



Morningstar[®] Exponential Technologies Index Frequently Asked Questions

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Index Overview

What is the objective of this index?

The Morningstar Exponential Technologies Index is designed to deliver diversified exposure to companies poised to benefit from innovative technologies with exponential growth potential. It draws upon the in-depth experience and forward-looking insights of Morningstar's equity research team to offer unparalleled exposure to nine key technology themes.

How does Morningstar determine which themes to include in this index?

This index targets transformational technology themes with the potential to provide significant economic benefits to their producers and suppliers. These themes are reviewed annually by the Exponential Technologies Steering Committee within Morningstar's Global Equity Research team. The selected themes can be subject to change over time as they evolve and as new themes emerge.

Which themes are currently represented in this index?

The index currently covers nine themes:

- *Big Data & Analytics*: This covers products and services to manage and drive insights from large and complex data sets. Related subthemes include Artificial Intelligence & Machine Learning and Bioinformatics.

- *Cloud Computing*: This covers scalable, on-demand internet-based computing. Relative subthemes include Infrastructure as a Service (IaaS) & Platform as a Service (PaaS) as well as Software as a Service (SaaS).
- *Energy Transition*: The quest to abate global climate change and reduce greenhouse gases has led to a surge of new energy technologies, investment, and innovation. Related subthemes include Carbon Capture Technologies, Energy Storage, Hydrogen, and Renewable Energy.
- *Fintech Innovation*: This includes firms involved in the development of innovative, technology-enabled services to meet consumer preferences, as well as new platforms, including funding sources, blockchain, and cryptocurrencies, that could potentially transform the industry.
- *Healthcare Innovation*: Key advancements in unlocking the human genome have opened doors to paradigm shifts that could radically change the way we treat or prevent diseases. Related subthemes include Innovated Devices & Diagnostics and Innovative Therapies.
- *Hyperconnectivity*: This covers 5G Connectivity, Cybersecurity, Internet of Things (IoT), and Non-Cellular Connectivity.
- *Nanotechnology*: This is the branch of technology that deals with dimensions and tolerances of less than 100 nanometers, especially the manipulation of individual atoms and molecules, facilitating

miniaturization. We see a wide range of potential applications, spanning medicine, computing, industrial manufacturing, and travel.

- *Next Gen Transportation*: This includes firms involved in developing Autonomous Driving Technologies and Electric Vehicles.
- *Robotics*: This includes firms involved in the design, construction, operation, and application of robots, facilitating automation.

What is the investment case for investing in companies with exposure to innovative themes?

Investing in transformational technologies possesses inherent appeal. Companies like Alphabet, Amazon, and Meta Platforms have changed the way we work and live, reaping healthy profits and delivering attractive returns to investors along the way. Companies with significant exposure to innovational technologies can disrupt industries, create new markets, and enjoy strong growth, which can make them attractive investments.

Index Construction

How does Morningstar assess stocks' exposure to each theme?

Stocks are assigned a thematic exposure score on a scale of 0-4 based on three key inputs from Morningstar equity research analysts:

- 1) Whether the firm will likely experience a material net profit increase from its exposure to the theme over the next five years
- 2) The portion of revenue that will likely be tied to the theme in five years.
- 3) The role in the value chain: Whether the firm is a producer, supplier, or downstream user of the product or service related to the theme.

These analyst inputs are routed through a decision tree to determine a company's thematic exposure to each theme within the index. The higher the company's

exposure to each theme, the more likely it will be included in the index.

How does this approach differ from others?

The Morningstar Exponential Technologies Index leverages forward-looking insights from Morningstar equity analysts to provide a high degree of thematic purity. This differs from lower-touch thematic index construction approaches, such as relying on historical revenue figures or keyword searches across public filings. However, due to the index's objective rules-based construction methodology, it also differs from strategies that employ more "active" approaches to stock selection by bringing transparency and discipline to the portfolio construction process.

