

# **S&P Kensho Indices** *Methodology*

June 2022

# Table of Contents

Introduction	3
<b>Index Objective</b>	<b>3</b>
<b>Index Family</b>	<b>3</b>
<b>Supporting Documents</b>	<b>6</b>
Eligibility Criteria	7
<b>Eligibility Factors</b>	<b>7</b>
<b>LargeMidCap Sector Indices</b>	<b>8</b>
<b>Business Activity Focus</b>	<b>8</b>
<b>Subsector Indices</b>	<b>8</b>
<b>Sector Indices</b>	<b>14</b>
<b>Composite Indices</b>	<b>16</b>
<b>Other Subsector Indices</b>	<b>17</b>
<b>Multiple Share Classes and Dual Listed Companies</b>	<b>18</b>
Index Construction	19
<b>Constituent Selection</b>	<b>19</b>
<b>Constituent Weightings</b>	<b>19</b>
<b>Diversification</b>	<b>23</b>
<b>LargeMidCap Sector Equal Weight Indices</b>	<b>23</b>
<b>Composite Indices</b>	<b>23</b>
<b>Calculating the Initial Constituent Security Weight</b>	<b>25</b>
<b>Calculating the Final Constituent Security Weight</b>	<b>25</b>
<b>Diversification</b>	<b>25</b>
<b>Index Calculations</b>	<b>25</b>
Index Maintenance	26
<b>Annual Reconstitution</b>	<b>26</b>
<b>Currency of Calculation and Additional Index Return Series</b>	<b>28</b>
<b>Corporate Actions</b>	<b>28</b>
<b>Base Date and History Availability</b>	<b>29</b>
Index Data	31
<b>Calculation Return Types</b>	<b>31</b>
Index Governance	32
<b>Index Committee</b>	<b>32</b>

Index Policy	33
<b>Announcements</b>	<b>33</b>
<b>Pro-forma Files</b>	<b>33</b>
<b>Holiday Schedule</b>	<b>33</b>
<b>Rebalancing</b>	<b>33</b>
<b>Unexpected Exchange Closures</b>	<b>33</b>
<b>Recalculation Policy</b>	<b>33</b>
<b>Contact Information</b>	<b>33</b>
Index Dissemination	34
<b>Tickers</b>	<b>34</b>
<b>Index Data</b>	<b>36</b>
<b>Web site</b>	<b>36</b>
Appendix I – S&P Kensho New Economy RAIC Index	37
Appendix II – S&P Kensho New Technology Index	38
Appendix III – S&P Kensho Sustainable Technologies Index	39
Appendix IV – Methodology Changes	41
Appendix V – Subsector Indices Business Activity Focus Changes	42
Appendix VI – Historical Rule Deviations	51
Appendix VII – Indices Using Backward Data Assumption	52
<b>Indices in this Methodology Employing Backward Data Assumption</b>	<b>52</b>
<b>Backward Data Assumption</b>	<b>52</b>
<b>Designated Datasets Subject to Backward Data Assumption</b>	<b>52</b>
<b>Exclusions Based on Missing Coverage</b>	<b>52</b>
Disclaimer	53
<b>Performance Disclosure/Back-Tested Data</b>	<b>53</b>
<b>Intellectual Property Notices/Disclaimer</b>	<b>54</b>

# Introduction

## Index Objective

The S&P Kensho New Economy Indices measure the performance of stocks listed in the U.S. associated with a series of technologically enabled, often disruptive industries, generally referred to in aggregate as the “Fourth Industrial Revolution<sup>1</sup>.” The S&P Kensho New Economy Indices consist of Subsector Indices, Sector Indices, and Composite Indices. Each Subsector Index represents one or more of the New Economy industries and may also constitute part of a Sector Index. Subsector indices are non-float-adjusted market capitalization weighted, as detailed in *Constituent Weightings*. Sector Indices reflect broader innovation concepts and are composed of constituents from multiple Subsector Indices, either in whole or in part. The Composite Indices aggregate the qualifying New Economy Subsector Indices, with each constituent subsector index weighted by the risk-adjusted return of the underlying industry.

The universe of eligible securities for a given subsector index is based on scanning company-issued filings for relevant search terms as described in *Eligibility Criteria*. The search terms are maintained and reviewed by S&P Dow Jones Indices (S&P DJI) and are intended to identify those companies that place a degree of importance on the business activities that align with the overall objective of the subsector index.

## Index Family

### *Subsector Indices*

**S&P Kensho Distributed Ledger Index.** The index measures the performance of companies focused on developing distributed ledger technology.

**S&P Kensho Alternative Finance Index.** The index measures the performance of companies focused on providing alternative financing and wealth management capabilities.

**S&P Kensho Future Payments Index.** The index measures the performance of companies focused on enabling the next-generation transformation of payments infrastructure.

**S&P Kensho Electric Vehicles Index.** The index measures the performance of companies focused on producing electric road vehicles and associated subsystems.

**S&P Kensho Digital Communities Index.** The index measures the performance of companies focused on digital social networking services.

**S&P Kensho Advanced Transport Systems Index.** The index measures the performance of companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit.

**S&P Kensho Wearables Index.** The index measures the performance of companies focused on wearable and implantable technologies for consumer, military, and medical uses.

**S&P Kensho Robotics Index.** The index measures the performance of companies focused on the robotics industry and significant subsystems.

---

<sup>1</sup> On April 9, 2018, S&P Global announced the completion of the acquisition of Kensho Technologies Inc. (“Kensho”), the original developer and benchmark administrator of the Kensho New Economy Indices. On December 10, 2018, S&P Dow Jones Indices (“S&P DJI”) became the benchmark administrator for the indices.

**S&P Kensho Autonomous Vehicles Index.** The index measures the performance of companies focused on autonomous vehicles.

**S&P Kensho Cleantech Index.** The index measures the performance of companies focused on building technologies or products that enable the generation of clean energy, such as solar, wind, geothermal, hydrogen, and hydroelectric.

**S&P Kensho Cyber Security Index.** The index measures the performance of companies focused on protecting enterprises and devices from unauthorized access via electronic means.

- **S&P Kensho Cyber Security Mid-Large Cap Index.** The index is a subset of the S&P Kensho Cyber Security Index and measures the performance of mid-large cap companies in that index.

**S&P Kensho 3D Printing Index.** The index measures the performance of companies focused on 3D printing.

**S&P Kensho Smart Borders Index.** The index measures the performance of companies focused on securing borders and critical infrastructure.

**S&P Kensho Genetic Engineering Index.** The index measures the performance of companies focused on genetic engineering.

**S&P Kensho Drones Index.** The index measures the performance of companies focused on the remotely operated or unmanned aerial, and marine drones market.

**S&P Kensho Clean Energy Index.** The index measures the performance of companies focused on the generation and transmission of clean energy, such as solar, wind, geothermal, hydroelectric, and hydrogen, including those involved in specialized construction and operation.

**S&P Kensho Smart Grids Index.** The index measures the performance of companies focused on power, water, and transportation infrastructure.

**S&P Kensho Smart Buildings Index.** The index measures the performance of companies focused on enabling buildings to become more connected, intelligent, and adaptive.

**S&P Kensho Space Index.** The index measures the performance of companies focused on space travel and exploration.

**S&P Kensho Nanotechnology Index.** The index measures the performance of companies focused on technologies that enable or perform manipulation of materials at a nano- or microscale.

**S&P Kensho Virtual Reality Index.** The index measures the performance of companies focused on virtual reality.

**S&P Kensho Enterprise Collaboration Index.** The index measures the performance of companies focused on enterprise collaboration frameworks.

**S&P Kensho Digital Health Index.** The index measures the performance of companies focused on the remote delivery of healthcare services.

**S&P Kensho Smart Factories Index.** The index measures the performance of companies that produce the technology empowering digitalized factories to improve manufacturing processes through self-optimization.

**S&P Kensho Sustainable Farming Index.** The index measures the performance of companies that produce agricultural innovations intended to reduce resource intensity, produce higher yields, and lower agricultural waste.

## *Sector Indices*

**S&P Kensho Human Evolution Index.** The index measures the performance of companies focused on bio-technology innovations that enhance human capabilities.

**S&P Kensho Democratized Banking Index.** The index measures the performance of companies focused on innovations within financial services, including advances in payments, transaction management, financing, and wealth management.

**S&P Kensho Final Frontiers Index.** The index measures the performance of companies focused on technologies at the forefront of deep-space and deep-sea exploration and development.

**S&P Kensho Intelligent Infrastructure Index.** The index measures the performance of companies that reflect the transition to intelligent, adaptive, and connected infrastructure.

**S&P Kensho Smart Transportation Index.** The index measures the performance of companies focused on autonomous and electric vehicle technology, commercial drones, and advanced transportation systems.

**S&P Kensho Clean Power Index.** The index measures the performance of companies focused on advances in clean technology and energy.

**S&P Kensho Future Security Index.** The index measures the performance of companies focused on sophisticated weaponry and defensive systems, and smart borders.

**S&P Kensho Future Communication Index.** The index measures the performance of companies focused on advances in how people meet, collaborate, and communicate.

**S&P Kensho Advanced Manufacturing Index.** The index measures the performance of companies focused on enabling manufacturers to improve production processes through digitalization, automation, predictive maintenance and optimization of plant energy conservation.

**S&P Kensho Sustainable Staples Index.** The index measures the performance of companies enabling connected agricultural producers to enhance output while reducing waste and resource exhaustion using state-of-the-art sustainable practices.

## *Composite Indices*

All the industries included in the above indices, except the S&P Kensho Cyber Security Mid-Large Index are eligible for inclusion in a Composite index, subject to a minimum history requirement of 126 trading days (the “lookback period”). Constituents are weighted based on the procedure described in *Constituent Weightings*.

**S&P Kensho New Economies Composite Index.** The index measures the performance of companies focused on industries driving the Fourth Industrial Revolution.

**S&P Kensho New Economies Select Index.** The index measures the performance of companies focused on the five best recent performing industries driving the Fourth Industrial Revolution.

## *Other Subsector Indices*

The other subsector indices are related to, but separate from, the S&P Kensho New Economy Indices, and include:

**S&P Kensho Hydrogen Economy Index.** The index measures the performance of companies focused on the production, transportation, conservation, and fuel cells of hydrogen.

**S&P Kensho Extended Nanotechnology Index.** The index measures the performance of companies involved in the nanotechnology industry.

**S&P Kensho Metaverse Index.** The index measures the performance of companies involved in the Metaverse. S&P DJI defines the Metaverse as a new ecosystem where the physical and virtual worlds communicate, blend, and integrate using the next generation of Internet and Extended Reality (XR) technology.

**Supporting Documents**

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology	<a href="#">Equity Indices Policies &amp; Practices</a>
S&P Dow Jones Indices' Index Mathematics Methodology	<a href="#">Index Mathematics Methodology</a>
S&P Dow Jones Indices' Float Adjustment Methodology	<a href="#">Float Adjustment Methodology</a>
S&P DJI ESG Score Methodology	<a href="#">S&amp;P DJI ESG Score Methodology</a>

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

# Eligibility Criteria

## Eligibility Factors

**Security Type.** Only common equity securities, including depositary receipts, are eligible for inclusion.

**Listing Venues.** Stocks must be listed in the U.S. on the NYSE, Nasdaq, or Cboe exchanges.

**Size.** Stocks must have a minimum float-adjusted market capitalization (“FMC”), as of the rebalancing reference date, as detailed in the table below.

**Liquidity.** Stocks must have a minimum three-month average daily value traded (“3M ADVT”), as of the rebalancing reference date, as detailed in the table below. The 3M ADVT is calculated as the average of the number of shares traded each day multiplied by that day’s closing price over the three months prior to the relevant rebalancing reference date. Initial Public Offerings (IPOs) must have a trading history of at least three months as of the reference date.

The S&P Kensho New Economies Composite Index and S&P Kensho New Economies Select Index have no additional size or liquidity thresholds.

Index	Minimum FMC	Minimum 3M ADVT
S&P Kensho Distributed Ledger Index	\$100 Million	\$1 Million
S&P Kensho Alternative Finance Index	\$100 Million	\$1 Million
S&P Kensho Future Payments Index	\$100 Million	\$1 Million
S&P Kensho Electric Vehicles Index	\$100 Million	\$1 Million
S&P Kensho Digital Communities Index	\$100 Million	\$1 Million
S&P Kensho Advanced Transport Systems Index	\$100 Million	\$1 Million
S&P Kensho Wearables Index	\$100 Million	\$1 Million
S&P Kensho Robotics Index	\$100 Million	\$1 Million
S&P Kensho Autonomous Vehicles Index	\$100 Million	\$1 Million
S&P Kensho Cleantech Index	\$100 Million	\$1 Million
S&P Kensho Cyber Security Index <sup>1</sup>	\$300 Million	\$2 Million
S&P Kensho Cyber Security Mid-Large Cap Index	\$2 Billion	\$10 Million
S&P Kensho 3D Printing Index <sup>2</sup>	\$100 Million	\$1 Million
S&P Kensho Smart Borders Index	\$100 Million	\$1 Million
S&P Kensho Genetic Engineering Index	\$300 Million	\$2 Million
S&P Kensho Drones Index	\$100 Million	\$1 Million
S&P Kensho Clean Energy Index	\$100 Million	\$1 Million
S&P Kensho Smart Grids Index	\$100 Million	\$1 Million
S&P Kensho Smart Buildings Index	\$100 Million	\$1 Million
S&P Kensho Space Index	\$300 Million	\$2 Million
S&P Kensho Nanotechnology Index	\$100 Million	\$1 Million
S&P Kensho Virtual Reality Index	\$100 Million	\$1 Million
S&P Kensho Enterprise Collaboration Index	\$100 Million	\$1 Million
S&P Kensho Human Evolution Index	\$100 Million	\$1 Million
S&P Kensho Digital Health Index	\$100 Million	\$1 Million
S&P Kensho Smart Factories Index	\$100 Million	\$1 Million
S&P Kensho Sustainable Farming Index	\$100 Million	\$1 Million

<sup>1</sup> Only companies defined as “Core” are eligible for index inclusion. For more information on “Core” please see the definition in *Constituent Weightings*.



Index	Minimum FMC	Minimum 3M ADVT
S&P Kensho Democratized Banking	\$100 Million	\$1 Million
S&P Kensho Final Frontiers Index	\$100 Million	\$1 Million
S&P Kensho Intelligent Infrastructure Index	\$100 Million	\$1 Million
S&P Kensho Smart Transportation Index	\$100 Million	\$1 Million
S&P Kensho Clean Power Index	\$100 Million	\$1 Million
S&P Kensho Future Security Index	\$100 Million	\$1 Million
S&P Kensho Future Communication Index	\$100 Million	\$1 Million
S&P Kensho Liquid Future Communication Index	\$100 Million	\$1 Million
S&P Kensho Advanced Manufacturing Index	\$100 Million	\$1 Million
S&P Kensho Hydrogen Economy Index	\$100 Million	\$1 Million
S&P Kensho Extended Nanotechnology Index	\$100 Million	\$1 Million
S&P Kensho New Technology Index	\$100 Million	\$4 Million
S&P Kensho Sustainable Staples Index	\$100 Million	\$1 Million
S&P Kensho Metaverse Index	\$100 Million	\$1 Million

### LargeMidCap Sector Indices

In addition to the sector indices described above, indices based on size are also calculated. To qualify for the S&P Kensho New Economy LargeMidCap Sector Indices, constituents of the sector indices must also satisfy the following additional eligibility criteria:

- **Market Capitalization:** have a minimum FMC of greater than or equal to US\$ 2 billion.
- **Liquidity:** have a minimum 3M ADVT of at least US\$ 10 million.

