meets all criteria for index inclusion, the security is generally selected over the issuer’s US-listed depositary receipts.

Eligible exchanges

A security must be listed on an exchange named in Appendix A.

Industry or sector eligibility

CTA has created a Sector and Subsector classification process to define Video Games and Esports related business. The Sector and Subsector definitions are further outlined in Appendix B.

An issuer of a security not in the Index as of the Index Reconstitution Reference Date must derive at least 50% of its revenue from Video Games and ESports. However, an issuer of a security in the Index as of the Reconstitution Reference Date that has 45% of its revenue from Video Games and Esports may remain in the Index.

The Index excludes SPACs and other securities classified as Open End and Miscellaneous Investment Vehicles at the Sector level according to the Industry Classification Benchmark (ICB), a product of FTSE International Limited that is used under license.

Market capitalization eligibility

A security not in the Index as of the Index Reconstitution Reference Date must have a market capitalization of at least \$250 million (USD). However, a security in the Index as of the Reconstitution Reference Date that has a market capitalization of at least \$200 million (USD) may remain in the Index.

Liquidity eligibility

A security not in the Index as of the Index Reconstitution Reference Date must have a three-month average daily traded value of at least \$1,000,000 (USD). However, a security in the Index as of the Reconstitution Reference Date that has a three-month average daily traded value of at least \$750,000 (USD) may remain in the Index. If a security has less than three months of trading history, the average daily traded value is calculated using the security's entire trading history.

Float eligibility

At least 20% of a security's total shares outstanding must be publicly available for trading (float shares).

Other eligibility

If, at Index Reconstitution, Nasdaq becomes aware that an issuer or security will soon undergo a fundamental change that makes it ineligible, Nasdaq may remove the security from consideration. This includes events such as filing bankruptcy or similar protection from creditors, delisting or other arrangement including mergers or acquisitions.

Generally, a security in the Index as of the Reconstitution Reference Date that would become ineligible soon after the Index Reconstitution Effective Date or a security not in the Index as of the Index Reconstitution Reference Date would be removed from consideration.

INDEX CALENDAR

Reconstitution schedule

The Index is reconstituted semi-annually in March and September by applying the Semi-Annual Constituent Selection Process. Extraordinary Additions are made monthly in all other months in which there is an eligible security by applying the Monthly Constituent Selection Process.

Reconstitution reference dates

Unless otherwise specified, the Security Eligibility Criteria and Constituent Selection Processes are applied using data as of the third Friday of the month prior to the Reconstitution and Extraordinary Addition Effective Dates.

Reconstitution announcement dates

Index Reconstitutions are announced in early March and September. Extraordinary Additions are announced in the early part of all other months.

Reconstitution effective dates

Index Reconstitutions become effective at market open on the trading day following the second Friday of March and September. Extraordinary Additions become effective at market open on the trading day following the second Friday of each month when an Extraordinary Addition is made.

Rebalance schedule

The Index is rebalanced quarterly in March, June, September and December, and during any month when an Extraordinary Addition is made, by following the Constituent Weighting Process.

Rebalance reference dates

Unless otherwise specified, the Index Rebalance is applied using data as of the third Friday of the month prior to the Rebalance Effective Date.

Rebalance announcement dates

Index Rebalances are announced in early March, June, September and December, and in the early part of any month in which the Index undergoes an Extraordinary Addition.

Rebalance effective dates

Index Rebalances become effective at market open on the trading day following the second Friday in March, June, September and December, and in any month in which the Index undergoes an Extraordinary Addition.

CONSTITUENT SELECTION

Semi-annual constituent selection process

All securities that meet the applicable Security Eligibility Criteria are considered for inclusion in the Index.

All securities are ranked by Theme-Adjusted Market Capitalization. A Theme-Adjusted Market Capitalization is calculated for each Index Security by multiplying a security's market capitalization by its percentage of revenue from Video Games and Esports. Up to 50 Index Securities are selected based on the following steps:

- 1) All securities ranked within the top 45 are automatically selected for the Index.
- 2) Securities in the Index as of the Reconstitution Reference Date not already selected in Step 1 that are within the top 55 are added to the Index in rank order until the target security count has been reached.
- 3) If, following Step 2, the target security count has not been reached, securities not in the Index as of the Index Reconstitution Reference Date not already selected in Step 1 that are ranked from 46th to 55th are added to the Index in rank order until the target security count has been reached.

Monthly extraordinary addition process

Each month outside of a Reconstitution month, any security that meets all of the Security Eligibility Criteria as well as five additional eligibility criteria below is selected for inclusion in the Index. This may generate an Index consisting of more than 50 Index Securities:

- A security must have begun trading on an eligible exchange after the most recent Rebalance Reference Date or Monthly Addition Reference Date and before the current Monthly Addition Reference Date.
- A security must have a market capitalization higher than 80 percent of Index Securities as of the Monthly Addition Reference Date.
- A security must have a market capitalization of at least \$250 million (USD).
- A security must have an average daily traded value of at least \$1 million (USD).
- A security must derive at least 50% of its revenue from Video Gaming and Esports.