What baseline requirements are necessary to be eligible for inclusion in the index?

Constituents are derived from the Morningstar Global Markets Index, which covers developed and emerging market stocks representing the top 97% of the global investable market by market capitalization. To be eligible for inclusion in the Morningstar Exponential Technologies Index, companies must have a thematic exposure score of 1 or higher on at least one of the targeted themes, indicating that they will likely be net beneficiaries with at least 10% revenue exposure to the theme five years forward. They must also pass baseline liquidity screens.

How are stocks ranked for inclusion in the index?

Eligible stocks are ranked on the following criteria and the top-ranked 200 stocks are targeted for inclusion.

To ensure a minimum level of representation across each theme, up to the 10 top scoring stocks within each theme are prioritized for inclusion.

The remaining eligible securities are ranked to emphasize exposure across exponential technology themes. The ranking criteria are given below by descending order of preference:

- Number of themes in which a constituent scores 4
- Number of themes in which a constituent scores 3
- Number of themes in which a constituent scores 2.

- Number of themes in which a constituent scores 1.
- Current index constituents are given preference.
- Company total market capitalization, preferring smaller over larger. This is based on the idea that smaller stocks tend to be more thematically pure at the margin.

Do analysts have discretion to select stocks for the index?

The insights of Morningstar equity analysts determine the company-level thematic exposure scores and, in turn, these scores determine which stocks are eligible for index membership. However, beyond the thematic scoring process, equity analysts have no discretion regarding stock selection. Analyst-driven thematic exposure scores are implemented through a transparent, rules-based index construction methodology that aims to maximize thematic purity.

How is the index weighted?

The index constituents are equal weighted at the time of reconstitution. This approach aligns with the index's objective to provide diversified exposure to multiple themes and strengthen thematic purity, as smaller firms may be more closely tied to innovative themes than their larger counterparts. Equal weighting mitigates exposure to firm-specific risk, more effectively capturing beta relative to each theme.

Are there any sector or regional constraints?

Thematic purity is the primary objective of this index. As such, there are no constraints on sector or regional weightings.

Are there any constraints on the weightings given to each theme?

The index ensures at least some representation across each theme by prioritizing the highest scoring 10 stocks from each theme for inclusion in the index. However, it is possible that there may be fewer than 10 eligible stocks with exposure to a given theme. There are no weighting adjustments to ensure that each theme receives a minimum weight in the index.

How often is the index updated?

The index is reconstituted and rebalanced once per year, in December, after the close of the market on the third Friday of December.

How does this differ from a traditional technology sector index?

This index is sector agnostic, driven by forward-looking assessments of thematic exposure, rather than backward-looking sector classifications. While many technology stocks have exposure to the themes this index targets, there are many stocks in other industries that may be beneficiaries of those innovations. As such, this index has historically had significant exposure to stocks outside the technology sector. Equal weighting also causes this index to look and perform quite differently from most traditional market-cap-weighted technology indexes.

Benchmarking & Risks

How should this strategy be benchmarked?

The Morningstar Exponential Technologies Index could be benchmark against its parent, the Morningstar Global Markets Index, or against a growth-oriented index, like Morningstar Global Growth TME, since it tends to have a growth tilt.

What ancillary factor exposures might affect the Morningstar Exponential Technology Index's market-relative performance?

This index has consistently exhibited a bias towards smaller companies and growth-oriented companies relative to the broad Morningstar Global Markets Index, owing to its equal weighting approach and focus on long-term growth themes. Consequently, its market-relative performance can be heavily influenced by its size and style exposures.

How might changing interest rates affect the performance of this index relative to the broad market?

There is not sufficient data to draw any strong conclusions about how this index might respond to changing interest rates. However, historically there has not been a strong relationship between the performance of the Morningstar US Market Broad

Growth Extended Index or Morningstar US Technology Index relative to the broader market and changing interest rates in the U.S. For a global multi-theme portfolio, like this, the relationship is likely similarly weak.

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