### Business Activity Focus

#### Subsector Indices

For each subsector index, a company must produce a product or service related to the specific index business activity focus. Each subsector is described by discrete industries and areas of innovation as defined below. These definitions are distilled down to relevant search terms that best represent these areas of innovation. The definitions below are reviewed by the index committee at each annual reconstitution by analyzing changes in existing constituents' search terms, new companies captured by existing search terms and qualitative top-down analyses of significant trends of the subsector and may be updated at that time.

In order to identify eligible companies at each reconstitution, S&P DJI conducts an automated scan of the EDGAR database of annual company-issued filings, specifically: 10-Ks; 20-Fs; 40-Fs; and S-1 filings. The scan searches the most recent filing for companies and identifies documents that discuss the search terms in: Item 1 (Business) or Item 7 (Management's Discussion and Analysis) of its most recent Form 10-K, Item 4 (Information on the Company) of its most recent Form 20-F, Exhibit 99.1 or 99.2 of its most recent Form 40-F. If a company has not filed an annual report, the business summary of its most recent S-1 filing is used. The words within a search term may be separated by punctuation, such as a hyphen, but must otherwise be adjacent. Only the securities of those companies identified in this step qualify for inclusion in the universe of eligible securities. Securities that do not include in Item 1 (Business) or Item 7 (Management's Discussion and Analysis) of its most recent Form 10-K, Item 4 (Information on the Company) of its most recent Form 20-F, Exhibit 99.1 or 99.2 of its most recent Form 40-F, or business summary of its most recent S-1 filings, as applicable, a reference to a product or service that is, as explicitly described therein, related to a search term and used in a manner that is within the scope of the index, are excluded from the index.

The industries represented by each index described below are subject to change and are not claimed to represent a comprehensive coverage of the subsectors or of constituent companies within the subsector. The industries below are meant to illustrate a list, in S&P DJI's view, of the most relevant innovations within the subsectors. However, company categorization is explicitly not intended to reflect how much

revenue a company currently derives from its business activity focus; instead, it is an indication of the degree of importance a company places on its business activity focus.

**S&P Kensho Distributed Ledger Index.** Companies focused on developing distributed ledger technology, including:

- Developing distributed ledger technology and new consensus mechanisms, including products in the proof-of-concept stage of development.
- Providing distributed ledger technology as a service.
- Companies enabling distributed ledgers, such as miners.

**S&P Kensho Alternative Finance Index.** Companies focused on providing alternative financing and wealth management capabilities, including:

- Advancing the loan approval process in speed and complexity, and algorithmic loan approval.
- Direct lending platforms, such as peer-to-peer lending platforms
- Intermediary platforms connecting company and consumer accounts with financial institutions to enable next generation financial products, such as Banking-as-a-Service (BaaS).
- Automated wealth management services, such as robo-advisors.
- Flexible insurance plans, such as usage-based and on demand insurance.
- Crowdfunding platforms that allow people to donate or invest in return for a reward and/or equity stake.
- Digital currencies and the software and hardware that enable them, such as exchanges and wallets.

**S&P Kensho Future Payments Index.** Companies focused on enabling the next-generation transformation of payments infrastructure, including:

- General-purpose platforms that allow consumers to transact using a digital balance within a system oftentimes in multiple channels, such as mobile wallets and peer-to-peer platforms.
- Platforms that allow merchants to manage multi-channel payments in one system.
- Real-time payments and transfers across consumer and merchant accounts nationally and internationally (i.e., cross-border).
- Transaction security (i.e., tokenization, point-to-point encryption, end-to-end encryption).
- Product or service related to biometrically enabled payments.

**S&P Kensho Electric Vehicles Index.** Companies focused on producing electric road vehicles and associated subsystems, including:

- Companies that manufacture electric road vehicles.
- Powertrain systems, motors, or energy storage systems for electric vehicles.
- Producers of electric vehicle energy storage systems and related management systems, as well as zero-emission clean fuel technology, such as hydrogen fuel cells.
- Charging systems for electric vehicles, not including charging networks or associated infrastructure.

**S&P Kensho Digital Communities Index.** Companies focused on digital social networking services, including:

- Platforms connecting a user's profile with another individual or group, allowing users to communicate and view user generated content, unified communications, or comments.
- Online gaming applications with a focus on community.

**S&P Kensho Advanced Transport Systems Index.** Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:

- Systems, platforms, and related sub-components that intelligently and predictively manage and optimize fleets of vehicles for the transportation of passengers and/or goods.
- Vehicle sharing services for passenger cars.
- Micro mobility sharing platforms, including platforms for electric scooters and bicycles.
- Next generation transportation systems, such as Hyperloop and passenger-capable urban air mobility platforms and devices.

**S&P Kensho Wearables Index.** Companies focused on wearable and implantable technologies for consumer, military, and medical uses, including:

- Wearable computing devices, such as smart watches, smart glasses, smart wireless in-ear devices, and fabrics with embedded sensors, etc.
- Medical systems or smart patches for drug delivery, bio-sensing, etc.
- Exoskeletons.
- Haptic or force feedback devices.
- Wearable or implantable mind-machine devices or sensors, such as EEG headwear, microchips, deep brain stimulation, etc.
- Wearable or implantable sensors with wireless connectivity.
- Wearable energy/power generation and harvesting technologies.

**S&P Kensho Robotics Index.** Companies focused on the robotics industry and significant subsystems, including:

- Commercial applications (e.g., food processing, manufacturing, agriculture, etc.), medical robots (e.g., surgical, automated prescription dispensers, etc.), military robots, consumer robots, and surveillance and security robots.
- Produce a cloud-based platform, API, or software development kit (SDK) for managing robotic fleets (e.g., Robotics-as-a-service platforms).

**S&P Kensho Autonomous Vehicles Index.** Companies focused on autonomous vehicles and related capabilities, including:

- The manufacture of autonomous vehicles and related connectivity capabilities.
- Software and components that facilitate full or partial autonomy, including interfacing with other autonomous vehicles or infrastructure, or related connectivity capabilities.
- Active driver assistance systems or autonomous safety overrides (e.g., automatic braking).
- Sensors (e.g., distance measurement, cameras, etc.) that are used for object and collision detection systems, such as traffic sign or pedestrian recognition.
- Navigation and information systems that enhance a vehicle's autonomy.

**S&P Kensho Cleantech Index.** Companies focused on building technologies or products that enable generation of clean energy, such as solar, wind, geothermal, hydrogen, and hydroelectric, including:

- Technologies (hardware, software, or materials) used for clean energy capture, including solar modules, wind blades and turbines, inverters, etc.
- Technologies used for green hydrogen production and energy generation, including electrolyzers and stationary fuel cells.
- Installation of these technologies for use in residential or commercial applications.
- Advanced energy storage devices, such as utility-scale batteries.

**S&P Kensho Cyber Security Index.** Companies focused on protecting enterprises and devices from unauthorized access via electronic means, including:

- Cyber-attack threat detection, response, or prevention systems, including intelligent systems utilizing big data analytics, IOT technology, or machine learning.
- Cyber-threat intelligence systems utilizing big data analytics, IoT technology, or machine learning.
- Network and internet security systems such as firewalls and DNS, DOS and DDoS protection
- Authentication, multi-factor authentication, and identity management systems cyber security purposes.
- Application security, data security, encryption, and protection for cyber security purposes.
  - **S&P Kensho Cyber Security Mid-Large Cap Index.** Companies meeting the requirements of the S&P Kensho Cyber Security Index that are ranked in the mid-large cap range.

**S&P Kensho 3D Printing Index.** Companies focused on 3D printing:<sup>2</sup>

- Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems (including those for used for food), and relevant supply chains such as specialized hardware, software, or materials.
- Producers of 3D scanners used as an input to a 3D printing process.
- Software to perform 3D used as an input to a 3D printing process.

**S&P Kensho Smart Borders Index.** Companies focused on securing borders and critical infrastructure, including:

- Border and perimeter control and security systems.
- Scanning, imaging, and surveillance of cargo and people at perimeters and borders.
- Detection of explosives, pathogens, radiation, and other threats.

**S&P Kensho Genetic Engineering Index.** Companies focused on genetic engineering,<sup>3</sup> including:

- Products created via manipulation of genetic material, including stem cells.
- Products or services that enable the manipulation of genetic material, including stem cells.
- Products or services related to genetically modified organisms (“GMOs”), normally in the context of food production.

**S&P Kensho Drones Index.** Companies focused on the remotely operated or unmanned aerial, and marine drones market, including:

- Producers of drones to be used in a civilian, commercial, and/or military capacity.
- Sensors and systems used in the control and intrinsic capabilities of drones, such as cameras, gyroscopic chips, pressure gauges, etc.
- Communication hardware and software to allow a drone market to connect to a central control hub or to other vehicles.

**S&P Kensho Clean Energy Index.** Companies focused on the generation and transmission of clean energy, such as solar, wind, geothermal, hydroelectric, and hydrogen, including those involved in the specialized construction and operation of:

- Clean power generation plants.
- Green hydrogen production plants with output intended for power generation

---

<sup>2</sup> This does not include companies engaged in 3D printing services or other users of the technology unless they develop proprietary 3D printing capabilities that they monetize through their services.

<sup>3</sup> Includes products in or after “Phase 1” clinical trials.

- Grid-scale battery storage facilities.

**S&P Kensho Smart Grids Index.** Companies focused on power, water, and transportation infrastructure, including:

- Efficient management and use of energy and water by providing advanced monitoring, measurement, and distribution solutions.
- Improved grid reliability through outage detection and control, including advanced monitoring, measurement, and distribution solutions.
- Advanced water treatment and conditioning systems.
- Next-generation transportation infrastructure, such as advanced traffic management and tracking; sensors and information infrastructure for vehicle navigation and communication; and automated fare collection.
- Advanced city infrastructure such as connected lighting solutions.
- Technology that enables electric vehicle recharging infrastructure platforms and networks.

**S&P Kensho Smart Buildings Index.** Companies focused on enabling buildings to become more connected, intelligent, and adaptive, including:

- Remote access or control of building security and other building functions and environments, such as lighting, temperature, media; or the automation of these functions based on intelligent algorithms.
- Solutions providing connectivity, remote access, and control of connected building devices and appliances.
- Systems enabling parts of the building to react and adapt to real-time conditions by responding to environmental changes (e.g., solar shading).
- Specialized sensors, networking infrastructure, platforms, and protocols for connected and smart buildings.

**S&P Kensho Space Index.** Companies focused on space travel and exploration, including:

- Spacecraft, space launch vehicles, space flight, or space stations and related components and services, including in-space satellite servicing
- Space mission assurance, operation, or support.
- Space imaging, earth observation, global positioning, and derived analytics.
- Space communication, excluding satellite-to-satellite communication.
- Low-latency satellite internet connectivity, including satellite-to-satellite communication for this purpose.
- Space or ground based support infrastructure, including cloud-based ground support services.
- Space-related military armaments and capabilities.
- Small satellite hardware and software manufacturers, including nanosatellites and CubeSats.
- Space tourism, and space-facilitated terrestrial transportation, including suborbital flight.
- Asteroid mining and resource extraction.
- Space debris tracking and removal.

**S&P Kensho Nanotechnology Index.** Companies focused technologies that enable or perform manipulation of materials at a nano- or microscale, including:

- An end product manufactured by physical or chemical nanoscale manipulation of components and processes.

- Build specialized equipment that enable nanoscale manipulation or measurement.
- Nanoscale techniques as a major part of their production chain.
- Nano- and micro robots.

**S&P Kensho Virtual Reality Index.** Companies focused on virtual reality, including:

- Head mounted displays (e.g., VR glasses, pupil display modules, HUDs, etc.).
- VR/AR platforms for mobile, PC, or head mounted displays.
- VR/AR specific products (e.g., cameras, controllers, etc.).
- Hardware and software specific to the VR/AR supply chain (e.g., micro displays, display drivers, sensors, graphic cards, etc.).

**S&P Kensho Enterprise Collaboration Index.** Companies focused on enterprise collaboration frameworks, including:

- Extensible enterprise collaboration frameworks providing integrated messaging, video, content sharing, and third-party application / bot integration.
- Cloud communication platforms or communication platforms as a service (“CPaaS”) that enable businesses to add real-time communications features (voice, video, and messaging) in their own applications/website without needing to build backend infrastructure.
- Next generation enterprise collaboration solutions spanning all platforms, including mobile and VR/AR capabilities.

**S&P Kensho Digital Health Index.** Companies focused on the remote delivery of healthcare services, including<sup>4</sup>:

- Capabilities enabling remote medical patient monitoring, diagnostics, analytics, treatment, including administration of medications, interactive health messaging for improved medication adherence and care coordination
- Platforms providing or enabling remote clinical services
- Remote surgical and teledentistry technology
- Platforms enabling the remote collaboration of medical professionals in the treatment of patients
- Platforms that integrate third party healthcare providers with patients and/or insurers
- Cloud-based platforms or solutions to integrate medical record transfer or healthcare administration

**S&P Kensho Smart Factories Index.** Companies that produce the technology empowering digitalized factories to improve manufacturing processes through self-optimization, specifically:

- Software and devices enabling connected, integrated digitalization of manufacturing activities, including the industrial internet of things (industrial IoT) and digital twin platforms
- Sensors, software, and equipment used for environmental sensing and monitoring, advanced process control, predictive maintenance, and equipment health monitoring
- Technology and sensors that enable industrial machine and 3D vision to identify product defects and anomalies, model and predict equipment processes and product results
- Demand response systems and components for conserving and optimizing plant energy consumption

---

<sup>4</sup> Digital healthcare apps must integrate the connected device into broader healthcare system and deliver healthcare services/outcomes to be in scope. Connected devices that only provide remote monitors/alerts are not in scope (e.g., insulin delivery devices, pacemakers, etc.) Veterinary and pet-focused products/services are out of scope. Users of technologies and non-innovative products/services are ineligible.

**S&P Kensho Sustainable Farming Index.** Captures companies focused on agricultural innovations intended to reduce resource intensity, produce higher yields, and lower agricultural waste. In scope innovation areas include:

- Connected Farms - including digital agriculture applications and sensor technology facilitating connected, adaptive farming equipment, environment sensing and predictive analytics
- Precision Agriculture - geo-mapping and positioning, smart irrigation, such as variable rate technology and water preservation technologies, and automated agricultural equipment
- Sustainable fertilizers and plant protection
- Meat substitutes and alternative proteins
- Next Generation Farming Techniques, such as controlled environment agriculture, vertical farming, hydroponics, aquaponics and aeroponics
- Food and agricultural waste management

## Sector Indices

For each Sector Index a stock must be contained in one or more of the identified Subsector indices as defined below. Note that not all stocks in each Subsector Index that are eligible for a Sector Index are included in the Sector Index. Stocks must meet the relevant business activity focus for the Sector Index as defined below.

The industries represented by each index described below are subject to change and are not claimed to represent a comprehensive coverage of the sectors or of constituent companies within the sector. The industries below are meant to illustrate S&P DJI's view of the most relevant innovations within the sectors. Note that within each sector index, a mix of companies that are solely focused on the relevant industries as well as other companies who may focus on the relevant industries as well as other industries that do not define the sector may both be included in the index.

**S&P Kensho Human Evolution Index.** Companies focused on bio-technology innovations that enhance human capabilities, including:

- Wearable or augmented reality devices that enhance a human's capabilities, replace lost functionality, or provide advanced bio-sensing and analytics on physical and mental well-being (S&P Kensho Wearables Index - KBORGP and S&P Kensho Virtual Reality Index - KVRP).
- Technologies changing humans on a genetic level (S&P Kensho Genetic Engineering Index - KDNAP).
- Medical, surgical, nano- and microbots (S&P Kensho Nanotechnology Index - KNANOP and Kensho Robotics Index - KBOTSP).
- 3D printing technologies used for medical purposes. (S&P Kensho 3D Printing Index - KDDPP).