CONSTITUENT WEIGHTING

Constituent weighting scheme

The Index is a modified free float market capitalization-weighted index.

Constituent weighting process

A Theme-Weighted Free Float Market Value is calculated for each Index Security as the Theme-Adjusted Market Capitalization multiplied by its free float.

Index Securities' initial weights are determined by dividing each Index Security's Theme-Adjusted Free Float Market Value by the aggregate Theme-Adjusted Free Float Market Value of all Index Securities.

Initial weights are then adjusted to meet the following constraints:

- No Index Security weight may exceed 8%.
- An Index Security weight will not be below 0.3%.

For additional information about index weighting, see **Nasdaq Index Weight Calculations**.

INDEX MAINTENANCE

Deletion policy

If, at any time other than an Index Reconstitution, Nasdaq becomes aware that an Index Security has become ineligible for continued inclusion, it is removed from the Index as soon as practicable. This includes events such as filing bankruptcy or similar protection from creditors, delisting or other arrangement including mergers and acquisitions. Please refer to **Nasdaq's Corporate Actions and Events Manual – Equities** for detailed handling of the aforementioned event types.

Corporate actions

In the interim periods between scheduled index reconstitution and rebalancing events, individual Index Securities may be the subject to a variety of corporate actions and events that require maintenance and adjustments to the Index. Specific treatment of each type of corporate action or event is described in **Nasdaq Corporate Actions and Events Manual – Equities**, which is incorporated herein by reference.

In certain cases, corporate actions and events are handled according to the weighting scheme or other index construction techniques employed. Wherever alternate methods are described, the Index will follow the "Non-Market Cap Corporate Action Method."

Index share adjustments

Other than as a direct result of corporate actions, the Index does not normally experience share adjustments between scheduled index rebalance and reconstitution events.

ADDITIONAL INFORMATION

Announcements

Nasdaq announces Index-related information via the Nasdaq Global Index Watch (GIW) website at <http://indexes.nasdaqomx.com>.

For more information on the general Index Announcement procedures, please refer to the **Nasdaq Index Methodology Guide**.

Holiday schedules

The Index is calculated Monday through Friday and does not close for holidays, as it is a Global Index.

Unexpected market closures

For information on Unexpected Market Closures, please refer to the **Nasdaq Index Methodology Guide**.

Calculation types

For information on the Index calculation types as well as the mathematical approach used to calculate the Index(es), please refer to the **Calculation Manual – Equities and Commodities**.

Recalculation and restatement policy

For information on the Recalculation and Restatement Policy, please refer to the **Nasdaq Index Recalculation Policy**.

Data sources

For information on data sources, please refer to the **Nasdaq Index Methodology Guide**.

Contact information

For any questions regarding an Index, please contact the Nasdaq Index Client Services team at indexservices@nasdaq.com.

Index dissemination

Index values and weightings information are available through Nasdaq Global Index Watch (GIW) website at <https://indexes.nasdaqomx.com/> as well as the Nasdaq Global Index FlexFile Delivery Service (GIFFD) and Global Index Dissemination Services (GIDS). Similar to the GIDS offerings, Genium Consolidated Feed (GCF) provides real-time Index values and weightings for the Nordic Indexes.

For more detailed information regarding Index Dissemination, see the **Nasdaq Index Methodology Guide**.

Index calculation and dissemination schedule

The Index Value is calculated five (5) days a week, Monday through Friday, starting by the earliest time zone, Asia/Tokyo, and closed by the latest time zone, America/New York.

Website

For further information, please refer to Nasdaq GIW website at <https://indexes.nasdaqomx.com/>.

FTP and dissemination service

Index values and weightings are available via FTP on the Nasdaq Global Indexes FlexFile Delivery Service (GIFFD). Index values are available via Nasdaq's Global Index Dissemination Services (GIDS).

GOVERNANCE

Index governance

Nasdaq Indexes follow the same governance structure. For a detailed list of this information, please see the **Nasdaq Index Methodology Guide**.

Nasdaq Index Management Committee

The Nasdaq Index Management Committee approves all new Index Methodologies. This committee is comprised of full-time professional members of Nasdaq. The committee meets regularly, and reviews items including, but not limited to, pending corporate actions that may affect Index constituents, statistics comparing the composition of the indexes to the market, companies that are being considered as candidates for addition to an Index, and any significant market events.

For a detailed overview of the Index Management Committee, please see the **Nasdaq Index Methodology Guide**.

Internal reviews of methodology

For a detailed description on internal reviews of the Methodology, please see the **Nasdaq Index Methodology Guide**.

Communication with stakeholders and consultations

For a detailed description on Consultations and Communications with Stakeholders, please see the **Nasdaq Index Methodology Guide**.

Index cessation

Nasdaq has a documented procedure that is followed for Index Cessation that includes termination/retirement of an Index or Index Family.

For more information, please refer to the **Nasdaq Index Cessation Policy**.

