Indxx Global Robotics & Artificial Intelligence Thematic Index

Index Description

The Indxx Global Robotics & Artificial Intelligence Thematic Index is designed to track the performance of companies listed in developed markets that are expected to benefit from the increased adoption and utilization of robotics and Artificial Intelligence ("AI"), including companies involved in Industrial Robotics and Automation, Non-Industrial Robots, Artificial Intelligence and Unmanned Vehicles.

Creation of Master list

Universe

To be eligible for inclusion in the universe,

- The security have its primary listing in a Developed Market country, as defined in our 'Country Classification and Investability Requirements' document (link here).
- The security must have a minimum market capitalization of $100 million and a 6-month average daily turnover greater than or equal to $2 million.
- The security must have traded on 90% of the eligible trading days in the last 6 months. In case a security does not have a trading history of 6 months (only IPOs), such a security must have started trading at least 3 months before the start of the Reconstitution/Rebalancing Process, and should have traded on 90% of the eligible trading days for the past 3 months.

Free Float

All securities must have a minimum free float equivalent to 10% of shares outstanding.

Maximum Price

Securities trading at a price of $10,000 or above are ineligible for inclusion in the universe. This rule is not applicable for existing constituents. Existing constituents would remain in the universe irrespective of their stock price.

Security Type

Common Stock, ADR, GDR.

Share Classes

If multiple share classes exist for a company, the following preference order is followed:
1. If an ADR of the company exists, it is given preference over all other share classes.
2. In all other cases, the most liquid share class is considered for inclusion in the portfolio.

Security Selection

Extensive research is undertaken with a focus on identifying the industries and sub-themes that would be positively impacted by robotics and AI. As of July 2016, Indxx has identified the following segments to be the most relevant to the robotics and AI theme:

Industrial Robots and Automation	Providing robots and robotic automation products and services with a focus on industrial applications.
Unmanned Vehicles and Drones	Companies that are involved in the development and production of unmanned vehicles (including hardware and software for autonomous cars), drones and robots for both military and consumer markets.
Non-industrial Robotics	Developing robots and AI that are used for non-industrial applications, including but not limited to agriculture, healthcare, consumer applications and entertainment.
Artificial Intelligence	Developing applications, technologies and products that utilize Artificial Intelligence for data analysis, predictive analytics, task automation and other applications.

To identify companies related to the above sub-themes, companies belonging to the below list of Factset Industries are included in the Selection List:

Aerospace & Defense	Miscellaneous Commercial Services	Industrial Conglomerates
Computer Processing Hardware	Motor Vehicles	Industrial Machinery
Electronic Components	Oilfield Services/Equipment	Internet Software/Services
Electronic Equipment/Instruments	Semiconductors	Medical Specialties
Electronic Production Equipment	Telecommunications Equipment	Auto Parts: OEM
Electronics/Appliances	Trucks/Construction/Farm Machinery	Electrical Products
Engineering & Construction	Marine Shipping	Packaged Software

The industries and sub-themes identified through this research based approach are subject to change at every annual reconstitution.

Final Composition

- Companies that derive revenue greater than 50% from the above sub-themes are considered as 'pure-play' robotics or artificial intelligent companies. These are eligible for inclusion in the index.

- Companies with diversified revenue streams that generate at least 10% (but less than 50%) of their revenues from the above sub-themes are considered as 'quasi-play' robotics or artificial intelligent companies. These companies are also considered for inclusion in the index.

- The top 100 'pure-play' companies by market capitalization will form the final portfolio.

- If fewer than 100 pure-play companies are eligible for inclusion, the index includes quasi-play companies (based on market capitalization) till the total index component count reaches 100.

- If fewer than 30 pure and quasi play companies qualify to be eligible for inclusion, the index committee would consider a secondary list of companies with diversified revenue streams that (1) have a distinct business unit focused on robotics or Artificial Intelligence, and (2) have a core competency that is expected to augment the adoption of robotics or Artificial Intelligence for inclusion till the count reaches 30.

Weighting

- Components are weighted based on their Security-level market capitalization .

- A single security cap of 8% and a single security floor of 0.3% is applied.

- The aggregate weight of all the components with weight greater than 5% is capped at 40%. All remaining securities are capped at 4.5%.

Buffer Rules

Buffer Rules are employed to reduce Portfolio Turnover. If an existing index constituent fulfils all the other criteria for universe creation, except market capitalization or liquidity, the following buffer rules apply:

Market Capitalization

The constituent shall continue to be included in the universe, if its market capitalization is greater than or equal to 80% of the previously defined market capitalization limit.

Liquidity

The constituent shall continue to be included in the universe if its 6-month ADTV is greater than or equal to 70% of the previously defined liquidity limit.

Continued Representation in the Portfolio

Additionally, an existing index constituent shall continue to remain in the index if it is part of top 120 companies by market cap, even if it isn't a part of the top 100 constituents.

Reconstitution and Rebalancing Rules

- The index follows an annual reconstitution and rebalancing schedule. The new portfolio becomes effective at the close of last trading day of June each year. This day is called the 'Effective Day.'

- The security selection and portfolio creation process starts on the close of the nearest Friday falling at least one month before the effective day, called the 'Selection Day.' The selection list is created based on the data as of the Selection Day.

- Weights are calculated at the close of the seventh trading day prior to the Effective Day. Index Shares are frozen using weights as of this day.

Mid-term review

- The index follows a mid-term review for inclusion of IPOs. The effective day for addition of IPOs during the mid-term review would be the last trading day of December.

- The IPO identification process starts at the close of the nearest Friday falling at least one month before the effective day. Potential inclusions in the mid-term review must meet tradability, liquidity and market capitalization criteria as of this day.

- Any new addition to the portfolio at the time of review will be added at its market capitalization weight, calculated at the close of seventh trading day prior to the Effective Day. The new addition's Index Shares will be frozen using weights as of this day.

Corporate Actions

Indxx standard Corporate Actions for market cap weighted indices apply. The corporate action guidebook is present in the Announcements section of our website, under 'Index Documents'.

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