**S&P Kensho Democratized Banking Index.** Companies focused on innovations within financial services, including advances in payments, transaction management, financing, and wealth management, including:

- Alternative methods of financing and wealth management, including robo-advisors, crowdfunding, peer-to-peer lending (S&P Kensho Alternative Finance Index - KALTFINP).
- Future payments capabilities, including digital, real-time, direct payments and related security (S&P Kensho Future Payments Index - KPAYP).
- Distributed ledger technology related to financial services (S&P Kensho Distributed Ledger Index - KLEDGERP).

**S&P Kensho Final Frontiers Index.** Companies focused on technologies at the forefront of deep-space and deep-sea exploration and development, including:

- Space systems and technologies (S&P Kensho Space Index - KMARSP).
- Drones used for deep sea exploration (S&P Kensho Drones Index - KDRONEP).

**S&P Kensho Intelligent Infrastructure Index.** Companies that reflect the transition to intelligent, adaptive, and connected infrastructure, including:

- Intelligent and connected home technologies, building automation infrastructure, etc. (S&P Kensho Smart Buildings Index - KHOMEPE).
- Power grid technologies focused on the efficient management and use of energy, and improved power grid reliability (S&P Kensho Smart Grids Index - KGRIDSP).
- Transportation infrastructure focused on enhancing the efficiency of the transportation infrastructure as well as the new infrastructure capabilities required for alternative modes of transportation such as autonomous vehicles (S&P Kensho Smart Grids Index - KGRIDSP).
- Water infrastructure focused on water conversion and increasing the water supply (S&P Kensho Smart Grids Index - KGRIDSP).

**S&P Kensho Smart Transportation Index.** Companies focused on autonomous and electric vehicle technology, commercial drones, and advanced transportation systems, including:

- Autonomous and connected vehicle technology (S&P Kensho Autonomous Vehicles Index - KCARSP).
- Drones and drone technologies used for commercial and civilian applications (S&P Kensho Drones Index - KDRONEP).
- Advanced transportation tracking and transport optimization systems (S&P Kensho Advanced Transport Systems Index - KATSP).
- Electric vehicle technology (S&P Kensho Electric Vehicles Index – KEVP).

**S&P Kensho Clean Power Index.** Companies focused on advances in clean technology and energy, including:

- Clean energy technology: hardware, software, and construction and installation of materials used for energy capture, as well as advanced energy storage devices (S&P Kensho Cleantech Index - KCLEANP).
- Clean energy generation: companies focused on the generation and transmission of power derived from clean energy sources (S&P Kensho Clean Energy Index - KENERGY).

**S&P Kensho Future Security Index.** Companies focused on sophisticated weaponry and defensive systems, and smart borders, including:

- Cyber security (S&P Kensho Cyber Security Index - KCYBERP).
- Securing borders and critical infrastructure (S&P Kensho Smart Borders Index - KDMZP).
- Military applications of:
  - Space systems (S&P Kensho Space Index - KMARSP).
  - Robotics (S&P Kensho Robotics Index - KBOTSP).
  - Remotely operated or unmanned air and sea drones (S&P Kensho Drones Index - KDRONEP).
  - Wearable technologies (S&P Kensho Wearables Index - KBORGP).
  - Virtual or augmented reality (S&P Kensho Virtual Reality Index - KVRP).

**S&P Kensho Future Communication Index.** Companies focused on advances in how people meet, collaborate, and communicate, including:



- Digital networking services, including social media, social gaming, etc. (S&P Kensho Digital Communities Index - KSOCIALP).
- Collaboration frameworks for enterprise collaboration (S&P Kensho Enterprise Collaboration Index - KTEAMP).
- Commercial components involved in virtual and augmented reality (S&P Kensho Virtual Reality Index – KVRP)

**S&P Kensho Advanced Manufacturing Index.** The index measures the performance of companies focused on enabling manufacturers to improve production processes through digitalization, automation, predictive maintenance and optimization of plant energy conservation:

- Smart factory technologies. (S&P Kensho Smart Factories Index - KFACTP).
- 3D Printing technology uses for industrial and manufacturing purposes. (S&P Kensho 3D Printing Index – KDDPP).
- Robotics technology uses for industrial and manufacturing purposes. (S&P Kensho Robotics Index – KBOTSP).
- Head mounted displays (e.g., VR glasses, pupil display modules, HUDs, etc.) with an industrial or manufacturing application. (S&P Kensho Virtual Reality Index – KVRP).

**S&P Kensho Sustainable Staples Index.** The index measures the performance of companies enabling connected agricultural producers to enhance output while reducing waste and resource exhaustion using state-of-the-art sustainable practices. This includes all components of the S&P Kensho Sustainable Farming Index (KFARMP), as well as the agricultural elements of the following sub sector indices

- S&P Kensho Drones Index (KDRONEP)
- S&P Kensho Robotics Index (KBOTSP)
- S&P Kensho 3D Printing Index (KDDPP)
- S&P Kensho Genetic Engineering Index (KDNAP)
- S&P Kensho Space Index (KMARSP)

## Composite Indices

**S&P Kensho New Economies Composite Index.** All companies in the following list of Subsector Indices are included in the index, subject to possible changes at each reconstitution:

Index	Ticker	Date Eligible for Composite
S&P Kensho Cyber Security Index	KYCBERP	02/06/2017
S&P Kensho Wearables Index	KBORGP	02/06/2017
S&P Kensho Robotics Index	KBOTSP	02/06/2017
S&P Kensho Autonomous Vehicles Index	KCARSP	02/06/2017
S&P Kensho 3D Printing Index	KDDPP	02/06/2017
S&P Kensho Drones Index	KDRONEP	02/06/2017
S&P Kensho Space Index	KMARSP	02/06/2017
S&P Kensho Smart Buildings Index	KHOMEP	02/06/2017
S&P Kensho Nanotechnology Index	KNANOP	02/06/2017
S&P Kensho Virtual Reality Index	KVRP	02/06/2017
S&P Kensho Cleantech Index	KCLEANP	02/06/2017
S&P Kensho Clean Energy Index	KENERGYP	02/06/2017
S&P Kensho Genetic Engineering Index	KDNAP	02/06/2017
S&P Kensho Smart Grids Index	KGRIDSP	02/06/2017
S&P Kensho Advanced Transport Systems Index	KATSP	02/06/2017

Index	Ticker	Date Eligible for Composite
S&P Kensho Smart Borders Index	KDMZP	02/06/2017
S&P Kensho Electric Vehicles Index	KEVP	09/17/2018
S&P Kensho Future Payments Index	KPAYP	09/24/2018
S&P Kensho Alternative Finance Index	KALTFINP	09/24/2018
S&P Kensho Distributed Ledger Index	KLEDGERP	09/24/2018
S&P Kensho Digital Communities Index	KSOCIALP	10/01/2018
S&P Kensho Enterprise Collaboration Index	KTEAMP	10/29/2018
S&P Kensho Digital Health Index	KDOC	12/03/2021
S&P Kensho Smart Factories Index	KFACT	12/03/2021
S&P Kensho Sustainable Farming Index	KFARM	06/03/2022

**S&P Kensho New Economies Select Index.** All companies in the five best performing Subsector Indices that include at least 15 companies are included in the index. The best performing Subsector Indices are identified by comparing the risk-adjusted returns of each Subsector Index on the Reference Date as follows:

1. For the Selection Day and several days immediately prior calculating the average daily return and the standard deviation of daily returns for the lookback period in order to calculate a risk-adjusted return for each Calculation Day.
2. Calculating the Final Index risk-adjusted return for each Component Index by taking the mean of the risk-adjusted returns calculated above.
3. Multiplying the Final Index risk-adjusted return by the Turnover Adjustment Factor to calculate the Adjusted Index risk-adjusted return for each Component Index. For each component index, the Turnover Adjustment Factor is four (4) if its risk-adjusted return is positive or zero, and the Turnover Adjustment Factor is half (.5) if its risk-adjusted return is negative. For a new component index, the Turnover Adjustment Factor is one (1).
4. Selecting the five Constituent Indices that include at least 15 companies with the highest Optimization Modified Index risk-adjusted return (each a “Select Component Index”, collectively “Select Component Indices”).

### Other Subsector Indices

**S&P Kensho Hydrogen Economy Index.** Companies focused on the production, transportation, conservation and fuel cells of hydrogen, including:

- All methods of hydrogen production, including steam reforming.
- Services and technology that enables the liquification of hydrogen and movement of liquefied hydrogen from point of production to end consumer.
- Hydrogen storage technologies.
- The manufacture and/or distribution of fuel cells.

**S&P Kensho Extended Nanotechnology Index.** Companies producing nanomaterials and companies that provide systems, products and services that allow for construction, measurement, simulation, or manipulation of nanomaterials:

- Fabrication and manufacturing processes: devices/systems/processes that allow for construction/manipulation of matter at the molecular level as a major part of the production process. Examples include nanobots, nanolithography, atomic layer deposition and molecular self-assembly.
- Measurement and Simulation: Includes services that simulate design of nanomaterials and products/services related to measurement at the molecular level, such as nanoelectromechanical systems.

- Materials: outputs created from nanofabrication and manufacturing processes. Includes nanotextiles and nanoparticles.
- Delivery systems: systems that enable delivery of nanomaterials to a targeted location, such as engineered nanoparticles and nanocapsules.

**S&P Kensho Metaverse Index.** Companies producing the technology and services empowering Extended Reality (XR) and the next generation of the internet, specifically:

- Applications and software enabling the full spectrum of interactive, virtual experiences, including the following: virtual gaming, recreation, business collaboration, commerce, and travel.
- Cloud, edge computing, and big data infrastructure technology integral to state-of-the-art internet-enabled capabilities, including distributed computing and network infrastructure vital to empowering Web3 applications.
- Virtual and Augmented Reality equipment, and underlying hardware and components, that power XR experiences.
- The software and hardware enabling interoperable and virtual payment systems, digital currencies, exchanges, wallets, and assets (including NFTs).

### **Multiple Share Classes and Dual Listed Companies**

Each company is represented once by the Designated Listing. For more information regarding the treatment of multiple share classes, please refer to Approach B within the Multiple Share Classes section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

# Index Construction

## Constituent Selection

At each annual reconstitution all securities that satisfy the criteria in *Eligibility Criteria* are selected and form the indices.

At each semi-annual rebalancing the same procedure is run as for the annual reconstitution except the business activity focus criteria is not re-analyzed. All stocks that met the business activity focus criteria at the prior annual reconstitution, regardless of whether they are currently in the index or not, are reassessed for size and liquidity with all stocks that pass those criteria being selected for the indices.

**Composite Indices.** At each reconstitution these indices are constructed from the eligible Subsector Indices, as described in *Index Eligibility*.

## Constituent Weightings

**Sector and Subsector Indices.** Constituent weights are set at the annual reconstitution and at the semi-annual rebalancing. Index constituents are first categorized as “core” or “non-core”. Core companies are those for which products and services related to the index objectives and target markets of a specific index are an important component of their business strategy; core companies are identified as such based on the prominence (e.g., location, context) of the disclosures in the company’s regulatory filings, as well as other publicly available information. In addition to the core/non-core, the S&P Kensho Sector indices, the S&P Kensho Smart Factories Index and S&P Kensho Extended Nanotechnology Index also apply a diversification rule, as detailed below.

Index constituents within each category are initially equal weighted. “Core” constituents are over-weighted as compared to “non-core” constituents, with the exception of the S&P Kensho Cyber Security Index, S&P Kensho Cyber Security Mid-Large Cap Index, S&P Kensho Clean Energy Index, and S&P Kensho Metaverse Index, as these indices only include “Core” constituents, and the S&P Kensho Distributed Ledger Index, as that index does not overweight “core” constituents.

Constituent weightings are adjusted to ensure that each constituent can meet a target notional trade size without exceeding 25% of its 3M ADVT. For certain indices, capacity is managed to enable a target index capacity level without any index constituent’s weight multiplied by the target capacity level exceeding a specific threshold of the constituent’s FMC:

- 15% for the S&P Kensho Extended Nanotechnology Index
- 10% for the S&P Kensho Metaverse Index)

The target notional trade size for each index and target capacity level (where applicable) are as follows:<sup>6</sup>

Index	Target Notional Trade Size
S&P Kensho Distributed Ledger Index	\$25 Million
S&P Kensho Alternative Finance Index	\$25 Million
S&P Kensho Future Payments Index	\$25 Million
S&P Kensho Electric Vehicles Index	\$25 Million
S&P Kensho Digital Communities Index	\$25 Million

<sup>6</sup> At each rebalancing, S&P Dow Jones indices may determine that a different target notional trade size is more appropriate than that shown in the table and reserves the use of discretion when implementing this parameter.

Index	Target Notional Trade Size
S&P Kensho Advanced Transport Systems Index	\$10 Million
S&P Kensho Wearables Index	\$25 Million
S&P Kensho Robotics Index	\$25 Million
S&P Kensho Autonomous Vehicles Index	\$25 Million
S&P Kensho Cleantech Index	\$25 Million
S&P Kensho Cyber Security Index	\$25 Million
S&P Kensho Cyber Security Mid-Large Cap Index	-- <sup>7</sup>
S&P Kensho 3D Printing Index	\$10 Million
S&P Kensho Smart Borders Index	\$25 Million
S&P Kensho Genetic Engineering Index	\$25 Million
S&P Kensho Drones Index	\$25 Million
S&P Kensho Clean Energy Index	\$25 Million
S&P Kensho Smart Grids Index	\$25 Million
S&P Kensho Smart Buildings Index	\$25 Million
S&P Kensho Space Index	\$25 Million
S&P Kensho Nanotechnology Index	\$10 Million
S&P Kensho Virtual Reality Index	\$25 Million
S&P Kensho Enterprise Collaboration Index	\$25 Million
S&P Kensho Digital Health Index	\$25 Million
S&P Kensho Smart Factories Index	\$25 Million
S&P Kensho Sustainable Farming Index	\$25 Million
S&P Kensho Human Evolution Index	\$100 Million
S&P Kensho Advanced Manufacturing Index	\$100 Million
S&P Kensho Democratized Banking	\$100 Million
S&P Kensho Final Frontiers Index	\$100 Million
S&P Kensho Intelligent Infrastructure Index	\$100 Million
S&P Kensho Smart Transportation Index	\$100 Million
S&P Kensho Clean Power Index	\$100 Million
S&P Kensho Future Security Index	\$100 Million
S&P Kensho Future Communication Index	\$100 Million
S&P Kensho Sustainable Staples Index	\$100 Million
S&P Kensho Liquid Future Communication Index	\$200 Million
S&P Kensho New Economies Select Index	\$100 Million
S&P Kensho New Economies Composite Index	\$100 Million
S&P Kensho Hydrogen Economy Index	\$25 Million
S&P Kensho Extended Nanotechnology Index	\$50 Million
S&P Kensho New Technology Index	\$200 Million
S&P Kensho Metaverse Index	\$100 Million

Index	Target Capacity Level (TCL)
S&P Kensho Extended Nanotechnology Index	US \$1 Billion
S&P Kensho Metaverse Index	US \$1 Billion

Individual weights will be reduced until the ADVT threshold has been met, and excess weight is then distributed proportionally across the remaining constituents within the designated category as detailed below.

On each Reference Date, the initial weight for each Index Component is determined by the following:

<sup>7</sup> Not applicable, the index is equal weighted.