Discretionary adjustment

This Index Methodology was created by Nasdaq to achieve the aforementioned objective of measuring the underlying purpose of each Index governed by this methodology document. Any deviations from this methodology are made in the sole judgment and discretion of Nasdaq so that the Index continues to achieve its objective.

For more information on potential adjustments including Calculation and Pricing Disruptions, Expert Judgment, and Unexpected Reconstitution/Rebalances, please refer to the **Nasdaq Index Methodology Guide**.

GLOSSARY OF TERMS AS USED IN THIS DOCUMENT

For the glossary of key terms, please refer to the **Nasdaq Index Methodology Guide**.

APPENDIX A: ELIGIBLE EXCHANGES

Country	Operating Exchange
AUSTRALIA	ASX - ALL MARKETS
AUSTRIA	WIENER BOERSE AG
BELGIUM	EURONEXT - EURONEXT BRUSSELS
BRAZIL	BM&FBOVESPA S.A. - BOLSA DE VALORES, MERCADORIAS E FUTUROS
CANADA	TORONTO STOCK EXCHANGE
DENMARK	NASDAQ COPENHAGEN A/S
FINLAND	NASDAQ HELSINKI LTD
FRANCE	EURONEXT - EURONEXT PARIS
GERMANY	DEUTSCHE BOERSE AG
GERMANY	XETRA
GREECE	ATHENS STOCK EXCHANGE
HONG KONG	HONG KONG EXCHANGES AND CLEARING LTD
IRELAND	IRISH STOCK EXCHANGE - ALL MARKET
ISRAEL	TEL AVIV STOCK EXCHANGE

ITALY	BORSA ITALIANA S.P.A.
JAPAN	JAPAN EXCHANGE GROUP
KOREA, REPUBLIC OF	KOREA EXCHANGE (STOCK MARKET)
MALAYSIA	BURSA MALAYSIA
MEXICO	BOLSA MEXICANA DE VALORES (MEXICAN STOCK EXCHANGE)
NEW ZEALAND	NEW ZEALAND EXCHANGE LTD
NORWAY	OSLO BORS ASA
POLAND	WARSAW STOCK EXCHANGE
PORTUGAL	EURONEXT - EURONEXT LISBON
SINGAPORE	SINGAPORE EXCHANGE
SOUTH AFRICA	JOHANNESBURG STOCK EXCHANGE
SPAIN	BME - BOLSAS Y MERCADOS ESPANOLES
SWEDEN	NASDAQ STOCKHOLM AB
SWITZERLAND	SIX SWISS EXCHANGE
TAIWAN	TAIWAN STOCK EXCHANGE
THE NETHERLANDS	EURONEXT - EURONEXT AMSTERDAM
UNITED KINGDOM	LONDON STOCK EXCHANGE
UNITED STATES OF AMERICA	CBOE GLOBAL MARKETS INC.
UNITED STATES OF AMERICA	NASDAQ - ALL MARKETS
UNITED STATES OF AMERICA	NEW YORK STOCK EXCHANGE, INC.

APPENDIX B: CTA VIDEOGAME AND ESPORT SECTORS AND SUBSECTORS

Sectors	Definition
Developer / Publisher	Game developer refers to the company or organization that designs and executes the creation of video games. Game publisher refers to the company or organization that finances the development and distribution of video games. Games can be developed internally by a publisher or externally by a game developer.
Esports	Refers to the company or organization that owns, operates, or develops professional/competitive video game tournaments, leagues, teams, or viewing platforms.

Hardware	Refers to the company or organization that creates video game platforms (e.g., home and portable videogame consoles).
Subsectors	Definition
Consoles	Refers to non-portable gaming devices that connects to a TV or monitor.
Digital / Online	Refers to platforms and services that allow for the creation and distribution or playing of amateur/non-professional games/gaming-related content online.
Esports Media	Refers to platforms and services that allow for the broadcast, coverage and distribution of esports or professional/competitive game-related content.
Mobile / Portable	Refers to portable/handheld gaming devices such as smartphones, tablets and dedicated portable gaming devices.
PC	Refers to computers such as home desktops and laptops.
XR (AR/VR)	Refers to virtual reality, augmented reality, or combination of ("mixed-reality") wearable devices.

DISCLAIMER

Nasdaq may, from time to time, exercise reasonable discretion as it deems appropriate in order to ensure Index integrity, including but not limited to, quantitative inclusion criteria. Nasdaq may also, due to special circumstances, if deemed essential, apply discretionary adjustments to ensure and maintain the high quality of the index construction and calculation. Nasdaq does not guarantee that any Index accurately reflects future market performance.

Neither Nasdaq, Inc., the Consumer Technology Association (CTA), nor any of their affiliates make any recommendation to buy or sell any security or any representation about the financial condition of any company. Investors should undertake their own due diligence and carefully evaluate companies before investing. The information contained herein is provided for informational and educational purposes only, and nothing contained herein should be construed as investment advice, either on behalf of a particular security or an overall investment strategy. **ADVICE FROM A SECURITIES PROFESSIONAL IS STRONGLY ADVISED.**