



# Morningstar Transformational Technologies Indexes

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Investing in transformational technologies possesses inherent appeal. Companies like Alphabet, Amazon, and Meta 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.

The Morningstar Transformational Technologies Indexes are designed to deliver unparalleled, thematically pure exposure to a range of durable themes by drawing on the in-depth knowledge and forward-looking insights of Morningstar's equity research team. Each index targets a separate theme, including:

- Big Data & Analytics: Capabilities with data sets too large and complex to manipulate or interrogate with standard methods or tools. Sub-themes include Artificial Intelligence & Machine Learning and Bioinformatics.
- Cloud Computing: A paradigm shift from the legacy IT model whereby each element is accessed in a scalable, on-demand manner through the internet. Sub-themes include Infrastructure as a Service (laaS) & 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. Sub-themes include Carbon Capture Technologies, Energy Storage, Hydrogen, and Renewable Energy.
- Fintech Innovation: The integration of technology and financial services. In some cases, traditional financial services companies are simply expanding their offerings with innovative, technology-enabled services to meet consumer preferences. In other cases, companies are building new platforms that could potentially transform the industry or create new industries within the financial sector.
- Healthcare Innovation: New therapies and technologies that address unmet medical needs that can significantly improve human health prospects. This trend focuses on novel solutions that are revolutionary in nature, rather

than evolutionary, to enhance and repair the body. Sub-themes include Innovative Devices & Diagnostics and Innovative Therapies.

- Hyperconnectivity: This theme fuels rapid growth in connected devices and voracious need to push more data at faster transmission rates between users and devices.
   Sub-themes include 5G Connectivity, Cybersecurity, Internet of Things (IoT), and Non-Cellular Connectivity.
- Nanotechnology: The branch of technology that deals
  with dimensions and tolerances of less than 100 nanometers,
  especially the manipulation of individual atoms
  and molecules. Significant research dollars are being spent
  with the goal of starting with atoms and building up, to
  further progress in miniaturization. There are a wide range
  of potential applications. Examples include medicine,
  computing, industrial manufacturing, and travel (ground,
  air, space).
- Next Gen Transportation: Technologies replacing traditional human-operated, internal combustion engine-based vehicles.
   This includes a wide variety of applications. Examples include traditional light vehicles, public transportation vehicles, scooters/bikes, and drones. Sub-themes include Autonomous Driving Technologies and Electric Vehicles.
- Robotics: The branch of technology that deals with the design, construction, operation, and application of robots. Advances in robotics have seemingly infinite potential applications, spanning technology, industrial, medical, and consumer-facing channels.

# Thematic exposure scores

Through a thorough, standardized scoring process conducted by Morningstar equity analysts, companies are assigned exposure scores for each theme. This unique, forward-looking framework incorporates analyst insights to assign scores between 0 and 4, with higher scores representing a higher degree of thematic purity. The scoring process considers each company's role in the supply chain, expected revenue exposure to the theme five years into the future, and whether the company is expected to experience a net profit increase from its exposure to the theme over the next five years.

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### Index eligibility and portfolio construction

The Morningstar Transformational Technologies Indexes derive their constituents from the Morningstar Global Markets Indexes. Companies must be assigned a thematic exposure score of 1 or higher on the targeted theme and pass minimum liquidity screens to be eligible for index membership. Those that pass the initial eligibility screens are then ranked to maximize exposure to the theme.

The ranking criteria are as follows, in descending order of absolute preference:

- Thematic exposure score of 4
- Thematic exposure score of 3
- Thematic exposure score of 2

- Thematic exposure score of 1
- Current index constituents are given preference
- Security total market capitalization, preferring smaller over larger

The highest-ranking stocks are selected for inclusion until the index reaches its target constituent count. The indexes are weighted by float adjusted market capitalization, subject to caps to limit concentration.

#### Reconstitution

These indexes are reconstituted and rebalanced annually in December.

# **Construction process**

# Selection universe

# Eligibility

# Theme exposure

# Portfolio construction

- Morningstar Global Markets Indexes
- Represents the top 97% of investable market cap across developed and emerging markets globally
- Companies must have a theme exposure score assigned by Morningstar equity research
- Stocks must meet minimum size and liquidity requirements
- Thematic exposure scores are assigned to each company, informed by:
  - Its role in the value chain
  - Whether it will likely experience a net profit increase from its exposure to the theme
  - The portion of revenue it will likely derive from the theme over the next five years
- Companies are ranked on their thematic exposure scores, and the top ranked companies are selected for inclusion until the index reaches its target constituent count
- Smaller stocks are favored when there is a tie
- Indexes are weighted by float- adjusted market capitalization, subject to 5-10-40 capping

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#### **About Morningstar Indexes**

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Please visit indexes.morningstar.com for more information.