1. Calculating the total initial weights of the Index Components in each category using the formulas set forth below:

$$W_C = \frac{C}{N} + X \times \left(1 - \frac{C}{N}\right) \text{ if } C > 0, \text{ else } 0$$

$$W_{NC} = 1 - W_C$$

2. Calculating the initial weights of the Index Components by equally allocating the total initial weight of each category among the Index Components included in that category using the applicable formula set forth below:

For each Index Component included in the “Core” Category:

$$W_{i, \text{Initial}} = \frac{W_C}{C}$$

For each Index Component included in the “Non-Core” Category:

$$W_{i, \text{Initial}} = \frac{W_{NC}}{N - C}$$

where:

$W_{i, \text{Initial}}$  = initial weight of Index Component  $i$

$W_C$  = total initial weight of the Index Components included in the “Core” category

$W_{NC}$  = total initial weight of the Index Components included in the “Non-Core” category

$C$  = number of Index Components included in the “Core” category

$N$  = total number of Index Components

$X$  = 20%, the maximum target overweight percentage for Core Index Components, as compared to Non-Core Index Components

On each Reference Date, once the initial weights of the Index Components are determined, those weights are adjusted to ensure that each Index Component can accommodate a specified target notional trade size without breaching the predefined 3M ADVT threshold by:

1. Setting the maximum 3M ADVT threshold to 25%  $3M \text{ ADVT}_{\%, \text{max}}$ . At each rebalancing, S&P Dow Jones indices may determine that a different target notional trade size is more appropriate than that shown in the above table and reserves the use of discretion when implementing this parameter.
2. Calculating the maximum allowable notional trade amount for each Index Component as follows:

$$\text{Max}_{\$i} = 3M \text{ ADVT}_{\%, \text{max}} \times 3M \text{ ADVT}_i$$

3. Calculating the allocated notional trade amount for each Index Component based on its initial weight:

$$N_{\$i} = N_{\text{index}} \times W_{i, \text{Initial}}$$

4. Reallocating weight as necessary, for each Index Component in the following manner in order to satisfy the constraint set forth in Step 1 above:
  - a. If an Index Component’s allocated notional trade amount is above its maximum allowable notional trade amount, the adjusted weight for that Index Component is capped by its maximum allowable notional trade amount and is set equal to:

$$W_{i,0} = \text{Max}_{\$i} / N_{\text{index}}$$

- b. For each category, the excess weight from Step 4(a), if any, of the Index Components included in that category is calculated as the sum of the excess weight of each of those Components using the following formula:

$$W_e = \sum (W_{i, Initial} - W_{i,o})$$

- c. Step 4 is repeated, if necessary, with the initial weight of each Index Component set equal to its adjusted weight calculated in the prior iteration of Step 4, until  $W_e$  is equal to zero for both categories, such that all Index Components satisfy the maximum allowable notional trade amount constraint set forth in Step 1 above.  
where:

$N_{\$index}$  = total target notional trade size for the Index

$3M\ ADVT_{\%,max}$  = the maximum allowable percentage of an Index Component's 3M ADVT

$W_{i, Initial}$  = initial weight of Index Component  $i$

$Max_{\$i}$  = maximum allowable notional trade amount for Index Component  $i$

$3M\ ADVT_i$  = the 3M ADVT for Index Component  $i$

$N_{\$i}$  = allocated notional trade amount for Index Component  $i$

$W_{i,o}$  = adjusted weight for Index Component

$W_e$  = excess weight to be redistributed to the Index Components in the applicable category

**S&P Kensho Extended Nanotechnology Index and S&P Kensho Metaverse Index.** For these indices, concurrent to the target notional trade size constraint, weights are adjusted to meet a target capacity level without breaching the predefined percentage of FMC ownership threshold at that capacity target capacity by:

1. Setting the maximum percentage of FMC ownership threshold to  $FMC_{\%,max}$ . At each rebalancing, S&P Dow Jones indices may determine that a different target capacity level is more appropriate than that shown in the above table and reserves the use of discretion when implementing this parameter.
2. Calculating the maximum allowable capacity amount for each Index Component as follows:

$$Max_{FMC} = FMC_{\%,max} \times FMC_i$$

3. Calculating the allocated capacity for each Index Component based on its initial weight:

$$C_{\$i} = C_{\$index} \times W_{i, Initial}$$

4. Reallocating weight as necessary, for each Index Component in the following manner to satisfy the constraint set forth in Step 1:

- a. If an Index Component's allocated capacity amount is above the maximum allowable capacity amount, the adjusted weight for that Index Component is capped by its maximum allowable capacity amount and is set equal to:

$$W_{i,o} = Max_{FMC_i} / C_{\$index}$$

- b. For each category, the excess weight from Step 4(a), if any, of the Index Components included in that category is calculated as the sum of the excess weight of each of those Components using the following formula:

$$W_e = \sum (W_{i, Initial} - W_{i,o})$$

- c. Step 4 is repeated, if necessary, with the initial weight of each Index Component set equal to its adjusted weight calculated in the prior iteration of Step 4, until  $W_e$  is equal to zero for both categories, such that all Index Components satisfy the maximum allowable notional trade amount constraint set forth in Step 1 above.

where:

$C_{\$index}$	= target capacity level for the Index
$FMC_{\%,max}$	= the maximum allowable ownership percentage of a component's FMC
$W_{i,Initial}$	= initial weight of Index Component $i$
$Max_{FMCi}$	= maximum allowable capacity amount for Index Component
$FMC_i$	= the FMC for Index Component $i$
$C_{\$i}$	= allocated capacity amount for Index Component $i$
$W_{i,o}$	= adjusted weight for Index Component
$W_e$	= excess weight to be redistributed to the Index Components in the applicable category

## Diversification

For the Sector indices, the S&P Kensho Smart Factories Index and S&P Kensho Extended Nanotechnology Index, the following diversification rules are applied:

If the sum of the weights of all index constituents with an individual weight over 4.5% exceeds 45% of the total index weight (the “Diversification Threshold”) then the following steps are taken:

1. Sorting all constituents with a weight greater than 4.5% in descending order firstly by their individual constituent weight and secondly by their 3M ADVT.
2. Iteratively redistributing the weight from the lowest-sorted index component to all components not exceeding the 4.5% threshold.
3. Repeating Steps 1 and 2 until the Diversification Threshold is satisfied.

## LargeMidCap Sector Equal Weight Indices

At each rebalancing the constituents are equal-weighted.

## Composite Indices

**Calculating the Constituent Index Weight.** The weight of each Constituent Index is calculated by comparing the risk-adjusted return with each of the other Constituent Indices on the Selection Day:

1. For the Selection Day and several days immediately prior (each a “Calculation Day”), calculating the average daily return and the standard deviation of daily returns for the 126 trading days’ lookback period—in order to calculate a risk-adjusted return for each Calculation Day  $d$ :

$$RAR_{i,d} = \frac{r_i}{\sigma_i}$$

2. Calculating the Final Index risk-adjusted return  $RAR_i$  for each Constituent Index by taking the mean of the risk-adjusted returns calculated above:

$$RAR_i = \frac{1}{D} \sum_d^D RAR_{i,d}$$

where:

$r_i$  = average daily return of the index  $i$  over the lookback period

$\sigma_i$  = standard deviation of daily return of index  $i$

$RAR_{i,d}$  = risk-adjusted return of the index  $i$  on a Given Calculation Day



$RAR_i$  = Final Index risk-adjusted return of the index  $i$  (mean of risk-adjusted returns for each Calculation Day)

Once the Final Index risk-adjusted return has been calculated for each of the Constituent Indices, the weight of each Constituent Index in the Index is determined by:

1. Setting a variable  $RAR_{Baseline}$  equal to 0 if all the Final risk-adjusted returns calculated above are positive, or equal to the most negative risk-adjusted return otherwise:

$$RAR_{Baseline} = \begin{cases} 0 & \rightarrow RAR_i \geq 0 \text{ for all Constituent Indices } i \\ \min(RAR_i) & \rightarrow RAR_i < 0 \text{ for any Constituent Index } i \end{cases}$$

2. Calculating the  $RARS_{spread}_i$  for each Constituent Index as:

$$RARS_{spread}_i = RAR_i - RAR_{Baseline}$$

3. Calculating the  $TotalRARS_{spread}$  as the sum of all Constituent Index RAR Spreads:

$$TotalRARS_{spread} = \sum RARS_{spread}_i$$

4. Setting the initial weight of each Constituent Index (“Initial Constituent Weight Index”) to:

$$w_i = \frac{RARS_{spread}_i}{TotalRARS_{spread}}$$

Each Initial Constituent Index Weight  $w_i$  is then adjusted to ensure it meets established Minimum and Maximum Weight thresholds. For the S&P Kensho New Economies Composite Index the Minimum and Maximum Weight thresholds are 1% and (the number of constituents in each Initial Constituent Index/2) %, respectively. For the S&P Kensho New Economies Select Index the Minimum and Maximum Weight thresholds are 10% and 25%, respectively:

1. If any initial Constituent Index Weight is less than the Minimum Weight Threshold, the weight is adjusted up so that it is equal to the Minimum Weight Threshold.
2. The sum of the excess weight added to the Constituent Indices in Step 1, defined as

$$w_e = \sum \min_{\%_1} - w_i$$

is then subtracted equally from the Initial Constituent Index Weights of all remaining Constituent Indices that are not already at the Minimum Weight Threshold, in order to maintain a total weighting of 100%.

3. If any Constituent Index Weight exceeds the Maximum Weight Threshold, the Final Constituent Index Weight for that Index is set to the Maximum Weight Threshold.
4. The sum of the excess weight equal to the difference between the Constituent Index Weight and the Final Constituent Index Weight for each of the Constituent Indices modified in Step 3, defined as

$$w_e = \sum \max_{\%_i} - w_i$$

is then added equally to the Initial Constituent Index Weights of all remaining Constituent Indices that have not yet reached the Maximum Weight Threshold and are not also set to the Minimum Weight Threshold.

5. Repeat Steps 3 through 4 until all Constituent Indices satisfy the Weight Thresholds.
6. The Final Constituent Index Weight for each Constituent Index that is not at a maximum or minimum.

## **Calculating the Initial Constituent Security Weight**

The initial weight of each Constituent Security selected for inclusion in the index is determined by:

1. Multiplying the weight of the security in each of the Constituent Indices for which it is a constituent as of the Selection Day by the Final Constituent Index Weight for that index as calculated above.
2. Summing the result of Step 1 should the security be a component of multiple Constituent Indices.

## **Calculating the Final Constituent Security Weight**

Component weights are adjusted to ensure each component is able to meet a target notional trade size as detailed in the table above without exceeding 25% of its 3M ADVT. Individual weights will be reduced until this threshold has been met, and excess weight is then distributed pro-rata across the remaining components.

## **Diversification**

If the sum of the weights of all index constituents with an individual constituent weight over 4.5% exceeds 45% of the weight of the entire index (“the “Diversification Threshold”) then the following steps are taken:

1. Sorting all constituents with a weight greater than 4.5% in descending order firstly by their individual constituent weight and secondly by their 3M ADVT.
2. Iteratively redistributing the weight from the lowest-sorted index component to all components not exceeding the 4.5% threshold.
3. Repeating Steps 1 and 2 until the Diversification Threshold is satisfied.

*For more information on constituent weighting, please refer to the Non-Market Capitalization Weighted section of S&P Dow Jones Indices’ Index Mathematics Methodology.*

## **Index Calculations**

The index is calculated by means of the divisor methodology used for all S&P Dow Jones equity indices.

*For more information on the index calculation methodology, please refer to the Non-Market Capitalization Weighted section of S&P Dow Jones Indices’ Index Mathematics Methodology.*

# Index Maintenance

## Annual Reconstitution

At each annual reconstitution the index universe is reviewed for eligibility and constituents are selected and weighted. In addition, the indices rebalance six months after the annual reconstitution. For the rebalancing process, the eligibility of stocks for each index based on their Business Activity Focus is inherited from the prior annual reconstitution, whereas the remaining eligibility criteria are reassessed, and stocks are then selected and weighted according to the rules in *Index Construction*. Index shares are assigned based on prices seven business days prior to the rebalancing.<sup>8</sup>

The following indices are reconstituted after the close on the first trading day following May 14<sup>th</sup> with a reference date of the last trading day in April and rebalanced after the close on the first trading day following November 14<sup>th</sup> with a reference date of the last trading day in October:

- S&P Kensho Advanced Transport Systems Index
- S&P Kensho Wearables Index
- S&P Kensho Autonomous Vehicles Index
- S&P Kensho Cyber Security Index
- S&P Kensho Smart Borders Index
- S&P Kensho Smart Grids Index
- S&P Kensho Smart Buildings Index
- S&P Kensho Space Index
- S&P Kensho Digital Communities Index
- S&P Kensho Enterprise Collaboration Index
- S&P Kensho Electric Vehicles Index
- S&P Kensho Hydrogen Economy Index
- S&P Kensho Smart Factories Index

The following indices are reconstituted after the close on the last trading day in May with a reference date of the first trading day following May 14<sup>th</sup> and rebalanced after the close on the last trading day in November with a reference date of the first trading day following November 14<sup>th</sup>:

- S&P Kensho Distributed Ledger Index
- S&P Kensho Alternative Finance Index
- S&P Kensho Future Payments Index
- S&P Kensho Robotics Index
- S&P Kensho Cleantech Index
- S&P Kensho Clean Energy Index
- S&P Kensho 3D Printing Index

---

<sup>8</sup> Prior to December 10, 2018, index shares were based on prices as of the Rebalancing Reference Date.

- S&P Kensho Genetic Engineering Index
- S&P Kensho Nanotechnology Index
- S&P Kensho Virtual Reality Index
- S&P Kensho Drones Index
- S&P Kensho Digital Health Index
- S&P Kensho Extended Nanotechnology Index
- S&P Kensho Sustainable Farming Index
- S&P Kensho Metaverse Index

The following indices are reconstituted after the close on the third Friday in June with a reference date of the first Friday in June and rebalanced after the close on the third Friday in December with a reference date of the first Friday in December:

- S&P Kensho Future Security Index
- S&P Kensho Intelligent Infrastructure Index
- S&P Kensho Smart Transportation Index
- S&P Kensho Final Frontiers Index
- S&P Kensho Clean Power Index
- S&P Kensho Human Evolution Index
- S&P Kensho Democratized Banking Index
- S&P Kensho Future Communication Index
- S&P Kensho Liquid Future Communication Index
- S&P Kensho New Economies Composite Index
- S&P Kensho New Economies Select Index
- S&P Kensho Cyber Security Mid-Large Cap Index
- S&P Kensho Advanced Manufacturing Index
- S&P Kensho New Technology Index
- S&P Kensho Sustainable Staples Index

The following indices rebalance semi-annually, effective at the open of the first trading day following the 14th calendar day after the reference date. The rebalancing reference date is the close of the first business day following the third Friday of December and June, respectively.

- S&P Kensho LargeMidCap Future Security Index
- S&P Kensho LargeMidCap Intelligent Infrastructure Index
- S&P Kensho LargeMidCap Smart Transportation Index
- S&P Kensho LargeMidCap Final Frontiers Index
- S&P Kensho LargeMidCap Clean Power Index
- S&P Kensho LargeMidCap Human Evolution Index
- S&P Kensho LargeMidCap Democratized Banking Index
- S&P Kensho LargeMidCap Future Communications Index

- S&P Kensho LargeMidCap Advanced Manufacturing Index
- S&P Kensho LargeMidCap Sustainable Staples Index
- S&P Kensho Sustainable Technologies Index

For the S&P Kensho Extended Nanotechnology Index, effective from February 2022, in addition to the semi-annual rebalance schedule described above, the index will be reweighted quarterly, after the close on the last trading day in August with a reference date of the first trading day following August 14th and on the last trading day in February with a reference date of the first trading day following February 14<sup>th</sup>.

**Additions.** Except for spin-offs, split-offs, and mergers/acquisitions, companies can only be added to the index at the time of the reconstitution and rebalancings.

**Deletions.** Between rebalancings, deletions can occur due to acquisitions, mergers, and spin-offs, or due to bankruptcies, delisting from eligible exchanges, or suspensions.

### Currency of Calculation and Additional Index Return Series

The indices calculate in U.S. dollars. WM/Refinitiv foreign exchange rates are taken daily at 4:00 PM London time and used in the calculation of the indices. These mid-market fixings are calculated by the WM Company based on Refinitiv data and appear on Refinitiv pages WMRA.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to the following: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the [S&P DJI Methodology & Regulatory Status Database](#).

*For information on various index calculations, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.*

*For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at [www.spglobal.com/spdji](http://www.spglobal.com/spdji).*

### Corporate Actions

The table below lists the treatment for Spin-offs and Mergers and Acquisitions for all the S&P Kensho Indices covered by this methodology.

Corporate Action	Adjustment Made to Index	Divisor Adjustment?
Spin-Offs	The spun-off company is added to all the indices of which the parent is a constituent, at a zero price at the market close of the day before the ex-date (with no divisor adjustment). The parent company and spun-off entity are then analyzed to determine if they are still meeting the Index Objectives of the relevant indices. If it is determined that a company is not meeting an index objective due to a spin-off, the company is removed after at least one day of regular way trading (with a divisor adjustment).	
Mergers and Acquisitions	In cases of mergers involving two index constituents, the merged company deemed to be the acquirer in the transaction remains in the index, provided it meets all eligibility requirements. If the acquisition payment type is stock-based, the acquirer's index shares increase proportionately to the terms of the transaction. If the acquisition payment type is not stock-based, the acquirer's index shares remain at pre-merger levels.  When a merger or acquisition of a constituent by a non-constituent occurs, the surviving entity is analyzed to determine if the characteristics of the surviving entity are expected to remain aligned with the index objective. This may result in the surviving company replacing the constituent. This is applicable if the acquisition payment type is cash or stock-based. Additional information will be announced in the daily corporate events file (.SDE). When the acquiring company is added to an index that the target	

Corporate Action	Adjustment Made to Index	Divisor Adjustment?
	company was a constituent of, the acquirer's index shares are determined using closing prices on the announcement date.	

For information on other general corporate actions, please refer to the Non-Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

**S&P Kensho LargeMidCap Sector Equal Weight Indices.** For information on other general Corporate Actions for these indices, please refer to the Equal Weighted Indices section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

### Base Date and History Availability

Index history availability, base dates, and base values are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P Kensho Distributed Ledger Index	09/24/2018	05/31/2018	05/31/2018	100
S&P Kensho Alternative Finance Index	09/24/2018	06/15/2015	06/15/2015	100
S&P Kensho Future Payments Index	09/24/2018	06/17/2013	06/17/2013	100
S&P Kensho Electric Vehicles Index	09/17/2018	05/15/2013	05/15/2013	100
S&P Kensho Digital Communities Index	10/01/2018	05/15/2013	05/15/2013	100
S&P Kensho Advanced Transport Systems Index	12/09/2016	05/15/2013	05/15/2013	100
S&P Kensho Wearables Index	06/27/2016	05/15/2013	05/15/2013	100
S&P Kensho Robotics Index	06/27/2016	06/17/2013	06/17/2013	100
S&P Kensho Autonomous Vehicles Index	06/27/2016	06/17/2013	05/15/2013	100
S&P Kensho Cleantech Index	08/05/2016	06/17/2013	06/17/2013	100
S&P Kensho Cyber Security Index	03/10/2016	05/15/2013	05/15/2013	100
S&P Kensho Cyber Security Mid-Large Cap Index	03/02/2016	05/15/2013	05/15/2013	100
S&P Kensho 3D Printing Index	06/27/2016	06/17/2013	06/17/2013	100
S&P Kensho Smart Borders Index	03/16/2017	05/15/2013	05/15/2013	100
S&P Kensho Genetic Engineering Index	09/01/2016	06/17/2013	06/17/2013	100
S&P Kensho Drones Index	06/27/2016	06/17/2013	06/17/2013	100
S&P Kensho Clean Energy Index	08/05/2016	06/17/2013	06/17/2013	100
S&P Kensho Smart Grids Index	12/07/2016	05/15/2013	05/15/2013	100
S&P Kensho Smart Buildings Index	07/01/2016	05/15/2013	05/15/2013	100
S&P Kensho Space Index	06/27/2016	05/15/2013	05/15/2013	100
S&P Kensho Nanotechnology Index	07/01/2016	06/17/2013	06/17/2013	100
S&P Kensho Virtual Reality Index	07/01/2016	06/15/2016	06/15/2016	100
S&P Kensho Enterprise Collaboration Index	10/29/2018	05/15/2017	05/15/2017	100
S&P Kensho Human Evolution Index	06/22/2018	07/15/2013	07/15/2013	100
S&P Kensho Democratized Banking	09/04/2018	07/15/2013	07/15/2013	100
S&P Kensho Final Frontiers Index	12/27/2015	07/15/2013	07/15/2013	100
S&P Kensho Intelligent Infrastructure Index	11/21/2016	07/15/2013	07/15/2013	100
S&P Kensho Smart Transportation Index	12/02/2016	07/15/2013	07/15/2013	100
S&P Kensho Clean Power Index	12/01/2016	07/15/2013	07/15/2013	100
S&P Kensho Future Security Index	02/14/2017	07/15/2013	07/15/2013	100
S&P Kensho Future Communication Index	10/29/2018	07/15/2013	07/15/2013	100
S&P Kensho Liquid Future Communication Index	03/23/2020	07/15/2013	07/15/2013	100
S&P Kensho New Economies Select Index	12/28/2017	01/02/2014	01/02/2014	100
S&P Kensho New Economies Composite Index	02/06/2017	01/02/2014	01/02/2014	100
S&P Kensho New Economy RAIC Index	01/25/2021	06/17/2013	06/17/2013	100
S&P Kensho Hydrogen Economy Index	06/01/2021	05/15/2017	05/15/2017	100
S&P Kensho Digital Health Index	06/21/2021	06/15/2016	06/15/2016	100
S&P Kensho Smart Factories Index	09/16/2021	05/15/2017	05/15/2017	100
S&P Kensho Advanced Manufacturing Index	09/16/2021	06/16/2017	06/16/2017	100
S&P Kensho Extended Nanotechnology Index	10/25/2021	06/17/2013	06/17/2013	100
S&P Kensho New Technology Index	12/27/2021	07/15/2013	07/15/2013	100
S&P Kensho Sustainable Farming Index	02/28/2022	06/15/2016	06/15/2016	100
S&P Kensho Sustainable Staples Index	02/28/2022	07/15/2016	07/15/2016	100

<b>Index</b>	<b>Launch Date</b>	<b>First Value Date</b>	<b>Base Date</b>	<b>Base Value</b>
S&P Kensho Metaverse Index	03/21/2022	05/31/2018	05/31/2018	100
S&P Kensho Sustainable Technologies Index	04/11/2022	01/30/2014	01/30/2014	100

# Index Data

## Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (".SDL").

*For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

*For more information on the calculation of return types, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.*



# Index Governance

## Index Committee

An S&P Dow Jones Indices Index Committee maintains the indices. All committee members are full-time professionals at S&P Dow Jones Indices. The Index Committee meets regularly. At each meeting, the Committee may review pending corporate actions that may affect index constituents, statistics comparing the composition of the index to the market, companies that are being considered as candidates for addition to the index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

*For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

# Index Policy

## Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced in advance via the Index Corporate Events Report (.SDE), delivered daily to all clients.

*For more information, please refer to the Announcements section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

## Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the index rebalances. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents, weights, and index shares effective for the rebalancing. Since index shares are assigned based on prices prior to the rebalancing, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.

*Please visit [www.spglobal.com/spdji](http://www.spglobal.com/spdji) for a complete schedule of rebalancing timelines and pro-forma delivery times.*

## Holiday Schedule

Except for the days when all exchanges on which the index's constituents trade are officially closed, the index calculates daily throughout the calendar year.

*A complete holiday schedule for the year is available at [www.spglobal.com/spdji](http://www.spglobal.com/spdji).*

## Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

## Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

## Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

*For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

## Contact Information

For questions regarding an index, please contact: [index\\_services@spglobal.com](mailto:index_services@spglobal.com).

# Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at [www.spglobal.com/spdji](http://www.spglobal.com/spdji), major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

## Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the [S&P DJI Methodology & Regulatory Status Database](#) for a complete list of indices covered by this document.

Index	Bloomberg
S&P Kensho Distributed Ledger Index GTR	KLEDGER
S&P Kensho Distributed Ledger Index PR	KLEDGERP
S&P Kensho Distributed Ledger Index NTR	KLEDGERN
S&P Kensho Alternative Finance Index GTR	KALTFIN
S&P Kensho Alternative Finance Index PR	KALTFINP
S&P Kensho Alternative Finance Index NTR	KALTFINN
S&P Kensho Future Payments Index GTR	KPAY
S&P Kensho Future Payments Index PR	KPAYP
S&P Kensho Future Payments Index NTR	KPAYN
S&P Kensho Electric Vehicles Index GTR	KEV
S&P Kensho Electric Vehicles Index PR	KEVP
S&P Kensho Electric Vehicles Index NTR	KEVN
S&P Kensho Digital Communities Index GTR	KSOCIAL
S&P Kensho Digital Communities Index PR	KSOCIALP
S&P Kensho Digital Communities Index NTR	KSOCIALN
S&P Kensho Advanced Transport Systems Index GTR	KATS
S&P Kensho Advanced Transport Systems Index PR	KATSP
S&P Kensho Advanced Transport Systems Index NTR	KATSN
S&P Kensho Wearables Index GTR	KBORG
S&P Kensho Wearables Index PR	KBORGP
S&P Kensho Wearables Index NTR	KBORGN
S&P Kensho Robotics Index GTR	KBOTS
S&P Kensho Robotics Index PR	KBOTSP
S&P Kensho Robotics Index NTR	KBOTSN
S&P Kensho Autonomous Vehicles Index GTR	KCARS
S&P Kensho Autonomous Vehicles Index PR	KCARSP
S&P Kensho Autonomous Vehicles Index NTR	KCARSN
S&P Kensho Cleantech Index GTR	KCLEAN
S&P Kensho Cleantech Index PR	KCLEANP
S&P Kensho Cleantech Index NTR	KCLEANN
S&P Kensho Cyber Security Index GTR	KCYBER
S&P Kensho Cyber Security Index PR	KCYBERP
S&P Kensho Cyber Security Index NTR	KCYBERN
S&P Kensho Cyber Security Mid-Large Cap Index GTR	KCYBERML
S&P Kensho Cyber Security Mid-Large Cap Index PR	KCYBERMP
S&P Kensho Cyber Security Mid-Large Cap Index NTR	KCYBERMN
S&P Kensho Liquid Future Communication Index GTR	KCNLQ

<b>Index</b>	<b>Bloomberg</b>
S&P Kensho Liquid Future Communication Index PR	KCNLQP
S&P Kensho Liquid Future Communication Index NTR	KCNLQN
S&P Kensho 3D Printing Index GTR	KDDP
S&P Kensho 3D Printing Index PR	KDDPP
S&P Kensho 3D Printing Index NTR	KDDPN
S&P Kensho Smart Borders Index GTR	KDMZ
S&P Kensho Smart Borders Index PR	KDMZP
S&P Kensho Smart Borders Index NTR	KDMZN
S&P Kensho Genetic Engineering Index GTR	KDNA
S&P Kensho Genetic Engineering Index PR	KDNAP
S&P Kensho Genetic Engineering Index NTR	KDNAN
S&P Kensho Drones Index GTR	KDRONE
S&P Kensho Drones Index PR	KDRONEP
S&P Kensho Drones Index NTR	KDRONEN
S&P Kensho Clean Energy Index GTR	KENERGY
S&P Kensho Clean Energy Index PR	KENRGYP
S&P Kensho Clean Energy Index NTR	KENERGYN
S&P Kensho Smart Grids Index GTR	KGRIDS
S&P Kensho Smart Grids Index PR	KGRIDSP
S&P Kensho Smart Grids Index NTR	KGRIDSN
S&P Kensho Smart Buildings Index GTR	KHOME
S&P Kensho Smart Buildings Index PR	KHOMEP
S&P Kensho Smart Buildings Index NTR	KHOMEN
S&P Kensho Space Index GTR	KMARS
S&P Kensho Space Index PR	KMARSP
S&P Kensho Space Index NTR	KMARSN
S&P Kensho Nanotechnology Index GTR	KNANO
S&P Kensho Nanotechnology Index PR	KNANOP
S&P Kensho Nanotechnology Index NTR	KNANOT
S&P Kensho Virtual Reality Index GTR	KVR
S&P Kensho Virtual Reality Index PR	KVRP
S&P Kensho Virtual Reality Index NTR	KVRN
S&P Kensho Enterprise Collaboration Index GTR	KTEAM
S&P Kensho Enterprise Collaboration Index PR	KTEAMP
S&P Kensho Enterprise Collaboration Index NTR	KTEAMN
S&P Kensho New Economy RAIC Index GTR	KRAICT
S&P Kensho New Economy RAIC Index PR	KRAICP
S&P Kensho New Economy RAIC Index NTR	KRAICN
S&P Kensho Hydrogen Economy Index GTR	KHEUT
S&P Kensho Hydrogen Economy Index PR	KHEUP
S&P Kensho Hydrogen Economy Index NTR	KHEUN
S&P Kensho Digital Health Index GTR	KDOC
S&P Kensho Digital Health Index PR	KDOCP
S&P Kensho Digital Health Index NTR	KDOCN
S&P Kensho Smart Factories Index GTR	KFACT
S&P Kensho Smart Factories Index PR	KFACTP
S&P Kensho Smart Factories Index NTR	KFACTN
S&P Kensho Advanced Manufacturing Index GTR	KMAKE
S&P Kensho Advanced Manufacturing Index PR	KMAKEP
S&P Kensho Advanced Manufacturing Index NTR	KMAKEN
S&P Kensho Extended Nanotechnology Index GTR	KNANOX
S&P Kensho Extended Nanotechnology Index PR	KNANOXP
S&P Kensho Extended Nanotechnology Index NTR	KNANOXN
S&P Kensho New Technology Index GTR	KNTECH

Index	Bloomberg
S&P Kensho New Technology Index PR	KNTECHP
S&P Kensho New Technology Index NTR	KNTECHN
S&P Kensho Sustainable Farming Index GTR	KFARM
S&P Kensho Sustainable Farming Index PR	KFARMP
S&P Kensho Sustainable Farming Index NTR	KFARMN
S&P Kensho Sustainable Staples Index GTR	KSTAPLE
S&P Kensho Sustainable Staples Index PR	KSTAPLEP
S&P Kensho Sustainable Staples Index NTR	KSTAPLEN
S&P Kensho Metaverse Index GTR	KMETA
S&P Kensho Metaverse Index PR	KMETAP
S&P Kensho Metaverse Index NTR	KMETAN
S&P Kensho Sustainable Technologies Index PR	KSUSTNP
S&P Kensho Sustainable Technologies Index TR	KSUSTN
S&P Kensho Sustainable Technologies Index NTR	KSUSTNN

### Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, [www.spglobal.com/spdji/contact-us](http://www.spglobal.com/spdji/contact-us).

### Web site

For further information, please refer to S&P Dow Jones Indices' Web site at [www.spglobal.com/spdji](http://www.spglobal.com/spdji).

# Appendix I – S&P Kensho New Economy RAIC Index

**Index Objective.** The index is a weighted return index composed of component S&P Kensho New Economy Subsector Indices that include companies with exposure to Robotics, Artificial Intelligence, and Cloud (RAIC) industries. The component indices are equal weighted.

**Component Indices.** At each rebalancing, the index's Total Return, Price Return, and Net Total Return versions are composed of the respective component S&P Kensho New Economy Subsector Gross Total Return, Price Return, and Net Total Return indices:

Component Indices	Return Type	Index Code
S&P Kensho Cyber Security Index	Gross Total Return Price Return Net Total Return	KCYBER KCYBERP KCYBERN
S&P Kensho Robotics Index	Gross Total Return Price Return Net Total Return	KBOTS KBOTSP KBOTSN
S&P Kensho Autonomous Vehicles Index	Gross Total Return Price Return Net Total Return	KCARS KCARS KCARSN
S&P Kensho Space Index	Gross Total Return Price Return Net Total Return	KMARS KMARS KMARSN
S&P Kensho Nanotechnology Index	Gross Total Return Price Return Net Total Return	KNANO KNANOP KNANON
S&P Kensho Cleantech Index	Gross Total Return Price Return Net Total Return	KCLEAN KCLEANP KCLEANN
S&P Kensho Genetic Engineering Index	Gross Total Return Price Return Net Total Return	KDNA KDNAP KDNAN
S&P Kensho Smart Grids Index	Gross Total Return Price Return Net Total Return	KGRIDS KGRIDSP KGRIDSN
S&P Kensho Future Payments Index	Gross Total Return Price Return Net Total Return	KPAY KPAYP KPAYN

**Index Weighting.** At each rebalancing, the component indices are equal weighted.

**Index Maintenance.** All index adjustments and corporate action treatments follow the component indices.

**Rebalancing.** The index rebalances semi-annually, effective after the close on the third Friday in June and December.

**Index Calculation.** For information on the calculation of the index, please refer to the *Weighted Return Indices* section of S&P Dow Jones Indices' Index Mathematics Methodology.

# Appendix II – S&P Kensho New Technology Index

**Index Objective.** The index measures the performance of constituents from four underlying subsector indices (see *Additional Eligibility Factors* below) that have S&P DJI ESG scores within the top 90% of the eligible universe.

**Additional Eligibility Factors.** The index uses the same eligibility factors as the S&P Kensho New Economy Sector Indices detailed in *Eligibility Criteria*. In addition to those factors, the following additional eligibility factors must be satisfied:

- Be a constituent of at least one of the four following underlying indices:
  - S&P Kensho Electric Vehicles Index – KEVP
  - S&P Kensho Future Payments Index – KPAYP
  - S&P Kensho Cyber Security Index – KYCBERP
  - S&P Kensho Robotics Index – KBOTSP
- Have an S&P DJI ESG score.
- Have a minimum FMC of US \$100 million and a minimum 3M ADVT of US \$4 million.

Stocks satisfying all eligibility factors form the eligible universe.

**Constituent Selection.** At each rebalancing, stocks in the eligible universe are ranked by S&P DJI ESG Score, with all stocks ranked within the top 90% selected and added to the index.

**Constituent Weighting.** At each rebalancing, index constituents are weighted following the same process defined in *Index Construction* for the S&P Kensho New Economy Sector Indices, using a target notional trade size of US \$200 million.

Index constituents share the same categorization (“core” or “non-core”) as in the subsector indices. For this index, if a company is a constituent of multiple subsector indices that have both “core” and “non-core” categorizations, the company is categorized as “core”.

**Index Maintenance.** The index is maintained and rebalanced according to the processes defined in *Index Maintenance* for the S&P Kensho New Economy Sector Indices.

**Index Calculation.** The index follows the same calculation methodology as the S&P Kensho New Economy Subsector Indices, detailed in *Index Construction*.

# Appendix III – S&P Kensho Sustainable Technologies Index

**Index Objective.** The index measures the performance of companies providing products and services deemed to help mitigate climate change, including companies with business activity exposure to smart transportation and manufacturing, sustainable agriculture, clean power, space exploration, intelligent infrastructure, and the technologies enabling remote working.

**Index Universe.** The index universe is all constituents of the following S&P Kensho New Economy Sector Indices:

- S&P Kensho Advanced Manufacturing Index
- S&P Kensho Sustainable Staples Index
- S&P Kensho Clean Power Index
- S&P Kensho Intelligent Infrastructure Index
- S&P Kensho Smart Transportation Index
- S&P Kensho Future Communication Index
- S&P Kensho Final Frontiers Index

**Exclusions Based on Business Activities.** The index excludes, as of each rebalancing reference date, companies in the index universe with the following known specific business activities, as determined by Sustainalytics.<sup>9</sup>

Sustainalytics Category of Involvement	Sustainalytics Category of Involvement Description	Sustainalytics Involvement Proxy	S&P DJI Level of Involvement Threshold
Thermal Coal: Extraction	The company extracts thermal coal.	Revenue	≥5%
Thermal Coal: Power Generation	The company generates electricity from thermal coal.		≥5%
Oil Sands: Extraction	The company extracts oil sands.	Revenue	>0%
Shale Energy: Extraction	The company is involved in shale energy exploration and/or production.	Revenue	>0%
Arctic Oil & Gas Exploration: Extraction	The company is involved in oil and gas exploration in Arctic regions.	Revenue	>0%

Companies not covered by Sustainalytics are excluded from index inclusion.<sup>10</sup>

S&P DJI Level of Involvement refers to the company's direct exposure to such products.

Please refer to <http://www.sustainalytics.com/> for more information.

<sup>9</sup> For history prior to March 2013 EIRIS data was used for exclusions based on business activities.

<sup>10</sup> For history prior to each respective Live Data Reference Date, eligibility was determined based on coverage after applying Backward Data Assumption and was not determined by actual live data.



**Component Indices.** At each rebalancing, the index's Total Return, Price Return, and Net Total Return versions are composed of the respective component S&P Kensho New Economy Sector Gross Total Return, Price Return, and Net Total Return indices:

Component Indices	Return Type	Index Code
S&P Kensho Advanced Manufacturing Index	Gross Total Return	KMAKE
	Price Return	KMAKEP
	Net Total Return	KMAKEN
S&P Kensho Sustainable Staples Index	Gross Total Return	KSTAPLE
	Price Return	KSTAPLEP
	Net Total Return	KSTAPLEN
S&P Kensho Clean Power Index	Gross Total Return	KPOWER
	Price Return	KPOWERP
	Net Total Return	KPOWERN
S&P Kensho Intelligent Infrastructure Index	Gross Total Return	KINFRA
	Price Return	KINFRA P
	Net Total Return	KINFRA N
S&P Kensho Smart Transportation Index	Gross Total Return	KMOVE
	Price Return	KMOVEP
	Net Total Return	KMOVE N
S&P Kensho Future Communication Index	Gross Total Return	KCONNECT
	Price Return	KCONNECTP
	Net Total Return	KCONNECTN
S&P Kensho Final Frontiers Index	Gross Total Return	KEXPLORE
	Price Return	KEXPLORP
	Net Total Return	KEXPLORN

**Index Weighting.** At each rebalancing, the component indices are algorithmically weighted using the process described in the *Calculating the Constituent Index Weight* section of this document. The Minimum and Maximum Weight thresholds are 5% and 30%, respectively:

The weight of individual constituents that are represented in multiple sectors will be aggregated across the sectors that constituent represents.

If the initial sum of weights does not add to 100% due to companies being excluded based on restricted business activities or lack of Sustainability coverage, the weights of the companies in the index will be scaled up by dividing each constituents' weight by the initial sum of weights for that period.

**Index Maintenance.** All index adjustments and corporate action treatments follow the component indices.

**Rebalancing.** The index rebalances semi-annually, effective at the open of the first trading day following the 14th calendar day after the reference date. The rebalancing reference date is the close of the first business day following the third Friday of December and June, respectively. Constituents are assigned index shares using the closing prices as of seven business days prior to the rebalancing effective date as the reference price.

**Index Calculation.** For information on the calculation of the index, please refer to the *Weighted Return Indices* section of S&P Dow Jones Indices' Index Mathematics Methodology.

# Appendix IV – Methodology Changes

Methodology changes since December 7, 2018, are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Business Activity Focus  Subsector Indices	11/14/2019	In order to identify eligible companies at each reconstitution, S&P DJI conducts an automated scan of the EDGAR database of annual company-issued filings, specifically: 10-Ks; 20-Fs; and 40-Fs. The scan searches the most recent filing for companies and identifies documents that discuss the search terms in: Item 1 (Business) or Item 7 (Management's Discussion and Analysis) of its most recent Form 10-K, Item 4 (Information on the Company) of its most recent Form 20-F, or Form 40-F, Exhibit 99.1 or 99.2 of its most recent Form 40-F. The words within a search term may be separated by punctuation, such as a hyphen, but must otherwise be adjacent. Only the securities of those companies identified in this step qualify for inclusion in the universe of eligible securities. Securities that do not include in Item 1 (Business) or Item 7 (Management's Discussion and Analysis) of its most recent Form 10-K, Item 4 (Information on the Company) of its most recent Form 20-F, or Form 40-F, Exhibit 99.1 or 99.2 of its most recent Form 40-F, as applicable, a reference to a product or service that is, as explicitly described therein, related to a search term and used in a manner that is within the scope of the index, are excluded from the index.	In order to identify eligible companies at each reconstitution, S&P DJI conducts an automated scan of the EDGAR database of annual company-issued filings, specifically: 10-Ks; 20-Fs; 40-Fs; S-1 filings; and prospectus. The scan searches the most recent filing for companies and identifies documents that discuss the search terms in: Item 1 (Business) or Item 7 (Management's Discussion and Analysis) of its most recent Form 10-K, Item 4 (Information on the Company) of its most recent Form 20-F, Form 40-F, Exhibit 99.1 or 99.2 of its most recent Form 40-F, or business summary of its most recent prospectus and S-1 filings. The words within a search term may be separated by punctuation, such as a hyphen, but must otherwise be adjacent. Only the securities of those companies identified in this step qualify for inclusion in the universe of eligible securities. Securities that do not include in Item 1 (Business) or Item 7 (Management's Discussion and Analysis) of its most recent Form 10-K, Item 4 (Information on the Company) of its most recent Form 20-F, or Form 40-F, Exhibit 99.1 or 99.2 of its most recent Form 40-F, or business summary of its most recent prospectus and S-1 filings, as applicable, a reference to a product or service that is, as explicitly described therein, related to a search term and used in a manner that is within the scope of the index, are excluded from the index.
Reconstitution and Rebalancing Schedule of the S&P Kensho Cyber Security Mid-Large Cap Index	5/15/2019	The index is reconstituted after the close on the first trading day following May 14 <sup>th</sup> with a reference date of the last trading day in April and rebalanced after the close on the first trading day following November 14 <sup>th</sup> with a reference date of the last trading day in October.	The index is reconstituted after the close on the third Friday in June with a reference date of the first Friday in June and rebalanced after the close on the third Friday in December with a reference date of the first Friday in December.
Size	5/15/2019	Stocks must have a minimum total market capitalization, as of the rebalancing reference date.	Stocks must have a minimum float-adjusted market capitalization, as of the rebalancing reference date.
Liquidity	5/15/2019	The three-month average daily value traded is calculated as the average of the number of shares traded each day multiplied by that day's volume-weighted average price over the 63 trading days prior to the relevant rebalancing reference date.	The three-month average daily value traded is calculated as the average of the number of shares traded each day multiplied by that day's closing price over the three months prior to the relevant rebalancing reference date.
Index Share Reference Date	12/07/2018	Index shares are assigned based on prices as of the rebalancing reference date.	Index shares are assigned based on prices seven business days prior to the rebalancing.

# Appendix V – Subsector Indices Business Activity Focus Changes

The following tables show the business activity focuses used in the index reconstitutions effective after the close on May 17, 2021, as well as the business activity focuses previously in effect.

Index	Business Activity Focus	
	Previous	Updated
S&P Kensho Space Index	<p>U.S. listed companies trading on developed markets focused on space travel and exploration, including:</p> <ul style="list-style-type: none"> <li>• Spacecrafts, space launch vehicles, space flight, or space stations and related components and services.</li> <li>• Space mission assurance, operation, or support.</li> <li>• Space imaging, earth observation, and derived analytics.</li> <li>• Space communication, excluding satellite-to-satellite communication.</li> <li>• Space or ground based support infrastructure.</li> <li>• Space-related military armaments and capabilities.</li> <li>• Small satellite hardware and software manufacturers including those involved with IoT satellites.</li> <li>• Space tourism.</li> <li>• Asteroid mining and resource extraction.</li> <li>• Space debris tracking and removal.</li> </ul>	<p>Companies focused on space travel and exploration, including:</p> <ul style="list-style-type: none"> <li>• Spacecrafts, space launch vehicles, space flight, or space stations and related components and services, including in-space satellite servicing.</li> <li>• Space mission assurance, operation, or support.</li> <li>• Space imaging, earth observation, global positioning, and derived analytics.</li> <li>• Space communication, excluding satellite-to-satellite communication.</li> <li>• Low-latency satellite internet connectivity, including satellite-to-satellite communication for this purpose.</li> <li>• Space or ground based support infrastructure, including cloud-based ground support services.</li> <li>• Space-related military armaments and capabilities.</li> <li>• Small satellite hardware and software manufacturers, including nanosatellites and CubeSats.</li> <li>• Space tourism, and space-facilitated terrestrial transportation, including suborbital flight.</li> <li>• Asteroid mining and resource extraction.</li> <li>• Space debris tracking and removal.</li> </ul>
S&P Kensho Advanced Transportation Index	<p>Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:</p> <ul style="list-style-type: none"> <li>• Systems that manage the intelligent coordination or optimization of fleets of vehicles for the transport of passengers and/or goods, including the centralized communication and management of these fleets.</li> <li>• Vehicle sharing services for passenger cars.</li> <li>• Sensors that feed into the above-mentioned systems.</li> <li>• Micro mobility sharing platforms, including platforms for electric scooters and bicycles.</li> <li>• Next generation transportation systems, such as hyperloop.</li> <li>• Platforms providing intelligent and predictive capabilities to optimize fleet operations.</li> </ul>	<p>Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:</p> <ul style="list-style-type: none"> <li>• Systems, platforms, and related sub-components that intelligently and predictively manage and optimize fleets of vehicles for the transportation of passengers and/or goods.</li> <li>• Vehicle sharing services for passenger cars.</li> <li>• Micro mobility sharing platforms, including platforms for electric scooters and bicycles.</li> <li>• Next generation transportation systems, such as hyperloop and passenger-capable urban air mobility platforms and devices.</li> </ul>
S&P Kensho Cyber Security Index	<p>Companies focused on protecting enterprises and devices from unauthorized access via electronic means, including, including:</p> <ul style="list-style-type: none"> <li>• Cyber-attack threat detection, response, or prevention systems.</li> <li>• Cyber-threat intelligence systems utilizing big data analytics, IOT technology, or machine learning.</li> </ul>	<p>Companies focused on protecting enterprises and devices from unauthorized access via electronic means, including:</p> <ul style="list-style-type: none"> <li>• Cyber-attack threat detection, response or prevention systems, including intelligent systems utilizing big data analytics, IOT technology, or machine learning.</li> </ul>

Index	Business Activity Focus	
	Previous	Updated
	<ul style="list-style-type: none"> <li>• Network and internet security systems such as firewalls and DNS, DOS and DDoS protection.</li> <li>• Authentication, multi-factor authentication, and identity management systems for the purposes of cyber security.</li> <li>• Application security, data security, encryption, and protection for the purposes of cyber security.</li> </ul>	<ul style="list-style-type: none"> <li>• Network and internet security systems such as firewalls and DNS, DOS and DDoS protection.</li> <li>• Authentication, multi-factor authentication, and identity management systems for the purposes of cyber security.</li> <li>• Application security, data security, encryption, and protection for the purposes of cyber security.</li> </ul>
S&P Kensho Autonomous Vehicle Index	<p>Companies focused on autonomous vehicle and related capabilities, including:</p> <ul style="list-style-type: none"> <li>• The manufacturers of autonomous vehicles and related connectivity capabilities.</li> <li>• Software and components that facilitate full or partial autonomy, including interfacing with other autonomous vehicles or infrastructure.</li> <li>• Active driver assistance systems that provide state of the art autonomous safety (collision prevention), driver monitoring and object recognition technology.</li> <li>• Sensors (e.g., distance measurement, cameras, etc.) that are used for object and collision detection systems, such as traffic sign or pedestrian recognition.</li> <li>• Navigation and information systems that enhance a vehicle's autonomy.</li> </ul>	<p>Companies focused on autonomous vehicles:</p> <ul style="list-style-type: none"> <li>• The manufacturers of autonomous vehicles and related connectivity capabilities.</li> <li>• Software and components that facilitate full or partial autonomy, including interfacing with other autonomous vehicles or infrastructure, or related connectivity capabilities.</li> <li>• Active driver assistance systems that provide state of the art autonomous safety (collision prevention), driver monitoring and object recognition technology.</li> <li>• Sensors (e.g., distance measurement, cameras, etc.) that are used for object and collision detection systems, such as traffic sign or pedestrian recognition.</li> <li>• Navigation and information systems that enhance a vehicle's autonomy.</li> </ul>
S&P Kensho Wearable Index	<p>Companies focused on wearable and implantable technologies for consumer, military, and medical uses, including:</p> <ul style="list-style-type: none"> <li>• Wearable computing devices, such as smart watches, smart glasses, fabrics with embedded sensors, etc.</li> <li>• Medical systems for drug delivery, bio-sensing, etc.</li> <li>• Exoskeletons</li> <li>• Haptic or force feedback devices</li> <li>• Wearable or implantable mind-machine devices or sensors, such as EEG headwear, microchips, deep brain stimulation, etc.</li> <li>• Wearable connectivity and wearable technology that is integrated with the IoT</li> <li>• Wearable energy/power generation and harvesting technologies.</li> </ul>	<p>Companies focused on wearable and implantable technologies for consumer, military, and medical uses, including:</p> <ul style="list-style-type: none"> <li>• Wearable computing devices, such as smart watches, smart glasses, smart wireless in-ear devices, and fabrics with embedded sensors</li> <li>• Medical systems or smart patches for drug delivery and bio-sensing</li> <li>• Exoskeletons</li> <li>• Haptic or force feedback devices</li> <li>• Wearable or implantable mind-machine devices or sensors, such as EEG headwear, microchips, and deep brain stimulation</li> <li>• Wearable or implantable sensors with wireless connectivity.</li> <li>• Wearable energy/power generation and harvesting technologies.</li> </ul>
S&P Kensho Electric Vehicle Index	<p>Companies focused on producing electric vehicles and associated subsystems, including:</p> <ul style="list-style-type: none"> <li>• Electric road vehicles or significant subsystems.</li> <li>• Powertrain systems, motors, or energy storage systems for electric vehicles.</li> <li>• Zero-emission clean fuel technology, such as hydrogen fuel cells.</li> <li>• Charging systems for electric vehicles, not including charging networks or associated infrastructure (captured in KGRIDS).</li> </ul>	<p>Companies focused on producing electric road vehicles and associated subsystems, including:</p> <ul style="list-style-type: none"> <li>• Companies that manufacture electric road vehicles.</li> <li>• Electric vehicle powertrain systems, motors, and other major subsystems.</li> <li>• Producers of electric vehicle energy storage systems and related management systems, as well as zero-emission clean fuel technology systems, such as hydrogen fuel cells.</li> <li>• Charging systems for electric vehicles, not including charging networks or associated infrastructure (captured in KGRIDS).</li> </ul>
S&P Kensho Cleantech Index	<p>Companies focused on building technologies or products that enable generation of energy in a clean manner, including:</p> <ul style="list-style-type: none"> <li>• Technologies (hardware, software or materials) used for clean energy capture, such as solar, wind, geothermal, hydro, etc.</li> </ul>	<p>Companies focused on building technologies or products that enable generation of clean energy, such as solar, wind, geothermal, hydrogen, and hydroelectric, including:</p> <ul style="list-style-type: none"> <li>• Technologies (hardware, software or materials) used for clean energy capture, including solar modules, wind blades and turbines, inverters, etc.</li> </ul>

Business Activity Focus		
Index	Previous	Updated
	<ul style="list-style-type: none"> <li>• Installation of these technologies for use in residential or commercial applications.</li> <li>• Advanced energy storage devices.</li> </ul>	<ul style="list-style-type: none"> <li>• Technologies used for green hydrogen production and energy generation, including electrolyzers and stationary fuel cells</li> <li>• Installation of these technologies for use in residential or commercial applications</li> <li>• Advanced energy storage devices, such as utility-scale batteries.</li> </ul>
S&P Kensho Clean Energy Index	<p>Companies focused on the generation and transmission of energy derived from clean sources, including:</p> <ul style="list-style-type: none"> <li>• The construction and operation of clean power plants.</li> <li>• The generation of power derived from clean sources, including solar, wind, geothermal, and hydro.</li> </ul>	<p>Companies focused on the generation and transmission of clean energy, such as solar, wind, geothermal, hydroelectric, and hydrogen, including those involved in the specialized construction and operation of:</p> <ul style="list-style-type: none"> <li>• Clean power generation plants.</li> <li>• Green hydrogen production plants with output intended for power generation</li> <li>• Grid-scale battery storage facilities.</li> </ul>
S&P Kensho Robotics Index	<p>Companies focused on the robotics industry and significant subsystems, including:</p> <ul style="list-style-type: none"> <li>• Commercial applications (e.g., food processing, manufacturing, agriculture, etc.).</li> <li>• Medical robots (e.g., surgical, automated prescription dispensers, etc.).</li> <li>• Military robots.</li> <li>• Consumer robots.</li> <li>• Surveillance and security robots.</li> </ul>	<p>Companies focused on the robotics industry and significant subsystems, including:</p> <ul style="list-style-type: none"> <li>• Commercial applications (e.g., food processing, manufacturing, agriculture, etc.), medical robots (e.g., surgical, automated prescription dispensers, etc.), military robots, consumer robots, and surveillance and security robots.</li> <li>• Produce a cloud-based platform, API or software development kit (SDK) for managing robotic fleets (e.g., Robotics-as-a-service platforms).</li> </ul>
S&P Kensho Nanotechnology Index	<p>Companies focused on technologies that enable or perform manipulation of materials at a nano or microscale, including:</p> <ul style="list-style-type: none"> <li>• An end product manufactured by direct (physical) or indirect (chemical) nanoscale manipulation of components and processes.</li> <li>• Build specialized equipment that enable nanoscale manipulation or measurement.</li> <li>• Nanoscale techniques as a major part of their production chain.</li> <li>• Nano and micro robots.</li> </ul>	<p>Companies focused on technologies that enable or perform manipulation of materials at a nano- or microscale, including:</p> <ul style="list-style-type: none"> <li>• An end product manufactured by physical or chemical nanoscale manipulation of components and processes.</li> <li>• Build specialized equipment that enable nanoscale manipulation or measurement.</li> <li>• Nanoscale techniques as a major part of their production chain.</li> <li>• Nano and micro robots.</li> </ul>
S&P Kensho Drones Index	<p>Companies trading on developed markets focused on the remotely operated or unmanned aerial, underwater, and surface-level drones market, including:</p> <ul style="list-style-type: none"> <li>• Producers of drones to be used in a civilian, commercial, and/or military capacity.</li> <li>• Sensors and systems used in the control and intrinsic capabilities of drones, such as cameras, gyroscopic chips, pressure gauges, etc.</li> <li>• Communication hardware and software to allow a drone to connect to a central control hub or to other vehicles.</li> </ul>	<p>Companies focused on the remotely operated or unmanned aerial and marine drones market, including:</p> <ul style="list-style-type: none"> <li>• Producers of drones to be used in a civilian, commercial, and/or military capacity.</li> <li>• Sensors and systems used in the control and intrinsic capabilities of drones, such as cameras, gyroscopic chips, pressure gauges, etc.</li> <li>• Communication hardware and software to allow a drone to connect to a central control hub or to other vehicles.</li> </ul>

The following tables show the business activity focuses used in the index reconstitutions effective after the close on May 15, 2020, as well as the business activity focuses previously in effect.

Index	Business Activity Focus	
	Previous	Updated
S&P Kensho Distributed Ledger Index	<p>Companies focused on developing distributed ledger technology, including:</p> <ul style="list-style-type: none"> <li>• Developing distributed ledger technology and new consensus mechanisms.</li> <li>• Providing distributed ledger technology as a service.</li> <li>• Completed a product of prototype applying distributed technology.</li> <li>• Companies enabling distributed ledgers, such as miners.</li> </ul>	<p>Companies focused on developing distributed ledger technology, including:</p> <ul style="list-style-type: none"> <li>• Developing distributed ledger technology and new consensus mechanisms, including products in the proof-of-concept stage of development</li> <li>• Providing distributed ledger technology as a service.</li> <li>• Companies enabling distributed ledgers, such as miners.</li> </ul>
S&P Kensho Alternative Finance Index	<p>Companies focused on providing alternative financing and wealth management capabilities, including:</p> <ul style="list-style-type: none"> <li>• Advancing the loan approval process in speed and complexity, and algorithmic loan approval.</li> <li>• Direct lending platforms, such as peer-to-peer lending platforms, and microfinance institutions that use a peer-to-peer business model.</li> <li>• Automated wealth management services, such as robo-advisors.</li> <li>• Flexible insurance plans, such as usage-based and on demand insurance.</li> <li>• Crowdfunding platforms that allow people to donate or invest in return for a reward and/or equity stake.</li> <li>• Digital currencies and the software and hardware that enable them, such as exchanges and wallets.</li> </ul>	<p>Companies focused on providing alternative financing and wealth management capabilities, including:</p> <ul style="list-style-type: none"> <li>• Advancing the loan approval process in speed and complexity, and algorithmic loan approval.</li> <li>• Direct lending platforms, such as peer-to-peer lending platforms.</li> <li>• Intermediary platforms connecting company and consumer accounts with financial institutions to enable next generation financial products, such as Banking-as-a-Service (BaaS).</li> <li>• Automated wealth management services, such as robo-advisors.</li> <li>• Flexible insurance plans, such as usage-based and on demand insurance.</li> <li>• Crowdfunding platforms that allow people to donate or invest in return for a reward and/or equity stake.</li> <li>• Digital currencies and the software and hardware that enable them, such as exchanges and wallets.</li> </ul>
S&P Kensho Future Payments Index	<p>Companies focused on enabling the next-generation transformation of payments infrastructure, including:</p> <ul style="list-style-type: none"> <li>• General-purpose platforms that allow consumers to transact using a digital balance within a system oftentimes in multiple channels, such as mobile wallets and peer-to-peer platforms.</li> <li>• Platforms that allow merchants to manage multi-channel payments in one system.</li> <li>• Real-time payments and transfers across consumer and merchant accounts.</li> <li>• Transaction security (i.e., tokenization, point-to-point encryption, end-to-end encryption).</li> <li>• Product or service related to biometrically enabled payments.</li> </ul>	<p>Companies focused on enabling the next-generation transformation of payments infrastructure, including:</p> <ul style="list-style-type: none"> <li>• General-purpose platforms that allow consumers to transact using a digital balance within a system oftentimes in multiple channels, such as mobile wallets and peer-to-peer platforms.</li> <li>• Platforms that allow merchants to manage multi-channel payments in one system.</li> <li>• Real-time payments and transfers across consumer and merchant accounts nationally and internationally (i.e., cross-border)</li> <li>• Transaction security (i.e., tokenization, point-to-point encryption, end-to-end encryption).</li> <li>• Product or service related to biometrically enabled payments.</li> </ul>
S&P Kensho Advanced Transport Systems Index	<p>Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:</p> <ul style="list-style-type: none"> <li>• Systems that manage the intelligent coordination or optimization of fleets of vehicles for the transport of passengers and/or goods, including the centralized communication and management of these fleets.</li> <li>• Vehicle sharing services for passenger cars.</li> <li>• Sensors that feed into the above-mentioned systems.</li> <li>• Micro mobility sharing platforms, including platforms for electric scooters and bicycles.</li> </ul>	<p>Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:</p> <ul style="list-style-type: none"> <li>• Systems that manage the intelligent coordination or optimization of fleets of vehicles for the transport of passengers and/or goods, including the centralized communication and management of these fleets.</li> <li>• Vehicle sharing services for passenger cars.</li> <li>• Sensors that feed into the above-mentioned systems.</li> <li>• Micro mobility sharing platforms, including platforms for electric scooters and bicycles.</li> </ul>

Business Activity Focus		
Index	Previous	Updated
	<ul style="list-style-type: none"> <li>Next generation transportation systems, such as Hyperloop.</li> </ul>	<ul style="list-style-type: none"> <li>Next generation transportation systems, such as Hyperloop.</li> <li>Platforms providing intelligent and predictive capabilities to optimize fleet operations.</li> </ul>
S&P Kensho 3D Printing Index	<p>Companies focused on 3D printing:<sup>11</sup></p> <ul style="list-style-type: none"> <li>Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, etc. including relevant supply chains, such as specialized hardware, software or materials.</li> <li>Producers of 3D scanners used as an input to a 3D printing process.</li> <li>Software to perform 3D used as an input to a 3D printing process.</li> </ul>	<p>Companies focused on 3D printing:<sup>12</sup></p> <ul style="list-style-type: none"> <li>Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, including those for used for food, together with relevant supply chains, such as specialized hardware, software or materials.</li> <li>Producers of 3D scanners used as an input to a 3D printing process.</li> <li>Software to perform 3D used as an input to a 3D printing process.</li> </ul>
S&P Kensho Space Index	<p>Companies focused on space travel and exploration, including:</p> <ul style="list-style-type: none"> <li>Spacecraft, space launch vehicles, space flight, or space stations and related components and services.</li> <li>Space mission assurance, operation, or support.</li> <li>Space imaging.</li> <li>Space communication, excluding satellite-to-satellite communication.</li> <li>Space or ground based support infrastructure.</li> <li>Space-related military armaments and capabilities.</li> <li>Small satellite hardware and software manufacturers including those involved with IoT satellites.</li> <li>Space tourism.</li> <li>Asteroid mining and resource extraction.</li> <li>Space debris tracking and removal.</li> </ul>	<p>Companies focused on space travel and exploration, including:</p> <ul style="list-style-type: none"> <li>Spacecraft, space launch vehicles, space flight, or space stations and related components and services.</li> <li>Space mission assurance, operation, or support.</li> <li>Space imaging, earth observation, and derived analytics.</li> <li>Space communication, excluding satellite-to-satellite communication.</li> <li>Space or ground based support infrastructure.</li> <li>Space-related military armaments and capabilities.</li> <li>Small satellite hardware and software manufacturers including those involved with IoT satellites.</li> <li>Space tourism.</li> <li>Asteroid mining and resource extraction.</li> <li>Space debris tracking and removal.</li> </ul>

<sup>11</sup> This does not include companies engaged in 3D printing services or other users of the technology unless they develop proprietary 3D printing capabilities that they monetize through their services.

<sup>12</sup> This does not include companies engaged in 3D printing services or other users of the technology unless they develop proprietary 3D printing capabilities that they monetize through their services.

The following tables show the business activity focuses used in the index reconstitutions effective after the close on May 31, 2019, as well as the business activity focuses previously in effect.

Index	Business Activity Focus	
	Previous	Updated
S&P Kensho Alternative Finance Index	<p>Companies focused on providing alternative financing and wealth management capabilities, including:</p> <ul style="list-style-type: none"> <li>• Advancing the loan approval process in speed and complexity.</li> <li>• Direct lending platforms, such as peer-to-peer lending platforms and microfinance institutions that use a peer-to-peer business model.</li> <li>• Automated wealth management services, such as robo-advisors.</li> <li>• Flexible insurance plans, such as usage-based and on demand insurance.</li> <li>• Crowdfunding platforms that allow people to donate or invest in return for a reward and/or equity stake.</li> <li>• Digital currencies and the software and hardware that enable them, such as exchanges and wallets.</li> </ul>	<p>Companies focused on providing alternative financing and wealth management capabilities, including:</p> <ul style="list-style-type: none"> <li>• Advancing the loan approval process in speed and complexity, and algorithmic loan approval.</li> <li>• Direct lending platforms, such as peer-to-peer lending platforms and microfinance institutions that use a peer-to-peer business model.</li> <li>• Automated wealth management services, such as robo-advisors.</li> <li>• Flexible insurance plans, such as usage-based and on demand insurance.</li> <li>• Crowdfunding platforms that allow people to donate or invest in return for a reward and/or equity stake.</li> <li>• Digital currencies and the software and hardware that enable them, such as exchanges and wallets.</li> </ul>
S&P Kensho Robotics Index	<p>Companies focused on the robotics industry and significant subsystems, including:</p> <ul style="list-style-type: none"> <li>• Commercial applications (e.g., food processing, manufacturing, etc.).</li> <li>• Medical robots (e.g., surgical, automated prescription dispensers, etc.).</li> <li>• Military robots.</li> <li>• Consumer robots.</li> </ul>	<p>Companies focused on the robotics industry and significant subsystems, including:</p> <ul style="list-style-type: none"> <li>• Commercial applications (e.g., food processing, manufacturing, etc.).</li> <li>• Medical robots (e.g., surgical, automated prescription dispensers, etc.).</li> <li>• Military robots.</li> <li>• Consumer robots.</li> <li>• Surveillance and security robots.</li> </ul>
S&P Kensho 3D Printing Index	<p>Companies focused on 3D printing:</p> <ul style="list-style-type: none"> <li>• Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, etc., including relevant supply chains, such as specialized hardware, software or materials.</li> <li>• Producers of 3D scanners used as an input to a 3D printing process.</li> <li>• Software to perform 3D used as an input to a 3D printing process.</li> </ul>	<p>Companies focused on 3D printing:<sup>13</sup></p> <ul style="list-style-type: none"> <li>• Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, etc., including relevant supply chains, such as specialized hardware, software or materials.</li> <li>• Producers of 3D scanners used as an input to a 3D printing process.</li> <li>• Software to perform 3D used as an input to a 3D printing process.</li> </ul>
S&P Kensho Drones Index	<p>Companies focused on the remotely operated or unmanned aerial, underwater, and surface-level drones market, including:</p> <ul style="list-style-type: none"> <li>• Producers of drones to be used in a civilian, commercial, and/or military capacity.</li> <li>• Sensors for control or measurement, such as cameras, gyroscopic chips, pressure gauges, etc.</li> <li>• Communication hardware and software to allow a drone to connect to a central control hub or to other vehicles.</li> </ul>	<p>Companies focused on the remotely operated or unmanned aerial, underwater, and surface-level drones market, including:</p> <ul style="list-style-type: none"> <li>• Producers of drones to be used in a civilian, commercial, and/or military capacity.</li> <li>• Sensors and systems used in the control and intrinsic capabilities of drones, such as cameras, gyroscopic chips, pressure gauges, etc.</li> <li>• Communication hardware and software to allow a drone to connect to a central control hub or to other vehicles.</li> </ul>

<sup>13</sup> This does not include companies engaged in 3D printing services or other users of the technology unless they develop proprietary 3D printing capabilities that they monetize through their services.



The following tables show the business activity focuses used in the index reconstitutions effective after the close on May 15, 2019, as well as the business activity focuses previously in effect.

Index	Business Activity Focus	
	Previous	Updated
S&P Kensho Electric Vehicles Index	<p>Companies focused on producing electric vehicles and associated subsystems, including:</p> <ul style="list-style-type: none"> <li>• Electric road vehicles or significant subsystems.</li> <li>• Powertrain systems, motors, or energy storage systems for electric vehicles.</li> <li>• Zero-emission clean fuel technology, such as hydrogen fuel cells, and charging infrastructure.</li> </ul>	<p>Companies focused on producing electric vehicles and associated subsystems, including:</p> <ul style="list-style-type: none"> <li>• Electric road vehicles or significant subsystems.</li> <li>• Powertrain systems, motors, or energy storage systems for electric vehicles.</li> <li>• Zero-emission clean fuel technology, such as hydrogen fuel cells.</li> <li>• Charging systems for electric vehicles, not including charging networks or associated infrastructure.</li> </ul>
S&P Kensho Advanced Transport Systems Index	<p>Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:</p> <ul style="list-style-type: none"> <li>• Systems that manage the intelligent coordination or optimization of fleets of vehicles for the transport of passengers and/or goods, including the centralized communication and management of these fleets.</li> <li>• Vehicle sharing services for passenger cars.</li> <li>• Sensors that feed into the above-mentioned systems.</li> <li>• Micro mobility sharing platforms, including platforms for electric scooters and bicycles.</li> </ul>	<p>Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including:</p> <ul style="list-style-type: none"> <li>• Systems that manage the intelligent coordination or optimization of fleets of vehicles for the transport of passengers and/or goods, including the centralized communication and management of these fleets.</li> <li>• Vehicle sharing services for passenger cars.</li> <li>• Sensors that feed into the above-mentioned systems.</li> <li>• Micro mobility sharing platforms, including platforms for electric scooters and bicycles.</li> <li>• Next generation transportation systems, such as Hyperloop.</li> </ul>
S&P Kensho Wearables Index	<p>Companies focused on wearable and implantable technologies for consumer, military, and medical uses, including:</p> <ul style="list-style-type: none"> <li>• Wearable computing devices, such as smart watches, smart glasses, fabrics with embedded sensors, etc.</li> <li>• Medical systems for drug delivery, bio-sensing, etc.</li> <li>• Military devices.</li> <li>• Exoskeletons.</li> <li>• Haptic or force feedback devices.</li> <li>• Wearable or implantable mind-machine devices or sensors, such as EEG headwear, microchips, deep brain stimulation, etc.</li> </ul>	<p>Companies focused on wearable and implantable technologies for consumer, military, and medical uses, including:</p> <ul style="list-style-type: none"> <li>• Wearable computing devices, such as smart watches, smart glasses, fabrics with embedded sensors, etc.</li> <li>• Medical systems for drug delivery, bio-sensing, etc.</li> <li>• Exoskeletons.</li> <li>• Haptic or force feedback devices.</li> <li>• Wearable or implantable mind-machine devices or sensors, such as EEG headwear, microchips, deep brain stimulation, etc.</li> <li>• Wearable connectivity and wearable technology that is integrated with the IoT.</li> <li>• Wearable energy/power generation and harvesting technologies.</li> </ul>
S&P Kensho Autonomous Vehicles Index	<p>Companies focused on autonomous and connected vehicles, including:</p> <ul style="list-style-type: none"> <li>• The manufacture of autonomous and connected vehicles.</li> <li>• Software and components that facilitate full or partial autonomy, including interfacing with other autonomous vehicles or infrastructure.</li> <li>• Active driver assistance systems or autonomous safety overrides (e.g., automatic braking).</li> <li>• Sensors (e.g., distance measurement, cameras, etc.) that are used for object and collision detection systems, such as traffic sign or pedestrian recognition.</li> <li>• Navigation and infotainment systems that enhance a vehicle's autonomy.</li> </ul>	<p>Companies focused on autonomous vehicles and related capabilities, including:</p> <ul style="list-style-type: none"> <li>• The manufacture of autonomous vehicles and related connectivity capabilities.</li> <li>• Software and components that facilitate full or partial autonomy, including interfacing with other autonomous vehicles or infrastructure.</li> <li>• Active driver assistance systems or autonomous safety overrides (e.g., automatic braking).</li> <li>• Sensors (e.g., distance measurement, cameras, etc.) that are used for object and collision detection systems, such as traffic sign or pedestrian recognition.</li> <li>• Navigation and information systems that enhance a vehicle's autonomy.</li> </ul>

Business Activity Focus		
Index	Previous	Updated
S&P Kensho Cyber Security Index	<p>Companies focused on protecting enterprises and devices from unauthorized access via electronic means, including:</p> <ul style="list-style-type: none"> <li>• Cyber-attack threat detection, response or prevention systems.</li> <li>• Cyber-threat intelligence systems utilizing big data analytics, IOT technology, or machine learning.</li> <li>• Network and internet security systems such as firewalls and DNS, DOS and DDoS protection.</li> <li>• Authentication, multi-factor authentication, and identity management systems.</li> <li>• Application security, data security, encryption, and protection.</li> </ul>	<p>Companies focused on protecting enterprises and devices from unauthorized access via electronic means, including:</p> <ul style="list-style-type: none"> <li>• Cyber-attack threat detection, response or prevention systems.</li> <li>• Cyber-threat intelligence systems utilizing big data analytics, IOT technology, or machine learning.</li> <li>• Network and internet security systems such as firewalls and DNS, DOS and DDoS protection.</li> <li>• Authentication, multi-factor authentication, and identity management systems for cyber security purposes.</li> <li>• Application security, data security, encryption, and protection for cyber security purposes.</li> </ul>
S&P Kensho Smart Grids Index	<p>Companies focused on power, water, and transportation infrastructure, including:</p> <ul style="list-style-type: none"> <li>• Efficient management and use of energy and water by providing advanced monitoring, measurement, and distribution solutions.</li> <li>• Improved grid reliability through outage detection and control, including advanced monitoring, measurement, and distribution solutions.</li> <li>• Advanced water treatment and conditioning systems.</li> <li>• Next-generation transportation infrastructure, such as advanced traffic management and tracking; sensors and information infrastructure for vehicle navigation and communication; and automated fare collection.</li> <li>• Advanced city infrastructure such as connected lighting solutions.</li> </ul>	<p>Companies focused on power, water, and transportation infrastructure, including:</p> <ul style="list-style-type: none"> <li>• Efficient management and use of energy and water by providing advanced monitoring, measurement, and distribution solutions.</li> <li>• Improved grid reliability through outage detection and control, including advanced monitoring, measurement, and distribution solutions.</li> <li>• Advanced water treatment and conditioning systems.</li> <li>• Next-generation transportation infrastructure, such as advanced traffic management and tracking; sensors and information infrastructure for vehicle navigation and communication; and automated fare collection.</li> <li>• Advanced city infrastructure such as connected lighting solutions.</li> <li>• Technology that enables electric vehicle recharging infrastructure platforms and networks.</li> </ul>
S&P Kensho Space Index	<p>Companies focused on space travel and exploration, including:</p> <ul style="list-style-type: none"> <li>• Spacecraft, space launch vehicles, space flight, or space stations and related components and services.</li> <li>• Space mission assurance, operation, or support.</li> <li>• Space imaging.</li> <li>• Space communication, excluding satellite-to-satellite communication.</li> <li>• Space or ground based support infrastructure.</li> <li>• Space-related military armaments and capabilities.</li> <li>• Small satellite hardware and software manufacturers.</li> </ul>	<p>Companies focused on space travel and exploration, including:</p> <ul style="list-style-type: none"> <li>• Spacecraft, space launch vehicles, space flight, or space stations and related components and services.</li> <li>• Space mission assurance, operation, or support.</li> <li>• Space imaging.</li> <li>• Space communication, excluding satellite-to-satellite communication.</li> <li>• Space or ground based support infrastructure.</li> <li>• Space-related military armaments and capabilities.</li> <li>• Small satellite hardware and software manufacturers including those involved with IoT satellites.</li> <li>• Space tourism.</li> <li>• Asteroid mining and resource extraction.</li> <li>• Space debris tracking and removal.</li> </ul>
S&P Kensho Enterprise Collaboration Index	<p>Companies focused on enterprise collaboration frameworks, including:</p> <ul style="list-style-type: none"> <li>• Framework collaboration platforms, which allow companies to integrate messaging, third-party application integration, scheduling, documents and search into a combined system with minimal infrastructure development.</li> </ul>	<p>Companies focused on enterprise collaboration frameworks, including:</p> <ul style="list-style-type: none"> <li>• Extensible enterprise collaboration frameworks providing integrated messaging, video, content sharing, and third-party application / bot integration.</li> <li>• Cloud communication platforms or communication platforms as a service ("CPaaS")</li> </ul>

Business Activity Focus		
Index	Previous	Updated
	<ul style="list-style-type: none"> <li>• Cloud communication platforms or communication platforms as a service (“CPaaS”) that enable businesses to add real-time communications features (voice, video, and messaging) in their own applications/website without needing to build backend infrastructure.</li> <li>• Significant infrastructure or subsystems that allow end users to run their own enterprise collaboration tools</li> </ul>	<p>that enable businesses to add real-time communications features (voice, video, and messaging) in their own applications/website without needing to build backend infrastructure.</p> <ul style="list-style-type: none"> <li>• Next generation enterprise collaboration solutions spanning all platforms, including mobile and VR/AR capabilities.</li> </ul>

## Appendix VI – Historical Rule Deviations

**S&P Kensho Indices.** For history prior to December 10, 2018, index shares were based on prices as of the Rebalancing Reference Date.

**S&P Kensho Smart Factories Index.** For history prior to April 30, 2021, the weights of the S&P Kensho Smart Factories Index were not adjusted to ensure compliance with the diversification threshold.

### **S&P Kensho Extended Nanotechnology.**

For history prior to May 17, 2021:

- the weights of the S&P Kensho Extended Nanotechnology Index were not adjusted to ensure compliance with the diversification threshold.
- the index had no target capacity level and a US \$25 million target notional trade size:

For history prior to February 2022, the index rebalanced semi-annually.

### **S&P Kensho Sustainable Technologies Index.**

For history prior to March 2013 EIRIS data was used for exclusions based on business activities.

For history prior to each respective Live Data Reference Date, eligibility was determined based on coverage after applying Backward Data Assumption and was not determined by actual live data.

# Appendix VII – Indices Using Backward Data Assumption

## Indices in this Methodology Employing Backward Data Assumption

S&P Kensho Sustainable Technologies Index

### Backward Data Assumption

The index employs a “Backward Data Assumption” method for some datapoints used in the derivation of historical index membership prior to the Live Data Effective Date (defined below). The “Backward Data Assumption” method involves applying the earliest available actual live data point for an index constituent to all prior, historical instances of that constituent in the index universe.

Backward Data Assumption affects only the historical, hypothetical constituents of any index back-test. Only actual live data is ever used in live index rebalancings and in the historical rebalancing calculation of an index after its Live Data Effective Date.

### Designated Datasets Subject to Backward Data Assumption

The Backward Data Assumption within the historical back-test, with respect to the indices identified above, applies only to designated datasets and associated time horizons as defined below. For each designated dataset, all historical rebalancing events prior to the Live Data Reference Date listed below are subject to use of the Backward Data Assumption.

Data Provider	Designated Dataset	Live Data Reference Date	Live Data Effective Date
Sustainalytics	EX3, EX4, EX5, EX6, EX7	12/3/2021	6/5/2020

The Live Data Reference Date refers to the first rebalancing reference date from which only actual live data is used.

The Live Data Effective Date refers to the first date from which index constituents are determined solely on actual live data for each respective dataset.

### Exclusions Based on Missing Coverage

This index excludes companies based on missing coverage with respect to the designated datasets above. However, for rebalancing dates prior to each respective Live Data Reference Date, the eligibility of companies is determined based on the coverage after applying the Backward Data Assumption and is not dictated by actual live data coverage.

# Disclaimer

## Performance Disclosure/Back-Tested Data

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. Certain datapoints used to calculate S&P DJI's indices may not be available for the entire desired period of back-tested history. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause

actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

## **Intellectual Property Notices/Disclaimer**

© 2022 S&P Dow Jones Indices. All rights reserved. S&P, S&P 500, S&P 500 LOW VOLATILITY INDEX, S&P 100, S&P COMPOSITE 1500, S&P 400, S&P MIDCAP 400, S&P 600, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, S&P TARGET DATE INDICES, S&P PRISM, S&P STRIDE, GICS, SPIVA, SPDR and INDEXOLOGY are registered trademarks of S&P Global, Inc. ("S&P Global") or its affiliates. DOW JONES, DJ, DJIA, THE DOW and DOW JONES INDUSTRIAL AVERAGE are registered trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, S&P Global, Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other investment product or vehicle. S&P Dow Jones Indices LLC is not a tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE,

FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions, and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate, or otherwise address.